

**THE STATE BAR OF CALIFORNIA**

**BUSINESS CASE FOR A NEW CASE MANAGEMENT SYSTEM  
FOR THE OFFICE OF THE CHIEF TRIAL COUNSEL  
STATE BAR COURT AND OFFICE OF PROBATION**

Submitted pursuant to and satisfying State Bar Policy:

“For all contracts, projects and expenditures reasonably expected to exceed \$2,000,000, State Bar staff will develop and present a written cost-benefit analysis to the Board of Trustees before committing to, or making a binding agreement for the contract, project or expenditure.”

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## Executive Summary

State Bar of California (Bar) staff are proposing that the Bar enter into a contract with Tyler Technologies, Inc. to purchase and deploy a new Case Management System (CMS) for the Office of the Chief Trial Counsel (OCTC), the State Bar Court (SBC) and the Office of Probation (Probation). Consistent with best practices articulated by the California State Department of Technology and Bar policy on major Information Technology (IT) projects, this report provides the Business Case for the staff proposal to enter into this contract. This Business Case serves as the vehicle for complying with the Board of Trustees policy requiring that a written cost-benefit analysis be submitted to the Board prior to the procurement of any services anticipated to cost over \$2,000,000<sup>1</sup>.

The staff recommendation is based on:

- A review of the historical development of case management systems in OCTC and the SBC and the current state of these systems focusing on the manner in which information technology is currently used by OCTC and the SBC;
- Documentation of the specific functions for which the new technology is expected to improve efficiency and effectiveness in OCTC and the SBC and estimates of the benefits of deploying a new CMS;
- Two separate reports on technology options available to OCTC and the SBC provided by independent technology consulting firms. The analyses by COPLAN and Company and the Gartner Group, completed in 2007 and 2000 respectively, – provided in full as appendices to this report – evaluate various technology options and are summarized here in three broad categories:
  - a status-quo scenario in which the Bar chooses not to acquire and deploy a new CMS;
  - a custom solution (building a new system from the “ground up”);
  - a Commercial Off-The-Shelf (COTS) product configured to meet the needs of OCTC and the SBC.
- A 2014 analysis prepared by an independent consultant regarding the State Bar’s recent effort to develop a CMS for OCTC under a contract with Sustain Technologies, Inc. (Sustain);
- An evaluation of two bids presented to the Bar – one from Trinity Technology Group (Trinity), the other from Tyler Technologies, Inc. (Tyler) – in response to a 2015 Request for Proposals (RFP). The evaluation provides detail on:
  - the process followed to solicit, review and analyze the bids;
  - the contents of the bids;
  - an assessment by Bar IT and Executive Office staff of the merits of the bids.

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<sup>1</sup> See Agenda Item 147, July 2015.



Staff concludes that of the two bids, Tyler Technologies' CMS, Odyssey, offers the most benefits with the fewest risks to the Bar. Odyssey is a COTS system which makes the staff recommendation consistent with the findings of the studies conducted by COPLAN and Company and the Gartner Group. Both of these reports concluded that:

- the status quo was unacceptable and would fail to meet the needs of OCTC or the SBC;
- a custom-build solution was excessively risky and offered uncertain benefits for the Bar;
- a COTS option provided the optimal balance of benefits while mitigating the risks inherent in the acquisition and deployment of a large IT system.

In recent years, efforts to build custom, ground-up case management systems in the California State judiciary have reinforced the findings from these two reports. The attempt by the Administrative Office of the Courts to create the California Case Management System (CCMS) for the Superior Courts resulted in a massive expenditure of human and financial resources over a decade, only to be abandoned with almost nothing to show for the effort.<sup>2</sup> Similarly, within OCTC, attempts to build a custom case management system using developers from Sustain Technologies, Inc. (Sustain) floundered for years without yielding any discernable benefit to the State Bar.

The RFP issued by the State Bar for this project attracted bids from two potential vendors<sup>3</sup>; Tyler proposed configuring its COTS CMS, Odyssey, in response to the RFP. Odyssey has been implemented for 11 statewide systems. In addition, the product has been adopted by the Superior Courts of approximately 26 California counties. Odyssey has the added benefit of being an integrated *justice system* case management system, which means that the COTS product is not exclusive to the courts but includes a prosecutorial module which can serve as the foundation to meet OCTC's needs.

In its bid, Trinity asserts that its product is a COTS solution. However, while there are some similarities between the functionality of OCTC and some of Trinity's current customers – for example the California Department of Business Oversight and the California Department of Insurance – Trinity Technology Group does not have any experience with a judicial process similar to that of the SBC. Nor does Trinity

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<sup>2</sup> See California Bureau of State Audits, *Administrative Office of the Courts: The Statewide Case Management Project Faces Significant Challenges Due to Poor Project Management*, February 2011, Report 2010-102

<sup>3</sup> The Request for Proposals was issued with the State Bar Court and the Office of the Chief Trial Counsel as mandatory modules; Probation and Member Records and Compliance were identified as optional. The inclusion of these two optional components in the solicitation in the first instance reflects the inter-connectivity and interdependence that defines their relationship with SBC and OCTC processes. Given, however, that the core discipline functions to be addressed by the new CMS encompass SBC and OCTC alone, Probation and Member Records and Compliance were optional, not mandatory, elements. Both Tyler and Trinity submitted proposals addressing the optional modules. After an initial review of their proposals, it was determined that the development of the functionality needed to provide the full scope of Member Records and Compliance functionality, beyond that which directly relates to SBC and OCTC, would require significant customization and resource investment. As a result, this component was dropped from proposal analysis fairly early on in the process. Because of the optional nature of the Probation module and its relatively low proportional cost in both the Tyler and Trinity proposals, the business case analysis provided in this report is based on an analysis of OCTC and SBC requirements alone.

have a base CMS product comparable to Odyssey, making it difficult to determine what the product is that would be configured (as opposed to custom-built) to meet the State Bar's requirements.

Instead, Trinity is offering a Microsoft Customer Relationship Management (CRM) system. The CRM system is an application that helps organizations manage relationships with current and prospective customers/clients. Although a system like this can be configured and customized to manage business data and the information associated with them, Bar IT staff concluded that the Trinity proposal is not comparable to a true COTS product and would require a significant amount of configuration and customization to successfully deploy. In the simplest of terms, Trinity does not have an "on-the-shelf" product which could be configured and deployed for OCTC or SBC. Instead, it offers a CRM platform that has never been developed as a justice system solution, and as such would need to be designed from the ground-up.

Although the initial cost of entering into a contract with Tyler will exceed that of procuring the Trinity product at an estimated difference of \$541,340, State Bar staff believe that an agreement with Tyler will, in the long-run, result in the most economical and the most effective solution for the Bar with the lowest risk of unanticipated, unbudgeted project costs, lowest risk of overall project failure, and the greatest likelihood of timely CMS deployment for both OCTC and SBC. In other words, Tyler is the *best value* selection.

Following the review of the alternatives available to the Bar and the evaluation of the bids presented in response to the RFP, this report concludes with a timeline and project plan for deployment of the new system and a discussion of risk-mitigation strategies.

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## 1 Overview

This report documents the Business Case for the State Bar of California (Bar) to enter into a contract with an Information Technology (IT) vendor to purchase and deploy a new Case Management System (CMS) for the Office of Chief Trial Counsel (OCTC) and State Bar Court (SBC). A Business Cases provides a high-level evaluation of whether an organization should make a particular investment and, if so, provides guidance for selecting among various alternatives.

In 2013 the California State Department of Technology drafted a Project Management Methodology indicating that a Business Case should communicate essential information about a proposed technology project to stakeholders and participants, identifying, among other things, “the program background, strategic alignment, business drivers, business problems, opportunities and measurable objectives.”<sup>4</sup> Similarly, in 2015, the State Bar Board of Trustees (BOT) approved a policy requiring a cost-benefit analysis for major projects, such as capital or IT projects that cost more than \$2,000,000. Specifically, the policy dictates that:

For all contracts, projects, and expenditures reasonably expected to exceed \$2,000,000. State Bar staff will develop and present a written cost-benefit analysis to the Board of Trustees before committing to, or making a binding agreement for the contract, project, or expenditure. The Board of Trustees, or the relevant Board committee, must then affirmatively approve the contract, project, or expenditure. All such cost-benefit analyses must discuss a recommended course of action and alternatives.<sup>5</sup>

Thus, consistent with both the California State Department of Technology’s Project Management Methodology and the BOT policy on contracts expected to exceed \$ 2 million, this report will provide the following information and analysis:

- Background on the historical development of case management systems in OCTC and the SBC and the current state of these systems;
- A summary of case management system options and alternatives for OCTC and the SBC provided by two independent technology consulting firms;
- A review of the responses to the RFP issued for this project by two technology vendors: Trinity Technology Group (Trinity) and Tyler Technologies, Inc. (Tyler);
- The timeline and project plan for deployment of the new system including overall project cost;
- A discussion of risk-mitigation strategies.

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<sup>4</sup> See *State of California Department of Technology, California Project Management Methodology, Reference Manual Statewide Information Management Manual* – Section 17A, July 2013, p. 17.

<sup>5</sup> See Agenda Item 147, July 2015.

## **1.1 Background**

### **1.1.1 The Current State of Information Technology in OCTC and the SBC**

The primary computer systems used by OCTC and the SBC to manage their caseloads are reaching the end of their useful lifespans. The software supporting these critical functions of the Bar, the AS/400, was custom-written in the late 1980s in a proprietary IBM Report Program Generator (RPG) language. The current production release of the AS/400 is not capable of supporting a number of important functionalities such as e-filing or integration with web-based programs.

Although some of the principal administrative support functions of the Bar – Finance and Human Resources, for example – run on newer systems, both OCTC and the SBC rely on the AS/400 for case management. Increasingly the system itself has become a barrier to the efficient and effective management of OCTC and the SBC. The system is currently:

- incompatible with modern IT industry standards and development platforms;
- costly and soon impossible to maintain as the pool of IT developers who can work with the code that runs the AS/400 continues to shrink
- incapable of supporting essential modern functions such as integration with web sites;
- inefficient for users who must navigate irrelevant and redundant screens to find and enter data required for the management of cases;
- inflexible in its configuration making it:
  - difficult to streamline business processes, and;
  - difficult to extract data and run reports that are required by the legislature and essential to the effective tracking of cases and protection of the public.

### **1.1.2 OCTC Functions**

OCTC uses the AS/400 to track complaints about attorney conduct. The system serves as the electronic record of the case and is used for management of complaints regarding attorney conduct from inception (intake) through investigation, pre-filing and prosecution. Of the roughly 45,000 calls per year that OCTC receives inquiring about the process for lodging a formal complaint, approximately 15,000 formal complaints are ultimately submitted and entered into the AS/400.

Cases may also be initiated in the AS/400 as “reportable actions” either from third parties who are required to report specific problems triggered by an attorney’s action – the overdrawing of a trust account for example – or by attorneys who self-report. OCTC also tracks criminal cases that involve attorneys as defendants and activate these cases in the AS/400 if the attorney is found guilty. OCTC may also bring an action against an attorney directly if the office learns of misconduct but has no complaining witness. The AS/400 is also used to track Agreements in Lieu of Discipline and audit and review (“second look”) cases.

Most OCTC staff and workload are located in the Los Angeles offices of the Bar while a smaller office operates in San Francisco. A number of unique functions are centralized in the Los Angeles office

including intake functions, criminal case monitoring and data management. While all cases are initiated in Los Angeles, the investigation phase (“investigation”), case-preparation phase (“pre-trial”), and prosecution phase (“trial”) are each performed in both Bar locations.

Case management using the AS/400 requires that staff perform a large number of repetitive tasks to move cases through the various phases of case processing. Redundant data entry is driven, in part, by a lack of integration among different components of the AS/400. In addition, even where specific actions and processes are not redundant, the AS/400 programs require a linear progression through their functions, some of which may not be relevant to a particular need. In other words, staff are required to scroll through screens that have no relevance to the function that they are performing simply because there is no other path within the program to the screens that are pertinent to their work.

Illustrations of current system limitations abound. For example, the AS/400 does not allow for the tracking of parties and their compliance with OCTC or SBC orders. Where a respondent is ordered to attend ethics training, OCTC must track compliance manually. Similarly, the AS/400 does not support the tracking of attorneys who are working in California Pro Hac Vice or as foreign legal consultants, making it impossible for intake staff to verify whether such attorneys are qualified to practice under these programs.

### **1.1.3    SBC Functions**

The SBC is the venue with jurisdiction over OCTC cases and the vast majority of work in the SBC is driven by OCTC filings. The State Bar Court handles approximately 29 different case types including: Original Discipline, Arbitration Enforcement, Conviction Referral, Moral Character, Probation Revocation, and Reinstatement.

For cases filed by OCTC, the SBC uses the AS/400 to pull information from a client-server application that warehouses information from the production AS/400. The SBC pulls information from that system to begin the case management process for the Court. The SBC also pulls in information from other parts of the Bar that run AS/400 software, including information from Member Records and Compliance.

In the SBC, the AS/400 is used to support case processing functionality, primarily Court clerk functions but also judicial functions, legal research, and some administrative functions. For Court clerks, AS/400 is used to manage cases by calendaring events (conferences and hearings), recording and tracking the outcome of hearings and conferences (including stipulations, orders and decisions). The system is used to monitor the status of cases and party profiles. In the Effectuation Unit, the system is used to record resignations and update the record of discipline for California attorneys.

Respondent attorneys who reach a stipulated agreement with OCTC and respondent attorneys who have been sentenced to a term of probation are generally ordered to comply with a range of conditions which may include attending ethics courses and/or developing law-office business plans. The AS/400 is also used by Probation to track respondent compliance with orders.

Outside of the AS/400, on a separate technology platform, the Lawyers Assistance Program (LAP) also provides reports to the SBC on respondent attorneys who have entered into the Court's Alternative Discipline Program (ADP). These respondents frequently have substance abuse or mental health problems that contributed to their misconduct and are required, as part of their participation in the ADP, to attend programs, attend counseling, and even submit to drug testing. The LAP tracks compliance with these orders outside of the AS/400 and communicates the status of respondent attorneys to the SBC.

Consistent with the experience of OCTC, the utilization of the AS/400 by the SBC involves a significant number of redundant, un-productive case-processing practices:

- SBC staff must navigate through irrelevant screens to reach the screen with data that they need simply because no path exists within the AS/400 to skip directly to the relevant screen;
- data do not automatically populate fields in one part of the system when they are entered in identical fields in another part of the system and, instead, require configuration to link data fields;
- data cannot be shared with internal or external stakeholders through the web without considerable additional effort and manipulation of the data;
- reports needed to comply with legislative mandates and to evaluate and improve operations cannot be easily extracted from the system.

#### **1.1.4 Previous Efforts to Replace the AS/400**

Over more than a decade, State Bar staff have attempted to replace the AS/400. Although piecemeal modifications and upgrades have been made to the system over the years, efforts to completely replace the system have failed. It is worth noting that previous attempts to acquire a new CMS have been conducted in relative isolation by different segments of the Bar with little consideration of the integrated nature of the work.

Indeed, despite the fact that the underlying system that needs to be replaced – the AS/400 – is the same for both OCTC and the SBC, in the late 2000s each of these entities contracted individually with outside IT consulting firms to produce a business case for acquiring a new CMS. While these reports are both valuable and provide a wealth of information that remains relevant today, they appear to have been produced with almost no consideration of the possibility of integrating the systems – operationally or technically – or to the potential benefits of coordinating the evaluation of alternatives or selecting a new CMS.

As early as 2003, the State Bar issued a Request for Proposals seeking consulting services to develop a project plan and software functional requirements necessary to upgrade the existing OCTC case management system. The resulting contract, awarded to COPLAN and Company, was executed in July 2004 and resulted in a comprehensive evaluation of the alternatives available to OCTC. The report delivered by COPLAN and Company in 2007 is attached to this report as Appendix A.

Drawing on the report by COPLAN and Company, OCTC developed a formal RFP for a new CMS. The bulk of this work involved the drafting of scripted user requirements; technical requirements necessary for the State Bar to host software components were also developed. In early 2012, OCTC issued an RFP seeking to purchase and implement a new CMS and by the fall of 2012 had selected a vendor and entered into a contract for the system, Sustain.

While the report by COPLAN and Company clearly recommended a COTS system as the option with the greatest likelihood of success, OCTC did not follow this recommendation. Instead, OCTC entered into a contract for a custom build CMS<sup>6</sup>. Moreover, despite estimates by COPLAN and Company that a custom build would cost over \$2,000,000 to implement and another \$400,000 per year for maintenance and licensing, the selected vendor promised to build and implement the system for only \$200,000 with annual maintenance and licensing fees of only \$181,000.<sup>7</sup>

Almost immediately after entering into the contract, the project appears to have begun to falter. The original project timeline envisioned an approximate one-year period between contract initiation and go-live. Instead, by 2014 the project was so significantly delayed that the State Bar hired MTG Management Consultants (MTG) for assistance.

MTG was asked to evaluate the project, the overall approach and project design and to assist with the development of an implementation plan. Almost two full years after entering into the contract for the development of the CMS, MTG concluded that the Sustain project was seriously flawed. MTG went on to provide recommendations related to 17 project areas that needed to be addressed including:

- Two (2) critical findings that are fundamental problems for the project;
- Four (4) priority findings that must be remedied to allow project efforts to be successful;
- Seven (7) priority findings that need to be corrected;
- Four (4) other findings that should be corrected.

The critical findings included the observation that there was a “project leadership gap,” specifically that the Bar failed to devote sufficient resources to project management from its staff. For brief periods of time the Chief Trial Counsel and Director of Budget and Performance Analysis took the lead on managing the project on behalf of the Bar, but neither was ever assigned exclusively to this important project. MGT also noted that internal divisions within the State Bar prevented the establishment of clear expectations regarding system requirements or responsibilities and warned that there was a “high potential to seriously disrupt OCTC during implementation.”

The priority findings included observations that the project charter was out of date, that the business processes were not clearly documented nor had requirements been clearly defined. Apparently

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<sup>6</sup> While Sustain’s eCourt CMS is a COTS product, the attempt to deploy in a prosecutorial environment required a customized solution.

<sup>7</sup> A detailed summary of the recommendations from COPLAN and Company can be found below in Section 2; the full report of COPLAN and Company is attached as Appendix A. The cost estimates provided by COPLAN and Company can be found in Exhibit 8, page 28 of Appendix A.



unwilling to attest to the viability of the project, MTG instead made the highly qualified observation that:

“The case management system (CMS) project assessment revealed a number of fundamental project issues; however, the assessment also revealed the Bar believes the solution is capable of doing what the Bar desired from its CMS solution.”<sup>8</sup>

In late 2015, when the Bar’s new Executive Director and Chief Operating Officer came on board, it was discovered that a CMS product had been delivered following the issuance of the MGT report. That product, however, was rejected by the State Bar as unworkable, with key OCTC personnel indicating that even basic case processing functions could not be performed using the product as delivered. Further analysis by the Bar’s new executive leadership team in conjunction with Sustain confirmed MGT’s earlier analysis: expectations were not clearly specified in the contract, project management was weak, the Bar had not devoted sufficient dedicated and consistent resources to the effort, and there was poor documentation of system requirements, key decision points and progress on the project.

Further exacerbating the challenging situation encountered by the Bar’s new leadership team was the fact that Sustain alleged that the State Bar was unreasonably modifying and increasing its requirements, creating a situation where neither party was satisfied and no viable CMS was in sight. In light of these facts, in January, 2016, the State Bar terminated its contract with Sustain.

At the same time that OCTC was working on building a business case to acquire a new CMS, the SBC contracted with a different independent technology consulting firm to produce a business case for replacing the AS/400. In early 2008 the Gartner Group delivered a detailed business case for replacing the AS/400, attached to this report as Appendix B.

Following the release of the report by the Gartner Group the SBC began exploring the possibility of adopting the California Case Management System (CCMS) for use in the SBC. CCMS was a custom-build system being developed by the Administrative Office of the Courts for California’s Superior Courts. In 2012, however, CCMS was abandoned following a scathing report by the Bureau of State Audits and was largely defunded.

In early 2012 an SBC project team then began working with Bar IT staff to develop system requirements and by late 2012 the requirements were incorporated into an RFP that was issued soliciting vendors to offer a technology solution for the SBC’s CMS. In early 2013, SBC staff and Bar IT staff evaluated proposals and developed follow-up questions for potential vendors. Additional review and communication with the vendors continued throughout 2013 and by September a request for “best and final offer” was drafted.

This request, however, was never completed or sent. The demands that were being placed on Bar IT resources during this time for the Sustain implementation in OCTC left the SBC without sufficient technology support to finalize this work.

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<sup>8</sup> See Appendix F, page 1.

## **1.2 Strategic Alignment, Challenges and Opportunities**

### **1.2.1 Essential Functions of the California State Bar**

Business and Professions Code section 6001.2 establishes that “Protection of the public shall be the highest priority for the State Bar of California and the board of trustees in exercising their licensing, regulatory, and disciplinary functions.” In OCTC, protection of the public is operationalized by the early and comprehensive detection of attorney misconduct, thorough investigation of reports of misconduct, and vigorous prosecution of cases in which misconduct has been established.

The role of the SBC in supporting the Bar’s top priority is somewhat more complex than OCTC’s in that the SBC, like any court, must uphold essential standards of due process while adjudicating cases. For the SBC, protection of the public is no less important, but that public also includes the attorneys accused of wrong-doing who come before the court.

The essential functions of OCTC and the SBC are documented in part in sections 1.1.2 and 1.1.3 along with some of the challenges represented by performing these functions using the AS/400. In general, the legacy CMS application built on the AS/400 platform requires duplicative data entry, prevents users from moving directly to the screens dictated by the logic of case management and, instead, requires users to scroll through irrelevant screens to reach the data that they need.

The intersection between these inefficiencies and the essential purpose for which the Bar exists – public protection- can be seen in:

- Inefficient operational practices requiring higher numbers of staff devoted to maintaining and operating the AS/400 and, as a result, fewer resources available for investigation and prosecution staff to detect and prosecute attorney misconduct;
- Weak controls for tracking compliance with policies and procedures and statutory mandates;
- Inflexible architecture and configuration making it difficult to address emerging issues such as notario and immigration cases or Unauthorized Practice of Law (UPL);
- Poor reporting functionality requiring labor-intensive extraction and transformation of data for purposes of reporting making it difficult to track backlog and expedite case processing.

### **1.3 Anticipated Benefits of Acquiring and Deploying a New CMS**

The anticipated benefits of acquiring and deploying a new CMS for OCTC and the SBC are documented in the business cases developed for each of these entities by COPLAN and Company and the Gartner Group. There is substantial overlap between the benefits identified by each of the consulting firms. Those benefits include:

- Improving the Bar’s ability to provide the public and members with Internet access to information;
- Improving the Bar’s ability to comply with operational standards of efficiency and effectiveness;
- Improving data sharing among key stakeholders and across different entities within the Bar;

- Allowing for the timely development and delivery of system reports including standard, customizable and ad hoc reports;
- Creating defined workflow processes and end user help functionality to guide users through system and staff functions during the entire case management process from intake through case disposition;
- Automating business processes, workflow and reducing case-processing time frames, enabling redirection of staff to case processing activities that increase the number of cases meeting time pendency standards;
- Assisting with the balancing of staff workload, conducting data quality assurance activities;
- Tracking and reporting on additional case data facilitating increased transparency and accountability.

In the aggregate, these improvements in case processing in OCTC and the SBC will result in the more efficient utilization of State Bar staffing resources allowing for more attention and personnel to direct public protection activities.

## 2 Case Management System Options and Alternatives

### 2.1 Option 1: Maintaining the Status Quo

Under a status-quo scenario, the State Bar would continue using the existing CMS to support OCTC and the SBC. In order to continue operating under the status quo, however, the AS/400 would require certain enhancements.

When COPLAN and Company evaluated the CMS needs of OCTC they facilitated group discussions with subject matter experts in OCTC to develop an extensive list of system requirements. System requirements were then organized and documented. Appendix B of the COPLAN and Company report lists the system requirements as 228 discrete “data objects” identified by OCTC staff such as “Criminal charge,” “Receive 6007(b)(2) case,” “Transfer to active enrollment.” Appendix C of the report organizes the requirements into 91 functional groupings that it refers to as “Use cases or groups of related activities” such as “administer assumption of practice,” “Issue warning letter,” or “Prepare non-trust account financial subpoena.”

Looking at the gap between what the AS/400 is capable of and the requirements identified by OCTC staff, COPLAN and Company concluded that the status quo was not a viable option. Looking at capabilities by the number of data object requirements identified by OCTC staff, the AS/400 provides full support for only 23 percent, partial support for another 3 percent, and no support for 75 percent of the data object requirements. Organized under sample test cases, the AS/400 is similarly deficient, providing full support for only 7 percent of the requirements, partial support for 87 percent of the requirements, and no support for 7 percent of the requirements (Table 1).

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Table 1: Gap Between Status Quo (AS/400) and OCTC CMS Requirements<sup>9</sup>

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<sup>9</sup> For additional detail, see Appendices B and C of Appendix A.

<u>AS/400 Capabilities</u>				
	<b>Number of Requirements</b>	<b>Full Support</b>	<b>Partial Support</b>	<b>No Support</b>
Data Object Requirements	228	23%	3%	75%
Use Cases or Groups of Related Activities Requirements	91	7%	87%	7%

When the Gartner Group evaluated the CMS needs of the SBC it took a similar approach to COPLAN and Company. Looking at the AS/400 as a system that would require significant investment to modernize, the Gartner Group framed the status quo option of continuing to run the current system but converting the code to accommodate this upgrade. The Gartner Group then evaluated the gap between upgrading the AS/400 and the State Bar’s system requirements in terms of seven broad categories: Business Fit, Total Cost of Ownership, Return on Investment, Technical Fit, Maintainability, Schedule, and Risk.

Similar to the findings of COPLAN and Company, the Gartner Group found that upgrading the AS/400 was not a viable option. The Gartner Group’s equivalent to a “status quo” option for the AS/400 as a solution for the SBC found that it met system requirements in only two of the seven categories – Technical Fit and Schedule – while it rated as “poor” or “caution” in the remaining five categories (See Table 2).

Table 2: Gap Between Status Quo (AS/400) and SBC CMS Requirements<sup>10</sup>

<b>Requirements Category</b>	<b>AS/400 Rating</b>
Business Fit	Poor
Total Cost of Ownership	Caution
Return on Investment	Poor
Technical Fit	Acceptable to Excellent
Maintainability	Caution
Schedule	Acceptable to Excellent
Risk	Poor
<b>Final Rating</b>	<b>Caution</b>

## 2.2 Option 2: Developing a Custom Solution

The custom solution option involves building a new system “from the ground up.” The custom solution option, per se, does not specify whether the system would be built internally by IT staff or through a contract with a software developer. However, given the current resources and capacity of State Bar IT staff, this evaluation of the custom solution option assumes that work would be conducted under contract with a firm that specializes in software development.

<sup>10</sup> For additional detail, see Appendix B, pp. 62-66.

One of the clear benefits of a custom solution is that, in theory, the gap between system requirements and the custom solution is zero. In other words, a custom solution is designed around the exact specifications of the customer and meets the customer's needs completely. As a result, there is no value in estimating the extent to which this option would satisfy specified requirements.

In its evaluation of the custom solution, or "build" option, for OCTC, COPLAN and Company looked at a total of seven factors that need to be satisfied in the acquisition and deployment of a CMS. For each of these categories, COPLAN and Company ranked the option as "Yes," "No," or "Partial." The custom solution option is shown in this evaluation as "meeting requirements" and, as a result, is also shown as providing a "high benefit" to OCTC.

In all five of the other categories, however, the custom solution option does not appear as attractive. COPLAN and Company see a custom solution as only partially meeting the needs of OCTC in balancing costs and benefits, risk, and the likelihood of achieving stated objectives. The custom solution was found not to meet OCTC's needs at all in terms of cost and high-investment performance (Table 3).

Table 3: Assessment of Custom Solution for OCTC CMS<sup>11</sup>

Requirements Category	Custom Build Suitability
Achieve Objectives	Partial
Meet Requirements	Yes
Low Cost	No
High Benefit	Yes
High Cost / Benefit	Partial
Low Risk	Partial
High Investment Performance	No

The Gartner Group also assessed the suitability of a custom build option for the SBC. Similar to the findings of COPLAN and Company, the Gartner Group rated a custom solution high on measures of business fit and technical fit. Again, by designing and building a CMS according to specified technical and business requirements, these two categories are where a custom solution excels.

When assessed along other dimensions, however, the Gartner Group found the custom solution wanting. Using the same categories that were applied to the status quo option, the Gartner Group found that the custom solution actually poor in four of the remaining categories – Total Cost of Ownership, Maintainability, Schedule, and Risk, with a rating of caution in the final category, Return on Investment (Table 4). In summarizing its assessment of the custom solution for the SBC, *the Gartner Group actually rated this option below that of the status quo option.*

<sup>11</sup> For additional detail, see Appendix A, p. 38.

Table 4: Gap Between Custom Solution and SBC CMS Requirements<sup>12</sup>

Requirements Category	AS/400 Rating
Business Fit	Acceptable to Excellent
Total Cost of Ownership	Poor
Return on Investment	Caution
Technical Fit	Acceptable to Excellent
Maintainability	Poor
Schedule	Poor
Risk	Poor
<b>Final Rating</b>	<b>Poor</b>

### 2.3 Option 3: Acquiring a Commercial, Off-the-Shelf (COTS) product

The COTS option assumes that there is a product in the marketplace that the State Bar can buy. To evaluate this option, it is necessary to further assume that a suitable vendor exists with an application software package that is available for organizations with technical and business needs similar to those of the State Bar.

Using the same methodology employed in its evaluation of the status quo option, the report by COPLAN and Company also evaluated the COTS option for meeting the needs of OCTC. The report found that there are vendors who produce case management systems for criminal case processing with functions that are sufficiently similar to the functional requirements of OCTC to explore this option. The report went on to conduct a preliminary assessment of the capabilities of these systems relative to the same system requirements against which it evaluated the status quo option.

In contrast to the status quo option, the COTS option was estimated by COPLAN and Company as fully meeting 89 percent of the data object requirements specified by OCTC, partially meeting another 8 percent, and not supporting, three percent. Evaluated against the use case requirements specified by OCTC, the COTS option was estimated to fully support 86 percent of these functions and partially support 14 percent (Table 5).

Table 5: Gap Between COTS and OCTC CMS Requirements<sup>13</sup>

	Number of Requirements	<u>COTS Capabilities</u>		
		Full Support	Partial Support	No Support
Data Object Requirements	228	89%	8%	3%
Use Cases or Groups of Related Activities Requirements	91	86%	14%	0%

<sup>12</sup> For additional detail, see Appendix B, pp. 62-66.

<sup>13</sup> For additional detail, see Appendices B and C of Appendix A.

The Gartner Group’s evaluation of system requirements and alternatives available to the SBC found similar benefits to those identified by COPLAN and Company for OCTC. The Gartner Group is careful to specify that a COTS system will need to be configured to meet the needs of the SBC. Moreover, the report by the Gartner Group indicated that the State Bar should make a number of important IT investments to improve the chances of success of the project, specifically:

Gartner recommends that the State Bar Court utilize the services of a system integrator and an outside project manager to review business processes, configure the COTS system, and test and implement the system. We also recommend utilizing the services of an independent verification and validation (IV&V) project oversight vendor to help assess and make recommendations related to system implementation throughout the life of the project. These services can help identify new project risks and expedite issue resolution.

Using the same categories that they used in evaluating the status quo and custom build solutions, the Gartner Group found a COTS solution to be “Acceptable to Excellent” in five of the seven categories and scored a COTS solution as “Caution” in only two categories (Table 6).

Table 6: Gap Between COTS and SBC CMS Requirements<sup>14</sup>

Requirements Category	COTS Rating
Business Fit	Caution
Total Cost of Ownership	Acceptable to Excellent
Return on Investment	Acceptable to Excellent
Technical Fit	Acceptable to Excellent
Maintainability	Acceptable to Excellent
Schedule	Caution
Risk	Acceptable to Excellent
<b>Final Rating</b>	<b>Acceptable to Excellent</b>

## 2.4 Summary of the Three Options and Recommendations

Looking at the three alternatives evaluated here side-by side, the COTS option is clearly preferable to either the status quo or custom build options. Two independent analyses by IT consulting firms, looking at the CMS options for OCTC and the SBC, each determined that a COTS solution provides the most benefits to OCTC and the State Bar while minimizing the risk inherent in large-scale IT projects.

According to COPLAN and Company:

The COTS option offers the best balance of any option by supporting the objectives and meeting user requirements while achieving optimum benefits and highest investment performance. Further, it represents the lowest risk option and CalBar can implement it for moderate cost when compared to the other alternatives. (p. 37)

<sup>14</sup> For additional detail, see Appendix B, pp. 62-66.

Similarly, the Gartner Group recommended:

that State Bar Court look to buy as opposed to build an application to reduce overall business, budget, schedule, operational and organizational risks. The purchased application should reside on a contemporary platform, and utilize contemporary languages and database technologies. In doing so, this will help in implementing a system that is integrated, supportive, highly configurable to meet the State Bar Court's needs.

### **3 Responses to the Current Request for Proposals**

#### **3.1 Solicitation of Requests for Proposals for a new CMS**

The current proposal to acquire and deploy a new CMS draws on the experiences and documentation produced during previous efforts to replace the AS/400 and improve the Bar's ability to protect the public. In late 2015 a new RFP was drafted with the goal of integrating OCTC and SBC needs into a single CMS. The solicitation also included as optional modules Member Records and Compliance and the Office of Probation, and was released on December 21, 2015.

The RFP stated the Bar's interest in acquiring a CMS that would:

- Improve the Bar's ability to share and exchange relevant data among staff, the public and key stakeholders;
- Utilize defined work-flow processes and end-user functionality to guide users through the system during the entire life of the case, from initiation through final disposition;
- Provide dashboard overviews to monitor key performance indicators and track workflow;
- Improve the capture of and access to information about case investigations and prosecutions;
- Increase efficiencies and accuracy through automation and reduction of manual entry.

The RFP divided the system requirements into mandatory and optional components as shown in Tables 7 and 8 on the following pages.



Table 7: CMS RFP, Mandatory System Requirements

<b>System Wide</b>	<b>OCTC</b>	<b>SBC</b>	<b>Service</b>	<b>Technical</b>	<b>Accessibility</b>
Document generation	Case initiation	Case initiation and indexing	Project management	Database	Compliance with WCAG 2.0, Level AA accessibility guidelines
Document management	Inquiry	Docketing and record keeping	System design, configuration, and construction	Availability	
System integration	Investigation	Exhibit and property management	System testing	Interoperability	
Reporting and searches	Litigation	Calendaring	System delivery	Operating System	
System administration	Close Out	Scheduling	System implementation	Environment	
User interface	File Retention	Case management	Training	Architecture	
	Cost Tracking	Event management	System support	Performance Web Access	
	Audit and Review	Adjudication	Problem resolution protocol	Security	
		Disposition Case close Accounting Effectuation E-Filing			

Table 8: CMS RFP, Optional System Requirements

<b>Probation</b>	<b>Membership Records</b>
Case initiation	Records management
Case management	Compliance management
Calendaring	Registrations
Event management	Online portal interface
Docketing and record keeping Exhibit and property management	Customer service management
Conditions management	

A vendor pre-bid conference was hosted on Tuesday January 12; 14 vendors participated, but ultimately proposals were only received from two<sup>15</sup>: Trinity Technology Group and Tyler Technologies, Inc. The full proposals are attached to this report as Appendices D and E.

An evaluation team consisting of multiple representatives from OCTC, State Bar Court, IT, Member Records and Compliance, the Executive Director's Office, and General Services (Procurement), began the analysis of written proposals and conducted several workshops to review over 2,675 individual system requirements. These components were weighted by individual functional areas (must have, should have, nice to have, not important) and evaluated against individual responses from each bidder (whether each functional requirement identified could be demonstrated, requires configuration, will be available in a future release, requires customization, can be demonstrated through alternative functionality, or is not proposed at all).

During the course of reviewing the two proposals, several factors were taken into consideration by the IT team who facilitated the reviews, reference checks, and customer demonstrations; these factors specifically guided several of the reference checks and customer demonstrations that took place:

- The number of customers for whom each vendor has installed their system (the "install base");
- Implementation experience of the vendor with similar IT systems;
- System integration capabilities;
- Portal application and e-filing capabilities;
- Compatibility and capacity for integration with document management systems;
- IT resources needed to administer, support, and maintain the solution; and Vendor support and maintenance.

### **3.2 Tyler Technology, Inc.'s Proposed Solution**

Tyler's CMS is a Commercial Off-The-Shelf product called Odyssey. Rather than a system, Odyssey is a suite of products for different components of the justice system including CMS for jail management, district attorney's offices, courts, and departments of probation. This integrated suite of justice system products reflects Tyler's organizational model overall; Tyler is the largest software company in the nation solely focused on providing *integrated* software and technology services to the public sector — cities, counties, states and school districts, and their corresponding justice system entities.<sup>16</sup>

Within the last two years, Tyler has been selected as the vendor for 26 Superior Courts in California, of which over 20 have "gone live" with the implementation of Odyssey. Additionally, Tyler has over 70 customers across 21 states in the country, including statewide deployments in 11 states. The State Bar evaluation team conducted reference checks and hosted demonstrations provided by customers of Tyler for both court and prosecutorial implementations.

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<sup>15</sup> Note that technically three proposals from two vendors were received; Tyler submitted proposals for both Local (State Bar server hosted) or a Hosted (Tyler hosted) solutions. The Hosted option was determined to be unfeasible early on in the process.

<sup>16</sup> <http://www.tylertech.com/>

For the SBC, Odyssey appears to provide a majority of the court's requirements "out of the box" that is ready to implement, including an integrated document management system. Additionally, Tyler provides Session Works Judges Edition that judicial officers can use on a tablet device on the bench. For OCTC, Odyssey will likely require more configuration than for the SBC. Although Odyssey has been deployed in many district attorneys' offices across the country, the functions of OCTC are not exactly parallel to those of a criminal prosecutorial agency. Feedback received from prosecutor's offices where Odyssey has been deployed – including a scripted demonstration of Odyssey functionality – reassured the State Bar evaluation team that Odyssey could be deployed primarily through configuration with some amount of customization required. The following entities provided the evaluation team candid responses regarding their implementation experience with the Tyler team:

- Santa Clara Superior Court
- San Bernardino Superior Court
- Fresno Superior Court + Session Works demo
- Colin County, Texas District Attorney's office
- Fort Bend County, Texas District Attorney's office
- Williamson County Texas, District Attorney's office

Reference checks with each of these entities indicated that Tyler can deliver on the representations made in its bid and meet the demands of the State Bar. Each of the references listed above described a successful implementation of the Odyssey Court and Prosecutorial CMS<sup>17</sup>.

Tyler's integrated application, experience with justice system CMS deployment, and easily configurable product will minimize the level of State Bar IT and subject matter expert (SME) investment needed to develop and implement the system. In addition, the impact of learning a new system on the bar's end users will be minimized by the fact that, although reflecting distinct functionality, the OCTC, SBC, document management system, e-filing, and public interface will all be part of an integrated Odyssey solution, thereby reducing the number of disparate applications and tools that users must learn. Other key points regarding Odyssey and Tyler:

- Justice systems are a core focus of Tyler, and their implementation approach and processes, including training, are mature;
- Tyler has deployed all necessary components for prosecutorial, court, and probation systems in numerous jurisdictions throughout the country, including ancillary functionality such as e-filing, public portal, assessment and collection of costs, monitoring tools, and document management;
- Odyssey has integrated document management system, public portal, and e-filing functionality;
- Odyssey includes Judge Edition, a proprietary touch-screen application that SBC judges can use on the bench to easily access all information and documents regarding cases on the docket, take electronic notes using a stylus, and assign work to research attorneys and other staff;

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<sup>17</sup> This is not to say that these implementations have been without challenges. The San Bernardino Superior Court in particular expressed significant concern regarding the readiness of the court's IT infrastructure for deployment; the lack of adequate infrastructure was identified as being the result of performance and communication challenges on both the court and Tyler's parts.

- Odyssey's functionality can be readily self-administered by the customer;
- The Odyssey licensing fee includes automatic access to all product upgrades and modifications. For example, the first California District Attorney and Public Defender offices to come online with Tyler will launch in the fall. Because of the unique nature of California's public defender practices, the development of the California module will include the functionality to assign cases to a conflict public defender's office, or panel, and to track those assignments. This functionality is precisely what OCTC and OGC will need to address Rule 2201 conflict case assignment and management. Though not currently existing, the bar will automatically have access to this functionality as soon as it is deployed, at no additional cost.

### 3.3 Trinity Technology Group's Proposed Solution

Trinity begins the presentation of its bid by asserting that its technology solution is "built upon a proven commercial off-the-shelf (COTS) platform" and goes on to state that "On a scale from 1 to 5, where a custom-built solution represents a 5, our COTS solution is a 1.0." Upon closer review of the Trinity Proposal, however, State Bar Staff have come to the conclusion that the Trinity Technology Group's proposal is actually more like a custom build than a COTS.

Trinity's proposal is based on Microsoft Customer Relationship Management (CRM) system. A CRM has the ability to exercise considerable control over development, workflow functionality, and the ability to react quickly to requirement changes. A CRM can be configured and customized to manage business data and information. This flexibility inherent in the technology, however, makes a CRM more akin to a development platform than to a true COTS product. Further, while Trinity has deployed its product for agencies that receive and investigate complaints, arguably similar (though not equivalent to) to OCTC, it has never developed a CMS for a court; in other words, there is no "on-the-shelf" version to be configured as part of a State Bar deployment.

As a result, Bar IT staff concluded that in fact Trinity offers a *custom* solution, that deployment of the system would require a significant commitment of State Bar staff resources to participate in development sessions, and represents overall a much riskier proposition than Odyssey. Given the nature and unique characteristics of the Bar's discipline system, and as evidence by the Bar's failed effort with Sustain, it is inherently difficult to manage requirements inflation during the progression of the implementation schedule, a risk that becomes difficult to estimate and manage. Staff strongly believes that selection of this option will delay an already seriously delayed initiative. Additionally, IT will need to invest in training current staff or bring in CRM talent to develop, manage and support this platform, further impacting both cost and time to viable implementation.

While Trinity has no experience working in the judicial branch or developing solutions for branch entities, the following entities listed below were provided by Trinity as references:

- California Department of Business Oversight (DBO)
- California Department of Insurance (DOI)
- California Hospital Association
- California Department of Social Services

The evaluation team conducted reference checks and demonstrations for the DBO and DOI; the other two entities were not able to serve as references due to availability. Both DBO and DOI were pleased with the implementation and support services provided by the Trinity team. DOI is a licensing agency for insurance agents and brokers, and a consumer protection agency for investigating and prosecuting insurance fraud. The demonstration of the DOI CMS was limited to the public facing application; this is the portal by which the public can access licensing and fraud information. This application is built with ADX Studio, a third party add-on to the CRM. The demonstration was further limited by the fact that the DOI continues to use Oracle Forms, rather than SharePoint, the add-on document management system contemplated by the Trinity CMS. In addition, DOI's investigative unit solution was unavailable for demonstration pending a CRM upgrade.

The DBO licenses and regulates financial services providers and serves as a consumer protection agency for entities including banks, credit unions and brokers. At the time of the State Bar's reference check with DBO, the project manager indicated that a CRM is designed to be a customer relationship management tool and that DBO did not use any of those features. What Trinity had developed instead was a customized licensing, examinations, enforcement, and a complaint system. DBO indicated that they needed additional enhancements, therefore requiring several Trinity staff and an additional contract to continue to provide customization services based on additional needs and requirements post-implementation. Other key points regarding Trinity's proposal:

- Trinity lacks implementation experience with a prosecutorial or court system which likely reflects the fact that there would be a steep learning curve for system design and development;
- The Trinity solution would require additional software (ADX Studio) to meet dependency requirements for public facing application portals. This adds additional cost, complexity and risk with respect to added resources necessary to support and maintain a separate system;
- Trinity's solution for a document management system requires the installation and integration of the CMS and SharePoint. This adds additional complexity and risk with respect to added resources necessary to support and maintain a separate document management system;
- For a member management system, a CRM platform is more appropriate as there are functionalities built in out of the box, but the bar's current project is focused on its discipline system;
- Custom-build solutions require clarity and cohesion regarding the business processes which are modeled for replication in the design of those systems. The current environments for which the new CMS will be deployed do not meet such standards. Instead, there are arcane and convoluted processes in place that have been developed over time as workarounds and should not be replicated in the new CMS;
- Selection of the Trinity solution is likely to delay CMS implementation. Though Trinity's proposal reflects a very aggressive timeline, the Bar's recent experience with a custom-build effort with Sustain, the Trinity solution's reliance on multiple systems (CRM, SharePoint, ADX), and the fact that Bar IT staff are unfamiliar with any of these, leads to the conclusion that selection of this option will significantly delay successful deployment;

- An advantage for Trinity is licensing cost, as the company proposes to take advantage of the Bar's Enterprise License Agreement with Microsoft, therefore making licensing costs significantly lower than those related to the Tyler solution.

#### 4 Project Cost and Summary of Cost-Benefit Analysis<sup>18</sup>

##### 4.1 CMS Procurement and Licensing

Implementation of Tyler's Odyssey product will total \$2,703,830 million; Trinity's parallel costs total \$2,162,490. In addition to these costs, estimated to be incurred in 2016 and 2017, annual support expenses will be incurred. Trinity's annual support costs total \$83,251 over the timeframe outlined in the proposal, or an average of \$20,813 per year; Tyler's annual licensing fees total \$723,857 over the same period, or an average of \$181,000 annually. Over the five year total timeline reflected in bid proposals, the difference between the Trinity and Tyler proposals totals \$1,181,946 as outlined in the table on the following page:

Table 9: CMS System Procurement Costs

Vendor	Trinity	Tyler	Difference
Year 1 + Licenses	\$2,162,490	\$2,703,830	\$541,340
Annual Support (Years 2-5 combined)	\$83,251	\$723,857	\$640,606
<b>Totals</b>	<b>\$2,245,741</b>	<b>\$3,427,687</b>	<b>\$1,181,946</b>

##### 4.2 Other Implementation Costs

The State Bar will incur other significant costs as related to CMS development and deployment. These costs specifically include project management and SME staffing as follows:

<sup>18</sup> Fully articulated pricing is provided as Appendix A. For purposes of the Business Case, Implementation and Annual Licensing Costs, the primary cost drivers, are reflected. Note that Appendix A pricing includes estimates for certain ancillary costs generated by the Bar's Procurement staff pursuant to a standard bid analysis approach. Only the actual costs identified by Tyler and Trinity directly are reflected here.

Table 10: Other Implementation Costs

Expenses	CMS Total Project Costs			Project Total	FTE
	Aug-Dec 2016	Jan-Dec 2017	Jan-Jul 2018		
<b>Personnel *</b>					
Project Manager	73,100	180,700	108,600	362,400	1.0
Discipline SMEs <sup>19</sup>	352,100	1,175,900	706,600	2,234,600	8.0
IT Staff	90,500	159,900	68,600	319,000	1.0
<b>Total Personnel Costs</b>	<b>515,700</b>	<b>1,516,500</b>	<b>883,800</b>	<b>2,916,000</b>	<b>10.0</b>
<b>Procurement</b>					
Tyler Technology	2,703,800				
<b>Total Procurement Costs</b>	<b>2,703,800</b>	<b>-</b>	<b>-</b>	<b>2,916,000</b>	
<b>Total CMS Project Costs</b>	<b>3,219,500</b>	<b>1,516,500</b>	<b>883,800</b>	<b>5,619,800</b>	

Note that although the project timeline outlined in Section 5 below refers to a period of work through 2017 only, staff recommends additional resources be maintained through mid-2018, to support the full implementation period. The cost analysis is predicated on this recommendation.

#### 4.3 Total Cost Analysis

The difference between Trinity and Tyler's Year 1 implementation and licensing costs totals \$541,340; the difference between the Tyler and Trinity proposals over the five year period contemplated by the RFP process totals \$1,181,946. Although it is accurate that the Trinity proposal is less costly than Tyler, staff believes that Trinity costs are understated, in that they specifically do not include the cost of additional State Bar IT staff who will be needed to support the Trinity solution, namely the CRM, ADX and SharePoint platforms that comprise the Trinity CMS. A conservative estimate pegs this cost at 2 FTE, or approximately \$300,000 annually. In addition, and as outlined extensively above, the risk associated with selection of a system that has never been deployed in a court or prosecutorial environment, and is essentially a custom-build solution, far outweigh the additional cost associated with procuring a proven product widely deployed in court and justice system contexts. Further, maintenance of the status quo is not an option, as the AS/400 platform itself needs upgrading and modification to stay viable, and there is a shrinking pool of professionals available to do this work. Staff strongly believes that when considering this Business Case in its entirety, Tyler presents the best value option for the State Bar.

<sup>19</sup> At this time these positions have been identified as an Assistant Chief Trial Counsel, Attorney, Investigator, Paralegal and Coordinator of Records (OCTC), a Senior Attorney (Probation), a Court Administrator and Case Administrator (SBC).

#### 4.4 Proposed Funding Sources

Annual licensing fees will be absorbed in the State Bar's operating budget; as such, funding sources have been identified for only the limited-term costs associated with development and deployment. These costs total \$5,619,800:

- Tyler Contract: \$2,703,800
- Project Management and SME's: \$2,916,00

The project will be funded as follows:

Table 11: Project Funding Sources

Funding Source	
IT Special Assessment Fund	\$1,215,200
Technology Improvement Fund	\$2,004,300
2016 General Fund Savings	\$1,000,000
2017 Proposed Elimination of Bank Processing Fee	\$800,000
Future Transfer from Fund 88 <sup>20</sup>	\$600,300
<b>Total Costs</b>	<b>\$5,619,800</b>

#### 5 Timeline, and Project Plan

Tyler's implementation approach involves seven major phases of work:

- Phase 1: Project Initiation and Planning
- Phase 2: Solution Design and Development
- Phase 3: Data Conversion
- Phase 4: OCTC Odyssey Deployment
- Phase 5: Court Odyssey Deployment
- Phase 6: Probation Deployment
- Phase 7: Project Conclusion

Phase 1: Project initiation and planning consists of three primary tasks that would be completed over approximately three-and-a-half months: project planning, business process review, and infrastructure planning. Phase 1 lays the foundation for the entire project by establishing and documenting clear, specific expectations regarding the sequencing, timing, and scope for the project. The culmination of these tasks involves the delivery by Tyler of a Project Management Plan, a Project Operational Plan, and a Business Process Review Report, and a solution design all of which serve to establish common, transparent project expectations and objectives.

Phase 2: Solution design and development begins about a two months into Phase 1 and involves four primary tasks to be completed over approximately six months: infrastructure set up and

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<sup>20</sup> These proposed funding sources are explained in more detail in the cover memorandum accompanying this Business Case.



installation, application development, integration development, and the conducting of an integration toolkit workshop. This phase will establish the detailed specifications and development of application refinements identified in Phase 1; development and testing of customizations identified in Phase 1 and establishing the technical infrastructure and application installation processes. Phase 2 concludes with the training of State Bar IT staff on the tools that they will need to successfully manage the IT infrastructure using Tyler's product and tools.

Phase 3: Data conversion involves conducting multiple iterations of an automated data conversion to transfer existing and historic electronic records out of the AS/400 and into Odyssey.

Phase 4: OCTC deployment consists of five primary tasks that begin in the fifth month of the project and are completed over the course of the next about eight months: configuration, testing, the development of a go-live plan, training, and the go-live implementation.

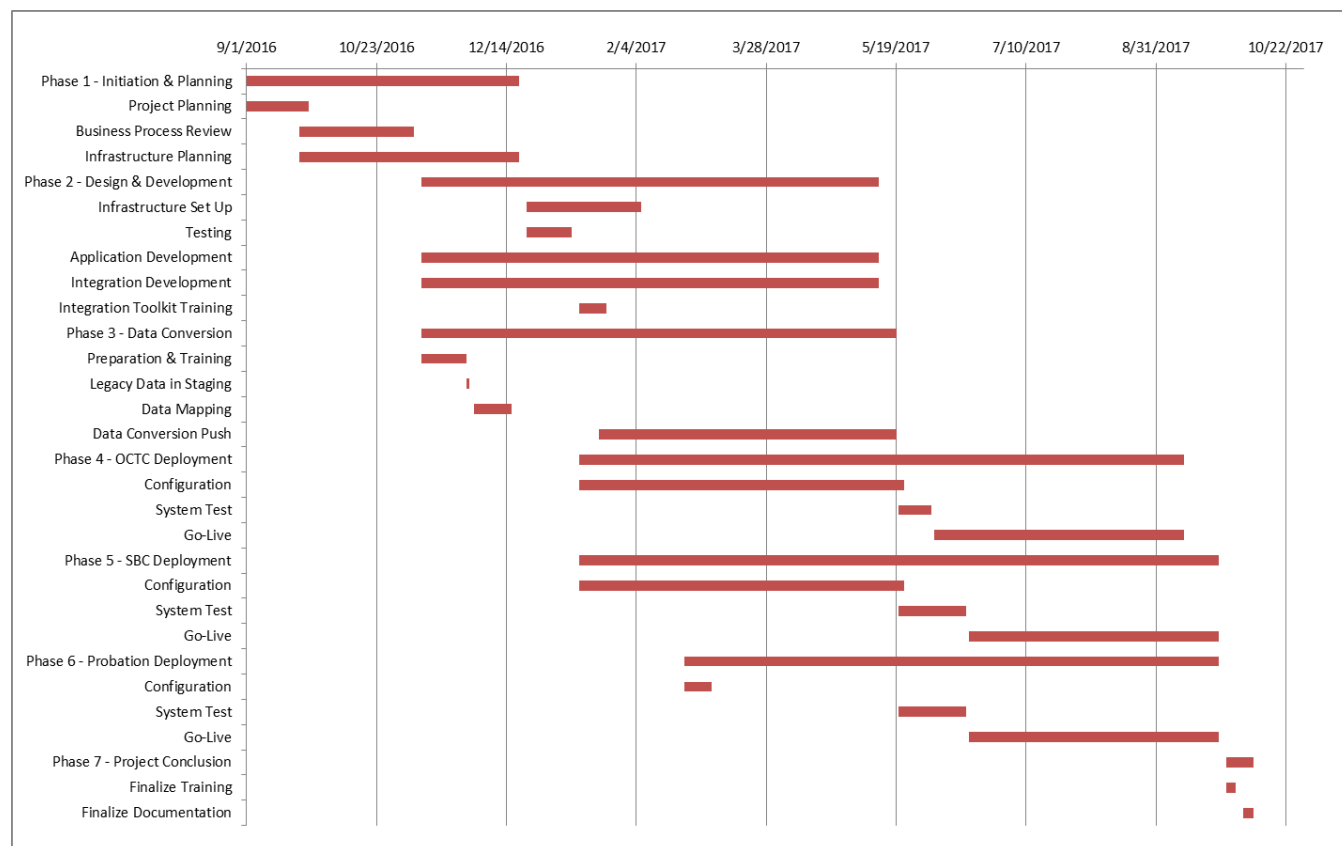
Phase 5: SBC deployment runs on parallel track, simultaneous with the OCTC deployment and consists of the same primary tasks completed on the same time frame: configuration, testing, the development of a go-live plan, training, and the go-live implementation, all culminating approximately eight months after this phase is initiated.

Phase 6: Probation deployment follows the same basic steps as OCTC and SBC deployment but will need to be modified somewhat to take into account the fact that Member Records and Compliance will not be incorporated into the system. Tyler's original proposal included both Probation and Member Records and Compliance as part of Phase 6.

Phase 7: Project conclusion is a relatively short but essential phase of work consisting in knowledge transfer so that Bar staff are fully capable of managing day-to-day system functioning and ensuring that all documentation regarding the system is complete. The project conclusion phase lasts approximately two weeks.

The Gantt Chart on the following page illustrates the rough timeline presented by Tyler in their bid. This has been adjusted around a hypothetical start date of September 1, 2016 to illustrate the approximate timing and sequence of the project. Final details related to the exact project schedule will need to be evaluated and negotiated before entering into the agreement.

Figure 1: Draft Timetable for Completion of Major Phases of Work



## 6 Risk Mitigation Strategies

Staff concludes that of the two bids, Tyler Technologies' CMS, Odyssey, offers the most benefits with the fewest risks to the Bar, and the greatest likelihood of timely and successful implementation. In light of consultant reports going back at least 16 years outlining numerous problems with the status quo legacy system, and a three-year failed effort with Sustain, a custom solution, the bar cannot afford to take the risk that engaging Trinity represents. The likelihood of continued delays in CMS implementation is too great, as is the risk of unanticipated cost escalation. Odyssey is a COTS system which makes the staff recommendation consistent with the findings of the studies conducted by COPLAN and Company and the Gartner Group.

The many struggles that the State Bar has faced over the years to implement a new CMS provide at least one important benefit: lessons to be learned that will help the Bar avoid the pitfalls of previous efforts. These lessons are documented in many of the reports provided to the Bar by technology consultants. By following these recommendations, the Bar can mitigate the risk inherent in large IT projects while improving its ability to protect the public.

The first and most important recommendation for mitigating risk relates to selecting a COTS system. Both COPLAN and Company and the Gartner Group listed the COTS solution as the lowest risk technology option with the highest benefit relative to costs. COTS products can sometimes be viewed as

unattractive because they force users to follow a pre-defined case-management solution. Users who are accustomed to certain, specific functionalities, in particular, may find the COTS solution less appealing because it forces them to change their practices. By recommending that the Bar enter into a contract with Tyler, staff are rejecting the hypothetical and highly risky “perfect” solution of a custom build in favor of a real, less-risky, “good” solution.

Other key areas for mitigating risk relate to project planning, resource allocation and project management. In its review of the failed Sustain implementation, MTG Management Consultants cited poor documentation of essential project components. For example, MTG found that the project charter had not been kept up-to-date, Bar executives were not kept up-to-date regarding key decisions, the project plan was not complete, and OCTC’s business processes had not been documented.

The Tyler project plan, summarized above, exemplifies a project management approach designed to mitigate these types of risks. Phase 1 of the project plan involves extensive work building the organizational infrastructure essential to the success of the project. Contained within the Project Management Plan, Tyler includes a Project Charter, Communications Plan, Statement of Work, and Project Schedule. Twenty business days are devoted to Project Planning at the outset of the project followed by another 35 business days devoted to Business Process Review.

Another key challenge facing the Sustain implementation was referred to by MTG Management Consultants as a “project leadership gap,” noting that “there is no OCTC or Bar staff member authorized to lead the project and ensure that the application is implemented effectively for the organization.” A key part of the project management plan, outlined in Table 10, above, is the creation of a project manager position whose work is focused exclusively on the successful implementation of the CMS.

Further mitigation of the risk is also documented in Table 10 in the allocation of funding to free subject-matter experts (SMEs) from their regular work so that they can devote themselves completely to the successful development of the new CMS. IT projects frequently fail to devote adequate resources to securing the institutional knowledge necessary for success because key staff are not available to participate in business process review, configuration and design, or testing. By setting aside funding for the backfill of 8 full-time equivalent staff, SMEs from both OCTC and the SBC will be able to devote themselves fully to the implementation of the new CMS.

BUSINESS CASE  
FOR A CASE MANAGEMENT SYSTEM

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State Bar of California  
Office of Chief Trial Counsel  
July 31, 2007



## Appendix A

July 31, 2007

Mr. Scott Drexel  
Chief Trial Counsel  
State Bar of California  
180 Howard Street  
San Francisco, CA 94105

Dear Mr. Drexel:

This letter transmits the business case for a case management system for the State Bar of California, Office of Chief Trial Counsel.

COPLAN AND COMPANY wishes to acknowledge the help of personnel from the Office of Chief Trial Counsel, who supported the preparation of this business case.

This report complies with the terms and conditions of the agreement between COPLAN AND COMPANY and the State Bar of California. We are available to discuss this report with you and other State Bar personnel at your convenience.

Sincerely,

*Scott R. Coplan*

Scott R. Coplan  
President

SRC:jrl

Enclosure (1)

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# **1. EXECUTIVE SUMMARY**

## **1.1 DEFINITION OF A BUSINESS CASE**

A business case is a high-level analysis that justifies why an organization should make a proposed investment.

## **1.2 CONTENTS OF A BUSINESS CASE**

A business case includes the reasons for the proposed investment. The basis for these reasons is a gap analysis, which identifies the difference between what an organization is doing currently and where it wants to go in the future. A business case also includes the estimated benefits, the options with reasons for rejecting or accepting each option and the estimated costs and risks of making the proposed investment.

## **1.3 LIMITATIONS OF A BUSINESS CASE**

Because a business case is for a future investment, the basis for its justification generally relies on approximate, uncertain or incomplete data. Therefore, like the justification for any future investment, actual experience in terms of costs, benefits and timing will likely vary from projections included in the business case.

## **1.4 BUSINESS CASE FOR STATE BAR OF CALIFORNIA CASE MANAGEMENT SYSTEM**

In 2005, the State Bar of California (CalBar) determined that they must define user requirements to assess whether to fix or replace the existing Case Management System (CMS). The Office of Chief Trial Counsel (OCTC) uses the CMS to track complaints about attorney conduct. We prepared the requirements by facilitating an OCTC team composed of business representatives. We then conducted a gap analysis where we compared these requirements to the current CMS and confirmed that OCTC must fix or replace the existing system in order to meet their needs. Based on this and other recommendations, CalBar requested that we prepare a business case to determine whether OCTC could justify investing in fixing or replacing the existing CMS.



### 1.5 CONTENTS OF THE CMS BUSINESS CASE

The CMS business case includes an analysis of all available options, including:

- Retain the status quo,
- Upgrade the existing system to meet OCTC user requirements,
- Re-platform the existing system, i.e. move it to new technology and upgrade it to meet OCTC user requirements,
- Acquire a Commercial Off The Shelf (COTS) system, i.e., a software package, that meets OCTC user requirements,
- Develop a custom solution that meets OCTC user requirements, and
- Transfer a system from a third party, e.g., another bar organization, state or local prosecutor, and modify it to meet OCTC user requirements.

We then evaluated the above options and identified reasons for rejecting or accepting each option, based on the following:

- **Potential Support for User Requirements** – This included conducting a gap analysis by interviewing a CalBar Information Technology (IT) representative about the status quo, upgrade and re-platform options, a representative COTS vendor and a representative jurisdiction that could transfer their system.
- **Potential Support for Project Objectives** – We identified the potential level of support provided by each option for the CMS project objectives by doing the following:
  - Facilitating the Project Team in the definition of project objectives and associated measurable outcomes and risks,
  - Interviewing the Project Team Lead and assigning each objective to one or more of the user requirements and
  - Determining the level of support provided for the objectives by each option.
- **Analysis of Estimated Costs** – With the exception of the status quo, this included using an industry standard methodology to identify the estimated costs associated with upgrading or replacing the CMS. We assumed the estimated costs for hardware, installation, training, conversion and ongoing maintenance to be the same for all options, except the status quo and upgrade options.

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- **Analysis of Estimated Benefits** – This included the potential cost and time savings associated with the new system when compared to the existing CMS. We worked with representative users (i.e., the Project Team Lead and several Project Team members), to identify existing activities and compare them to improvements associated with the user requirements.
- **Analysis of Estimated Cost/Benefits** – We compared the options based on a cost/benefit analysis by applying the estimated benefits to the estimated costs defined above.
- **Analysis of Estimated Investment Performance** – Using the results of the costs/benefit analysis, we compared the options based on a calculation of the Return on Investment (ROI), breakeven point, Internal Rate of Return (IRR) and Net Present Value (NPV).
- **Analysis of Potential Risks** – Finally, we compared the options based on potential risks. We defined a “risk” as a potential negative impact to something of value that may occur because of selecting a particular option. We quantified these risks by ranking them according to their probability, or likelihood of occurrence, and severity, or their potential adverse impact.

### 1.6 ESTIMATED COST OF THE CMS BY OPTION

Exhibit 1, on the following page, includes a comparison of options by estimated costs. Additional information on how we prepared these estimated costs is available in Section 4.31.

## Appendix A

### Exhibit 1 – Comparison of Options by Estimated Costs

Cost Factor	Option					
	Replatform	Upgrade	COTS	Build	Transfer	Status Quo
Objects	261	261	38	319	160	
Software Lines of Code (SLOC)	5,240	5,240	760	6,380	3,200	
<b>Application Modification Hours</b>						
Planning	486	486	236	522	279	
Analysis	1,593	1,593	1,857	1,699	2,197	
Design	2,602	2,602	1,777	2,783	2,111	
Programming	5,289	5,289	2,516	5,630	2,978	
Testing/Quality Assurance	3,355	3,355	2,478	3,574	2,934	
Technical Writing	97	97	114	103	135	
Documentation Design	59	59	114	63	135	
Project Management	2,416	2,416	1,093	2,593	2,484	
<b>Total Modification Hours</b>	<b>15,898</b>	<b>15,898</b>	<b>10,186</b>	<b>16,967</b>	<b>13,253</b>	
<b>Application Modification Cost</b>						
Planning	\$ 68,591	\$ 68,591	\$ 33,260	\$ 73,555	\$ 39,377	
Analysis	224,627	224,627	261,893	239,601	309,798	
Design	366,927	366,927	250,606	392,333	297,623	
Programming	650,577	650,577	309,484	692,492	366,250	
Testing/Quality Assurance	473,089	473,089	349,411	503,933	413,688	
Technical Writing	13,652	13,652	16,088	14,584	19,062	
Documentation Design	8,333	8,333	16,074	8,890	19,062	
Project Management	381,689	381,689	172,757	409,767	392,510	
Less User Requirements Preparation	(100,000)	(100,000)	(100,000)	(100,000)	(100,000)	
<b>Subtotal Modification Costs</b>	<b>\$ 2,087,484</b>	<b>\$ 2,087,484</b>	<b>\$ 1,309,574</b>	<b>\$ 2,235,155</b>	<b>\$ 1,757,370</b>	
<b>Fixed Implementation Costs</b>						
Conversion	\$ 20,000	\$ -	\$ 20,000	\$ 20,000	\$ 20,000	
Interfaces	40,000	40,000	40,000	40,000	40,000	
Hardware	12,000		12,000	12,000	12,000	
License Fees*	30,000		223,200	30,000	30,000	
Training	19,500	19,500	19,500	19,500	19,500	
<b>Subtotal Fixed Implementation Costs</b>	<b>\$ 121,500</b>	<b>\$ 59,500</b>	<b>\$ 314,700</b>	<b>\$ 121,500</b>	<b>\$ 121,500</b>	
<b>TOTAL IMPLEMENTATION COSTS</b>	<b>\$ 2,208,984</b>	<b>\$ 2,146,984</b>	<b>\$ 1,624,274</b>	<b>\$ 2,356,655</b>	<b>\$ 1,878,870</b>	
Annual Software Support	\$ 375,747	\$ 375,747	\$ 235,723	\$ 402,328	\$ 316,327	\$ 200,000
Annual Hardware Maintenance	2,160	7,000	2,160	2,160	2,160	7,000
<b>TOTAL ANNUAL ONGOING COSTS</b>	<b>\$ 377,907</b>	<b>\$ 382,747</b>	<b>\$ 237,883</b>	<b>\$ 404,488</b>	<b>\$ 318,487</b>	<b>\$ 207,000</b>

#### 1.7 ESTIMATED BENEFIT OF THE CMS BY OPTION

Exhibit 2, on the following page, includes a description of how we calculated the estimated cost savings or benefits associated with the replacement of the status quo. Section 4.32 includes the details regarding how we prepared estimated benefits.

## Appendix A

### Exhibit 2 – Estimated Potential Benefits

Activity Description	Position	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
<u>Prepare 250 report</u> - Automate preparation of report on cases pending in Notice Preparation Status for more than 250 days	Administrative Assistant II	\$ 26	0.25	\$ 6	-	\$ -	\$ 6.48	\$ 78
<u>Prepare backlog report</u> - Automate preparation of backlog report	Administrative Assistant II	26	8.00	207	-	-	207	2,489
<u>Prepare cost certificate</u> - Flag recoverable costs for automated preparation of cost certificates	Administrative Assistant II	26	15.75	408	-	-	408	4,901
<u>Prepare major case monthly status report</u> - Automate preparation of major case monthly status report	Administrative Assistant II	26	4.00	104	-	-	104	1,245
<u>Prepare management reports</u> - Access to more information	Administrative Assistant II	26	-	-	1	26	(26)	(311)
<u>Prepare monthly LRW report</u> - Automate preparation of report on cases in Legal Review status (LRW)	Administrative Assistant II	26	2.00	52	-	-	52	622
<u>Prepare monthly report of Abated (ABY) and Held (HLD) cases</u> - Automate preparation of report on cases in ABY and HLD status	Administrative Assistant II	26	2.00	52	-	-	52	622
<u>Prepare Two-Year report</u> - Automate preparation of report on unfilled cases more than two years old	Administrative Assistant II	26	2.00	52	-	-	52	622
<u>Monitor the status of abated and held cases</u> - Reduce the time necessary to determine the current status of abated and held cases by capture of information already on the system	Assistant Chief Trial Counsel	65	20.00	1,292	8	517	775	9,301
<u>Track personnel time to project staffing needs</u> - Automate recording time spent on projects to ensure and more accurately project staffing needs	Assistant Chief Trial Counsel	65	90.00	5,813	45	2,906	2,906	34,878

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Activity Description	Position	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
<b><u>Add case identification information when preparing documents</u></b> - Automate populating case identification information when preparing documents	Complaint Analyst	31	112.50	3,535	23	707	2,828	33,938
<b><u>Check for certified copies of conviction</u></b> - Automate notification to request certified copies of conviction	Conviction Monitor	23	87.50	2,054	-	-	2,054	24,645
<b><u>Record follow-up on conviction documentation</u></b> - Automate notification to follow up on conviction documentation	Conviction Monitor	23	87.50	2,054	-	-	2,054	24,645
<b><u>Input edit sheet</u></b> - Eliminate need to input data from edit sheets	Coordinator of Records	23	222.25	5,216	-	-	5,216	62,597
<b><u>Update NDC with correct allegation code</u></b> - Automate corrections to allegations codes	Coordinator of Records	23	14.50	340	-	-	340	4,084
<b><u>Access case documents for monthly "spot checks"</u></b> - Access and review documents on-line	Deputy Trial Counsel	48	75.00	3,572	50	2,381	1,191	14,289
<b><u>Add case identification information when preparing documents</u></b> - Automate populating case identification information when preparing documents	Deputy Trial Counsel	48	75.00	3,572	15	714	2,858	34,292
<b><u>Audit for incorrect Allegation Codes</u></b> - Automate updates to allegations codes	Deputy Trial Counsel	48	10.75	512	-	-	512	6,144
<b><u>Audit for missing Allegation Codes</u></b> - Automate entry of allegation codes	Deputy Trial Counsel	48	10.75	512	-	-	512	6,144
<b><u>Conduct compliance audit based on random audit checklist</u></b> - Automate reporting of non-compliant cases	Deputy Trial Counsel	48	21.50	1,024	-	-	1,024	12,288
<b><u>Prepare case summary</u></b> - Additional time to prepare detailed summary	Deputy Trial Counsel	48	-	-	207	9,859	(9,859)	(118,309)

## Appendix A

Activity Description	Position	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
<b><u>Prepare Major Case Memorandum (excluding request for authority to settle or dispose of Major Case)</u></b> - Reduce time for preparation of MCD memo and updates by capture of information already on the system; i.e., summary, SOC, activity log entries, witness interviews, etc.	Deputy Trial Counsel	48	100.50	4,787	17	798	3,989	47,867
<b><u>Prepare NDC</u></b> - Prepare NDC by capturing information that is already available	Deputy Trial Counsel	48	700.00	33,340	630	30,006	3,334	40,008
<b><u>Prepare Voluntary Settlement Conference (VSC) and Early Neutral Evaluation Conference (ENEC) statements</u></b> - Reduce time for preparation of VSC and ENEC statements by capturing information already on the system; i.e., summary, NDC, briefs, prior and pending disciplinary matters, etc.	Deputy Trial Counsel	48	264.00	12,574	231	11,002	1,572	18,861
<b><u>Prepare/update allegation codes</u></b> - Additional time to verify and update allegation codes as cases progress	Deputy Trial Counsel	48	-	-	70	3,310	(3,310)	(39,722)
<b><u>Add Activity Log Entry</u></b> - Automate entries to activity log	Investigator	35	1,262.50	43,606	-	-	43,606	523,273
<b><u>Add case identification information when preparing documents</u></b> - Automate populating case identification information when preparing documents	Investigator	35	200.00	6,908	40	1,382	5,526	66,316
<b><u>Prepare 2302 Package (Rule of Procedure)</u></b> - Automate entry of Intake Attorney's summary into law enforcement waiver and letter to law enforcement	Investigator	35	15.00	518	10	345	173	2,072
<b><u>Prepare Bank Record Subpoena and supporting declaration</u></b> - Automate entry of Intake Attorney's summary into Bank Record Subpoena and	Investigator	35	55.00	1,900	28	950	950	11,398

## Appendix A

Activity Description	Position	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
supporting declaration								
<b><u>Prepare Major Case Memorandum</u></b> - Reduce time for preparation of Major Case Disposition (MCD) memo and updates by capture of information already on the system; i.e., summary, SOC, activity log entries, witness interviews, etc.	Investigator	35	50.25	1,736	17	579	1,157	13,885
<b><u>Prepare SOC</u></b> - Reduce the time necessary to prepare a uniform and complete SOC by capturing information that is already available	Investigator	35	640.00	22,105	448	15,474	6,632	79,579
<b><u>Prepare TRR Letter (Letter of inquiry to Respondent)</u></b> - Automate entry of Intake Attorney's summary into TRR Letter	Investigator	35	208.50	7,201	70	2,400	4,801	57,612
<b><u>Add case identification information when preparing documents</u></b> - Automate populating case identification information when preparing documents	Legal Secretary	26	100.00	2,593	20	519	2,075	24,894
<b><u>Subpoena witnesses for trial</u></b> - Reduce time for preparation of witness subpoenas and supporting documentation by capturing information already in the system	Legal Secretary	26	62.50	1,621	31	810	810	9,724
<b><u>Subpoena witnesses for trial</u></b> - Reduce time for preparation of witness subpoenas and supporting documentation by capturing information already in the system	Paralegal	31	62.50	1,964	31	982	982	11,784
<b><u>Add Activity Log Entry</u></b> - Automate entries to activity log	Secretary	23	450.00	10,562	-	-	10,562	126,743
<b><u>Add case identification information when preparing documents</u></b> - Automate populating case	Secretary	23	112.50	2,640	23	528	2,112	25,349

## Appendix A

Activity Description	Position	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
identification information when preparing documents								
<u>Prepare edit sheets</u> - Eliminate need to prepare edit sheet for update of case information or change of case information	Secretary	23	222.25	5,216	-	-	5,216	62,597
<u>Update Notice of Disciplinary Charges (NDC) with correct allegation code</u> - Automate corrections to allegations codes	Secretary	23	14.50	340	-	-	340	4,084
<b>Total</b>				<b>\$ 189,990</b>		<b>\$ 86,196</b>	<b>\$ 103,794</b>	<b>\$ 1,245,528</b>



We do not know, with certainty, whether CalBar will realize the identified benefits or the exact timing of when this realization will occur. However, CalBar will be able to use the actual net benefits in one or more of the following ways:

- Accomplish more work with existing staff,
- Justify completing the same amount of work with less staff and/or
- Avoid hiring additional staff.

### 1.8 RECOMMENDED OPTION

The analysis identified the following:

- While the status quo option represents the lowest potential cost, it does not achieve OCTC objectives, meet user requirements, or recognize any of the estimated benefits associated with the other options. As a result, it provides the lowest investment performance of any alternative, and the highest potential risk to OCTC business practices.
- Because the upgrade, re-platform and build options require significant modification to the status quo or new construction in order to meet user requirements, they represent the highest potential cost options. Further, the potential complexity and time required for this modification or construction adds significant risks when compared to the transfer or COTS options.
- Although the transfer option does offer a relatively balanced level of support for objectives and requirements, it represents higher risks and costs than the COTS option.
- The COTS option offers the best balance of any option by supporting the objectives and meeting user requirements while achieving optimum benefits and highest investment performance. Further, it represents the lowest risk option and CalBar can implement it for moderate cost when compared to the other alternatives.

We recommend that CalBar implement a COTS CMS. Exhibit 3, below, ranks all of the options based on the analysis in this business case. Exhibit 4, below, provides a financial summary of the recommend COTS option.

## Appendix A

### Exhibit 3 – Options Analysis

Option*	Achieves Objectives	Meets Requirements	Low Cost	High Benefit	High Cost / Benefit	Low Risks	High Investment Performance
Retain Status Quo	○	○	●	○	○	○	○
Upgrade Existing System	◐	●	○	●	◐	◐	◐
Re-Platform Existing System	◐	●	○	●	◐	◐	◐
<b>Acquire COTS Package</b>	●	●	◐	●	●	●	●
Transfer from a Third Party	◐	●	◐	●	◐	○	◐
Develop Custom Solution	◐	●	○	●	◐	◐	○

\*Key:

○ – No

● – Yes

◐ -- Partial

### Exhibit 4 – Financial Summary of Recommended COTS Option

One-Time Cost	\$ 1,624,274
Annual Ongoing Benefits	1,245,528
Annual Ongoing Cost	237,883
Net Ongoing Annual Benefit	\$ 1,007,645
Return on Investment	93%
Payback Period (years)	1.6

### **1.9 ORGANIZATIONAL IMPACT OF RECOMMENDATION ON CALBAR**

The current OCTC business environment involves many repetitive activities that the recommended option can eliminate. The nature of these changes will have a significant impact on OCTC and IT. Few organizations really understand how to use an IT investment to achieve these kinds of workflow improvements. While CalBar can accomplish this, it will require the following:

- Commit users to the time-intensive undertaking of documenting current and improved workflow,
- Rely on workflow software to simulate improvements and measure performance changes (e.g., time and/or cost reduction),
- Adapt current IT practices and procedures to accommodate a COTS focus and
- Augment existing development staff with COTS expertise.

## 2. BACKGROUND AND OBJECTIVES

This is a business case for a Case Management System (CMS) for the Office of Chief Trial Counsel (OCTC) of the State Bar of California (CalBar). OCTC needs to fix or replace the existing CMS that tracks complaints about attorney conduct.

### 2.1 BUSINESS ENVIRONMENT

The CalBar, created in 1927 by the California Legislature and written into the constitution as a judicial branch agency in 1960, is a public corporation in the judicial branch of state government. Acting as the administrative arm of the California Supreme Court, CalBar regulates the legal profession and the practice of law. CalBar's general duties include examining applicants for admission, formulating rules of professional conduct, disciplining members for misconduct, preventing the unlawful practice of the law, and certifying lawyers as legal specialists, among other things.

Membership in CalBar is required in order to practice law in California.\* As of May 4, 2007, there were approximately 210,000 members with 156,230 actively practicing law. The organization has approximately 600 employees and an operating budget of about \$54 million.

Approximately half CalBar's employees are in San Francisco, half are in Los Angeles, and three are in Sacramento.

### 2.2 TECHNOLOGY ENVIRONMENT

Most of the systems that support essential business functions at CalBar are custom-written in IBM Report Program Generator (RPG) language to access DB2 databases that run on the IBM AS/400. Some newer systems, such as the Hummingbird DM5 Document Management System and the inAccord system for the Lawyer Assistance Program, use MS/SQL server back-ends, as does the new Finance and Human Resources systems.

\* Out of state attorneys may practice law in California according to certain circumstances pursuant to multi-jurisdictional practice rules or as *pro hoc vice* counsel.

OCTC tracks complaints about attorney conduct using a CMS custom-written in RPG in the late 1980s. The system tracks problems with attorney conduct from inception (intake) through investigation and prosecution. OCTC opens approximately 10,000 to 12,000 new cases annually. OCTC initiates cases in several ways, such as:

- Any consumer may report a problem.
- Legally, certain organizations must report specific problems when an attorney's conduct triggers a "reportable action." Reportable actions are defined in the State Bar Act, which are found in the California Business and Professions (B&P) code at §§ 6086.1(c), 6068, 6086.7, 6086.8, and 6101.
- The "Intake" unit of OCTC may itself open a case upon the conviction of an attorney of criminal charges.

The OCTC system integrates with the State Bar Court's case tracking system and the membership records system. Since the design and implementation of OCTC system, CalBar's business requirements changed and they enhanced existing and added new modules.

### 2.3 PROBLEMS AND SOLUTIONS

The CMS is a large Information Technology (IT) investment. The selected option must make this investment worthwhile. The primary way for OCTC to achieve this is by minimizing the large number of repetitive business processes that the current IBM AS 400 system fails to address. A solution is to fix the current system, or develop or acquire a replacement that automates many of the repetitive activities. Typically, users working with the enhanced or replaced system, attempt to eliminate repetitive processes. Unfortunately, documenting repetitive processes is extremely complex, making it difficult to achieve desired improvements.

Alternatively, business process or workflow software helps users model processes where there is the most opportunity for improvement and simulate these improvements to measure performance changes (e.g., time and/or cost reduction). Using this software is far more effective than the typical solution described above. Consequently, we recommend CalBar use workflow technology with the selected CMS option to make OCTC operations less repetitive, faster and cheaper.

Additional examples of existing problem areas where the current system does not meet CalBar's business needs include the following:

- **Intake Inquiries, Conviction Monitoring, and Reportable Actions**

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- **Problem** – The programs require a linear progression through their functions, some of which may not be relevant to a particular need. In addition, although these programs deal with related disciplinary issues, the current level of integration is insufficient.
- **Solution** – Implement an application that avoids irrelevant screens by providing greater integration and easier navigation to pertinent information.
- **Database for Ethics/CTA School Tracking**
  - **Problem** – A typical condition of discipline imposed on a member of the State Bar of California is attendance at Ethics School. OCTC provides Ethics School training and tracks it manually.
  - **Solution** – Implement an application that tracks student participation in order to identify problems with individual participants and to generate management reports, for instance on rates of student completion and recidivism. Such information should help management improve programs by ensuring they have adequate resources.
- **Allow Intake access to Pro Hac Vice and Foreign Legal Consultants**
  - **Problem** – Intake receives some complaints regarding attorneys who allegedly have qualified to practice in California as foreign legal consultants or participants in the *pro hac vice* program, but Intake analysts have no automated way of verifying whether such attorneys are indeed qualified participants in those programs. To evaluate and process complaints efficiently, analysts need to access to the systems used for these programs.
  - **Solution** – Implement an application with access to basic information on participants in the programs for *pro hac vice* and foreign legal consultants.

## 2.4 IT AND PROJECT OBJECTIVES

Below is a discussion of OCTC project objectives and their alignment with Information Technology IT objectives.

### 2.4.1 **IT Objectives**

IT objectives include minimizing the number of unique hardware and software platforms. To accomplish this, the chosen architectural direction for IT includes transitioning to standard Intel-based computers running Microsoft Windows, Microsoft SQL Server database and Visual Studio.Net/ASP.Net as a development

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environment. Newer systems are already consistent with this direction, and CalBar updates legacy systems with a .Net-compatible tool called AVR, a product of ASNA (Amalgamated Software of North America, Inc).

One of the main benefits of AVR identified by OCTC is that its Windows interface makes data entry more efficient because it allows processes to be flexibly controlled. The Member Billing application developed with AVR is an example. For instance, because AVR allows use of graphical conventions like file-folder tabs, a billing analyst can click on a tab to go directly to a pertinent screen rather than navigate through a sequence of irrelevant screens.

The AVR Windows platform also allows data sharing with other applications. Legacy data can merge with letter or notice templates in Word or WordPerfect with the click of a mouse. Similarly, upon completion of a system-tracked event, a staff member can automatically receive an e-mail notice to complete a related function. Another benefit is that insofar as AVR is .Net-compliant, the product positions the State Bar to transition AVR versions of legacy systems from the AS/400 if it elects to do so.

The new OCTC CMS that is the subject of this business case analysis must be supportable within the State Bar's technological environment and be consistent with the organization's .Net strategy.

### **2.4.2 OCTC Project Objectives**

We met with representatives of OCTC and facilitated the definition of the CMS project objectives, their measurable outcomes and their risks. Below is a summary of the objectives that OCTC identified. See Appendix A for the detailed description of the project objectives and their relationship to measurable outcomes and risks.

Included below are primary and secondary objectives. Primary objectives focus the project. Secondary objectives permit examination of supplemental issues that, while important, do not have the same level of interest in the project. If, for example, resources are scarce during implementation of portions of the system that support the primary objectives, focusing on achieving the primary objects should take priority over the secondary ones.

OCTC representatives identified the following primary objectives for the system replacement project:

- **Eliminate Duplicate Data Entry Associated with Populating Document Templates** – Improve accuracy and timeliness of documents by populating templates with appropriate case information, without duplicate data entry.

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- **Eliminate Reliance on Multiple Manual and Automated Systems** – Reduce inaccuracies and inconsistencies caused by reliance on information from multiple manual and automated systems.
- **Maximize Effectiveness of Personnel Resources** – Use workflow management technology with the selected CMS option to make OCTC operations less repetitive, faster and cheaper.
- **Improve Case Management by Complying with Calbar IT Objectives** – Conform to CalBar IT objectives by implementing an OCTC CMS that promotes improved system flexibility, cost efficiency, integration, and software functionality.
- **Improve Personnel Performance Management** – Monitor adherence to performance objectives and re-allocate workload as priorities change by providing workload information by personnel, workgroup, etc.
- **Improve Quality of Information Provided to Stakeholders** – Respond more accurately and timely to ad hoc requests for information required by stakeholders, e.g., Supreme Court, Legislature, Board of Governors, etc.
- **Reduce Fragmentation of Case Information** – Provide a complete view of all available information, e.g., events, throughout an entire case lifecycle (i.e., intake, investigation, re-opening, prosecution and litigation of a complaint).

OCTC identified the secondary objectives below:

- **Track all parties to identify potential case connections** – Enable detection of trends, relevant information and patterns to find relationships between parties, including attorneys and non-attorneys, involved in multiple investigations and complaints, e.g., Unlicensed Practice of Law (UPL).
- **Track approvals** – Identify items requiring approval, route them to the appropriate party, approve or deny items and provide outcome to appropriate parties.



## **3. OPTIONS**

This section defines options for implementation of the CMS at OCTC.

### **3.1 RETAIN STATUS QUO**

This option represents continuing to use the existing CMS to support OCTC. Retaining the status quo assumes that the existing CMS (IBM AS400) requires minor enhancement (i.e., it currently supports more than 80% of the user requirements).

### **3.2 UPGRADE EXISTING SYSTEM**

This option represents upgrading or modifying the existing system to meet CalBar's currently defined user requirements. This alternative assumes that the IBM AS400 requires minor enhancement (i.e., it currently supports more than 80% of the user requirements). It also assumes that the existing technology supporting the current CMS (e.g., IBM AS400) is suitable for the IT architecture objectives of CalBar.

### **3.3 RE-PLATFORM EXISTING SYSTEM**

This option represents using the services of a third party to convert the existing application from the legacy IBM AS400 hardware platform to the chosen architectural direction of IT, i.e., Intel-based computers running Microsoft Windows, Microsoft SQL Server database and Visual Studio.Net/ASP.Net as a development environment. This alternative assumes that the IBM AS400 requires minor enhancement (i.e., it currently supports more than 80% of the user requirements).

### **3.4 ACQUIRE COMMERCIAL OFF-THE-SHELF (COTS) SOLUTION**

The "buy" option assumes that CalBar purchase a vendor's COTS or "packaged" software solution that meets OCTC's case management requirements. The buy option assumes that a suitable vendor-developed application software package is available. COTS software is also appealing because some of the vendors that

license it also license court systems integrated with their prosecutor system. This could potentially serve the needs of both OCTC and the State Bar Court.

### **3.5 DEVELOP CUSTOM SOLUTION**

The “build” option involves constructing the application software “from the ground up,” by contracted or internal software developers.

### **3.6 TRANSFER SYSTEM FROM A THIRD PARTY**

For the purposes of this business case, “transfer” software includes public domain or no/low-cost license software developed and in use by a third party (e.g., another jurisdiction). Unlike COTS software, public domain software is not subject to the proprietary interest (e.g., copyright or patent) of any legal entity or vendor.

CalBar could transfer a prosecutor system from another jurisdiction and modify it without restriction. CalBar could also transfer a court system integrated with a prosecutor system, which CalBar could use to replace and integrate existing State Bar Court and OCTC systems. However, like the COTS option above, the transfer option assumes that CalBar can acquire a “transfer” software solution that meets OCTC’s user requirements for case management.

## 4. OPTIONS ANALYSIS

This section includes an analysis of the options based on the requirements, objectives, costs, benefits, costs/benefits, investment performance and risks. This section concludes with a recommended option.

### 4.1 COMPARISON OF OPTIONS BY POTENTIAL SUPPORT FOR REQUIREMENTS

We compared the options by potential support for the user requirements based on a gap analysis. Exhibit 5, below, summarizes the results of this gap analysis and Appendix B includes the detailed gap analysis, which identifies the potential difference between what CalBar is doing currently and where it wants to go in the future. We prepared this gap analysis by doing the following:

1. We prepared user requirements by facilitating an OCTC team composed of business representatives, and
2. We then compared these requirements to the current CMS, a representative COTS solution and a representative transfer option. We conducted this comparison by interviewing a CalBar IT representative about the status quo, upgrade and re-platform options, a representative COTS vendor and a representative jurisdiction that could transfer their system.

The estimated level of support for each option, by rank, is as follows:

1. Build,  
COTS,  
Transfer,  
Upgrade,  
Re-platform and  
Status quo.

#### 4.1.1 Retain Status Quo

The viability of retaining the status quo assumes that the IBM AS400 System requires minor enhancement, i.e., it currently supports more than 80% of the user requirements.

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We used this percentage, based on the Pareto Principle, which when applied to a system or group of interrelated parts assumes that changing more than 20% of a system is equivalent to the risk and cost of building a completely new one.

Our analysis compared the current system to the previously prepared user requirements to determine if it provides at least 80% support. We determined that the IBM AS400 System does not provide this level of support. Consequently, we concluded that retaining the status quo is not a viable option in terms of support for user requirements.

### Exhibit 5 – Estimated Support of Requirements by Status Quo, Transfer and COTS Options

Requirement Type	All User Requirements	Status Quo Option			Transfer Option			COTS Option		
		Full Support	Partial Support	No Support	Full Support	Partial Support	No Support	Full Support	Partial Support	No Support
Use Cases or Groups of Related Activities	91	6	79	6	1	38	52	78	13	0
	100%	7%	87%	7%	1%	42%	57%	86%	14%	0%
Objects or Groups of Related Attributes	228	52	6	170	158	28	42	203	19	6
	100%	23%	3%	75%	69%	12%	18%	89%	8%	3%

NOTES:

The impact of priority (i.e., mandatory or desirable) on the support for requirements was not material.

"Upgrade," "Re-Platform" and "Develop Custom Solution" options assume 100% support for all user requirements.

#### 4.1.2 Upgrade Existing System

The viability of the upgrade option also assumes that the IBM AS400 System requires minor change of less than 20%. As discussed above, the lack of support provided by the current system for the user requirements indicates that this alternative is not viable.

In addition, this option assumes that the existing technology supporting the current CMS (e.g., IBM AS400) complies with IT's technology architecture objectives. This assumption is not correct since these objectives assume compliance with standard Intel-based computers running Microsoft Windows, Microsoft SQL Server database and Visual Studio.Net/ASP.Net as a development environment.

#### 4.1.3 Re-Platform Existing System

The viability of the re-platform option also assumes that the IBM AS400 System requires minor change of less than 20%. As discussed above, the lack of support provided by the current system for the user requirements indicates that this option is not viable.

#### 4.1.4 Acquire COTS Solution

About three vendors provide viable COTS solutions for adult criminal case tracking systems suitable for prosecutors. Based on our experience working with these vendors, we conducted a preliminary assessment to determine whether a representative vendor could meet the needs of OCTC. Exhibit 5, above, summarizes the estimated level of support provided by the COTS option for the user requirements. This analysis indicates the COTS option is viable.

When considering the COTS option, OCTC is not limited to the example included in this report. However, this example is typical of the support provided by a COTS option.

### **4.1.5 Develop Custom Solution**

The build option involves constructing the application software “from the ground up,” by a software developer. As a result, this option assumes that it will support all of OCTC’s requirements. This analysis does not specify if CalBar will develop the solution internally or contract with a vendor to provide the development services required by OCTC. Should OCTC contract for development services, we recommend that OCTC issue a RFP to determine the most suitable vendor.

### **4.1.6 Transfer System from a Third Party**

The viability of the transfer option assumes any system transferred to CalBar requires minor change of less than 20%. It is our understanding that CalBar considered transferring a system from the following:

- **BarAlliance** – This is an affiliation of bar organizations that are sharing resources to create a bar membership management system. According to CalBar, BarAlliance does not offer a viable CMS.
- **State Bar Organizations** – This includes the bar organization found in each state. Again, according to CalBar, no other state bar offers a viable CMS.
- **Office of State and Local Prosecutors** – Generally, this includes the office of a public official who represents the government in the prosecution of criminals. Most of these offices use adult criminal case tracking systems. While many use a product from a vendor, such as the product evaluated under the COTS option discussed above, some have custom solutions that CalBar could transfer. We examined a public domain solution previously built by one of our clients. Exhibit 5, above, summarizes the estimated level of support provided by this transfer option for CalBar’s user requirements. When considering the transfer option, OCTC is not limited to the example included in this report. However, this example is typical of the support provided by a transfer option and it is not viable.

## **4.2 COMPARISON OF OPTIONS BY POTENTIAL SUPPORT FOR PROJECT OBJECTIVES**

We identified the level of potential support provided by each option for the objectives by doing the following:

Facilitating the Project Team in the definition of project objectives and associated measurable outcomes and risks,

Interviewing the Project Team Lead and assigning each objective to one or more of the user requirement and

Assigning the level of support provided for the objectives by each option.

Potential support for the objectives by option is as follows:

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- The status quo option fails to support any of the objectives,
- The buy option supports all of the objectives, and is the only option that supports the workflow objective using built-in, integrated tools, as opposed to separately purchased workflow software,
- The upgrade option supports the objectives, except for compliance with IT technology objectives, and workflow as described above, and
- The remaining options support all of the objectives, provided OCTC modifies each solution to meet its user requirements as described above.

Exhibit 6, below, identifies the estimated support provided by each option for the project objectives. Appendix C identifies the estimated support provided by each user requirement for one or more of the project objectives.

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### Exhibit 6 – Estimated Support for Objectives by Option

Objective*	Status Quo	Upgrade	Re-Platform	Buy	Build	Transfer
<b>Primary Objectives</b>						
<b><u>Eliminate duplicate data entry associated with populating document templates</u></b> – Improve accuracy and timeliness of documents by populating templates with appropriate case information, without duplicate data entry.	○	●	●	●	●	●
<b><u>Eliminate reliance on multiple manual and automated systems</u></b> – Reduce inaccuracies and inconsistencies caused by reliance on information from multiple manual and automated systems.	○	●	●	●	●	●
<b><u>Maximize Effectiveness of Personnel Resources</u></b> – Use workflow management technology with the selected CMS option to make OCTC operations less repetitive, faster and cheaper.	○	◐	◐	●	◐	◐
<b><u>Improve Case Management by Complying with CalBar IT Objectives</u></b> – Conform to CalBar IT objectives by implementing an OCTC CMS that promotes improved system flexibility, cost efficiency, integration, and software functionality.	○	○	●	●	●	●
<b><u>Improve personnel performance management</u></b> – Monitor adherence to performance objectives and re-allocate workload as priorities change by providing workload information by personnel, workgroup, etc.	○	●	●	●	●	●
<b><u>Improve quality of information provided to stakeholders</u></b> – Respond more accurately and timely to ad hoc requests for information required by stakeholders, e.g., Supreme Court, Legislature, Board of Governors, etc.	○	●	●	●	●	●
<b><u>Minimize fragmentation of case events</u></b> – Provide event tracking across the entire case lifecycle (i.e., intake, investigation, re-opening, prosecution and litigation of a complaint).	○	●	●	●	●	●
<b><u>Reduce fragmentation of case information</u></b> – Provide a complete view of all available information, e.g., events, throughout an entire case lifecycle (i.e., intake, investigation, re-opening, prosecution and litigation of a complaint).	○	●	●	●	●	●
<b>Secondary Objectives</b>						
<b><u>Track all parties to identify potential case connections</u></b> – Enable detection of trends, relevant information and patterns to find relationships between parties, including attorneys and non-attorneys, involved in multiple investigations and complaints, e.g., Unauthorized Practice of Law (UPL), etc.	○	●	●	●	●	●
<b><u>Track approvals</u></b> – Identify items requiring approval, route them to the appropriate party, approve or deny items and provide outcome to appropriate parties.	○	●	●	●	●	●

\*Key:

○ – No

● – Yes

◐ -- Partial

### **4.3 COMPARISON OF OPTIONS BY ESTIMATED COST/BENEFIT**

This section includes an analysis of options by estimated cost, benefit and cost/benefit. Because this business case is for a future investment, the basis for its justification generally relies on approximate, uncertain or incomplete data. Therefore, like the justification for any future investment, actual experience in terms of the cost, benefit and timing will likely vary from projections included in this business case. Exhibit 7, below, includes a list of general cost/benefit assumptions.



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### Exhibit 7 – Cost/Benefit Assumptions

Assumptions
<b>Administrative Fees</b> – The estimates do not include overhead (e.g., travel and per diem) and out-of-pocket expenses a provider of the recommended solution may include in estimates for work they perform on behalf of the CalBar.
<b>Contingency</b> – The estimates do not include a contingency of an additional 20 percent of project costs to attempt to account for unknown or unforeseen factors.
<b>Conversion</b> – The estimates assume CalBar will convert existing records from their old to the new system.
<b>Disaster Recovery</b> – The estimates do not include additional costs for disaster recovery support for the new system.
<b>Facilities</b> – The estimates do not include expenditures for changes or additions to existing facilities at CalBar to support the new system, if any.
<b>Financing</b> – The estimates do not reflect any financing alternatives CalBar may wish to select for this project.
<b>Furnishings</b> – The estimates do not include costs for changes or additions to furnishings to support PCs or changes in job functions (e.g., removal or construction of counter space) because of implementing the new system, if any.
<b>Funding Source</b> – The estimates do not address sources of funding whether existing or new.
<b>Hardware Platform</b> – CalBar's IT objectives include a transition of all systems to Microsoft .Net architecture. The estimates assume the CMS requires new hardware supportable within CalBar's technological environment and consistent with the .Net strategy.
<b>Inflation</b> – The estimates assume 2007 dollars and reflect no future adjustments for inflation.
<b>Interfaces</b> – The estimates includes costs for interfaces, e.g., between the new CMS and the existing AS400 Membership System.
<b>Workflow Software</b> – The cost estimate for COTS includes built-in, integrated workflow modification software. Similar software may be available for the other options, for additional cost not included in the current estimates.
<b>Network Costs</b> – The estimates do not include new expenditures for LAN or WAN components that may be necessary to support full use of the proposed system within CalBar, if required.
<b>One-Time System Costs</b> – The estimates include one-time hardware and software expenditures supplied by a COTS vendor of the recommended solution for a CMS.
<b>Ongoing System Costs</b> – The cost estimates include hardware maintenance and software support costs supplied by a COTS vendor of the recommended solution for a CMS.
<b>Phase of Analysis</b> – This cost analysis occurs in one of the earliest phases of the life cycle of system projects. This is also one of the more difficult phases to get accurate cost information because firm pricing from a COTS vendor of the recommended solution, for example, is not available. At each phase, CalBar has more information. Likewise, at each phase CalBar should update this cost analysis to understand the full financial impact of the recommendations in this report.
<b>PCs</b> – The estimates do not include upgrades to existing PCs, replacement of terminals or procurement of new PCs, if required.
<b>Power</b> – The estimates do not address the ongoing cost for changes in electrical power consumption associated with the new system, if required.
<b>Project Management</b> – The estimates includes the cost of internal CalBar project management. The estimates assume CalBar will provide its own project management other than project management provided by the vendor delivering the recommended solution.
<b>Quality Assurance (QA)</b> – The estimates include the cost for this QA function. Independent QA is the ongoing review of project processes and project deliverables to ensure they meet agreed upon quality standards.
<b>Rounding Errors</b> – The estimates may include slight rounding errors.
<b>Supplies</b> – The estimates do not include costs for, if any, in supplies (e.g., forms, printer cartridges, paper stock).
<b>Taxes</b> – The estimates do not include costs for any current or future taxes for services or tangible goods provided by any third party supporting the new system.
<b>Time Period</b> – The estimates use calendar instead of fiscal years.
<b>Timing</b> – The estimates assume it will take about 12 months to implement the new system. In addition, assuming there is a one-year warranty from the date of system acceptance, all ongoing system costs begin one year after acceptance.
<b>Warranty Period</b> – The cost estimates assume all warranties are for one year and all begin at once after acceptance of the new system.

### 4.3.1 Analysis of Options by Estimated Cost

We estimated the time and cost required to create the CMS software application (the “product”) by using the Proxy Based Estimating (PROBE) methodology. The PROBE methodology uses data on previously developed similar products to establish the basis for judging the time and cost to develop a new product, e.g., the CMS. PROBE relies on “proxies” to judge product size, i.e., units we can count and that closely define product features and functions. Examples of proxies include Software Lines of Code (SLOC) and objects, i.e., discrete groups of data and the procedures required to operate that data. At this early project stage, CalBar prepared their requirements, including objects. We compared the estimated number of CMS product objects to historical data on a number of similar products, available from a software estimating tool, to estimate the time and cost to develop the new CMS product.

This cost estimating approach, for each option, also includes the following:

- We assumed the costs for hardware, installation, training, conversion and ongoing maintenance to be the same for all options except “Retain Status Quo.” We obtained these cost estimates from the vendor who provided information for the “buy” option.
- We used a software-estimating tool based on the COConstructive COSt Model (COCOMO II USC Model) to estimate the cost of building the application. This model, which estimates software costs based on historical evidence from hundreds of other software projects, requires an estimated SLOC in order to calculate system development costs.
- We estimated an average number of ten lines of object code per object. This translates into two lines of application code for every line of object code, or 20 lines of code per object based on the PROBE methodology described by Watts S. Humphrey, Carnegie Mellon Software Engineering Institute (SEI), in *A Discipline for Software Engineering*, Addison Wesley, 1995,
- We identified the number of objects for each option based on the total number of objects identified in OCTC’s user requirements minus the number of objects fully supported by that option. For example, there are 228 objects in the CMS requirements and the COTS option supports 203. Consequently, the COTS option requires construction or modification of 25 of the objects or 228 minus 203.
- Our cost estimates use average rates of \$123/hour for contract Programmer Analyst (PA) and \$158/hour for Project Management (PM) personnel. The rate for design, testing and implementation is a blend of PA and PM rates. We based all rates on our experience and on information provided in a salary survey for the Pacific Region, from the November 2006 issue of *Computerworld*.
- Based on the COCOMO II Model, annual support for upgrade, re-platform, cots, transfer and build options is about 18% of one-time software and hardware costs.

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- The COCOMO II Model estimates total labor cost for software development. These include CalBar internal operating expenditures that CalBar will not allocate to the project. While the COCOMO II Model overestimates the development costs, this is a valid basis for cost comparison because it calculates the estimate for each option in the same way.

Exhibit 8, below, provides a comparison of options by estimated cost. Exhibit 8 also provides supporting detail regarding the five-year cost estimates found in Exhibit 9.

### Exhibit 8 – Comparison of Estimated Option Costs over a Five-Year Lifecycle

Option	Year 1	Year 2	Year 3	Year 4	Year 5	Total Five Year Cost
Status Quo	\$ 207,000	\$ 207,000	\$ 207,000	\$ 207,000	\$ 207,000	\$ 1,035,000
Upgrade	2,146,984	382,747	382,747	382,747	382,747	3,677,972
Re-Platform	2,208,984	377,907	377,907	377,907	377,907	3,720,612
COTS	1,624,274	237,883	237,883	237,883	237,883	2,575,808
Build	2,356,655	404,488	404,488	404,488	404,488	3,974,606
Transfer	1,878,870	318,487	318,487	318,487	318,487	3,152,816

The cost of the options, in order of least to most, is as following:

1. Status quo,
2. COTS,
3. Transfer,
4. Upgrade,
5. Re-platform,
6. Build.

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### Exhibit 9 – Comparison of Options by Estimated Costs

Cost Factor	Option					
	Replatform	Upgrade	COTS	Build	Transfer	Status Quo
Objects	261	261	38	319	160	
Software Lines of Code (SLOC)	5,240	5,240	760	6,380	3,200	
<b>Application Modification Hours</b>						
Planning	486	486	236	522	279	
Analysis	1,593	1,593	1,857	1,699	2,197	
Design	2,602	2,602	1,777	2,783	2,111	
Programming	5,289	5,289	2,516	5,630	2,978	
Testing/Quality Assurance	3,355	3,355	2,478	3,574	2,934	
Technical Writing	97	97	114	103	135	
Documentation Design	59	59	114	63	135	
Project Management	2,416	2,416	1,093	2,593	2,484	
<b>Total Modification Hours</b>	<b>15,898</b>	<b>15,898</b>	<b>10,186</b>	<b>16,967</b>	<b>13,253</b>	
<b>Application Modification Cost</b>						
Planning	\$ 68,591	\$ 68,591	\$ 33,260	\$ 73,555	\$ 39,377	
Analysis	224,627	224,627	261,893	239,601	309,798	
Design	366,927	366,927	250,606	392,333	297,623	
Programming	650,577	650,577	309,484	692,492	366,250	
Testing/Quality Assurance	473,089	473,089	349,411	503,933	413,688	
Technical Writing	13,652	13,652	16,088	14,584	19,062	
Documentation Design	8,333	8,333	16,074	8,890	19,062	
Project Management	381,689	381,689	172,757	409,767	392,510	
Less User Requirements Preparation	(100,000)	(100,000)	(100,000)	(100,000)	(100,000)	
<b>Subtotal Modification Costs</b>	<b>\$ 2,087,484</b>	<b>\$ 2,087,484</b>	<b>\$ 1,309,574</b>	<b>\$ 2,235,155</b>	<b>\$ 1,757,370</b>	
<b>Fixed Implementation Costs</b>						
Conversion	\$ 20,000	\$ -	\$ 20,000	\$ 20,000	\$ 20,000	
Interfaces	40,000	40,000	40,000	40,000	40,000	
Hardware	12,000		12,000	12,000	12,000	
License Fees*	30,000		223,200	30,000	30,000	
Training	19,500	19,500	19,500	19,500	19,500	
<b>Subtotal Fixed Implementation Costs</b>	<b>\$ 121,500</b>	<b>\$ 59,500</b>	<b>\$ 314,700</b>	<b>\$ 121,500</b>	<b>\$ 121,500</b>	
<b>TOTAL IMPLEMENTATION COSTS</b>	<b>\$ 2,208,984</b>	<b>\$ 2,146,984</b>	<b>\$ 1,624,274</b>	<b>\$ 2,356,655</b>	<b>\$ 1,878,870</b>	
Annual Software Support	\$ 375,747	\$ 375,747	\$ 235,723	\$ 402,328	\$ 316,327	\$ 200,000
Annual Hardware Maintenance	2,160	7,000	2,160	2,160	2,160	7,000
<b>TOTAL ANNUAL ONGOING COSTS</b>	<b>\$ 377,907</b>	<b>\$ 382,747</b>	<b>\$ 237,883</b>	<b>\$ 404,488</b>	<b>\$ 318,487</b>	<b>\$ 207,000</b>

\* License fees for all options except COTS are for third party software (e.g., SQL Server). COTS license fees include additional application package licensing.

### 4.3.2 Analysis of Options by Estimated Benefit

There are three primary types of benefits:

- **Cost Displacement** – Substituting one expense for another. For example, implementation of a new system will eliminate the old system support expense of \$200 thousand and replace it with a lower cost of \$100 thousand. None of the identified options offer cost displacement benefits when compared to the status quo.
- **Cost Avoidance** – A current expense that is no longer required. For example, implementation of a new system will eliminate preparation time and cost associated with case backlog reporting. This includes the potential cost and time savings associated with the new system when compared to the existing CMS. We worked with representative users (i.e., the Project Team Lead and several Project Team members), and identified existing activities and compared them to improvements associated with the user requirements. Refer to Exhibit 10, below, for a summary and Appendix D for the details of the estimated cost avoidance benefits for replacing the status quo.

We do not know, with certainty, whether CalBar will realize the identified benefits or the exact timing of when this realization will occur. However, CalBar will be able to use the actual net benefits in one or more of the following ways:

- Accomplish more work with existing staff,
  - Justify completing the same amount of work with less staff and/or
  - Avoid hiring additional staff.
- **Value Added** – New processes that increase the quality of a good or service are generally intangible. For example, new processes associated with the CMS include:
    - Provide additional useful information to manage more effectively (e.g., increase accountability, distribute workloads more equitably, determine the nature of the workloads to tailor training and supervision needs),
    - Decrease backlogs and allow more timely preparation of work by reducing the time spent obtaining information not readily available in the current environment,
    - Reduce backlogs, minimize error rates, and improve utilization of personnel resources by minimizing repetitive record keeping processes,
    - Improve morale and productivity for record keeping personnel by reducing the number of repetitive tasks as a result of one-time data entry,

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- Make work more interesting by decreasing the number of clerical tasks and potentially contribute to greater employee satisfaction and retention and
- Establish a progressive community image by providing services more effectively (i.e., as perceived by users, other government agencies and the public).

### Exhibit 10 – Estimated Cost Avoidance Benefits

Personnel Classification	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
Administrative Assistant II	\$ 26	34.00	\$ 882	1.00	\$ 26	\$ 856	\$ 10,269
Assistant Chief Trial Counsel	65	110.00	7,105	53.00	3,423	3,682	44,179
Complaint Analyst	31	112.50	3,535	22.50	707	2,828	33,938
Conviction Monitor	23	175.00	4,107	-	-	4,107	49,289
Coordinator of Records	23	236.75	5,557	-	-	5,557	66,681
Deputy Trial Counsel	48	1,257.50	59,893	1,219.25	58,071	1,822	21,861
Investigator	35	2,431.25	83,974	611.75	21,130	62,845	754,135
Legal Secretary	26	162.50	4,214	51.25	1,329	2,885	34,618
Paralegal	31	62.50	1,964	31.25	982	982	11,784
Secretary	23	799.25	18,759	22.50	528	18,231	218,773
<b>Total</b>			<b>\$ 189,990</b>		<b>\$ 86,196</b>	<b>\$ 103,794</b>	<b>\$ 1,245,528</b>

#### 4.3.3 Analysis of Options by Estimated Cost/Benefit

Exhibit 11, below, provides a comparison of options by estimated cost/benefit. The estimated cost/benefit of the options, in order of most to least, is as following:

1. COTS,
2. Transfer,
3. Upgrade,
4. Re-platform,
5. Build, and
6. Status quo.

**Exhibit 11 – Comparison of Options by Estimated Cost/Benefit**

Option	Year 1	Year 2	Year 3	Year 4	Year 5	Cost*
Status Quo	\$ -	\$ 207,000	\$ 207,000	\$ 207,000	\$ 207,000	\$ 1,035,000
Upgrade	2,146,984	(862,781)	(862,781)	(862,781)	(862,781)	(1,304,141)
Re-Platform	2,208,984	(867,621)	(867,621)	(867,621)	(867,621)	(1,261,501)
COTS	1,624,274	(1,007,645)	(1,007,645)	(1,007,645)	(1,007,645)	(2,406,305)
Build	2,356,655	(841,040)	(841,040)	(841,040)	(841,040)	(1,007,506)
Transfer	1,878,870	(927,042)	(927,042)	(927,042)	(927,042)	(1,829,297)

\* Ongoing costs for all options reflect the cost avoidance benefits described in the previous section associated with replacement of the status quo.

#### **4.3.4 Analysis of Options by Estimated Investment Performance**

Exhibit 12, below, compares each of the options based on estimated investment performance. The estimated investment performance of the options, in order of best to worst, is as following:

1. COTS,
2. Transfer,
3. Upgrade,
4. Re-platform,
5. Build, and
6. Status quo.

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**Exhibit 12 – Comparison of Options by Estimated Investment Performance**

Investment Performance Indicators	Status Quo	Upgrade	Re-Platform	Build	COTS	Transfer
<b><u>Return On Investment (ROI)</u></b> – Rate of Return (ROR) or ROI is the ratio of the financial gain or loss on an investment relative to the amount of money invested. The amount of money gained or lost is the gain/loss as result of a proposed project option. The best option has the highest ROI.	NA	35%	34%	25%	<b>93%</b>	58%
<b><u>Payback Period</u></b> – Time required to recover the costs of the proposed option. Calculation of the payback period requires identification of the breakeven point, i.e., the point at which costs and benefits are equal, i.e., there is no net loss or gain. The best option has the lowest payback period.	NA	2.5 yrs	2.6 yrs	2.8 yrs	<b>1.6 yrs</b>	2 yrs
<b><u>Internal Rate of Return (IRR)</u></b> – A capital budgeting method used to decide whether to make a long-term investment in a particular option. IRR is the yield on an investment or the annualized effective compounded return rate, which invested capital can earn. A proposed project option is a good investment if its IRR is greater than the rate of return an alternative investment could earn (e.g., investing in other project options). The best option has the highest IRR.	NA	22%	21%	16%	<b>50%</b>	34%
<b><u>Net Present Value (NPV)</u></b> – A capital budgeting method used to appraise the profitability of a long-term project option. NPV compares the value of a dollar today to the value of that same dollar in the future, taking inflation and returns into account. If the NPV of a prospective project option is positive, then it is viable. However, if NPV is negative, then it is not viable because cash flow will be negative. The best option has the highest NPV.	(\$630K)	\$642K	\$599K	\$382K	<b>\$1.56M</b>	\$1.08M



### 4.4 COMPARISON OF OPTIONS BY POTENTIAL RISK

This section provides a comparison of the identified options based on potential risks associated with each option.

For the purposes of this business case, a “risk” is a potential negative impact to something of value that may occur because of selecting a particular option. We quantified these risks by ranking them according to their probability, or likelihood of occurrence, and severity, or their potential adverse impact.

Exhibit 13, below, includes a comparison of options by potential risk. The comparisons of options, based on potential risk, in order of least to most, are as following:

1. COTS,
2. Build,
3. Re-platform,
4. Transfer,
5. Upgrade, and
6. Status quo.

## Appendix A

### Exhibit 13 – Comparison of Options by Potential Risk

Risks  Key - Risk Variables: P- Probability, S - Severity, TI - Total  Priority and Severity Ratings: 1 - Low, 2 - Medium, 3 - High  Total Risk: Multiply Risk Probability by Severity (P * S = R)	COTS			Build			Re-Platform			Transfer			Upgrade			Status Quo		
	Risk Variables																	
	P	S	TL	P	S	TL	P	S	TL	P	S	TL	P	S	TL	P	S	TL
Availability																		
System not available to support OCTC needs	1	3	3	-	-	-	-	-	-	1	3	3	-	-	-	3	3	9
System requires modification to support OCTC needs	2	2	4	3	3	9	3	3	9	2	2	4	3	3	9	3	3	9
System designed for a single profile (i.e., client) with no reason to accommodate others	1	2	2	-	-	-	-	-	-	3	3	9	-	-	-	-	-	-
System not easily configured without re-writing code to meet user needs	1	3	3	2	3	6	3	3	9	3	3	9	3	3	9	3	3	9
System not available with embedded workflow software to help make OCTC operations less repetitive	1	3	3	2	3	6	2	3	6	3	3	9	2	3	6	3	3	9
System only available "as is" without warranties or guarantees of any kind	-	-	-	-	-	-	-	-	-	3	3	9	-	-	-	3	3	9
System not available for a long time	1	2	2	3	3	9	3	3	9	2	2	4	3	3	9	-	-	-
Provider personnel not experienced with the needs or system required by OCTC	1	3	3	3	3	9	3	3	9	-	-	-	3	3	9	-	-	-
Provider not subject to market pressure to provide continuous system improvements	-	-	-	3	3	9	3	3	9	3	3	9	3	3	9	3	3	9
Provider may not modify the system to meet OCTC's needs	1	2	2	1	1	1	2	3	6	3	3	9	2	3	6	3	3	9
OCTC not allowed to modify system due to ownership restrictions	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OCTC will be reliant upon a third party vendor for a mission critical system, data and interfaces	2	2	4	1	2	2	1	2	2	1	2	2	3	2	6	3	2	6

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Risks  Key - Risk Variables: P- Probability, S - Severity, TI - Total  Priority and Severity Ratings: 1 - Low, 2 - Medium, 3 - High  Total Risk: Multiply Risk Probability by Severity (P * S = R)	COTS			Build			Re-Platform			Transfer			Upgrade			Status Quo		
	Risk Variables																	
	P	S	TL	P	S	TL	P	S	TL	P	S	TL	P	S	TL	P	S	TL
OCTC may be required to contract with a third party other than the application provider to customize the solution to meet OCTC's needs	1	3	3	1	3	3	2	3	6	3	3	9	3	3	9	3	3	9
Cost																		
OCTC ongoing system support costs will be dictated by a third party	2	2	4	1	2	2	1	2	2	1	2	2	3	3	9	3	3	9
System cost estimates do not include support, training, customization, integration, etc.	-	-	-	-	-	-	-	-	-	3	3	9	-	-	-	-	-	-
Support																		
Limited number of reusable components increases complexity of development and reduces system maintainability	1	2	2	2	2	4	3	2	6	3	3	9	3	3	9	3	3	9
OCTC may have to invest in resources to support the solution	3	1	3	3	2	6	3	2	6	3	3	9	2	3	6	1	3	3
OCTC may be reliant upon a third party to maintain compliance with regulatory standards, e.g., privacy and security standards	3	1	3	3	2	6	3	2	6	2	3	6	3	3	9	3	3	9
Provider may be the only party providing support	2	3	6	2	3	6	2	3	6	1	1	1	3	3	9	3	3	9
Overall Risk Score (Lowest Score Equals Lowest Risk)	51			78			91			112			114			117		
Rank (Lowest to Highest Risk)	1			2			3			4			5			6		

### 4.5 RECOMMENDED OPTION

The analysis identified the following:

- While the status quo option represents the lowest potential cost, it does not achieve OCTC objectives, meet user requirements, or recognize any of the estimated benefits associated with the other options. As a result, it provides the lowest investment performance of any alternative, and the highest potential risk to OCTC business practices.
- Because the upgrade, re-platform and build options require significant modification to the status quo or new construction in order to meet user requirements, they represent the highest potential cost options. Further, the potential complexity and time required for this modification or construction adds significant risks when compared to the transfer or COTS options.
- Although the transfer option does offer a relatively balanced level of support for objectives and requirements, it represents higher risks and costs than the COTS option.
- The COTS option offers the best balance of any option by supporting the objectives and meeting user requirements while achieving optimum benefits and highest investment performance. Further, it represents the lowest risk option and CalBar can implement it for moderate cost when compared to the other alternatives.

Based on the options analysis, we recommend that CalBar implement a COTS CMS. Exhibit 14, below, summarizes the results of the analysis:

Exhibit 14 – Summary of Options Analysis

Option*	Achieves Objectives	Meets Requirements	Low Cost	High Benefit	High Cost / Benefit	Low Risks	High Investment Performance
Retain Status Quo	○	○	●	○	○	○	○
Upgrade Existing System	◐	●	○	●	◐	◐	◐
Re-Platform Existing System	◐	●	○	●	◐	◐	◐
<b>Acquire COTS Package</b>	●	●	◐	●	●	●	●
Transfer from a Third Party	◐	●	◐	●	◐	○	◐
Develop Custom Solution	◐	●	○	●	◐	◐	○

\*Key:

○ – No

◐ – Partial

● – Yes

## 5. ORGANIZATIONAL IMPACT

This section summarizes the potential effect of the proposed COTS solution on CalBar. The business areas affected the most by the proposed solution include OCTC and IT. Member services and State Bar Court will experience changes, because of the proposed system, but to a lesser degree.

### 5.1 POTENTIAL IMPACT ON EXISTING OCTC

A summary of the potential effect of the recommended option on OCTC is as follows:

- **Technology** – Replacing the current “green screen” system with a Windows- and browser-based CMS will require considerable user training.
- **Change in Workflow** – The CMS is a large IT investment. The selected option must make this investment worthwhile. Exhibit 15, included below, identifies potential personnel saving that OCTC can achieve largely by using the recommended option to eliminate repetitive workflow activities. However, few organizations really understand their current workflow, how to improve this workflow and how to use an IT investment to support these improvements. While OCTC can accomplish this, it will require the following:
  - Commit users to the time-intensive undertaking of documenting current and improved workflow,
  - Rely on workflow software to help users model processes where there is the most opportunity for improvement and simulate these improvements to measure performance changes (e.g., time and/or cost reduction).
  - Avoid making the workflow meet the capabilities of the software when what CalBar needs is for the software to support OCTC’s business requirements.
- **Integration with Document Imaging** – CalBar uses the Hummingbird document imaging system. While not within the scope of the CMS project, we recommend that CalBar address how document imaging could increase the efficient use of documents created by the new CMS, particularly as it relates to eliminating

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repetitive activities and improving workflow. Such integration could also result in significant changes to business operations and cost savings beyond those identified in this report. For example, seamless integration of CMS, workflow and document imaging systems could improve OCTC personnel resource utilization by automatically routing documents to the right people at the right time.

### Exhibit 15 – Potential Personnel Resource Savings

Personnel Classification	Current Monthly Time	Expected Monthly Time	Monthly Hours Saved	Annual Hours Saved	FTE Saved
Administrative Assistant II	34.00	1.00	33.00	396	0.19
Assistant Chief Trial Counsel	110.00	53.00	57.00	684	0.33
Complaint Analyst	112.50	22.50	90.00	1,080	0.52
Conviction Monitor	175.00	-	175.00	2,100	1.01
Coordinator of Records	236.75	-	236.75	2,841	1.37
Deputy Trial Counsel	1,257.50	1,219.25	38.25	459	0.22
Investigator	2,431.25	611.75	1,819.50	21,834	10.50
Legal Secretary	162.50	51.25	111.25	1,335	0.64
Paralegal	62.50	31.25	31.25	375	0.18
Secretary	799.25	22.50	776.75	9,321	4.48

## 5.2 POTENTIAL IMPACT ON INFORMATION TECHNOLOGY

The potential effect of implementing the new COTS on IT includes the following.

- **Consolidated Systems** – The new CMS will consolidate several existing systems into a single CMS solution. IT will need to work effectively to ensure that this consolidation occurs successfully and that changes to current practices and procedures efficiently support the new consolidated environment.
- **New Application** – IT may need to supplement existing staff skills through additional training, staff reassignment and/or hiring to support the recommended option. To ensure effective use of the new system, IT will need to understand the new system's functions, data, data structures, interfaces and integration with other systems, and associated changes in business operations.
- **New Technology Relationships** – IT staff will be working with a COTS vendor to configure instead of program the recommended option. IT currently is a "development shop" with significant programming and limited COTS configuration expertise. IT also currently has a shortage of available internal resources and relies increasingly on contract personnel. Switching to a COTS solution could reduce reliance on development personnel and increase reliance on business analysts, which may be cheaper and easier to recruit than software developers. This option will also require adapting current IT practices and procedures to accommodate a COTS focus, as well as adjustments to management procedures and disciplines.

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Exhibit 16, included below, provides a more detailed examination of estimated IT readiness to support this proposed project. Overall, this IT Readiness Assessment indicates the following:

- Organizational structure and stability is good to fair,
- Project budget, schedule and quality controls are fair,
- System development practices and skills are good to fair,
- Project management practices and skills are good to fair,
- Staff experience and skills are fair, as they relate to a COTS project,
- Staff availability is fair to needs improvement,
- Customer support is fair and
- User experience and skills are fair to needs improvement, as they relate to a COTS project.



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### Exhibit 16 – Estimated IT Readiness Assessment

Readiness Factor	Current Status			Rating
	Good	Fair	Needs Improvement	
IT Organizational Structure and Stability				
IT organizational stability	Little or no recent or planned change in IT organization structure	Some recent or planned change in IT organization structure	Management or organization structure is continually or rapidly changing	Good (5)
IT staff turnover	Little or no recent IT staff turnover	Some recent IT staff turnover	Continual IT staff turnover	Fair (3)
Reliance on IT contractor staff	Little or no reliance on contractor staff to fill positions	Some reliance on contractor staff to fill positions	Continual reliance on contractor staff to fill positions	Needs Improvement (1)
Clarity of IT organizational roles and responsibilities	Individuals throughout the organization rely on documented roles and responsibilities	Individuals throughout the organization rely on undocumented roles and responsibilities	Many in the organization are unsure or unaware of who is responsible for many activities of the organization	Fair (3)
IT communications	Clearly communicate goals and status between IT and rest of organization	IT communicates some information some of the time	Communications are rare or unclear within IT or with others who need to be informed	Good (5)
IT spirit and attitude	Strongly committed to success of project; cooperative	Willing to do what it takes to get the job done	Little or no commitment to the project; not cohesive	Good (5)
IT management support	Strongly committed to success of IT	Some commitment, but not total	Little or no support	Good (5)
IT executive involvement	Visible and strong support	Occasional support, provides help on issues when requested	No visible support; no help on unresolved issues	Good (5)
IT Organizational Structure and Stability				Good to Fair (3.75)
Budget, Schedule and Quality Controls				
IT cost controls for customer projects and services	Well established, in place	Cost control system in place, weak in areas	Cost control system lacking or nonexistent	Needs Improvement (1)
IT delivery commitment dates	Stable commitment dates	Some uncertain commitment dates	Unstable fluctuating commitment dates	Fair (3)

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Readiness Factor	Current Status			Rating
	Good	Fair	Needs Improvement	
IT quality commitment	Meets requirements defined with users	Meets most requirements defined with users	Meets few requirements defined with users	Good (5)
IT productivity	All milestones met, deliverables on time, productivity high	Milestones not all met, some delays in deliverables, productivity acceptable	Productivity low, milestones not met, delays in deliverables	Fair (3)
Requirements stability/scope creep	Little or no change expected	Some change expected	Rapidly changing	Fair (3)
Budget, Schedule and Quality Controls				Fair (3)
System Development Practices and Skills				
IT policies and standards	Development policies and standards are defined and carefully followed	Development policies and standards are in place, but are weak or not carefully followed	No policies or standards, or they are ill-defined and unused	Fair (3)
Availability of re-usable components	Many components are available in a library for re-use	Some components are available, but there is not library	Components are not identified and developed for re-use	Fair (3)
Stability of re-usable components	Components function without failure	Components work under most circumstances	Components fail in certain cases	Good (5)
Documentation in the code	Correct and available	Some deficiencies, but available	Nonexistent or poor	Good (5)
Development and end-use documentation	Correct and available	Some deficiencies, but available	Nonexistent or poor	Good (5)
Early Identification of defects	Peer reviews are incorporated throughout	Peer reviews are used sporadically	Expects to find all defects with testing	Fair (3)
Change control for work products	Formal change control process in place, followed, effective	Change control process in place, not followed or is ineffective	No change control process used	Fair (3)
System staging, e.g., for development, test, training, and production	Regions available and used for staging	Limited regions available and used for staging	Regions not available and used for staging	Good (5)
Tool availability	In place and easily attainable, if needed	Available, but additional tools needed	Not validated, proprietary, or major development needed	Good (5)
IT physical facilities	Little or no modification needed	Some modifications or additions needed	Major modifications needed, or facilities nonexistent	Fair (3)

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Readiness Factor	Current Status			Rating
	Good	Fair	Needs Improvement	
System Development Practices and Skills				Good to Fair (4)
Project Management Practices and Skills				
IT project management approach	Project management and technical process in place and in use	Project management and technical processes not yet in place and in limited use	Weak or nonexistent project management and technical processes	Good (5)
IT project management experience	Project management very experienced with similar projects	Project management has limited number of staff with experience in different types of projects	Project management has no experience with this type of project or is new to project management	Fair (3)
Proven IT project management approach	Project management approach widely and successfully used	Project management approach used on a limited basis with some success	Project management approach available but not yet used	Fair (3)
IT project management authority	Has formal line management authority that enables effective project management	Has informal authority that enables some project management effectiveness	Has little authority and power to enable project management effectiveness	Fair (3)
IT support of project management	Complete support by IT staff and of management	Support by most of IT with some reservations	No visible support; manager in name only	Good (3)
Project Management Practices and Skills				Good to Fair (3.8)
IT Staff Experience and Skills				
Use of technology	Technology selected has been in use for some time	Project will occur as a way to showcase a new technology	Project will occur in sub-optimal way, to leverage the purchase or development of new technology with inadequate planning and testing	Good (5)
Mix of IT skills	Good mix of disciplines	Some disciplines inadequately represented	Some disciplines not represented	Fair (3)
Development staff experience	Extensive experience in IT with projects like this	Some experience with similar projects	Little or no experience with similar projects	Fair (3)
IT experience with project tools	High experience	Average experience	Low experience	Fair (3)

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Readiness Factor	Current Status			Rating
	Good	Fair	Needs Improvement	
IT experience with project process	High experience	Average experience	Low experience	Good (5)
Training of IT staff	Training needs fulfilled; training ongoing	Training for some areas not available or training planned for the future	No training plan or training not readily available	Good (5)
IT implementation and support experience with COTS systems	IT implements and supports mostly COTS systems maintaining well-developed vendor contracts and relationships	IT implements and supports some COTS systems with non-standard vendor contracts and relationships	IT implements and supports few COTS systems with limited vendor contract and relationship management experience	Needs Improvement (1)
IT experience with large, highly complex projects	IT has recent experience with large, highly complex projects	IT has recent experience with large, highly complex projects	IT has no or limited recent experience with large, highly complex projects	Fair (3)
IT experience with conversion	Significant experience building and executing data conversions	Some experience building and executing data conversions	No experience building and executing data conversions	Fair (3)
IT experience with interfaces	Significant experience building and maintaining system interfaces	Some experience building and maintaining system interfaces	No experience building and maintaining system interfaces	Needs Improvement (1)
Impact of project on IT customer service	Requires little change to customer service	Requires minor change to customer service	Requires major changes to customer service approach or offering	Fair (3)
IT Staff Experience and Skills				Fair (3.18)
IT Staff Availability				
IT staff availability based on priorities	Sufficient resources dedicated to projects based on priorities	IT resources available, but some conflicting priorities	IT resources dedicated to too many projects without clear priorities	Fair (3)
IT project resource conflict	Projects schedule and share resources without any conflict	Projects schedule and share resources with some conflicts	Projects often conflict because they share the same resources at the same time	Needs Improvement (1)

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Readiness Factor	Current Status			Rating
	Good	Fair	Needs Improvement	
Application support resource conflict	Support schedules and shares resources without any conflict	Support schedules and shares resources with some conflicts	Support often conflicts because they share the same resources at the same time	Fair (3)
IT operations resource conflict	Operations schedules and shares resources without any conflict	Operations schedules and shares resources with some conflicts	Operations often conflicts because they share the same resources at the same time	Fair (3)
Availability of technology expertise	Technology experts readily available	Experts available elsewhere in organization	Will need to acquire help from outside organization	Needs Improvement (1)
IT support personnel	In place, experienced, sufficient in number	Missing some areas of expertise	Significant discipline or expertise missing	Fair (3)
IT Staff Availability				Fair to Needs Improvement (2.33)
IT Customer Support				
Customer perception regarding IT support	Customer believes IT provides adequate support	Customer believes IT support needs improvement	Customer believes IT does not provide adequate support	Fair (3)
Complexity of supported systems	Easily maintained	Certain aspects difficult to maintain	Extremely difficult to maintain	Fair (3)
Defect tracking	Defect tracking defined, consistent, effective	Defect tracking process defined, but inconsistently used	No procedure in place or used to track and resolve defects	Fair (3)
Disaster recovery	Disaster recovery system in place; procedures followed	Disaster recovery considered, but procedures not in place	Disaster recovery not considered	Fair (3)
Customer Support				Fair (3)
User Experience and Skills				
User involvement	Users highly involved with IT and provide significant input	Users play minor roles on system projects and provide moderate amount of input	Minimal or no user involvement; little user input	Fair (3)

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Readiness Factor	Current Status			Rating
	Good	Fair	Needs Improvement	
User experience with similar projects	Users highly experienced in similar projects; have specific ideas of how needs can be met	Users have experience with similar projects and have needs in mind	Users have no previous experience with similar projects; unsure of how needs can be met	Needs Improvement (1)
Change to work flow	Little or no change to work flow	Will change some aspects or will have small impact on work flow	Significantly changes work flow or operational methods	Needs Improvement (1)
Experience with change to work flow	Very familiar with change to work flow	Limited experience with change to work flow	Little or no experience with change to work flow	Needs Improvement (1)
User understanding and experience with the technology planned for the project	Users understand concepts and have experience with the technology planned for the project	Users understand most concepts and have some experience with the technology planned for the system	Users do not understand and have little experience with the technology planned for the system	Fair (3)
User training needs	Users do not need PC application training, e.g., web browser, as a prerequisite to application training	Some users need PC application training, e.g., web browser, as a prerequisite to application training	Many users need PC application training, e.g., web browser, as a prerequisite to application training	Fair (3)
User Experience and Skills				Fair to Needs Improvement (2)

## **6. RECOMMENDED ACQUISITION AND IMPLEMENTATION PLAN**

This section includes a description of the recommended acquisition and implementation plan for the CMS. The plan assumes that OCTC will buy a new system and convert data from the existing IBM AS400 system to the new vendor-supplied COTS solution. Included below is a preliminary discussion of the acquisition and implementation assumptions and the plan's associated tasks and deliverables to assist OCTC in preparation of an RFP and in implementation of the selected system. CalBar must construct a detailed implementation plan after vendor selection.

### **6.1 RECOMMENDED ACQUISITION PLAN**

The recommended acquisition plan assumes that OCTC completed Phase I of the project, i.e., the definition of user requirements. It also assumes that CalBar will complete the Phase II acquisition of a new system based on the following assumptions:

- OCTC will supplement their newly defined user requirements, from Phase I, with technology, vendor, purchasing and administrative requirements, and a system acquisition contract, for inclusion in an RFP,
- OCTC will define an evaluation criteria to assess responses to an issued RFP,
- OCTC will respond to questions from proposing vendors during the response period,
- Proposing vendors will respond to the requirements identified in the RFP,
- OCTC will evaluate vendor responses received and make a decision regarding the proposed solution and
- OCTC, assuming the solution is acceptable, will negotiate an agreement with the selected vendor.

Below is a summary of the Phase II acquisition tasks:

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- **Task 1 – Refine Interface Requirements** – Confirm the specific data exchange requirements between OCTC and other systems including definition of business processes that invoke sharing of specified information.
- **Task 2 – Refine Existing Network** – Define the local and wide area network requirements to support the CMS. The task involves defining the existing OCTC network configuration, and determining whether other distributed entities will access the vendor's product.
- **Task 3 – Describe Existing Technology Environment** – Prepare a description of OCTC's existing servers, PCs, printers and associated system and database software and utilities.
- **Task 4 – Define Conversion Requirements** – Define the characteristics and volume of data to convert from the existing IBM AS400 system to the new vendor solution.
- **Task 5 – Define Capacity Requirements** – Define the capacity requirements for the new CMS in terms of system size, performance (e.g., response time) and availability. This also includes the volume of data to convert to the new system, as defined above.
- **Task 6 – Prepare RFP** – Assemble the RFP based on the information from the previous tasks and define the following additional requirements:
  - Administrative requirements (e.g., description of OCTC),
  - RFP requirements (e.g., definition of the schedule for submitting proposals),
  - Format of proposals,
  - Evaluation process (e.g., overview of how OCTC will evaluate proposals),
  - Ad hoc reporting tool requirements,
  - Security, integrity and control requirements,
  - Hardware and system software requirements,
  - Statement of work,
  - Vendor requirements,
  - Cost requirements and
  - Contract requirements.
- **Task 7 – Prepare Evaluation Criteria** – Define a method of evaluation for the proposals in response to the RFP. This addresses the issue of distilling information



on each vendor into a measure of system quality and cost for comparison to other proposed systems. Typically, the way to evaluate an RFP is to develop a method of ranking that includes the following:

- **Point Scoring** – Award points and weights to each feature and determine the weighted points for each requirement category.
  - **Delphi Technique** – This technique is essentially a survey method whereby individual members of the evaluation team review proposals, which is then fed back to the team as a whole for further comment with the intention of reaching a consensus. Generally, the Delphi technique supplements point scoring.
  - **Financial Evaluation** – The cost analysis includes determining initial one-time and ongoing costs. This analysis does not necessarily result in a procurement award to the bidder with the least cost, but rather to the bidder, whose proposal meets the greatest number of requirements for the lowest price.
- **Milestone 1 – Completed RFP** – Approve the RFP for release to vendors.
  - **Task 8 – Evaluate Responses to RFP** – Conduct a paper review of the proposals, identifying finalists and ranking them based on cost. OCTC may inspect finalists' systems in use at a customer site and/or request a demonstration before establishing a final ranking. Based on this information, OCTC recommends an apparent successful vendor subject to validation of the finalist's response and contract negotiations.
  - **Task 9 – Validate Selected Finalist's Response** – Conduct a demonstration, according to selected scripts (of the user requirements) that supplements the paper review in the previous task. This requires that the finalist vendor demonstrate key aspects of their proposal and validate for OCTC that the proposed system supports the requirements as it is described in the proposal.
  - **Task 10 – Negotiate Contract** – Prepare a final agreement for the implementation and maintenance of the selected system.
  - **Milestone 2 – Select Vendor** – Issue a public notice that OCTC selected a specific vendor as agreed to in the signed contract negotiated in the previous task.

## 6.2 RECOMMENDED IMPLEMENTATION PLAN

The recommended implementation plan assumes that OCTC completed Phase I definition of user requirements and Phase II acquisition of a new system. It also assumes there will be a Phase III implementation of this new system based on the following assumptions:

- Each deliverable is one of the following:

## Appendix A

- **Planning Deliverable** – A deliverable that describes the process to complete one or more deliverables successfully, e.g., Project Management Plan, Work Plan, Risk Management Plan.
  - **Execution Deliverable** – A deliverable that describes the fulfillment of a planning deliverable resulting in verifiable evidence regarding successful execution, e.g., test results, training proficiency test scores, presence of all security profiles.
- All execution deliverables must be traceable to their originating plan.
  - Each deliverable has verifiable criteria that both the vendor and OCTC can objectively use to identify acceptance or corrective actions to ensure acceptance.
  - Each deliverable is the exclusive responsibility of either the vendor or OCTC.
  - Each deliverable requires some input from both the vendor and OCTC despite the fact that only one party is responsible for its completion.
  - The vendor is responsible for deliverable acceptance when the deliverable requires a contract payment point.
  - The vendor will prepare, for inclusion in a work plan, all tasks necessary for execution and acceptance of each deliverable.

The

following

## **Appendix A**

Exhibit 17, below, summarizes the recommended deliverables described in the implementation plan by role and responsibility.

## Appendix A

**Exhibit 17 – Summary of Recommended Project Deliverables**

Project Deliverable	Roles and Responsibilities*			
	Completion		Review	
	Vendor	OCTC	Vendor	OCTC
<b>Project Management</b>				
<b><u>Project Management Plan</u></b> – A description of the project hierarchy, roles and responsibilities, and reporting relationships for key individuals and entities within the project. It also describes mechanisms for communication, risk, budget, schedule and change management throughout the project lifecycle.	S	P	P	S
<b><u>Project Work Plan</u></b> – The tasks, deliverables, required resource assignments and critical path to complete project.	P	S	S	P
<b><u>Project Progress Reports</u></b> – Periodic reporting on project issues, budget and schedule.	P	S	S	P
<b>Quality Assurance</b>				
<b><u>Quality Assurance (QA) Plan</u></b> – A description of how QA will conduct ongoing review of processes and project deliverables to ensure they meet agreed upon quality standards.	S	P	P	S
<b><u>Monthly QA Reports</u></b> – Periodic reporting on deviations from quality standards and recommended actions to correct these deviations.	S	P	P	S
<b>Infrastructure</b>				
<b><u>Infrastructure Plan</u></b> – A description of the hardware, equipment and software components required to support the system, and the method and timing of their installation.	P	S	S	P
<b><u>System and Software Installation</u></b> – The installation and initial configuration of the system components described in the Infrastructure Plan into development, testing, training and production regions.	P	S	S	P
<b>System Configuration</b>				
<b><u>System Configuration Plan (SCP)</u></b> – A description of the changes required to the out-of-the-box system (i.e., modification and/or configuration) to meet CalBar's needs, as well as a definition of any required interfaces with third party systems that must be constructed or adapted and implemented, and identification of the security plan and associated requirements.	P	S	S	P
<b><u>System Configuration</u></b> – The execution of required changes to the out-of-the-box system (e.g., workflows, data, reporting) and construction and/or configuring of required interfaces. This also includes setup and initialization of any security required to enable project and/or development team access to the application to conduct configuration.	P	S	S	P
<b><u>Testing and Training Security</u></b> – The execution of the portion of the Security Plan defined above to support	P	S	S	P

## Appendix A

Project Deliverable	Roles and Responsibilities*			
	Completion		Review	
	Vendor	OCTC	Vendor	OCTC
testing and training activities.				
<b>Production Security</b> – The execution of the portion of the Security Plan defined above to support production use of the system.	P	S	S	P
<b>Data Conversion</b>				
<b>Data Conversion Plan</b> – A description of any data migration required from existing systems to the new system, including data mapping, migration strategies, and data cleansing requirements.	P	S	S	P
<b>Initial Data Conversion</b> – Data migration that supports the initial setup and configuration of the system.	P	S	S	P
<b>Data Conversion for Testing and Training</b> – Data migration that supports testing and training on the system.	P	S	S	P
<b>Production Data Conversion</b> – Data migration prior to go-live of all data required for initial production use.	P	S	S	P
<b>Testing</b>				
<b>Test Plan</b> – A description of the tests, responsibilities, and thresholds for verifying and validating that the delivered system meets the specifications in the Software Configuration Plan above, and satisfactorily meets CalBar's needs as defined therein.	S	P	P	S
<b>Unit Testing</b> – The testing of individual software components (i.e., interfaces, conversion software, etc.).	P	S	S	P
<b>Function Testing</b> – The testing of individual application functions (i.e., screens, forms, reports, workflow, etc.).	S	P	P	S
<b>Integration Testing</b> – The testing of the complete system in a pre-production environment.	S	P	P	S
<b>System Performance (Stress) Testing</b> – Load testing of the system to ensure that it meets performance specifications.	P	S	S	P
<b>Final Acceptance Testing**</b> – Testing of the system in the production environment for a period of 30 days following go-live.	S	P	S	P
<b>Training</b>				
<b>Training Plan</b> – A description of the content, participants, format, and timing of all required training to use and/or configure the proposed system.	P	S	S	P
<b>Training Materials</b> – The materials used as support for training courses, including proficiency assessments administered to measure the effectiveness of training.	P	S	S	P
<b>End User and Technical Guides</b> – The documentation on the proposed system provided to CalBar for its reference during use of the system.	P	S	S	P
<b>User Training</b> – Administration of required training courses for identified CalBar personnel.	P	S	S	P
<b>Support and Maintenance</b>				

## Appendix A

Project Deliverable	Roles and Responsibilities*			
	Completion		Review	
	Vendor	OCTC	Vendor	OCTC
<b><u>Support and Maintenance Plan (SMP)</u></b> – A description of the post-production roles and responsibilities for maintaining the installed hardware and software.	P	S	S	P
<b><u>Maintenance and Support Initiation</u></b> – The initiation of post-warranty support for the system.	S	P	P	S

\* Roles and Responsibilities:

P – Primary party with contractual responsibility for completion of a project deliverable.

S – Party responsible for supporting the primary party.

\*\* Final Acceptance Testing only occurs after acceptance of all previous tests.

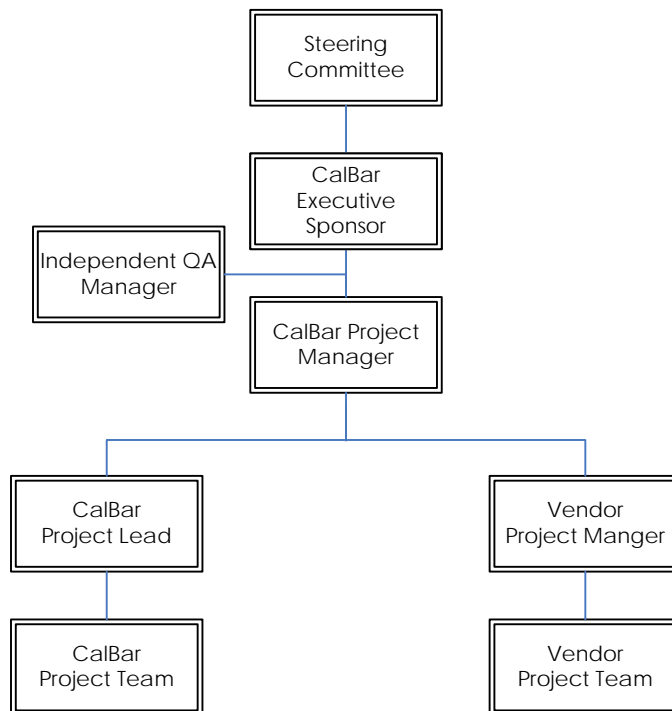
## 7. PROJECT MANAGEMENT

This section includes a brief description of recommended management and organization requirements to complete the CMS project successfully. A PMP documents the set of tools, techniques, methods and performance measures and procedures used to manage the project.

### 7.1 RECOMMENDED PROJECT ORGANIZATION

Exhibit 18, below, describes the recommended project organization.

**Exhibit 18 – Recommended Project Organization**



### 7.2 RECOMMENDED PROJECT INTERFACES

Below is a description of the organizational boundaries between the project and external entities. This includes, but is not limited to, the following:

- **CalBar** – The parent and acquiring organization,
- **Independent Quality Assurance Firm** – Third party responsible for providing independent QA during this proposed system replacement project,
- **IT** – The CalBar department and staff currently providing IT support for the current and replacement systems, and
- **Vendor** – The entity selected to supply the COTS system.

### 7.3 RECOMMENDED PROJECT ROLES AND RESPONSIBILITIES

The recommended roles and responsibilities for the project, including the following:

- **Steering Committee** – The Project Steering Committee is the apex of the project, which steers the project by approving the work plan, policies, implementation plan and strategies necessary to enable the project to function effectively with the participation of all concerned. The membership of the Steering Committee includes key management-level project stakeholders. For example, membership includes the Executive Sponsor, the Chief Information Officer (CIO) for CalBar who has primary responsibility to provide an IT management commitment and stake in the success of the project, and a senior executive from the selected vendor. The CalBar and vendor Project Managers and the independent QA representative attend all Steering Committee meetings.
- **CalBar Executive Sponsor** – The CalBar Executive Sponsor (i.e., the Chief Trial Counsel) is a business owner and not an IT executive, ensures CalBar political and financial support for this project and has senior-level authority for all aspects of the project. The Calbar Executive Sponsor has primary responsibility to provide a management commitment and stake in the success of the project. The CalBar Executive Sponsor chairs the Steering Committee.
- **Independent QA Manager** – The QA Manager is a third party consultant independent of CalBar and the vendor that will conduct ongoing review of processes and project deliverables to ensure they meet agreed upon quality standards. This includes providing monthly Steering Committee reports concerning deviations from quality standards and recommended actions to correct these deviations.
- **CalBar Project Manager** – The CalBar Project Manager, an internal CalBar staff member or a third party consultant hired under contract, is responsible for completion of all activities performed for the project. The CalBar Project Manager reports to the CalBar Project Steering Committee regarding all project



issues. The Project Manager from the selected COTS vendor reports to the CalBar Project Manager.

- **CalBar Project Lead** – The CalBar Project Lead coordinates the activities of the CalBar Project Team and its membership. Except for management issues that require the consideration of the Steering Committee, the CalBar Project Lead has authority over operational issues that arise.
- **CalBar Project Team** – The CalBar Project Team consists of various CalBar representatives familiar with CalBar operations to support the implementation of the project, such as, Subject Matter Experts (SMEs).

Exhibit 19, at the end of this section, summarizes the recommended Project Team roles and responsibilities.

### 7.4 RECOMMENDED PROJECT MANAGEMENT PROCESSES

The management of the project requires, at a minimum, preparation and maintenance of the following:

- **Human Resource Management** – Defines the project hierarchy, roles and responsibilities, and reporting relationships for key individuals and entities within the project (e.g., CalBar and Vendor Project Team, CalBar and Vendor project management, Steering Committee membership, CalBar Executive Sponsor, Vendor and CalBar Subject Matter Experts [SMEs]). It also describes the processes involved in getting, maintaining and replacing the human resources needed for, assigned to and working on the project.
- **Communication Management** – Identifies the method used throughout the project to identify, assign, track, escalate and resolve project issues. It also describes the requirements for the following:
  - Regular status reporting,
  - Key project personnel who will participate in project status meetings,
  - Frequency and type of meetings and
  - Nature of the status reports, including:
    - Weekly Status Reports delivered at Weekly Status Meetings, and
    - Monthly Status Reports delivered at Monthly Steering Committee Meetings.
- **Risk Management** – Identifies the method throughout the project to identify, prioritize and mitigate potential project risks. It also describes the requirements for risk management workshops held at one Project Team meeting per month and reported at Monthly Steering Committee Meetings.

## Appendix A

- **Time Management** – Involves a description of the steps required for timely completion of the project, e.g., task definition, sequencing, duration, control, reporting and maintenance. Specifically this includes the project work plan provided as a Gantt chart used to describe individual work activities and the relationships with other work activities. Work activities include individual tasks, the assignment of personnel resources, estimated duration, work products and predecessor and successor work activities. The Gantt chart provides appropriately sequenced activities, task durations, responsible resources, critical path, milestones and project deliverables.
- **Budget Management** – Identifies the method for establishing and tracking actual cost against the budget established for the project, including resource allocation, budget reporting requirements and procedures for request, review and approval of modifications to the baseline project budget (i.e., change orders).
- **Integrated Change Management** – Identifies the methods used to prepare (e.g., internal review of all documents before submission for approval and acceptance), identify and control the version of documents maintained in the project library. It also specifies the processes for the initial preparation of baseline deliverables, logging and analysis of change requests to these deliverables, tracking of change in progress and procedures for notifying project participants when CalBar and/or the vendor first establish a baseline deliverable or later agree to change it.
- **Quality Assurance Management** – Involves project oversight completed by an independent QA Manager to assure correct and verifiable adherence to project standards by all Project Team members. For example, QA describes the method for ensuring the quality and timeliness of project deliverables, ensuring that the project team will be able to:
  - Determine that minimum standards, i.e., approved baseline project schedule, Software Configuration Report, etc., are present to assure subsequent preparation of quality project deliverables,
  - Assure traceability between the baseline and each deliverable,
  - Identify deviations from baselines requiring updates to either the deliverable or the baseline, as appropriate and
  - Perform QA reviews to identify and execute corrective actions by comparing specific project activities and deliverables to the baselines described above.

Exhibit 17, above includes the recommended deliverables associated with these management processes, e.g., budget, schedule, risk and quality reporting. A summary of these recommended deliverables includes the following:

- **Weekly Project Status Report** – Includes the following:
  - Project Work Plan updates indicating progress against the baseline by actual and forecasted schedule and critical path for tasks and deliverables,
  - Approval of deliverables,
  - Report of changes to accepted baselines,
  - Identification of budget, schedule and quality issues and recommended resolution of these issues,
  - Lessons learned and associated corrective actions taken, and
  - An updated status report from the prior week based on input provided during the status meeting of that prior week.
- **Monthly Steering Committee Report** – Includes the following:
  - Project Work Plan updates indicating progress against the baseline by actual and forecasted schedule and critical path for tasks and deliverables,
  - Acceptance of deliverables,
  - Report of key changes to accepted baselines,
  - Identification of budget, schedule and quality issues requiring management attention and recommended resolution of these issues,
  - Lessons learned and associated corrective actions taken,
  - Monthly QA Report and
  - Monthly Risk Management Report.
- **Monthly Risk Management Report** – Identifies and prioritizes risks, mitigation strategies and the effectiveness of these strategies on successful project completion.
- **Monthly QA Report** – Includes all new and outstanding QA issues, their associated corrective actions and the effectiveness of these corrective actions on successful project completion.

### **7.5 RECOMMENDED DOCUMENT AND ISSUE TRACKING DATABASE**

We recommend the project maintain a Web-based library that includes an Issues Tracking Database (ITD). The Project Manager will maintain the ITD. Throughout the project, there must be a method for identifying and prioritizing issues that arise regarding project matters so that the Project Manager can effectively assign them to a project participant for resolution, schedule them for resolution and report on their status generally during Project Team or Steering Committee meetings. The ITD provides project management with the ability to identify and prioritize issues quickly, assign responsibility for their resolution to an individual, plan and track the resolution of the issue and establish resolution dates. The ITD must also support access to integral project documents, such as the updated project work plan. Issues posted to the ITD form the basis for discussions with project management during Project Team and Steering Committee meetings. All issues must either have an "open," i.e., unresolved, or "closed," i.e. resolved, status and will be maintained in the ITD so that they can be monitored over time. Lastly, the ITD must provide a roster of individuals assigned to the project and their contact information, e.g., office phone number and physical and email addresses.

## Appendix A

Exhibit 19 – Recommended Project Team Roles and Responsibilities

Role	Responsibility
Executive Sponsor	<ul style="list-style-type: none"><li>• Chairs the project steering committee</li><li>• Ensures appropriate stakeholder involvement in the project</li><li>• Ensures project supports strategic business direction of the organization</li><li>• Ensure access to the required organizational resources, e.g. budget, personnel, facilities.</li><li>• Provides budget accountability and contract signature authority</li><li>• Reviews and accepts project deliverables</li><li>• Makes policy decisions for the project</li><li>• Communicates with external entities and partners</li><li>• Oversees and assists in the resolution of quality, scope, risk, schedule and budget issues</li><li>• Provides leadership as project champion internal and external to CalBar</li><li>• Keeps upper management informed of project status</li><li>• Resolves issues on behalf of the project manager</li></ul>
CalBar Project Manager	<ul style="list-style-type: none"><li>• Keeps the Executive Sponsor informed of project progress</li><li>• Escalates unresolved issues to the next level of management</li><li>• Ensures project reporting is current</li><li>• Uses project objectives to manage project success</li><li>• Ensures accountability for delivery of project on-time, within budget and in accordance with pre-defined project quality standards</li><li>• Obtains required project services and personnel</li><li>• Ensures project supports stated user requirements</li><li>• Establishes initial statement of work documents</li><li>• Manages conflict resolution</li></ul>

## Appendix A

Role	Responsibility
	<ul style="list-style-type: none"> <li>• Establishes and update plans with actuals and forecasts</li> <li>• Manages deviations from plan</li> <li>• Oversees progress of vendor resources</li> <li>• Determines project resource requirements and enlists stakeholder support to obtain these resources</li> <li>• Ensures project follows industry, state and organization standards</li> <li>• Monitors and tracks project budget, schedule and quality against pre-defined project standards</li> <li>• Establishes and oversees project management controls for issue, change and risk management</li> <li>• Oversees project library for maintenance by the Project Librarian</li> <li>• Participates in ongoing QA reviews</li> <li>• Conducts lessons learned activities on an ongoing basis</li> <li>• Ensures IT involvement in appropriate tasks and on a timely basis</li> <li>• Manages trade-offs among quality, time and cost</li> <li>• Participates in project risk reviews and mitigation planning and execution</li> <li>• Manages the project team</li> <li>• Plans and initiates project activities</li> <li>• Controls project activities, providing leadership and direction</li> <li>• Establishes project management and technical processes to ensure project discipline according to industry, state and organization standards</li> <li>• Manages day-to-day technical issues</li> <li>• Develops project plans and deploys and directs project resources to complete project tasks and activities according to these plans</li> <li>• Tracks project budget and expenditures</li> <li>• Coordinates integration of project activities with</li> </ul>

## Appendix A

Role	Responsibility
	<p>other internal and external organization initiatives and projects</p> <ul style="list-style-type: none"> <li>• Oversees ongoing financial administration of the project</li> <li>• Ensures vendor contract compliance</li> <li>• Obtains and documents project approvals and changes</li> <li>• Documents obstacles and delays to project success</li> </ul>
CalBar Project Lead	<ul style="list-style-type: none"> <li>• Participates in project team meetings</li> <li>• Coordinates activities of CalBar staff in accordance with duties defined by the CalBar Project Manager</li> <li>• Helps communicate project status information to the Project Team</li> <li>• Maintains project communications</li> <li>• Coordinates meeting attendance, agendas and follow-up</li> <li>• Supports preparation of project presentation materials for Steering Committee, Project Team meetings, etc.</li> <li>• Ensures maintenance of project meeting minutes</li> </ul>
Vendor Project Manager	<ul style="list-style-type: none"> <li>• Provides solution, which complies with stated user requirements and all other contract deliverables</li> <li>• Provides project leadership</li> <li>• Works cooperatively with State agencies to prepared and provide timely deliverables</li> <li>• Participates in Project Team, Steering Committee and other advisory board meetings</li> <li>• Coordinates activities of vendor Project Team</li> <li>• Directs and oversees vendor staff responsible for Implementing and customizing the database and application</li> <li>• Directs and oversees vendor staff responsible for data conversion activities</li> <li>• Directs and oversees vendor staff responsible for systems interface development</li> </ul>

## Appendix A

Role	Responsibility
	<ul style="list-style-type: none"> <li>• Directs and oversees vendor staff responsible for test planning and execution</li> <li>• Directs and oversees vendor staff responsible for monitoring and optimizing the performance of the system</li> <li>• Directs and oversees vendor staff responsible for developing training strategies, programs, and support materials</li> <li>• Organizes and coordinates training</li> <li>• Manages the delivery of training to training staff that will train users and technical staff</li> <li>• Coordinates go-live</li> </ul>
Independent Quality Assurance Manager	<ul style="list-style-type: none"> <li>• Assures that quality work and quality deliverables will be built before doing work</li> <li>• Determines that quality work and quality deliverables did occur after work was done by providing Quality Control (QC)</li> <li>• Conducts QC inspections and testing of deliverables to identify their conformance with standards</li> <li>• Specifies corrective actions to assure conformance with standards, as required</li> <li>• Identifies where to exercise control and to what extent or frequency</li> <li>• Identifies and applies relevant reference standards to address conformance or non-conformance</li> </ul>
CalBar Project Librarian	<ul style="list-style-type: none"> <li>• Manages all records in the project library, e.g., issues and documents</li> <li>• Maintains project management records, including structure, versioning, storage and retrieval</li> <li>• Establishes, maintains and enforces project standards for project record classification, handling and storage</li> <li>• Establishes the Web-based storage facility for all project records</li> <li>• Ensures integrity of stored records</li> </ul>



## Appendix A

Role	Responsibility
	<ul style="list-style-type: none"> <li>• Coordinates record repository activity</li> <li>• Monitors and controls access to the Project Library</li> <li>• Identifies and resolves record conflicts,</li> <li>• Archives old records</li> </ul>
CalBar IT Support Representative	<ul style="list-style-type: none"> <li>• Helps coordinate definition of security profiles with users and implementation with the vendor</li> <li>• Participates in project team IT activities</li> <li>• Supports configuration of technology platform</li> <li>• Provides technical support during go-live</li> <li>• Coordinates the technical preparations of business operations for the application</li> <li>• Supports the software development staff's technical requirements</li> <li>• Coordinates activities with external system owners to assist in resolving interface issues</li> <li>• Coordinates activities at remote site locations</li> <li>• Coordinates interface development activities</li> <li>• Coordinates training installation activities</li> <li>• Coordinates data migration activities</li> <li>• Coordinates test development and execution activities</li> <li>• Organizes people, facilities and equipment needed for testing</li> <li>• Coordinates vendor preparation of test scripts with Test Team</li> <li>• Ensures traceability between the solution delivered by the vendor and the requirements defined by the users</li> <li>• Ensures vendor maintains requirements documentation are current to support traceability</li> <li>• Assists in testing processes and deliverables</li> <li>• Reviews vendor deliverables and reports for acceptance and defects</li> <li>• Assists in resolution of testing issues</li> </ul>

## Appendix A

Role	Responsibility
CalBar Project IT Manager	<ul style="list-style-type: none"> <li>• Purchases and installs any required software to support the project</li> <li>• Identifies and prepares suitable facilities for project equipment and staff</li> <li>• Configures system and ensures operational readiness for data migration, testing, training, production, etc.</li> <li>• Handles code change management, e.g., migration between development, testing, QA, production</li> <li>• Participates in project team activities</li> <li>• Coordinates the engineering and implementation of network services to support end user operations</li> <li>• Serves as system administrator for the server complex</li> <li>• Coordinates resolution of technology related issues (e.g., support and maintenance, installation and configuration of required equipment, system performance testing, go-live.)</li> </ul>
User Representative(s) and Subject Matter Experts (SMEs)	<ul style="list-style-type: none"> <li>• Serves as the business SMEs on the project team</li> <li>• Facilitates resolving business and technical issues</li> <li>• Plans and conducts all acceptance testing</li> <li>• Plans and conducts system training</li> <li>• Participate in quality reviews to ensure business needs are met by computer applications developed by the vendor</li> <li>• Assists in data migration planning and testing</li> <li>• Assists definition of interface requirements and testing</li> <li>• Participates as "Super Users" during implementation planning and in coordinating go-live with the user community</li> <li>• Assists in issue, risk, change and problem identification, tracking and resolution</li> </ul>

## **8. APPENDIX A – PROJECT OBJECTIVES, MEASURABLE OUTCOMES AND RISKS**

Appendix A includes the detailed description of the project objectives and their relationship to measurable outcomes and risks. We met with representatives of OCTC and facilitated the definition of these project objectives.

Included are primary and secondary objectives. Primary objectives focus the project. Secondary objectives permit examination of supplemental issues that, while important, do not have the same level of interest in the project. If, for example, resources are scarce during implementation of portions of the system that support the primary objectives, focusing on achieving the primary objects should take priority over the secondary ones.

## Appendix A

State Bar of California - Office of Chief Trial Counsel		
Case Management System Objectives, Outcomes and Risks		
Objective	Outcomes	Risks
<b>Primary Objectives</b>		
<p><u><b>Eliminate duplicate data entry associated with populating document templates</b></u> – Improve accuracy and timeliness of documents by populating templates with appropriate case information, without duplicate data entry.</p>	<ul style="list-style-type: none"> <li>• <u><b>Improved information accuracy and consistency</b></u> (Currently Measured) – <i>Reduce reliance on hand counts and separate systems required to support functions not currently available.</i></li> <li>• <u><b>Reduced time to perform function</b></u> (Currently Measured) – <i>Identify time to perform functions before and after introduction of case management system.</i></li> <li>• <u><b>Reduced duplicate data entry</b></u> (Currently Unmeasured) – <i>Perform functions once, eliminating duplication of effort.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <u><b>Fear of change may cause reduced buy-in</b></u> – <i>Potential major changes to workflow due to the new system may intimidate staff and result in reduced acceptance.</i></li> <li>• <u><b>Fear of layoffs may result in reduced buy-in</b></u> – <i>Staff perception that system will eliminate their position, or require reassignment, may limit acceptance</i></li> </ul>
<p><u><b>Eliminate reliance on multiple manual and automated systems</b></u> – Reduce inaccuracies and inconsistencies caused by reliance on information from multiple manual and automated systems.</p>	<ul style="list-style-type: none"> <li>• <u><b>Improved access to management information</b></u> (Currently Measured) – <i>Increase ease of access to management information.</i></li> <li>• <u><b>Improved information accuracy and consistency</b></u> (Currently</li> </ul>	<ul style="list-style-type: none"> <li>• <u><b>Fear of change may cause reduced buy-in</b></u> – <i>Potential major changes to workflow due to the new system may intimidate staff and result in reduced acceptance.</i></li> <li>• <u><b>Fear of layoffs may result in</b></u></li> </ul>

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State Bar of California - Office of Chief Trial Counsel		
Case Management System Objectives, Outcomes and Risks		
Objective	Outcomes	Risks
	<p>Measured) – <i>Reduce reliance on hand counts and separate systems required to support functions not currently available.</i></p> <ul style="list-style-type: none"> <li>• <b><u>Improved reporting</u></b> (Currently Measured) – <i>Provide reports that identify hidden trends, patterns and relationships among cases and parties to these cases.</i></li> <li>• <b><u>Reduced time to perform function</u></b> (Currently Measured) – <i>Identify time to perform functions before and after introduction of case management system.</i></li> <li>• <b><u>Reduced duplicate data entry</u></b> (Currently Unmeasured) – <i>Perform functions once, eliminating duplication of effort.</i></li> </ul>	<p><b><u>reduced buy-in</u></b> – <i>Staff perception that system will eliminate their position, or require reassignment, may limit acceptance</i></p> <ul style="list-style-type: none"> <li>• <b><u>Staff may fear performance reprisals</u></b> – <i>Increased accountability due to more accurate management reporting may result in decisions that penalize staff for their performance, and cause them to resist using the system.</i></li> </ul>
<p><b><u>Maximize Effectiveness of Personnel Resources</u></b> – <i>Use workflow management technology with the selected CMS option to make OCTC operations less repetitive, faster and cheaper.</i></p>	<ul style="list-style-type: none"> <li>• <b><u>Improved access to management information</u></b> (Currently Measured) – <i>Increase ease of access to management information.</i></li> <li>• <b><u>Improved approval mechanism</u></b></li> </ul>	<ul style="list-style-type: none"> <li>• <b><u>Fear of change may cause reduced buy-in</u></b> – <i>Potential major changes to workflow due to the new system may intimidate staff and result in reduced acceptance.</i></li> </ul>

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State Bar of California - Office of Chief Trial Counsel		
Case Management System Objectives, Outcomes and Risks		
Objective	Outcomes	Risks
	<p>(Currently Measured) – Provide approval or denial and allow access to the outcome as required.</p> <ul style="list-style-type: none"> <li>• <b><u>Improved information accuracy and consistency</u></b> (Currently Measured) – Reduce reliance on hand counts and separate systems required to support functions not currently available.</li> <li>• <b><u>Improved reporting</u></b> (Currently Measured) – Provide reports that identify hidden trends, patterns and relationships among cases and parties to these cases.</li> <li>• <b><u>Reduced time to perform function</u></b> (Currently Measured) – Identify time to perform functions before and after introduction of case management system.</li> <li>• <b><u>Reduced duplicate data entry</u></b> (Currently Unmeasured) – Perform functions once, eliminating duplication of effort.</li> </ul>	<ul style="list-style-type: none"> <li>• <b><u>Fear of layoffs may result in reduced buy-in</u></b> – Staff perception that system will eliminate their position, or require reassignment, may limit acceptance</li> <li>• <b><u>Staff may fear performance reprisals</u></b> – Increased accountability due to more accurate management reporting may result in decisions that penalize staff for their performance, and cause them to resist using the system.</li> </ul>

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State Bar of California - Office of Chief Trial Counsel		
Case Management System Objectives, Outcomes and Risks		
Objective	Outcomes	Risks
<p><b><u>Improve Case Management by Complying with Calbar IT Objectives</u></b> – Conform to CalBar IT objectives by implementing an OCTC CMS that promotes improved system flexibility, cost efficiency, integration, and software functionality.</p>	<ul style="list-style-type: none"> <li>• <b><u>Improved access to management information</u></b> (Currently Measured) – Increase ease of access to management information.</li> <li>• <b><u>Improved reporting</u></b> (Currently Measured) – Provide reports that identify hidden trends, patterns and relationships among cases and parties to these cases.</li> </ul>	<ul style="list-style-type: none"> <li>• <b><u>Fear of change may cause reduced buy-in</u></b> – Potential major changes to workflow due to the new system may intimidate staff and result in reduced acceptance.</li> <li>• <b><u>Fear of layoffs may result in reduced buy-in</u></b> – Staff perception that system will eliminate their position, or require reassignment, may limit acceptance</li> </ul>
<p><b><u>Improve personnel performance management</u></b> – Monitor adherence to performance objectives and re-allocate workload as priorities change by providing workload information by personnel, workgroup, etc.</p>	<ul style="list-style-type: none"> <li>• <b><u>Improved access to management information</u></b> (Currently Measured) – Increase ease of access to management information.</li> <li>• <b><u>Improved information accuracy and consistency</u></b> (Currently Measured) – Reduce reliance on hand counts and separate systems required to support functions not currently available.</li> <li>• <b><u>Improved reporting</u></b> (Currently Measured) – Provide reports that identify hidden trends, patterns</li> </ul>	<ul style="list-style-type: none"> <li>• <b><u>Fear of layoffs may result in reduced buy-in</u></b> – Staff perception that system will eliminate their position, or require reassignment, may limit acceptance</li> <li>• <b><u>Higher expectations may not align with resource availability</u></b> – Improved information on performance may set higher expectations without a corresponding increase in resources required to meet these expectations.</li> <li>• <b><u>Staff may fear performance</u></b></li> </ul>

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Case Management System Objectives, Outcomes and Risks		
Objective	Outcomes	Risks
	<p><i>and relationships among cases and parties to these cases.</i></p> <ul style="list-style-type: none"> <li>• <b><u>Reduced time to perform function</u></b> (Currently Measured) – <i>Identify time to perform functions before and after introduction of case management system.</i></li> </ul>	<p><b><u>reprisals</u></b> – Increased accountability due to more accurate management reporting may result in decisions that penalize staff for their performance, and cause them to resist using the system.</p>
<p><b><u>Improve quality of information provided to stakeholders</u></b> – Respond more accurately and timely to ad hoc requests for information required by stakeholders, e.g., Supreme Court, Legislature, Board of Governors, etc.</p>	<ul style="list-style-type: none"> <li>• <b><u>Improved access to management information</u></b> (Currently Measured) – <i>Increase ease of access to management information.</i></li> <li>• <b><u>Improved information accuracy and consistency</u></b> (Currently Measured) – <i>Reduce reliance on hand counts and separate systems required to support functions not currently available.</i></li> <li>• <b><u>Improved reporting</u></b> (Currently Measured) – <i>Provide reports that identify hidden trends, patterns and relationships among cases and parties to these cases.</i></li> <li>• <b><u>Reduced time to perform</u></b></li> </ul>	<ul style="list-style-type: none"> <li>• <b><u>Fear of change may cause reduced buy-in</u></b> – <i>Potential major changes to workflow due to the new system may intimidate staff and result in reduced acceptance.</i></li> <li>• <b><u>Higher expectations may not align with resource availability</u></b> – <i>Improved information on performance may set higher expectations without a corresponding increase in resources required to meet these expectations.</i></li> <li>• <b><u>Staff may fear performance reprisals</u></b> – Increased accountability due to more accurate management reporting</li> </ul>



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Case Management System Objectives, Outcomes and Risks		
Objective	Outcomes	Risks
	<p><u>function</u> (Currently Measured) – Identify time to perform functions before and after introduction of case management system.</p> <ul style="list-style-type: none"> <li>• <u>Reduced duplicate data entry</u> (Currently Unmeasured) – Perform functions once, eliminating duplication of effort.</li> </ul>	<p>may result in decisions that penalize staff for their performance, and cause them to resist using the system.</p>
<p><u>Reduce fragmentation of case information</u> – Provide a complete view of all available information, e.g., events, throughout an entire case lifecycle (i.e., intake, investigation, re-opening, prosecution and litigation of a complaint).</p>	<ul style="list-style-type: none"> <li>• <u>Improved access to management information</u> (Currently Measured) – Increase ease of access to management information.</li> <li>• <u>Improved approval mechanism</u> (Currently Measured) – Provide approval or denial and allow access to the outcome as required.</li> <li>• <u>Improved information accuracy and consistency</u> (Currently Measured) – Reduce reliance on hand counts and separate systems required to support functions not currently available.</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Fear of change may cause reduced buy-in</u> – Potential major changes to workflow due to the new system may intimidate staff and result in reduced acceptance.</li> <li>• <u>Higher expectations may not align with resource availability</u> – Improved information on performance may set higher expectations without a corresponding increase in resources required to meet these expectations.</li> <li>• <u>Staff may fear performance reprisals</u> – Increased accountability due to more</li> </ul>

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State Bar of California - Office of Chief Trial Counsel		
Case Management System Objectives, Outcomes and Risks		
Objective	Outcomes	Risks
	<ul style="list-style-type: none"> <li>• <b><u>Improved reporting</u></b> (Currently Measured) – <i>Provide reports that identify hidden trends, patterns and relationships among cases and parties to these cases.</i></li> <li>• <b><u>Reduced time to perform function</u></b> (Currently Measured) – <i>Identify time to perform functions before and after introduction of case management system.</i></li> <li>• <b><u>Reduced duplicate data entry</u></b> (Currently Unmeasured) – <i>Perform functions once, eliminating duplication of effort.</i></li> </ul>	<p><i>accurate management reporting may result in decisions that penalize staff for their performance, and cause them to resist using the system.</i></p>
<b>Secondary Objectives</b>		
<p><b><u>Track all parties to identify potential case connections</u></b> – Enable detection of trends, relevant information and patterns to find relationships between parties, including attorneys and non-attorneys, involved in multiple investigations and complaints, e.g., Unauthorized Practice of Law (UPL), etc.</p>	<ul style="list-style-type: none"> <li>• <b><u>Improved access to management information</u></b> (Currently Measured) – <i>Increase ease of access to management information.</i></li> <li>• <b><u>Improved information accuracy and consistency</u></b> (Currently Measured) – <i>Reduce reliance on hand counts and separate</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b><u>Higher expectations may not align with resource availability</u></b> – <i>Improved information on performance may set higher expectations without a corresponding increase in resources required to meet these expectations.</i></li> </ul>

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State Bar of California - Office of Chief Trial Counsel		
Case Management System Objectives, Outcomes and Risks		
Objective	Outcomes	Risks
	<p><i>systems required to support functions not currently available.</i></p> <ul style="list-style-type: none"> <li>• <b><u>Improved reporting</u></b> (Currently Measured) – <i>Provide reports that identify hidden trends, patterns and relationships among cases and parties to these cases.</i></li> <li>• <b><u>Reduced time to perform function</u></b> (Currently Measured) – <i>Identify time to perform functions before and after introduction of case management system.</i></li> <li>• <b><u>Reduced duplicate data entry</u></b> (Currently Unmeasured) – <i>Perform functions once, eliminating duplication of effort.</i></li> </ul>	
<p><b><u>Track approvals</u></b> – Identify items requiring approval, route them to the appropriate party, approve or deny items and provide outcome to appropriate parties.</p>	<ul style="list-style-type: none"> <li>• <b><u>Improved approval mechanism</u></b> (Currently Measured) – <i>Provide approval or denial and allow access to the outcome as required.</i></li> <li>• <b><u>Improved information accuracy and consistency</u></b> (Currently Measured) – <i>Reduce reliance</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b><u>Fear of layoffs may result in reduced buy-in</u></b> – <i>Staff perception that system will eliminate their position, or require reassignment, may limit acceptance</i></li> <li>• <b><u>Staff may fear performance reprisals</u></b> – <i>Increased accountability due to more</i></li> </ul>

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State Bar of California - Office of Chief Trial Counsel		
Case Management System Objectives, Outcomes and Risks		
Objective	Outcomes	Risks
	<p><i>on hand counts and separate systems required to support functions not currently available.</i></p> <ul style="list-style-type: none"> <li>• <b><u>Improved reporting</u></b> (Currently Measured) – <i>Provide reports that identify hidden trends, patterns and relationships among cases and parties to these cases.</i></li> <li>• <b><u>Reduced time to perform function</u></b> (Currently Measured) – <i>Identify time to perform functions before and after introduction of case management system.</i></li> </ul>	<p><i>accurate management reporting may result in decisions that penalize staff for their performance, and cause them to resist using the system.</i></p>

## **9. APPENDIX B – ESTIMATED SUPPORT FOR USER REQUIREMENTS**

Appendix B includes a gap analysis, which identifies the potential difference between what CalBar is doing currently and where it wants to go in the future. We prepared this gap analysis by doing the following:

1. We prepared user requirements by facilitating an OCTC team composed of business representatives, and
2. We then compared these requirements to the current CMS, a representative COTS solution and a representative transfer option. We conducted this comparison by interviewing a CalBar IT representative about the status quo, upgrade and re-platform options, a representative COTS vendor and a representative jurisdiction that could transfer their system.

## Appendix A

<u>Options Analysis Results</u>				
<u>Requirement Area</u>	<u>COTS</u>	<u>CalBar</u>	<u>Transfer</u>	
<b>Activity Diagrams</b>				
1. Identify member or non-member	●	●	●	
2. Identify case type	●	●	●	
3. Assign as complex case	●	●	○	
4. Determine Rule of Limitations (ROL)	●	●	●	
5. Prioritize case	●	●	○	
6. Receive original jurisdiction complaint	●	●	○	
7. Receive bank reportable action	●	●	○	
8. Receive contempt reportable action	●	●	○	
9. Receive conviction	●	●	○	
10. Receive judgment reportable action	●	●	○	
11. Receive malpractice insurance claim reportable action	●	●	○	
12. Receive potential Case of Public Interest (CPI)	●	●	○	
13. Receive reciprocal discipline	●	●	○	
14. Receive sanction reportable action	●	●	○	
15. Mediate complaint	●	●	○	
16. Request summary disbarment	●	●	○	
17. Initiate investigation	●	●	●	
18. Interview witness	●	●	○	
19. Obtain documentary evidence	●	●	○	
20. Prepare non-financial subpoena	●	●	●	
21. Prepare non-trust account financial subpoena	●	●	●	
22. Prepare trust account subpoena	●	●	●	
23. Prepare 2302 waiver	●	●	●	
24. Prepare non-complaining client waiver	●	●	●	
25. Prepare public comment waiver	●	●	●	
26. Conduct further investigation	●	●	○	
27. Fail to cooperate with State Bar Investigation 6068(i)	●	●	○	
28. Issue warning letter	●	●	●	
29. Resign with charges pending	●	●	○	
30. Resolve investigation	●	●	○	
31. Determine resolution	●	●	●	
32. File Notice of Disciplinary Charges (NDC)	●	●	●	
33. Receive 6007(b)(2) case	●	●	○	
34. Receive 6007(b)(3) case	●	●	○	
35. Receive 6007(c)(1) case	●	●	○	
36. Receive 6007(c)(2) case	●	●	○	
37. Receive 6007(c)(3) case	●	●	○	
38. Receive legal specialization case	●	●	○	
39. Receive violation of Supreme Court order	●	●	○	
40. Reinstate 6007(c)	●	●	○	
41. Seek mini-reinstatement	●	●	○	
42. Transfer to active enrollment from 6007(b)	●	●	○	
43. Receive answer to Notice of Disciplinary Charges (NDC)	●	●	○	
44. Supervise Lawyer Assistance Program (LAP) program participant	●	●	○	
45. Conduct status conference	●	●	●	
46. Conduct settlement conference	●	●	●	
47. Conduct discovery	●	●	●	
48. Prepare deposition	●	●	●	
49. Prepare interrogatories	●	●	●	

## Appendix A

<u>Options Analysis Results</u>				
<u>Requirement Area</u>	<u>COTS</u>	<u>CalBar</u>	<u>Transfer</u>	
50. Prepare request for admissions	●	◐	◐	
51. Prepare request for genuineness of documents	●	◐	◐	
52. Prepare request for production of documents	●	◐	◐	
53. Prepare motion to quash	●	◐	◐	
54. Receive motion to quash subpoena	●	◐	◐	
55. Stipulate	●	◐	◐	
56. Prepare for trial	●	◐	◐	
57. Determine trial type	●	◐	◐	
58. Try 6007(b)(2) case	●	◐	◐	
59. Try 6007(b)(3) case	●	◐	◐	
60. Try 6007(c)(2) case	●	◐	◐	
61. Try case	●	◐	◐	
62. Try mini-reinstatement case	●	◐	◐	
63. Determine whether to assume jurisdiction of law practice	●	◐	○	
64. Prepare motion to terminate jurisdiction	●	◐	○	
65. Assume jurisdiction over law practice in 6180 or 6190 matter	●	○	○	
66. Administer assumption of practice	●	●	○	
67. Administer client funds	●	○	○	
68. Try Superior Court case	●	○	◐	
69. Complete assumption of practice	●	○	○	
70. Conduct interlocutory review	●	◐	○	
71. Conduct opposing party interlocutory review	●	◐	○	
72. Stay proceedings	●	◐	◐	
73. Appeal by Respondent	●	◐	◐	
74. Appeal case	◐	◐	◐	
75. Conduct summary review	●	◐	○	
76. Appeal to Supreme Court	●	◐	◐	
77. Issue cost certificate	●	○	○	
78. Challenge cost certificate by Respondent	●	◐	○	
79. Challenge Respondent's cost invoice by Office of the Chief Trial Counsel (OCTC)	●	◐	○	
80. Seek moral character determination	●	◐	○	
81. Seek reinstatement	●	◐	○	
82. Complete moral character determination	●	◐	○	
83. Complete seeking reinstatement	●	◐	○	
84. Try moral character or reinstatement case	●	◐	◐	
85. Conduct internal audit	●	◐	○	
86. Conduct internal review	●	◐	○	
87. Monitor abate or held case	●	◐	○	
88. Reopen case	●	◐	◐	
89. Notify Audit and Review	●	◐	○	
90. Close file	●	◐	◐	
91. Conduct Ethics School	◐	○	○	
<b>Activity Diagrams Fully Supported:</b>	78 of 91: <b>85.7%</b>	6 of 91: <b>6.6%</b>	1 of 91: <b>1.1%</b>	
<b>Activity Diagrams Partially Supported:</b>	13 of 91: <b>14.3%</b>	79 of 91: <b>86.8%</b>	38 of 91: <b>41.8%</b>	
<b>Activity Diagrams Not Supported:</b>	0 of 91: <b>0.0%</b>	6 of 91: <b>6.6%</b>	52 of 91: <b>57.1%</b>	

### DATA OBJECTS

1. Assistant Chief Trial Counsel (ACTC)	●	●	●
2. Assistant Chief Trial Counsel (ACTC) Business Telephone Number	●	○	●
3. Assistant Chief Trial Counsel (ACTC) State Bar Address	●	○	●
4. Assistant Chief Trial Counsel (ACTC) True Name	●	●	●

## Appendix A

<u>Options Analysis Results</u>				
<u>Requirement Area</u>	<u>COTS</u>	<u>CalBar</u>	<u>Transfer</u>	
5. Bar Association	●	○	●	
6. Bar Association Business Telephone Number	●	○	●	
7. Bar Association Facsimile Telephone Number	●	○	●	
8. Bar Association Mailing Address	●	○	●	
9. Board of Legal Specialization	●	○	●	
10. Board of Legal Specialization Business Telephone Number	●	○	●	
11. Business Account	●	○	○	
12. Business	●	○	●	
13. Business Business Telephone Number	●	○	●	
14. Business Check	●	○	○	
15. Business Facsimile Telephone Number	●	○	●	
16. Business Mailing Address	●	○	●	
17. Business Relationship	●	○	●	
18. Case Activity Log	●	●	●	
19. Case Allegation	●	●	●	
20. Case	●	●	●	
21. Case Case Condition	●	●	●	
22. Case Case Processing Code	●	●	●	
23. Case Case Status	●	●	●	
24. Case Deadline Tracking	●	●	●	
25. Case Disposition	●	●	●	
26. Case Elapsed Time Tracking	●	●	○	
27. Case Lifecycle Tracking	●	○	○	
28. Chief Trial Counsel (CTC)	●	●	●	
29. Chief Trial Counsel (CTC) True Name	●	●	●	
30. Client Security Fund (CSF) Business Telephone Number	●	○	●	
31. Client Security Fund (CSF)	●	○	○	
32. Client Security Fund (CSF) State Bar Address	●	○	●	
33. Client Trust Account School Business Telephone Number	●	○	●	
34. Client Trust Account School	●	○	○	
35. Client Trust Account School State Bar Address	●	○	●	
36. Committee of Bar Examiners (CBE) Business Telephone Number	●	○	●	
37. Committee of Bar Examiners (CBE)	●	○	○	
38. Committee of Bar Examiners (CBE) State Bar Address	●	○	●	
39. Complaining Witness (CW) Address of Record	●	○	●	
40. Complaining Witness (CW) Alias	●	○	●	
41. Complaining Witness (CW) Business Telephone Number	●	○	●	
42. Complaining Witness (CW) Cellular Telephone Number	●	○	●	
43. Complaining Witness (CW) Check	●	○	○	
44. Complaining Witness (CW)	●	●	●	
45. Complaining Witness (CW) Facsimile Telephone Number	●	○	●	
46. Complaining Witness (CW) Home Telephone Number	●	○	●	
47. Complaining Witness (CW) Mailing Address	●	○	●	
48. Complaining Witness (CW) Relationship	●	○	●	
49. Complaining Witness (CW) True Name	●	●	●	
50. Complaint Analyst Business Telephone Number	●	○	●	
51. Complaint Analyst	●	●	●	
52. Complaint Analyst State Bar Address	●	○	●	
53. Complaint Analyst True Name	●	●	●	
54. Correspondence	●	○	●	
55. Correspondence Deadline Tracking	●	●	●	



## Appendix A

<u>Options Analysis Results</u>				
<u>Requirement Area</u>	<u>COTS</u>	<u>CalBar</u>	<u>Transfer</u>	
56. Correspondence Document Boilerplate	●	○	●	
57. Cost Certificate	○	○	○	
58. Cost Certificate Deadline Tracking	●	●	●	
59. Cost Certificate Document Boilerplate	●	○	●	
60. Counsel for Member or Non-Member Address of Record	●	○	●	
61. Counsel for Member or Non-Member Business Telephone Number	●	○	●	
62. Counsel for Member or Non-Member Cellular Telephone Number	●	○	●	
63. Counsel for Member or Non-Member	●	●	●	
64. Counsel for Member or Non-Member Facsimile Telephone Number	●	○	●	
65. Counsel for Member or Non-Member Mailing Address	●	○	●	
66. Counsel for Member or Non-Member True Name	●	●	●	
67. Court Business Telephone Number	●	○	●	
68. Court	●	●	●	
69. Court Facsimile Telephone Number	●	○	●	
70. Court Mailing Address	●	○	●	
71. Criminal Charge	●	●	●	
72. Deputy Chief Trial Counsel (DCTC)	●	●	●	
73. Deputy Chief Trial Counsel (DCTC) True Name	●	●	●	
74. Deputy Trial Counsel (DTC) Business Telephone Number	●	○	●	
75. Deputy Trial Counsel (DTC)	●	●	●	
76. Deputy Trial Counsel (DTC) Facsimile Telephone Number	●	○	●	
77. Deputy Trial Counsel (DTC) State Bar Address	●	○	●	
78. Deputy Trial Counsel (DTC) True Name	●	●	●	
79. Ethics School Business Telephone Number	●	○	●	
80. Ethics School	●	○	○	
81. Ethics School State Bar Address	●	○	●	
82. Expert Witness Address of Record	●	○	●	
83. Expert Witness Alias	●	○	●	
84. Expert Witness Business Telephone Number	●	○	●	
85. Expert Witness Cellular Telephone Number	●	○	●	
86. Expert Witness	●	○	○	
87. Expert Witness Facsimile Telephone Number	●	○	●	
88. Expert Witness Home Telephone Number	●	○	●	
89. Expert Witness Mailing Address	●	○	●	
90. Expert Witness Relationship	●	○	●	
91. Expert Witness State Bar Address	●	○	●	
92. Expert Witness True Name	●	●	●	
93. Fee Arbitration Business Telephone Number	●	○	●	
94. Fee Arbitration Facsimile Telephone Number	●	○	●	
95. Fee Arbitration	●	○	○	
96. Fee Arbitration Mailing Address	●	○	●	
97. Fee Arbitration State Bar Address	●	○	●	
98. Financial Institution Account	●	○	○	
99. Financial Institution Business Telephone Number	●	○	●	
100. Financial Institution Facsimile Telephone Number	●	○	●	
101. Financial Institution	●	●	○	
102. Financial Institution Mailing Address	●	○	●	
103. Form Deadline Tracking	●	●	●	
104. Form Document Boilerplate	●	○	●	
105. Form	●	○	●	
106. Government Agency Business Telephone Number	●	○	●	

## Appendix A

<u>Options Analysis Results</u>				
<u>Requirement Area</u>	<u>COTS</u>	<u>CalBar</u>	<u>Transfer</u>	
107. Government Agency Check	●	○	○	
108. Government Agency Facsimile Telephone Number	●	○	●	
109. Government Agency	●	○	●	
110. Government Agency Mailing Address	●	○	●	
111. Insurance Carrier Business Telephone Number	●	○	●	
112. Insurance Carrier Check	●	○	○	
113. Insurance Carrier Facsimile Telephone Number	●	○	●	
114. Insurance Carrier	●	●	○	
115. Insurance Carrier Mailing Address	●	○	●	
116. Insurance Claim	●	●	○	
117. Inventory Box	○	○	○	
118. Inventory Deadline Tracking	●	●	●	
119. Inventory	○	○	○	
120. Inventory Item	○	○	○	
121. Inventory Lifecycle Tracking	●	○	○	
122. Investigator Business Telephone Number	●	○	●	
123. Investigator Facsimile Telephone Number	●	○	●	
124. Investigator	●	●	●	
125. Investigator State Bar Address	●	○	●	
126. Investigator True Name	●	●	●	
127. Job Tracking	●	●	○	
128. Law Firm Business Telephone Number	●	○	●	
129. Law Firm Check	●	○	○	
130. Law Firm Facsimile Telephone Number	●	○	●	
131. Law Firm	●	○	○	
132. Law Firm Mailing Address	●	○	●	
133. Law Firm Relationship	●	○	●	
134. Lawsuit	●	●	○	
135. Lawyer Assistance Program (LAP) Business Telephone Number	●	○	●	
136. Lawyer Assistance Program (LAP)	●	○	○	
137. Lawyer Assistance Program (LAP) Mailing Address	●	○	●	
138. Lawyer Assistance Program (LAP) State Bar Address	●	○	●	
139. Loss	●	○	○	
140. Mandatory Continuing Legal Education (MCLE) Class	●	○	○	
141. Mediation Business Telephone Number	●	○	●	
142. Mediation Deadline Tracking	●	●	●	
143. Mediation Facsimile Telephone Number	●	○	●	
144. Mediation Mailing Address	●	○	●	
145. Mediation	●	○	○	
146. Member Account	●	○	○	
147. Member Address of Record	●	○	●	
148. Member Alias	●	○	●	
149. Member Business Telephone Number	●	○	●	
150. Member Cellular Telephone Number	●	○	●	
151. Member Check	●	○	○	
152. Member Facsimile Telephone Number	●	○	●	
153. Member Home Telephone Number	●	○	●	
154. Member Mailing Address	●	○	●	
155. Member	●	●	●	
156. Member Relationship	●	○	●	
157. Member True Name	●	●	●	

## Appendix A

<u>Options Analysis Results</u>				
<u>Requirement Area</u>	<u>COTS</u>	<u>CalBar</u>	<u>Transfer</u>	
158. Memorandum Deadline Tracking	●	●	●	
159. Memorandum Document Boilerplate	●	○	●	
160. Memorandum	●	○	●	
161. Non-Member Account	●	○	○	
162. Non-Member Alias	●	○	●	
163. Non-Member Business Telephone Number	●	○	●	
164. Non-Member Cellular Telephone Number	●	○	●	
165. Non-Member Check	●	○	○	
166. Non-Member Facsimile Telephone Number	●	○	●	
167. Non-Member Home Telephone Number	●	○	●	
168. Non-Member Mailing Address	●	○	●	
169. Non-Member	●	●	●	
170. Non-Member Relationship	●	○	●	
171. Non-Member True Name	●	●	●	
172. Other Persons Address of Record	●	○	●	
173. Other Persons Alias	●	○	●	
174. Other Persons Business Telephone Number	●	○	●	
175. Other Persons Cellular Telephone Number	●	○	●	
176. Other Persons Facsimile Telephone Number	●	○	●	
177. Other Persons Home Telephone Number	●	○	●	
178. Other Persons Mailing Address	●	○	●	
179. Other Persons	●	○	●	
180. Other Persons Relationship	●	○	●	
181. Other Persons True Name	●	●	●	
182. Outside Examiner Address of Record	●	○	●	
183. Outside Examiner Alias	●	○	●	
184. Outside Examiner Business Telephone Number	●	○	●	
185. Outside Examiner Facsimile Telephone Number	●	○	●	
186. Outside Examiner Mailing Address	●	○	●	
187. Outside Examiner	●	●	○	
188. Outside Examiner True Name	●	●	●	
189. Pleading Deadline Tracking	●	●	●	
190. Pleading Document Boilerplate	●	○	●	
191. Pleading	●	○	●	
192. Probation Department Business Telephone Number	●	○	●	
193. Probation Department Facsimile Telephone Number	●	○	●	
194. Probation Department	●	○	●	
195. Registration Book	●	○	○	
196. Registration Book Registration Book Entry	●	○	○	
197. Related Case	●	●	●	
198. Sanction	●	○	●	
199. State Bar Court (SBC) Business Telephone Number	●	○	●	
200. State Bar Court (SBC) Facsimile Telephone Number	●	○	●	
201. State Bar Court (SBC) State Bar Address	●	○	●	
202. State Bar Court (SBC)	●	●	●	
203. Stipulation Document Boilerplate	●	○	●	
204. Stipulation	●	○	○	
205. Subpoena Deadline Tracking	●	●	●	
206. Subpoena Document Boilerplate	●	○	●	
207. Subpoena	●	●	●	
208. Support Staff Business Telephone Number	●	○	●	

## Appendix A

<u>Options Analysis Results</u>			
<u>Requirement Area</u>	<u>COTS</u>	<u>CalBar</u>	<u>Transfer</u>
209. Support Staff Facsimile Telephone Number	●	○	●
210. Support Staff State Bar Address	●	○	●
211. Support Staff	●	●	●
212. Support Staff True Name	●	●	●
213. Team	●	●	●
214. Team Membership	○	●	●
215. Tolling Provision Elapsed Time Tracking	●	●	○
216. Tolling Provision	○	●	○
217. Witness Account	●	○	○
218. Witness Address of Record	●	○	●
219. Witness Alias	●	○	●
220. Witness Business Telephone Number	●	○	●
221. Witness Cellular Telephone Number	●	○	●
222. Witness Check	●	○	○
223. Witness Facsimile Telephone Number	●	○	●
224. Witness Home Telephone Number	●	○	●
225. Witness Mailing Address	●	○	●
226. Witness Relationship	●	○	●
227. Witness True Name	●	●	●
228. Witness	●	○	●
<b>Data Objects Fully Supported:</b>	203 of 228: <b>89.0%</b>	52 of 228: <b>22.8%</b>	158 of 228: <b>69.3%</b>
<b>Data Objects Partially Supported:</b>	19 of 228: <b>8.3%</b>	6 of 228: <b>2.6%</b>	28 of 228: <b>12.3%</b>
<b>Data Objects Not Supported:</b>	6 of 228: <b>2.6%</b>	170 of 228: <b>74.6%</b>	42 of 228: <b>18.4%</b>

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7/16/2007

## **10. APPENDIX C – ESTIMATED SUPPORT FOR OBJECTIVES BY USER REQUIREMENTS**

We prepared Appendix C by doing the following:

1. Facilitating the Project Team in the definition of project objectives and associated measurable outcomes and risks,
2. Interviewing the Project Team Lead and assigning each objective to one or more of the user requirement and
3. Assigning the estimated level of support provided by each option for the objectives.

## Appendix A

### Support for Objectives by Requirements

Requirement Script*	Objectives**							
	Improve quality of information provided to stakeholders	Eliminate duplicate data entry associated with populating document templates	Maximize Effectiveness of Personnel Resources	Eliminate reliance on multiple manual and automated systems	Improve personnel performance management	Reduce fragmentation of case information	Track all parties to identify potential case connections	Track approvals
Administer assumption of practice	●	●	●	●	●	●		●
Administer client funds	●	●	●	●		●		●
Appeal by Respondent		●	●	●	●			
Appeal case		●	●	●	●	●		
Appeal to Supreme Court	●	●	●	●		●		
Assign as complex case	●	●	●		●			●
Assume jurisdiction over law practice in 6180 or 6190 matter	●	●	●	●	●	●	●	●
Challenge cost certificate by Respondent		●	●	●	●	●		
Challenge Respondent's cost invoice by Office of the Chief Trial Counsel (OCTC)		●	●	●		●		
Close file		●	●	●		●		
Complete assumption of practice		●	●	●		●		●

## Appendix A

Requirement Script*	Objectives**							
	Improve quality of information provided to stakeholders	Eliminate duplicate data entry associated with populating document templates	Maximize Effectiveness of Personnel Resources	Eliminate reliance on multiple manual and automated systems	Improve personnel performance management	Reduce fragmentation of case information	Track all parties to identify potential case connections	Track approvals
Complete moral character determination	●	●	●	●	●			●
Complete seeking reinstatement		●	●	●	●			
Conduct discovery		●	●	●	●	●		
Conduct Ethics School	●	●	●	●	●			
Conduct further investigation		●	●		●			
Conduct interlocutory review		●	●	●	●			
Conduct internal audit	●	●	●	●	●	●		
Conduct internal review	●			●	●	●		
Conduct opposing party interlocutory review		●	●	●	●			
Conduct settlement conference				●	●	●		
Conduct status conference				●	●	●		
Conduct summary review		●	●	●	●	●		
Determine resolution		●	●		●	●		●
Determine Rule of Limitations (ROL)	●	●	●	●	●	●		

## Appendix A

Requirement Script*	Objectives**							
	Improve quality of information provided to stakeholders	Eliminate duplicate data entry associated with populating document templates	Maximize Effectiveness of Personnel Resources	Eliminate reliance on multiple manual and automated systems	Improve personnel performance management	Reduce fragmentation of case information	Track all parties to identify potential case connections	Track approvals
Determine trial type		●	●					
Determine whether to assume jurisdiction of law practice	●	●	●	●		●	●	
Fail to cooperate with State Bar Investigation 6068(i)		●	●					
File Notice of Disciplinary Charges (NDC)		●	●	●	●	●		
Identify case type		●	●			●		
Identify member or non-member		●	●	●		●	●	
Initiate investigation		●	●		●	●		
Interview witness		●	●	●		●		
Issue cost certificate		●	●	●				●
Issue warning letter		●	●					
Mediate complaint	●	●	●	●	●			
Monitor abate or held case		●	●	●	●			●
Notify Audit and Review		●	●	●				



## Appendix A

Requirement Script*	Objectives**							
	Improve quality of information provided to stakeholders	Eliminate duplicate data entry associated with populating document templates	Maximize Effectiveness of Personnel Resources	Eliminate reliance on multiple manual and automated systems	Improve personnel performance management	Reduce fragmentation of case information	Track all parties to identify potential case connections	Track approvals
Obtain documentary evidence						●		
Prepare 2302 waiver	●	●	●		●	●		●
Prepare deposition		●	●	●	●	●		●
Prepare for trial		●	●	●	●	●		
Prepare interrogatories		●	●	●	●	●		
Prepare motion to quash		●	●	●	●	●		
Prepare motion to terminate jurisdiction		●	●	●				
Prepare non-complaining client waiver		●	●		●	●		●
Prepare non-financial subpoena		●	●	●		●		●
Prepare non-trust account financial subpoena		●	●	●		●		●
Prepare public comment waiver	●	●	●	●	●			●
Prepare request for admissions		●	●	●	●	●		
Prepare request for genuineness of documents		●	●	●	●	●		

## Appendix A

Requirement Script*	Objectives**							
	Improve quality of information provided to stakeholders	Eliminate duplicate data entry associated with populating document templates	Maximize Effectiveness of Personnel Resources	Eliminate reliance on multiple manual and automated systems	Improve personnel performance management	Reduce fragmentation of case information	Track all parties to identify potential case connections	Track approvals
Prepare request for production of documents		●	●	●	●	●		
Prepare trust account subpoena		●	●	●		●		●
Prioritize case		●	●		●		●	
Receive 6007(b)(2) case		●	●	●		●		
Receive 6007(b)(3) case		●	●	●		●		
Receive 6007(c)(1) case		●	●	●		●		
Receive 6007(c)(2) case		●	●	●		●		
Receive 6007(c)(3) case		●	●	●		●		
Receive answer to Notice of Disciplinary Charges (NDC)		●	●	●				
Receive bank reportable action	●	●	●	●			●	
Receive contempt reportable action	●	●	●	●				
Receive conviction		●	●	●		●		●
Receive judgment reportable action		●	●	●		●		

## Appendix A

Requirement Script*	Objectives**							
	Improve quality of information provided to stakeholders	Eliminate duplicate data entry associated with populating document templates	Maximize Effectiveness of Personnel Resources	Eliminate reliance on multiple manual and automated systems	Improve personnel performance management	Reduce fragmentation of case information	Track all parties to identify potential case connections	Track approvals
Receive legal specialization case	●	●	●		●	●		
Receive malpractice insurance claim reportable action		●	●	●		●		
Receive motion to quash subpoena		●	●	●		●		
Receive original jurisdiction complaint		●	●					
Receive potential Case of Public Interest (CPI)	●	●	●	●	●	●		●
Receive reciprocal discipline		●	●					
Receive sanction reportable action		●	●	●		●		
Receive violation of Supreme Court order		●	●			●		
Reinstate 6007(c)	●	●	●		●	●		
Reopen case		●	●	●	●			●
Request summary disbarment		●	●	●				
Resign with charges pending	●	●	●					
Resolve investigation		●	●	●	●			●

## Appendix A

Requirement Script*	Objectives**							
	Improve quality of information provided to stakeholders	Eliminate duplicate data entry associated with populating document templates	Maximize Effectiveness of Personnel Resources	Eliminate reliance on multiple manual and automated systems	Improve personnel performance management	Reduce fragmentation of case information	Track all parties to identify potential case connections	Track approvals
Seek mini-reinstatement		●	●		●	●		
Seek moral character determination	●	●	●	●	●	●		●
Seek reinstatement		●	●	●	●	●	●	●
Stay proceedings		●	●	●				
Stipulate		●	●	●	●	●		
Supervise Lawyer Assistance Program (LAP) program participant	●	●	●	●	●	●		●
Transfer to active enrollment from 6007(b)	●	●	●		●	●		
Try 6007(b)(2) case		●	●	●				
Try 6007(b)(3) case		●	●	●				
Try 6007(c)(2) case		●	●	●				
Try case		●	●	●	●			
Try mini-reinstatement case		●	●	●				
Try moral character or reinstatement case	●	●	●	●	●			●

## Appendix A

Requirement Script*	Objectives**							
	Improve quality of information provided to stakeholders	Eliminate duplicate data entry associated with populating document templates	Maximize Effectiveness of Personnel Resources	Eliminate reliance on multiple manual and automated systems	Improve personnel performance management	Reduce fragmentation of case information	Track all parties to identify potential case connections	Track approvals
Try Superior Court case		●	●	●				

## **11. APPENDIX D – ESTIMATED POTENTIAL BENEFITS**

Appendix D includes the potential cost and time savings associated with the new system when compared to the existing CMS. We worked with representative users (i.e., the Project Team Lead and several Project Team members), and identified existing activities and compared them to improvements associated with the user requirements.

## Appendix A

Activity Description	Position	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
<u>Prepare 250 report</u> - Automate preparation of report on cases pending in Notice Preparation Status for more than 250 days	Administrative Assistant II	\$ 26	0.25	\$ 6	-	\$ -	\$ 6.48	\$ 78
<u>Prepare backlog report</u> - Automate preparation of backlog report	Administrative Assistant II	26	8.00	207	-	-	207	2,489
<u>Prepare cost certificate</u> - Flag recoverable costs for automated preparation of cost certificates	Administrative Assistant II	26	15.75	408	-	-	408	4,901
<u>Prepare major case monthly status report</u> - Automate preparation of major case monthly status report	Administrative Assistant II	26	4.00	104	-	-	104	1,245
<u>Prepare management reports</u> - Access to more information	Administrative Assistant II	26	-	-	1	26	(26)	(311)
<u>Prepare monthly LRW report</u> - Automate preparation of report on cases in Legal Review status (LRW)	Administrative Assistant II	26	2.00	52	-	-	52	622
<u>Prepare monthly report of Abated (ABY) and Held (HLD) cases</u> - Automate preparation of report on cases in ABY and HLD status	Administrative Assistant II	26	2.00	52	-	-	52	622
<u>Prepare Two-Year report</u> - Automate preparation of report on unfiled cases more than two years old	Administrative Assistant II	26	2.00	52	-	-	52	622
<u>Monitor the status of abated and held cases</u> - Reduce the time necessary to determine the current status of abated and held cases by capture of information already on the system	Assistant Chief Trial Counsel	65	20.00	1,292	8	517	775	9,301
<u>Track personnel time to project staffing needs</u> - Automate recording time spent on projects to ensure and more accurately project staffing needs	Assistant Chief Trial Counsel	65	90.00	5,813	45	2,906	2,906	34,878
<u>Add case identification information when preparing documents</u> - Automate populating case identification information when preparing documents	Complaint Analyst	31	112.50	3,535	23	707	2,828	33,938
<u>Check for certified copies of</u>	Conviction	23	87.50	2,054	-	-	2,054	24,645

## Appendix A

Activity Description	Position	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
<u>conviction</u> - Automate notification to request certified copies of conviction	Monitor							
<u>Record follow-up on conviction documentation</u> - Automate notification to follow up on conviction documentation	Conviction Monitor	23	87.50	2,054	-	-	2,054	24,645
<u>Input edit sheet</u> - Eliminate need to input data from edit sheets	Coordinator of Records	23	222.25	5,216	-	-	5,216	62,597
<u>Update NDC with correct allegation code</u> - Automate corrections to allegations codes	Coordinator of Records	23	14.50	340	-	-	340	4,084
<u>Access case documents for monthly "spot checks"</u> - Access and review documents on-line	Deputy Trial Counsel	48	75.00	3,572	50	2,381	1,191	14,289
<u>Add case identification information when preparing documents</u> - Automate populating case identification information when preparing documents	Deputy Trial Counsel	48	75.00	3,572	15	714	2,858	34,292
<u>Audit for incorrect Allegation Codes</u> - Automate updates to allegations codes	Deputy Trial Counsel	48	10.75	512	-	-	512	6,144
<u>Audit for missing Allegation Codes</u> - Automate entry of allegation codes	Deputy Trial Counsel	48	10.75	512	-	-	512	6,144
<u>Conduct compliance audit based on random audit checklist</u> - Automate reporting of non-compliant cases	Deputy Trial Counsel	48	21.50	1,024	-	-	1,024	12,288
<u>Prepare case summary</u> - Additional time to prepare detailed summary	Deputy Trial Counsel	48	-	-	207	9,859	(9,859)	(118,309)
<u>Prepare Major Case Memorandum (excluding request for authority to settle or dispose of Major Case)</u> - Reduce time for preparation of MCD memo and updates by capture of information already on the system; I.e., summary, SOC, activity log entries, witness interviews, etc.	Deputy Trial Counsel	48	100.50	4,787	17	798	3,989	47,867
<u>Prepare NDC</u> - Prepare NDC by capturing information that is already available	Deputy Trial Counsel	48	700.00	33,340	630	30,006	3,334	40,008



## Appendix A

Activity Description	Position	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
<b><u>Prepare Voluntary Settlement Conference (VSC) and Early Neutral Evaluation Conference (NEEC) statements</u></b> - Reduce time for preparation of VSC and ENEC statements by capturing information already on the system; i.e., summary, NDC, briefs, prior and pending disciplinary matters, etc.	Deputy Trial Counsel	48	264.00	12,574	231	11,002	1,572	18,861
<b><u>Prepare/update allegation codes</u></b> - Additional time to verify and update allegation codes as cases progress	Deputy Trial Counsel	48	-	-	70	3,310	(3,310)	(39,722)
<b><u>Add Activity Log Entry</u></b> - Automate entries to activity log	Investigator	35	1,262.50	43,606	-	-	43,606	523,273
<b><u>Add case identification information when preparing documents</u></b> - Automate populating case identification information when preparing documents	Investigator	35	200.00	6,908	40	1,382	5,526	66,316
<b><u>Prepare 2302 Package (Rule of Procedure)</u></b> - Automate entry of Intake Attorney's summary into law enforcement waiver and letter to law enforcement	Investigator	35	15.00	518	10	345	173	2,072
<b><u>Prepare Bank Record Subpoena and supporting declaration</u></b> - Automate entry of Intake Attorney's summary into Bank Record Subpoena and supporting declaration	Investigator	35	55.00	1,900	28	950	950	11,398
<b><u>Prepare Major Case Memorandum</u></b> - Reduce time for preparation of Major Case Disposition (MCD) memo and updates by capture of information already on the system; i.e., summary, SOC, activity log entries, witness interviews, etc.	Investigator	35	50.25	1,736	17	579	1,157	13,885
<b><u>Prepare SOC</u></b> - Reduce the time necessary to prepare a uniform and complete SOC by capturing information that is already available	Investigator	35	640.00	22,105	448	15,474	6,632	79,579

## Appendix A

Activity Description	Position	Average Hourly Rate	Current Monthly Time	Current Monthly Cost	Expected Monthly Time	Expected Monthly Cost	Monthly Savings	Annual Savings
<u>Prepare TRR Letter (Letter of inquiry to Respondent)</u> - Automate entry of Intake Attorney's summary into TRR Letter	Investigator	35	208.50	7,201	70	2,400	4,801	57,612
<u>Add case identification information when preparing documents</u> - Automate populating case identification information when preparing documents	Legal Secretary	26	100.00	2,593	20	519	2,075	24,894
<u>Subpoena witnesses for trial</u> - Reduce time for preparation of witness subpoenas and supporting documentation by capturing information already in the system	Legal Secretary	26	62.50	1,621	31	810	810	9,724
<u>Subpoena witnesses for trial</u> - Reduce time for preparation of witness subpoenas and supporting documentation by capturing information already in the system	Paralegal	31	62.50	1,964	31	982	982	11,784
<u>Add Activity Log Entry</u> - Automate entries to activity log	Secretary	23	450.00	10,562	-	-	10,562	126,743
<u>Add case identification information when preparing documents</u> - Automate populating case identification information when preparing documents	Secretary	23	112.50	2,640	23	528	2,112	25,349
<u>Prepare edit sheets</u> - Eliminate need to prepare edit sheet for update of case information or change of case information	Secretary	23	222.25	5,216	-	-	5,216	62,597
<u>Update Notice of Disciplinary Charges (NDC) with correct allegation code</u> - Automate corrections to allegations codes	Secretary	23	14.50	340	-	-	340	4,084
<b>Total</b>				<b>\$ 189,990</b>		<b>\$ 86,196</b>	<b>\$ 103,794</b>	<b>\$ 1,245,528</b>

■ ■ ■ ■ ■ A Report for  
**The State Bar of California**



## High-Level Business Case for Court Case Management System

16 January 2008  
Engagement: 221362660

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■ ■ ■ ■ **Section 1—Executive Summary**

## 1.0 Executive Summary

The State Bar of California's (State Bar's) Office of State Bar Court (State Bar Court) is examining viable alternatives to replace the current automated systems that support the State Bar Court. The primary goal is to identify feasible options to enhance the quality and timeliness of the services provided by and within the State Bar and State Bar Court. The current State Bar Court systems rely on older technology, are insufficiently integrated, difficult to navigate, and do not support the required business processes and workflow necessary to aid in automating core activities such as intake, case processing (scheduling, monitoring, disposition of cases), judicial case management and decision making, case settlement, reporting, and increased data dissemination. The State Bar is also looking to migrate off the current AS/400 technology platform and move to a platform that is more easily supported by in-house staff and is consistent with current industry technical standards and system architecture the State Bar's IT organization plans to adopt.

This business case examines and highlights the State Bar Court's current business and technical environment; identifies current and desired functional processes, and related gaps; key business and technical findings, conclusions and recommendations; identifies strategic technology directions and system execution alternatives; examines potential high-level one-time and recurring system costs; defines a project implementation plan and associated recommendations; and identifies critical project risks and mitigation strategies.

At this time, Gartner recommends that the State Bar Court, with the approval of the State Bar, move forward with the process to implement an integrated State Bar Court System compliant with current industry standards to support the State Bar in the coming years.

### 1.1 Purpose of the Business Case

The purpose of this business case is to provide the State Bar's executive leadership team with an analysis of the benefits and costs associated with the implementation of a new State Bar Court system to help them make a more informed decision to move forward (or not) with a new system. The State Bar requested Gartner's support in assessing the need (both business and technical) for a new State Bar Court system and to provide the documented rational justification, supported by quantifiable measures, to support a decision on whether the proposed project should move forward. To that end, this Business Case is designed to answer the following questions:

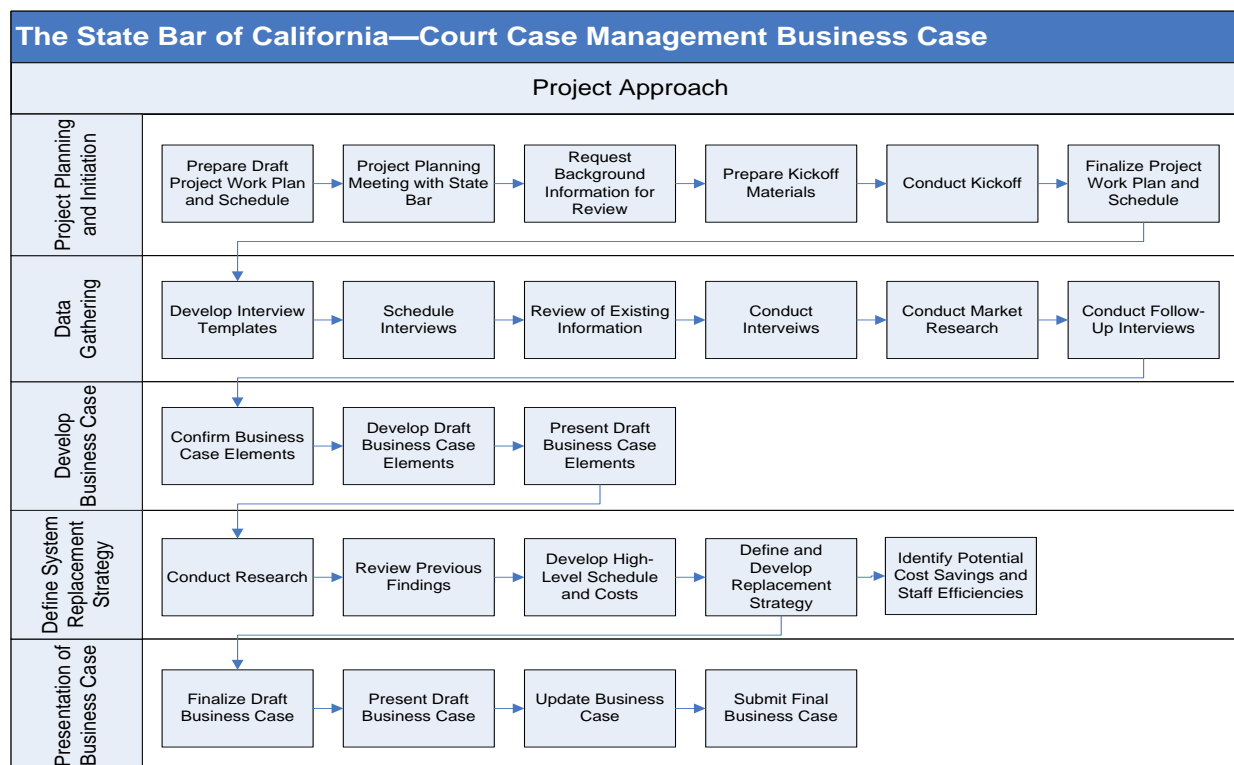
1. What are the tangible business benefits expected from implementing a new Court Case Management System?
2. What are the business objectives for a new system?
3. What technology alternatives will meet the State Bar's business and technical requirement for a new Court Case Management System?
4. What is the timeframe (Project Schedule) for the selection, acquisition and implementation of a new system?
5. What will be the resource impacts associated with the acquisition and implementation of a new system?
6. What are the high level estimates for one-time and recurring costs for a new system?
7. What are the major risks and issues associated with the acquisition and implementation of the new system and how can they be mitigated?



## 1.2 Project Approach

Gartner's approach to the State Bar Court System Business Case development included the review of existing materials and documents, interviews with key State Bar and State Bar Court staff and key stakeholders, an analysis and assessment of industry trends related to State Bar Court Case Management System Applications and technology, as well as the review and assessment of similar activities and lessons learned from other Court Case Management System procurements. The figure below documents the high-level process steps Gartner completed during the development of the Business Case.

**Figure 1. Project Approach and Steps**



## 1.3 Business and Technical Drivers

Below are the overall business and technical drivers that we identified for a new State Bar Court system based on our meetings, discussions and interviews with State Bar representatives during the course of our engagement activities.

### 1.3.1 Business Drivers

- Improve the State Bar Court's ability to provide the public and members with Internet access to State Bar Court information.
- Improve the State Bar Court's ability to comply with established Court Performance Standards.
- Improve the State Bar Court's ability to share and exchange relevant data among State Bar Court staff and key stakeholders while achieving the Court's information dissemination goals.
- Provide for the timely development and delivery of system reports including:

- ☐ Standard reports and customizable reports for management
- ☐ Ability to generate ad hoc reports as needed
- Implement a system that utilizes defined workflow processes and end user help functionality to “guide” users through system and State Bar Court staff functions, during the entire case management process from intake through case disposition.
- Through automation of business processes, workflow and reduced time frames, redirect staff to case processing activities that increase the number of cases meeting time pendency standards, help balance staff workloads, conduct data quality assurance activities, track and report on additional case data, and continue to work toward implementation of a pilot program for a fully electronic case file through support of document management activities. These activities will provide enhanced case management support and service delivery to attorneys, judges, State Bar members, and the California Supreme Court.

### 1.3.2 Technical Drivers

- Implement technologies compliant with current industry standards that provide for a reliable and supportive system and technical environment.
- Implement a flexible (e.g., can be modified to meet changing business needs and/or updated to comply with new technical standards) and extensible (i.e., expanded to meet changing scope) system that can be modified by internal resources to support changing business needs (e.g., addition of functionality to support the Alternative Discipline Program, creation of new standard and ad hoc reports).
- Establish a 24/7 supported IT environment to support a new State Bar Court system, internal hosting of Web services and other State Bar applications/systems.
- Implement an integrated, user-friendly and improved graphical user interface (GUI)-based system, which includes updated business processes and defined workflow to provide for an easy-to-navigate State Bar Court Case Management system that helps improve staff efficiency and effectiveness.
- Reduce costs through elimination of contracted system customization vendors and provide for internal support of a new State Bar Court Case Management system.

## 1.4 Summary of General Business and Technical Key Findings

Based on our analysis of the information we obtained during our interviews conducted with State Bar representatives, documents we reviewed related to the State Bar’s business, technical and State Bar Court functions, research into Bar State Bar Court, and industry best practices, we documented the Key Business and Technology Findings below.

### 1.4.1 Summary of Key Business Findings

Below is a summary of the key business findings based on our analysis and research:

- The State Bar Court’s current case management system (CMS) does not meet current and future business needs including automated workflow, e-Filing, Alternative Discipline Program, and provision of access to information via the Internet.
- Business processes need to be re-engineered to reduce time, enhance staff efficiencies by reducing duplicative efforts, minimize hand-offs, perform operations in parallel (where feasible), streamline processes, and embrace an automated workflow-enabled business

environment. Current business processes should not be mimicked within a new system, as it will only mimic old processes on new technology.

- Implement reporting functionality that includes defined-standard and ad hoc report generation capability designed to provide timely standardized reports, real-time status and ad hoc reporting to meet specific staff needs and that affords management needed insight into the “daily business operations” of the Bar to allow for improved operations, and improved staff efficiency and effectiveness.
- End users resist using CMS due to lack of trust in data integrity and difficult and cumbersome screen navigation.
- State Bar Court needs to reduce the time staff spends producing, printing and filing hardcopy case documents and forms of correspondence. The Bar should move toward a paper-sparse environment expanding its use of an integrated scanning/imaging system to reduce time frames and the need to correspond with hardcopy and labor-intensive approaches/processes.
- Implement automated interfaces (data and document transfer) between external stakeholders (e.g., California Supreme Court) to reduce the need to receive, copy, file and store documents within an applicant’s physical file. These documents and their related correspondence should be viewed within an applicant’s electronic file, reducing the need to “visit” physical files and manually enter or update information.

### 1.4.2 Summary of Key Technical Findings

Below is a summary of the key technical findings based on our analysis and research:

- The State Bar IT organization does not have the resources or skills available to support CMS maintenance and upgrades. Replacement of CMS with an application based on current technology standards will give the IT organization an opportunity to hire and retain staff that can support the State Bar Court’s needs.
- System performance issues with CMS have been identified; however, the cause of these issues has not been identified or effectively addressed.
- While migration of CMS from the AS/400 to an IBM System i5 server may extend the life of the system, it is not the long-term solution to technical requirements including system flexibility and extensibility.
- The current CMS is difficult to navigate; a new system that is integrated, operates off a single database, and is user-friendly with a graphical user interface (GUI) should be implemented.

## 1.5 Business and Technical Recommendations

### 1.5.1 Business Recommendations

The State Bar is in need of a new State Bar Court system that will enable State Bar Court to improve its ability to meet the needs of litigants, key stakeholders and all interested parties. , improve case management processing time frames, reduce errors and improve the office’s ability to provide members and the public with information via the Internet. Staff and management are constrained by the current systems and the systems’ associated business functions and processes. The State Bar Court will not be able to move toward an improved business and technical environment, while reducing costs, and will have a difficult time meeting

future State Bar Court business needs if a new system is not implemented. It will be difficult to meet these needs with the current business environment.

- A summation of core business needs and recommendations, as a result of the current findings, are below:
- Implement an upgraded court case management system that includes Alternative Discipline Program and e-Filing capabilities and is integrated with OCTC functionality to facilitate workflow and data exchange between offices.
- Re-engineer business processes to meet business and system needs.
- Utilize both the services of a system integrator and an outside project manager to review business processes, customize the COTS system, and test and implement the new State Bar Court Case Management System.
- Implement a system that has automated workflow, user help, and trigger functionality.
- Implement a system with reporting feature that includes defined standard and ad hoc system-generated reports.
- Reduce and eventually eliminate producing, printing and filing hardcopy case related document and various forms of correspondence, including expansion of document management and scanning/imaging processes.
- Develop processes and interfaces with external stakeholders (e.g., the California Supreme Court).

### 1.5.2 Technology Recommendations

The current State Bar Court case management system is dependent on older mainframe based technology (IBM's AS/400 platform being upgraded to System i5 and AVR customized coding), are not user-friendly to operate/navigate in, and do not function as a workflow tool or utilize contemporary industry business best practices or processes. The State Bar does not have internal resources that can maintain and upgrade CMS and must contract with external custom programmers to address business requirements. The State Bar Court faces two very key technical requirements at this pivotal time for its system; they are:

- Enhancement of the State Bar's IT environment to a system architecture and technologies that provide a strong and dependable 24/7 operation and support that allows secure, reliable system access for State Bar staff as well as litigants, stakeholders, and all interested parties access/use
- Implement a new court case management system that provides the foundation for a new service delivery model for the State Bar Court that is workflow-focused and provides the needed flexibility and functionality to support current and future business requirements

State Bar Court needs to move to more-contemporary technologies that support a process-driven environment, is more supportable and reliable, operates in a 24/7 environment, and enables integration with third parties (e.g., the California Supreme Court). The State Bar Court needs to utilize the remaining viable time on the IBM System i5 server to refine its business processes and implement updated technologies.

- A summation of core technical needs and recommendations is documented below:
- Existing systems are difficult to navigate, are not user-friendly, and are not integrated; implement an integrated, user-friendly, easy-to-navigate, GUI-based system that includes automated workflow, scheduling and reporting.

- Implement a secure database and server-based environment that utilizes role-based access and usage based on responsibilities, permissions, job-functions and qualifications.
- Move away from multiple systems and databases and consolidate to an integrated and scalable system.
- IT needs to move to a 24/7 supported IT environment.
- Eliminate the need for third-party external customization providers.
- Automate interfaces to external entities (e.g., California Supreme Court) and expand use of electronic document management and data retention to reduce manual transfer of information and data, data entry and the number of hardcopy papers/files that require storage.

## 1.6 Identified Cost Savings

Gartner estimates that State Bar Court could save as much as \$411,997 on an annual basis through enhanced business processes/automated workflow, elimination of third-party customization providers, elimination of duplicate data entry, implementation of e-Filing services, and reduction in mailing, copying and document storage costs.

The majority of cost savings is in the area of business process improvement and cost avoidance driven by staff redirection to balance workloads, perform additional quality assurance and customer service activities, and help expand document management and retention efforts related to electronic case files.

## 1.7 Recommendations

Gartner recommends moving forward with the implementation of a new Court Case Management system. This recommendation is based on the prerequisite requirement of updating the current IT environment and supporting technology to provide a secure and supportable (24/7) systems environment, the identified cost savings that process re-engineering and the new system will bring to the Bar, an enhanced service delivery model it will provide, as well as the increased functionality to staff/end users and attorneys it will offer.

Gartner strongly suggest five key prerequisites that the State Bar Court, the State Bar and IT must meet to provide for a successful implementation of a new system; they include:

- An improved IT infrastructure and environment in which to host and support the new system and provide secure and reliable system access and operation
- Completion of the current CMS upgrade and documented agreement with the vendor regarding maintenance costs and scope. Functionality of this system should be contained, keeping maintenance costs to a minimum to effectively support the CMS system as currently defined
- Identification and definition of a data architecture that ensures a new system takes into account critical data overlaps with other Bar systems also being considered for replacement over the next few years
- Prioritization of system replacement activities and determination of whether the Bar will combine procurement of the Office of Chief Trial Counsel (OCTC) and Court Case management systems to ensure the case management system selected can meet both business unit needs, facilitate workflow and data exchange between the two units, while

securing data and information in accordance with defined business practices and policies

- Re-engineered Court business processes to enable the Department to take full advantage of the new system and technologies (e.g., workflow, automated alerts and triggers, reporting, automated interfaces, and automated notices)

### 1.7.1 Summary of System Alternatives and Recommendations

Gartner assessed four system alternatives as part of its process to select a proposed alternative that will meet the State Bar Court's business and technical needs. These alternatives are detailed in the following table. Please note that in discussing the alternatives and proposed solution below, the term customization refers to modification and/or development of unique code within or interfaced with an application. Configuration refers to using tools built within an application to adjust terminology, business rules, and workflow that meet an organization's unique needs. This configuration does not involve changing an application's core code, but does allow a vendor to ensure its product addresses the functional requirements of each unique client.




**Table 1. System Alternative Definitions**

Alt. #	Alternative Name	Alternative Definition
1	<b>Convert AVR Code</b>	<ul style="list-style-type: none"> <li>■ Complete implementation of CMS.</li> <li>■ Convert AVR code to an industry standard language (e.g., .NET).</li> <li>■ Maintain the MS Access reporting tool, convert remaining reports to MS Access, and build the new reports that users have requested.</li> <li>■ Retire the green screen (RPG) programs (do not allow end users to access these systems—databases will still house the data).</li> <li>■ Transition maintenance and enhancement of the system to in-house resources or to an external vendor.</li> </ul>
2	<b>COTS Solution</b>	<ul style="list-style-type: none"> <li>■ Select an application and/or suite of applications that can meet the majority of the organization's needs without customization.</li> <li>■ Ensure reporting functionality supports end user ad hoc reporting needs.</li> <li>■ Modify business processes to gain efficiencies associated with COTS best practices.</li> <li>■ Develop interfaces between this application and other State Bar applications to support sharing and exchange of data.</li> <li>■ If possible, preserve the benefits of the COTS solution by limiting customization to interface development only to support sharing and exchange of data.</li> <li>■ Agree on a reasonable data conversion strategy that lowers implementation costs.</li> <li>■ Purchase a maintenance agreement that includes interface support if internal resources are not available.</li> <li>■ Ensure implementation services include business process re-engineering and change management support.</li> </ul>
3	<b>Customized Solution</b>	<ul style="list-style-type: none"> <li>■ Contract with an outside vendor to build the application in a contemporary platform that can be maintained by a selection of vendors and/or internal staff.</li> <li>■ Ensure implementation services include business process re-engineering and change management support so that the new system</li> </ul>

Alt. #	Alternative Name	Alternative Definition
		<p>allows the organization to reap the benefits of system automation and avoids automating past inefficient processes.</p> <ul style="list-style-type: none"> <li>Contract with the vendor and/or another vendor for maintenance and enhancement activities.</li> <li>Develop interfaces between this application and other State Bar applications to support sharing and exchange of data.</li> </ul>
4	<b>Transfer Solution from AOC</b>	<ul style="list-style-type: none"> <li>Develop an agreement with the State for licenses to use their system.</li> <li>Participate in requirements sessions with the State as it defines requirements for the system during implementation and upgrade cycles.</li> <li>Ensure implementation services include business process re-engineering and change management support so that the new system allows the organization to reap the benefits of system automation and avoids automating past inefficient processes.</li> <li>Develop interfaces between this application and other State Bar applications to support sharing and exchange of data.</li> </ul>

























Each alternative was rated against seven major criteria and sub-criteria. In assessing these criteria, Gartner used the below rating scale of green, yellow and red.









**Table 2. Alternative Rating Scale**

Rating	Description
	<b>“Green Light” (Acceptable to Excellent):</b> The alternative rates very well for the evaluation criterion in question.
	<b>“Yellow Light” (Caution):</b> The alternative rates adequately for the evaluation criterion in question.
	<b>“Red Light” (Poor):</b> The alternative rates poorly for the evaluation criterion in question.

Below is a summary of the evaluation results for the identified system replacement alternatives.

**Table 3. Summary of Evaluation Results**

Alternative	1	2	3	4
Criteria	Convert AVR Code	COTS	Customization	Transfer AOC Solution
Business Fit				
TCO				
ROI				
Technical Fit				
Maintainability				
Schedule				

Alternative	1	2	3	4
<b>Risk</b>				
<b>Final Rating</b>				

Based on these results, Gartner recommends the State Bar Court replace its court case management system with a Commercial-Off-The-Shelf product that can meet the majority of its business and technical needs. In addition, this effort should also include organizational change management and business process re-engineering activities to facilitate successful system acceptance by end users.

Gartner recommends that the State Bar Court utilize the services of a system integrator and an outside project manager to review business processes, configure the COTS system, and test and implement the system. We also recommend utilizing the services of an independent verification and validation (IV&V) project oversight vendor to help assess and make recommendations related to system implementation throughout the life of the project. These services can help identify new project risks and expedite issue resolution.

It is anticipated that it will take approximately 12 months to obtain funding and prepare for the court case management system replacement project. Gartner recommends pursuing recommendations discussed in Section 1.7 during this time period to improve the State Bar's readiness for this project.

## 1.8 Summary of Estimated Costs

For the recommended execution strategy above, Table 4 illustrates the low and high estimates for one-time and annual maintenance costs for the implementation of a typical system of similar scope to the Court Case Management system. Please note this does not include the costs to migrate the current IT environment to a more secure and supportable 24/7 operation hosted on contemporary technology or hardware costs associated with the new Court Case Management System. High estimates assume a 14 month project timeline as opposed to a 9 month timeline for low estimates. Additional assumptions may be found in Section 5.6 and in Attachment 3.

**Table 4. Estimated One-Time and Maintenance Cost Estimates for the State Bar Court System**

One-Time Costs	High Estimates	Low Estimates
Hardware Purchase	\$96,000	\$60,000
Software Purchase/License	\$420,000	\$264,000
Total Contract Services	\$1,966,207	\$1,149,487
Software Implementation	\$1,331,353	\$852,768
Project Manager	\$384,854	\$176,719
Project Oversight	\$250,000	\$120,000
Contingency (10%)	\$248,221	\$147,349
<b>Total One-Time Costs</b>	<b>\$2,730,428</b>	<b>\$1,620,836</b>

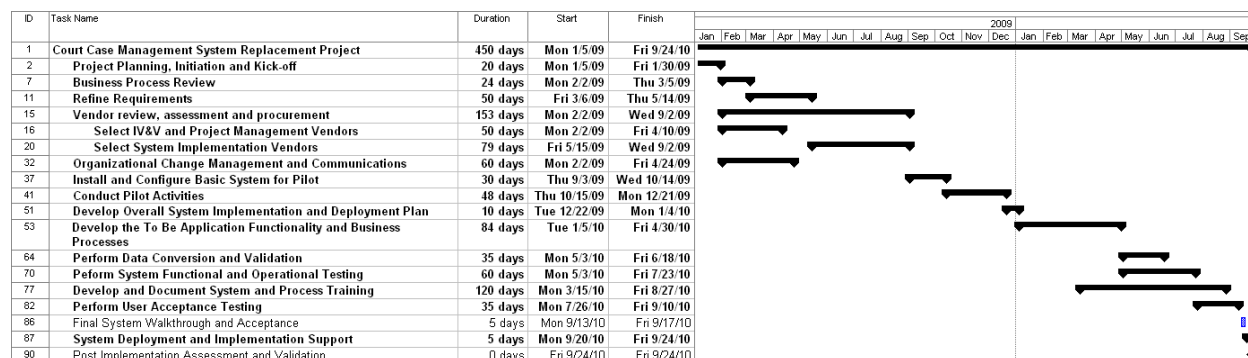


Annual Maintenance Costs	High Estimates	Low Estimates
Hardware	\$21,120	\$12,000
Software (includes helpdesk and upgrades)	\$84,000	\$47,520
<b>Total Annual Maintenance Costs</b>	<b>\$105,120</b>	<b>\$59,520</b>

## 1.9 High-Level Schedule

The Gantt chart below illustrates a representative high-level schedule for the implementation of the new Court Case Management system. A detailed project schedule is included in Section 6—Project Implementation Plan. Please note this does not include the activities and time needed to migrate the current IT environment to a more secure and supportable 24/7 operation hosted on contemporary technology.

**Figure 2. High-Level Project Implementation Schedule**



## 1.10 Expected Qualitative and Quantitative Benefits

### 1.10.1 Qualitative Benefits

- Better data—system should allow users to collect all data within one system and data errors should be significantly reduced.
- Improved ability to share data internally and externally as appropriate.
- Improved customer service for members and their attorneys—data and information should be more accessible and easier to use.
- Improved employee satisfaction—system should be easier to use and contain more functionality that is not available with CMS. Workflow should guide users through the system and provide for the ability to manage work and caseloads, increasing efficiency.
- Improved data reliability—system should not generate errors, improving trust in the system that complete and correct data is accessible.
- Improved end user support—system should be easier for the IT organization or contracted vendors to maintain and update.
- Improved ability to manage staff work loads.

- Improved reporting capability.

### 1.10.2 Quantitative Benefits

- Cost savings—upgrade and maintenance costs of the system, staff redirection to supporting the expanded functionality of the new system and increased work on cases to improve timeliness pursuant to Court Performance Standards.
- Staff efficiencies—reduction in manual processes associated with file maintenance and transportation, case processing and calendaring; elimination of duplicate data entry in separate systems (CMS, Membership database, auxiliary databases like Sanctions Database and ADP Matrix); expanding reporting capability for end users and executives; automation of court notices, forms and correspondence generation.
- Court Performance standards compliance—improve ability to reach compliance goals by reducing manual processes, managing work loads, and eliminating duplicate data entry.

## 1.11 Consequences of Taking No Action

The State Bar will experience significant consequences if it does not pursue replacement of its current State Bar Court System. These consequences include increased maintenance costs, decrease in reliable data and information, decrease in staff efficiency, and the inability to achieve Court Performance Standards. Planning for the replacement of the existing system today, will help mitigate these consequences and ensure the State Bar Court continues to effectively service its constituents on behalf of the California Supreme Court.

■ ■ ■ ■ Section 2—Introduction and Background

## 2.0 Introduction

The State Bar of California (State Bar) is seeking to potentially replace the case management system that currently supports the Office of the State Bar Court. This system makes use of older technology and is inconsistent with the State Bar's strategy to migrate off the current AS400 system environment to a more contemporary technology. The current system is insufficiently integrated, difficult to navigate, and does not sufficiently support the required business processes and workflow necessary to aid in automating core activities such as intake, case processing (scheduling, monitoring, disposition of cases), judicial case management and decision making, case settlement, and reporting. In addition, the business rules underpinning the existing system were developed over ten years ago and need to be reassessed in light of current requirements and future business trends.

### 2.1 State Bar Court Background<sup>1</sup>

The State Bar Court serves as the administrative arm of the California Supreme Court in the adjudication of disciplinary and regulatory matters involving California attorneys. The California lawyer discipline system works to protect the public from lawyers who do not fulfill their professional responsibilities. California is the only state in the nation with independent professional judges dedicated to ruling on attorney discipline cases.

Since 1989, the court has used full-time judges appointed by the California Supreme Court, Legislature and Governor. The court is divided into two departments—a Hearing Department and a Review Department, headed by a presiding judge. The Hearing Department is the trial level of the State Bar Court and the Review Department is the appellate level of the State Bar Court.

### 2.2 Purpose of the Business Case

The purpose of this Business Case is to provide the State Bar's executive leadership team with an analysis of the benefits and costs associated with the implementation of a new Court Case Management System and to help them make a more informed decision to move forward (or not) with a new system. The State Bar requested Gartner's support in assessing the need (both business and technical) for a new Court Case Management system and to provide the documented rational justification, supported by quantifiable measures, to support a decision on whether the proposed project should move forward. To that end, this Business Case is designed to answer the following questions:

1. What are the tangible business benefits expected from implementing a new Court Case Management System?
2. What are the business objectives for a new system?
3. What technology alternatives will meet the State Bar's business and technical requirement for a new Court Case Management System?
4. What is the timeframe (Project Schedule) for the selection, acquisition and implementation of a new system?
5. What will be the resource impacts associated with the acquisition and implementation of a new system?

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<sup>1</sup> Source: State Bar Court Summary of Functions and Resources Report for 2007, dated 9-25-07.

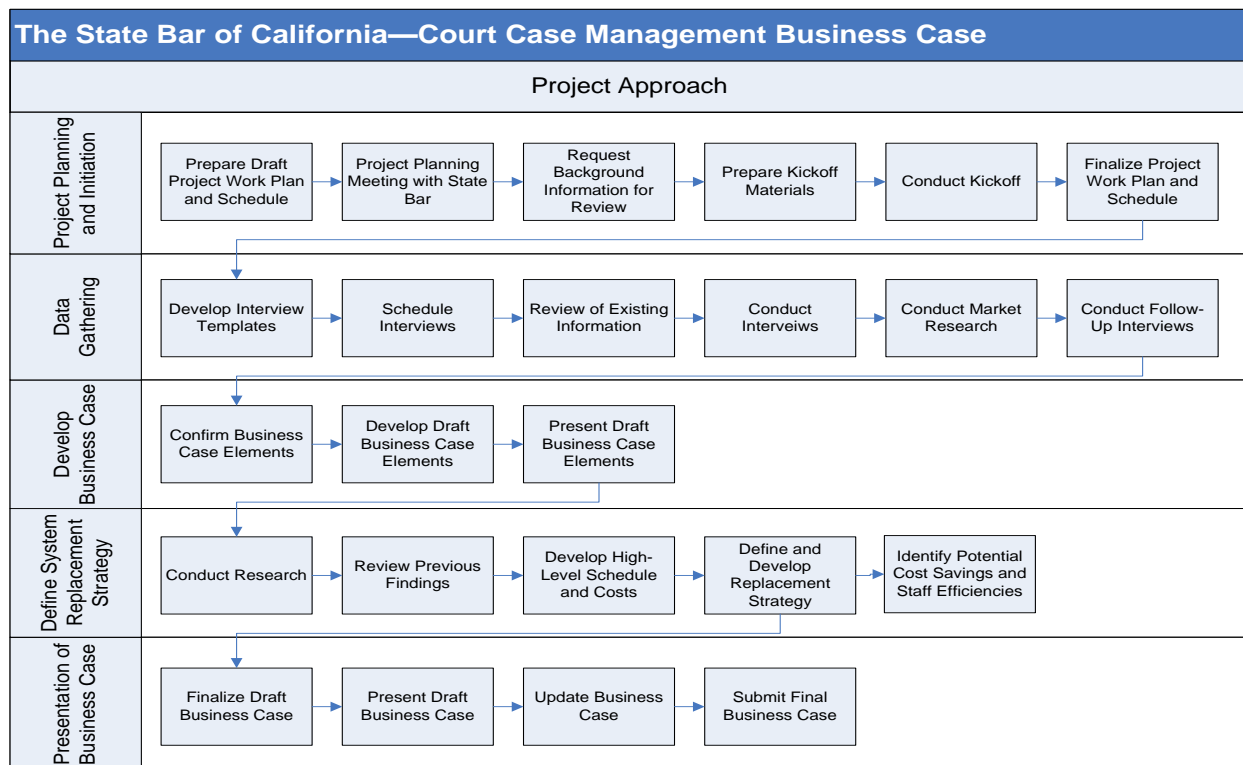
6. What are the high level estimates for one-time and recurring costs for a new system?
7. What are the major risks and issues associated with the acquisition and implementation of the new system and how can they be mitigated?

Documented below is Gartner's approach to the development of the Business Case for a new Court Case Management System for the Bar.

## 2.3 Project Approach

The scope of the State Bar Court System Business Case development included the review of existing materials and documents, interviews with key State Bar and State Bar Court staff, an analysis and assessment of industry trends related to Court Case Management system applications and technology. Figure 3 and the discussion that follows document the key process steps Gartner completed during the development of the Business case.

**Figure 3. Project Approach and Steps**



### Step 1. Project Planning and Initiation

At the initiation of the engagement, Gartner conducted a Project Planning Meeting to ensure our overall understanding of the team's roles, responsibilities and key activities associated with this engagement. During that meeting, we reviewed the draft project plan and approach, discussed roles and responsibilities, discussed key dates and milestones, and organized any additional project logistics. Based on the results of this meeting, we prepared a project work plan and schedule that included tasks, duration, work efforts and assignments for the all engagement activities.

## **Step 2. Data Gathering**

To obtain the information necessary for the development of the Business Case, Gartner conducted a data-collection effort that provided thorough, yet expedited coverage of system needs and potential commercial off-the-shelf (COTS) solutions. This data-collection effort involved the review of existing State Bar documentation and interviews of key stakeholders, and the research of current market trends related to court case management system technology delivery. The following data and documentation were reviewed:

### *State Bar Strategic Plans and Budget Information*

- State Bar of California Long-Range Strategic Plan—September 8, 2004
- State Bar Court—Strategic Action Plan 2007–2009
- Recommendation to Adopt the 2008 Proposed State Bar Budget—June 27, 2007 Agenda Item
- Reporter Sanctions Database Decision Package 2008

### *Court Performance Standards*

- Court Performance Standards Assessment—Core Performance Measures for the State Bar Court—Adopted: February 29, 2004
- Court Performance Standards Assessment—January 2005
- State Bar Court Performance Standards Periodic Review, 2007 Q1 for the following:
  - ☐ Measure 2 Caseload Clearance
  - ☐ Measure 3 On Time Case Processing
  - ☐ Measure 4 Case Backlog
  - ☐ Measure 5 Commencement of Trial
  - ☐ Measure 5 Time for Submission—Hearing
  - ☐ Measure 5 Commencement of Oral Argument
  - ☐ Measure 5 Time for Submission—Review

### *Court Procedures*

- Hearing Department Procedures
  - ☐ Case Processing Procedures
  - ☐ Hearing Department Intake Procedures

### *CMS Related Documentation*

- CMS Quick Tip Documents
  - ☐ Quick Tip #1 CMS Basics
  - ☐ Quick Tip #2 Keyboard Commands—August 20, 2007
  - ☐ Quick Tip #3 Null Value Menus—June 20, 2007
  - ☐ Quick Tip #5 Assignments—April 12, 2007

- ☐ Quick Tip #6 Calendar—June 12, 2006
- ☐ Quick Tip #6a Calendar Printing Reports—June 13, 2006
- ☐ Quick Tip #7 Ticklers—June 18, 2007
- ☐ Quick Tip # 8 Disposition—April 5, 2007
- ☐ Quick Tip #9 Type Ahead Feature—June 19, 2007
- ☐ Quick Tip #11 Parties—June 19, 2007
- ☐ Quick Tip #12 Copy Update—May 24, 2007
- ☐ Quick Tip #13 Court Day Calculator—August 1, 2006
- ☐ Quick Tip #16 Case At A Glance Screen—September 28, 2006 and June 1, 2007
- ☐ Quick Tip #18 Briefing—June 14, 2007
- ☐ Quick Tip #20 Events—April 10, 2007
- ☐ Quick Tip #21 Index—April 13, 2007
- ☐ Quick Tip #21a Index Report—April 13, 2007
- Case Management System Data Interfaces with Other Applications—October 12, 2007
- List of Pending CMS Work as of October 2007
- Staff Interactions with Systems—October 12, 2007
- State Bar Court—Case Management System & Business Process Changes (2002–2007)

### *IT Organization Process Information*

- Project Management Methodology Documentation
  - ☐ Definition of a Project
  - ☐ PMO Charter and Appendices A and B—April 12, 2007
  - ☐ IT Line of Business Organization Chart—May 25, 2007
  - ☐ PMM Requirements by Project Level

### *Court Staffing Information*

- General Unit Step Salary Increases
- Organization Chart—October 18, 2007
- State Bar Court Summary of Functions and Resources—Report for 2007

In addition to the above, Gartner conducted fifteen (15) structured interviews with key State Bar business and technology staff to obtain a high-level understanding of the State Bar Court's current business processes and to understand any issues and functionality limitations associated with the current court case management system, CMS. In addition, we used these interview sessions to validate key stakeholder expectations for a new application, both from the business process as well as technology perspectives. These interviews covered the main organizational units within the State Bar Court, and documented their issues/needs regarding the current and future system requirements. In addition, we explored the following topics during our interviews:

- Vision for the new Court Case Management System
- Current business problems and opportunities
- Business objectives to be met through system implementation
- Current technical environment
- Administrative, budget and technical issues

Specifically, Gartner conducted and documented interviews with the following individuals:

- Business Interviews
  - ☐ Judy Johnson, Executive Director of the State Bar
  - ☐ Colin Wong, Chief Administrative Officer, Office of the State Bar Court
  - ☐ Judge Joann Remke, Presiding Judge, State Bar Court
  - ☐ George Scott, Chief Court Counsel and Rebecca Rosenberg, Chief Assistant Court Counsel
  - ☐ Marilyn Tichenor, Court Administrator
  - ☐ Doug Hull, Acting Court Administrator
  - ☐ Kate Littleboy, Court Services Analyst/Technician
  - ☐ Mina Ruiz, Court Services Analyst/Technician
  - ☐ Bernadette Molina, Case Administrator, Hearing
  - ☐ Rose Luthi and Angela Carpenter, Case Administrator, Hearing
  - ☐ Rosalie Ruiz, Case Administrator, Review
- Technology Interviews
  - ☐ Gary Clarke, Chief Information Officer
  - ☐ Cathy Hamilton, Director, Information Systems
  - ☐ Ken Papai, IT Project Manager, Applications
  - ☐ Chuk Williams, Contract Programmer for CMS

In addition to the interviews above, Gartner participated in a demonstration of the existing CMS to gain an understanding of the existing functionality, nuances between the current systems (i.e., CMS older green screen applications and CMS newer AVR application), and overall usability. We also conducted a working session with Colin Wong, Marilyn Tichenor, Doug Hull, and Ken Papai, to define potential cost savings and personnel efficiencies that a new Court Case Management System could provide.

Finally, Gartner conducted research into potential system solutions. As part of this effort, the engagement team leveraged Gartner Research and subject matter expertise related to court case management system technology and best practices, to provide the data necessary to effectively evaluate all viable solutions.

### **Step 3. Business Case Development**

Gartner incorporated the information gathered during the prior two steps to develop and document the Business Case for the proposed solution. The Business Case was developed to include the business program background, goals and objectives, problem/opportunity



statements and business requirements for the proposed system. Gartner confirmed the Business Case elements with key State Bar representatives to gain consensus regarding the fundamental business arguments that would frame the overall case for action.

- Both the confirmation of the strategic direction of the technical environment and the definition of a system replacement strategy that meets the needs of the State Bar Court were critical elements in our overall Business Case development activities. As such, Gartner sought to define a Court Case Management System replacement strategy that supports the goals and objectives of the State Bar and State Bar Court as discussed above. To this end, Gartner assessed four candidate replacement strategies consisting of:
  - ☐ Convert Existing AVR Code to an industry standard Platform,
  - ☐ Commercial off-the-shelf solution,
  - ☐ Custom solution, and
  - ☐ Transfer the State's Administrative Office of the Court's case management solution.
- The four candidate replacement strategies were then assessed based on:
  - Ability to satisfy State Bar Court business and technical requirements
  - Project timeframe
  - Cost
  - Ability to generate anticipated qualitative and quantitative benefits
  - Risk

Finally, Gartner developed a high-level implementation schedule and a high-level cost estimate of the selected alternative.

## 2.4 Business Drivers and Technical Drivers

This section addresses the overall business drivers and technical drivers for the State Bar Court system project. The drivers are a result of the meetings, discussions and interviews between Gartner and the State Bar, documented in Section 2.2 above.

### 2.4.1 Business Drivers

- Improve the State Bar Court's ability to provide the public and members with Internet access to State Bar Court information.
- Improve the State Bar Court's ability to comply with established Court Performance Standards.
- Improve the State Bar Court's ability to share and exchange relevant data among State Bar Court staff and key stakeholders while achieving the Court's defined information dissemination goals.
- Provide for the timely development and delivery of system reports including:
  - ☐ Standard reports and customizable reports for management
  - ☐ Ability to generate ad hoc reports as needed

- Implement a system that utilizes defined workflow processes and end user help functionality to “guide” users through system and State Bar Court staff functions, during the entire case management process from intake through case disposition.
- Through automation of business processes, workflow and reduced time frames, redirect staff to case processing activities that increase the number of cases meeting time pendency standards, help balance staff workloads, conduct data quality assurance activities, track and report on additional case data, and continue to work toward implementation of a pilot program for a fully electronic case file through support of document management activities. These activities will provide enhanced case management support and service delivery to attorneys, judges, State Bar members, and the California Supreme Court.

#### 2.4.2 Technical Drivers

- Implement technologies compliant with current industry standards that provide for a reliable and supportive system and technical environment.
- Implement a flexible (e.g., can be modified to meet changing business needs and/or updated to comply with new technical standards) and extensible (i.e., expanded to meet changing scope) system that can be modified by internal resources to support changing business needs (e.g., addition of functionality to support the Alternative Discipline Program, creation of new standard and ad hoc reports).
- Establish a 24/7 supported IT environment to support a new State Bar Court system, internal hosting of Web services and other State Bar applications/systems.
- Implement an integrated, user-friendly and improved graphical user interface (GUI)-based system, which includes updated business processes and defined workflow to provide for an easy-to-navigate State Bar Court Case Management system that helps improve staff efficiency and effectiveness.
- Reduce costs through elimination of contracted system customization vendors and provide for internal support of a new State Bar Court Case Management system.

■ ■ ■ ■ Section 3—Current Environment

## 3.0 Current Environment

This section documents Gartner's overall understanding of the State Bar Court's current "as-is" business processes and supporting information technology environment.

It is important to provide the background of the current business and technical environment to give an understanding of how the organizational structure and services affect current business area processes. This section details the current State Bar Court business environment, including operational structure, a description of its business areas, and a description of those business area processes. This section also describes the current technical environment within the State Bar and State Bar Court and its impact on State Bar Court, associated business areas and processes.

### 3.1 Current State Bar Court Business Environment

The current business environment details the State Bar Court's operational structure, its business areas and their associated responsibilities.

#### 3.1.1 State Bar Court: Operational Structure

Located in both Los Angeles and San Francisco, the State Bar Court is led by a presiding judge and a member of the State Bar's senior management team. The court has 32 employees and 8 judges (plus 2 pro tem judges). Staff are located in two locations—San Francisco and Los Angeles. The staffing breakdown is as follows:

**Table 5. Staffing Breakdown—Judges**

Classification	Department	Location	Number
Presiding Judge and Review Judges	Review	Los Angeles and San Francisco	3
Hearing Judges	Hearing	Los Angeles and San Francisco	5
<b>Total</b>			<b>8</b>

**Table 6. Staffing Breakdown—Managers**

Classification	Department	Location	Number
Manager	Chief Administrative Officer	San Francisco	1
Managers	Chief Court Counsel	Los Angeles	1
Managers	Chief Assistant Court Counsel	Los Angeles	1
Managers	Court Administrators	San Francisco and Los Angeles	2
<b>Total</b>			<b>5</b>

**Table 7. Staffing Breakdown—Staff**

Classification	Department	Location	Number
Administrative Specialist	Administrative Office	San Francisco	1
Senior Administrative	Administrative Office	San Francisco	1 (temporary employee)
Case Administrators	Hearing and Administration	San Francisco	4
Court Services Analyst Technician	Hearing and Administration	San Francisco	1
Legal Secretary	Hearing Counsel	Los Angeles	1
Senior Attorneys—Court Counsel	Hearing Department	San Francisco and Los Angeles	4
Judicial Executive Secretary	Review Counsel/Clerk	San Francisco	1
Case Administrator	Review Counsel/Clerk	Los Angeles	2
Senior Attorneys—Court Counsel	Review Department	Los Angeles	2
Hearing Case Administrators	Hearing/Effectuation/Administration	Los Angeles	6
Court Services Analyst Technician	Effectuation/Administration	Los Angeles	1
Deputy Court Clerk IV	Effectuation/Administration	Los Angeles	3
<b>Total</b>			<b>27</b>

## 3.2 Current Business Process Environment<sup>1</sup>

The current business process environment details business area processes within State Bar Court on a day-to-day basis and how those areas function within the current technical environment and with the current State Bar Court systems.

### 3.2.1 Overview of Business Process Environment

The State Bar Court handles approximately 29 different case types including: Original Discipline, Arbitration Enforcement, Conviction Referral, Moral Character, Probation Revocation, and Reinstatement. The State Bar Court's annual workload is reflected in the following statistics for 2006:

- 803 new cases filed (including 81 resignations with charges pending)
- Dispositions
  - 611 Disciplinary dispositions (decisions, stipulations, dismissals, terminations)
  - 167 Regulatory dispositions (decisions, opinions, stipulations, dismissals)
- 249 pending cases in the Alternative Discipline Program

<sup>1</sup> Source: [State Bar Court Summary of Functions and Resources](#), dated 9-25-07.

- 261 Review Department Dispositions (including “Finality” matters) reported in cases
  - 158 finality orders (interim suspensions, PRE orders)
  - 103 conviction referral orders
  - 21 opinions filed

This work is performed across three functional areas: Court Administration, Court Clerk, and Court Counsel. The following subsection provides an overview of the business processes performed by these functional areas.

### 3.2.2 Court Administration

Court Administration personnel support the State Bar Court in short-term/long-range planning, budget preparation, financial analysis, development of automated systems, publication of rules, publication of the *California State Bar Court Reporter*, and handling special reports, audits and projects. Court Administration primary activities include:

- Central Office/Effectuations—filing and serving finality orders; transmitting State Bar Court recommendations for suspension and disbarment to the California Supreme Court; filing resignations with the California Supreme Court; referring records of conviction to the Hearing Department; maintaining and compiling official State Bar Court statistics; providing records of prior discipline on California attorneys to the public and other key stakeholders; and reporting all disciplinary and regulatory matters to the ABA, Los Angeles and San Francisco Daily Journal, and California Press Bureau.
- Central Office/Administration—distributing mail; photocopying requests; setting up courtrooms; maintaining official court records; ordering and delivering supplies; and maintaining equipment.
- Court Administration—production and distribution of Rules of Practice and Rules of Procedure; Bench-Bar conferences; support for the Executive Committee; generation of monthly, quarterly, annual, and periodic statistics; and preparation of reports and presentations.
- Facilities Administration—space planning with the Office of Real Property and maintenance of security procedures and protocols.
- Financial Planning and Analysis—preparation of the annual operating budget and special project budgets; preparation of monthly analysis of operating statements; correction of billing errors; and monitoring of savings programs.
- Office Administration—providing secretarial support to judges, managers, attorneys; develop training materials and implement training programs; allocation of resources; and evaluation and implementation of new policies and procedures.
- California State Bar Court Reporter—desktop publishing production; printing and shipping; marketing and subscription fulfillment; and revenue/expense projections, cost tracking and reporting.
- Case Management System and Information Systems—providing system analysis, development, refinement; developing documentation, training, procedural advisories; problem solving and trouble shooting; providing reporting support; document creation, transmission, storage; and providing public and member access to public information.
- Website—maintaining and updating existing content; developing electronic forms; and creating new content.

- Court Performance Standards—creation and issuance of quarterly, annual and ad hoc statistical and analytical reports; conducting audits and performing in depth analysis of data and trends; assisting in strategic planning and performance assessment; and working to improve results in specific performance measures.
- Courtroom Systems—providing project management and technical assistance to the teleconference, sound reinforcement and digital recording systems in all courtrooms.

### 3.2.3 Court Clerk Activities

Court Clerk personnel support the State Bar Court Hearing and Review Department Judges. Court Clerk primary activities include:

- Court Clerk— provide administrative support to the Hearing and Review Judges; select, train, supervise, review and evaluate staff; develop and manage annual budget; implement new rules, policies, programs and procedures; research, develop plans and implement new technologies; participate in management and policy making decisions; and manage the Court Performance Standards project.
- Hearing Unit—managing cases to achieve timely dispositions; calendaring conferences and hearings; filing and serving orders, stipulation and decisions; providing courtroom support for audio recording of proceedings; and maintaining exhibits.
- Review Unit—managing cases to achieve timely dispositions; ordering transcripts, monitoring briefing schedule; calendaring conferences and oral arguments; providing courtroom support for audio recording of proceedings.
- Effectuation Unit—transmit State Bar Court recommendation for suspension and disbarment to the California Supreme Court; file resignations with the California Supreme Court; provide records of prior discipline on California attorneys for requestors; and report all disciplinary and regulatory matter to the American Bar Association (ABA) and interested media outlets.

### 3.2.4 Court Counsel Activities

Court Counsel activities are broken out across three areas: Chief Court Counsel; Hearing Department Court Counsel; and Review Department Court Counsel support. Court Counsel activities include:

- Chief Court Counsel—manage the Court Counsel functions in providing ongoing legal advice and counsel to all judges and staff of the State Bar Court; consult with judges and managers; prepare written advice, opinions and agenda items regarding legal issues; participate in judicial conferences, committee and board meetings; represent the court in its relations with external entities; provide legal analysis of legislation affecting the State Bar Court; participate in case management matters; conduct legal research; work on projects including orientation and training of new judges or work on task forces; and participate in and provide legal advice for drafting rules, policies and guidelines.
- Hearing Department Court Counsel— prepare draft decisions and orders for Hearing Judges; review proposed stipulations as requested; conduct legal research and provide legal advice regarding issues posed by judges; consult with judges regarding legal and evidentiary issues arising during trial; review, analyze and conduct legal research regarding motions and applications filed by the parties in pending proceedings; provide legal advice to the judges and court clerks; draft proposed California Supreme Court

orders; and attend meetings and training sessions to discuss legal issues and to promote uniformity among counsel and judges.

- Review Department Court Counsel—prepare bench memoranda in preparation for oral argument; prepare draft opinions, decisions and orders for Review Judges; cite check final drafts; consult with and provide legal research and advice to the Review Department on pending matters; review analyze and provide legal research and advice on motions relating to matters pending on review; prepare appropriate order for Presiding Judge; provide legal advice to the Review and Effectuations staff; draft headnotes and perform other work related to the State Bar Court Reporter; monitor the progress of all pending Review Department cases; and work on projects regarding rules and sanctions.

### **3.3 State Bar Court System Current Technical Environment**

The following provides an overview of the State Bar technical environment and systems being used by the State Bar Court to fulfill its case management business processes.

#### **3.3.1 State Bar Technical Environment**

The current technical environment within the State Bar is composed of an IBM AS/400 running a V5 R2 operating system. The servers within the environment consist of 68 Intel windows (+ AS/400) servers. There are 650 Windows Xp-based desktops (60 within State Bar Court) and 75 Windows Xp-based laptops (10 within State Bar Court). Standard key desktop/laptop applications consist of MSOffice 2000 (SP3), AS/400 IBM Emulator (iSeries Access for Windows V5.5), Acrobat Reader 7.0, IE 6, WordPerfect 9 (changing to MSWord in 2007), Hummingbird, ProLaw, and AVR (internal for RPG). There are two T1 lines that provide connectivity between the San Francisco and Los Angeles offices.

Major issues with the applications hosted on the AS/400 are that they are difficult to navigate and are not functionally integrated. Most importantly, the AS/400 and its hardware are no longer supported (note: the State Bar is in the process of replacing the AS/400 with the System i5 Server as a temporary solution), system programmers are getting harder to find and will be more costly to maintain, and it is becoming increasingly difficult to find and retain knowledgeable IT support staff to maintain the system. The State Bar Court has retained the services of a contracted programmer to develop and implement its current CMS over the last 7 years.

#### **3.3.2 State Bar Court Systems**

The State Bar Court depends on the following systems to support its case management business processes:



**Table 8. Current State Bar Court Systems**

System Name and Description	Functionality Provided	Issues
<b>CMS</b> AS400 Server Platform to be migrated to IBM System i5 Server DB2 Database Code Written in AVR 4.0	Automatically pulls information from Gracie system input from the Trial Court Office that starts the case management process for the Court. Automatically pulls member information from the Membership system. (AS/400 George system in SF) Case processing functionality supports assignments, briefing, calendaring, convictions, conferences, dispositions, events, tickler creation, motions, party profiles, status history, and transcript processing.	Does not yet have full functionality provided by the old Gracie system. Slow performance is an issue for end users (SF) not located where the AS400 server resides (LA). Only one person, a contractor, is intimately familiar with the system and has the capability to make modifications and updates in response to end user requirements. Three people can update and maintain tables. Functionality does not include automated correspondence, generation, workflow, link to case processing procedure binder contents, or onscreen help. The current system can not be modified to support web enablement of current functionality. [Note: due to capacity and security, the Web applications are running on separate servers.]
<b>CMS Reports</b> MS Access (2000 and 2003)	<ul style="list-style-type: none"> <li>■ Hearing Department Reports, including:               <ul style="list-style-type: none"> <li><input type="checkbox"/> Submitted Matters Report</li> <li><input type="checkbox"/> ADP Reports (3)</li> <li><input type="checkbox"/> Tickler Report</li> <li><input type="checkbox"/> Motions Outstanding</li> <li><input type="checkbox"/> Court Performance Standards (4)</li> <li><input type="checkbox"/> Pending Matter</li> </ul> </li> <li>■ OCTC Weekly Reports—provided as an alternative to giving OCTC access to records within the system               <ul style="list-style-type: none"> <li><input type="checkbox"/> Q Matters Report</li> <li><input type="checkbox"/> Cost Certificate Report</li> </ul> </li> <li>■ Review Department Reports (Matters Open (2); Tickler, Motions Outstanding; Pending; Monthly Case Tracking)</li> <li>■ Counsel Reports (6)</li> <li>■ Other Reports (6)</li> </ul>	Only one person has the skills to create MS Access reports. Attempts to train others have not been successful due to attrition and long-term vacancies. MS Access does not contain all required reports so end users still have to use Gracie for the remaining reports.

System Name and Description	Functionality Provided	Issues
<b>Gracie (old CMS Green Screen system)</b> AS400 Server Platform to be migrated to IBM System i5 Server DB2 Database Code Written in RPG 400	Used to support the “add a case” and “accept a case” processes. Provides reporting functionality not yet ported over to MS Access such as older green screen reports that were not converted due to minimal and/or discontinued usage and membership information which is a incomplete subset,	Outdated technology no longer generally supported in the marketplace. Since CMS is not yet completed, CMS green screen programs have not been retired, thus some employees are using both CMS systems (RPG 400 and AVR 4.0 code)
<b>George (old CMS Green Screen system)</b> AS400 Server Platform Platform to be migrated to IBM System i5 Server DB2 Database Code Written in RPG 400	Stores the official address related to each member. Stores supplemental records associated with a member.	Outdated technology no longer generally supported in the marketplace.
<b>Membership System</b> AS400 Server Platform DB2 Database Code Written in RPG 400	Maintains profile of each member that is automatically uploaded to the CMS (AVR 4.0 and RPG 400) system after a case has been added by a Case Administrator or Deputy Court Clerk.	Supplemental Record System (a small subset) needs modernization and integration with other Bar systems (like CMS in State Bar Court).
<b>Trial Counsel CMS System</b> AS400 Server Platform DB2 Database Code Written in RPG 400	Maintains the initial data associated with a case that is transferred to the Office of the State Bar Court.	System automation limitations still require Case Administrators to complete additional data entry using hard copy files submitted by the Chief Trial Counsel staff.
<b>Sanctions Database</b> MS Access 2000 or 2003	Maintains sanctions information related to cases.	Not integrated with CMS. Plans to integrate the State Bar Court Reporter with the Sanctions Database.

The State Bar Court is being directed by the California Supreme Court to put more information out on the Web for constituents. In response, the State Bar Court is pursuing the following Web related projects:

**Table 9. Current State Bar Court Web Related Projects**

Project	Functionality to be Provided	Status and Comments
---------	------------------------------	---------------------

Project	Functionality to be Provided	Status and Comments
<b>Calendar on the Web</b>	Provide court calendar by Judge, Date, and Location.	The project went live November 8, 2007.
<b>Docket (Register of Actions) on the Web</b>	Provide a chronological record of public activities in a case.	Proposal is pending with the IT with analysis and programming set to commence in early 2008.
<b>Decisions on the Web</b>	Provide Word versions of decisions on the Web. Allows attorneys and other interested parties to cut and paste decision information for use in their work.	In process (no longer considered a project, since now routine). Requires conversion of Word Perfect Docs to Word Docs, then creation of PDF so both formats can be posted.
<b>e-Filing</b>	Allow constituents to conduct business with the Court via the Internet, including: filing court papers electronically, requesting settlement conference, etc.	To be considered. While interest has been expressed by Executives, some end users have expressed concern about the significant re-engineering of processes required to effectively implement an e-filing system.

■ ■ ■ ■ Section 4—Key Findings of Current Environment

## 4.0 Key Findings of Current Environment

As a result of Gartner's meetings, interviews and the review of relevant background information as discussed above, we documented the key findings associated with the State Bar's current environment within the State Bar Court. These key findings help focus the critical shortcomings and issues that could be addressed by the implementation of a new State Bar Court system. Included are findings of both the business and technical environment. These key findings are divided into the following categories:

- CMS Replacement Potential Benefits
- Critical Issues Related to CMS Replacement (Strategic and Tactical)
- Critical Success Factors for CMS Replacement
- Current and Future Environment from a Business Perspective
- Current and Future Environment from a Technology Perspective
- Desired System Requirements

### 4.1 CMS Replacement Potential Benefits

Interviewees identified the following potential benefits of implementing a new Court Case Management System:

#### 4.1.1 Qualitative Benefits

- Better data—system should allow users to collect all data within one system and data errors should be significantly reduced.
- Improved ability to share data internally and externally as appropriate.
- Improved customer service for members and their attorneys—data and information should be more accessible and easier to use.
- Improved employee satisfaction—system should be easier to use and contain more functionality that is not available with CMS. Workflow should guide users through the system and provide for the ability to manage work and caseloads, increasing efficiency.
- Improved data reliability—system should not generate errors, improving trust in the system that complete and correct data is accessible.
- Improved end user support—system should be easier for the IT organization or contracted vendors to maintain and update.
- Improved ability to manage staff work loads.
- Improved reporting capability.

#### 4.1.2 Quantitative Benefits

- Cost savings - upgrade and maintenance costs of the system, staff redirection to supporting the expanded functionality of the new system and increased work on cases to improve timeliness pursuant to Court Performance Standards.
- Staff efficiencies—reduction in manual processes associated with file maintenance and transportation, case processing and calendaring; elimination of duplicate data entry in

separate systems (CMS, Membership database, auxiliary databases like Sanctions Database and ADP Matrix); expanding reporting capability for end users and executives; automation of court notices, forms and correspondence generation.

- Court Performance standards compliance—improve ability to reach compliance goals by reducing manual processes, managing work loads, and eliminating duplicate data entry.

## 4.2 Critical Issues Related to CMS Replacement (Strategic and Tactical)

The following sub-sections document the critical strategic and tactical issues identified based on data gathering activities. In order to ensure all critical issues were identified; we categorized our findings into the following three categories:

- People—issues related to executive and staff resources throughout the organization.
- Process—issues related to the business processes applied by either the State Bar, State Bar Court, or State Bar IT Organization.
- Technology—issues related to the technology being used by the State Bar and State Bar Court.

### 4.2.1 People

- The State Bar's salary structure has prevented the IT Organization from hiring and retaining qualified IT staff. Contract programmers have been used for 20 years since the first CMS green screen programs were implemented in 1987.
- The State Bar does not have the IT resources necessary to support a CMS replacement project at this time.
- The State Bar Court is dependent on specific individuals to implement and maintain CMS and MS Access reporting systems. Should these individuals leave the organization for any reason, the State Bar would not have the trained resources to immediately provide support.
- Organizational resistance to change and frustration with the CMS project will negatively impact support for and participation in a CMS replacement project.

### 4.2.2 Process

- The State Bar does not have the budget resources necessary to support CMS replacement.
- The State Bar has not yet successfully applied its project management methodology to a project of the size and scope required for CMS replacement.
- The State Bar does not have a comprehensive IT strategy that supports CMS replacement and provide direction for priority setting and future technology alignment.
- The State Bar does not have the communication and decision making processes in place to effectively support replacement of the CMS court case management system at this time.
- State Bar Court staff work processes are hampered by inefficient manual processes and redundant data entry required by non-integrated systems (CMS, Membership, Sanctions & ADP databases, word processing applications).

- While there have been significant improvements in the relationship between the State Bar IT Organization and State Bar Court, more work needs to be done to ensure a CMS replacement project could be effectively supported.

#### 4.2.3 Technology

- CMS system performance is a major issue, the source of which has not been determined, significantly impacting end user efficiency and effectiveness.
- The State Bar Court is currently straddling multiple case management and word processing systems in order to process their cases, impacting end user efficiency and effectiveness.
- End users do not trust the accuracy of CMS data, e.g., cases are not always associated, data entered may or may not show up on reports
- The State Bar does not have technology standards or data architecture in place that would help provide direction to CMS replacement and ensure the project is aligned with other system replacement efforts as the organization transitions from the AS400.
- CMS does not provide the State Bar Court with a modern technical platform that can effectively be modified to meet end user needs.

These critical issues must be addressed in order to ensure CMS can be replaced successfully with a modern system that meets the State Bar Court's business and technical requirements. Gartner addresses these strategic and tactical issues through our project implementation and risk mitigation recommendations found in Sections 6 and 7 of this report.

### 4.3 Critical Success Factors for CMS Replacement

Based on their experience with the CMS project and their familiarity with State Bar organizational culture, interviewees identified a variety of critical success factors that should be in place to support implementation of a new Court Case Management System. These success factors have been divided into the following six categories: Project Sponsorship, Issue Resolution, Communication, Data Architecture, Resource Allocation, and Change Management.

#### *Project Sponsorship*

- Executive management needs to sponsor the project. Executive management needs to ensure that roles and responsibilities are understood and provide clear direction to the organization. If executive management supports the project, end users will buy-in as well.
- Executive sponsorship will help drive buy-in and cooperation by departments. This buy-in is difficult to achieve when a project is pushed by the IT organization.

#### *Issue Resolution*

- Issues need to be brought to the attention of executive management early on so the State Bar can resolve them quickly before they become unmanageable.
- A system can not be designed to meet everyone's particular needs. The State Bar Court has to make choices that are in the best interest of the organization as a whole. End users should be asked to change business processes as appropriate and adjust to the system vs. customize the system to everyone's individual desires.

### ***Communication***

- The State Bar should articulate its overall IT Plan and priorities that will address the organization's needs. The Executive Team should discuss these priorities and any issues on a more consistent basis. The CIO needs to help articulate a vision for all of IT that brings together the State Bar's business departments.
- The overall IT strategy, rationale and benefits should be communicated to the organization so everyone understands where the organization is headed.
- The State Bar needs to bring more visibility to IT projects. Interviewees feel IT project activities are not communicated to the organization and are unaware of project status.
- End-user and department requirements need to be understood prior to developing/implementing a new system.

### ***Data Architecture***

- The State Bar must understand where all the critical data elements intersect among its various program areas (e.g., two critical threads are the Case number and Member number). State Bar system replacement prioritization should take into consideration data and information flow.

### ***Resource Allocation***

- The State Bar must allocate sufficient funding for system replacement and maintenance in order to ensure the State Bar Court can successfully transition to the right system at the right time. Past system development efforts have been under-funded and have not generated sufficient benefits.
- The State Bar must have dedicated business and technical resources to support the project and ensure it is completed within a timely manner. Staff should not be asked to participate in the project and complete their regular daily activities as well.
- Having the support of the PMO will be important to ensure the State Bar applies the appropriate project management best practices.
- A dedicated project manager should be assigned to the project who has experience implementing and managing projects of similar size and scope.
- The State Bar has to make sure it addresses system replacement in a logical way, prioritizing what makes sense first based on business needs (Admissions vs. Trials vs. Membership vs. Court).
- The State Bar Court will need to coordinate closely with the Office of Chief Trial Counsel and Membership.
- Business units (i.e., State Bar Court Hearing, Review, Effectuations) need to be involved in system design and requirements definition.

### ***Change Management***

- A sense of urgency must be created to engage stakeholders and obtain support for system replacement.
- The State Bar can not underestimate the organization's resistance to change. The State Bar Court will need to empower end users to accept a new system. It must have buy-in from Case Administrators.



- In order to obtain support for another change in the Court Case Management system, it would be helpful to show staff where the Court Case Management System under consideration has worked before.
- The State Bar needs a common set of principles that guide decision making (e.g., the data we have is shared data that belongs to the State Bar and our constituents vs. to a single business unit alone).
- A new system should be flexible enough to support multiple ways of getting things done (e.g., some people use key strokes, some use a mouse, some start with screen 1 and others with screen 3).

Gartner factored these critical success factors and its own best practices into the proposed solution's project implementation plan found in Section 6.

## 4.4 Current and Future Environment from a Business Perspective

The following section focuses on the State Bar Court from an overall business perspective as a result of the interviews and background material review; this section is again divided into the following areas: people, process, and technology as defined below.

- People—current state and future desires related to executive and staff resources throughout the organization.
- Process—current state and future desires related to the business processes applied by either the State Bar, State Bar Court, or State Bar IT Organization.
- Technology—current state and future desires related to the technology being used by the State Bar and State Bar Court.

### 4.4.1 People

- The State Bar Court has a relatively small end user community of 32 employees and 8 judges (plus 2 pro tem judges). Of the 32 employees, 12 Case Administrators and 3 Deputy Court Clerks conduct the majority of the system data entry and process flow tracking related to cases. The remaining employees access the system for case review and performance reporting. The 8 judges rely on the system for performance reporting and calendaring assistance.
- The State Bar Court staff is made up of long-term employees (some have been with the Office more than 20 years) who are comfortable using the green screen Gracie programs. They are not as comfortable with the CMS system. In some cases, interviewees say staff do not trust CMS given issues they have had with data entry and reporting results that do not reflect data entered. In addition, when changes are made to CMS, some systems crash and new glitches arise within the system that must be fixed. Interviewees indicated that newer employees are shocked when they see the green screen and newly developed, but difficult to navigate CMS systems the Court is using.
- When staff satisfaction was polled in 2004, staff indicated they were satisfied overall with their work environment, citing the following areas as the greatest<sup>1</sup>:

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<sup>1</sup> State Bar Court of California Court Performance Standards and Assessment January 2005, Page 43.

- ☐ Strengths of the State Bar Court: Employees, Work Environment, Teamwork and Management
- ☐ Weaknesses of the State Bar Court: Communication, Case Management System, Varied Judicial Practices and Rewards/Advancement
- ☐ Desired changes: Workload, Communication, Case Management System and Opportunities (training and advancement)
- The State Bar Court staff has been worn out and disappointed by the CMS development effort. Promises were made to end users that were not upheld (e.g., improved usability, and configuration for particular user needs). The development effort did not involve end users as much as desired to ensure their needs were addressed. The development timeline has been far longer than anyone planned. As a result, there is great resistance to using CMS and lack of trust for system replacement/upgrade efforts.
- Some interviewees indicate that there would be a negative response from end users if they were told additional funds would be spent to continue to address CMS issues. They believe it can not be improved and should be replaced.

#### 4.4.2 Process

- End users do not have a strong working relationship with the State Bar IT staff. The Court staff often find the IT staff unresponsive, unavailable, and/or difficult to work with.
- The overall technology direction and technology related initiatives and projects are not communicated to the departments or end-users. Clear and consistent processes have not been provided to improve the relationship between business and IT staff.
- Communications is an issue throughout the organization. It is often unclear to stakeholders how decisions are made and priorities are established in regards to technology initiatives and projects.
- The State Bar does not have the funding resources required to address all its critical technology needs. It is operating with the same funding level passed in 1997, but additional members have increased the total revenue. Membership dues have been at the same level since 1997. The CIO has worked with State Bar executives to request increases in membership fees to support these needs. Last year the State Bar's request for a \$25 increase in fees was denied. The approved fee bill included a \$10 IT assessment per member which will last for 3 years and generate approximately \$4.5 million over the 3 year period, 2008, 2009, and 2010. This budget will not address all the infrastructure and application upgrade needs currently identified by the CIO
- The State Bar Court has adopted a performance measurement process that is a high priority for executive management. Key performance indicators are being tracked on a regular basis; however, current systems do not help track workflow indicators that help identify areas that need improvement prior to missing a target.
- The State Bar Court processes between 800 and 1000 new cases per year. During its assessment of its processes in 2005, the State Bar Court identified backlog issues in Hearing and Review. Interviewees believe significant improvements could be made to provide better decision support for judges and court counsel, better CMS case processing systems for court staff, which would improve compliance with court performance standards as a result of the replacement of CMS and increased staff efficiencies.

- The State Bar Court has several requirements for separation within and from other State Bar Departments. These requirements have historically adversely impacted:
  - ❑ Communication that enables people to understand why decisions are made and the overall changes in direction across the organization.
  - ❑ Data sharing processes and procedures. Each stakeholder has a different data view need. The inability to adequately address security requirements related to confidential information impacts how CMS is used today. [Note: One of the 1987 underpinnings of the CMS was for court to enter data which Trial Counsel could display.]
- Case Administrators use a number of inefficient processes associated with case processing. In general, these inefficiencies are generated by the variety of ways staff use and/or do not use the automated systems available to them, requiring duplicate data entry and/or slower processes. These processes include the following:
  - ❑ Calendaring in Court—One Case Administrator interviewed uses CMS older green screen programs to schedule cases since CMS is not fast enough. Other Case Administrators use hard copy calendars. In either case, these Case Administrators then enter the information in CMS newer AVR programs after they leave the Court.
  - ❑ Ticklers—One Case Administrator interviewed uses the CMS tickler functionality to track dates and preparation time associated with cases. This person then runs weekly reports to track the work required for their judge. Other Case Administrators use post-it notes to remind them of the work required. This manual approach can make it difficult to provide a judge with an overall picture of the workload ahead.
  - ❑ Reporting—End users rely on one staff person who has the capability to configure reports for CMS. It takes several iterations between an end user and the report developer before a report can be finalized. If the report developer is unavailable, the end user must wait.
- The State Bar Court's Court Performance Standards Action Plan, among other tasks, includes the development, expansion and online delivery of additional information to pro per respondents to improve their participation in pending cases. Due to numerous, long term staff vacancies, work has not commenced on these projects.
- The California Supreme Court and the Executive Director are requiring the State Bar Court to put more information on the Web as a service to State Bar membership and the public. It is unclear to State Bar interviewees how the priorities have been established for Web projects. Concerns were also raised that some activities currently being pursued may not generate the most benefit for members or the public (e.g., a Court Calendar on the Web vs. Court decisions provided in a re-usable format for attorneys).
- Stakeholders interviewed emphasized the importance of security in relationship to data maintenance and sharing functions. The current CMS does not preserve this security in a manner stakeholders need (e.g., Office of Chief Trial Counsel can access data that should not be accessible, given it is not accessible to the public without requesting it from the Court). Interviewees would like data to be presented only to those who have approved access in order to preserve the guidelines of court procedures and fairness to all involved in a case (e.g., if something can be accessed in the system by the Office of Chief Trial Counsel, this access should also be given to the external litigants and the public to maintain fairness). Modernized systems are built to provide this level of security not available today through CMS.

- Stakeholders interviewed indicate that the following functionality would help generate staff efficiencies:
  - ❑ Automated workflow: CMS does not provide end users with help functionality or assistance with workflow. As a result, users often forget where they need to go next and must refer to binders of written procedures, review work completed by going back through screens they may already have completed. The old CMS green screen programs were easier for users who just moved through the work process by moving from one screen to another.
  - ❑ Correspondence generation: CMS has improved correspondence generation by giving users the capability to cut and paste CMS data into a Word document. However, this process does require multiple steps. End users would like a system that automatically generates correspondence and can generate the same correspondence for multiple parties vs. having to create individual documents manually each time.
  - ❑ e-Filing: CMS can not be web enabled to support e-Filing functionality. E-filing would allow the Office of Chief Trial Counsel, defense bar, respondents and all other litigants to submit information and automatically populate (with the appropriate security controls) the State Bar Court's system via the Internet. This functionality would eliminate duplicate data entry (in CMS, Membership, word processing systems and manually kept Intake records) currently required by Case Administrators who currently use paper files to obtain and enter relevant case data.
  - ❑ Data validation: Current data issues often can be contributed to data entry errors that may be resolved through data validation functionality (exception and audit reports) that could potentially identify errant data provided and/or that data is missing from a required field.
- Should staff efficiencies be achieved with the implementation of a new CMS, interviewees believe staff time could be redirected to the following activities:
  - ❑ Quality assurance—review of system data, file records, compliance with performance standards.
  - ❑ Scanning and indexing of old files into a document management and data retention system.
  - ❑ Support for re-assignment of workload as required.
  - ❑ Additional data entry required as a result of new functionality and data capture capabilities provided.
  - ❑ Actively manage cases to meet or exceed applicable court performance standards.

#### 4.4.3 Technology

- CMS is not used consistently throughout the organization. Some staff use up to three different systems (Gracie, George, and CMS) to complete their work. They also use manual work arounds to address needs not addressed by CMS and/or they are frustrated with CMS processes. This is extremely inefficient for end users who must support Judges and Attorneys by using these systems on a daily basis. According to interviewees, when staff identify issues with the system, they are often told to use work arounds rather than have these issues addressed through programming changes.

- Overall, users feel that CMS did not improve upon functionality and in some areas decreased in functionality. They feel CMS is difficult to navigate, is not customizable by business area and does not include any form of workflow.
- The State Bar Court relies heavily on one individual for the majority of its reporting needs. If this individual were to leave for any reason, the Court staff would not have the expertise available to update, modify, or create new reports outside the existing reports made available through MS Access for the newer CMS application and the AS400 for the old green screen CMS application. Previous attempts to cross-train other employees in this capability have been unsuccessful due to attrition and long-term vacancies.
- System end users feel disappointed by promises made prior to CMS development that have not been delivered including:
  - ❑ The ability to customize department screens for their particular work processes.
  - ❑ Improving system usability.
  - ❑ Building workflows specifically for each department into the system; ensuring end users could easily follow their processes.
- The State Bar Court has initiated a project to scan, index and post on the website documents pertaining to the disposition of cases that involves the following:
  - ❑ Scanning and indexing of documents using Kwiktag software; verification; uploading and linking with website attorney discipline records.
  - ❑ The Effectuations staff has scanned and posted online decisions, opinions and California Supreme Court orders for cases disposed in 2006, 2005 (about 50% are done), 2004 and 2003. As time permits, they will be working on 2002 documents. New incoming documents are processed as received.
- System support issues—CMS is not supported by the State Bar IT organization. The IT organization does not have available resources or the skills required to support CMS. Attempts to work with IT organization staff have failed in the past, including partnering on CMS application distribution to desktops and improving reporting capabilities.
- Network System performance issues—CMS has exhibited numerous performance issues as described below:
  - ❑ Users located in the same City as the AS400 server experience faster performance than those in the remote City. While the network was upgraded from a T1 to a T3, this improvement has not resolved the CMS performance issue. This situation currently impacts San Francisco users who handle 1/3 of the Court's workload. There are plans to relocate the system to an upgraded server in San Francisco, potentially increasing the performance issue to 2/3 of the Court's employees and workload located in Los Angeles.
  - ❑ Users experience system crashes on a regular basis as a result of:
    - Using too many applications at the same time (e.g., Gracie, CMS, George, and Outlook)
    - Performing the same function for multiple parties or entities more than twice (e.g., printing a calendar for different court rooms)
    - Upgrades of CMS loaded on their desktop

- ☐ Users enter data into CMS and when they print reports, may not find the data they entered, forcing them to request data fixes.
- ☐ Network System changes can adversely impact previous functionality, forcing end users to request bugs be fixed by the programmer.
- Reliance on single points of failure for system support:
  - ☐ CMS: rely on a contractor to provide upgrades and break/fix/maintenance support for CMS. While other contractor staff and State Bar IT staff have tried to support the project, they have been dismissed for lack of performance. Should the one individual leave for any reason, his firm has two AVR qualified programs working at the State Bar who could be redirected to support the CMS, but that would impact other State Bar work to which they are currently assigned. They would also have to teach themselves about the system using the other contractor's notes documented in the code.
  - ☐ CMS MS Access Reports: rely on a single State Bar Court employee to develop these reports and make them available to end users. While attempts have been made to train other employees in report preparation, these have not been successful.
- Interviewees indicated that commercial off-the-shelf (COTS) solutions have been assessed in the past, yet have not been acquired for several reasons:
  - ☐ The Court staff sought proposals, evaluated bids including vendor product demonstrations, and elected to upgrade the CMS RPG 400 code using AVR code and programmers contracted through IT.
  - ☐ Some court staff do not believe a COTS product can adequately address the functionality provided by CMS today (i.e., Calendaring, Case Management, and Reporting functionality) or the future CMS (i.e., integrate e-Filing, document management, membership's supplemental records system).
  - ☐ Other states are pursuing customized applications after evaluating the COTS market (e.g., CIO of Colorado Court System).
- The matrix below identifies whether the key business findings and related impacts are supportive of the identified business drivers, and if the resolution of those findings and impacts will help meet or exceed those drivers.

**Table 10. Business Drivers Supported by Findings**

Identified Business Drivers	Key Findings Supportive of Drivers?
Improve the State Bar Court's ability to provide the public and members with Internet access to State Bar Court information.	Yes
Improve the State Bar Court's ability to comply with established Court Performance Standards.	Yes
Improve the State Bar Court's ability to share and exchange relevant data among State Bar Court staff and key stakeholders while achieving the Court's information dissemination goals.	Yes
Provide for the timely development and delivery of system reports including: <ul style="list-style-type: none"> <li>■ Standard reports and customizable reports for management.</li> <li>■ Ability to generate ad hoc reports as needed.</li> </ul>	Yes

Identified Business Drivers	Key Findings Supportive of Drivers?
Implement a system that utilizes defined workflow processes and end user help functionality to “guide” users through system and State Bar Court staff functions, during the entire case management process from intake through case disposition.	Yes
Through automation of business processes, workflow and reduced time frames, redirect staff to case processing activities that increase the number of cases meeting time pendency standards, conduct data quality assurance activities, track and report on additional case data, and continue to work toward implementation of a pilot program for a fully electronic case file through support of document management activities. These activities will provide enhanced case management support and service delivery to attorneys, judges, State Bar members, and the California Supreme Court.	Yes

## 4.5 Current and Future Environment from a Technical Perspective

The following section concentrates on the State Bar from an overall technology perspective as a result of the interviews and background material reviewed; this section is also divided into the following areas:

- People—current state and future desires related to the State Bar IT Organization.
- Process—current state and future desires related to the business processes applied by the State Bar IT Organization.
- Technology—current state and future desires related to the technology being used by the State Bar and State Bar Court.

### 4.5.1 People

- Interviewees believe positive changes to the IT organization’s culture and processes have been made as a result of the CIO’s leadership over the past few years.
- It is a challenge hiring qualified IT staff given the salaries the State Bar can offer applicants. The IT organization currently has several Web programming positions that are unfilled.
- The State Bar Court has two liaison positions for IT (Court Services Analyst/Technicians—CSAT). While other liaison positions were given to the CIO and made part of the State Bar technical team, these positions remain with the State Bar Court. The liaisons perform the following functions:
  - ☐ Provide technical support to all users and courtrooms in each venue (LA and SF) for all systems including digital recording, desktop applications, etc.
  - ☐ Administer the Discipline Online and Cost Recovery programs including performing a quality control function.
  - ☐ Work closely with Membership Records staff to resolve the most complex issues involving status changes, inactive enrollments, and suspension start and end dates.
  - ☐ Manage all permanent records pursuant to records retention policies.

- ☐ Document the CMS application in technical specifications for the contract programmer.
- ☐ Document end user needs and supports the end user community.
- ☐ Help end users resolve issues with CMS, walking them through screens if necessary. If an issue can not be resolved, escalates the issue to the CMS contractor.
- ☐ Deploy CMS updates to end user desktops.
- ☐ Corrects data errors identified by end users.
- It has taken approximately seven years to develop and implement CMS.
  - ☐ The State Bar has been unable to hire qualified resources to support CMS design, programming, and implementation. It therefore has had to rely on contractors for project support.
  - ☐ Initially programming activities were conducted offsite. They were brought onsite after numerous issues had been identified with the project.
  - ☐ Initially, three programmers were contracted to complete the project. However, issues with two programmers led to their release and retention of the current CMS contractor who has been responsible for programming, testing, and implementation. He is also responsible for maintenance and bug fixes, and has additional duties for IT working on other applications.

#### 4.5.2 Process

- The State Bar IT organization has recently implemented a PMO and conducted project management training. In the future, trained project management resources will be assigned to IT projects. These practices have not yet been applied to the CMS implementation effort as detailed in the following bullet.
- The processes used to develop, test, and implement CMS have not adhered to best practices (e.g., defined software development lifecycle, IEEE - Institute of Electrical and Electronics Engineers standards).
  - ☐ All processes depend upon one person, a contractor, who designs, codes, tests, and then deploys the system to users. While users do participate in end user testing and acceptance, this process relies too heavily upon one resource.
  - ☐ After numerous process changes, the latest SBC/IT test flow plan was implemented in March 2007 and continues to be used successfully.
  - ☐ Project management best practices are not being applied to help bring a 7 year design and implementation process to closure. At this time, an excel spreadsheet is being used to track activities related to system design and implementation. No formal estimates are being provided by the contractor that can be used as a guideline for resource management. It is currently believed that the CMS will be completed with all necessary functionality by the end of 2007; however, the contractor has projected additional activities (e.g., addressing bug fix issues and cleaning up core code) and indicates the system will be completed by January or February of 2008.
- Interviewees believe that management from departments should participate in more decision making related to business process changes.
- IT help desk issue submission processes are performed manually. Requests from end users must be submitted by downloading a PDF form, completing the form by hand and



then submitting it for processing. This manual process can make it cumbersome for end users to obtain timely assistance from technical support.

- The IT organization plans on moving programming staff physically to the business units so they have an improved understanding of business processes and can improve their responsiveness. This approach replicates what is currently being done for CMS, having the contractor do his work onsite with the State Bar Court staff.
- A clear IT strategy has not been articulated to the IT organization or the State Bar executives. As a result, interviewees were unable to comment on this direction; rather they requested this be made clearer to them.

#### 4.5.3 Technology

- The IT organization is upgrading the AS400 to an IBM System i5 Server. In the long term, it will migrate applications from the mainframe to a server environment that is more flexible and easier to maintain.
- The AS400 environment does not allow staff to move current applications to a Web enabled environment. In addition, the IT organization does not have the resources to accomplish all the webification business units desire.
- The IT organization has adopted Cognos as a reporting tool. However, data modeling issues with Cognos and the AS400 have not been resolved, so the tool has not been rolled out for full end user adoption. In addition, a lack of resources and skills has prevented roll-out from being completed.
- The new CMS application is documented according to interviewees. Documentation is provided above and below code to remind the contractor why and what changes have been made over time. The CIO has not seen this documentation. At this time, Gartner can not determine whether another programmer could pick up this documentation and support the system. Some interviewees believe that this documentation would be sufficient if necessary.
- CMS (the new AVR application) performance issues have not been fully diagnosed. It is hoped by IT staff that transition to a new application will solve this issue.
- The IT organization would like to establish the following standards for the State Bar. It is hoped that these standards will improve the organization's ability to hire qualified staff and maintain currency with evolving technologies:
  - ☐ Data share interface guideline: Judicial XML
  - ☐ Database: SQL Server
  - ☐ Web Platform: ASP.NET 2.0
  - ☐ Programming language: C#, .Net
  - ☐ COTS applications that fit within the State Bar infrastructure
  - ☐ MS Office 2007 Office Suite for Word Processing: MS Word
  - ☐ Business Intelligence and Analysis Reporting tools: Cognos
- The matrix below identifies whether the key technical findings and related impacts are supportive of the identified technical drivers, and if the resolution of those findings and impacts will help meet or exceed those drivers.

**Table 11. Key Findings Support for Technical Drivers**

Identified Technical Drivers	Key Findings Supportive of Drivers?
Implement technologies compliant with current industry standards that provide for a reliable and supportive system and technical environment.	Yes
Implement a flexible (e.g., can be modified to meet changing business needs and/or updated to comply with new technical standards) and extensible (i.e., expanded to meet changing scope) system that can be modified by internal resources to support changing business needs (e.g., addition of functionality to support the Alternative Discipline Program, creation of new standard and ad hoc reports).	Yes
Establish a 24/7 supported IT environment to support a new State Bar Court case management system, internal hosting of Web services and other State Bar applications/systems.	Yes
Implement an integrated, user-friendly and graphical user interface (GUI)-based system, which includes updated business processes and defined workflow to provide for an easy-to-navigate State Bar Court Case Management system that helps improve staff efficiency and effectiveness.	Yes
Reduce costs through elimination of contracted system customization vendors and provide for internal support of a new State Bar Court Case Management system.	Yes

## 4.6 Desired System Requirements

State Bar Court Case Management system end users expressed a desire to replace CMS with a modern system that provides the workflow of the old CMS Green Screen system, additional functionality provided by the new CMS, and additional functionality not currently provided. System end users and State Bar IT staff interviewed by Gartner identified the following business functional and technical requirements that can not be met by the new CMS today.<sup>1</sup>

### 4.6.1 Additional Business Functionality not Available Today

- Case Consolidation and Severing
  - ☐ The ability to consolidate cases using one screen vs. having to go into multiple cases to consolidate into one.
- Document Management and Data Retention
  - ☐ The ability to attach documents to case files so that each case has an electronic file of all records associated with that case.
  - ☐ The ability to track where hard copies are stored related to a case.
  - ☐ The ability to provide judges with briefs in electronic format.

<sup>1</sup> Please note that this is not an exhaustive list of system requirements as Gartner did not conduct official requirements data gathering with the State Bar Court subject matter experts. Gartner identified these requirements during its data gathering interviews with a select number of individuals as part of this feasibility study effort. A full set of requirements should be developed in preparation of a request for proposal should this project be approved in the future.

- ☐ Provide judges with the capability to add comments/questions to a brief in electronic format.
- ☐ The ability to transfer case files online.
- Automated workflow
  - ☐ The ability to enter data according to standard processes and procedures that are prompted by the system. The system should allow end users to easily track where they are in a data entry process and if interrupted can return, knowing exactly where to pick up where they left off.
- e-Filing
  - ☐ Provide the Office of Chief Trial Counsel with the ability to enter their case information online and, with appropriate controls and security, have it populate the Court system automatically.
  - ☐ Provide external parties (i.e., Office of Chief Trial Counsel, attorneys representing clients, all litigants) the ability to access court calendars to view and request settlement conferences or status conferences (e.g., motions).
- Court Performance Management
  - ☐ The ability to track and report on court performance standards related to our business processes (e.g., time frames associated with case processing, review processing, scheduling of hearings and oral arguments).
  - ☐ The ability to easily view a summary of performance statistics with a dashboard.
  - ☐ The ability to get an early warning or exception report before cases that deviate from timelines.
- Scheduling Tickler Due Dates
  - ☐ The ability to set system rules to automatically shift a due date to the previous or following business day if a date falls on a Saturday, Sunday or holiday.
- Data validation
  - ☐ The system should have the capability to validate whether certain data fields contain correct information (e.g., dates).
- Search Capabilities
  - ☐ The ability to search for case information (e.g., insert judge's name and generate all workload for that judge).
  - ☐ The ability to identify trends related to case work (e.g., dispositions, time for resolution, success rates for program intervention).
- Correspondence
  - ☐ Ability to automatically generate documents related to a case including: notices, forms, orders and declarations of service (DOS).
- Reports
  - ☐ The system should have ad hoc reporting capabilities that allow end users to develop and modify their own reports without reliance on one reporting subject matter expert.
- Data Access

- ☐ The ability to provide judges and lawyers with online access to and use of past decisions or opinions for use in their current work (e.g., cut and paste language for their own documents).
- ☐ The ability to provide the public with access to convictions violation information online.
- ☐ The ability to share and exchange data electronically with other systems (e.g., California Supreme Court)
- Alternative Discipline Program (ADP)
  - ☐ The ability to enter and maintain the data required to support this program including: Name, Case Number, Violations, Aggravation, Mitigation, Substance Abuse or Mental Health, Degree of Discipline.
  - ☐ The ability to reconfigure system easily to meet the changing requirements of this program as it evolves.

#### 4.6.2 Technical and End User Support Requirements

- Stability
  - ☐ Allow end users to access multiple applications while using the system.
- Response Times
  - ☐ Improved response times that allow end users to efficiently conduct their work (e.g., calendaring, data entry).
  - ☐ Consistent response times regardless of their work location (e.g., Los Angeles or San Francisco).
- Usability
  - ☐ System should be browser based providing common sense navigation for end users.
  - ☐ System should be configured so that each business unit (e.g., Hearings, Review, Effectuations) can have screens and work flow that meet their specific business needs (i.e., when Review logs on, they may have access to screens only relevant to Review).
  - ☐ System should be flexible enough to support multiple ways of getting things done (e.g., some people use key strokes, some use a mouse, some start with screen 1 and others with screen 3). End users should be able to revise errors they find in data entry without having to go through several major processes that hinder their progress and/or efficiency.
  - ☐ Data entry should be easy to complete, allowing an end user to flow seamlessly from screen to screen without having to back out of a screen and then start over in another screen, interrupting their train of thought and efficiency.
  - ☐ System should provide help information when a user runs their cursor over a particular function/field.
  - ☐ Screen fonts should be adjustable for end users who have varying sight requirements, and in compliance with ADA best practices and ANSI standards.
- Maintainability

- ☐ System and updates should be deployable to all desktops from a central location. (This is not possible today. Past attempts to build an installer have failed and resources for this effort were lost.)
- **Security**
  - ☐ Ability to ensure data is accessed only by the appropriate parties to ensure confidentiality of case information and fairness to all parties can be preserved.

■ ■ ■ ■ Section 5—Conclusions and Recommendations

## 5.0 Conclusions and Recommendations

This section details Gartner's overall conclusions regarding the current State Bar Court business, business processes, supporting technology systems and platforms, and future direction. These conclusions are based on the findings documented in the above sections as a result of Gartner's review of State Bar and State Bar Court documentation, meetings/discussions and interviews with stakeholders and industry best practices.

Gartner has developed key recommendations to help guide the State Bar and State Bar Court in the necessary tasks, actions and processes to move to a new State Bar Court system.

This section includes the following areas:

- Business Area Conclusions
- Technical Area Conclusions
- Identified Cost Savings
- Alternatives Analysis and Recommendations
- High-Level Implementation Cost Estimate

### 5.1 Business Area Recommendations

The State Bar is in need of a new State Bar Court system that will enable State Bar Court to improve its ability to meet the needs of litigants, key stakeholders and all interested parties, improve case management processing time frames, reduce errors and improve the office's ability to provide members and the public with information via the Internet. Staff and management are constrained by the current systems and the systems' associated business functions and processes. The State Bar Court will not be able to move toward an improved business and technical environment, while reducing costs, and will have a difficult time meeting future State Bar Court business needs if a new system is not implemented. It will be difficult to meet these needs with the current business environment.

It is anticipated that it will take approximately 12 months to fully prepare for the State Bar Court System project, attain executive management buy-in, obtain funding and select a system integrator and project manager. Gartner recommends that State Bar Court, with the assistance of the Information Technology Department, pursue the following activities to improve its readiness for project implementation:

- **CMS Completion**—The State Bar should establish with the current CMS contractor:
  - ☐ A clear timeline and cost associated with completing implementation of CMS. The contractor should be managed against this timeline and budget to ensure project completion.
  - ☐ A warranty for CMS that ensures the State Bar does not have to pay additional costs related to break/fix and system failures identified for a specific amount of time after system acceptance.
- **Retirement of Old CMS Green Screen Application**—The State Bar Court should not allow its end users to access old CMS green screen systems after the new CMS has been fully implemented. Reports only available currently through the old CMS should be rewritten in MS Access or be the only functionality made available to end users if absolutely necessary.

- **CMS Replacement Prioritization**—The State Bar should evaluate the priority and timing for replacement of CMS within the context of an overall IT strategy that is agreed upon by the State Bar’s executive management team. This context should include consideration of the organization’s:
  - ☐ Available budget and staff resources that are required to effectively implement and maintain a new system.
  - ☐ Plans to migrate off the AS400 and plans related to the IBM System i5 Server.
  - ☐ Enterprise data requirements and plans for replacement of other enterprise systems.
  - ☐ Document management and data retention policies.
  - ☐ Requirement to improve compliance with court performance standards.
- **IT Strategy Development**—The State Bar should bring its business and IT leadership together to develop and agree upon an IT strategy that clearly defines the organization’s plans for technology over the next 3 years. This strategy should be communicated to all State Bar employees to help them understand the organization’s priorities and plans related to future upgrades and business transformation enabled by technology advances.

The State Bar and State Bar Court should strongly consider moving forward with the implementation of a new State Bar Court Case Management system. It will not be able to meet the identified business drivers without doing so. Below is a matrix of the Business Drivers compared to the ability to meet them without moving to a new system.

**Table 12. Business Area Drivers to No System Action**

Business Drivers	Ability to Meet Without a New System
Improve the State Bar Court’s ability to provide the public and members with Internet access to State Bar Court information.	Current systems do not easily support this requirement, so workarounds are currently being used and established to provide information via the Internet.
Improve the State Bar Court’s ability to comply with established Court Performance Standards.	CMS does not easily facilitate performance reporting and workflow analysis that helps the organization manage workflow bottlenecks. Additional time and effort is therefore required to identify and resolve issues resulting in lack of compliance with established performance standards.
Improve the State Bar Court’s ability to share and exchange relevant data among State Bar Court staff and key stakeholders while achieving the Court’s defined information dissemination goals.	The current CMS does not provide end users with the confidence that information is secured from inappropriate access by key stakeholders (e.g., OCTC).
Provide for the timely development and delivery of system reports including: <ul style="list-style-type: none"> <li>■ Standard reports and customizable reports for management.</li> <li>■ Ability to generate ad hoc reports as needed.</li> </ul>	The current CMS reporting capabilities require dedication of employee resources to managing ad hoc MS Access report development and distribution that is very time consuming. Not all required reports are accessible through CMS at this time.



Business Drivers	Ability to Meet Without a New System
Implement a system that utilizes defined workflow processes and end user help functionality to “guide” users through system and State Bar Court staff functions, during the entire case management process from intake through case disposition.	CMS is difficult to navigate and does not have user help for workflow functionality built in providing end users with guidance as they complete required data entry. Given the lack of usability, a number of staff do not use CMS and are either using the old system or requesting others help obtain information for them.
Through automation of business processes, workflow and reduced time frames, redirect staff to case processing activities that increase the number of cases meeting time pendency standards, conduct data quality assurance activities, track and report on additional case data, and continue to work toward implementation of a pilot program for a fully electronic case file through support of document management activities. These activities will provide enhanced case management support and service delivery to attorneys, judges, State Bar members, and the California Supreme Court.	CMS does not help improve staff efficiency and effectiveness required to provide management with the opportunity to redirect staff to timely processing of cases, conducting data quality assurance, and tracking and reporting on additional case data. Nor is the organization able to expand its current document management and data retention efforts that support electronic case files.

A summation of core business needs and recommendations, as a result of the current findings, are below:

- Implement an upgraded court case management system that includes Alternative Discipline Program and e-Filing capabilities and is integrated with OCTC functionality to facilitate workflow and data exchange between offices.
- Re-engineer business processes to meet business and system needs.
- Utilize both the services of a system integrator and an outside project manager to review business processes, customize the COTS system, and test and implement the new State Bar Court Case Management System.
- Implement a system that has automated workflow, user help, and trigger functionality.
- Implement a system with reporting feature that includes defined standard and ad hoc system-generated reports.
- Reduce and eventually eliminate producing, printing and filing hardcopy case related document and various forms of correspondence, including expansion of document management and scanning/imaging processes.
- Develop processes and interfaces with external stakeholders (e.g., the California Supreme Court).

## 5.2 Technology Area Recommendations

The current State Bar Court case management system is dependent older mainframe based technology (IBM's AS/400 platform being upgraded to System i5 and AVR customized coding), are not user-friendly to operate/navigate in, and do not function as a workflow tool or utilize contemporary industry business best practices or processes. The State Bar does not have internal resources that can maintain and upgrade CMS and must contract with external custom

programmers to address business requirements. The State Bar Court faces two very key technical requirements at this pivotal time for its system; they are:

- Enhancement of the State Bar's IT environment to a system architecture and technologies to provide a strong and dependable 24/7 operation and support that allows secure, reliable system access for State Bar staff as well as litigants, stakeholders, and all interested parties access/use
- Implement a new court case management system that provides the foundation for a new service delivery model for the State Bar Court that is workflow-focused and provides the needed flexibility and functionality to support current and future business requirements

State Bar Court needs to move to more-contemporary technologies that support a process-driven environment, is more supportable and reliable, operates in a 24/7 environment, and enables integration with third parties (e.g., the California Supreme Court). The State Bar Court needs to utilize the remaining viable time on the IBM System i5 server to refine its business processes and implement updated technologies.

A new system will enable the State Bar Court to refocus how it delivers its services to its members, enabling staff to save time, reduce costs and improve compliance with Court Performance Standards. The State Bar Court is in a very advantageous situation to be able to implement a new system based on the need to improve service delivery and technology.

The State Bar and State Bar Court should strongly consider moving forward with the implementation of a new State Bar Court case management system. It will not be able to meet the identified technical drivers without doing so. Below is a matrix of the Technical Drivers compared to the ability to meet them without moving to a new system.

**Table 13. Technical Drivers to No System Action**

Technical Drivers	Ability to Meet Without a New System
Implement technologies compliant with current industry standards that provide for a reliable and supportive system and technical environment.	Current platform and technologies are not easily modified, are difficult to support both from a technical and IT staff standpoint, and are severely limited in their integration capabilities.
Implement a flexible (e.g., can be modified to meet changing business needs and/or updated to comply with new technical standards) and extensible (i.e., expanded to meet changing scope) system that can be modified by internal resources to support changing business needs (e.g., addition of functionality to support the Alternative Discipline Program, creation of new standard and ad hoc reports).	The current systems and platform technologies can not be supported by existing internal resources due to the lack of skills required to support these outdated technologies. These systems are not easily modified to address changing business requirements.
Establish a 24/7 supported IT environment to support a new State Bar Court case management system, internal hosting of Web services and other State Bar applications/systems.	24/7 support would be able to be met without moving to a new system; however, the need would not be as urgent without a new system.
Implement an integrated, user-friendly and graphical user interface (GUI)-based system, which includes updated business processes and defined workflow to provide for an easy-to-navigate State Bar Court Case Management system that helps improve staff efficiency and effectiveness.	The current systems platform and operating systems are not difficult to navigate and not trusted by users due to data integrity issues. The current system can not be easily redesigned to meet end user system usability requirements.

Technical Drivers	Ability to Meet Without a New System
Reduce costs through elimination of contracted system customization vendors and provide for internal support of a new State Bar Court Case Management system.	The current systems can not be supported by existing internal resources due to the lack of skills required to support these outdated technologies.

A summation of core technical needs and recommendations is documented below:

- Existing systems are difficult to navigate, are not user-friendly, and are not integrated; implement an integrated, user-friendly, easy-to-navigate, GUI-based system that includes automated workflow, scheduling and reporting.
- Implement a secure database and server-based environment that utilizes role-based access and usage based on responsibilities, permissions, job-functions and qualifications.
- Move away from multiple systems and databases and consolidate to an integrated and scalable system.
- IT needs to move to a 24/7 supported IT environment.
- Eliminate the need for third-party external customization providers.
- Automate interfaces to external entities (e.g., California Supreme Court) and expand use of electronic document management and data retention to reduce manual transfer of information and data, data entry and the number of hardcopy papers/files that require storage.

The State Bar will experience significant consequences if it does not pursue replacement of its current State Bar Court System. These consequences include increased maintenance costs, decrease in reliable data and information, decrease in staff efficiency, and the inability to achieve Court Performance Standards. Planning for the replacement of the existing system today, will help mitigate these consequences and ensure the State Bar Court continues to effectively service its constituents on behalf of the California Supreme Court. The following outlines the consequences of taking no action:

- Increased maintenance costs – As the years go by, it will become more costly to maintain outdated technologies and programming associated with the current case management system. It will become more difficult to find the skills needed to update customized code and as a result prices for these skills will increase. When other business units move off the mainframe technology, it will also become more expensive to maintain one application using more server capacity than required.
- Decrease in reliable data and information – End users indicate today that they do not trust the data provided in the current case management system. As a result, they have developed manual workaround and/or conduct duplicate data entry to update system records. These manual and data entry processes add opportunities for continued data errors, not from the system, but from human error.
- Decrease in staff efficiency – Staff have already developed workarounds in order to avoid using the current system. These workarounds make staff less efficient. As new staff are hired who are used to more user friendly systems, their efficiency will suffer and will be less efficient than experienced staff who have mastered workarounds and system use. In addition, IT staff efficiency will be adversely impacted. As other business units transition to industry standard technologies, IT staff will be trained and/or hired to

support these technologies. They will be significantly challenged to support an environment that contains multiple platforms and will likely rely on outside contractors wherever possible. Their management of these contractors will add a layer of complexity to this system's support that they will not require for most other systems.

- Inability to meet court performance standards – Staff today are not able to comply with court performance standards in several areas. A new system would support increased efficiency that supports achievement of these standards. The lack of a new system will continue to hinder staff's ability to comply with these standards and management's ability to help improve the environment in support of compliance.

### 5.3 Identified Cost Savings

The most critical factor driving replacement of CMS is the need to migrate from technology that is no longer readily supported and is not flexible or extensible enough to meet the State Bar Court's changing business needs. This factor does not typically generate significant cost savings; however, replacement of CMS should generate staff efficiencies that help further justify implementation of a new Court Case Management System. At this time, it is estimated the State Bar could save annually approximately \$115,507 in administrative cost savings and \$296,490 in staff efficiencies for a total of \$411,997 annually after the first year of system implementation. Detailed assumptions related to these estimates are provided in the Attachments. The following provides a high level overview of cost savings and efficiencies categories

#### 5.3.1 Administrative Cost Savings

Administrative cost savings can be generated in the following areas:

- Mail/postage costs
- Copying costs
- Storage costs
- CMS System maintenance costs
- CMS System licensing costs

Some policies and practices may need to be adjusted to achieve these savings (e.g., policies related to data retention and document management). The State Bar Court should work with appropriate stakeholders to review policies and procedures, identifying those that could be changed with the implementation of a new court case management solution.

#### 5.3.2 Estimated Staff Efficiencies

In order to capitalize on the opportunity to generate staff efficiencies, the State Bar will have to implement aggressive change management support systems and decide how it will redirect staff to balance workloads and to new activities. Staff efficiencies have been quantified in the following areas:

- Elimination of duplicate data entry related to case processing and calendaring
- Significant reduction in manual processes associated with paper file processing and duplication
- Significant reduction in shipping case files to/from Los Angeles and San Francisco
- Reduction in time spent preparing ad hoc reports and queries

- Reduction in time spent preparing correspondence
- Reduction in data entry as a result of e-filing capabilities
- Reduction in time associated with data error correction
- Increase in time allocated to process and manage cases pursuant to timelines to meet court performance standards

These efficiencies have been calculated applying conservative estimates, thus the State Bar could generate additional efficiencies under the best circumstances. The State Bar will need to work with its human resources staff and management to agree on how staff time will be redirected and ensure new activities comply with existing position descriptions. At this time, it is anticipated no new training would be required to pursue new activities beyond new system training.

It should also be noted that total estimated efficiencies will not be generated immediately, but likely after the first year of implementation once end users have adjusted to the new system and have modified their work behaviors based on recommended work process best practices and re-engineering as appropriate.

## 5.4 System Acquisition and Implementation Best-Practice Overview

Gartner defines a best practice as “an activity or procedure that has produced outstanding results in another situation and could be adapted to improve effectiveness, efficiency and/or innovativeness in another situation.” For the purposes of this Business Case, we believe it is import to focus on application implementation best practices and processes in use by the public sector and private sector.

### 5.4.1 Application Implementation Best Practices and Processes

Gartner recommends that State Bar Court look to buy as opposed to build an application to reduce overall business, budget, schedule, operational and organizational risks. The purchased application should reside on a contemporary platform, and utilize contemporary languages and database technologies. In doing so, this will help in implementing a system that is integrated, supportive, highly configurable to meet the State Bar Court’s needs.

Gartner recommends that the State Bar and State Bar Court utilize both the services of a system integrator and an outside project manager to review business processes, customize the COTS system, and implement and test the new State Bar Court System. The primary reasons for this recommendation is based on current staff responsibilities and their limited availability to manage a project of this magnitude; the skills needed to configure the system; and the need for standardized and rigorous project management methodologies and practices.

State Bar Court needs to take ownership and internally direct the project, working closely with the external project manager. It is crucial that the project and State Bar Court have high-level executive management support and that the Executive Director serve as the project sponsor. The State Bar Court should select a project manager from within State Bar Court and internally direct the project and act as the single point of contact and oversight for the System Integrator and Project Manager. Information Technology should not be the project manager of the project but should be heavily involved on a daily basis, ensuring compliance with Project Management Office methodologies. In addition, a project steering committee needs to be established to help ensure that the best all-around decisions are made and that there is complete and continued project buy-in.

The State Bar Court needs to ensure that IT and any potential vendors follow best practices for application implementation. These best practices include:

- Defining and adhering to RFP level business, technical, implementation and service support requirements
- Establishment of a defined governance process
- Provide for project oversight or IV&V
- Project Management Institute (PMI) best practices and processes used
- Defined project schedule, project team organization, project team roles and responsibilities
- Development of plans/processes for:
  - ☐ Configuration Management
  - ☐ Risk Management
  - ☐ Master Test Plan
  - ☐ Training Plan
  - ☐ Independent Validation and Verification Plan
  - ☐ Quality Assurance and Project Monitoring
  - ☐ Organizational Change Management
  - ☐ Implementation Planning
  - ☐ Knowledge Transfer Program
  - ☐ Data Conversion Plan
  - ☐ Deployment and Implementation Support
  - ☐ Acquisition Strategy
- Establish a fully defined Project Management Plan (PMP) including the following components:
  - ☐ Deliverables Definition
  - ☐ Schedule and Timeline
  - ☐ Resource Planning
  - ☐ Internal Resource Plan
  - ☐ Project Information Toolbox (PIT)
  - ☐ Project Planning and Tracking

Each of the bulleted areas above has been described in Section 6—Project Implementation Plan.

## 5.5 Alternatives Analysis

Gartner recommends moving forward with the implementation of a new State Bar Court Case Management system. Gartner strongly suggest five key prerequisites that the State Bar Court, the State Bar and IT must meet to provide for a successful implementation of a new system; they include:

- An improved IT infrastructure and environment in which to host and support the new system and provide secure and reliable system access and operation
- Completion of the current CMS upgrade and documented agreement with the vendor regarding maintenance costs and scope. Functionality of this system should be contained, keeping maintenance costs to a minimum to effectively support the CMS system as currently defined
- Identification and definition of a data architecture that ensures a new system takes into account critical data overlaps with other Bar systems also being considered for replacement over the next few years
- Prioritization of system replacement activities and determination of whether the Bar will combine procurement of the Office of Chief Trial Counsel (OCTC) and Court Case management systems to ensure the case management system selected can meet both business unit needs, facilitate workflow and data exchange between the two units, while securing data and information in accordance with defined business practices and policies
- Re-engineered Court business processes to enable the Department to take full advantage of the new system and technologies (e.g., workflow, automated alerts and triggers, reporting, automated interfaces, and automated notices)

### 5.5.1 Key Opportunities for Improvement

State Bar Court faces three primary issues impacting its ability to improve its current State Bar Court systems to provide operational efficiencies and provide enhanced applicant service by moving to a new system.

#### ■ Dated technology and environment

This issue is caused by the current system being on the AS/400, which is becoming increasingly difficult to support from both a labor and functionality standpoint. It is becoming increasingly difficult to find and retain key IT staff that possess the knowledge to continually maintain the AS/400 and provide enhancements to meet to the continuing needs of stakeholders. The functionality of the AS/400 is severely limited on the level of customization and end-user functionality (e.g., workflow, reports, interfaces/integration with other State Bar and third-party systems). While the AS/400 is being upgraded to the IBM System i5 Server, this will not change the underlying outdated AVR and RPG coding for CMS.

#### ■ IT Support

The Information Technology Department needs to develop plans and migrate to a 24/7 support model. This will be necessary to support and maintain the updated technologies, infrastructure and Web hosting services.

#### ■ Redundant and inadequate business processes

State Bar Court needs to thoroughly examine its business process to: 1) improve process flow, reduce process steps and eliminate redundant processes; and 2) provide a re-engineered business approach to both enable the State Bar Court to balance the additional modification of processes to more closely meet a new system's needs with the desire to customize the new system to match the existing business processes.

### 5.5.2 System Replacement Alternatives

Gartner assessed four system alternatives as part of its process to select a proposed alternative that will meet the State Bar Court's business and technical needs. These alternatives are as follows:

- Convert AVR Code to a contemporary platform and continue to utilize the current applications associated with Court Case Management
- Replace current CMS and MS Access reporting applications with a COTS application running on a contemporary platform
- Replace current CMS and MS Access reporting applications with a customized application built on a contemporary platform
- Replace current CMS and MS Access reporting applications with the new Administrative Office of the Courts (AOC) application that will be implemented for State of California Courts

Each of these alternatives is explained and defined in the following table. Please note that in discussing the alternatives and proposed solution below, the term customization refers to modification and/or development of unique code within or interfaced with an application. Configuration refers to using tools built within an application to adjust terminology, business rules, and workflow that meet an organization's unique needs. This configuration does not involve changing an application's core code, but does allow a vendor to ensure its product addresses the functional requirements of each unique client.



**Table 14. System Alternatives**

Alt. #	Alternative Name	Alternative Definition
1	<b>Convert AVR Code</b>	<ul style="list-style-type: none"> <li>■ Complete implementation of CMS.</li> <li>■ Convert AVR code to an industry standard language (e.g., .NET).</li> <li>■ Maintain the MS Access reporting tool, convert remaining reports to MS Access, and build the new reports that users have requested.</li> <li>■ Retire the green screen (RPG) programs (do not allow end users to access these systems—databases will still house the data).</li> <li>■ Transition maintenance and enhancement of the system to in-house resources or to an external vendor.</li> </ul>
2	<b>COTS Solution</b>	<ul style="list-style-type: none"> <li>■ Select an application and/or suite of applications that can meet the majority of the organization's needs without customization.</li> <li>■ Ensure reporting functionality supports end user ad hoc reporting needs.</li> <li>■ Modify business processes to gain efficiencies associated with COTS best practices.</li> <li>■ Develop interfaces between this application and other State Bar applications to support sharing and exchange of data.</li> <li>■ If possible, preserve the benefits of the COTS solution by limiting customization to interface development only to support sharing and exchange of data.</li> <li>■ Agree on a reasonable data conversion strategy that lowers implementation costs.</li> <li>■ Purchase a maintenance agreement that includes interface support if internal resources are not available.</li> <li>■ Ensure implementation services include business process re-engineering and change management support.</li> </ul>
3	<b>Customized Solution</b>	<ul style="list-style-type: none"> <li>■ Contract with an outside vendor to build the application in a contemporary platform that can be maintained by a selection of vendors and/or internal staff.</li> <li>■ Ensure implementation services include business process re-engineering and change management support so that the new system allows the organization to reap the benefits of system automation and avoids automating past inefficient processes.</li> <li>■ Contract with the vendor and/or another vendor for maintenance and enhancement activities.</li> <li>■ Develop interfaces between this application and other State Bar applications to support sharing and exchange of data.</li> </ul>
4	<b>Transfer Solution from AOC</b>	<ul style="list-style-type: none"> <li>■ Develop an agreement with the State for licenses to use their system.</li> <li>■ Participate in requirements sessions with the State as it defines requirements for the system during implementation and upgrade cycles.</li> <li>■ Ensure implementation services include business process re-engineering and change management support so that the new system allows the organization to reap the benefits of system automation and avoids automating past inefficient processes.</li> <li>■ Develop interfaces between this application and other State Bar applications to support sharing and exchange of data.</li> </ul>

### Alternatives Pros and Cons

Each alternative was considered based on its viability and potential for addressing the State Bar Court's business and technical needs. While Gartner found all alternatives to be viable, they each presented different overall pros and cons. The following provides a summary of the pros and cons identified for each alternative.

**Table 15. Alternative #1—Convert AVR Code**

Pros	Cons
<ul style="list-style-type: none"> <li>■ CMS would be upgraded to a current technical platform that is aligned with State Bar proposed architectural standards (e.g.,.NET)</li> <li>■ CMS would be supportable by multiple vendors and potentially by internal staff trained in.NET</li> <li>■ The State Bar Court would be able to rely on its current vendor to conduct conversion activities, thus reducing costs associated with bringing a new team up to speed on its AVR coding and State Bar Court business processes</li> <li>■ The State Bar Court would not have to pursue additional training or change management</li> </ul>	<ul style="list-style-type: none"> <li>■ The converted system would not address all the State Bar Court's desired current and future functionality</li> <li>■ The State Bar Court would not reduce its reliance on one staff person responsible for maintaining the MS Access reporting process</li> <li>■ The State Bar Court would not be able to achieve its desired improvements in staff efficiencies generated by improved workflow and increased automation of manual processes</li> <li>■ The State Bar Court would not be able to gain end user trust in the system given it would still be based on past code</li> <li>■ State Bar Court stakeholders would be disappointed in the decision to invest more money in a system that does not meet their needs</li> </ul>

**Table 16. Alternative #2—Commercial Off-The-Shelf Application**

Pros	Cons
<ul style="list-style-type: none"> <li>■ The converted system would address most of the State Bar Court's desired current and future functionality</li> <li>■ The State Bar Court would be able to achieve its desired improvements in staff efficiencies generated by improved workflow and increased automation of manual processes</li> <li>■ The State Bar Court would be able to gain end user trust in the system given elimination of data integrity issues caused by the system</li> <li>■ CMS would be upgraded to a current technical platform that is aligned with State Bar proposed architectural standards (e.g.,.NET)</li> <li>■ The process for end user support, system maintenance and upgrades would be simplified and primarily be the responsibility of the COTS vendor</li> <li>■ The State Bar Court may be able to obtain a COTS system that meets not only the Court's, but also the Office of Chief Trial Counsel's needs</li> </ul>	<ul style="list-style-type: none"> <li>■ While the system would be configured to meet State Bar Court needs, end users would not obtain every desired piece of functionality (as they could with a customized solution)</li> <li>■ End users would have to conform to new processes and terminology built into a COTS product</li> <li>■ The State Bar Court would need to invest funds not only in a new system, but also in training, business process re-engineering, and organizational change management support activities</li> </ul>

**Table 17. Alternative #3—Customized Solution**

Pros	Cons
<ul style="list-style-type: none"> <li>■ The converted system would address all the State Bar Court's desired current and future functionality defined during project initiation</li> <li>■ The State Bar Court could eliminate its reliance on one staff person responsible for creating and maintaining standard and ad hoc reports</li> <li>■ The State Bar Court may be able to achieve its desired improvements in staff efficiencies generated by improved workflow and increased automation of manual processes</li> <li>■ The State Bar Court may be able to gain end user trust in the system given elimination of data integrity issues caused by the current system</li> <li>■ CMS would be upgraded to a current technical platform that is aligned with State Bar proposed architectural standards (e.g., .NET)</li> </ul>	<ul style="list-style-type: none"> <li>■ This option would be the most costly of all the options considered by the State Bar Court and difficult to justify given the availability of COTS solutions in the marketplace</li> <li>■ This option will not reduce the reliance of the State Bar Court on an outside vendor to provide end user support and maintain and upgrade the system if internal staff are not hired or trained who can maintain the system</li> <li>■ This option presents the risk of not effectively addressing inefficient business processes</li> <li>■ State Bar Court staff will be required to spend more time (compared with other alternatives) working with a vendor to help define requirements and train vendor staff on business processes</li> <li>■ This option presents the most risk overall given the State Bar and State Bar Court's past challenges effectively managing a customized system development project</li> </ul>

**Table 18. Alternative #4—AOC System Transfer**

Pros	Cons
<ul style="list-style-type: none"> <li>■ This option may present the lowest cost potential for transfer of the system if the State Bar agrees to use the system as is and obtain upgrades from the State</li> <li>■ This option may provide the State Bar with the ability to address most of its requirements</li> </ul>	<ul style="list-style-type: none"> <li>■ System is a custom system to be owned by the State of California for more than 21,000 users. It is unlikely the State Bar would have much influence over functional requirements and system design</li> <li>■ System is expected to be implemented by 2012, requiring the State Bar to use its existing system for at least 5 more years if not longer due to project delays</li> <li>■ The State Bar will not have any say regarding system architecture so it may not comply with State Bar technical standards</li> <li>■ The State Bar will have to rely on AOC for end user support, maintenance and upgrades to the system</li> <li>■ State Bar Court end users may resist using the system if it does not live up to their expectations</li> </ul>

### ***How Should State Bar Court Select the Best Alternative?***

In considering and selecting the optimum alternative, Gartner followed best practices and applied a defined set of evaluation criteria in support of the choosing the best alternative.

Gartner identified and used seven major criteria (which are each comprised of several sub-categories outlined on subsequent pages) to qualitatively assess each alternative. The alternatives were:

- Evaluated on business value, technical fit, maintainability, schedule and risk, independent of one another
- Comparatively evaluated against one another for total cost of ownership and return on investment

The seven major criteria are identified in the table below:

**Table 19. Major Qualitative Assessment Categories**

Criteria	Criterion Description
<b>Business Fit</b>	Degree to which the solution is strategically aligned with the State Bar Court's business strategy and how well it addresses key functional requirements.
<b>Total Cost of Ownership</b>	Magnitude of cost for system design, implementation and oversight, plus ongoing maintenance and support.
<b>Return on Investment</b>	Measure of the cost-benefit of the solution, taking into account the initial and ongoing costs over the avoided cost of imminent enhancements and upgrades, and the expected financial benefits to the organization.
<b>Technical Fit</b>	Degree to which the solution addresses critical technical requirements, including those related to technical architecture, system stability and reliability, and security.
<b>Maintainability</b>	Measure of the solution's scalability, adaptability and extensibility (i.e., how readily the system can be modified to accommodate changes in processes, statutes, policies, etc.).
<b>Schedule</b>	Measure of how quickly the proposed strategy can be implemented to provide full business value to the organization (all modules implemented).
<b>Risk</b>	High-level assessment of the financial, technical, business and project management risks associated with implementing the proposed strategy.

The sub-categories to the main seven criteria are outlined in the table below.




**Table 20. Detail Sub-criteria for Qualitative Assessment Categories**

Evaluation Criteria	Definition
<b>Business Fit</b>	A measure of the strategic and operational benefits from implementing the alternative.
<b>Strategic Alignment</b>	How well does the alternative facilitate the State Bar Court's business strategy and the business objectives of the State Bar?
<b>Addresses Functional Requirements</b>	How well does the alternative meet the State Bar Court's business needs?
<b>Total Cost of Ownership (TCO)</b>	A measure of the total cost of ownership for the alternative. These costs include the price of software, hardware and implementation services, as well as personnel requirements to support the design, implementation and support of the alternative.

Evaluation Criteria	Definition
<b>System Design Cost</b>	What is the cost of system design in comparison to other alternatives?
<b>Implementation and Oversight Cost</b>	What is the cost for implementation and oversight services in comparison to other alternatives?
<b>Ongoing Maintenance and Support Cost</b>	What are the ongoing maintenance and support costs in comparison to other alternatives?
<b>Return on Investment (ROI)</b>	A ratio of benefits to costs. Other factors include time to ROI realization.
<b>Cost</b>	What are the total costs for the implementation of this alternative? How quickly are the costs incurred? How does this cost map to budget constraints or allocated funding?
<b>Benefit</b>	What are the benefits gained (increased revenues, efficiencies gained, improved morale, etc.) via the implementation of this solution? How quickly are they achieved?
<b>Technical Fit</b>	A measure of how well the solution alternative meets the State Bar's and State Bar Court's technical requirements.
<b>Technical Architecture Constraints</b>	Does the solution alternative avoid imposing any technical restrictions on the State Bar (i.e., open architecture, etc.)? Will the architecture and design operate in the technical environment?
<b>Reliability</b>	Is the solution based on proven technology and will it provide adequate performance? Has the solution been implemented in environments similar to that of the State Bar?
<b>Security</b>	Is the solution acceptable from a security and data integrity perspective?
<b>Maintainability</b>	A measure of how adaptable the solution alternative is to changes in users', transaction volume, business and maintenance requirements.
<b>Scalability</b>	Can the solution accommodate a significant increase in users, deployment sites or transactions?
<b>Adaptability and Extensibility</b>	Can the solution be easily modified or enhanced to support new requirements or changing requirements?
<b>Supportability</b>	Can the solution be easily maintained or supported or will specific expertise be required?
<b>Schedule</b>	A measure of how quickly the solution will be implemented into the State Bar.
<b>Risk</b>	A measure of how well the solution alternative mitigates overall risk.
<b>Financial Risk</b>	Does the alternative carry any significant financial risk to State Bar Court or the State Bar (i.e., overall cost, contractual terms, support burden, financial viability of outside vendors (COTS, system integrator, etc.) etc.)?
<b>Technical Risk</b>	Does the alternative carry any significant technical risk to State Bar Court or the State Bar (i.e., non-standard components, protocols, programming languages, bandwidth concerns, etc.)?
<b>Operational Risk</b>	Does the alternative carry any significant operational risk to State Bar Court or the State Bar (i.e., interface, data conversion, resource constraint, deployment risks that could impact operations)?

In assessing each alternative, Gartner used the below rating scale of green, yellow and red.

































**Table 21. Alternative Rating Scale**

Rating	Description
	<b>“Green Light” (Acceptable to Excellent):</b> The alternative rates very well for the evaluation criterion in question.
	<b>“Yellow Light” (Caution):</b> The alternative rates adequately for the evaluation criterion in question.
	<b>“Red Light” (Poor):</b> The alternative rates poorly for the evaluation criterion in question.

### Summary of Alternative Evaluation Results

The table below summarizes Gartner’s evaluation of the four system implementation alternatives and their related score/rating; a recommendation and discussion follow. See the Attachments for more detailed evaluation results for each alternative across each criterion.

**Table 22. Summary of Alternative Evaluation Results**

Alternative	1	2	3	4
Criteria	Convert AVR Code	COTS	Customization	Transfer AOC Solution
Business Fit				
TCO				
ROI				
Technical Fit				
Maintainability				
Schedule				
Risk				
Final Rating				

### Recommended Alternative

The recommended system implementation strategy is:

- **Alternative 2—COTS.** Implement a commercial off-the-shelf (COTS) court case management system that is configured to meet the State Bar Court’s needs and uniqueness. The recommended approach includes the following components:
  - ☐ Select an application and/or suite of applications that can meet the majority of the organization’s needs without customization.
  - ☐ Ensure reporting functionality supports end user and executive ad hoc reporting needs.
  - ☐ Modify business processes to gain efficiencies associated with COTS best practices.

- ☐ Develop interfaces between this application and other State Bar applications to support sharing and exchange of data.
- ☐ Use configuration to ensure the product meets the Court's unique workflow needs and business rules. Limit customization as much as possible (i.e., interface development) to ensure COTS integrity can be preserved.
- ☐ Agree on a reasonable data conversion strategy that lowers implementation costs.
- ☐ Purchase a maintenance agreement that includes interface support if internal resources are not available.
- ☐ Ensure implementation services include business process re-engineering and change management support.

Based on the assessment above, best practices, and interviews that Gartner has conducted with staff, State Bar Court and IT, the State Bar Court should look to purchase an off-the-shelf application and configure it to meet its needs. Gartner recommends minimizing customization as much as possible through alignment of State Bar Court processes to those of the purchased system. Customization should be limited to interfaces between the system and other systems as required to support sharing and exchange of data.

The State Bar Court will benefit from business process re-engineering and organizational change management initiatives that are included as part of this scenario. These should serve as the foundation for an implementation of a new State Bar Court Case Management system. The current system is unable to adequately support improved business processes or effective use of the Internet to facilitate improved member services and staff efficiencies and effectiveness.

The State Bar Court recognizes the need to change its processes with a new system—not to mimic its current processes. Improving State Bar Court processes will result in a longer development, configuration and implementation time frame; however, staff understand they will have to use the new CMS system for at least three to five more years.

## 5.6 High-Level Cost Estimate

### 5.6.1 One-Time and Annual Maintenance Costs

For the recommended execution strategy above, Table 23 illustrates the low and high estimates for one-time and annual maintenance costs for the implementation of a typical system of similar scope to the State Bar Court system. Low cost estimates assume a 9 month project timeline as opposed to a 14 month project timeline for the high estimate. Please note these estimates do not include the costs to migrate the current IT environment to a more secure and supportable 24/7 operation hosted on contemporary technology or hardware costs associated with the new State Bar Court System. Additional details regarding cost assumptions can be found in Attachment 3.

**Table 23. One-Time and Annual Maintenance Cost Estimates for the State Bar Court System**

<b>One-Time Costs</b>	<b>High Estimates</b>	<b>Assumptions</b>	<b>Low Estimates</b>	<b>Assumptions</b>
<b>One-Time Costs</b>				
Hardware Purchase	\$96,000	12 Servers + OS \$6-8,000/ea	\$60,000	12 Servers + OS \$5,000/ea
Software Purchase/License	\$420,000	High estimate from vendors +20%	\$264,000	Low estimate from vendors +20%
Total Contract Services	\$1,966,207		\$1,149,487	
Software Implementation <sup>1</sup>	\$1,331,353	15 mos timeline	\$852,768	9 mos timeline
Project Manager <sup>2</sup>	\$384,854	PM rate \$175/hr	\$176,719	PM rate \$125/hr
Project Oversight	\$250,000	12 mos of monthly oversight	\$120,000	Quarterly oversight
Contingency (10%)	\$248,221		\$147,349	
<b>Total One-Time Costs</b>	<b>\$2,730,428</b>		<b>\$1,620,836</b>	
<b>Annual Maintenance Costs</b>				
Hardware	\$21,120	22% of hw cost	\$12,000	20% of hw cost
Software (includes heldesk and upgrades)	\$84,000	20% of sw cost	\$47,520	18% of sw cost
<b>Total Annual Maintenance Costs</b>	<b>\$105,120</b>		<b>\$59,520</b>	

<sup>1</sup>Software Implementation includes fit/gap analysis, business process re-engineering, design, testing, and training.

<sup>2</sup>Project Manager duties include taking lead for change management activities.



■ ■ ■ ■ **Section 6—Project Implementation Plan**

## 6.0 Project Implementation

The implementation strategy was developed based on the selected strategy and execution alternatives, Gartner's analysis of the State Bar Court's readiness for system implementation, the scope of the anticipated State Bar Court project, successful implementations of similar systems in other similar organizations, Gartner research, and Gartner experience with implementation of other similar types of systems.

This section includes the following key areas

- Project Schedule
- Project Team Organization
- Project Team Roles and Responsibilities
- Project Management
- Key Aspects/Steps and Recommendations for the Development of:
  - Ancillary Program Plans
  - Configuration Management
  - Risk Management
  - Master Test Plan
  - Training Plan
  - Independent Validation and Verification Plan
  - Quality Assurance and Project Monitoring
  - Organizational Change Management
  - Implementation Planning
  - Deployment and Implementation Support
  - Acquisition Strategy

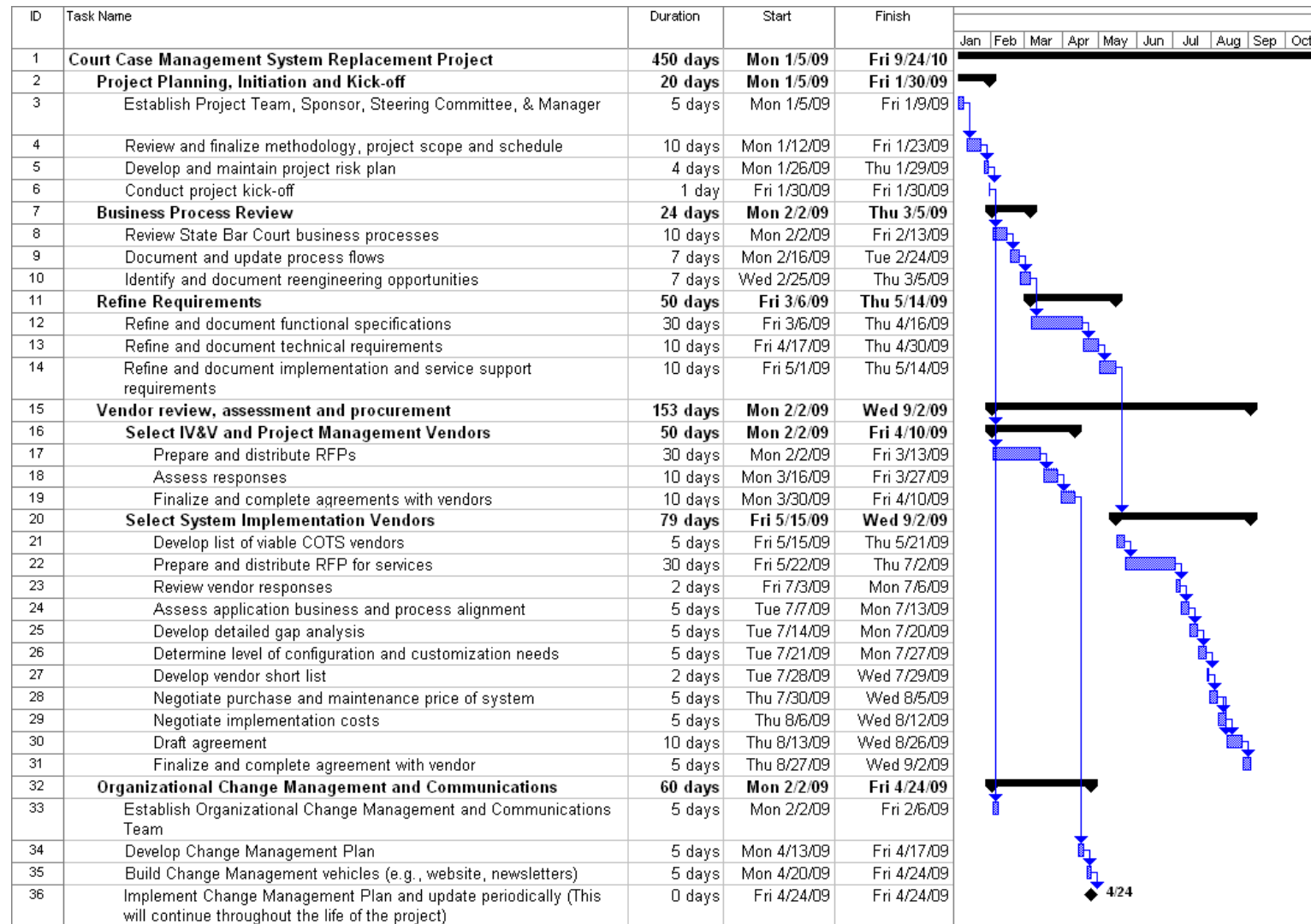
In addition, based on best practices and Gartner experience, it is highly recommended that the following project management practices occur:

- State Bar Court needs to own the project and have representatives from each business area heavily involved
- There must be high-level executive management support, with the Executive Director as the project sponsor
- Utilize the services of a system integrator and an outside project manager to review business processes, customize the COTS system, and implement and test the new State Bar Court System.
- The State Bar Court shall direct overall management of the project with the assistance from an outside project manager who has experience with implementing systems of similar size and scope
- Information Technology should not be the project manager of the project, but should be heavily involved on a daily basis, ensuring the organizations project management methodologies are being applied by project management and stakeholders

Following is a recommended project schedule that depicts key tasks, probable durations and related dependencies.

## 6.1 Project Schedule

Anticipated project schedule from planning through implementation:

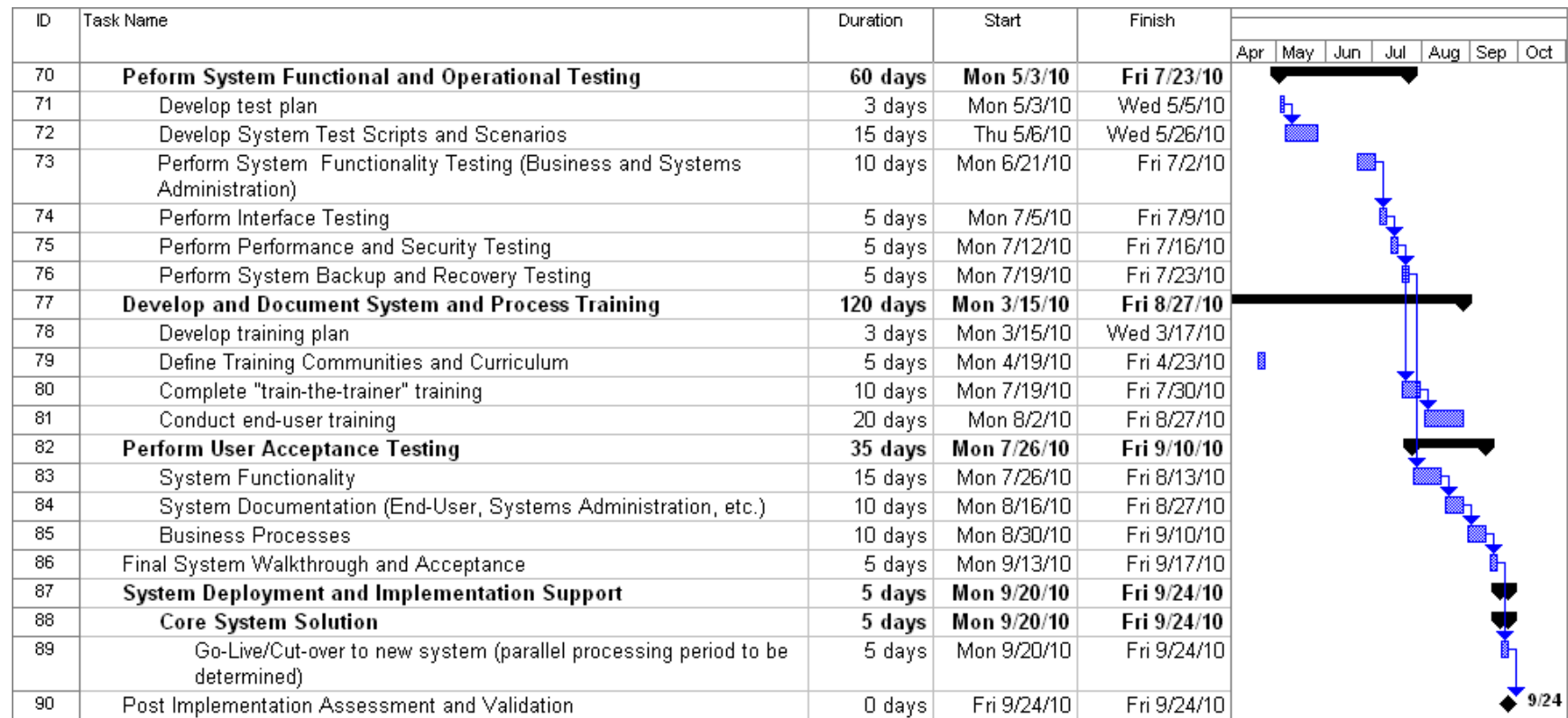


## Appendix B

Engagement: 221362660

ID	Task Name	Duration	Start	Finish	2009											
					Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
37	<b>Install and Configure Basic System for Pilot</b>	<b>30 days</b>	<b>Thu 9/3/09</b>	<b>Wed 10/14/09</b>												
38	Initial Application Set-up and Configuration	10 days	Thu 9/3/09	Wed 9/16/09												
39	System Operational and Basic Functionality Testing	10 days	Thu 9/17/09	Wed 9/30/09												
40	Initial System Walkthrough and Acceptance	10 days	Thu 10/1/09	Wed 10/14/09												
41	<b>Conduct Pilot Activities</b>	<b>48 days</b>	<b>Thu 10/15/09</b>	<b>Mon 12/21/09</b>												
42	Assess Application Functionality	10 days	Thu 10/15/09	Wed 10/28/09												
43	Define Business Process Change Requirements	5 days	Thu 10/29/09	Wed 11/4/09												
44	Define Required System Configuration Requirements	5 days	Thu 11/5/09	Wed 11/11/09												
45	Define Required System Enhancements	5 days	Thu 11/12/09	Wed 11/18/09												
46	Define System Interfaces	5 days	Thu 11/19/09	Wed 11/25/09												
47	Define System Hardware and Infrastructure Requirements (servers, network, etc.)	5 days	Thu 11/26/09	Wed 12/2/09												
48	Define Data Conversion Requirements	5 days	Thu 12/3/09	Wed 12/9/09												
49	Define System Administration and Support Requirements	5 days	Thu 12/10/09	Wed 12/16/09												
50	Define End-User Training Requirements	3 days	Thu 12/17/09	Mon 12/21/09												
51	<b>Develop Overall System Implementation and Deployment Plan</b>	<b>10 days</b>	<b>Tue 12/22/09</b>	<b>Mon 1/4/10</b>												
52	Phased Implementation (phasing done by module or business area based on optimum approach for selected product/vendor)	10 days	Tue 12/22/09	Mon 1/4/10												
53	<b>Develop the To Be Application Functionality and Business Processes</b>	<b>84 days</b>	<b>Tue 1/5/10</b>	<b>Fri 4/30/10</b>												
54	<b>Develop To Be State Bar Court Business Processes &amp; Validate</b>	<b>49 days</b>	<b>Tue 1/5/10</b>	<b>Fri 3/12/10</b>												
55	Business Process Reengineering	15 days	Tue 1/5/10	Mon 1/25/10												
56	Conduct gap analysis	15 days	Tue 1/26/10	Mon 2/15/10												
57	Redesign and document new business processes	12 days	Tue 2/16/10	Wed 3/3/10												
58	Prepare business process element of user training	7 days	Thu 3/4/10	Fri 3/12/10												
59	<b>Develop To Be System (naming conventions, access control, business rules, etc.)</b>	<b>35 days</b>	<b>Mon 3/15/10</b>	<b>Fri 4/30/10</b>												
60	Install any additional needed System Hardware and Infrastructure	5 days	Mon 3/15/10	Fri 3/19/10												
61	Configure Application	10 days	Mon 3/22/10	Fri 4/2/10												
62	Develop Required Application Enhancements	10 days	Mon 4/5/10	Fri 4/16/10												
63	Develop System Interfaces	10 days	Mon 4/19/10	Fri 4/30/10												
64	<b>Perform Data Conversion and Validation</b>	<b>35 days</b>	<b>Mon 5/3/10</b>	<b>Fri 6/18/10</b>												
65	Define Source Data	5 days	Mon 5/3/10	Fri 5/7/10												
66	Develop and Validate Conversion Scripts	5 days	Mon 5/10/10	Fri 5/14/10												
67	Perform Data cleansing and conversion	15 days	Mon 5/17/10	Fri 6/4/10												
68	Validate Converted Data	7 days	Mon 6/7/10	Tue 6/15/10												
69	Develop Test Data	3 days	Wed 6/16/10	Fri 6/18/10												

Engagement: 221362660

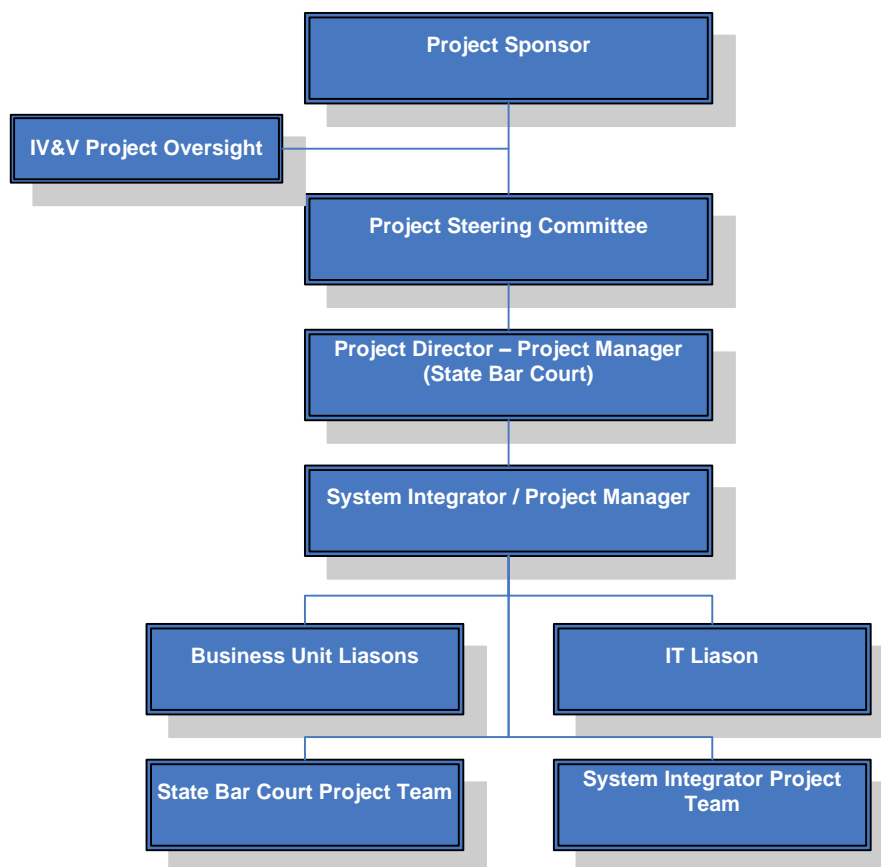


## 6.2 Project Team Organization

The State Bar Court system implementation will need clear, formal project governance, and defined organizational roles and responsibilities, project management plans and project schedule prior to implementation. Management sponsorship, support and direction for the project within State Bar Court and within the State Bar will be critical to project success.

The chart below displays a representative organization for the proposed project team.

**Figure 4. Proposed Project Team**



Gartner recommends establishing a core project team of six individuals, plus the system integrator team and project manager, consisting of the following:

- Project Director (State Bar Court Internal)—1
- Core Project Team Business Area—2, consisting of team members from:
  - Hearing—1
  - Review—1
- Information Technology—1
- Either to support or be a part of the core project team, the Court Services Analyst Technicians Business Unit Liaisons shall also be devoted to the project—2

### 6.2.1 Project Team Roles and Responsibilities

Since a project organization structure is so vital to success, the State Bar Court must continue to define and develop a fully functional project organization structure, including:

#### Project Sponsor

Designate an executive-level stakeholder to be the Project Sponsor so as to assure that project ownership is at the highest level possible in the State Bar. The Sponsor will provide policy leadership and oversight, and review and resolve policy, fiscal and resource allocation issues that cannot be resolved at lower levels. It is important that the Project Sponsor have influence and control over the State Bar as a whole.

#### Project Steering Committee

Establish an active Project Steering Committee jointly, with business areas participating in the implementation. Membership should include senior managers from appropriate business units and information technology manager(s) for the State Bar.

Appoint a senior manager to chair the Steering Committee, which performs the following functions:

- Responsibility for oversight of the project, ensuring that deliverables and functionality are achieved as defined in subsequent project plans
- Ensures coordination by establishing and sponsoring collaboration across organizational boundaries
- Reviews and resolves project issues not resolved at lower levels
- Provides advice and insight into project management issues
- Responsibility for executive-level oversight of control agency reviews and other observation processes to ensure that planned project objectives are achieved in accordance with the approved Project Plan.

#### Project Manager

State Bar Court Internal Project Director—Charter a senior manager within the State Bar Court as an internal State Bar Court Project Director to give leadership and policy direction to project activities throughout the project life cycle. The Project Director should plan and direct the functions of the State Bar Court Project Team with responsibility for project progress.

Contracted Project Manager—Charter a contracted (external) Project Manager to provide leadership and direction to project activities throughout the project life cycle. Direct the Project Manager to plan and direct the functions of the entire Project Team with responsibility for project progress. The Project Manager will report to the Project Director and direct both State Bar Court and System Integrator project teams to provide operational direction in day-to-day management of project activities.

#### System Integrator

Contract with a system integrator to provide services to review business processes, customize a COTS system, and implement and test the new State Bar Court System.



### **Project Management Team**

Establish the Project Management Team as a cooperative, working partnership unit comprised of State Bar Court and vendor Project Managers—both with clearly defined roles. They will be responsible for operational management of the project.

Assign clear responsibility for resource allocation and tracking, day-to-day operational direction, and overall implementation duties for all phases of the project to the Project Managers.

Assign responsibility to the State Bar Court Project Manager to ensure that State Bar Court and business units are fully represented throughout the project, that systems integration is accomplished, and that communication of issues and progress is maintained.

### **Project Team**

The State Bar Court Project Team will be responsible for:

- Carrying out day-to-day activities across all phases of the project
- Conducting or directly managing daily operations such as specification development, quality control inspections, testing and other activities to ensure that planned project objectives are achieved in accordance with the approved Project Plan

The Project Team should be expanded as needed to include appropriate resources at various points in the project progress as needed.

### **Business Unit Liaisons**

Designate business area experts for responsible positions on or in direct support of the Project Team. As knowledgeable staff from each unit/function, they will:

- Provide business area expertise and maintain effective two-way communication with their business units
- Serve in a hands-on capacity as team leads
- Otherwise assist the Project Manager

### **IV&V Project Oversight Vendor**

Contract with an independent project oversight vendor that will conduct project validation and verification activities. These activities will include: review of project processes and deliverables, identification of critical risks, development of risk mitigation recommendations, and attendance at certain scheduled meetings.

## **6.2.2 Project Management**

Establish a fully defined Project Management Plan (PMP) including the following components:

- Project Oversight—Establish project oversight where the primary vehicle will be the skills and experience of the Project Director and Project Manager, supported by:
  - ☐ A complete project management toolkit founded on industry best practices
  - ☐ Involvement of the Project Steering Committee
  - ☐ Use of a project management methodology appropriate for the size and scope of this project
  - ☐ Support of a qualified project IV&V vendor

## **Deliverables Definition**

Define and specify deliverable goals as project benchmarks. Identify prerequisite and interdependent deliverables and establish priorities, along with the place in the project, for each deliverable. Define and document conditions and acceptance criteria for development and acceptance.

## **Schedule and Timeline**

Develop an overall time frame and work plan early in the planning process for the anticipated project. Document a project schedule showing all major activities, order of priorities and concurrent activities as a guideline for project planning and coordination.

## **Resource Planning**

Identify both external and internal resource needs for planned activities and anticipated schedule. Estimate cost for each factor in the acquisition schedule based on the definition of project deliverables. Establish and document a project budget as a basis for analysis of funding needs and timing of resource acquisition.

## **Internal Resource Plan**

Define resource requirements to determine the need and timing for internal staffing, material and support. Indicate the quantity and timing for obtaining internal resources in project plans and schedule. Plan to assign personnel or obtain staffing and other resources from current or newly identified sources.

## **Project Information Toolbox (PIT)**

Utilize any tools included in the current environment to create a single location to store, organize, track, control and disseminate all information and items produced by and delivered to the project. The PIT should include a file structure with defined access and permissions, as well as an interface such as the Web page in use for the project, where project information and the latest documentation can be obtained, and issues or comments input to the project.

## **Project Planning and Tracking**

Educate all management, technical personnel, business staff and vendors on project management activities including:

- Project initiation activities
- Detailed role and responsibility definition
- Issue tracking, escalation and resolution
- Change request approval and tracking
- Schedule/milestone tracking and resource allocation
- Budget management and expenditure control
- Deliverable/product review and approval and other acceptance criteria
- Vendor management
- Project success evaluation criteria and project close-out activities
- Status and other reporting expectations

- Relationships to other IT or business efforts

### 6.2.3 Ancillary Program Plans

Develop special ancillary program plans for implementation support including:

- Requirements Capture and Management—Establish a formal requirements capture and management process to be responsive to needed changes and to be conscientious in managing the impact of change. Changes to business and technical requirements can occur anytime in the project, especially as a result of technology testing or implementation, revisions in project budget, and emerging needs. Key elements of the Requirements Capture and Management process will include:
  - ☐ Assumption Definition, Traceability and Tracking
  - ☐ Business and Technical Requirement Definition, Traceability, Verification and Tracking
  - ☐ Phase and Product Entry and Exit (Acceptance) Criteria Definition, Tracking and Signoff
- Procurement and Contracts Management—Designate a Contract Manager on the project to ensure contracted agreements are fulfilled and change implications properly assessed, and to foster expeditious resolution of issues. Develop a formal Contract Management Plan to define the roles and responsibilities of all those involved in managing the procurement and contracts required. The Plan will document the specific roles, responsibilities and activities needed to manage all procurement activities associated with the proposed solution. Effective contract management is extremely important and will contribute substantially to successful delivery of Information Technology projects such as the proposed solution.

### 6.2.4 Configuration Management (CM)

Establish configuration management policies and practices as a key element in managing technical change, anticipating and mitigating implementation and migration issues, and ensuring that documentation is consistent and coherent, and reflects the current system baseline accurately.

Develop a formal Configuration Management Plan to define roles, responsibilities and procedures for use by management, technical staff, business staff, and vendor personnel involved in the project, and to guide the production of configuration documentation consistent with established practices.

### 6.2.5 Risk Management Plan

Establish a formal Risk Management Plan for the proposed solution implementation and review the initial risks identified as outlined in the next section (Section 7—Critical Project Risks and Mitigation Strategies) and the mitigating action plans recommended in a Risk Management program.

Perform periodic, formal risk assessment activities, scheduled as appropriate, into the master project milestones and document the processes, roles, responsibilities and mitigation approach in the project's Risk Management Plan.

### 6.2.6 Master Test Plan

Develop a Master Test Plan that describes the approach to fully test all components of the solution. This plan describes test control and approval processes, test participants, how testing will interface with the configuration management process, and test documentation expectations. Additional test plans should be developed describing the detailed testing methodologies, requirements, schedules, test scripts and expected test results for each area of testing including unit, integration, interface, load, system (alpha), beta and user acceptance testing.

### 6.2.7 Training Plan

Develop a formal Training Plan to document training requirements and an approach for updating training requirements, developing training curricula, and deploying the training programs for both technical and business staff. The project will develop one or several training tracks for State Bar Court employees that will be specific to technical and business staff needs for development, implementation and system operations.

### 6.2.8 Independent Validation and Verification (IV&V) Plan

Employ an IV&V support vendor to provide third-party program oversight from an IT and industry-standards perspective. This third-party, independent review and assessment of the project's work products and the overall system is intended to ensure compliance with system functional, performance, operational, legal and regulatory requirements. IV&V includes a review of the overall project performance, governance and management processes, as well project deliverables.

### 6.2.9 Quality Assurance and Project Monitoring

Develop a Quality Assurance Plan to ensure that the project meets identified business and technical objectives and requirements and, at a minimum, contains the following elements:

- Measurable objectives and functional requirements
- Acceptance testing plan
- Regularly scheduled audits/reviews of key tasks
- Identification of quality assurance responsibility with Project Steering Committee
- Employ project monitoring that is well-defined and disciplined
- Track and report project status on an ongoing basis
- Hold regularly scheduled status meetings including the project managers, project team members and the development vendor to discuss project progress, issues/issue resolution and next steps
- Conduct Project Steering Committee meetings regularly to discuss project progress, change requests and open issues
- Provide independent, objective input to the Steering Committee from the project oversight consultant
- Use standard reporting mechanisms for status reports, issues lists and risk management updates

### 6.2.10 Organizational Change Management

Given that a project of this magnitude will impose change in the environment and may cause a potentially negative reaction by employees to that change, the State Bar Court needs to undertake a comprehensive set of organizational change management activities, including:

- Development of a Change Management Plan
- Involvement of people throughout the State Bar Court and any other potential participating departments
- Formal kickoffs of phases and celebrations of milestones
- Clear, consistent and visible executive sponsorship
- Train-the-trainer activities
- End-user involvement and business process analysis will help with user acceptance and will ensure that broken processes aren't simply automated

## 6.3 Implementation Planning

The State Bar Court needs to ensure that organizational, technical and operational readiness for system activation occurs with proactive implementation planning. The project team needs to begin planning for incremental implementation early in the project life cycle and prepare for system implementation with definition of priorities. In addition, the State Bar Court needs to:

- Establish implementation plans, priorities, schedules and timelines
- Prepare a comprehensive list of system functional, technical, implementation, and support requirements
- Formulate plans for several discrete activities affecting implementation, including:
  - Knowledge transfer program
  - Data conversion program
  - System operation and support
  - User training program

### 6.3.1 System Requirements Definition

Develop a comprehensive list of system functional, technical, implementation, and support requirements. Using the requirements provided in this feasibility study as a starting point, work with business and technical subject matter experts to define the mandatory and desired system requirements for the system, system implementation, and ongoing maintenance and operations.

Conduct a formal assessment of the COTS marketplace using a request for information (RFI) to validate these requirements and make any modifications as appropriate before conducting a formal procurement. Take this marketplace assessment opportunity to validate whether the Office of Chief Trial Counsel (OCTC) requirements and Court requirements can be addressed by the same set of COTS products. Determine whether the State Bar will conduct one procurement or separate procurements for each business unit's needs.

### 6.3.2 Knowledge Transfer Program

Actively pursue a knowledge transfer program during implementation to:

- Define vendor roles and responsibilities for guiding knowledge transfer
- Develop knowledge transfer program in collaboration with vendor

Orient and familiarize both technical and functional personnel with the design, documentation and operation of the system. Convey to all affected departments how the system is built and will function. Develop a depth of systems understanding within State Bar Court staff being involved and observing the design and development activity of the project.

### 6.3.3 User Training

Start planning and developing plans for training well in advance of any actual training sessions to establish the correct focus in developing the training approach and materials. Timing and training format are important factors, whether by classroom or document-oriented training. Determine who will conduct training and develop a training program format and schedule to be completed for implementation.

### 6.3.4 Data Conversion

Initiate conversion planning well before implementation and assign responsibility so that critical and usually complicated action can be completed on time for implementation to accomplish the following:

- Determine what historical information and updates are needed for implementation
- Determine which data cleansing methods will be needed
- Establish when conversion is to be accomplished
- Integrate systems and maintenance into enterprise operations
- Include systems interface and integration in implementation plans as requirements become known, and define vendor roles and responsibilities for them
- Define, document and factor warranty and maintenance into implementation plans
- Develop integration plans in conjunction with design and development, especially focused on incremental development of best-of-breed components
- Accumulate implementation planning data from defining component implementation plans and schedules for development, testing and implementation phases

### 6.3.5 Deployment and Implementation Support

Proactively plan for deployment: analyze system, operations, environmental, staffing and infrastructure needs. The State Bar Court needs to ensure it specifies participants and responsibility, communication channels and liaison, infrastructure requirements, priorities and timing. Allow enough lead time to coordinate all the complicated aspects of system and equipment deployment. Additionally, the State Bar Court should:

- Thoroughly plan and orchestrate the turnover to permit a smooth transition
- Anticipate and coordinate database conversion in connection with initiating production
- Turn over fully tested and accepted systems to production

- Comprehend post-implementation activity and support
- Validate systems performance and function, as well as support provided in accordance with contractual terms
- Clearly define, document and confirm vendor roles and responsibilities regarding warranty and maintenance support for a specified time frame

## 6.4 Acquisition Strategy

The State Bar and State Bar Court need to develop a comprehensive acquisition strategy to procure a COTS application. Tasks that need to be included in the acquisition strategy include the following:

- Integrate the State Bar procurement group into the project team
- Utilize a structured acquisition process to reduce risk and increase probability of success
- Apply procurement best practices to define and acquire services and products
- Finalize the comprehensive list of business, technical, implementation, and system support requirements for inclusion in the request for proposals
- Develop a comprehensive list of viable vendors
- Spell out in contractual arrangements, in as much detail as is feasible and possible, specific requirements and conditions to be met by the acquired product or service
- Begin development of key procurement documents, including:
  - ☐ Background and objectives of the procurement
  - ☐ Application and technical systems architectures
  - ☐ Define requirements for vendor procurement and contract award
- Use scripted scenarios to evaluate and test acquisition candidates
- Hold discussions and meetings with each of the viable vendors to determine overall feasibility, business process matches and potential customization needs
- Develop detailed gap analysis
- Develop vendor shortlist to enter into detailed process and cost discussions
- Require and verify shortlisted vendor references for similar products and services
- Negotiate purchase price and configuration price with potential vendors
- Determine best vendor fit
- Develop Vendor statement of work (SOW) and service-level agreements (SLAs)
- Define the role of the vendor partner to specify the:
  - ☐ Expected working and contractual relationship
  - ☐ Deliverables required and timing of milestones
  - ☐ Method of testing and acceptance for all products delivered
  - ☐ Expected post-implementation support
- Finalize and complete the agreement with the desired vendor

- Expect vendors to provide products and services that conform to project methodologies and management standards, and to produce specific project management documents and reports

The next section examines critical project risks and mitigation strategies that the State Bar Court needs to consider and address throughout the project life cycle.



■ ■ ■ ■ **Section 7—Critical Project Risks and Mitigation Strategies**

## 7.0 Critical Project Risks and Mitigation Strategies

This section identifies key project risks that were identified as a result of the business interviews with key staff and Gartner's independent assessment and review of project risks and mitigation strategies that focus on business value, budget, schedule, operational, organizational and external risk areas.

### 7.1 Key Risks Identified

Below are key risks that were identified during Gartner's interviews and meetings with State Bar Court representatives. Gartner has categorized these risks as follows: Business, Budget/Schedule, Operational, Organizational, and External.

#### 7.1.1 Business

- The State Bar has historically addressed its technology needs with very few resources and has not been able to overcome the hurdles necessary to provide the right environment. The State Bar has established a pattern that must be broken if it wants to develop the appropriate technical environment in the future.
- Lack of fit of a new system with State Bar Court requirements. There will be significant issues if a new system does not work the way end users expect. Historically, the State Bar Court has built its own system because it could not find what it needed in the market.

#### 7.1.2 Budget/Schedule

- It will be a challenge to find the budgetary resources to support this project. The budget for 2008 was passed with a \$3 million deficit. The State Bar's request to the legislature for additional funding was significantly modified, leaving the State Bar with insufficient support for all its technology needs.
- Should the State Bar Court be asked to offer unfilled positions to pay for a new system and the new system does not help improve staff efficiency, the State Bar Court will lose positions and be worse off than it is today.

#### 7.1.3 Operational

- Loss of data access. The State Bar Court needs to decide what data it must keep in an automated system vs. what it is willing to archive or lose.
- Resistance to process change. Staff have been resistant to changing the way they do business and do not use all of the electronic processes available today. Some users have already indicated resistance to e-Filing.
- Efficient data sharing and exchange. Any new Court Case Management system must support appropriate data flow among State Bar applications (e.g., case number, member number).

### 7.1.4 Organizational

- Change management in general will be an issue.
- Hiring IT staff who can support the State Bar Court's new application is an issue. The State Bar does not have the salary structure in place that allows it to successfully recruit and retain a skilled IT workforce.
- Neither the IT organization nor the State Bar Court has the resources to take on a CMS replacement project at this time.
- The State Bar must ensure the involvement of business experts who understand the big picture so that appropriate linkages can be made related to shared business processes and data.
- The relationship between business and IT has not been good historically. This poor relationship has negatively impacted the CMS project. While improvements have been made at the executive level, it needs further improvement through all levels of the organization. If this relationship and communications between IT and business can not be improved, this is a significant risk to successful project implementation.
- There is some perception that the organization is not ready for change. It has been indicated that certain staff may want to change their current processes. Getting staff engaged and involved on the project may be difficult; staff is hesitant to change and undergo new system training.
- Those that do see the benefits to a new system want to be involved with priority setting and process changes.
- Given current workloads and, depending on the time of year, some staff feel that State Bar Court does not have the bandwidth to assist with process mapping, process improvement and implementation assistance of a new system. The State Bar Court's ability to provide needed subject matter expertise to support the selection, development and deployment of a new system needs to be closely examined.
- No one has indicated that they or any else would be willing to spearhead the effort as a project manager; most individuals envision looking to IT to manage. There needs to be a strong and skilled Project Manager and resources from within State Bar Court.

### 7.1.5 External

- The ability to comply with, as yet, undefined requirements that may be issued by the California Supreme Court and legislature. The State Bar Court processes redesign and improvement should be addressed before a new system is put in place—many are broken or are not optimized from either a productivity or client-facing standpoint. To move to a new system without looking at how to improve the current processes will lead to automating poor processes and thus will not gain State Bar Court the needed (or expected) improvements articulated in this Business Case.

## 7.2 Project Risk Details

This section provides an independent review and assessment of the risks associated with the implementation and deployment of a new State Bar Court system for the State Bar. It further

identifies and suggests mitigation strategies, and provides recommendations to ensure that the project meets schedule, scope and budget requirements.




The major elements considered in the assessment are:

- Business Value Risk
- Budget and Schedule Risk
- Operational Risk
- Organizational Risk
- External Risk

## Rating






Gartner's rating of the approach is based upon Project Management Institute (PMI) standards. To highlight potential risks to the project for each project management knowledge area, Gartner uses a "Red Light/Yellow Light/Green Light" reporting strategy relative to the project as documented below.




**Table 24. Rating Scale**



Rating	Description
	<b>"Green Light" (Acceptable to Excellent, i.e., "Low Risk"):</b> The approach meets or exceeds solid project management and system implementation standards. To receive this ranking, the approach must present no significant risks to the project.
	<b>"Yellow Light" (Caution, i.e., "Medium Risk"):</b> The approach is not clearly defined, and/or presents a risk to the project. Recommendations for risk areas assigned this rating are important to ensure optimal project operation.
	<b>"Red Light" (Risk Alert, i.e., "High Risk"):</b> The approach presents serious risks to the project and requires immediate attention. Recommendations for risk areas assigned this rating are essential for mitigating project risk.
NA	<b>Not Applicable.</b> The risk area does not apply to the project at this time.



Recommendations—Gartner's recommendations for improvement and risk mitigation are presented in the following risk analysis.

**Table 25. Project Risk Analysis and Mitigation Recommendations**




Areas of Potential Risk	Rating	Comments
<b>Business Benefit Risk</b>		
<b>Benefit Specification</b>		<p>Develop specific, measurable business and system performance benefits (e.g., eliminate duplicate data entry, improve compliance with Court Performance standards by 20% one year after implementing the system)</p> <p>Develop the elements of the required system including architecture, system functional requirements, and desired strategy for a phased deployment of functionality to end users. Items that need to be finalized include:</p> <ul style="list-style-type: none"> <li>■ Business/Functional Requirements</li> <li>■ Technical Requirements</li> <li>■ System Interface Requirements</li> <li>■ Vendor Statement of Work</li> <li>■ State Bar Court Resource Commitments</li> </ul>
<b>Benefit Measurement</b>		<p>Formulate Benefits Metrics for the new system and establish a process to measure results to expectations. Ensure that the formal metrics are developed and measured during the phased implementation and deployment of the system. In addition, these metrics should be constructed as service levels within a service-level agreement (SLA) framework in the contract as an incentive to the vendor to meet the State Bar Court's business objectives.</p> <p>Ensure that implementation milestones/deliverables are established and linked to any vendor payment schedule.</p>
<b>Value Management</b>		<p>The scope of the State Bar Court Case Management system project needs to be solidified to determine what the system will completely encompass, including any additional areas outside of State Bar Court that it may need to support or provide information to (e.g., Membership, OCTC, Finance, California Supreme Court).</p> <p>Need to finalize scope, determine process and criteria for scope change.</p> <p>A joint Change Control process within the State Bar Court and any other potential business areas needs to be put in place regarding the management of system changes.</p>
<b>Planning for Future System Operational Costs</b>		<p>Ongoing costs need to be defined (e.g., ongoing in-house and vendor technical support, maintenance costs, ongoing training, future enhancements and interfaces).</p> <p>Ensure that vendor agreements include detailed vendor responsibilities for ongoing operational support, training and maintenance, including service-level agreements (SLAs) and performance metrics/measures for items such as help desk support, bug fixes, system modifications and enhancements.</p>
<b>Project Cost Management</b>		<p>Define processes to ensure that project costs are managed throughout the project's life cycle. Ensure that knowledge transfer and training from the vendor to the internal support staff have been developed and included in any vendor agreements, and are conducted early-on.</p>




Areas of Potential Risk	Rating	Comments
<b>System Performance Management</b>		<p>Ensure a process is established to reconcile system capabilities (following deployment) with the business requirements and critical success factors and that a process is being established to resolve the differences between system capabilities and business requirements.</p> <p>The agreement should stipulate the vendor's responsibilities for meeting the documented system performance requirements and the process to be used to mitigate issues that surface during deployment and operational use.</p> <p>The State Bar Court needs to define its approach to system post-implementation performance validation and management. Items that need to be addressed include:</p> <ul style="list-style-type: none"> <li>■ Identification of Critical Business Process Success Factors</li> <li>■ Identification of Critical System Operational Success Factors</li> <li>■ The process to be used to measure and validate whether the system has met the above success factors</li> <li>■ The arbitration and issues resolution process to be used in the event of a disagreement between the vendor(s) and the State Bar</li> <li>■ Any penalties or "payment hold-backs"</li> </ul> <p>The above process needs to be included in the forthcoming agreement.</p>
<b>Project Prioritization</b>		<p>Management needs to hold regular meetings to check on progress of the project.</p> <p>The Project Team needs ongoing commitment from management and the Senior Executive Team in the form of additional resource and support when necessary. Also, that the Project Team is getting commitment from management and the Senior Executive Team in terms of active engagement and resolution of issues.</p> <p>Establishment of a joint Project Steering Committee comprised of representatives of State Bar Court, IT, executive management and other participating departments, is strongly recommended. The joint Steering Committee should meet regularly (i.e., monthly) to assess progress, address issues and make recommendations.</p> <p>Lastly, develop a governance process for the escalation and remediation of issues brought before the Steering Committee.</p>
<b>Complexity Management</b>		<p>Project scope must be clearly defined.</p> <p>All deliverables required to issue an agreement have been completed and reviewed and approved by the management team.</p> <p>All potentially impacted people are involved in the project.</p> <p>System design/configuration and contract documents are to be signed off by all business areas affected.</p> <p>Develop, in conjunction with participating business areas, needed key systems documentation such as the data architecture, application architecture, phased deployment plan, etc., to ensure all areas have been addressed and there is consensus on the proposed solution.</p>






Areas of Potential Risk	Rating	Comments
<b>Budget and Schedule Risk</b>		
<b>Estimation Quality</b>		<p>State Bar Court has a high-level project implementation timeline and an associated estimated project budget based on the current scope of the project. Once the final scope of the project is known, the implementation plan and budget should be revisited, updated, developed at a more detailed level and vetted with key stakeholders.</p> <p>The process used to complete this final estimation should be based on proven approaches, the availability of State Bar staff, and should include ample representation of all participating business areas.</p> <p>Once the final project scope is known, develop a detailed project plan with specific tasks, deliverables and critical milestones identified. The plan needs to encompass all tasks of the project team, selected vendor/implementer, as well as internal and external support organizations. This plan will serve as a key input into the agreement process as well.</p> <p>The above Project Plan and supporting Project Budget need to be vetted by all key stakeholders and the Steering Committee.</p>
<b>Contractual</b>		<p>As the agreement is developed, it should include a deliverables-based contract and payment structure, as well as the State Bar's contract terms and conditions to help ensure early identification of potential contract issues.</p> <p>Joint review of the agreement and associated documentation should be done with the State Bar Court, IT and any other participating business areas early in the agreement development process.</p> <p>Develop specific documentation for the agreement including a proposed project implementation plan, schedule and phased deployment plan, while being open to proposed implementation approaches by vendors. The agreement should include post-production support, knowledge transfer and training requirements, as well as all the associated SLAs for each. In addition, the agreement needs to define how the project will be managed, the metrics that will be used to grade success, the specific roles and responsibilities of the vendor during each phase of the project, and the deliverables (required format and content—review cycle and approval process) associated with each deliverable during each phase.</p> <p>The State Bar Court should ensure that it acquires the assistance of skilled contract negotiators, either internally or externally, for negotiations with the selected vendor.</p>




Areas of Potential Risk	Rating	Comments
<b>Project Management</b>		<p>The State Bar Court system replacement project is a major undertaking for the State Bar and will require strong and effective project, financial and vendor management. The State Bar is strongly encouraged to leverage internal project management expertise from within the State Bar or other business areas that can provide this expertise. As a supplement if needed, the State Bar should seek the services of support contractors to provide additional expertise, best practices and support.</p> <p>The State Bar Court is strongly encouraged to formalize a joint Project Steering Committee that will monitor and assess progress as well as provide needed leadership to address enterprise support issues.</p> <p>Project staffing plans need to address the potential for project management staff turnover and identify additional skilled project management resources that may be called upon during the project if required.</p> <p>State Bar Court needs to establish a strong Project Management Process and Team to support this effort. This includes both the technical and business process elements of the project as well as a strong vendor management and oversight component. The definition of the project team roles and responsibilities, the acquisition of required project management tools and data repositories, the development of project governance and review processes, issues and schedule management processes all need to be defined and put in place as standard practices for the project. In addition, individuals need to be identified to address such key roles as Configuration Management, Quality Assurance, System Testing, Data Conversion Planning and Execution, Training and Knowledge Transfer, Organizational Change Management, Vendor Management, and Risk Management and Reporting.</p> <p>Lastly, the State Bar Court should strongly consider contracting with an independent project oversight vendor to work within the project, conducting validation and verification activities, including review of project processes and deliverables, and attendance at certain scheduled meetings.</p>
<b>Project Resources</b>		<p>Internal resources that require significant training need to be identified, and ensure that there are training plans in place.</p> <p>Identify key project roles that will require full-time resources or dedication of a significant portion of time. Potential key project roles for the State Bar Court and IT to consider include: System Architect, Test Lead, DBA, Conversion Lead, Business Analyst, Business Process Change Lead and Organizational Change Lead.</p> <p>Ensure State Bar Court and State Bar IT resources are working closely together and communicating openly to facilitate productive and cooperative working relationships throughout the project life cycle. Staff and vendor resources should be co-located to facilitate this communication and increased productivity.</p> <p>Define a Project Succession Plan for critical roles on the project.</p>



Areas of Potential Risk	Rating	Comments
<b>Budget Management</b>		<p>Once the final project scope is known, develop a detailed Project Budget that is linked to the Project Plan and Schedule.</p> <p>Consider using Earned Value budget tracking to provide the ability to gauge team productivity vs. work accomplished.</p> <p>The State Bar Court should ensure the budget contains a management reserve to address any contingencies that may arise over the life of the project.</p> <p>The State Bar Court needs to ensure that an internal accounting system or process is capable of tracking the project at the task level, including time spent by internal team members and vendors, hardware costs and other project costs. The accounting system needs to provide required reports in a timely manner to support ongoing project budget management.</p>
<b>Scope Management</b>		<p>The scope of the State Bar Court project needs to be solidified to determine what, if anything, the system will encompass beyond supporting the State Bar Court Case Management process (e.g., linkages to OCTC, facilitation of information exchange with the California Supreme Court).</p> <p>A finalized scope will form the foundation for developing processes for changing scope, and criteria for evaluating proposed scope changes.</p> <p>The project scope change control process and criteria for any potential joint scope changes between the State Bar Court, business areas and other participating departments needs to be developed and vetted with key stakeholders.</p> <p>Implement an integrated change management and project reporting process that all participating business areas will utilize.</p>
<b>Operational Risk</b>		
<b>Customization</b>		<p>It is recommended that the State Bar Court limit customization to interface development, thereby preserving the benefits and ease of maintaining a COTS environment. This will be a challenge for the organization given its history with customized applications. By minimizing customization, and modifying business processes to leverage best practices built into the system, the approach significantly reduces the risk related to customization.</p> <p>Finalize the system/component interface requirements, complexity and development approach for all elements of the new system, and define for inclusion (as appropriate) into the forthcoming agreement.</p> <p>Document the design and performance specifications for interfaces that will be developed by the vendor, and include in the forthcoming agreement.</p> <p>Determine who will maintain the customized interfaces over the life of the system. If internal IT staff will perform this function, they should be integral to the interface development process, working alongside the development vendor.</p>

Areas of Potential Risk	Rating	Comments
<b>Conversion Planning</b>		<p>Data conversion will be a critical activity for the project and, therefore, requires a focused resource to ensure all elements of this upcoming activity are well-defined and the required processes are in place.</p> <p>The State Bar Court needs to define the role that the selected vendor/implementer will play in data conversion planning, conversion routine development, execution and validation, as well as how converted data will be validated.</p> <p>The development of service-level agreements (SLAs) and/or penalties associated with non-performance needs to take place.</p> <p>All the above need to be vetted before inclusion in the agreement.</p> <p>It is imperative that the vendor's roles, responsibilities and process in the project's data conversion activities, including associated SLAs, be defined. Include the process the State Bar Court will use to provide the vendor with "mock conversion data," the process that will be used to validate that converted data is accurate and complete, the process and time frame required to convert "production data" during the pilot, and phased deployment process, as well as how State Bar Court will approach any data synchronization issues during the phased deployment process and the vendor's role in that process, and rectification of any data consistency issues.</p> <p>Assign a specific project team resource to spearhead the Conversion Planning and Execution process.</p>
<b>Integration Test Planning</b>		<p>With the potential integration of other applications with COTS (commercial off-the-shelf) applications, it is critical that the technical requirements for interfaces be fully defined. In addition, an assessment of the risks associated with the development of any related custom code and interfaces should be completed as soon as possible and vetted to all key stakeholders.</p> <p>The roles and responsibilities of the selected vendor in the support and performance of integration testing needs to be detailed for the forthcoming agreement.</p> <p>Define the overall systems interfaces in detail and their associated testing requirements (functionality and performance).</p> <p>Develop the project's integration test strategy.</p> <p>Define the roles and responsibilities of the vendor in integration testing, and document associated SLAs.</p>
<b>Performance Test Planning</b>		<p>Define the overall system performance testing strategy, including the roles and responsibilities of the selected vendor in the support and performance of Performance Testing.</p> <p>Define the roles and responsibilities the vendor has in the development and execution of the performance test plan, as well as the success metrics that will be used to evaluate system performance during each phase of the deployment (Pilot, Phase I, Phase II, etc.) and associated SLAs the vendor will have to meet. In addition, the State Bar Court needs to define the issues resolution process that will be used to address issues that may surface as a result of system performance testing and post-implementation assessment activities. These items (as appropriate) need to be included in the forthcoming agreement.</p>

Areas of Potential Risk	Rating	Comments
<b>IT Operations Support</b>		<p>IT support resources (internal and the vendor) need to be identified and involved as early as possible in the project.</p> <p>The State Bar Court needs to develop the system turnover-to-production process and ongoing operational support requirements.</p> <p>The State Bar Court needs to define the project's phased implementation approach—specifically, which features and functions will be incorporated into each phased release and the anticipated internal and vendor support each will require.</p> <p>The State Bar Court needs to define the requirements, deliverables and performance metrics/SLAs that the vendor will be responsible to meet during the above activities. These items need to be documented in the forthcoming agreement.</p> <p>In concert with the above findings, the project team needs to define the system's overall operational support requirements and associated resource needs (internal and vendor[s]).</p>
<b>Vendor Support Planning</b>		<p>The vendor's responsibilities and deliverables need to be defined for a number of key areas including: knowledge transfer and training, turnover to production and operational support, post-go-live system assessment and problem remediation, as well as their support requirements for "break-fix," system enhancements and related post-production support needs, including help desk support.</p> <p>The above requirements, associated deliverables and performance metrics (i.e., SLAs) as well as the State Bar Court's oversight and process for this area, need to be defined and documented in the forthcoming agreement.</p> <p>In concert with the above findings, define the required vendor support responsibilities and associated SLAs in:</p> <ul style="list-style-type: none"> <li>■ Knowledge Transfer and Training</li> <li>■ Turnover-to-Production Support</li> <li>■ Post-Go-Live System Support</li> <li>■ Problem Remediation</li> </ul>
<b>Organization Risk</b>		
<b>Organizational Change Management</b>		<p>Participation and adoption of process changes and the new system by end users is critical to the project's success. The State Bar Court needs to ensure that frequent/consistent communication, meetings and feedback channels between the project team and end users take place. This should be done via a change management team and a communication program/plan.</p>
<b>User Involvement</b>		<p>End-user involvement is critical to the project's success and must be accomplished. Ongoing meetings/briefings need to be set up and conducted on an ongoing basis to ensure constant communication and to enhance end-user involvement in all phases of the project. If required, back-fill resources should be obtained to help facilitate user involvement and completion of competing day-to-day responsibilities.</p>
<b>External Stakeholders</b>		<p>Stakeholder impact analysis must be conducted and stakeholder communication process need to be developed and put in place.</p> <p>Stakeholders should include other State Bar departments and current third-party providers.</p>

Areas of Potential Risk	Rating	Comments
<b>Training</b>		End-user involvement during training will be critical to project success; the State Bar Court must set up a training program as part of the system implementation. Training procedures and processes need to be developed. A training lead should be identified who would be responsible for monitoring the development and implementation of a training plan, securing resources and tracking the process/progress to make changes accordingly. Additionally, define in the agreement/SOW vendor requirements for training.
<b>External Risk</b>		
<b>Due Diligence</b>		Due diligence must be performed on key vendors or providers prior to contract signing. Selection criteria should focus on the following: <ul style="list-style-type: none"> <li>■ Strong system functionality</li> <li>■ Proven system implementation methodology</li> <li>■ Extensive tools for project management, system configuration, data conversion and testing</li> <li>■ Technical team certified in proposed product's technical platform</li> <li>■ References for work of similar scope and magnitude</li> <li>■ PMI-certified Project Manager(s) or equivalent</li> <li>■ Financially stable with an excellent Dun &amp; Bradstreet rating or equivalent</li> </ul>
<b>Risk Management Process</b>		The State Bar Court needs to develop processes for managing risk. This process should be integrated with any selected vendor procedures and include criteria for: <ul style="list-style-type: none"> <li>■ Risk/issues identification</li> <li>■ Risk/issues quantification/ranking</li> <li>■ Risk/issues assessment</li> <li>■ Risk/issues trigger points</li> <li>■ Risk/issues mitigation</li> <li>■ Risk/issues management</li> <li>■ Risk/issues tracing and reporting</li> <li>■ Risk/issues resolution and escalation</li> </ul>

■ ■ ■ ■ Attachments

## Attachment 1—Cost-Savings Detail

**Table 26. Estimated Staff Efficiency Savings**

Description of Potential Efficiency	Business Unit Impacted	Employee Classification	Est. Time Savings (hrs/mth)	Avg Monthly Salary*	Avg Hourly Salary **	Savings Calculation	Total Est. Savings/ Mos
<b>Correspondence Generation</b>							
Generation of letters for correspondence (notification to supreme court for status changes, Review Recusals, Review requests for information and/or to brief additional issues). 1 takes 15 minutes; could reduce to 5 minutes. This could be further reduced if done electronically (e.g., e-mail). Documents would be stored electronically. Total # of letters per month: Hearing = 30 per month average. Review = 25 per month average.	Hearing and Review	Case Administrator	9.17	\$8,478	\$53.97	(Savings of 10 minutes per letter X Total number of letters per month of 55)/60 minutes = 9.17 hours per month	\$494.74
Correspondence to reject documents. Time savings in minutes per letter: 1 takes 15 minutes; could reduce to 5 minutes. Total # of letters per month: Hearing = 20 per month using a template document. Review = 25 per month with 50% using a template document and 50% a customized document created from a template. Note: We do not see this work going away for Review.	Hearing and Review	Case Administrator	5.42	\$8,478	\$53.97	(Savings of 10 minutes per letter X Total number of letters per month of 32.50)/60 minutes = 5.42 hours per month	\$292.52

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Description of Potential Efficiency	Business Unit Impacted	Employee Classification	Est. Time Savings (hrs/mth)	Avg Monthly Salary*	Avg Hourly Salary **	Savings Calculation	Total Est. Savings/ Mos
Transmittal of court/case files to the California Supreme Court (scanning, indexing, printing, packaging, mailing). Time savings in minutes per file = 45 Total # of files transmitted per month = 30 average. Note: policy change required.	Effectuations	Deputy Court Clerk	22.50	\$7,471	\$47.56	(Time savings of 45 Minutes per file X 30 files transmitted per month)/60 minutes = 22.50 hours per month	\$1,070.12
<b>Generation of notices/orders</b>							
Generation of hearing case notices Have an average of 4 notices for 750 cases; 4 notices for 650 cases; and 4 notices for 500 cases per year = 7600 per year or 633 per month. Typically takes 15 minutes and could reduce to 5 minutes = 10 minute savings per notice.	Hearing	Case Administrator	105.56	\$8,504	\$54.14	(7600 notices per year)/12 months) X 10 minutes savings per notice)/60 minutes = 105.56 hours per month	\$5,714.45
Generation of review case notices. Average 20 per month. Typically takes 15 minutes and could reduce to 5 minutes = 10 minute savings per notice.	Review	Case Administrator	3.33	\$8,348	\$53.14	(20 notices per month X 10 minute time savings per notice)/60 minutes = 3.33 hours per month	\$177.15

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Description of Potential Efficiency	Business Unit Impacted	Employee Classification	Est. Time Savings (hrs/mth)	Avg Monthly Salary*	Avg Hourly Salary **	Savings Calculation	Total Est. Savings/ Mos
Service of orders. Serve 1 per month per case. 12 orders per case each year 500 cases per year Savings in minutes per order = 10 Note: Would require a policy change.	Hearing and Review	Case Administrator	83.33	\$8,478	\$53.97	(1 order per month X 500 Cases) X (10 Minutes savings per order)/60 minutes = 83.33 hours per month	\$4,497.61
Dispositions (orders, decisions, dismissals, modification orders, opinions). 45 minutes (review to determine what needs to be included, supplemental data entry, copying of document with certificate of services, mailing) would decrease to 25 minutes per year saving 20 minutes per case 500 cases per year.	Hearing and Review	Case Administrator	13.89	\$8,478	\$53.97	(20 minute savings per case X 500 cases per year)/12 months/60 minutes = 13.89 hours per month	\$749.60
Draft California Supreme Court Orders for resignations. Do 350 (voluntary without charges) and 80 (with charges) for a total of 430 per year and each takes 5 minutes and could reduce to 2 minutes	Effectuations	Deputy Court Clerk	1.79	\$7,471	\$47.56	(430 resignations per year X 3 minutes savings)/12 months/60 minutes = 1.79 hours per month	\$85.21



Description of Potential Efficiency	Business Unit Impacted	Employee Classification	Est. Time Savings (hrs/mth)	Avg Monthly Salary*	Avg Hourly Salary **	Savings Calculation	Total Est. Savings/ Mos
<b>Elimination of Copying, Mailing, Scanning, Indexing</b>							
Elimination of copying and mailing of case files to/from San Francisco and Los Angeles. Copy and mail motions, weekly conference calendar, new pleadings in already copied files, entire case files, exhibits). Total 2 hours per work day. Reduce by 50 percent for savings of 1 hour per day for 2 Case Administrators. Note: A reengineering appellate review process would be needed to achieve savings.	Review	Case Administrator	21.40	\$8,348	\$53.14	(savings of 60 minutes per day X 5 days a week) X 4.28 weeks per month)/60 minutes = 21.4 hours per month	\$1,137.28
<b>Elimination of Dual Data Entry and Validation</b>							
Elimination of duplicate data entry between the system, outlook and hard copy calendars. 40 minutes of time savings per week Do for 3 Judges	Hearing	Case Administrator	8.56	\$8,504	\$54.14	(40 minutes per week X 3 judges) X 4.28 weeks in a month/60 minutes = 8.56 hours per month	\$463.41
Validation of consolidated cases. All 12 Case Administrator spend 30 minutes per day validating; this could be reduced to 10 minutes the first year and 5 there after, if the new system provides validation tools and user controls to bypass system rules on a case-by-case basis.	Hearing and Review	Case Administrator	85.60	\$8,478	\$53.97	(20 minute savings per day X 12 case administrators X 5 days per week) X (4.28 weeks per month)/60 minutes = 85.60 hours per month	\$4,619.95

Description of Potential Efficiency	Business Unit Impacted	Employee Classification	Est. Time Savings (hrs/mth)	Avg Monthly Salary*	Avg Hourly Salary **	Savings Calculation	Total Est. Savings/ Mos
<b>Reports Development</b>							
Ad hoc reports development and generation. Takes 2 hours per month, this could be reduced to 1 hour per month.	Hearing and Review	Administrative Specialist	1.00	\$9,345	\$59.49	1 hour time saving per month	\$59.49
<b>Check Generation</b>							
Check generation as a result of overpayments. Spend 10 minutes per overpayment Generate 1 per week	Hearing	Administrative Specialist	0.71	\$9,345	\$59.49	10 minutes per week X 4.28 weeks in a month	\$42.44
Payment process (copying, approvals). Spend 25 minutes per week. Generate 1 per week.	Hearing	Administrative Specialist	1.78	\$9,345	\$59.49	25 minutes per week X 4.28 weeks in a month	\$106.09

## Appendix B

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Description of Potential Efficiency	Business Unit Impacted	Employee Classification	Est. Time Savings (hrs/mth)	Avg Monthly Salary*	Avg Hourly Salary **	Savings Calculation	Total Est. Savings/ Mos
<b>Requests for Information</b>							
<p>Increase efficiency responding to requests for information related to a case. Spend 90 minutes currently work per day. Anticipate reducing be 25% or 22.5 minutes per day.</p> <p>All 12 Case Administrators are looking for some information that may never be in the CMS. For example, some of the information is in recording testimony or "what happened" in court that is not reflected in a court document. Other information is regarding procedures and how they are interpreted, changed and applied to cases. Frequently, parties called to ask if orders, decisions or opinions have been issued yet. There is a high degree of caller volume for Review cases (conviction finality and interlocutory reviews). At times the staff gathers information for judges and court counsel because it is more cost effective for the Case Administrator to gather the information.</p>	Hearing and Review	Case Administrator	96.30	\$8,478	\$53.97	22.5 minutes per day X 12 case administrators X 5 days per week X 4.28 weeks per month/60 minutes = 96.3 hours per month	\$5,197.44
<b>Monthly Total Savings/Efficiencies</b>	-	-	<b>460.34</b>	-			<b>\$24,707.50</b>
<b>Annual Total Savings/Efficiencies</b>			<b>5524.08</b>				<b>\$296,490</b>

\* Including 38% for Fringe Benefits and Payroll Tax

\*\* Based on 1885 hours/year

**Table 27. Estimated Administrative Cost Savings**

Description of Potential Efficiency	Business Unit Impacted	Amount of Units Saved (month)	Cost Per Unit	Savings Calculation	Total Est. Savings/ Mos
<b>Mail/Postage Costs</b>					
Mailing costs associated with correspondence. Total Mailing Costs per month = \$800 statewide of which 90% or \$720 is case related. Assuming a policy change and internal re-engineering of processes, this expense might be reduced by 50 percent in the first year. Note: this would require a procedural change.	Hearing, Review, Effectuations			Total mailing costs per month \$800 X 90% is case related X 50% savings per month = \$360	\$360.00
Mailing of case files and court documents between LA and SF offices. Currently spend \$500 per month for courier shipment statewide of which 90% is case related for cases in Hearing, Review and includes shipments to the California Supreme Court. Assuming a policy and rule change transition to electronic files, this expense might be reduced by 50 percent in the first year.	Hearing, Review, Effectuations	\$225.00		Total mailing costs per month \$500 X 90% is case related X 50% savings per month = \$225	\$225.00
<b>Copying Costs</b>					
Copying costs (paper, toner) Anticipate reducing by 50%. Currently spend \$2,000 per month total statewide of which 80% or \$1,600 is case related work. Assuming policy changes and internal re-engineering of processes, this expense might be reduced by 50 percent in the first year.	Hearing, Review, Effectuations	\$800.00		Copy cost of \$2,000 per month X 80% is case related X 50% savings per month = \$800	\$800.00

Description of Potential Efficiency	Business Unit Impacted	Amount of Units Saved (month)	Cost Per Unit	Savings Calculation	Total Est. Savings/ Mos
<b>Storage Costs</b>					
Storage costs associated with storing of case files (hard copy). Currently existing offsite file would continue to be stored at the cost of \$1,400 per month or \$16,800 per year. Estimated savings of maybe \$10,000–\$12,000 per year eventually could be achieved by eliminating file delivery, retrieval, box charges, transportation and fuel surcharge costs for new case files that would be electronically stored onsite within the Court. Anticipate saving \$1,000 per month Note: Would require a policy change.	Hearing, Review, Effectuations	\$1,000.00		NA	\$1,000.00
<b>System Maintenance Costs</b>					
Ongoing system maintenance. Anticipate .50 FTE to support the system. Currently spend \$85 per hour for contract programmer. On staff programmer/analyst salary (step 3) is \$9677 per month (salary, tax, fringes) or \$61.60 per hour.	IT		\$85.00	(1885 hours per year X .50 FTE X \$85 per hour)/12 months = \$4,005.63	\$6,676.04
<b>Licensing Costs</b>					
Licenses for application. Annual Cost = \$4,840 for DataGate (connection to AS/400) plus \$935 for Accelerate (desktop clients). Bulk site license not to exceed 100 users statewide throughout the State Bar.	IT			(\$4,840 + \$935)/12 = \$481.25	\$481.25
Licenses for development. Annual Cost = \$1,000 for one developer license.	IT			\$1,000/12 = \$83.33	\$83.33
<b>Monthly Totals</b>					<b>\$9,625.62</b>
<b>Annual Totals</b>					<b>\$115,507.44</b>

## Attachment 2—Alternatives Evaluation Results

Table 28. Alternative #1—Convert AVR Code






















Evaluation Criteria	Rating	Evaluation
<b>Business Fit</b>		This alternative will not address the remaining present and future functional needs of the State Bar Court.
<b>Total Cost of Ownership</b>		This alternative will likely be one of the less expensive options to implement; however, it will require more resources to maintain and update the application over time than most options.
<b>Return on Investment</b>		This alternative will not generate any return since it will not help the State Bar Court address its opportunities for process improvement.
<b>Technical Fit</b>		The assumption is that CMS AVR code would be converted to.NET, aligning with the State Bar's new technical architecture.
<b>Maintainability</b>		The assumption is that by converting CMS to.NET, the application can be maintained by a selection of external vendors and/or internal IT staff.
<b>Schedule</b>		The assumption is that the same vendor is hired to be part of the conversion team.
<b>Risk</b>		This alternative will not address current coding issues or new functional needs. It will not help address user trust issues with the system and may generate additional stakeholder frustration with continuing to spend money on a system that does not address user needs.








Table 29. Alternative #2—COTS Application

Evaluation Criteria	Rating	Evaluation
<b>Business Fit</b>		Potential systems will likely address approximately 80% of desired functionality. The State Bar Court should conduct business process re-engineering activities to take advantage of best practice approaches.
<b>Total Cost of Ownership</b>		If the State Bar Court purchases and complies with an application maintenance agreement, it should be able to maintain and upgrade a COTS application for the lowest cost of most alternatives.
<b>Return on Investment</b>		If the State Bar Court pursues business process re-engineering and takes advantage of automated capabilities, it should be able to improve staff efficiencies and gain a return on investment sooner than any other alternative.
<b>Technical Fit</b>		The COTS market offers products based on architectures that comply with the State Bar's desire to move to.NET and SQL Server standards.
<b>Maintainability</b>		If the State Bar Court complies with its application maintenance agreement, this option presents one of the easiest approaches to application maintenance and upgrades since this will be primarily the responsibility of the COTS vendor.
<b>Schedule</b>		Implementation of a COTS solution will likely require 18–24 months to complete after the procurement process.
<b>Risk</b>		This alternative presents the lowest risk of all options since the project will involve implementation of a proven COTS solution by a qualified vendor.

**Table 30. Alternative #3—Customized Application**

Evaluation Criteria	Rating	Evaluation
<b>Business Fit</b>		This alternative provides the best opportunity to meet all end user desired functionality.
<b>Total Cost of Ownership</b>		This alternative is the most expensive of all alternatives to implement and maintain over the life of the system.
<b>Return on Investment</b>		If the State Bar Court pursues business process re-engineering and takes advantage of automated capabilities, it should be able to improve staff efficiencies and gain a return on investment.
<b>Technical Fit</b>		The assumption is the application would be coded using .NET and reside on a SQL Server database in alignment with the State Bar's future technical architecture.
<b>Maintainability</b>		This alternative is one of the most difficult to maintain as when end users are presented with a customized opportunity, it is often difficult to put constraints on their desires for system updates and modifications.
<b>Schedule</b>		This alternative will require the most time of any alternative to implement, as a vendor will need to work with business and technical staff to define functional and technical requirements, likely starting from a blank slate to develop code.
<b>Risk</b>		Customized application implementations in general present the most significant risk of most alternatives in the areas of scope, budget, and schedule. The State Bar has not had success in the recent past generating anticipated benefits and meeting end user expectations.

**Table 31. Alternative #4—AOC System Transfer**

Evaluation Criteria	Rating	Evaluation
<b>Business Fit</b>		This system may address most of the functionality required. It will likely provide more than is necessary.
<b>Total Cost of Ownership</b>		This alternative may be the least costly of all since the State Bar Court would leverage State licensing and share development costs with all State Courts.
<b>Return on Investment</b>		This system should provide the State Bar Court with an opportunity to automate some of its manual processes, generating staff efficiencies. Compared with system costs, there should be a positive return on investment.
<b>Technical Fit</b>		The State Bar would not be able to influence the system's technical architecture so it may or may not align with the State Bar's future architecture.
<b>Maintainability</b>		The State Bar would have to rely on the State to maintain the system.
<b>Schedule</b>		The State Bar would not have any influence on or control over the schedule. The State Bar likely would be last on the roll-out priority list.
<b>Risk</b>		Risks are reduced by having the State manage this customized project; however, since the State Bar would have no influence on the project, there is a risk the system would not address all the State Bar Court's needs.

## Attachment 3: Cost Estimate Assumptions

Figure 5. High and Low Cost Estimates Summary

### Recommended Alternative - High and Low Cost Estimates

	High	Assumptions	Low	Assumptions
	Amts		Amts	
<b>One-Time IT Project Costs</b>				
Hardware Purchase	96,000	12 Servers and OS \$6-8,000/ea	60,000	12 Servers and OS \$5,000/ea
Software Purchase/License	420,000	high est from vendors + 20%	264,000	low est from vendors + 20%
Contract Services				
Software Implementation <sup>1</sup>	1,331,353	assumes 14 mos project	852,768	assumes 9 mos project
Other Contract Services (PM) <sup>2</sup>	384,854	Full-time \$175/hr 14 mos project	176,719	Full-time \$125/hr 9 mos project
Project Oversight	250,000	12 mos of monthly oversight	120,000	quarterly oversight
TOTAL Contract Services	1,966,208		1,149,487	
Contingency	248,221	10% contingency	147,349	10% contingency
Other				
<b>Total One-time IT Costs</b>	<b>\$ 2,730,428</b>		<b>\$ 1,620,835</b>	

<sup>1</sup> Includes fit/gap analysis, business process re-engineering, design, testing, training

<sup>2</sup> Assumes the PM will be in charge of change management activities

Maintenance Costs						
Hardware	0.22	21,120	22% of hardware costs	0.20	12,000	20% of hardware costs
Software (includes helpdesk and upgrades)	0.20	84,000	20% of software costs	0.18	47,520	18% of software costs
Total Maintenance Costs		\$ 105,120			\$ 59,520	



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Figure 6. High Implementation and Contractor Cost Estimates Worksheet

**System Project Cost Estimates  
Implementation Costs - High Estimate**

Cost Category	Percent of Project Duration	Days <sup>(1)</sup>	Mgmt	Internal Staff/SMEs <sup>(2)</sup>	Vendor External <sup>(3)</sup>	ICSD Staff	Total People	Mgmt	Internal Staff/SMEs	Vendor/ External	
Analysis and Design <sup>(4)</sup>	20.00%	54.83	0%	28%	72%	0%	8.0	0	2	6	0
Configuration and Building <sup>(5)</sup>	25.00%	68.54	0%	33%	67%	0%	6.0	0	2	4	0
Develop Interfaces <sup>(6)</sup>	8.00%	21.93	0%	5%	95%	0%	3.0	0	0	3	0
Conversion <sup>(7)</sup>	20.00%	54.83	0%	70%	30%	0%	4.0	0.0	2	1	0
Testing <sup>(8)</sup>	10.00%	27.42	0%	40%	60%	0%	4.0	0	2	2	0
Training/Change Management <sup>(9)</sup>	5.00%	13.71	0%	40%	60%	0%	2.8	0.0	1.1	2	0.0
Project Management <sup>(10)</sup>	10.00%	27.42	0%	25%	75%	0%	1.0	0	0	1	0
Project Oversight <sup>(11)</sup>	2.00%	5.48	0%	0%	95%	0%	1.0	0	0	1	0
	100.00%	274									
Project Duration (Years): <sup>(12)</sup> 1.1666667								Mgmt	Internal Staff/SMEs	Vendor/ External	ICSD Staff
Total # of people on project: <sup>(13)</sup> 10											
	Daily Rate	Salary	Burden <sup>(15)</sup>	Hours	Hourly						
Vendor/External <sup>(14)</sup>	\$ 1,600				\$ 200	Analysis and Design	-			505,344	-
Project Manager	\$ 1,400				\$ 175	Implementation	-			438,667	-
						Develop Interfaces	-			100,016	-
						Conversion	-			105,280	-
						Testing	-			105,280	-
						Training/Change Mgt	-			43,867	-
						Project Management	-			32,900	-
						Ext Project MGR	-			\$ 329,875	-
						Project Oversight	-			250,000	-
							\$ -	\$ -	\$ -	\$ 1,911,228	\$ -
PM		1				Personnel Costs				\$ 1,911,228	
PO		1									
Sol		4				Travel <sup>(15)</sup>				\$ 191,123	
SI		4									
		10				Total				\$ 2,102,351	

**Notes:**

- (1) Assumes 1885 hours
- (2) Staff can mean Subject Matter Experts (SMEs) or managers - we did not differentiate for Ca Bar
- (3) Comprised of system Vendor and/or its Integrators/consultants.
- (4) Based on implementation trends and the scale of this project, it is assumed that the CA Bar will require significant Vendor/Integrator support.
- (5) While Ca Bar will be required to assist in the actual implementation activities, it is assumed that the Vendor will play a leading role during this critical phase.
- (6) It is assumed that responsibility for the development of system interfaces will be carried by the Vendor.
  
- (7) Conversion will require the participation of project players, however, the Vendor should be expected to deliver the bulk of the converted data while receiving critical support from internal SMEs and IT staff (namely, what does the data mean and where should it go?)
- (8) It is anticipated that the Vendor will provide testing methodologies, script templates, training on proper test methodologies, and facilitation of the testing environment. Additionally, depending on the type of test, it is possible that Vendor staff will participate alongside Ca Bar resources during testing to validate and troubleshoot the process.
- (9) This phase includes Knowledge Transfer and Documentation activities. It is assumed that a variety of training techniques (e.g., CD-ROM, Train-the-Trainer, Classroom, etc.) will be employed based on user community and level of need. Ca Bar will need to address related facilities costs which should be built into the budget.
- (10) This project management is related to that provided by the SI to manage SI and system vendor staff.
  
- (11) In addition to internal QA, Gartner considers the heavy involvement of an external QA and IV&V partner to be essential to the successful implementation of the system.
- (12) Assumption is based on the pace at which comparable agencies typically implement major systems, the complexity of the solution (e.g., business processes impacted, quantity/complexity of interfaces and data conversion, the number of participating departments/parties and their ability to work together effectively), as well as political considerations. Other factors, such as the decision to implement "out-of-the-box" solutions versus the need to extend the solution functionality (e.g., additional configuration and reports beyond the standard included) contributes to the length of the implementation period.)
- (13) Assumes implementation of: a) standard functionality as well as e-filing capabilities. Assumes use of an external PM, a Project Oversight consultant, 4 solution vendor staff and 4 system integrator staff.
- (14) Daily Rate of Vendor/Integrator based on recent procurements and discussions with vendors.
- (15) Estimated at 10% of Vendor/Integrator travel/out-of-pocket costs.

Cost Category	Percent of Project Duration	Days <sup>(1)</sup>	Mgmt	Internal Staff/SMEs <sup>(2)</sup>	Vendor External <sup>(3)</sup>	Total People	Mgmt	Internal Staff/SMEs	Vendor/ External		
Analysis and Design <sup>(4)</sup>	20.00%	35.25	0%	28%	72%	0%	8.0	0	2	6	0
Configuration and Building <sup>(5)</sup>	25.00%	44.06	0%	33%	67%	0%	6.0	0	2	4	0
Develop Interfaces <sup>(6)</sup>	8.00%	14.10	0%	5%	95%	0%	3.0	0	0	3	0
Conversion <sup>(7)</sup>	20.00%	35.25	0%	70%	30%	0%	4.0	0.0	3	1	0
Testing <sup>(8)</sup>	10.00%	17.63	0%	40%	60%	0%	4.0	0	2	2	0
Training/Change Management <sup>(9)</sup>	5.00%	8.81	0%	40%	60%	0%	2.8	0.0	1	2	0.0
Project Management <sup>(10)</sup>	10.00%	17.63	0%	25%	75%	0%	1.0	0	0	1	0
Project Oversight <sup>(11)</sup>	2.00%	3.53	0%	0%	95%	0%	1.0	0	0	1	0
100.00%							176				
Project Duration (Years): <sup>(12)</sup>							0.75				
Total # of people on project: <sup>(13)</sup>							10				
Daily Rate		Salary	Burden <sup>(15)</sup>	Hours	Hourly						
Vendor/External <sup>(14)</sup>		\$ 1,600			\$ 200						
Project Manager		\$ 1,000			\$ 125						
Int SMEs	4										
PM	1										
PO	1										
Sol	4										
SI	4										
	14										

Analysis and Design	-		324,864	-
Implementation	-		283,410	-
Develop Interfaces	-		64,296	-
Conversion	-		67,680	-
Testing	-		67,680	-
Training/Change Mgt	-		23,688	-
Project Management	-		21,150	-
Ext Project MGR			\$ 176,719	
Project Oversight	-	-	150,000	-
	\$ -	\$ -	\$ 1,179,487	\$ -

Personnel Costs	\$ 1,179,487
Travel <sup>(15)</sup>	\$ 117,949
Total	\$ 1,297,435

**Notes:**

- <sup>(1)</sup> Assumes 1885 hours
- <sup>(2)</sup> Staff can mean Subject Matter Experts (SMEs) or managers - we did not differentiate for Ca Bar
- <sup>(3)</sup> Comprised of system Vendor and/or its Integrators/consultants.
- <sup>(4)</sup> Based on implementation trends and the scale of this project, it is assumed that the CA Bar will require significant Vendor/Integrator support.
- <sup>(5)</sup> While Ca Bar will be required to assist in the actual implementation activities, it is assumed that the Vendor will play a leading role during this critical phase.
- <sup>(6)</sup> It is assumed that responsibility for the development of system interfaces will be carried by the Vendor.
  
- <sup>(7)</sup> Conversion will require the participation of project players, however, the Vendor should be expected to deliver the bulk of the converted data while receiving critical support from internal SMEs and IT staff (namely, what does the data mean and where should it go?)
- <sup>(8)</sup> It is anticipated that the Vendor will provide testing methodologies, script templates, training on proper test methodologies, and facilitation of the testing environment. Additionally, depending on the type of test, it is possible that Vendor staff will participate alongside Ca Bar resources during testing to validate and troubleshoot the process.
- <sup>(9)</sup> This phase includes Knowledge Transfer and Documentation activities. It is assumed that a variety of training techniques (e.g., CD-ROM, Train-the-Trainer, Classroom, etc.) will be employed based on user community and level of need. Ca Bar will need to address related facilities costs which should be built into the
- <sup>(10)</sup> This project management is related to that provided by the SI to manage SI and system vendor staff.
  
- <sup>(11)</sup> In addition to internal QA, Gartner considers the heavy involvement of an external QA and IV&V partner to be essential to the successful implementation of the system.
- <sup>(12)</sup> Assumption is based on the pace at which comparable agencies typically implement major systems, the complexity of the solution (e.g., business processes impacted, quantity/complexity of interfaces and data conversion, the number of participating departments/parties and their ability to work together effectively), as well as political considerations. Other factors, such as the decision to implement "out-of-the-box" solutions versus the need to extend the solution functionality (e.g., additional configuration and reports beyond the standard included) contributes to the length of the implementation period.)
- <sup>(13)</sup> Assumes implementation of: a) standard functionality as well as e-filing capabilities. Assumes use of an external PM, a Project Oversight consultant, 4 solution vendor staff and 4 system integrator staff.
- <sup>(14)</sup> Daily Rate of Vendor/Integrator based on recent procurements and discussions with vendors.
- <sup>(15)</sup> Estimated at 10% of Vendor/Integrator travel/out-of-pocket costs.

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Hardware Cost Detail

## Hardware Requirements - Hardware Refresh

This spreadsheet identifies the hardware that the Ca Bar would need to acquire in order to meet Vendor Recommended Minimum requirements.  
Estimated unit prices are based on recent procurement contracts.

Item	Qty	Preferred	Estimated Price/Unit	Total Price	Comments
Web Server	1	Dual Core Xeon 3.4GHz 8GB RAM RAID 10 100/1000 Network Card Redundant Power Supply	\$ 8,000	\$ 8,000	Configuration to be finalized with selected system Vendor
	1	Windows Server 2003 Enterprise Edition	\$ 2,500	\$ 2,500	One Client Access License (CAL) allows use of the system by 25 seats.
Application Server	2	Intel Xeon 3.4GHz 8GB RAM RAID 10 100/1000 Network Card Redundant Power Supply	\$ 8,000	\$ 16,000	Configuration to be finalized with selected system Vendor
	2	Windows Server 2003 Enterprise Edition	\$ 2,500	\$ 5,000	One Client Access License (CAL) allows use of the system by 25 seats.
Reporting Server	2	Dual Core Xeon 3.4GHz 4GB RAM RAID 5 (5x72GB HDD) 100/1000 Network Card Redundant Power Supply	\$ 6,000	\$ 12,000	Configuration to be finalized with selected system Vendor
	2	Windows Server 2003 Enterprise Edition	\$ 2,500	\$ 5,000	One Client Access License (CAL) allows use of the system by 25 seats.
Database Server	2	Dual Core Xeon 3.4GHz 4GB RAM RAID 5 (5x72GB HDD) 100/1000 Network Card Redundant Power Supply	\$ 6,000	\$ 12,000	Configuration to be finalized with selected system Vendor
	2	Windows Server 2003 Enterprise Edition Other 3rd Party systems required by selected vendor	\$ 2,500	\$ 5,000	One Client Access License (CAL) allows use of the system by 25 seats.
Business Processor Server	1	Dual Core Xeon 3.4GHz 4GB RAM RAID 5 (5x72GB HDD) 100/1000 Network Card Redundant Power Supply	\$ 6,000	\$ 6,000	Configuration to be finalized with selected system Vendor
	1	Windows Server 2003 Enterprise Edition Other 3rd Party systems required by selected vendor	\$ 5,000	\$ 5,000	Configuration to be finalized with selected system Vendor
Development Server	1	Dual Core Xeon 3.4GHz 4GB RAM RAID 5 (5x72GB HDD) 100/1000 Network Card Redundant Power Supply	\$ 6,000	\$ 6,000	Configuration to be finalized with selected system Vendor
	1	Windows Server 2003 Enterprise Edition Other 3rd Party systems required by selected vendor	\$ 5,000	\$ 5,000	Configuration to be finalized with selected system Vendor
Training Server	1	Dual Core Xeon 3.4GHz 4GB RAM RAID 5 (5x72GB HDD) 100/1000 Network Card Redundant Power Supply	\$ 6,000	\$ 6,000	Configuration to be finalized with selected system Vendor
	1	Windows Server 2003 Enterprise Edition	\$ 2,500	\$ 2,500	One Client Access License (CAL) allows use of the system by 25 seats.
Desktop Client	n/a	2 GHz 1GB+RAM, Dedicated Video Card, etc.	\$ 3,000	n/a	This includes related cost of peripherals (i.e., Printer, Scanner, etc.). Not included in estimate given plans to refresh prior to project.
	n/a	Operating System (Windows XP) and Office Productivity	\$ 500	n/a	The number of operating systems/license would depend on the associated number of hardware items needed.
<b>TOTAL</b>	<b>10</b>			<b>\$ 96,000</b>	

**Any questions regarding this report  
should be addressed to:**

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The State Bar of California

# REQUEST FOR PROPOSAL



This document is a Request for Proposal (“RFP”) for a Case and Records Management System.

The State Bar seeks proposals for a case management system for the Office of Chief Trial Counsel (OCTC) and State Bar Court (Court) with optional Probation Case Management and Membership Records (MRS) Systems. Following successful implementation, maintenance support is desired for a term of three (3) years, with an option to renew for an additional two (2) year term, upon mutual written consent.

The State Bar will host a vendor pre-bid conference on Tuesday January 12, 2016, at 11:00 a. m. via WebEx and teleconference to discuss this request in detail. Attendance is optional, but recommended for all vendors intending to submit a proposal. Interested parties should email their intent to participate in the conference in advance to [ezra.angelus@calbar.ca.gov](mailto:ezra.angelus@calbar.ca.gov) by January 8, 2016 at 5:00 p.m. Conference credentials and instruction will be provided to those who have indicated an intent to participate.

Please submit 10 copies of your proposal no later than 4 p.m. on February 4, 2016 to:

The State Bar of California  
180 Howard Street  
San Francisco, CA 94105-1639

Attn: Leah Wilson  
Office of the Executive Director  
(415) 538-2257  
[leah.wilson@calbar.ca.gov](mailto:leah.wilson@calbar.ca.gov)

## I. INTRODUCTION

The State Bar of California (“the State Bar”) created in 1927 by the Legislature and adopted as a judicial branch agency by amendment to the California Constitution in 1960, is a public corporation within the judicial branch of state government. The purpose of the State Bar of California is to ensure that the people of California are served by the legal profession in a manner consistent with the highest standards of professional competence, care, and ethical conduct; to carry out such additional programs as may be required by law or by rule of court; and to contribute generally to the science of jurisprudence and the administration of justice. The State Bar serves as an administrative adjunct to the California Supreme Court in all matters pertaining to the admission, discipline, and regulation of California lawyers. The California Constitution, the State Bar Act and California Rules of Court vest in the State Bar the duty to regulate the legal profession, formulate and elevate educational and professional standards, raise the quality of legal services, advance the science of jurisprudence, and aid in the improvement of the administration of justice.

The State Bar is a unified, or integrated bar, and membership is mandatory for all attorneys who are licensed to practice law in the state. In addition to its mandated licensing, disciplinary and certification functions, the State Bar offers a number of other programs designed to assist, educate and protect its members and the public. Fees paid by attorneys and applicants to practice law finance the State Bar’s

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programs. The State Bar has over 253,000 members, making it the largest unified state bar in the country with offices located in Los Angeles and San Francisco. For more than 80 years, The State Bar of California has shaped the development of the law, regulated the professional conduct of the state's lawyers and provided greater access to the justice system for all citizens. More information about the organization can be found at <http://www.calbar.ca.gov/AboutUs.aspx>.

### II. STATEMENT OF WORK

The State Bar of California seeks proposals for a case management system for OCTC and SBC, with optional components for Probation Case Management and MRS systems. The successful vendor will demonstrate an understanding of these efforts and industry best practices, and will have experience with similar projects.

#### A. Background

The California attorney discipline system works to protect the public, the courts and the legal profession. California was the first state in the nation to create a system with independent judges dedicated to handling attorney discipline cases. The State Bar Court, which serves as the administrative arm of the California Supreme Court in the adjudication of disciplinary and regulatory matters, has statutory authority to impose public and private reprimands. It can also temporarily remove lawyers from the practice of law when they are deemed to pose a substantial threat of harm to clients or the public. In those cases in which more severe discipline, such as suspension or disbarment, is warranted, the Court issues written findings of fact and conclusions of law and makes a recommendation for discipline to the California Supreme Court. Attorneys may seek review of State Bar Court decisions in the California Supreme Court.

The State Bar Court is overseen by a presiding judge who is appointed by the California Supreme Court. The Hearing Department is the trial level of the State Bar Court with five (5) full-time trial judges appointed by the California Supreme Court, the Governor, the Speaker of the Assembly, and the Senate Committee on Rules. The trial judges handle the statewide caseload from the Los Angeles and San Francisco venues. The Review Department is the appellate level of the State Bar Court. The presiding judge and two other review judges appointed by the California Supreme Court form a three-judge panel to conduct reviews of Hearing Department decisions and orders in cases in which at least one party has sought review.

The Court handles 26 different case types with an annual workload of about 1,000 new case filings and a roughly equivalent number of closed cases. For further details about the Court's performance, please refer to <http://www.statebarcourt.ca.gov/Portals/2/documents/CPS2014Final.pdf>.

As the State Bar Court serves as the independent adjudication body in the discipline system, the Office of the Chief Trial Counsel is the enforcement arm, and has the primary responsibility for carrying out the disciplinary functions of the State Bar. This includes receiving, resolving and investigating complaints from members of the public and others, and, where necessary, acting as the prosecution in the proceedings leading to suspension and/or disbarment of attorneys in California. In addition to the proceedings filed in State Bar Court, OCTC also initiates and conducts proceedings before California Superior Courts involving the assumption of law practices throughout the state.

In 2014 OCTC received over 16,000 new written complaints about attorney conduct of which over 3,700 warranted a full or partial investigation.



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The Office of Probation monitors probationer compliance with court orders, provides timely information to the State Bar Court and probationers regarding compliance status, and assists probationers in successfully returning to the practice of law.

While the State Bar Court occupies facilities provided by the State Bar of California, the Court's adjudicative functions are kept completely separate from the prosecutorial and probation functions of the agency. The independence of the State Bar Court is indispensable in promoting public confidence in the integrity and impartiality of the judiciary.

The Office of Member Records and Compliance maintains the official roll of over 253,000 attorney members of the State Bar of California. It is also responsible for ensuring the compliance of all bar members with the requirements for Minimum Continuing Legal Education (MCLE), and manages the registration of Law Corporations and Limited Liability Partnerships. The membership records system (MRS) acts as the backbone to the Bar's information systems.

The existing applications run on an older IBM iSeries. Further description of the existing systems can be found in Section I C. Replacing these applications will enhance the ability of the Bar to accomplish its goals and objectives, including:

1. Improve the Bar's ability to share and exchange relevant data among staff, the public and key stakeholders.
2. Implement a system that utilizes defined work flow processes and end-user functionality to guide users through the system during the entire case management process from initiation through case disposition.
3. Provide dashboard overview to monitor Key Performance Indicators and track workflows.
4. Improve capture of and access to information about case investigations and prosecutions.
5. Increase efficiencies and accuracy through automation and reduction of manual entry.

### **B. Project Scope**

Listed below are the major functional areas needed overall and for each specific system. Attachment A provides definitions and instructions on how to respond to the listed requirements. Attachments B through F provide further detail regarding each of these requirements for specific departments. Attachments G through I provide further detail on overall project requirements. The component listing is intended to provide a functional overview of the application or suite of applications that the Bar intends to acquire. It is not intended to dictate the architecture of the application(s) proposed by a solution provider.

1. System Wide Requirements (Attachment B). These requirements will support case management operations system wide. The reporting component will access data gathered by all components of the application(s) to provide in-depth reporting capabilities. The system wide requirements include:
  - a. Document generation
  - b. Document management
  - c. System integration
  - d. Reporting and searches
  - e. System administration
  - f. User interface

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2. OCTC Specific Requirements (Attachment C). OCTC specific requirements include:
  - a. Case initiation
  - b. Inquiry
  - c. Investigation
  - d. Litigation
  - e. Close Out
  - f. File Retention
  - g. Cost Tracking
  - h. Audit and Review
  - i. Common Requirements
3. Court Specific Requirements (Attachment D). Court specific requirements include:
  - a. Case initiation and indexing
  - b. Docketing and record keeping
  - c. Exhibit and property management
  - d. Calendaring
  - e. Scheduling
  - f. Case management
  - g. Event management
  - h. Adjudication
  - i. Disposition
  - j. Case close
  - k. Accounting
  - l. Effectuation
  - m. E-Filing
4. Probation Specific Requirements (Attachment E, *optional*). Probation specific requirements include:
  - a. Case initiation
  - b. Case management
  - c. Calendaring
  - d. Event management
  - e. Docketing and record keeping
  - f. Exhibit and property management
  - g. Conditions management
5. Membership Records (Attachment F, *optional*). Membership Records specific requirements include:
  - a. Records management
  - b. Compliance management
  - c. Registrations
  - d. Online portal interface
  - e. Customer service management
6. Service Requirements (Attachment G). The Vendor must propose to provide the State Bar with services and deliverables in the following categories:
  - a. Project management
  - b. System design, configuration, and construction
  - c. System testing

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- d. System delivery
  - e. System implementation
  - f. Training
  - g. System support
  - h. Problem resolution protocol
7. Technical Requirements (Attachment H). The application(s) will meet various technical requirements for interoperability, performance, reliability and availability. This will include:
- a. Database
  - b. Availability
  - c. Interoperability
  - d. Operating System
  - e. Environment
  - f. Architecture
  - g. Performance
  - h. Web Access
  - i. Security
8. Accessibility Standards (Attachment I). The proposed application(s) will comply with WCAG 2.0, Level AA accessibility guidelines.

The State Bar will consider either hosted or in-house/premised-based solutions that support the technical and other specifications in this RFP. Vendors are encouraged to submit proposals for both options with a separate cost sheet for each option, but the proposals must clearly indicate the type of solution being proposed.

### C. Description of Existing Technology

Currently, the State Bar systems are custom-written in IBM Report Program Generator (RPG) and Visual RPG and C#.net languages to access DB2 databases that run on the IBM iSeries and SQL Data bases running on Wintel platform. All servers are located in the State Bar's data center in the San Francisco and Los Angeles offices with a point-to-point WAN circuit.

The State Bar Court CMS, OCTC CMS, Probation CMS and MRS, are currently integrated.

Common State Bar end-user technology:

- 1. Intel Windows desktops.
- 2. Intel Windows laptops
- 3. Microsoft Windows 7
- 4. Microsoft Office 2010 Professional.
- 5. Internet Explorer 11
- 6. Adobe Acrobat 11

## III. GENERAL INFORMATION

The submission requirements for this RFP are set forth below. A proposal shall constitute an irrevocable offer for 60 business days following the deadline for its submission. Reference to a certain number of days in this RFP shall mean business days unless otherwise specified.

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Contact with State Bar personnel in connection with this RFP may not be made other than as specified in this RFP. Unauthorized direct or indirect contact with any State Bar personnel may be cause for rejection of a bid.

### A. Submission Requirements

To be considered responsive, a proposal must contain the following, prefaced by a table of contents, referenced by number and in the order below.

1. A brief description of the history and organization of the bidder's firm, and of any proposed subVendor.
2. Copies of business licenses, professional certifications or other credentials, together with evidence that bidder, if a corporation, is in good standing and qualified to conduct business in California.
3. The most recent year's annual reports, or comparable document, including detailed current profit and loss, assets and liabilities, and other relevant financial data. Bidders must submit Attachment J: Vendor History Questionnaire electronically in native .xlsx format per instructions below.
4. A description of at least three (3) similar projects completed by the bidder within the past three (3) years. Include references with contact information for each. References for the proposed application software must be currently in use supporting operations similar to the departmental areas specified in this RFP
5. Qualifications, background and experience of the project director and other staff proposed to work on the project.
6. Documented product life cycle plan for the application(s) proposed. Product life cycle must span at least four (4) years beyond 2015 and must include one (1) or more years prior to 2015.
7. A general description of the techniques, approaches and methods to be used in completing the project, including a documented strategy and an established organization to support implementation of the proposed application(s) for its clients (resourced internally or externally) and a documented strategy and an established organization to provide ongoing support of the proposed application(s). Bidders must submit System Functional and Technical Requirements (Attachments B through I electronically in native .xlsx format per instructions below.
8. A description of the chronology for completing the work, including a time line and deadlines for each task.
9. A copy of "Reseller Certification" indicating that the vendor is the developer of the proposed system, or if not, a current, dated, and signed authorization from the developer, including any certification to license the product and offer in-house service, maintenance, technical training assistance, and warranty services.
10. A copy of "Results of a Third-Party Security Audit" conducted on the proposed system using the Open Source Web Application Security Project ("OSWASP") standard for common application security problems. These results must be provided on the letterhead

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of the third-party testing entity, and state that the proposed application is free of severe/critical security defects. If not currently available, the vendor must arrange for such an audit to be conducted, at its expense, and provide the above prior to executing an agreement with the State Bar.

11. A detailed cost proposal, including any travel costs and other expenses. Bidders must submit Attachment K: Itemized Cost Proposal electronically in native .xlsx format per instructions below. Portions of the optional components are highlighted in orange and can be left blank if not offered in your current system. If necessary, Vendors' travel expenses will be reimbursed in accordance with the public [Travel and Business-Related Expense Policy](#). It is unlawful for any person engaged in business within this state to sell or use any article or product as a "loss leader" as defined in [Section 17030](#) of the Business and Professions Code. As the State Bar may award a contract based on the initial offer, a bidder should make its initial offer on the most favorable terms available. The State Bar reserves the right, however, to have discussions with those bidders falling within a competitive range, and to request revised pricing offers from them and to make an award or conduct negotiations thereafter.
12. A written acknowledgement of the acceptance of the Contracting Requirements set forth in section IV of this RFP. Specific terms may be reserved for future negotiation, but must be clearly identified and reasons given for the reservation.

### **B. Submission Requirements Format Summary**

Proposals should be prepared simply and economically, providing a straightforward and concise description of the Vendor's ability to meet the requirements of this RFP. Emphasis should be on completeness and clarity of content.

1. Deliver 10 physical hardcopies to the attention of Leah Wilson, no later than 4 p.m. February 4, 2016.
2. Each set should include all attachments requested, including copies of the electronic attachments itemized below.
3. Deliver an assembled .pdf file of your complete proposal along with the following electronically (one set--CD-ROM, DVD, or USB flash drive) in native unlocked format. Bidders do not need to provide attachments if not proposing solutions for optional components noted below:
  - a. Attachment B: System Wide Requirements (.xlsx)
  - b. Attachment C: OCTC Specific Requirements (.xlsx)
  - c. Attachment D: SBC Specific Requirements (.xlsx)
  - d. Attachment E: Probation Specific Requirements (*optional*)
  - e. Attachment F: Membership Services Specific Requirements ( *optional*)
  - f. Attachment G: Service Requirements (.xlsx)
  - g. Attachment H: Technical Requirements (.xlsx)
  - h. Attachment I: Accessibility Standards Requirements (.xlsx)
  - i. Attachment J: Vendor History Questionnaire (.xlsx)
  - j. Attachment K: Itemized Cost Proposal (.xlsx)

Proposals that fail to address each of the submission requirements above may be deemed non-responsive and will not be further considered. The State Bar, solely upon its own discretion, will judge vendors on their overall compliance, and may judge a vendor to be materially compliant, even if that vendor is non-compliant to a particular requirement of the RFP.

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If specific submission components are particularly large and self-contained they may be included in a separate appendix rather than in the body of the proposal. Submittals should not direct the evaluation team to general brochures, marketing materials or websites to obtain information related to the specific submission requirements; submittals that utilize references to external materials as an answer will be considered non-responsive.

Submittals should provide straightforward and concise information that fulfill the requirements of the RFP. Emphasis should be placed on brevity, conformity to the State Bar's instructions, and completeness and clarity of content. Proposals should not include generic promotional materials and graphics that increase page count and PDF file size without addressing substantive content. Hard copy brochures and marketing materials may be included as a supplement if desired.

### **C. Rejection of Proposals**

The State Bar reserves the right in its sole discretion to reject any or all proposals in whole or in part, without incurring any cost or liability whatsoever. All proposals will be reviewed for completeness of the submission requirements. If a proposal fails to meet a material requirement of the RFP, or if it is incomplete or contains irregularities, the proposal may be rejected. A deviation is material to the extent that a proposal is not in substantial accord with RFP requirements.

Immaterial deviations may cause a bid to be rejected. The State Bar may or may not waive an immaterial deviation or defect in a proposal. The State Bar's waiver of an immaterial deviation or defect will in no way modify the RFP or excuse a bidder from full compliance with the RFP requirements.

Any proposal may be rejected where it is determined to be not really competitive, or where the cost is not reasonable.

Proposals that contain false or misleading statements may be rejected if in the State Bar's opinion the information was intended to mislead the State Bar regarding a requirement of the RFP.

### **D. Evaluation Process and Highest Scored Bidder**

An evaluation team will review, in detail, all proposals received to determine the Highest Scored Bidder ("HSB").

Following the initial review and screening of the written Proposals, using the selection criteria described below, several bidders may be invited to participate in the final selection process, which may include participation in an oral interview and/or submission of any additional information as requested by the State Bar.

The State Bar reserves the right to determine the suitability of proposals on the basis of a proposal's meeting administrative requirements, technical requirements, the review team's assessment of the quality and performance of the equipment and services proposed, and cost.

During the evaluation process, the State Bar may require a bidder's representative to answer questions with regard to the proposal and/or require certain bidders to make a formal presentation to the evaluation team and/or the State Bar Senior Executive Team. The State Bar may also have discussions with those bidders falling within a competitive range, request revised pricing offers from such bidders, and make an award and/or conduct negotiations thereafter.

This Request for Proposal does not commit the State Bar to awarding a contract. Bidders shall bear all costs incurred in the preparation of the Proposal and participating in the Proposal evaluation process. The State Bar reserves the right to reject any and all Proposals, to accept the

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Proposal it considers most favorable in its sole discretion, and to waive minor irregularities. The State Bar further reserves the right to seek new Proposals when such procedure is considered by it to be in the best interest of the State Bar.

1. The following criteria will be used in reviewing and comparing the proposals and in determining the HSB. The weight to be assigned to each criterion appears following each item.
  - a. Responsiveness of the proposal to the submission requirements set forth in the RFP (5%).
  - b. Agreement with the State Bar's contracting requirements (5%).
  - c. The technical ability, capacity, and flexibility of the bidder to perform the contract in a timely manner and on budget, as verified by, the quality of any demonstration, client references, demonstrated success in projects with similar requirements and any other contracts with the State Bar (55%).
  - d. The financial viability of the bidder as evidenced by standard financial reports (5%).
  - e. The total cost of the proposal. If the proposal contains itemized rates, per piece pricing, or commission-based pricing, the State Bar reserves the right to calculate total contracted cost by calculating rates using either previous known usage activity or future projected volume. Costs will be evaluated only if a proposal is determined to be otherwise qualified. Costs should be itemized by type to allow the State Bar to implement the proposal over the term of the contract (30%).
2. If a large number of proposals are received, the State Bar reserves the right to review the proposals using a tiered evaluation system. All qualified proposals will be evaluated based on the Submission Requirements and Cost, with the top candidates advancing as finalists and receiving a full evaluation as outlined above.

### **E. Award and Execution of Contract**

Subject to the State Bar's right to reject any or all proposals, the HSB will be awarded the contract. Notice will be posted at the State Bar's offices at 180 Howard Street, San Francisco, CA and written notice sent to bidders on or about March 10, 2016 of the Bar's intention to award the contract to the HSB. It is anticipated that final selection of the HSB will be made by March 17, 2016. The evaluation team will select a winning proposal subject to approval by the Board of Trustees. Upon selection, the State Bar and the selected Vendor will enter into good faith negotiations on a contract containing, without limitation, the Statement of Work and Contracting Requirements sections below.

No contract or agreement, express or implied, shall exist or be binding on the State Bar before the execution of a written contract by both parties. If agreement on the terms of such a contract cannot be reached after a period deemed reasonable by the State Bar in its sole discretion, the State Bar may enter into negotiations and sign a contract with any other bidder who submitted timely and responsive proposals to this RFP.

If, after the State Bar and the HSB agree to terms and execute a contract, that contract is terminated for any reason, the State Bar may, in its sole discretion, either enter into negotiations with the next highest scored bidder, or issue a new RFP and begin the proposal process anew.

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Questions regarding the State Bar's award of any business on the basis of proposals submitted in response to the RFP, or on any other matter in connection with the selection process, should be addressed in writing to Andrew Conover, Procurement Director at [andrew.conover@calbar.ca.gov](mailto:andrew.conover@calbar.ca.gov).

Where written notice is required in this RFP, the notice must be sent by U.S. mail and either facsimile or e-mail.

### **F. Errors in the RFP**

If a bidder discovers any ambiguity, conflict, discrepancy, omission, or other error in the RFP, the bidder should immediately provide the State Bar with written notice of the problem and request that the RFP be clarified or modified. Without disclosing the source of the request, the State Bar may modify the document prior to the date fixed for submission of proposals by issuing an addendum to all potential bidders to whom the RFP was sent.

If prior to the date fixed for submissions, a bidder knows of or should have known of an error in the RFP but fails to notify the State Bar of the error, the bidder shall bid at its own risk, and if awarded the contract, shall not be entitled to additional compensation or time by reason of the error or its later correction.

### **G. Questions Regarding the RFP**

Questions regarding the RFP may be addressed in writing to Leah Wilson at [leah.wilson@calbar.ca.gov](mailto:leah.wilson@calbar.ca.gov). All questions must be submitted no later than 10 days prior to the date for submission of proposals. Questions and answers regarding the RFP may be shared with all bidders known to be interested in submitting a proposal.

If a question relates to a proprietary aspect of its proposal and the question would expose proprietary information if disclosed to competitors, the bidder may submit the question in writing, conspicuously marking it as "CONFIDENTIAL." With the question, the bidder must submit a statement explaining why the question is sensitive. If the State Bar concurs that the disclosure of the question or answer would expose proprietary information, the question will be answered, and both the question and answer will be kept in confidence. If the State Bar does not concur regarding the proprietary nature of the question, the question will not be answered in this manner and the bidder will be notified.

A bidder who believes that one or more of the RFP's requirements is onerous or unfair, or unnecessarily precludes less costly or alternative solutions, may submit a written request that the RFP be changed. The request must set forth the recommended change and reason for proposing the change. The State Bar must receive any such request no later than 10 days before the deadline for submitting proposals.

### **H. Addenda**

The State Bar may modify the RFP prior to the fixed date for submission by posting, mailing, emailing or faxing an addendum to the bidders known to be interested in submitting a proposal. If any bidder determines that an addendum unnecessarily restricts its ability to bid, it must notify the State Bar in writing no later than five (5) days before the deadline for submitting proposals.

### **I. Withdrawal and Resubmission/Modification of Proposals**

A proposal may be withdrawn at any time prior to the deadline for submitting proposals by notifying the State Bar in writing of its withdrawal. The notice must be signed by the bidder. The



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bidder may thereafter submit a new or modified proposal, provided that it is received at the State Bar no later than the deadline.

Modification offered in any other manner, oral or written, will not be considered. Proposals cannot be changed after the evaluation process begins.

### **J. Protest Procedure**

A bidder may protest the award if it meets all the following conditions:

1. The bidder has submitted a proposal that it believes is or should have been the HSB, under the criteria set forth above;
2. The bidder believes that its proposal meets the State Bar's administrative and technical requirements, proposes services of proven quality and performance, and offers a competitive cost to the State Bar; and
3. The bidder believes that the State Bar has incorrectly selected another bidder.

A bidder qualified to protest should contact Andrew Conover, Procurement Director, (415) 538-2207, to attempt an informal resolution. If this contact is unable to resolve the protest to the bidder's satisfaction, the bidder must file a written protest within 5 days of the notice of intention to award the contract. The written protest must state the facts surrounding the issue and the reasons the bidder believes the award to be invalid. The protest must be sent by certified or registered mail or delivered personally to:

The State Bar of California  
180 Howard Street  
San Francisco, CA 94105-1639

Attention: Chief Financial Officer

Protests will be reviewed and decided by the State Bar's Award Protest Team within 30 days after the State Bar issues written acknowledgment of the protest. In the event that a protest is filed, the contract award will be postponed pending resolution of the protest.

### **K. News Releases**

News releases pertaining to the award of a contract may not be made without the prior written approval of the State Bar.

### **L. Disposition of Materials**

All materials submitted in response to an RFP will become the property of the State Bar of California and will be returned only at the State Bar's option and at the expense of the bidder. One copy of each proposal will be retained for the State Bar's official files and become a public record. Specific limited pages of a proposal, not including proposed cost and compensation, may be marked as proprietary and confidential. The entire proposal cannot be deemed confidential. The bidder's consent will be requested before release of such confidential pages to non-State Bar personnel. By submitting a proposal, a bidder agrees to these terms and waives any right to pursue a cause of action for damages incurred as a result of the release of any information contained in a proposal.

## **IV. CONTRACTING REQUIREMENTS**

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Upon selection of a vendor, the terms set forth in this RFP are to be embodied in a definitive agreement containing such additional covenants and other provisions as may be mutually acceptable.

The State Bar contemplates that, in addition to the terms described above in this RFP, final agreement between the State Bar and the selected vendor will include, without limitation, the following terms. Submission of a proposal shall constitute agreement to contract on these terms, except for any term specifically reserved in the proposal for future negotiation.

### A. Time of Essence

Time is of the essence with respect to Vendor's performance of the services and equipment to be provided in the final agreement.

### B. Warranties and Representations

1. Vendor and its Personnel assigned to the project have the expertise, experience, ability, and licenses, if necessary, to perform the services in a diligent, timely and professional manner consistent with generally accepted industry standards;
2. The services will be performed in a workmanlike manner consistent with generally-accepted industry standards of practice and appropriate for the purposes contemplated by the final Agreement;
3. (i) Vendor owns all right, title, and interest in, or otherwise has full right and authority to permit the use of any Pre-Existing IP; (ii) to the best of Vendor's knowledge, the Pre-Existing IP does not infringe the rights of any third party, and use of the Pre-Existing IP as well as any of Vendor's intellectual property rights in connection with the applicable statement of work does not and will not violate the rights of any third parties; (iii) Vendor will comply with the terms and conditions of any licensing agreements which govern the use of third party materials; and (iv) Vendor will comply with all laws and regulations as they relate to the services and deliverables; and
4. If any deliverable fails to conform to the standard specified above, Vendor, at its sole expense, will promptly correct the defective deliverable. This remedy is cumulative of any and all other remedies to which the State Bar may be entitled pursuant to the final Agreement and applicable law.
5. Vendor represents and warrants that it has deposited and will continue to deposit, as new versions are released, the Software source code into escrow pursuant to a software escrow agreement with a third party escrow agent. State Bar shall become a beneficiary under the agreement upon execution of the agreement. Vendor will pay all required fees under the software escrow agreement. State Bar will have the right to receive the source code of the Software licensed upon the occurrence of any of the release events specified in the software escrow agreement.
6. Accessibility Standards. Vendor will meet certain disability accessibility standards as specified in "**The State Bar of California Accessibility Standards in Procurement**", as attached to the final Agreement.
7. Inducement. The representations and warranties in the final Agreement are essential inducements on which the State Bar relies in awarding and performing under the final Agreement.

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8. Survival of Warranties. Vendor's representations and warranties under the final Agreement will survive the termination or expiration of the Agreement and will remain in full force and effect throughout the useful life of the deliverables.

### C. Scope of Services

The Agreement will include a detailed scope of services based on the technical project requirements detailed in Attachments A – I for each functional area of the system, including a timeline for completion of work and acceptance testing.

### D. Installation/Configuration/Acceptance Testing

Installation and configuration of the case management system will proceed according to defined parameters and stages established in the Agreement. Vendor and the State Bar will also develop parameters for acceptance testing that will be incorporated into the agreement. The solution provided by Vendor will successfully pass the acceptance testing criteria developed. Payment installation and configuration services will be tied to successful completion of acceptance testing.

### E. Independent Contractors

1. The relationship of the parties established under the final Agreement is that of independent contractors. The final Agreement will not be construed to establish a partnership, joint venture, agency, employer-employee, or other similar relationship between the parties. Neither the State Bar nor Vendor is liable for any of the obligations or liabilities the other incurs.
2. Vendor Acknowledgements. Vendor further acknowledges and agrees:
  - a. The State Bar may not withhold any amount for any tax or other withholdings from any sums due Vendor under the final Agreement;
  - b. Unless otherwise provided in the final Agreement, Vendor must furnish all labor, tools, equipment and materials necessary for the performance of the Services;
  - c. Vendor has no rights under workers' compensation laws or to the coverage under the State Bar's workers' compensation plan as a result of any services performed. Notwithstanding the extent to which any workers' compensation rights are ever determined to exist, Vendor waives, to whatever extent possible, any and all rights Vendor has or may have under workers' compensation laws and to coverage under the State Bar's workers' compensation plan; and
  - d. Vendor assumes full and sole responsibility for the payment of all compensation and expenses for its employees, including workers' compensation coverage as required, all federal, state and local income taxes, unemployment and disability insurance, Social Security and other applicable withholdings.

### F. Indemnity Obligations of Vendor

1. Indemnification by Vendor. Vendor will indemnify, defend and hold harmless the State Bar, including its Board of Trustees, directors, officers, agents, and employees (as the same may be constituted from time to time and hereinafter referred to as "State Bar Indemnified Party (or Parties)") from and against any and all claims, demands, damages, judgments, debts, liabilities, losses, obligations, costs, expenses, liens, actions or causes of action (including but not limited to reasonable attorneys' fees, costs and expenses),

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whether or not litigation is actually commenced, arising out of: (a) the material breach by Vendor of any warranty, representation, term or condition made or agreed to by Vendor; (b) all products and services prepared by or for Vendor hereunder and provided to the State Bar; (c) any claim or action for personal injury, death or otherwise involving alleged defects in Vendor's business or any of its products or services provided to State Bar; (d) any breach by Vendor of any statutory or regulatory obligation; (e) the actual or alleged infringement by Vendor of any Intellectual Property Rights of any person or entity; and/or (f) any act or omission of Vendor, its employees, agents or subvendors.

### 2. Indemnification Procedures.

- a. If any third party claim is commenced against any State Bar Indemnified Party entitled to indemnification under this section, notice thereof will be given to Vendor as promptly as practicable. Vendor will immediately take control of the defense and investigation of such claim and to employ and engage attorneys reasonably acceptable to the State Bar to handle and defend the same, at Vendor's sole cost and expense. The State Bar Indemnified Party will cooperate, at the sole cost of Vendor, in all reasonable respects with Vendor and its attorneys in the investigation, trial and defense of such claim and any appeal arising therefrom; provided, however, that the State Bar Indemnified Party may, at its own cost and expense, participate, through its attorneys (including, but not limited to, its Office of General Counsel) or otherwise, in such investigation, trial and defense of such claim and any appeal arising therefrom. Vendor will not enter into a settlement of any claim that involves a remedy other than the payment of money by Vendor without the prior written consent of the State Bar. If Vendor does not assume full control over the defense of a claim that Vendor is obligated to defend as provided in this section, Vendor may participate in such defense, at its sole cost and expense, and the State Bar will have the right to defend the claim in such manner as it may deem appropriate, at the sole cost and expense of Vendor.
- b. If any legal work reasonably necessary to the State Bar's defense as described herein is performed by in-house counsel for the State Bar, the State Bar will determine the value of such work at a reasonable hourly rate for comparable outside counsel and be promptly paid by Vendor; provided, however, the parties hereby confirm that such fees will be recoverable with respect to legal work performed by the State Bar's in-house counsel only to the extent that such work is not duplicative of legal work performed by outside counsel paid for by Vendor and representing the State Bar in such matter.
- c. Survival. Vendor's obligations under this indemnity provision will survive the expiration and termination of the final Agreement.
- d. Enforcement of this Provision. Vendor will be liable to the State Bar for all costs (including but not limited to reasonable attorneys' fees, costs and expenses) that may be incurred by the State Bar for the purposes of enforcing this section.

### G. **Rights in Work Product**

1. Intellectual Property Rights Defined. For purposes of the final Agreement, the term "Intellectual Property Rights" means know-how, inventions, patents, patent rights, and registrations and applications, renewals, continuations and extensions thereof, works of authorship and art, copyrightable materials and copyrights (including, but not limited to, titles, computer code, designs, themes, concepts, artwork, graphics and visual elements,

## Appendix C

and methods of operation, and any related documentation), copyright registrations and applications, renewals and extensions therefore, mask works, industrial rights, trademarks, service marks, trade names, logos, trademark registrations and applications, renewals and extensions therefore, derivative works, trade secrets, rights in trade dress and packaging, publicity, personality and privacy rights, rights of attribution, paternity, integrity and other similarly afforded “moral” rights, and all other forms of intellectual property and proprietary rights recognized by the U.S. laws, and other applicable foreign and international laws, treaties and conventions.

2. Work Product. Vendor recognizes and agrees that all right, title and interest, including all Intellectual Property Rights, which may be prepared, procured or produced in whole or in part in, or resulting from, the Services rendered by Vendor or Subvendors pursuant to the final Agreement, including, without limitation, any and all Deliverables, (collectively referred to as "Work Product") will be owned by the State Bar. To ensure that the Work Product becomes the sole property of the State Bar, in consideration of the mutual promises contained in the final Agreement, Vendor agrees to transfer, in perpetuity, to the State Bar, all of the right, title and interest in the Work Product, in the United States of America and throughout the world, and agrees to assign any and all renewals and extensions of each such copyright that may be secured under the laws now or hereafter pertaining; and Vendor will execute at the State Bar's expense, all documents reasonably required to perfect the foregoing rights in the State Bar. In the event Vendor fails to execute any documents, Vendor appoints the State Bar as its attorney-in-fact to execute such documents on Vendor's behalf. Vendor hereby waives and/or transfers any and all moral rights, including without limitation any right to identification of authorship or limitation on subsequent modification that Vendor (or its employees, agents or consultants) has or may have in the Work Product or any part thereof.
3. No Transfer of Title in and to Vendor's Pre-Existing IP. Notwithstanding the foregoing, the State Bar acknowledges that independent of the final Agreement, Vendor has created, acquired or otherwise has rights in and may, in connection with the performance of the final Agreement, employ certain intellectual property, including, without limitation, various concepts, ideas, methods, methodologies, procedures, processes, know-how, techniques (collectively, "Pre-Existing IP"). The State Bar and Vendor intend that title in and to such Pre-Existing IP remain vested in Vendor, provided however, that to the extent that Deliverable incorporates any Pre-Existing IP, Vendor hereby grants to the State Bar a world-wide, non-exclusive, fully paid-up, royalty-free, perpetual, irrevocable right and license to use such Pre-Existing IP as incorporated into such Deliverable to enable the State Bar to have full use of such Deliverable as contemplated by the final Agreement, including, without limitation, the right to run, execute, copy, modify, create derivative works, display, distribute and sublicense such rights.
4. Third Party Materials. As used in the final Agreement, "Third Party Materials" means proprietary third party materials which are incorporated into the Deliverables. All Third Party Materials are the exclusive property of their respective owners. Vendor must inform the State Bar of all Third Party Materials that may be required to perform the Services or otherwise integrated into the Deliverables. Under such circumstances, Vendor will inform the State Bar of any need to license and unless otherwise provided for by the State Bar, Vendor will obtain the license(s) necessary to permit the State Bar's use of the Third Party Materials consistent with the usage rights granted herein. In the event Vendor fails to properly secure or otherwise arrange for any necessary licenses or instructs the use of Third Party Materials, Vendor hereby indemnifies, saves and holds harmless the State Bar from any and all damages, liabilities, costs, losses or expenses (including reasonable attorney's fees and costs) arising out of any claim, demand, or action by a third party arising out of Vendor's failure to obtain copyright, trademark, publicity, privacy, defamation or other releases or permissions with respect to materials

## Appendix C

included in the Deliverables.

### H. Insurance Obligations of Vendor

1. Without in any way limiting Vendor's liability pursuant to the "Indemnification" Section of the final Agreement, Vendor must maintain in full force and effect during the term of the Agreement at Vendor's own expense, insurance in the amounts and coverages indicated below and pursuant to the following provisions.

Vendor will provide and keep in full force and effect during the term of the final Agreement, at its own cost and expense, the following insurance policies for the joint benefit of Vendor and the State Bar: (i) **Commercial General Liability Insurance** with a general aggregate limit (other than products/completed operations) of no less than Two Million Dollars (\$2,000,000.00) and including products/completed operations coverage with a limit of no less than One Million Dollars (\$1,000,000.00); at least One Million Dollars (\$1,000,000.00) premises and operations limit; at least One Million Dollars (\$1,000,000.00) personal and advertising injury limit; at least One Million Dollars (\$1,000,000.00) each occurrence limit; (ii) **Workers' Compensation** coverage as required by law, together with employer liability coverage with limits of not less than One Million Dollars (\$1,000,000.00) per occurrence; (iii) **Comprehensive Automobile Liability Insurance** covering owned, leased, hired and non-owned vehicles, with a combined liability per occurrence limit of at least One Million Dollars (\$1,000,000.00); and, (iv) **Professional Liability Insurance** with a general aggregate limit of Two Million Dollars (\$2,000,000.00) and a per occurrence limit of at least Two Million Dollars (\$2,000,000.00).

2. All insurance policies required to be maintained pursuant to this section will name the State Bar, its Board of Trustees, directors, officers, and employees as additional insureds ("**Additional Insureds**"). If **Blanket Fidelity/Commercial Blanket Bond** is required, the State Bar, its Board of Trustee, directors, officers, and employees will be named as additional loss payees ("**Additional Loss Payees**"). In addition, all insurance policies will: (i) be primary and non-contributing with respect to any other insurance available to the Additional Insureds, with respect to any claims arising out of the final Agreement; (ii) apply separately to each insured against whom a claim is made or suit is brought; (iii) include a waiver of subrogation provision or endorsement in favor of the State Bar; and (iv) be with insurance carrier(s) that have a minimum A.M. Best's insurance rating of AVIII, are authorized to do business in the State of California, and are satisfactory to the State Bar.
3. Vendor will deliver to the State Bar offices, **Attn: Risk Management, 180 Howard Street, San Francisco, CA 94105**, certificates of insurance evidencing compliance with the requirements of this section (including completed certificates and policy endorsements) no later than thirty (30) days after the execution of the final Agreement. In no event will Vendor commence operations under the final Agreement before furnishing to the State Bar such certificates of insurance.
4. All policies must provide thirty (30) days' advance written notice to the State Bar of reduction or nonrenewal of coverages, material change of coverages, or cancellation of coverages for any reason. All such notice will be sent to the Risk Management Department of the State Bar as listed in Section 3. In addition, notwithstanding any notices sent to the State Bar by the insurer, Vendor will immediately notify the State Bar when it becomes aware of any cancellation or material change in the amounts of or type of coverage of the insurance policies required.

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5. Should any of the required insurance be provided under a claims-made form, Vendor will maintain such coverage continuously throughout the term of the final Agreement and, without lapse, for a period of three (3) years beyond the expiration of the final Agreement, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the Agreement, such claims will be covered by such claims-made policies.
6. Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit or provides that claims investigation or legal defense costs be included in such general annual aggregate limit, such general annual aggregate limit will be double the occurrence or claims limits specified above.
7. Should any required insurance lapse during the term of the final Agreement, requests for payments originating after such lapse will not be processed until the State Bar receives satisfactory evidence of reinstated coverage as required by the final Agreement, effective as of the lapse date. If insurance is not reinstated, the State Bar may, at its sole option, terminate the final Agreement effective on the date of such lapse of insurance. Termination will be in addition to any other rights or remedies that the State Bar may have under the final Agreement.
8. Failure to maintain insurance will constitute a material breach of the final Agreement. If Vendor fails to secure and maintain insurance policies complying with the provisions of the final Agreement, the State Bar may purchase the required insurance coverage and Vendor will reimburse the State Bar for all associated costs, which will be in addition to any other rights or remedies available to the State Bar under the final Agreement. Alternatively, the State Bar may terminate the final Agreement. Termination will be in addition to any other rights or remedies that the State Bar may have under the final Agreement.
9. If Vendor assigns, subcontracts, or delegates any portion of the duties under the final Agreement, Vendor will ensure that each assignee, subvendor, or delegee purchases and maintains the same insurance coverage required pursuant to the final Agreement, provided however, that nothing herein will be construed as permitting Vendor to assign, subcontract or delegate any portion of the duties under the Agreement without the State Bar's prior written consent.

### **I. Termination**

1. Termination. The State Bar may terminate the final Agreement, in its sole discretion, without cause and for any reason upon seven (7) days' written notice to Vendor, such termination effective upon the State Bar's delivery of such termination notice. Vendor's sole compensation shall be for that portion of the services performed to the date of termination, together with reimbursable expenses, if any, then due pursuant to the Agreement; provided, however, that the State Bar shall not be obligated to pay Vendor for any services or expenses not authorized by the State Bar pursuant to the final Agreement.
2. Automatic Termination. The final Agreement will terminate automatically in the event of: (i) the bankruptcy or insolvency of either party; (ii) the death or total incapacity of Vendor; or, (iii) failure to comply with federal, state or local laws, regulations or requirements.
3. Termination in Event of Material Breach. Without limiting any of the rights specified in this section, either party may terminate the final Agreement (the "Terminating Party") if the other party is in breach of a material obligation arising under the final Agreement and

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fails to cure that breach within fifteen (15) days following the Terminating Party's written notice of its intention to exercise its rights under this section.

4. Appropriation of Funds. If the term of the final Agreement extends beyond the fiscal year in effect when the final Agreement was entered into by the Parties, Vendor acknowledges that continuation of the final Agreement may be subject to annual funding through the state legislative process. In such event, if funds to effect the continuation of the Term are not appropriated, Vendor shall commence and perform, with diligence, all actions necessary on the part of Vendor to effect the termination of the final Agreement on the date specified by the Authorized Representative and to minimize the liability of Vendor and the State Bar to third parties as a result of termination, including, without limitation, accepting the return from the State Bar of any affected equipment, products, software or hardware furnished under the final Agreement, and ceasing performance of the Services as directed by the Authorized Representative without any further obligation on the part of the State Bar.

### J. Confidentiality and Publicity

1. Confidentiality Obligations. "Confidential Information" means all information identified in written or oral format by the State Bar as confidential, a trade secret or proprietary information, including without limitation, membership or applicant records, data, non-public information pertaining to financial, personnel, or the activities, business or operations of the State Bar. Vendor will not disclose Confidential Information to any third party other than persons in the direct employ of Vendor or SubVendors who have a need to have access to and knowledge of the Confidential Information solely for the purpose of carrying out Vendor's duties under the final Agreement. Vendor must take appropriate measures by instruction and agreement prior to disclosure to such employees to assure against unauthorized use or disclosure. Confidential Information does not include information which: (a) Vendor can demonstrate was rightfully in possession of or known to Vendor without any obligation of confidentiality prior to receiving it from the State Bar; (b) is, or subsequently becomes, legally and publicly available without breach of the final Agreement; (c) is rightfully obtained by Vendor from a source other than the State Bar without any obligation of confidentiality; or (d) is disclosed by Vendor under a valid order created by a court or government agency, provided that Vendor provides prior written notice to the State Bar of such obligation and the opportunity to oppose such disclosure. Upon written demand of the State Bar, Vendor will cease using the Confidential Information and return the Confidential Information and all copies, notes or extracts thereof to the State Bar within ten (10) days of receipt of notice. The parties agree that this Section applies retroactively to all disclosures made by the State Bar prior to the execution of the final Agreement, and that the terms and conditions herein supersede any prior non-disclosure and confidentiality agreement previously entered into by the parties.
2. Injunctive Relief. Vendor hereby acknowledges and agrees that in the event of any breach of the final Agreement by Vendor, including, without limitation, the actual or threatened disclosure or unauthorized use of Confidential Information in violation of the final Agreement, the State Bar will suffer an irreparable injury, such that a remedy at law will not afford it adequate protection against, or appropriate compensation for, such injury. Accordingly, Vendor hereby agrees that the State Bar will be entitled, upon proper showing of probable risk of such injury, to seek specific performance of Vendor's obligations under the final Agreement and injunctive or other equitable relief as a remedy for any such breach or anticipated breach without the necessity of posting a bond. Any such relief will be in addition to and not in lieu of any appropriate relief in the way of monetary damages as may be granted by a court of competent jurisdiction.



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3. No Publicity. Without the State Bar's prior written consent, Vendor may not issue any public announcements concerning the State Bar, including, without limitation, referencing the State Bar on Vendor's website or other publicity or promotional materials.

### K. Compliance with Laws

Vendor must comply with all applicable laws, ordinances and regulations adopted or established by federal, state or local governmental bodies or agencies, including but not limited to the provisions of the Fair Employment and Housing Act (Government Code section 12900 et seq.) and any applicable regulations promulgated thereunder (California Code of Regulations, Title 2, section 7285.0 et seq.), Americans with Disabilities Act /ADA Amendments Act of 2008, and section 508 of the Rehabilitation Act. Vendor must include the non-discrimination and compliance provisions of this clause in all subcontracts to perform work under the final Agreement.

### L. Staffing

#### 1. No Assignment, Subcontracting, Delegation or Transfer.

- a. Vendor shall not assign, subcontract, delegate or otherwise transfer any of the rights, duties or obligations of the final Agreement to any third party without the prior written consent of the State Bar and compliance with the requirements set forth below.
- b. Conditions Precedent for Vendor to Subcontract the Services. Vendor may retain independent Vendors to furnish Services and access Confidential Information (as defined in Section IV, subsection H.1.) only in accordance with this section (hereinafter referred to as "Subvendors"). All Subvendors must be approved in advance in writing by the State Bar, such approval to be granted in the State Bar's sole discretion. In advance of providing any Services or receiving any Confidential Information, all Subvendors will execute a written agreement reasonably satisfactory to the State Bar: (i) sufficient to secure compliance by such Subvendors with the obligations of confidentiality concerning Confidential Information as set forth in Section IV, subsection H of the final Agreement; (ii) in accordance with Section IV, subsection E.2. (Rights in Work Product), acknowledging Subvendor's obligation to transfer and/or assign any rights, title, and interest to all materials and Work Product in connection with performance hereunder; and (iii) effecting assignments of all Intellectual Property Rights concerning the Work Product, including the Deliverables to the State Bar as specified in Section IV, subsection E. The State Bar, upon request, may review such agreements at any time before or after execution by such SubVendors to ensure compliance with the final Agreement.
- c. Assignment of Personnel. Vendor must have control of its employees and Subvendors (if any) (individually and collectively, "Personnel") it assigns to the work of the Project; provided, however, that if the State Bar becomes dissatisfied with the performance of any of Vendor's Personnel providing Services, the State Bar may notify Vendor of the details of the unsatisfactory performance and the parties will cooperate to remedy the problem as soon as reasonably possible. If the State Bar makes such a request, Vendor will use its best efforts to reassign any Personnel who are the subject of the State Bar's dissatisfaction and instead attempt to provide Services through replacement Personnel. Services performed under the terms of the final Agreement will be performed at the State Bar's offices or Vendor's offices.

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- d. Vendor's Project Liaison. Vendor must designate an employee of sufficient management rank to act as its representative in dealing with the State Bar ("Vendor's Project Liaison"). Vendor's Project Liaison must represent Vendor and have responsibility for ensuring that Vendor performs its obligations under the final Agreement and for communicating with the State Bar regarding Project status and issues. Vendor must use reasonable efforts to minimize changing the person who is serving as the Vendor's Project Liaison during the Term.

### M. General Provisions

1. Force Majeure. Neither party will be deemed in default of the final Agreement or any provision hereunder to the extent that any delay or failure in the performance of the obligations of such party (other than the payment of money) results from any significant and material causes beyond its reasonable control and without fault or negligence by such party. Examples of such causes include, but are not limited to, (a) acts of God or public enemy, (b) acts of the government in either its sovereign or contractual capacity, (c) fires, (d) floods, (e) epidemics, (f) quarantine restrictions, (g) strikes, (h) embargoes, (i) earthquakes, and (j) unusually severe weather.
2. Jurisdiction. The final Agreement is deemed to have been made and entered into by the parties at San Francisco, California and will be construed according to the laws of the State of California. Any litigation arising out of or in connection with the final Agreement will be filed in the appropriate court in San Francisco, California.
3. Audit. The State Bar reserves the right to have an independent audit conducted of Vendor's compliance with the terms of the final Agreement if the State Bar reasonably believes such audit is necessary to ensure confidentiality and or financial or program accountability or integrity. Accordingly, Vendor agrees that the State Bar or its designated representative will have the right to review and to copy any records and supporting documentation pertaining to the performance of the final Agreement. Vendor agrees to maintain such records for possible audit for a minimum of two (2) years after final payment, unless a longer period is stipulated. Vendor agrees to allow interviews of any employees who might reasonably have information related to such records. Further, Vendor agrees to include a similar right of the State Bar to audit in any subcontract related to the performance of the final Agreement.
4. License. In those instances where required, the Vendor represents and warrants that the Vendor holds a license, permit or special license to perform the services pursuant to the final Agreement, as required by law, or employs or works under the general supervision of the holder of such license, permit or special license and shall keep and maintain all such licenses, permits or special licenses in good standing and in full force and effect at all times while the Vendor is performing the services pursuant to the final Agreement.



February 4, 2016

Ms. Leah Wilson  
The State Bar of California  
Office of the Executive Director  
180 Howard Street  
San Francisco, CA 94105-1639

**Response to RFP for a Case and Records Management System  
For the Office of Chief Trial Counsel (OCTC) and State Bar Court with Optional  
Probation Case Management and Membership Records (MRS) Systems**

Dear Ms. Wilson:

Trinity Technology Group (TrinityTG), is pleased to submit this response to your request for proposal for your Case Management and Records Management System. We welcome the chance to provide you with details on how TrinityTG can help the State Bar achieve your goals by providing a solution built upon a proven commercial off-the-shelf (COTS) platform to meet your needs as described in your RFP. The platform also provides the State Bar with a nearly limitless ability to extend to support other business needs allowing you to gain further benefits from this solution. On a scale from 1 to 5, where a custom-built solution represents a 5, our COTS solution is a 1.0.

The market is full of failed court case management software implementations. Other states have spent significant sums of money but are nowhere near completion (the State of Indiana for example has spent 11 million and still has not gone fully live). Whereas TrinityTG has successfully implemented the core case management system for multiple state agencies in California and are fully confident in delivering the product in nine months on budget. We know from experience that providing a flexible tool that can be upgraded and expanded over time will provide you with a future-proof application which the department can use for years to come with the lowest total cost of ownership. This solution not only does not require expensive maintenance, but it can be maintained by the State Bar, TrinityTG, or many other third-party vendors.

We have studied your RFP in detail, and are providing a response that meets or exceeds all of your requirements and a solution that will quickly and efficiently deliver success to the State Bar using our proven platform. Our response will demonstrate that we are offering:

- A proven system that has been successfully implemented at numerous State of California agencies – **more than 90% of the States requirements will be met out of the box or through product configuration;**

## Appendix D

- A solution offering ease of configuration that can be tailored to the State Bar's specific requirements and needs; and
- A solution and approach that will provide the State Bar with the lowest risk and total cost of ownership.

We agree that if we are awarded a contract from this RFP process to accept the proposed contract terms and conditions and responsibility as the Prime Contractor. We also have available staff with the appropriate skills to complete performance as outlined in the RFP.

Please do not hesitate to let us know if you have any questions regarding our response, our qualifications, solution approach, or experience.

Our point of contact for this proposal is:

Mr. Amit Rai  
Practice Director  
(704) 763-4289  
[arai@trinitytg.com](mailto:arai@trinitytg.com)

You are welcome to contact me directly as well.

Very Truly Yours,

A handwritten signature in blue ink, appearing to read "Ted London".

Ted London  
Managing Director  
[tlondon@trinitytg.com](mailto:tlondon@trinitytg.com)  
(916) 284-7277  
Trinity Technology Group, Inc.

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## 1. Trinity Technology Group History



TrinityTG is a Sacramento-based IT Consulting firm. Since our inception in 1999, we have provided end-to-end total solutions to our customers. This includes implementation of COTS products, custom software solutions, maintenance & operations support, end-to-end system integration, business process analysis, business intelligence and data analytics, and enterprise technical architecture planning services. Our clients are almost exclusively State of California agencies, but includes a number of private sector firms and municipal government agencies.



Projects Currently in  
Development



Years Providing Services



Full-Time Consultants

Our ability to deliver high-quality, end-to-end solutions is based upon three guiding principles:

- **Proven Project Management** - disciplined but collaborative project management tools and processes that engage our clients and controls scope.
- **Projects Driven by Business Need** - a business process-driven approach to defining solutions that works across organizational boundaries and solves our clients underlying business challenges.
- **Designed for the Future** - software development practices that emphasize re-use, follow industry standards, and provide a developer's workbench for faster delivery all lower current and future cost of ownership and provide future adaptability to allow our solutions to be used for years to come.

---

*Our consultants are fully committed to the long-term success of our clients.*

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TrinityTG is an employee-centric firm. Our approach is to hire full-time, ongoing employees for our project work. Our consultants are therefore fully committed to the long-term success of our clients, and we pride ourselves in the reputation we earn on each project. Through these relationships, we have cultivated practice leaders for

business analysis, testing, training, project management and other disciplines that deeply understand the specific needs of each of our clients.

Our team of professionals continues to invest in learning so that our growing experience is applicable to a wide range of situations. We support R&D projects in our hybrid data center that combines cloud-based technologies with our development center in Sacramento, CA. This allows us to provide a suite of quick-start tools and capabilities to our clients without requiring them to incur procurement costs for those tools.

The intersection of these principles and our staffing model prepare us to solve the real-world business problems of our California clients. Our solutions get put into production. Our clients view TrinityTG as the builder of solutions.

- **We Build Things** - Our projects do not end with whitepapers. We build and implement impactful IT solutions that solve real business problems. Our clients get technology solutions that deliver business value. One of our most recent successes, for example, was at the California Department of Business Oversight. There we utilized Microsoft Dynamics xRM, SharePoint, and Adxstudios Portal to implement an Enterprise Licensing System that allowed the department to sunset 50 disparate legacy data sources - the same suite of tools we are proposing for State Bar.
- **We Build for You** - For each solution, we determine what will work best for the business user, consistent with each department's IT policies. We are not a nail in search of a hammer. We deliver the specific solution that best meets each client's needs. We implement a wide range of technologies, not one-size fits all, based on the specific needs of each client. We also employ a strategic approach that focuses on re-use and adaptation first. This allows us to implement our solutions faster, at a lower cost, and with a much lower level of risk to our customers. We are practiced and adept at establishing what technologies and strategies will be most effective for you.

---

*We Build Things.  
We Build for You.  
We Build with You.*

---

- **We Build with You** - We encourage and facilitate collaboration between our team and yours by producing together formal plans for each critical process. Our team of over 90 highly talented professionals – from business analysts to seasoned developers, from quality assurance analysts to project managers – work hand-in-hand with you, not in vacuum without your participation.

## 2. Business & Professional Certifications

### 2.1 Business Certification – Trinity Technology Group's CA Small Business Certification

5/29/2014

BidSync: The State of California: TRINITY TECHNOLOGY GROUP INC



#### TRINITY TECHNOLOGY GROUP INC - #20557

##### SUPPLIER PROFILE

Legal Business Name	TRINITY TECHNOLOGY GROUP INC		
Doing Business As	TRINITY TECHNOLOGY GROUP INC		
Address	2015 J Street, #105 SACRAMENTO, CA 95811	Phone	(916) 779-0232
		FAX	(916) 779-0250
Email	<a href="mailto:tpurdy@trinitytg.com">tpurdy@trinitytg.com</a>		
Web Page	<a href="http://www.trinitytg.com">http://www.trinitytg.com</a>		
Business Types	Service		
Service Areas	Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Imperial, Inyo, Kern, Kings, Lake, Lassen, Los Angeles, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Orange, Placer, Plumas, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Ventura, Yolo, Yuba,		
Keywords	computer programming services integrated systems design facilities mgmt.		
Classifications	432324 - Development software 811115 - Software or hardware engineering 811116 - Computer programmers 811122 - Software maintenance and support		

##### Active Certifications

TYPE	STATUS	FROM	TO
SB	Approved	Sep 25, 2013	Sep 30, 2016

##### Certification History

TYPE	STATUS	FROM	TO
SB	Expired	Nov 8, 2012	Nov 30, 2013
SB	Expired	Nov 18, 2011	Nov 30, 2012
SB	Expired	Nov 12, 2010	Nov 30, 2011
SB	Expired	Nov 25, 2009	Nov 30, 2010
SB	Expired	Mar 11, 2008	Nov 30, 2009
SB	Expired	Jan 25, 2007	Jan 31, 2008
SB	Expired	Feb 25, 2004	Jan 31, 2007
SB	Expired	Mar 29, 2001	Feb 29, 2004
SB	Expired	Apr 4, 2000	Mar 31, 2001

<http://www.bidsync.com/DPXBS/CASB?ac=supplierprofile&supplierid=572541>

1/1

## 2.2 Business Certification – Secretary of State California Corporate ID

<b>Entity Name:</b>	TRINITY TECHNOLOGY GROUP, INC.
<b>Entity Number:</b>	C2182078
<b>Date Filed:</b>	11/15/1999
<b>Status:</b>	ACTIVE
<b>Jurisdiction:</b>	CALIFORNIA
<b>Entity Address:</b>	2015 J STREET, SUITE 105
<b>Entity City, State, Zip:</b>	SACRAMENTO CA 95811
<b>Agent for Service of Process:</b>	RANDALL E DUART
<b>Agent Address:</b>	2015 J STREET, SUITE 105
<b>Agent City, State, Zip:</b>	SACRAMENTO CA 95811

## 2.3 Professional Certification - Sean Mahon, Project Director

### *Project Management Certification*





## 2.4 Professional Certification – Amit Rai, Project Manager

### *Project Management Certification*



## 2.5 Professional Certification – Pramukh Jadhav, Business Analysis Lead

### *Decision Model Certification*



## Certificate of Completion

This is to certify that

**Pramukh Jadhav**

has successfully completed six hours of

**Decision Modeling Essentials online (DMEo)**

training provided by Barbara von Halle May 20-22, 2014

Barbara von Halle, Managing Partner  
Knowledge Partners International, LLC

### *MS Certified Technology Specialist, MS Dynamics CRM 2011 Customization and Configuration*



PRAMUKH JADHAV

Has successfully completed the requirements to be recognized as a Microsoft® Certified Technology Specialist: Microsoft Dynamics CRM 2011 Customization and Configuration.

Date of achievement: 06/03/2014  
Certification number: E837-9472

Satya Nadella  
Chief Executive Officer

**Microsoft**  
CERTIFIED  
Technology Specialist

*MS Certified Professional*

PRAMUKH JADHAV

Has successfully completed the requirements to be recognized as a Microsoft Certified Professional.

Date of achievement: 07/15/2014  
Certification number: 8884-0883

A handwritten signature in black ink, which appears to be "N. Satya", is positioned above the printed name and title.

Satya Nadella  
Chief Executive Officer

**Microsoft**  
CERTIFIED  
Professional

*Selling the Microsoft Platform with MS Dynamics*

*This certificate recognizes that*

Pramukh Jadhav

*has successfully completed the following  
training course or assessment:*

Selling the Microsoft Platform with Microsoft Dynamics

7/17/2014

*Managing MS Dynamics Implementations Specialist*

PRAMUKH JADHAV

Has successfully completed the requirements to be recognized as a Managing Microsoft Dynamics Implementations Specialist.

Date of achievement: 07/15/2014  
Certification number: 8864-2882



Satya Nadella  
Chief Executive Officer

Microsoft  
Specialist

Ref No: 9862151

*MS Certified Technology Specialist, MS Dynamics CRM 2011 Applications*

PRAMUKH JADHAV

Has successfully completed the requirements to be recognized as a Microsoft® Certified Technology Specialist: Microsoft Dynamics CRM 2011 Applications.

Date of achievement: 06/26/2014  
Certification number: 8852-4394



Satya Nadella  
Chief Executive Officer

Microsoft  
CERTIFIED  
Technology Specialist

Ref No: 370 8856

## 2.6 Professional Certification – Larry McCoy, Technical Architect

Larry McCoy is certified in the MB2-867: Dynamics CRM 2011 Installation and Deployment.

## 2.7 Professional Certification – Armin Nasufovic, Workflow Business Analyst



## 2.8 Professional Certification – Charan Mishra, Application Development Lead

### *Geographic Information Systems Professional*



### *Project Management Professional*



*Microsoft Certified Technology Specialist, MS Dynamics CRM 2011 Installation and Deployment*



### 3. Annual Report

Our annual report for the year 2015 is included here. See Attachments, Section 13 in this response, for Attachment J: Vendor History Questionnaire.



**BALANCE SHEET**  
**as of DECEMBER 31, 2015**

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<b>ACCRUAL BASIS</b>		<b>ASSETS</b>	<b>Dec 31, 2015</b>
Current Assets			
Cash			\$ 2,442,195
Accounts Receivable			\$ 3,136,666
Withholding on prior billings			\$ 10,521
Estimated revenue in excess of billings on uncompleted contracts			\$ 935,214
Deposits / Prepaids			\$ 136,283
Total Current Assets			<u>\$ 6,660,879</u>
Property and Equipment			\$ 277,258
<b>TOTAL ASSETS</b>			<b><u>\$ 6,938,137</u></b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>			
Current Liabilities			
Accounts Payable			\$ 515,151
401k / Flexible Spending Payable			\$ 14,556
Accrued Expenses			\$ 23,173
Accrued Vacation/PTO			\$ 435,974
Total Current Liabilities			<u>\$ 988,854</u>
Total Liabilities			\$ 988,854
Stockholders' Equity			
Common Stock			\$ 51,200
Retained Earnings, net of distributions			\$ 5,898,083
Total Stockholders' Equity			<u>\$ 5,949,283</u>
<b>TOTAL LIABILITIES &amp; STOCKHOLDERS' EQUITY</b>			<b><u>\$ 6,938,137</u></b>

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2015 J Street, Suite 105, SACRAMENTO, CA 95811 TEL: (916) 779-0201 FAX: (916) 779-0250  
www.trinity@trinitytg.com



**INCOME STATEMENT  
for the 12 Months Ended DECEMBER 31, 2015**

\*\*CONFIDENTIAL\*\*

<b>ACCRUAL BASIS</b>	<b>Twelve Months Ended December 31, 2015</b>	
	<b>Amount</b>	<b>Percent</b>
Consulting Revenue	\$ 15,376,613	
Interest Income	\$ 995	
Total Revenue	\$ 15,377,608	100.0%
General and Administrative Expenses		
Advertising	\$ 39,193	0.3%
Auto / Mileage / Travel	\$ 39,559	0.3%
Depreciation and amortization	\$ 64,560	0.4%
Dues, subscriptions and education	\$ 75,807	0.5%
Insurance - medical	\$ 571,129	3.7%
Insurance - other	\$ 56,829	0.4%
Licenses, permits, H-1B fees	\$ 16,435	0.1%
Meals and entertainment	\$ 52,030	0.3%
Office expenses	\$ 37,933	0.2%
Parking and Tolls	\$ 56,623	0.4%
Payroll	\$ 7,110,072	46.2%
Payroll Taxes	\$ 530,097	3.4%
Pension Contribution expense	\$ 200,790	1.3%
Phone and internet	\$ 51,878	0.3%
Paychex and pension fees	\$ 23,304	0.2%
Professional - consultants	\$ 4,389,420	28.5%
Professional - accountants	\$ 10,593	0.1%
Professional - attorneys	\$ 62,461	0.4%
Recruiting expenses	\$ 57,949	0.4%
Rent	\$ 88,079	0.6%
Software license fees	\$ 75,380	0.5%
Taxes - property and local	\$ 6,084	0.0%
Other - miscellaneous	\$ 13,106	0.1%
Total general and administrative expenses	\$ 13,629,311	88.6%
Income before income taxes	\$ 1,748,297	11.4%
Income Tax Expense	\$ 800	0.0%
<b>NET INCOME - ACCRUAL BASIS</b>	<b>\$ 1,747,497</b>	<b>11.4%</b>

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2015 J Street, Suite 105, SACRAMENTO, CA 95811 TEL: (916) 779-0201 FAX: (916) 779-0250  
www.trinity@trinitytg.com



**STATEMENT OF CASH FLOWS**  
**for the 12 Months Ended DECEMBER 31, 2015**

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	<b>2015</b>
	<b><u>Amount</u></b>
<b>Operating Activities</b>	
Net Income	\$ 1,747,497
Adjustments to reconcile Net Income to Net Cash provided by operations:	
Accounts Receivable	\$ (516,529)
Withholding on prior billings	\$ 110,243
Estimated revenue in excess of billings	\$ (722,895)
Deposits/ Prepaids	\$ (130,750)
Accounts Payable	\$ (337,570)
Accrued Expenses	\$ 92
Accrued PTO Payable	\$ 111,144
Net cash provided by operating activities	\$ 261,232
<b>Investing Activities</b>	
Fixed Assets	\$ (69,963)
Accum Depreciation/Amortization	\$ 64,560
Net cash provided (used) by operating activities	\$ (5,403)
<b>Financing Activities</b>	
Distributions to owners	\$ (1,111,996)
Net cash provided (used) by financing activities	\$ (1,111,996)
Net cash decrease for year	\$ (856,167)
Cash at beginning of year	\$ 3,298,362
Cash at end of year	<b>\$ 2,442,195</b>

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TRINITY TECHNOLOGY GROUP, INC.  
ANS CORPORATION  
NOTES TO FINANCIAL STATEMENTS  
DECEMBER 31, 2015

Page 1 of 2

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING AND FINANCIAL REPORTING POLICIES

Company's Activities

The Company is engaged in the business of providing consulting services in the field of computer technology.

Revenue and Cost Recognition

For financial accounting purposes, the Company uses the accrual method of accounting. Under this method, revenues are recognized when earned rather than when received and expenses are recognized when incurred rather than paid. The Company records income on major contracts using the percentage-of-completion method. Individual contract revenues are recognized based upon the percentage of hours that are incurred to date bear to the estimated total hours.

The asset "Estimated revenue in excess of billings on uncompleted contracts" represents revenues recognized in excess of amounts billed to date on uncompleted contracts.

For tax reporting purposes, the Company uses the cash method of accounting. Under this method, revenues are recognized when received rather than when earned, and costs are expensed when paid rather than when the cost is incurred.

Property and Equipment

Property and equipment are stated at cost. Depreciation is computed using the straight-line and declining balance methods over the estimated useful lives of the related assets.

For federal income tax purposes, recovery of capital costs for property and equipment is made using accelerated methods over statutory recovery periods.

Expenditures for major renewals and betterments which extend the useful lives of property and equipment are capitalized. Expenditures for maintenance and repairs are charged to expense as incurred.

Pension Plan

The Company has a pension plan covering substantially all employees. The Company's policy is to fund the pension costs as they are accrued.

Accounts Receivable and Bad Debts

The Company allows for a warranty period on major projects, per the terms of the related contracts. A 10% retention allowance is extended for certain projects, per the terms of the related contracts. The retention allowance is omitted from billing statements at the customer's request, until the end of the warranty period. For financial reporting purposes, retentions are included in the asset "Withholding on prior billings" and in revenue earned, as if originally billed.

No allowance for uncollectible accounts has been provided since the Company uses the direct write-off method and recognizes bad debts as they become uncollectible.

TRINITY TECHNOLOGY GROUP, INC.  
AN S CORPORATION  
NOTES TO FINANCIAL STATEMENTS  
DECEMBER 31, 2015

Page 2 of 2

NOTE 2: NOTE PAYABLE – BANK LINE OF CREDIT

The Company maintains an unsecured line of credit with Wells Fargo Bank of \$350,000, which accrues interest at the rate of 1.25% over prime per annum, or the floor rate of 5%, whichever is higher. As of December 31, 2015, there were no borrowings outstanding under the line of credit agreement.

NOTE 3: ACCRUED VACATION PAYABLE

The Company maintains a balance of accrued, but unused vacation benefits. As of December 31, 2015, the balance was \$435,974.

NOTE 4: INCOME TAXES

The Company, with the consent of its shareholder, has elected under the Internal Revenue Code to be taxed as an S corporation. In lieu of corporate income taxes, the shareholders of an S corporation are taxed on their proportionate share of the Company's taxable income. Therefore, no provision of liability for federal income taxes has been included in these financial statements.

The State of California assesses a franchise tax on all S corporation earnings at a rate of 1.5% or a minimum tax of \$800, whichever is greater. The income tax provision reflects this State tax. As of December 31, 2015, the provision for income taxes is comprised of current state income tax of \$800, due to offsets from various investment credits.

When material, a provision for deferred state income taxes is recorded to reflect the impact of temporary differences between the financial statement and income tax bases of assets and liabilities.

## 4. References

### ☒ ☒ ☐ 4.1 Similar Projects

☐ The proposed solution framework, described in detail in Section 6.0, has been successfully implemented in multiple departments across the state, all at a scale similar (or larger) to what the State Bar will require.

Below we have provided the four client references who can attest to the quality services delivered. Should you have any difficulty in reaching the references for consultation, please let us know and we will do our best to facilitate contact or provide additional references.

#### 4.1.1 Reference #1 – California Department of Business Oversight

The California Department of Business Oversight (DBO) is responsible for the licensing and enforcement regulations for nearly all major types of financial entities in the state of California. DBO must meet federal compliance guidelines, work with federal and state business partners, and serve the state's financial services organizations.

DBO suffered from a common problem our clients face – much of their workload was manual, or when it was automated it was done using several systems there were not integrated. They engaged TrinityTG to help them implemented a single, integrated system – DOCQNET.

Using the same base solution proposed here, TrinityTG implemented modules for licensing, compliance, and case management that support five distinct but related business divisions. With over 300 departmental users, DOCQNET replaced nearly 50 disparate legacy systems, and provided an external web portal to support the licensing and document management needs of more than 400,000 businesses nationwide.

*We implemented a licensing, compliance, and case management system that fully automates the licensing, document upload, notification, approval, fee payment, enforcement, investigation and license printing business process.*

Table 4-1 – Contact Information for DBO

Mailing Address:	1515 K Street, Suite 200, Sacramento, CA 95814
Telephone and E-mail Address:	(916) 319-9996 George.Gaborek@DBO.CA.GOV
Contact Name and Title:	George Gaborek, CIO

Length of Time Doing Business with This Organization:	2 years, 10 months
---	--------------------

#### 4.1.2 Reference #2 – California Department of Insurance

The Investigation Division for the California Department of Insurance (CDI) investigates suspected fraud committed by insurance agents, brokers, public adjusters, bail agents, insurance companies and other individuals and entities transacting the business of insurance who perpetrate fraud against consumers.

Before engaging with TrinityTG, CDI spent three years developing a system to help automate their tracking of complaints, investigations, enforcements, and penalties in addition to case management. Using the same base solution proposed here, TrinityTG implemented the first module of the Investigation Division Case Management (IDCM) system in just 90 days.

CDI was able to immediately recognize benefits in several areas:

- **Streamlined business process** – the Investigation Division was able to standardize the business process across all the regions and users with the introduction of IDCM.
- **Ease of use** – the IDCM application is easy to use and allows users with varying levels of computer proficiency benefit from it. Business rules are enforced which ensures data integrity.
- **Centralized document repository** – all documents and letters related to the IDCM process are stored by the system in appropriate document locations on a SharePoint server integrated with the CRM system allowing for easy and centralized access to these documents.
- **Accuracy of data and reports** – calculations are automated and the status changes are tracked via history tables to maintain data integrity, making reports more accurate.
- **Strict Security Restrictions** – security roles are enforced allowing the data to be accurate and cannot be tampered with.
- **Auditing data changes** – Microsoft Dynamics CRM has inbuilt auditing capabilities that help in determining the reason for the change and who made the change. The audit feature is enabled on all the entities in IDCM.



- **Maps Integration** – The maps integration allows users to identify and locate the Profiles and addresses for search/arrest warrants. The directions list that is available on the Operations Plan document provides accurate directions and will be very useful for investigators.

*Table 4-2 – Contact Information for CDI*

<b>Mailing Address:</b>	300 Capitol Mall, Suite 1700 Sacramento, CA 95814
<b>Telephone and E-mail Address:</b>	(916) 492-3276 Charles.lundberg@insurance.ca.gov
<b>Contact Name and Title:</b>	Charles Lundberg, Development Supervisor
<b>Length of Time Doing Business with This Organization:</b>	3 years, 10 months

#### 4.1.3 Reference #3 – California Hospital Association

The California Hospital Association (CHA) provides member hospitals and health systems with representation and advocacy in the legislative and regulatory arenas. CHA advocates to maintain and improve access to high-quality, cost-effective, safe hospital and hospital-related services. CHA provides services to all member hospitals throughout California. The goal of CHA is for every Californian to have equitable access to affordable, safe, high-quality, medically necessary health care. Membership management is a core business process.

CHA needed to modernize their existing legacy membership management application to correct several key shortcomings in the 15 year old system including data integrity, integration of business processes, managed security and flexibility to respond to their client's needs. TrinityTG collaborated with CHA staff to implement a Dynamics CRM-based solution.

Using Microsoft Dynamics CRM and several third party components (including Clickdimensions, EasyTerritory, and Ablebridge CRM Grid), the solution provides the nearly 200 users with an integrated system for managing member contact information, determining membership constituents based upon geographical boundaries, and consolidating



communications to the member organizations. The project included business process analysis, system architecture, solution design, development, testing, training, data conversion, and implementation support.

*Table 4-3 – Contact Information for CHA*

<b>Mailing Address:</b>	1301 K Street, 8th Floor Sacramento, CA 95814
<b>Telephone and E-mail Address:</b>	(916) 947-7556 tsherb@calhospital.org
<b>Contact Name and Title:</b>	Terry Sherb, CIO
<b>Length of Time Doing Business with This Organization:</b>	1 year, 3 months

**4.1.4 Reference #4 – California Department of Social Services**  
CDSS' forms management unit manages all of the administrative service requests for 4000 employees. This process was managed on a Lotus database that was no longer supported and could not be updated to adapt to changing business requirements. Microsoft Dynamics CRM was used to create a tailored business solution that replaced the legacy system and supported all of the form requests workflows. With the new system, CDSS users select their request from a simple drop down menu, which then automatically routes the request to the appropriate workflows. Email notifications, alerts, and approvals are all tracked and stored within the system. In addition, the new request types can easily be added through the built-in customization features, allowing for the needed expansion to keep up with new and/or modified business rule changes.

*Table 4-4 – Contact Information for CDSS*

<b>Mailing Address:</b>	700 P Street, 8th Floor Sacramento, CA 95811
<b>Telephone and E-mail Address:</b>	(916)-651-5563 Rebecca.mccann@dss.ca.gov
<b>Contact Name and Title:</b>	Rebecca McCann, Project Manager
<b>Length of Time Doing Business with This Organization:</b>	1 year

To help illustrate how similar these four reference projects are to the needs of the State Bar, we have assembled the matrix below that shows the functionality needed by State Bar's needs compared to the referenced implementations.

*Table 4-5 - How our references align with the needs of the State Bar*

References & Components	DBO	CDI	CHA	CDSS
Customer Web Portal	✓	✓	✓	
Member Management			✓	
Enforcement	✓	✓		
Workflow Management	✓	✓	✓	✓
Dashboards	✓	✓	✓	✓
Document Management	✓	✓	✓	✓
Business Rules	✓	✓	✓	✓
Centralized Database	✓	✓	✓	✓

## 4.2 Additional Related Experience

While the product capabilities are important, the project success is ultimately tied to the capabilities of your business partner to deliver projects of this scale and scope. With 17 years of successful experience working almost exclusively for California agencies, we have built a body of work that demonstrates our ability to meet the needs of California agencies in terms of solution expertise, domain experience, and technical capabilities.

In addition to the above implementations, we also have large scale experience successfully implementing solutions for the domain of licensing/permitting, systems integrations and legacy data conversion.

Understanding the complexities of these tasks and properly managing them are critical to the successful implementation of the State Bar.

#### 4.2.1 Experience with Case Management of Licenses & Permitting

For the California Department of Business Oversight, we implemented a licensing, compliance, and case management system that fully automates the licensing, document upload, notification, approval, fee payment, and license printing business process. After the first year of implementation the system processed over \$600,000 in filing fees.

For the Bay Area Air Quality Management District, we analyzed, designed developed, implemented, and currently maintain the business rules engine that drives the enterprise permitting and licensing system. Covering the end-to-end licensing process, we successfully automated over 500 eligibility, fee, and enforcement business rules.

For Bay Area Air Quality Management District, we designed, developed and implemented a case management system supports nearly 1,400 internal and external users in the yearly application of incentive grants, including online application that completely eliminated the paper process, review/approval, contract management, invoicing, reporting, accounting, and data interfaces.

#### 4.2.2 Experience with Data Conversion & Large Scale Integration

For the Bay Area Air Quality Management District, we converted 30 years of legacy permit and license data from a mainframe into a SQL Server database supporting their enterprise permitting and licensing system.

For the California Department of Business Oversight, we converted 23 legacy data sources into a single system of record, including 1.5 million legacy documents with a conversion success rate of 99.8%.

For the California Department of Health Care Services, we designed, developed and implemented a claims processing system that manages over \$10 billion of monthly Medi-Cal reimbursements, requiring integration with several legacy systems and conversion of case and claims data from several retired legacy sources.

For California Correctional Health Care Services, we converted 15 years of legacy medical/ dental/mental health data and thousands of case records from legacy Oracle, Access and Excel data sources and cleansed the data for migration into a new integrated scheduling system.

## 5. Project Staffing

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For this project we have committed a team of highly experienced, knowledgeable staff. Our staffing model is designed to provide the State Bar with the best consultants available. Our team has been selected specifically for the detailed needs described in the RFP. And we understand the value of working on-site, side-by-side with you in order to best understand your requirements and provide knowledge transfer. We truly see our overall approach to this project as providing best value.

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*When we describe staff with strong consulting skills we mean staff that have a true understanding of the role of a consultant and knowing how to communicate effectively with our clients.*

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The proposed team possesses both the experience and consulting skills that will assure project success. When TrinityTG says experience, we mean real-world hands-on project work, developing highly functional, user-friendly web portals and implementing efficient case management systems with integrated workflow and document management. When we describe staff with strong consulting skills we mean staff that have a true understanding of the role of a consultant and knowing how to communicate effectively with our clients, including providing timely participation, clear writing, preparing and delivering presentations to management and stakeholders, technical staff, and subject matter experts. We offer expert advice, based on facts not emotions, but at the end of the day we understand the State is ultimately the client, and their needs (not ours) must be met.

The organization chart on the following page shows our proposed organization structure for both the TrinityTG team as well as the State Bar team and partner agencies. This chart is based on our understanding of how such projects are successfully structured.

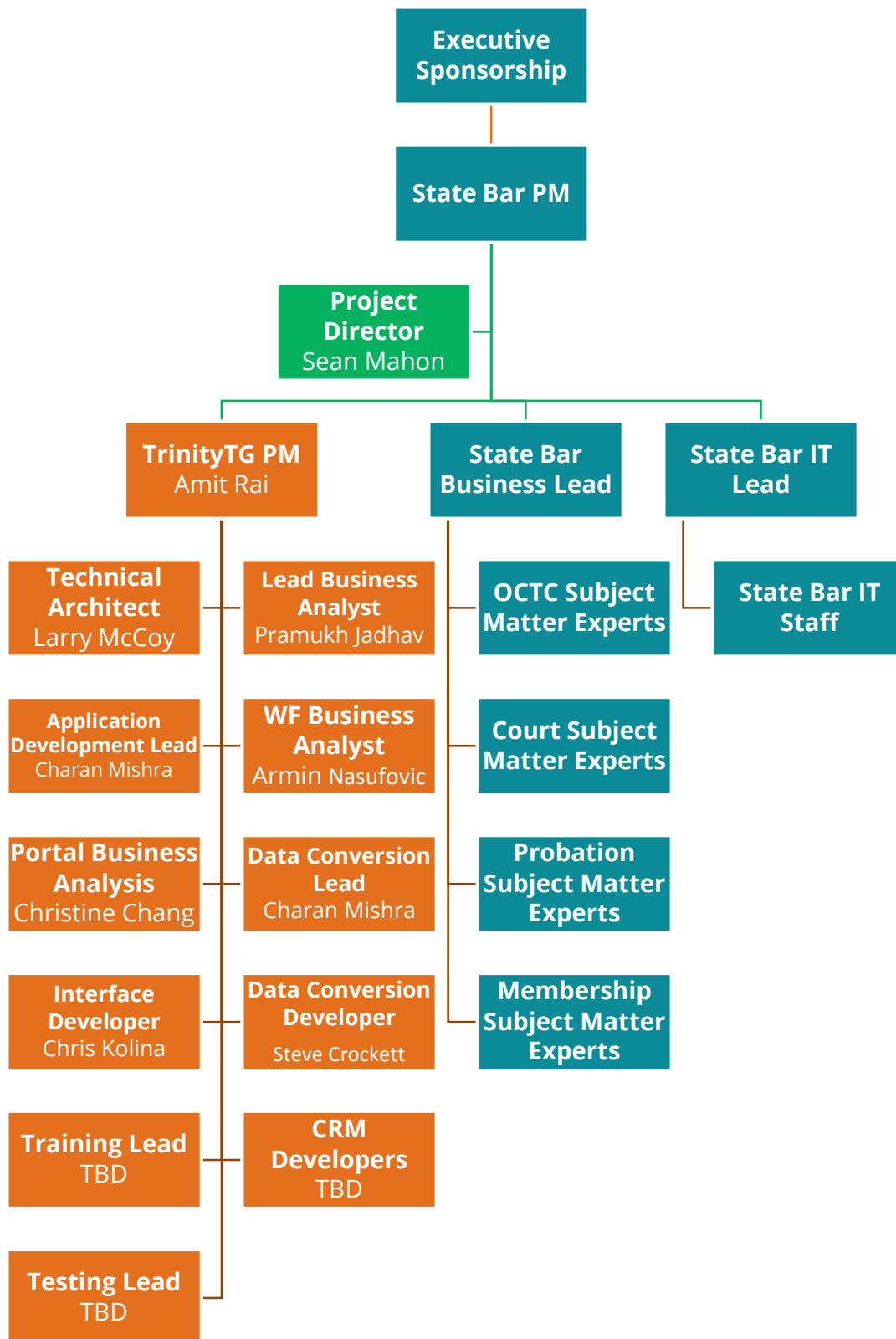


Figure 5-1 – Project Organization Chart

**Sean Mahon, PMP**

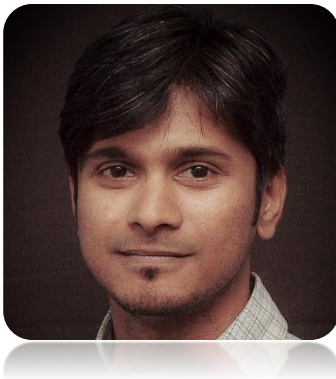
Mr. Mahon is a PMP-certified Senior Project Manager with more than 12 years of experience in successfully implementing large and small-scale enterprise systems. His industry experience includes a focus on the public sector, particularly the State of California. He currently leads the Dynamics xRM practice for TrinityTG.

Mr. Mahon will serve as the **Project Director** and will be responsible for overseeing project deliverables to assure that both the State Bar and TrinityTG standards are met or exceeded, assessing the State Bar satisfaction with the TrinityTG team's performance, and promptly addressing any project questions.

**Amit Rai, PMP**

Mr. Rai is also a PMP-certified Senior Project Manager with more than 10 years of experience implementing enterprise-level software solutions. He has a strong technical background which makes him uniquely qualified to effectively lead diverse Dynamics xRM and .NET projects.

Mr. Rai will serve as the **Project Manager** and be responsible for the day-to-day management of the project including managing the project schedule, assuring all deliverables are of high quality and completed on-time, monitoring risks and issues, ensuring effective communication to State Bar leadership, and setting workload prioritization.

**Pramukh Jadhav**

Mr. Jadhav is an experienced Senior Systems Analyst with deep domain experience in Dynamics xRM as well as hands-on experience delivering highly quality end-to-end solutions to meet client member management and case management needs.

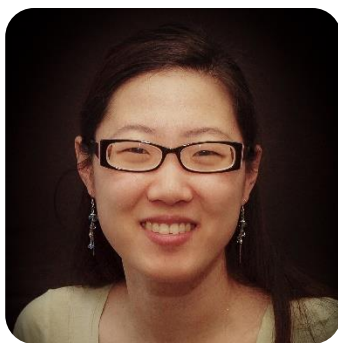
Mr. Jadhav will serve as the **Lead Business Analyst** and be responsible for gathering and validating functional requirements, conducting the system gap analysis, and leading the creation of the use cases which will drive the system design and testing activities.

**Larry McCoy**

Mr. McCoy is a Senior xRM Solution Architect, having worked on numerous Dynamics xRM solutions for TrinityTG for five years. He has been a key resource for three large successful xRM implementations for State of California departments, and brings nearly 20 years of overall development experience.

Mr. McCoy will serve as the project's **Technical Architect** and will be responsible for the overall solution architecture including assuring the project meets all performance and scalability requirements. He will also lead the design of the system data model, and will manage the configuration process to assure the solution best meets the Bar Association's needs. He will also oversee the development team and assure all software components follow TrinityTG standards, and utilize software development lifecycle (SDLC) best practices.





### Christine Chang

Ms. Chang is a seasoned xRM Business Analyst whose latest project was the successful implementation of a member management system for the California Hospital Association.

Ms. Chang will serve as the **Portal Business Analysis** and will be responsible for gathering and validating functional requirements, conducting the system gap analysis, and leading the creation of the use cases which will drive the system design and testing activities specific to the external facing portal.



### Armin Nasufovic

Mr. Nasufovic is a Systems Analyst with several Microsoft Dynamics CRM certifications which help him specialize in helping clients determine how to maximize the configurability of xRM to meet business needs without the need for custom development.

Mr. Nasufovic will serve as the **Workflow Business Analyst** and will be responsible for gathering and documenting all of the decisions/business rules and then authoring necessary system workflows that will automate the movement of items throughout their lifecycle.



### Charan Mishra, PMP

Mr. Mishra is a senior software engineer with nearly 20 years of experience in delivering complex solutions using xRM, .NET, and GIS.

Mr. Mishra will serve two roles on the project as the **Application Development Lead** and the **Data Conversion Lead**. As the Application Development (AppDev) Lead, he will be responsible for leading the day-to-day activities and managing the workload of the development team. As the Data Conversion Lead he will be responsible for designing the data conversion approach and creating the data conversion plan. Through our detailed project plan (which

has been fully resource loaded), the talent level of Mr. Mishra, and our experiences on other successful projects, we are confident that Mr. Mishra can fulfill both positions.



### Chris Kolina

Mr. Kolina has over ten years of experience as a senior software engineer, and is known for providing innovative solutions to complex problems.

Mr. Kolina will serve as the **Interface Development Lead** and will be responsible for specifying, designing and leading the development of the interfaces needed for communication between the core system and legacy State Bar applications or external business partners.



### Stephen Crockett

Mr. Crockett is an experienced software engineer who specializes in prepping, converting, and validating legacy data for use in xRM solutions.

Mr. Crockett will serve as a **Data Conversion Developer** and will be responsible for the execution of all data conversion activities on the project at the direction of Mr. Mishra.

The staffing matrix below illustrates how the previous experience of this team has prepared them to address the needs of the State Bar.

Table 5-1 – Staff Qualifications Matrix

	Sean Mahon	Amit Rai	Pramukah Jadhav	Larry McCoy	Christin Chang	Armin Nasufovic	Charan Mishra	Chris Kolina	Stephen Crockett	SUMMARY
Total years of experience	12	11	6	16	2	4	18	11	2	82
Experience with the proposed xRM toolset	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Has worked with other proposed team members	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Customer web portal experience	✓	✓	✓	✓	✓	✓	✓		✓	✓
Workflow management experience	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dashboard experience	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Document management experience	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Business rules experience	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Centralized database experience	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Knowledge transfer to client staff	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Member management experience	✓	✓		✓	✓	✓				✓
Enforcement experience	✓	✓	✓	✓						✓
Is a TrinityTG Employee	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Detailed resumes for each of the key staff can be found on the following pages.

## **SEAN MAHON, PROJECT DIRECTOR**

### **PROFESSIONAL SUMMARY**

Sean Mahon is a certified Project Management Professional (PMP) and has over 12 years of experience in small and large-scale completed and accepted enterprise system implementation. His industry experience includes a focus on the public sector, particularly State of California. His background experience includes managing a variety of projects and teams through the entire System Development Lifecycle (SDLC).

### **EXPERIENCE**

#### **Member Management System**

California Hospital Association

Sr. Project Manager

October 2014 – Present

Mr. Mahon served as the senior Project Manager on a team to design, develop, and implement a new member management system for the California Hospital Association. Using Microsoft Dynamics xRM 2015, Clickdimensions, and EasyTerritory, the solution provides an integrated system for managing member contact information, determining membership constituents based upon geographical boundaries, and consolidating communications to the member organizations. The project included business process analysis, system architecture, solution design, development, testing, training, data conversion, and implementation support.

#### **DocQNet**

California Department of Business Oversight (formerly Department of Corporations)

Project Manager

April 2013 – Present

DOCQNET is a licensing, enforcement, and case management system that replaced over 50 legacy applications at the Department of Business Oversight. Built using Microsoft Dynamics xRM, ADX Studios Portals, SharePoint, SQL Server, and the .NET Framework, DOCQNET supports 5 business divisions in the licensing, compliance, and tracking of financial institutions in the state. It makes use of OTech's Tenant Managed Services, providing DBO with a brand new enterprise platform for hosting a number of applications. DOCQNET supports over 300 internal users, and provides a web portal for self-services access to license filing, fee payments, report filing, and complaint submission to nearly 400,000 licensed entities. The project included business process analysis, design, development, testing, training, organizational change management, and data conversion.

#### **Dental Scheduling and Tracking System**

California Correctional Health Care Services

Sr. Project Manager

July 2012 – Present

Mr. Mahon served as Senior Project Manager with TrinityTG for the design and implementation of the Dental Scheduling and Tracking System to replace a legacy MS Access for California Correctional Health Care Services. The resulting system was the first statewide web-based application to be deployed in all 34 institutions statewide.

## Clinical Operations Review System (CORS)

California Correctional Health Care Services

Senior Project Manager

October 2011 – June 2012

Mr. Mahon served as Senior Project Manager with TrinityTG for implementation of a system that automated the workflow and reports related to the clinical operations review process related to inmate health care provision. This system (CORS) was based on Microsoft Dynamic CRM 2011 to provide the base web application, database, workflow and reporting functionality. Customized features include interfaces to the CCHCS data mart, custom APIs to support specific business logic in the review process, and custom reports that emulated static forms currently used in the paper-based process that this system replaces. Once successfully implemented and accepted, provided data conversion from legacy Access/Excel data sources into CRM.

## WhoSpot Application

ExpressMedia

Senior Project Manager

April 2011 – October 2011

Senior Project Manager providing implementation and testing support for WhoSpot, a custom developed application designed to automate TV airtime buying/selling process for media buying agencies. Provided functional analysis, UAT support and planning implementation to help complete a stalled development effort and provide architectural guidance and design support for structuring and scoping future application phases.

## Low Carbon Fuel System

California Air Resource Board

Senior Technical Lead

June 2010 – March 2011

Senior Project Manager for the implementation of a system that collects and reports on quarterly transportation fuel transactions from regulated parties, for the purpose of collecting and calculating carbon credits/deficits. This tool uses the latest .NET Framework, and features a scalable design that supports the bulk upload of quarterly data via XML, as well as through direct entry. Involved refactoring a partially built system in order to complete implementation within an aggressive two month timeframe. The first phase includes functionality needed to input quarterly data and calculate credit balances for the quarter.

## CAAT360 ARRA Tracking System

State of California Office of the CIO

Senior Project Manager

January 2010 – March 2011

Senior Project Manager for the implementation of California ARRA and Accountability Tool (CAAT). This tool is responsible for collecting data from four program areas that are required to report to federal government on awarding of ARRA stimulus fund money every quarter: State and local mandated reporting, unemployment grants, and State impacted federal grant monies. The system is based on Microsoft Dynamic CRM 4.0, and allows for 420 users to input data via direct system entry or via XML upload. The system then exports an XML file that is consumed by the federal government's centralized reporting tool. The CAAT system also provides users with a variety of management tools, such as

approval workflows, reporting dashboards, and document upload capabilities. The first phase was to replace the legacy CAAT tool, which was a hastily built web application with limited functionality. The second phase included several customizations to the product, including capabilities to transmit geo-coded data via web services to CA's Recovery website, [recovery.ca.gov](http://recovery.ca.gov) to publish on a map.

## Incentives Information System (IIS)

### Bay Area Air Quality Management District

#### Senior Project Manager

August 2009 – December 2009

Mr. Mahon served as the Senior Project Manager with TrinityTG for the Incentives Information System (IIS) project. BAAQMD is implementing a new grants management system for submittal, approval and administration of grant requests under the Carl Moyer Program. The IIS is a custom-developed .Net application featuring integration with iLog business rules engine and Microsoft SQL Reporting Services. The first phase includes the core functionality to submit and approve proposals for grants, as well as developing frameworks for eventual integration with other systems in the District.

## Texas Integrated Eligibility Redesign System

### Texas Health and Human Services Commission

#### Project Manager

July 2008 – August 2009

Project Manager for Production Support and Maintenance with Deloitte Consulting for Texas Integrated Eligibility Redesign System (TIERS). TIERS is a large scale web-based case management system that administers benefits for multiple key social service programs including TANF, Medicaid, and Food Stamps, for thousands of users. Featuring a service oriented architecture, TIERS interfaces with several other state systems as part of a larger suite of enterprise applications the state uses to administer benefits.

## Chevron

### Project Operations Manager

January 2007 – July 2008

Mr. Mahon served as the Project Operations Manager with Deloitte Consulting for the Global Information Link project (GIL). GIL is an enterprise wide information management program, using SharePoint Server 2007 as a base for the solution. The program included consolidation of terabytes of data across several legacy systems, with an intent to provide global access to all Chevron assets (oil rigs, remote sites, etc.).

## CalWORKs Information Network

### CA Welfare Case Data System Consortium

#### Project Manager

July 2002 – December 2006

Project Manager with Deloitte Consulting for the CalWORKs Information Network (CalWIN). CalWIN is a desktop application developed for a consortium of 18 California county social service agencies including TANF, RCA, GA, Foster care, CAPI. This served thousands of users for nearly 50% of the state's welfare population. CalWIN automates eligibility calculation, worker caseload management, issuances and claims, notifications and management reports.

## Orange County Social Services Agency



## Process Lead

August 2001 – June 2002

Mr Mahon served as the Process Lead with Deloitte Consulting for the Agency's business process redesign. With over 3800 workers, Orange County is responsible for managing a caseload of approximately 90,000 active social services cases on CalWIN.

## SKILLS

- **PROJECT MANAGEMENT** - MS PROJECT, EXCEL, CRITICAL PATH ANALYSIS
- **TOOLS** - SQL, DYNAMICS CRM 2011-2015; SHAREPOINT 2010-2013, ADX STUDIOS PORTALS 6/7
- **WEB TECHNOLOGY**: JAVASCRIPT

## EDUCATION

B. A., Mass Communications; Minor, Business Administration, University of California, Berkeley 1996 to 2000

## CERTIFICATIONS

Project Management Institute - Project Management Professional – September 2005

Managing MS Dynamics Implementations – 12/2014

MS Dynamics Pre-Sales Technical Specialist– 12/2014

MS Dynamics Pre-Sales Specialist– 12/2014



## AMIT RAI, PROJECT MANAGER

### PROFESSIONAL SUMMARY

Mr. Rai is a PMP-certified Project Manager more than 10 years of experience of Enterprise Software Implementations. He has strong management skills as demonstrated by leading and mentoring individuals and teams, and excellent communication skills with strong background working directly with clientele, functional team, testing team to identify business objectives and establish requirements.

Mr. Rai has strong experience in diverse facets of .NET development, encompassing analysis, design, development, execution of business applications, and in conducting design sessions with functional team and recommending solutions to complicated business problems. He has strong knowledge of Object Oriented Analysis/Design. Expertise in design patterns and is proficient in design and development of N-tier applications. Mr. Rai is skilled at creating well documented deliverables for all phases of the project and has excellent domain knowledge of Voter Registration and Election Management, Child Support, Enforcement and Business License Management and Appliance Data Submission. Mr. Rai is a seasoned software expert acknowledged for talents in precisely conceptualizing and directing the development and continuous refinement of advanced technology solutions to meet clients' needs.

### EXPERIENCE

#### RPS Implementation

##### California Energy Commission

##### Project Manager

July 2015 – Present

- Working as Project Manager to lead all phases of the implementation of the new .NET web application that will be extensively used by companies to submit renewable energy certification data and by internal staff to review and approve submitted data.
- Developed project schedule, resource plan, delivery approach, deliverable definitions and milestones.
- Defined processes and tools best suited to the project. Implemented a hybrid project management model to monitor and execute the project.
- Collaborating with client to implement the deliverables based on mutually agreed approach.
- Responsible for creating and managing schedule, risks, issues and status reports.
- Leading JAD sessions to get firm understanding of the client's view of the business, its problems, opportunities, and requirements.
- **Tools:** Microsoft Project, Microsoft Office, Visio, ASP.NET, C#, .NET Framework, SQL SERVER 2012 and Visual Studio 2010.
- 

#### MAEDBS Implementation

##### California Energy Commission

##### Project Manager

July 2014 – Present

- Working as Project Manager to lead all phases of the implementation of the new .NET web application that will be extensively used by manufactures to submit appliance data and by internal staff to review and approve submitted data.
- Developed project schedule, resource plan, delivery approach, deliverable definitions and milestones.



- Defined processes and tools best suited to the project. Implemented a hybrid project management model to monitor and execute the project.
- Collaborated with client to implement the deliverables based on mutually agreed approach.
- Participated in all phases (design, development, testing, data conversion etc.) of execution as needed.
- Responsible for creating and managing schedule, risks, issues and status reports.
- Leading JAD sessions to get firm understanding of the client's view of the business, its problems, opportunities, and requirements.
- **Tools:** Microsoft Project, Microsoft Office, Visio, ASP.NET, C#, .NET Framework, SQL SERVER 2012 and Visual Studio 2010.

## DocQNet

### Department of Business Oversight

#### Project Manager

June 2013 – July 2014

DOCQNET is a customized licensing, enforcement, and case management system that replaced over 50 legacy applications at the Department of Business Oversight. Built using Microsoft Dynamics xRM, SharePoint, SQL Server, and the .NET Framework, DOCQNET supports 5 business divisions in the licensing, compliance, and tracking of financial institutions in the state. It makes use of OTech's Tenant Managed Services, providing DBO with a brand new enterprise platform for hosting a number of applications. DOCQNET supports nearly 300 internal users, and provides a web portal for self-services access to license filing, fee payments, report filing, and complaint submission to nearly 400,000 licensed entities.

- Worked as Project Manager and led execution and successful delivery of the biggest project in the company's history. Successfully tackled multiple challenges like creating one solution for 10 divisions, Data migration of 20 data sources and Integration of Microsoft Dynamics CRM with .Net Custom Website.
- Led the design, development and delivery of public facing portal (<https://docqnet.dbo.ca.gov/>).
- Made valuable contributions all phases (analysis, design, development, testing and training) of the project.
- Delivered the project on schedule and under budget something unheard for in state government IT projects.
- Managed a team of 12 to implement the system. Managed schedule, risk and issues throughout the lifecycle of the project.
- Mentored team members to grow up in their positions and guided them when they were taking over new tasks and challenges.
- Introduced concepts like traceability matrix to the client and managed scope by linking requirements to the components developed and testing scripts.
- **Tools used:** Microsoft Dynamics CRM 2011, SharePoint, ASP.NET, C#, .NET Framework, Microsoft Dynamics CRM SDK, SQL SERVER 2008, Visual Studio 2012, Microsoft Project, Microsoft Office and Visio.

## DMV Appointment System

### Global Touch Points

#### Technical Project Manager / Design Lead

June 2012 – May 2013

- Led the effort to create project management and software development processes, common application frameworks, and coding standards, build management procedures, release management process and source code repositories.
- Directed proposal development activities, including RFP review and analysis, bid determination, proposal management, proposal team management and coordination.
- Setup hiring process for .Net candidates. Conducted technical and behavioral interviews.
- Worked as a Project Manager to lead all phases of SDLC and statewide deployment of AKTE (Automated Knowledge Testing System Expansion). Managing a team of 5 to implement the system. Responsible for creating and managing Schedule, Risks, Issues and Status reports.
- Brought into project to lead design and development of Field Office application enhancements. Resolved numerous project issues including staffing shortages, tactical matters, scope creep and divergent business and user needs.
- Designed and co-developed an automated process to help client scan vehicles due for registration and send email notifications. Optimized the process to handle expected increase in load in future.
- Led the effort to design and develop UI for the mobile site using JQUERY mobile framework. <https://www.dmv.ca.gov/foa/welcome.do?lang=en> (Please use mobile device)
- **Tools used:** Microsoft Project, Jira, Microsoft Office, Visio, Eclipse, Java, JQuery mobile framework, Hibernate, spring and DB2.

## EVOC / My Anaheim / EVOC Mobile / Dashboard for Fire Department

Projects for City of Anaheim / Hewlett Packard

Team Lead / Software Developer

May 2010 – May 2012

**EVOC (Enterprise Virtual Operation Center):** EVOC is customized SharePoint site. EVOC integrates data from 18 different systems to provide situational awareness of what's going on in the City of Anaheim.

**My Anaheim:** This is an Android and iPhone application for city users. Major features are: event guide for the city, capability to submit service request, call 311 etc. For more information please follow link:- [https://market.android.com/details?id=coa.MyAnaheim.AndroidApp&feature=search\\_result#?t=W251bGwsMSwyLDEsImNvYS5NeUFuYWVlaWouQW5kcm9pZEFwcjJd](https://market.android.com/details?id=coa.MyAnaheim.AndroidApp&feature=search_result#?t=W251bGwsMSwyLDEsImNvYS5NeUFuYWVlaWouQW5kcm9pZEFwcjJd)

**EVOC Mobile:** This iPhone/IPAD application provides Anaheim officials latest information about police, fire and other emergency events occurring in the city.

**Dashboard for Fire Department:** ASP.net website which displays statistical information concerning of Fire Department. It hosts performance benchmarks for fire and medical service calls. It also monitors response, travel and turnout time information.

### Team Lead:

- Conduct feasibility analysis for new change requests and projects.
- Lead development of requirements, design models, and all documentation through project lifecycle.
- Responsible for determining project scope, liaising between clients and staff.
- Direct the coordination of all implementation tasks involving third party.
- Introduced new release and change management procedures.

- Successfully delivered projects on schedule and met customer satisfaction targets.

#### Software Developer:

- Designed and developed common frameworks (Exception Handling, Logging) for mobile and web applications.
- Designed and developed service, business and data access layer for multiple mobile and web applications.
- Used MVP pattern to implement presentation logic.
- Developed mobile applications on Android and WebOS platforms.
- Setup SVN repository to manage Android and iPhone application code.
- Extensive use of ASP.Net Chart control to implement Fire Department Dashboard.
- Used Microsoft Bing maps API to plot historic and real time data. It helped clients to monitor major events occurring in city using one application.
- **Tools used:** Sharepoint, ASP.NET, C#, .NET Framework, Bing Maps, Microsoft Chart Control, SQL SERVER 2008, Visual Studio 2008, Microsoft Project, Microsoft Office and Visio.

### South Carolina Child Support and Enforcement System

Hewlett Packard

Team Lead / Software Developer / .Net

April 2007 – April 2010

The CFS Project for state of South Carolina is to implement systems for Child Support Enforcement, Family Court Case Management, and the State Disbursement Unit. It is a state-of-art full function Child Support System, promoting efficiency for the state and case worker as well as improving customer service and collection abilities.

#### Team Lead:

- Led a team of 10-12 software developers.
- Planned and defined scope, timelines and resources of the sprint cycles for the development team.
- Responsible for delivering technical design and development of Case Initiation and Case Management module.
- Hired, mentored, coached and supervised team members to take on greater responsibilities.
- Facilitated problem solving and collaboration. Initiate sub-groups or sub-teams as appropriate to resolve issues and perform tasks in parallel.
- Ensure use of development standards via code reviews. Enforce Test Driven Development (TDD).
- Analyzed General System Design (GSD) documents and initiated DSD development process.
- Conducted sessions with functional team to review functional document and analysis model.
- Presented and delivered design artifacts to client for approval.
- Managed Jira to track all software development phases.

#### Software Developer:

- Created detail design artifacts consisting of detail system design document (DSD), domain model, collaboration and activity diagrams based on analysis domain model using Enterprise Architect (EA).
- Designed and developed presentation layer using Model View Presenter (MVP) design pattern, HTML, Cascading Style Sheets (CSS), JavaScript, and ASP.NET 3.0, Ajax, Master pages, CSS, web server controls and User Controls.

- Used WCF for interaction between presentation and service layers.
- Used Separated Interface pattern to implement data access layer. This layer also encapsulated use of NHibernate.
- Developed queries, functions, stored procedures, and Triggers using SQL Server 2005.
- Used Tortoise SVN as client for version control system.
- Used ReSharper utility for refactoring and optimizing code.
- Extensively used NUnit and NMock to develop unit tests.

#### **.NET Architect:**

- Worked as member of Architect team to design and implement common frameworks (Notification, Exception Handling, Common Web and User Controls, User and Role Management module).
  - Implemented notification pattern to collect information about errors and other details in the domain layer and communicate it to the presentation.
  - Implemented Exception handling using Exception Handling Application Block.
  - Implemented customized User and Role Management module.
  - Actively participated in designing and implementing web solution based on MVP pattern.
  - Actively participated in designing and development of different layers of N-tier application (Presentation, Service, Assembler, Domain, and Data Access). Also implemented Layer Supertype pattern to encapsulate common logic for each layer in base classes.
  - Documented standards, guidelines, and tutorials for the developers.
- **Tools:** ASP.NET, C#, .NET Framework, NHibernate, Nunit, NMock, Entity Framework, Resharper, SQL SERVER 2005, Visual Studio 2008, Microsoft Project, Microsoft Office and Visio.

## Voter Registration and Election Management for State of New York

Hewlett Packard

Software Developer

October 2006 – March 2007

A “bottom-up” centralized data exchange voter registration system that interfaces and communicates with the existing Election Management Systems in New York’s 64 counties. This solution involved 11 million voter registration records along with five years of associated voter history. The system provided compliance with HAVA and fulfilled the state’s election plan.

#### **Software Developer:**

- Worked with a team of two to develop web based Voter Registration application using .NET framework.
- Designed and developed various functionalities in the application like voter search, voter merge, find duplicate voters, resolve duplicate voters etc.
- Participated in design and development of domain and database model. Used Microsoft Visio for designing the models.
- Designed and developed all the layers (Presentation, Service, and Business and Data Access layer) for the application.
- Added Exception handling using Exception Handling Application Block.

## Voter Registration and Election Management for Mississippi

Hewlett Packard

Team Lead / Software Developer / Functional Analyst

June 2005 – September 2006

**Team Lead:**

- Responsible for assigning issues to offshore team for development and also providing technical and functional specifications for the issues.
- Successfully led implementation of numerous change orders like jury selection process, voter move etc.
- Managed Jira to track development cycle of all the issues assigned to team members.
- Maintained four application versions for Development, QA, Production test and Production.
- Responsible for mentoring and coordination with offshore team and new members.

**Software Developer:**

- Developed PL/SQL Packages, procedures and functions in Oracle; Created views, database triggers for various functional requirements.
- Assisted other team members with assignments as needed to ensure all deadlines are met.
- Developed several thousand lines of code in VB.net.

**Functional Analyst:**

- Discussed and gathered business and functional requirements from Focus Group.
- Participated in design and development of Logical and Physical Database Model.
- Led walkthroughs and meetings with functional and development team to discuss related issues.
- Performed functional testing before release of application to testing team.
- Conducted numerous training sessions on Statewide Election Management and Voter Registration system for the end users.
- Responsible for thorough acceptance testing before any production release.

**Associate Consultant**

- Extensive experience in providing effective customer service for solving software/hardware problems.
- Led production support for the application working directly with the users.
- Developed an accelerated subject-matter-expertise in regards to the Voter Registration, Election Management and Jury selection process by actively working with clients/SMEs and having an insight into the system functionality.
- **Tools used:** VB.NET, .NET Framework, Oracle, Visual Studio 2005, JIRA, Microsoft office and Visio.

## SKILLS

<b>Project Management tools:</b>	Atlassian Jira, Microsoft Project, Microsoft Dynamics CRM
<b>Languages:</b>	C#, VB.NET, Html, CSS, JavaScript, Java
<b>Frameworks and SDKs:</b>	ASP.NET, .Net Framework, ASP.NET AJAX, Entity Framework, Microsoft Dynamics CRM 2011, Microsoft Dynamics CRM SDK, NHibernate, Microsoft Chart Control, Bing
<b>Maps:</b>	NMock, WCF, NUnit, Microsoft Enterprise Library, Android SDK
<b>Concepts:</b>	OOAD, Design Patterns and Principals, Refactoring Unit Testing, SOA
<b>Modeling and Design tools:</b>	Enterprise Architect, Microsoft Visio
<b>Databases:</b>	SQL Server 2005, 2008 SQL Server 2012, MySQL, Oracle, DB2
<b>Version Control System:</b>	TFS, SVN, Visual SourceSafe
<b>Continuous Integration:</b>	CruiseControl.NET

**Others:**

Microsoft Word, Excel, Microsoft SharePoint Server

**EDUCATION**

Master of Science, Computer Science, CSU Sacramento

**CERTIFICATION**

Project Management Certification, PMP: PMI 1483842





# PRAMUKH JADHAV, LEAD BUSINESS ANALYST

## PROFESSIONAL SUMMARY

Senior Systems Analyst with **6+ years of cumulative experience in the Software Industry**, currently employed as a **Senior Systems Analyst** at **Trinity Technology Group** with 1 year of Project Management experience in financial software systems. Clients served include **California Department of Insurance, California Correctional Health Care Services, Department of Water Resources, California Department for Corrections and Rehabilitation, Infosys India, and Electronic Arts Inc.** Certified Microsoft Technology Specialist including 2+ years of experience in Implementing and Maintaining Microsoft Dynamics CRM applications.

- Data Migration and Integration with legacy systems and databases using Scribe (Industry leading software for data migration and integration with Dynamics CRM).
- Expert at using DocumentsCorePack from Auto-merge - a tool to create MS Word document template incorporating Mail-merge for Dynamics CRM.
- Well versed with Adobe LiveCycle Suite of products. Working experience with Adobe LiveCycle Process & Workflow Management Modules & Document Management Modules.
- Extensive experience in **gathering Business and Functional Requirements**, developing **Use Cases**, conducting **Gap Analysis and Impact Analysis, Risk analysis**, modeling **Businesses Processes**, and preparing **Training manuals and Knowledge Transfer manuals**.
- Expertise in development of **Use Cases**, Software Development Life Cycle (**SDLC**) processes.
- Expertise in creating Unified Modeling Language (UML) diagrams such as Use Case diagrams, Activity diagrams, Sequence diagrams, Context diagrams, Component diagrams and State diagrams
- Extensive experience in **Software Testing Processes & Methodologies, Software Development Project Management & Change Management**.
- Strong experience in designing testing frameworks for **Qualification Testing (QT), User Acceptance Testing (UAT)** and documentation of test cases. Expertise in designing and developing test plans and test scripts.

## EXPERIENCE

### Fundtech Corporation

#### Project Manager / Project Specialist

February 2015 – January 2016

Fundtech is a leading supplier of transaction banking solutions. Fundtech offers a suite of payment solutions that enable financial institutions and their business customers to manage and process payments and transfer funds. As Project Manager in the Professional Services Group (PSG), I was responsible for the Payments Product. Responsibilities included timely delivery of solutions to Banks stationed across the country; coordinate with the system integration and engineering teams for product/module installations. Also required to manage Go-live Support and manage handoffs to the training team and implementation teams.

- Manage the Project and Client expectations from project kick-off of the project to implementation and go-live.
- Create Project Plan and clearly define project milestones.
- Manage project team members and system integration team to achieve the goals of the project.
- Document the Business Requirements and converted them into Functional Requirements Specification
- Provide support for cut-over activities and tasks to facilitate smooth go-live

- Provide status reports to both the Customers as well as PSG Account managers to ensure that all parties are clear on the status of the project.
  - Develop contingency plans and action plans to handle issues with the project and escalations by the customers on project related issues.
- Manage the budget of the project by using resources effectively and forecast any risks associated.

## CA Department of Insurance

### Microsoft Dynamics CRM Systems Analyst

October 2012 - February 2015

Trinity Technology Group delivered a Case Management system for the Investigation division of the California Department of Insurance. The application is meant for the investigators to maintain case information about all the insurance related claims and complaints. The application facilitates for the complete lifecycle of the complaint from its inception stage up until the complaint processing and actions that are taken on the case. The application integrates with Bing Maps, Auto-merge, Smarty Streets and Sircon for presentation of data as well as output all the necessary information for the investigators to better manage their complaints and cases. As part of the lifecycle of a case, the system has the ability to generate a variety of documents including Search Warrants, Arrest Warrants, Operation Plans, Subpoenas, ROI's, Press Releases, etc.,.

- Participate in Joint Application Design (JAD) sessions with SMEs, Regional Office Staff and Program Managers to capture requirements
- Develop Use-Cases and data flow diagrams for all the business processes in the application.
- Customize entities, create forms, client-side scripting using JavaScript.
- Develop custom workflows to implement the business processes for the application.
- Develop a Data Migration plan from legacy data sources. The data sources include Oracle, Access, Excel and XML spreadsheets.
- Create Data Migration scripts using Scribe, execute the data migration during cut-over; validate results of the migration. Help clients verify the outcome of the migration.
- Use Auto-merge to create document templates and implement workflows that will generate the reports and letters that are needed for the business functions described in the business requirement. This project involved a large number of letters and reports that need to be generated. Some of the complex document templates involved the integration of Maps and Images for entities which were also embedded in the reports and letters.
- Update all necessary solutions and deploy them from Dev to Test and Prod environments and validate the new environments for successful solution deployments.

## CA Correctional Health Care Services

### Microsoft Dynamics CRM Systems Analyst

June 2010 – September 2011

Trinity Technology Group was employed to build an application to track the deaths in California's prisons, and to track referrals on providers that provide care to inmates. The application also facilitates the tracking of actions that have been taken on each provider & death cases in an effort to provide better care to inmates in California's state prisons for the California Correctional Health Care Services (CCHCS)

- Participate in Joint Application Design (JAD) sessions with SMEs, Doctors, Nurses and Program Managers to capture requirements
- Formulate the TO-BE process for the case management system.



- Customize entities in CRM and create forms, add JavaScript validation and other web resources to these entities
- Develop custom workflows inside of CRM to map the To-BE functional processes required by the application.
- Develop a Data Migration plan from legacy data sources such as Access Databases and Excel Spreadsheets
- Create and Implements Data Migration; validate results of the migration. Help clients verify the outcome of the migration.

## CA Department of Water Resources

### Business Analyst

March 2011 – October 2011

Trinity Technology Group developed an application at the California Department of Water Resources (DWR) to help monitor groundwater elevation, track seasonal and long term trends in the groundwater elevation in California's groundwater basins. The system enabled monitoring entities to submit elevation data measurements and also allows for reporting and analysis of the data being submitted.

- Participate in Joint Resource Planning (JRP) and Joint Application Design (JAD) sessions with SMEs, Regional Office Staff and Monitoring Entity users to capture requirements
- Work with SMEs to understand and formulate the TO-BE process for the GIS component of the CASGEM Online Submittal System
- Document the Business Requirements and converted them into Functional Requirements Specification
- Create Test Scripts for different test scenarios covering all aspects of the CASGEM Online Submittal System
- Developed an iRise simulation of the end-to-end application with almost life-like data flows and navigation based on the JAD and Requirements gathering sessions. This served as a sign-off point for the form layouts, data elements and screen navigations for the application.
- Incorporate Client changes to UI and functionality if called up and within scope of the project.

## CA Department of Water Resources

### Adobe LiveCycle Analyst

May 2010 – March 2011

This project is intended to replace the paper based submission of the Public Water Supplier Surveys (PWSS) with an Online System, using the Adobe LiveCycle suite of products, which will help Department of Water Resources (DWR) staff to manage the surveys in a consolidated repository. It provides an online Reviewer facility, where DWR staff can pull-up submitted surveys and take necessary actions. It also provides for consistency and validity of data to help DWR analyze and report on the submitted data periodically

- Design Adobe PDF forms based on client business needs.
- Create process workflows in Adobe LiveCycle Workbench
- Developed an ASP .Net Web Application that seamlessly integrates Adobe LiveCycle Process Manager and Forms Services with an ASP .Net front-end.
- Deploy code and customizations to test and production servers
- Perform cut-over activities and tasks to facilitate smooth go-live
- Process Manager Services, Forms Services, Task Manager Services, Task Manager Query Services.

## CA Department of Justice

## Business Analyst Intern

March 2010 – May 2010

Trinity Technology Group developed the California Sex and Arson Registration (CSAR) repository application, which replaced the legacy system at California Department of Justice. The system went into Production towards the end of August and is currently under Maintenance and Operation

- Regression Checklist Standardization, maintain & update Code Deployment Scripts, Test Scripts for various functionalities of the product.
- Code promotion from development into test and staging environments
- Weekly execution of regression checklist on development, test & staging environments to validate code consistency
- JBoss Application Server maintenance.
- Functional validation of defect corrections using manual unit test approach.
- Work package defects & coordinate defect corrections & timelines with the development team.
- Assist state staff with performance test execution using QA Load.
- Working closely with developers, program staff and the team at DOJ, in identifying bugs, gap assessment & assess critical gaps in source code on a daily basis.
- Assist project team with change analysis & functional To-Be design activities for defect corrections and change requests. Maintain & report project management metrics on a weekly basis to the project manager.

## CA Department of Corrections and Rehabilitation

### Systems Analyst Intern

June 2009 – September 2009

Develop a reporting application & dashboards for the program staff to assess financial wellbeing of the state entity and to better manage resources & real estate in their prisons for the California Dept. of Corrections and Rehabilitations.

#### Development, Qualification Testing and Training

- Conducted meetings/interviews and **JAD sessions** with higher management to collect business requirements.
- Performed **Data Analysis** and **Data Mapping** from Legacy Database Systems to Business Object Reporting Model.
- Validation/Translation of business logic/requirements into technical specifications for Business objects/reports. Interaction with other departments for change requests.
- Coordinated with prisons across California State to gather updates in the inventory on a weekly basis.
- Develop the Database Application that would host the Inventory for all the prisons in the State of California
- Creation of test scripts for unit testing, system testing, and regression testing, end to end testing. Facilitate & support the User Acceptance Testing (UAT)
- Defect management, reporting, escalation and tracking.
- Handling and fixing defects found during the Test Phase. Identification of improvement areas & future enhancements based on the current implementation.

## Flatworld Solutions Pvt. Ltd., Bangalore, India

### Software Engineer

January 2006 – February 2007

An online customer trend tracking system intended to assess and improve customer retention capabilities. Project scope included data migration from legacy system, integration of data based on new business rules & trend detection algorithms.

- Conducted meetings/interviews and **JAD sessions** with stakeholders to collect business requirements.
- Prepared **Business Requirement Document** and then converted Business requirements into **Functional Requirements Specification**.
- Prepared **Functional Design Document** and **Functional Requirements Specification** by converting Business requirements.
- Conducted data prep activities for system testing, regression testing & end to end testing using SQL Server 2000 & MySQL 3.5
- Created a User Acceptance Testing (UAT) plan to include entry & exit criteria, scope of UAT, script execution strategy, defect management & mitigation strategy to assist phase transition & change readiness.

## SKILLS

### TECHNICAL SKILLS

- **Tools:** Microsoft CRM 2011, Scribe Insight - Data Migration Tool, Adobe LiveCycle ES 2, Adobe Workbench, Adobe Workspace, MS Visio, SharePoint, iRise, Telerik Web UI Testing Studio
- **Languages:** C, C#, ASP .Net, ADO .NET, Java, CSS & HTML, Java Scripts, XML, PHP, Verilog, JavaScript
- **Operating System:** Windows95/98/00/XP and NT, UNIX and Linux.
- **Methodology:** SDLC and UML design techniques and methodologies.
- **Web Tools:** MS Office 2010, Adobe Acrobat 9 +
- **Databases:** MySQL 5.0, SQL Server 2008, Microsoft Access 2000, Oracle 11g.

### BUSINESS SKILLS

- Key Practices and Key Process Areas (**KPA**)
- Business Requirements Documents (**BRD**)
- Business Process Analysis & Research
- Business Process Re-engineering (**BPR**)
- Use Case Modeling & Analysis
- Functional and Non Functional Requirements
- JAD/RAD Sessions
- Functional Specification Document (**FSD**)
- Gap Analysis

## EDUCATION

Bachelor of Science, Computer Information Systems • DeVry University, Pomona • Honors, Epsilon Delta Pi Honor Society • 1996



# Certificate of Completion


This is to certify that

**Pramukh Jadhav**

has successfully completed six hours of

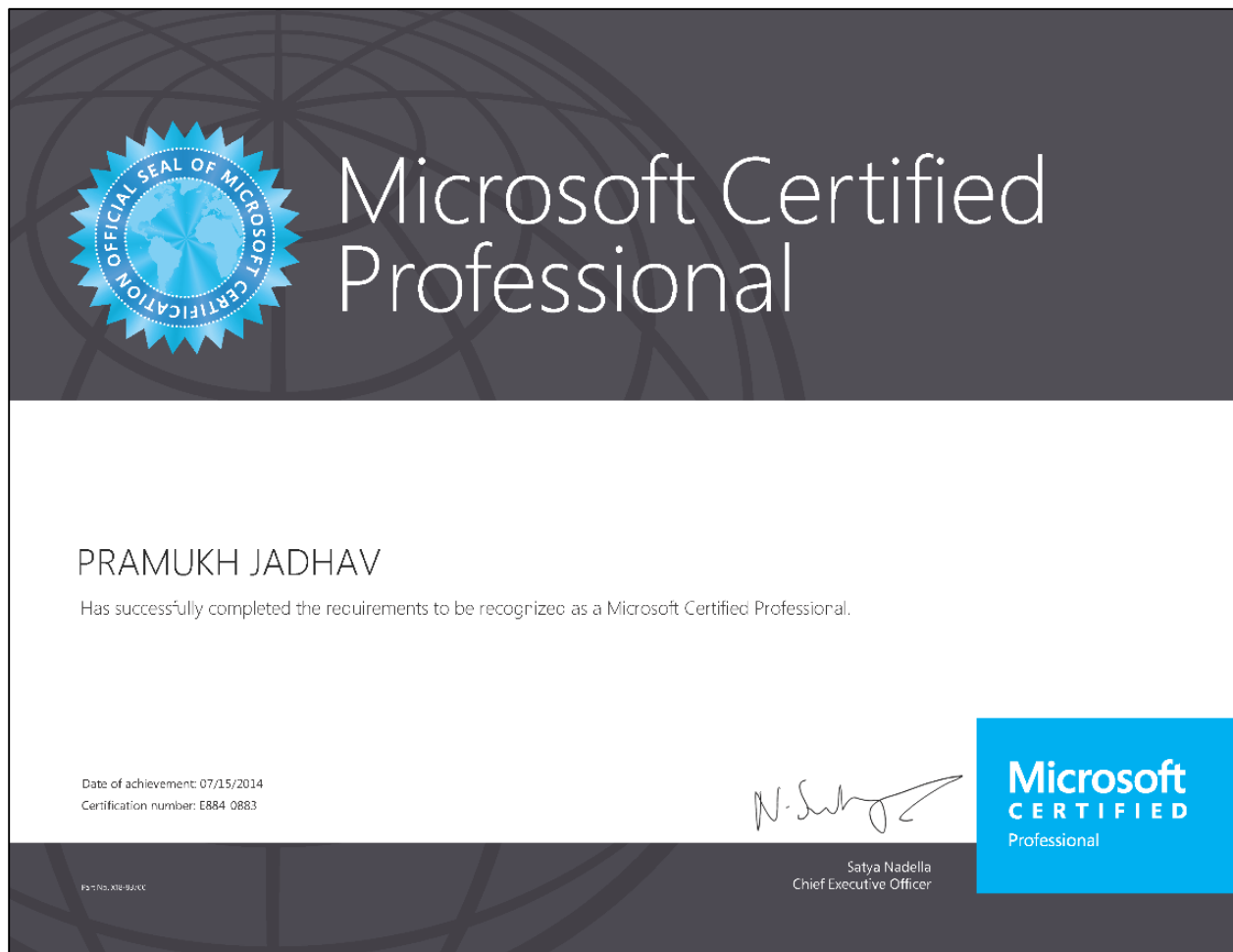
**Decision Modeling Essentials online (DMEo)**

training provided by Barbara von Halle May 20-22, 2014



Barbara von Halle, Managing Partner  
Knowledge Partners International, LLC













## LARRY MCCOY, TECHNICAL ARCHITECT

### PROFESSIONAL SUMMARY

Mr. McCoy is a lead software engineer with over 16 years of experience designing and developing software applications with expertise in Microsoft .NET framework and in the latest, cutting-edge technologies. He has extensive experience building different types of applications including a multi-million dollar Enterprise solution, small desktop applications, and scalable service components. He led development of several modules in a multi-part R&D project to create an enterprise application framework. He has played a crucial role in the entire Software Development Life Cycle (SDLC) including feasibility, user requirements, design, development, unit testing, and production support. He demonstrates effective communication in cross-functional teams through oral and written reports of research findings, technical solutions, requirements documents, estimates and change requests.

### EXPERIENCE

#### Quality Network Project (DocQNET)

#### California Department of Business Oversight (DBO)

#### Lead Software Engineer

December 2015 – Present

The DOCQNET system is a customized business solution to manage licensing, enforcement, and case management at the Department of Business Oversight.

- \* Customize MS Dynamics CRM system, manage/perform solution deployments, create AutoMerge templates, and implement custom logic into workflows and plugins.
- \* Designed, implemented and maintained modifications to the ADX Studios portals website, including customized registration process, customized search functions, and configuration changes to the portal's usability.
- \* Conceptualized and implement processes to perform custom business logic used to manage licensing entities.
- \* Data migration from the Nationwide Mortgage Licensing System & Registry (NMLS) utilizing custom scripts written in C#.

Environment: Windows 7, C#, XML, ASP.NET, SQL Server, Microsoft Visual Studio, SQL Server Management Studio, MS Office 365, Microsoft Dynamics CRM 2011, MSCRM-add-ons AutoMerge, Microsoft SharePoint 2010, ADX Studios Portals 6.5.

#### California Hospital Association

#### Lead Software Engineer

October 2014 – Present

Trinity is developing a Dynamics CRM 2015 solution to manage the membership data for California Hospital Association (CHA). This system extends Dynamics CRM 2015 to provide custom features that assist in the client's lobbying and marketing operations and behalf of the over 400 hospitals in California. Mr. McCoy led the implementation of the custom solution, from providing the detailed analysis of the customer key requirements, to architecting and designing the overall solution, and implementing the customizations. He designed the custom views and forms for the solution, and implemented custom JavaScript to provide for data validation and user-interface enhancements. He also was responsible for all .NET based development of custom plug-ins and workflows (based on

Windows Workflow Foundation) using Visual Studio 2012. Mr. McCoy was also responsible for developing custom SQL Server Reporting Services (SSRS) reports.

**Environment:** Dynamics CRM 2013/2015, C# 4.0, JavaScript/AJAX, SOAP/REST Web Services, ADO.NET, Visual Studio 2010/2012, SQL Server 2012/14, Active Directory, ADFS, Windows Workflow Foundation, SSRS.

## Pondera Solutions

### Lead Software Engineer

#### Fraud Detection as a Service (FDaaS)

May 2014 – December 2014

Mr. McCoy is developing a custom ASP.NET MVC application dashboard to manage the detection of fraud in government programs. This service product, developed with Pondera Solutions, has been deployed at the California Department of Health Care Services and the Iowa Unemployment Insurance agency. Mr. McCoy has worked on the development of custom application screens, and the architecture and design of a shared solution that facilitates the deployment of the service across numerous application domains. Mr. McCoy also led the implementation of a custom dashboard add-on application to provide Key Performance Indicators (KPI) to executive management. Mr. McCoy served as project lead of the 4 person team who prototyped and constructed, and he was instrumental in coordinating the gathering of client requirements and leading the solution implementation.

**Environment:** ASP.NET 4.0, MVC 3.0, C# 4.0, ADO.NET, jQuery, JavaScript, CSS, HTML, TSQL, Visual Studio, Google Charts.

## California Department of Insurance, Investigation Division Case Management

### Lead Software Engineer

#### Insurance Investigation Cases Processing

August 2012 – May 2014

Trinity is developing a Microsoft Dynamic CRM 2011 solution to manage processing of insurance investigation cases. This project involved extensive customization of the Dynamic CRM 2011 product, as well as integration with Microsoft SharePoint 2010 and with internal software systems. Mr. McCoy was responsible for design and development of customizations to the CRM project, including development of custom entities and their associated views and data entry screens, including extensive JavaScript customization of the user interface. The solution also involved complex workflows and custom extensions, and Mr. McCoy developed all of the custom plug-in and workflows, utilizing Visual Studio 2010 and Microsoft .NET. He was the primary developer and led the establishment of processes to improve the efficient delivery of the project tasks.

**Environment:** Dynamics CRM 2011/2013, C# 4.0, JavaScript/AJAX, SOAP/REST Web Services, ADO.NET, Visual Studio 2010/2012, SQL Server 2008, SharePoint 2010, Active Directory, ADFS.

## California Department of Corrections Health Care Services

### Lead Software Engineer

#### Clinical Operations Review System (CORS)

September 2011 – August 2012

Trinity implemented a solution utilizing Microsoft Dynamic CRM 2011 to automate a review system that ensures efficient and quality health care for inmates in the CA prison system. Mr. McCoy's role involved extensive customization of CRM system, including custom entity development, complex workflows, and user interface pages with JavaScript. He also developed a large number of custom reports utilizing SQL Server Reporting Services (SSRS), and custom plug-ins and workflow activities

developed in Visual Studio 2010. He was involved in deployment and configuration of CRM system during development and testing. He was also an active participant in the system analysis and design, and was pivotal in a successful deployment of the application, through facilitating user training and diligently working to ensure successful project completion.

**Environment:** Dynamics CRM 2011, C# 4.0, JavaScript/AJAX, SOAP/REST Web Services, ADO.NET, Visual Studio 2010/2012, SQL Server 2008.

## California Department of Water Resources

### Lead Software Engineer

#### Dam Safety Web/Mobile Application Project

March 2011 - October 2011

Mr. McCoy designed and developed WCF services to provide all data operations and business logic implementation of a system using an Oracle 11g DBMS that is interfaced through the Telerik OpenAccess ORM (object relational mapper) product. These services made extensive use of LINQ to access application data. He also was responsible for the development of the application user interface using ASP.NET and Telerik RadControls user control library, including a very rich user experience that provided the ability for the user to view large amounts of data in a unified screen. Mr. McCoy was also responsible for integrating the WCF services layer with an Adobe Air-based mobile application, and also provided integration with and support for the GIS system developed using ESRI components.

**Environment:** ASP.NET 4.0, C# 4.0, WCF Web Services, jQuery, JavaScript, CSS, HTML, TSQL, Visual Studio 2010, SQL Server 2008, Telerik UI Controls, Telerik OpenAccess ORM, Adobe LiveCycle, IIS 7.0, Oracle 11g.

## California Department of Water Resources

### Lead Software Engineer

#### Ground Water Project

March 2011 – May 2011

Mr. McCoy is responsible for design and development of WCF services to provide all data operations and business logic implementation of a system using an Oracle 11g DBMS that interfaced through the Telerik OpenAccess ORM (object relational mapper) product. He developed WCF services, and interfaces with Oracle through OpenAccess and LINQ. This project also has a component that imports data from an Excel spreadsheet into the system.

**Environment:** ASP.NET 4.0, C# 4.0, WCF Web Services, jQuery, JavaScript, CSS, HTML, TSQL, Visual Studio 2010, SQL Server 2008, Telerik UI Controls, Telerik OpenAccess ORM, Adobe LiveCycle, IIS 7.0, Oracle 11g.

## California Department of Water Resources

### Lead Software Engineer

#### Urban Water

October 2010 – February 2011

Mr. McCoy was responsible for design and development of WCF services to provide all data operations and business logic implementation. The system utilized an Oracle 11g DBMS, and was interfaced through the Telerik OpenAccess ORM (object relational mapper) product. The project made extensive use of LINQ (Language INtegrated Query) technologies, and XML serialization. Mr. McCoy had exposure to the Adobe LiveCycle component that was developed for this project. His role was primarily integrating the rest of the implementation to that component. He was involved in the technical analysis and design of the overall project, and also implemented a small portion of the web site, using ASP.NET and jQuery.

**Environment:** ASP.NET 4.0, C# 4.0, WCF Web Services, jQuery, JavaScript, CSS, HTML, TSQL, Visual Studio 2010, SQL Server 2008, Telerik UI Controls, Telerik OpenAccess ORM, Adobe LiveCycle, IIS 7.0, Oracle 11g.

## Intel

Software Engineer

Multiple Projects

February 2010 – October 2011

Mr. McCoy worked on multiple projects while at Intel. He developed test automation system to validate firmware for platform chipset. During this project, he utilized C# and .NET application to control and monitor test system to verify proper operation of BIOS and other firmware during system power transitions. He worked directly with hardware to configure and monitor test system.

**Environment:** C# 4.0, Visual Studio 2010, ClearCase/ClearQuest.

## Cedaron Medical

Senior Software Engineer

.Net based Application

September 2009 – February 2010

Mr. McCoy was a Senior Software Engineer who developed .NET based application for managing physical therapy practices, including patient scheduling, data collection and reporting utilizing VB.NET and SQL Server. He performed deployment, user training and support of client-server application for managing cardiac procedure data. He also spearheaded efforts to improve development processes and application quality.

**Environment:** VB.NET 9.0, ASMX Web Services, ASP.NET 3.0, HTML, TSQL, ADO.NET, Visual Studio 2008, SQL Server 2008.

## Ventyx

Lead Software Engineer

April 2007 – July 2009

Working at Ventyx, Larry McCoy played an integral role in the research, design, and development of application frameworks in the energy industry. As a member of the company's architecture team, he was partially responsible for designing and directing the development of the application framework and the components that were shared among the company's software products. He mentored and trained developers on other teams in application best practices, design patterns and unit testing. Other responsibilities and duties included:

- Developed new application GUI module in Windows Presentation Foundation (WPF) to provide advanced generic data management and scalable reporting capabilities.
- Designed and implemented application framework in .NET to model time series data, including data model design, configurable security for data auditing and application API development.
- Designed and developed a data migration application for transferring client's proprietary data to new application data model using C#, including a customized testing framework to verify data translation.
- Implemented extensive unit tests using NUnit and Visual Studio Team System to ensure business rule compliance and improve quality with automated testing.

**Environment:** .NET 3.0/3.5, C# 2.1/3.0, Visual Studio 2005/2008, TSQL, ADO.NET, SQL Server 2005, Infragistics Controls, Exceed Grid Control.

## Ventyx

### Senior Software Engineer

April 2002 – April 2007

Working at Ventyx (formerly Global Energy Decisions). Enhanced application platform library in C#, including development of a pipeline-based system allowing flexible chaining of software components. The system was data-driven, allowing configuration of the system through metadata, and allowing future expansion with minimal effort:

- Developed application module to extract and transform data from platform database in SQL Server 2000. This module was designed to serve as a template for future data transformations, and was applied several times successfully to reduce the development time of bringing new application features to the market.
- Mentored peers and new hires on application development practices, including coding standards, design patterns, and custom application API.
- Managed out-sourced, contract employee for 6 month period, providing design guidance, reviewing code, and reviewing unit test coverage.
- Researched new technology developments and prototyped new application concepts to bring advanced application features to the market.
- Mentored developers to port company's flagship products to VB.NET from Visual Basic 6.0 on a common framework and database structure.

**Environment:** .NET 1.0/2.0, VB.NET 7.0, C# 1.0/2.2, ADO.NET, Visual Studio .NET 2002/2003, TSQL, SQL Server 2000.

## Ventyx

### Software Developer

June 1998 – April 2002

Working at Ventyx (formerly Henwood Energy Services). Designed and developed N-tier application platform to model electric utility data to build multiple integrated applications sharing data and business logic, using Visual Basic 6.0 and SQL Server:

- Designed and developed client-server application to optimize electric system outage planning using Visual Basic 6.0 and SQL Server.
- Enhanced Retail Load management application with a new module for pricing retail electric meter data, developed in VB 6.0 with SQL Server 2000.
- Prototyped and implemented a graphical visualization tool for viewing electrical power plant location topology data, using Excel VBA. The concept was very popular and improved the effectiveness of the company's consultants and facilitated their analysis by improving their ability to quickly drill into the critical aspects of the data.

**Environment:** Visual Basic 6.0, Visual Studio 6.0, SQL Server 6.5/2000, TSQL, Office/Excel VBA.

## Enter Software, Inc.

### Mechanical Engineer

1994 – 1998

Developed EfficiencyMap™ performance monitoring software using Visual Basic 5.0 to provide real time analysis of electric power plants. Created interface to online plant distributed control system to transfer real-time plant data to the analysis engine. Created distributed user interface for displaying real time plant data alongside calculated results from analysis engine, using DCOM to push updated calculations as they became available.

- Worked onsite with clients to ensure software was properly installed and configured

- Generated analytical models of power plants utilizing GateCycle™.
- Provided phone support for GateCycle™ power system design & modeling software

## SKILLS

- **Program Languages** - .NET Framework (1.0 – 4.5), C#, WPF, XML, Visual Basic (3, 4, 5, 6, .NET)
- **Database** - SQL Server (2000, 2005, 2008), MS Access, TSQL and stored procedures. Oracle 10g/11g
- **Development Tools** - Visual Studio (all versions), Team Foundation Server, Expression Blend, Visual Source Safe, MS Office Suite, Subversion, ClearCase, Telerik/Infragistics/DevExpress
- **Enterprise Systems** – Dynamics CRM 2011/2013, SharePoint 2010, IIS 6/7, ADFS 2.0

## EDUCATION & CERTIFICATIONS

Bachelors of Science, Mechanical Engineering • University of California, Davis • 1993

MB2-867 • Dynamics CRM 2011 • Installation and Deployment

# CHRISTINE CHANG, PORTAL BUSINESS ANALYST

## PROFESSIONAL SUMMARY

Mrs. Chang is highly motivated, goal-oriented, and consistently demonstrates accomplishments in the areas of business requirements and identification of details needed for systems that completely satisfy user's processes and interfaces. Technical and dynamic editor with sensitivity for context and audience. Innovative individual with experience in Project Management, Implementation, and Evaluation. Adept facilitator of communication and coordination across multi-satellite offices for improved efficiency and coordination. Engaging and effective trainer and instructor with proven ability to facilitate and orchestrate knowledge transfer. Trained in medical and dental environments with experience in management of patient workflow and billing. Detail-oriented, analytical multitasker with a positive attitude.

## EXPERIENCE

### California Hospital Association

#### CRM-Based Membership Management System

##### Business Analyst

Feb 2015 – Present

California Hospital Association is a trade association that manages Member Hospitals and their constituents throughout the State of California. The CRM-Based Membership Management System is designed to replace the extant legacy system Membership Management System at CHA. The new CRM-Based solution is designed to track membership details and assist the organization with advocacy and legislative efforts. In addition to membership tracking, the solution allows the automation and streamlining of business process flows for internal users as well as supporting Business Intelligence processes and efforts.

- Assisted lead analyst with process assessment meetings to drive application design.
- Assisted lead analyst in validation meetings to review and confirm design to meet business needs.
- Gathered and validated functional and non-functional requirements.
- Assisted in the detailed design of system implementation by closely collaborating with internal technical team and client.
- Identified and recommended solutions to mitigate potential risks to system development and implementation to minimize change resistance and promote system adaptation and acceptance.
- Prepared and updated use cases and other supporting documentation.
- Prepared and executed System Test Scripts.
- Prepared all Training Materials for Training Session Delivery, User and System Administrator Materials.
- Prepared and executed Proof of Concept for Updating Data Migration scripts.
- Utilized RAADIO to manage and track Project Action Items and Deliverables.

**Tools used:** MS Word, Excel, PowerPoint, Visio, Access, Publisher, SnagIt, SharePoint, SQL, Adobe Photoshop, Adobe Acrobat, Microsoft Dynamics 2015, Camtasia Studio 7 and 8, XMind, FetchXML, XrmToolBox.

### CA Office of Statewide Health Planning and Development

#### CRM-Based Grant Management System POC

##### Business Analyst

Jan 2015 – Feb 2015



The CRM-Based Grant Management System POC is a proposed CRM-Based application that uses ADX Studios Portals to expose it. The POC was designed as a possibility to replace Intelligrants, OSHPD's current Grant Management System. Currently, OSHPD manages 16 grant programs from end to end. The proposed CRM-Based POC solution is designed to automate and track end to end grant workflow while specifically focusing on improved user experience for grant applicants as well as streamlining business process flow for internal users.

- Performed gap analysis of As-Is and To-Be requirements documentation to identify missing components and potential risk factors for system development and implementation.
- Identified and recommended solutions to mitigate potential risks to system development and implementation to minimize change resistance and promote system adaptation and acceptance.
- Gathered functional and non-functional requirements.
- Specified business rules to guide development efforts.
- Assisted in the detailed design of system implementations by closely collaborating with internal technical team and client.

**Tools used:** MS Word, Excel, PowerPoint, Visio, Access, Publisher, SnagIt, SharePoint, SQL, Adobe Photoshop, Adobe Acrobat, Microsoft Dynamics 2015, ADX Studios Portals.

## Trinity Technology Group

### Internal Projects

#### Content Creator and Graphic Designer

August 2014 – December 2014

Mrs. Chang has worked on Technical Documentation Artifacts which involved the creation and design of content and graphics to clarify, communicate business rules and logic. She built Technical Artifacts detailing project functionality and technical specification for projects for Trinity Technology Group, Inc. She has also written case studies detailing Key Benefits for Clients, System Functionalities, and System Capabilities which involved research into business rules and conceptual designs utilizing Visio. Utilizing Camtasia to create training videos, she has helped to facilitate Training and Knowledge Transfer, and On-boarding efforts to new staff.

**Tools used:** MS Word, Excel, PowerPoint, Project, Visio, Access, Publisher, SnagIt, SharePoint, SQL, Adobe Photoshop, Camtasia Studio 7 and 8, WordPress, AVIDemux.

## CA Department of Food & Agriculture

### Mobile GIS Pest Trapping Application RFI (CalTrap)

#### Business Analyst

July 2014 – August 2014

CalTrap is a proposed Mobile GIS application designed to replace the extant paper-based legacy system in the PLANT Division for California's pest trapping program. Currently, the network employs over 500,000 traps, and 700 inspectors in the field for detection and tracking of harmful pest species to California's agricultural economy. The proposed CalTrap solution is designed to automate pest trapping monitoring, tracking trapping routes, and present a critical reporting module for multiple and robust functionality for use by CDFA and its associates such as CDFA Personnel Information and Time Card; those reports required by the USDA to verify compliance; and those reports directly utilized by CDFA and associates relevant to pest trapping, detection, and eradication.

- Performed gap analysis of As-Is and To-Be requirements documentation to identify missing components and potential risk factors for system development and implementation.
- Identified and recommended solutions to mitigate potential risks to system development and implementation to minimize change resistance and promote system adaptation and acceptance.

**Tools used:** MS Word, Excel, PowerPoint, Visio, Access, Publisher, SnagIt, SharePoint, SQL, Adobe Photoshop, Adobe Acrobat.

## CA Department of Health Care Services

### Medicaid Managed Care Capitation Management (CapMan)

#### Junior Business Analyst

June 2014 – July 2014

CapMan is the largest payment system in the California State government and also the largest managed care payment system in the nation. To date, there are 10 million beneficiaries enrolled across 175 managed care plans. Annual payments currently approach \$30 billion and generate payment instructions for 77 invoice types. CapMan replaced manual calculation and processing of Medi-Cal payments and provides the seamless automation and integration of multiple entities ranging from Beneficiary Management, Contract Management, Complex high-level payment calculations, Invoice Generation, and Reporting. CapMan also processes beneficiary management and eligibility data in accordance with The Health Insurance Portability and Accountability Act (HIPAA). Other functions of CapMan include: HIPAA-compliant 820 Remittance Transactions, Supplemental Payment processing, and accounting for all capitated payments for a 24-month period. CapMan also accounts for retroactive enrollment, and rate adjustments dating back 36 months.

- Validation and translation of business logic and requirements into technical specifications for Business objects/reports.
- Communicated with other departments for change requests analysis, testing, and implementation.
- Assisted project team with change analysis and functional To-Be design activities for retroactive requirements changes and change requests.
- Maintained and reported project management metrics on a weekly basis to the project manager.
- Prepared Training and Knowledge Transfer manuals for a wide range of users.
- Updated and maintained Bug and Issue Tracker.
- Created and standardized templates for JAD Sessions and Meeting Minutes.
- Logged defects and communicated effectively with business analysis and development teams to track bugs, remedy issues in production, and implement solutions.
- Creation of test scripts for unit testing, system testing, and regression testing, end to end testing. Facilitated and supported the User Acceptance Testing (UAT).

**Tools used:** MS Word, Excel, PowerPoint, Visio, SnagIt, SharePoint, SQL.

## SKILLS

- **Operating Systems** - Windows 95, 98, NT, 2000, XP, 7, 8, LINUX
- **Web Technology** – HTML, ADX Studios
- **Languages** - SQL
- **Databases** - SQL Server and MS Access, Microsoft Dynamics 2015, QuickBase, eTapestry, EMR: Wizards (Proprietary Software) – Dental
- **GIS Skills** – Easy Territory, Google Maps
- **Tools** - Outlook, XMind, MS Word, Excel, PowerPoint, Visio, Publisher, SnagIt, SharePoint, Adobe Photoshop, Acrobat, Camtasia Studio 7 and 8, WordPress, AVIDemux, FetchXML, XrmToolBox

## PUBLICATIONS

*A Reasons of Translation: Standard Literature Evaluation Method and Procedure*

US Copyright Office: Registration Number / Date: TXu001346452 / 2007-03-12

*"Predictors of Residency Program Scholarly Productivity"*

Co-Authored with Sonia Chacko, M.D. Washington University; Barnes Jewish Hospital, St. Louis, MO *Academic Emergency Medicine Journal* Vol. 10, No. 5: 479, May 2003.

## EDUCATION

Binghamton University, State University of New York • M.A., Comparative Literature and Translation (Master's Research and Thesis in the interfacing of the Humanities and the Sciences with Literary Evaluation)

Washington University in St. Louis • B.A., English Language and Literature

Eliot Honors Convocation – Sigma Tau Delta – National English Honorary Society

Pre-medicine

## ARMIN NASUFOVIC, WORKFLOW BUSINESS ANALYST

### PROFESSIONAL SUMMARY

Mr. Nasufovic is a Systems Analyst specializing in gathering business requirements for Microsoft Dynamics CRM implementations. Versatile technical proficiency with systems administration and customizations. Strong troubleshooting and problem solving skills of client systems. His several Microsoft Dynamics CRM certifications allow him to specialize in helping clients determine how to maximize the configurability of xRM to meet business needs without the need for custom development.

### EXPERIENCE

Trinity Technology Group

Support on Internal Projects

CRM Developer

December 2015 – Current

- Supporting Trinity personnel with California Hospital Association (CHA) with SSRS and CRM customizations.
- Supporting California Department of Social Services (CDSS) client with go-live implementation and CRM system configuration and customizations.

Trinity Technology Group

Consolidated Provider Directory POC

CRM Developer

November 2015 – December 2015

- Installation and configuration of Adxstudio Portal pages
- Adxstudio ASP.Net page development
- Configuring and customizing Dynamics CRM
- Utilized Agile Scrum Methodologies and Kanban tracking system.

### RAADIO Requirements Management System

Trinity Technology Group

CRM Developer

April 2015 – Current

The RAADIO system is a highly customized solution based on MS Dynamics CRM 2015 used to manage information technology projects including requirements discovery, analysis, project management, and testing. Internal as well as client facing, this solution provided requirements management and traceability to allow project teams to have a consolidated solution for accessing up to date information. Worked closely with managing director and consultants to discover and implement firm-wide solution for requirements management.

- JAD Sessions
- MS Dynamics CRM system customizations, managing and deploying solutions into multitenant environment, custom logic building into workflows and custom workflow activities utilizing the CRM SDK with C# .NET.

- Data migration and CRM system conversion from version 2011 to 2015.
- SSRS Reporting using FetchXML, SQL server backup maintenance plans.
- Deployment of Azure IaaS VM environment consisting of Active Directory, Active Directory Federation Service (ADFS) integrated with Office 365 single sign on (SSO) to authenticate against CRM internet facing deployments (IFD).
- Ongoing Azure, Office 365, and CRM administration company wide.

## CRM Pilot Project

Department of Social Services

CRM Developer

May 2015 – September 2015

- JAD sessions
- Assisted in implementing CRM server environment.
- Configuring and customizing of Dynamics CRM application including form JavaScript.
- Configuration of Adxstudio and customization ASP.NET Templates, Bootstrap CSS and JavaScript.
- Provided CRM mentoring and drafted CRM administration guide.

## Ecommerce Website Deployment

RT Wholesale & Liquidation

Ecommerce Specialist

August 2012 – December 2014

- Automated marketing tasks reducing man-hour needs by 70 percent. Search Engine Optimization to show up as #1 in Google Search using keywords within certain locales.
- Deployed and oversaw new Ecommerce website. Using the WooCommerce and Wordpress CMS platform with PHP, CSS plug-ins and customizations.
- Managed high volume of customer service requests and was the key person in resolution of technical issues. Oversaw day to day operations as needed, mentored employees, and multiple technical initiatives.
- Managed accounting system and state tax reporting.
- DSC security systems and automated monitoring programming and web interface configuration.
- Redesigned SQL based Warehouse Management System increasing picked items from 60 to 100 units an hour.

## DOQNET

Department of Business Oversight / Trinity Technology Group

Business Analyst Intern

July 2013 – February 2014

- Developed prototype iRise interface of public facing DOQNET portal including license applications, complaints, and online payments.
- Implemented reporting capabilities within internal systems to allow for faster analysis for project accounting and annual employee reviews in CRM system.
- Deployed and maintained CRM solutions for business requirements analysis, enhanced business rules, and use cases.

## SKILLS

**Programming Languages & Frameworks:  
Software and Technologies:**

JavaScript, Java, VB.NET  
Adobe Creative Suite, Microsoft Excel, Visual Studio,  
Microsoft Dynamics CRM 2011, 2015, Azure Cloud  
Services, Hyper-V, Active Directory, Office 365,  
PowerShell, SSRS

**Database Systems:  
Operating Systems:**

MS SQL Server, MySQL, MS Access  
Windows Server 2012 R2, Linux Server (Debian  
based)

**EDUCATION**

B.S. in Business Administration, Management Information Systems (MIS), San Diego State  
University, December 2014

**CERTIFICATIONS**

- MBS-704 Microsoft Dynamics CRM Application
- MBS-706 Microsoft Dynamics CRM Online Deployment





# CHARAN MISHRA, APPLICATION DEVELOPMENT LEAD

## PROFESSIONAL SUMMARY

Mr. Mishra has 18 years of experience in designing, developing and maintaining GIS software applications ranging from medium to very large scale applications in large multinational organizations. He has demonstrated good knowledge GIS Programming and tools with experience in managing complete Software Development Project Life Cycle Specific to Esri ArcGIS Products. Mr. Mishra has developed Microsoft Windows .NET Applications and ASP.NET Web Applications. Experience in developing GIS Applications using Esri's ArcObjects Runtime Engine, ArcGIS Server. Extensive experience on installing and configuring Microsoft Dynamic CRM 2011/2013/2015, Active directory, SQL Server, and Internet facing deployments. Experience on Map Integration to Dynamic CRM. In depth knowledge of Microsoft Technology based System Architecture including server, storage and security. In depth knowledge in .NET, be able to debug and troubleshoot existing Windows and Web applications. Troubleshoot GIS related issues regarding map projections and data-related issues. Mr. Mishra has implemented Secure GIS Services for CA Department of Water Resources.

## EXPERIENCE

### Renewable Portfolio Standard (RPS)

California Energy Commission

Technical Architect

June 2015 – Present

The RPS Unit of California Energy Commission receives applications and generation data from renewable electrical generation facilities, renewable electricity procurement data from utilities located throughout California. The objective of this project is to replace the Unit's current database with a system that has increased functionality and the ability to accommodate expanded data collection and storage needs to meet current and future state policy requirements. This project includes time Geographic Information System (GIS) integration with the software solution.

- Lead System design and Architecture including servers, software's, security
- Lead Database design and development
- GIS integration using ESRI's ArcGIS

**Environment:** C#, ASP .NET, SQL 2012, TSQL, Scribe, ArcGIS Server, ArcGIS Desktop, ArcGIS Online, Java Script API for ArcGIS

### System and Database Consultancy

California Energy Commission

Consultant

June 2015 – Continuing

Mr. Mishra is working with California Energy Commission's (CEC) IT division to provide consultancy on System and Data base operations. Involve on creating operation standards for in-house deployed software applications. Helping in building and GIS practice within CEC's IT division.

- System and operational procedure documentations
- Day-to-day software and GIS related consultancy
- GIS integration using ESRI's ArcGIS

**Environment:** C#, ASP .NET, SQL 2012, TSQL.



## Modernized Appliance Efficiency Database System (MAEDBS)

California Energy Commission

Senior Software Engineer

July 2014 – May 2015

The California Energy Commission's Appliance Efficiency Program uses various independent systems for Appliance regulation for state of California. Modernized Appliance Efficiency Database System (MAEDBS) Project consolidates the discrete system, built and deploy online tools for submitting, analyzing and validating appliance data. The MAEDBS is a customized online tool based on Microsoft Technologies such as .NET, SQL Server.

- Developed system design and architecture using .NET Technology.
- Designed complex rule entities for MAEDBA data validation. Database design.

**Environment:** C#, ASP .NET, SQL 2012, TSQL, Scribe.

## DocQNET

California Government Business Oversight (GBO)

Senior Software Engineer

April 2013 – July 2014

DocQNET is a customized licensing, enforcement, and case management system that replaced over 50 legacy applications at the Department of Business Oversight. Built using Microsoft Dynamics xRM, SharePoint, SQL Server, and the .NET Framework, DOCQNET supports 5 business divisions in the licensing, compliance, and tracking of financial institutions in the state. It makes use of OTech's Tenant Managed Services, providing DBO with a brand new enterprise platform for hosting a number of applications. DOCQNET supports nearly 300 internal users, and provides a web portal for self-services access to license filing, fee payments, report filing, and complaint submission to nearly 400,000 licensed entities.

Developed CRM 2011 based solution. Installed and deployed CRM 2011 in multi-tier environment. Created release management and data migration procedures from various Source sources to CRM 2011. Migrated over millions documents from legacy sources such as Filenet to SharePoint. Update metadata at Sharepoint using powershell scripts. Migrated data from filenet and lotus notes to CRM 2011. Migrated data from SQL Server, MSAccess, DBF to CRM 2011 using scribesoft scripts. Deployed Sharepoint 2010 and TFS.

**Environment:** CRM 2011, Scribe Insight, C#, .NET, PowerShell Scripts, SharePoint 2010, SQL 2012, TSQL, Scribe Insight Scripts, Agecom's Lotus Note Migration Tool, TFS.

## GIS System

The Effort Health Care Services

GIS Architect

March 2012 – March 2013

Developed GIS based healthcare Analysis for 'theEffort' ([www.theeffort.org](http://www.theeffort.org)). The Objective of GIS based System is to spatially Analyze Clinic Clusters, Manage health care panel by analyzing the distribution of patients, chronic disease management such as distribution of diabetic patients, patient distribution by clinics/clusters/providers, **New site planning** based on customer distribution and/or availability of various civic ammenties, and customer analysis by age and income.

- Requirement gathering, design, coding and Implement the website, System Maintenance and documentation, managing external vendors, Managing Team.
- Importing Health care data to Geodatabase.

- Geocoding the Spatial Informations.
- Customizing trinity GIS Application.
- Designed and implemented ArcGIS Server, created communication link with various applications.
- Created Map Web Services.
- Implemented the system in Service Oriented Architecture.
- Installed configure web Applications.
- Used SOAP, WMS, and KML services for the interactive map using ArcGIS Server 10.

**Environment:** C#, ASP.NET, CSS, ArcObjects, Java Script, VBA, XML, Win and Web forms, SQL Server 2005/2008, ArcGIS Suits of Products, Adobe flash, MXML and Action Scripts.

## California Statewide Groundwater Elevation Monitoring (CASGEM)

California Department of Water Resources

Lead GIS Architect / Manager

April 2011 – February 2012

Enterprise GIS Implementation for California Statewide Groundwater Elevation Monitoring (CASGEM) project for a mechanism for prospective monitoring agencies to submit notifications to California Department of Water Resources for further review, designation, data collection and reporting capabilities.

**Dam Safety Project (Enterprise GIS Implementation):** The Dam Safety division of the DWR is responsible for long-term inspection and maintenance of over 1200 Californian Dams. Dam Safety collects detailed measurements on each structure including water levels around them, pressure of the earth surrounding them, survey measurements of earth movement around them and frequency and severity of seismic events near them. Enterprise GIS Implementation of this project is to facilitate day-to-day busing using GIS. Responsibilities: Lead GIS Architect/ GIS Manager.

- Requirement gathering, design, coding and Implement the website, system maintenance and documentation, managing external vendors and team.
- Designed the System using ArcGIS Flex API.
- Designed the security framework and ArcGIS to pass through Enterprise Service Bus (ESB) the SOA Software.
- Created design, deployment, and software requirement documents.
- Meet with client and understand their expectation for project fulfillment.
- Worked with telerik ORM the intermediate database communication.
- Worked on created .NET WCF GIS (.net 4 Framework) services to automatically insert and update GIS transaction through ArcGIS Server Coarse grained Objects and Server Contexts.
- Managed a team four GIS Team to carry out the GIS Implementation.

**Environment:** C#, ASP.NET, CSS, ArcGIS Server, ArcObjects, Java Script, VBA, XML, Win and Web forms, SQL Server 2005/2008, ArcGIS 9.3,10, ArcSDE 9.3,10, ArcGIS flex API, FLEX IDE 4.0. Action scripts.

## ArcGIS Server Customized Application

Nobel Systems Inc.

GIS Architect

August 2008 – April 2011

Working at Nobel Systems Inc. Mr. Mishra designed and developed ArcGIS Server Customized application using .NET Web ADF, Oracle or SQL. Customized web application allows user to view GIS Data and link GIS Data to other external systems such as SCADA, Libertynet, Network Car and various external systems. Responsibilities: GIS IT Lead / IT Architecture / Sr. IT Consultant.

- Requirement gathering, design, coding and Implement the website, System Maintenance and documentation, managing external vendors, Managing Team.
- Architected integration with Datastream and other external systems for Work Order creation in GIS and non GIS environment.
- Maintained and Created Electric utility datasets using ArcFM.
- Designed and recommended the IT Infrastructure for enterprise GIS Implementations.
- Designed and implemented ArcGIS Server, created communication link with ArcGIS Server with PBCSD Website using ArcGIS Server, AJAX, ASP.NET Technologies.
- Carried out Enterprise Spatial Data Replication in a disconnected and connected environment.
- Created SQL store procedures.
- Designed Geodatabase, Created MSSQL 2005/2008 Database Database design.
- Installed configure web Applications in ArcGIS Server and IIS 6 and IIS7.
- Created different tools using VBA and .NET, ArcObjects as per project requirements.
- Used SOAP, WMS, and KML services for the interactive map using ArcGIS Server 9.3.

**Environment:** C#, ASP.NET, CSS, ArcGIS Server, ArcObjects, Java Script, VBA, XML, Win and Web forms, SQL Server 2005/2008, ArcGIS 9.3, ArcSDE 9.3, JSP, ArcIMS 9.3, VS.NET 2005, AJAX, Crystal report.

## eGovernment System

### National Integrated GeoScience Information System

#### GIS Architect

July 2005 – July 2008

National Integrated GeoScience Information System (NIGIS) is a state-of-art eGovernment system to cater information at enterprise level to public customers; which is capable of managing the geosciences information in a centralized environment and share among the different group of stakeholders. The Key functionalities include Online Data Management, Spatial Data Capturing, Interactive Spatial Data Delivery, Information Portal, Metadata Management, External System Interface, Online Application Submission, Geosciences Library Information System. Responsibilities: Team Lead/Project Management

- Requirement gathering, design, code and Implement the website, System Maintenance and documentation, managing external vendors, support Manger.
- Created application in ArcObject 9.2, ArcGIS Engine, .NET and MSSQL Server.
- Created ArcIMS Web Applications.
- Designed GeoDatabase and Application Database.
- Created Installation Package.
- Installed and configured ArcIMS in windows and Sun solaris.
- Created Application using ArcSDE C API and C.
- Developed SQL Store Procedures.
- Worked with Apache, ArcIMS and IIS.
- As a Team lead in this project I have worked in complete SDLC. Taken active participation in each stage of SDLC.

- Created Various tools in ArcObjects, ArcGIS Engine, ADO.NET

**Environment:** ArcGIS 9x, ArcIMS 9x, .NET – ArcObject, ASP.NET, SDE API, ArcSDE 9x, SQL Server 2000 Customizations: Applications with security framework, Crystal Report.

## Satyam Computer Services Pte Ltd.

### GIS Architect

June 2004 – June 2005

Working at Satyam Computer Services Pte Ltd. in Singapore Mr. Mishra was the consultant on a project to develop a common/centralized client server application with legal security framework for facilitating client's business process and enhancing the process integrity. This designed system helps the user to view/analyze and interpret various organizational/departmental data (vital for business) with a security firewall. The Key system functionalities include marker Point Management System, Survey Mapping System, Land Transaction System. Responsibilities: GIS Team Lead / GIS Developer.

- Taken initiative in all most all steps of software project development cycle, Acquiring client requirement (Scope of the project), Designing the System, Preparing Object Models for sub units, Taking approval from client for the designed system, Development (Coding), Preparing Installation Set-up for Redistribution.
- Developed Code on ArcObjects and .Net Framework.
- Created functions and procedures in Oracle.
- Worked in SourceSafe.
- Created various custom tools using VBA, ArcObjects.
- Worked in Land Transport System to develop Traffic Management System.

**Environment:** .NET Framework, ArcObjects, ArcGIS Engine, ArcSDE, ADO.NET, OOP, ArcGIS 9x, ArcIMS 9x, ArcCatalog, ArcMap, ArcToolBox, Oracle.

## Pipeline Maintenance System / Well Database Management System

### Fugro Geosoft Solutions Pte Ltd.

### GIS Architect

January 2001 – June 2004

Working at Fugro Geosoft Solutions Pte Ltd. In Singapore Mr. Mishra worked on the Pipeline Maintenance system, Well Database Management System [On-site Development], The objective of above projects was to develop an application for managing Oil Industry assets, to enhance the analysis of oil productive considering various data. The Key system functionalities includes Graphical Representation of oil/gas well path, Pipeline maintenance, maintaining pipeline data using dynamic segmentation. Responsibilities: GIS Team Lead / GIS Developer

- Taken initiative software project development cycle steps, acquiring client requirement (project scope), designing system, preparing object models for sub units, taking client system approval, development (coding), preparing installation set-up for redistribution.
- Developed various custom tools for users.
- Created code VB6, VBA and ArcObjects.
- Created code in Oracle.
- Wrote Application for Weather stations using VB6 and Oracle.
- Created various Windows Forms.
- Created Database and Disconnected Editing.
- Helping clients and users in day-to-day GIS operational task on ArcGIS Technologies.

- Extensively worked on Oil and Gas Industry.

**Environment:** ArcGIS 8x, ArcSDE 8x, ArcObjects, VB 6.0, Oracle 8i, Windows 2000.

## Path Profile Calculation

CE Sys Pvt. Ltd.

System Engineer

June 1999 – January 2001

Working at CE Sys Pvt. Ltd in India Mr. Mishra was the System Engineer on the Path Profile Calculation. The objective of the project was to design a system which can predict the variation radio signals from radio centers to various parts of country, depending upon various factors like topography, strength of the signals and etc. Responsibilities: Active Team Member, involved in development.

**Environment:** VC++, MFC, Visual Basic, Map Basic.

## Active Radar Data

India Institute of Technology

System Engineer

May 1998 – June 1999

Working as a Research Assistant for the Indian Institute of Technology Mr. Mishra used the system to analyze active radar data. Microwave data analysis using predefined algorithms for specific Snow and Ice Characterization over Himalayan region. A system has been developed using C++ for the analysis of Microwave data provided by satellite.

Responsibilities: Active Team Member, involved in development and analysis

**Environment:** C, C++, Map Basic, MapInfo, Image Processing.

## SKILLS

**Operating Systems:**

**Languages:**

**Web Technology:**

**Databases:**

**Development Environments**

**Component and Technologies:**

**GIS Skills:**

**Tools:**

**Presale and Project Management:**

**Hardware:**

Windows 95 / NT / 2000 /2008/2012, XP and UNIX

VB.NET, C, C#, C++, Visual Basic 6.0, PL/SQL

HTML, VBScript, XML, Java Script, ASP.NET, .NET Framework, Adobe Flex

Oracle, Oracle Spatial, SQL Server and MS Access

.Net Framework and Visual studio

OOP, COM, ADO.NET, MS Source Safe, Source Gear

ArcObjects, ArcIMS, ArcGIS Server, ArcFM, ArcSDE, MapInfo, Google Maps

VSS, MS CVS, Toad, Outlook, MS Project , TFS, Scribe Insight, Microsoft Dynamic CRM, ArcGIS Desktops, AgeCom's Lotus Note migration utility, Sharepoint 2010

Presale Project solutions and Project Management Experience in installing Server and storage.

## EDUCATION

Master of Technology, Civil Engineering • Indian Institute of Technology

## CERTIFICATION

- Project Management Professional (PMP) and GIS Professional (GISP) certifications.
- Microsoft Certified Technology Specialist in CRM Technology.











## CHRIS KOLINA, INTERFACE DEVELOPER

### PROFESSIONAL SUMMARY

Mr. Kolina is a leading-edge Java web application developer with eleven years of combined experience in the fields of Software Development, Computer Science, and Network Security/Information Protection. His experience covers the full lifecycle of application development, from requirements elicitation, through business analysis and design, implementation, testing, go-live, and maintenance and operations. Chris is a strong leader who finds innovative solutions to complex problems. He has a B.S. in Computer Science with an emphasis in Mathematics from the University of California, Davis.

### EXPERIENCE

#### TrinityTG Innovation Lab Projects

##### Trinity Technology Group

##### Analyst and Developer

July 2014 - Present

Worked directly for the Chief Innovation Officer on a number of internal Proof of Concept projects, including the following:

- For OSHPD (Office of Statewide Health Planning & Development), worked to create a technical demonstration utilizing Dynamics CRM 2015 and ADX Studios Portals to present a sample grants management system.
- For Pondera Solutions, a comparison and analysis of various Graph Databases and ESB Technologies for their Link Analysis and Super Search products.
- For Trinity, an ongoing proof of concept demonstrating the functionality of the Mule ESB product. This includes the following:
  - Basic set up and deployment of Mule ESB solutions.
  - Creating custom Mule ESB components in Java (including those used for implementing connectivity with an Oracle database).
  - Building and securing SOAP web services using Mule (including using the "Ready! API" tool for testing).
  - Implementing sample solutions using the Mule Healthcare Toolkit, a set of plugins that can be used to process HL7 transactions, and using the "HAPI TestPanel" tool for testing these interfaces.

#### System for Portfolio Attributes and Relationships (SPAR)

##### California Public Employees' Retirement System (CalPERS)

##### Lead User Interface Developer

January 2014 - July 2014

The California Public Employees' Retirement System (CalPERS) Enterprise Solutions Development Division (ESDD) requested consultant services from Trinity Technology Group to provide the Investment Office (INVO) an experienced Java web application developer responsible for development, integration and operational/administrative tasks in connection to the application development and enhancement efforts for INVO's Global Fixed Income Performance Attribution module. These activities included the following:

- Developed all User Interface screens and components of the application

- Created common re-usable JavaScript modules for several common User Interface functions (such as sorting of data tables, pagination, dynamic tables, pull-back searches, and security)
- Created custom Java frameworks for some back-end functions, such as Security, and some dynamic screens, such as Advanced Query and Dashboard functionality
- Created documentation for all components
- Worked to create standards and procedures for the build, deployment, and configuration management of the system
- Worked to formalize the SDLC processes for CalPERS staff in order to facilitate knowledge transfer
- Created and delivered overall knowledge transfer documentation and presentations, which included one-on-one sessions with CalPERS staff

**Environment:** Microsoft SQL Server 2012, Hibernate (4.2.7), JPA (Java Persistence API) 2.0, Tomcat 7.0 (running on Windows Server 2008 R2 Enterprise), Spring MVC (3.4.2), Java 1.7.0\_45, JQuery 1.7.1, JQuery UI 1.8.7, Log4j 1.2.17, Dynatree 1.0, Tablesorter 2.0.5, Graphviz 2.38, Eclipse (Kepler, with the following additional plugins: m2e (Maven Integration for Eclipse) 1.4.0, m23-wtp - Maven Integration for Eclipse WTP (1.0.0), and Subclipse 1.4.8), Maven (3.0.4), Subversion, and Microsoft SQL Server Management Studio.

## Platform Transition Study

### California Franchise Tax Board (FTB)

#### Analyst

May 2013 - October 2013

The Franchise Tax Board (FTB) had several mission-critical applications residing on the Sybase platform running on UNIX, two of which were large and complex distributed systems. The Platform Transition Study was to develop a viable migration plan (or a series of integrated plans) that strategically positioned FTB to meet its application technology needs for future growth, supportability and maintainability, introducing the least amount of business risk for the FTB legacy applications currently operating on the Sybase platform. During the California Franchise Tax Board's Platform Transition Study, Mr. Kolina participated in the following:

- Conducted a detailed analysis of four of FTB's legacy Sybase databases, which included the following:
  - Attended and conducted multiple data gathering sessions
  - Analyzed legacy documentation
  - Created a set of System Assessment deliverables
- Once the Platform Assessment was completed:
  - Worked to develop a set of Platform Recommendation documents which recommended a set of technologies for each system
  - Helped to present these documents to FTB Executives

**Environment:** Microsoft Office (Word, Excel, PowerPoint, and Visio) and Microsoft SharePoint.

## Combined Outcome Reporting Engine (CORE)

### California Department of Community Services and Development (CSD)

#### Interface Analyst

March 2013 - May 2013

Mr. Kolina returned to the CORE project in order to serve as the lead Business Analyst for the creation of the Web Service for Utility Assistance Applications. This interface allows Local Agencies and Service Providers to submit Utility Assistance applications via Web Service call, rather than using on-line data entry or batch file uploads.

**Environment:** Microsoft Office (Word and Excel), Microsoft SharePoint, XML.

## TransIT extension to the Caltrans Online Data Input System (TransIT) California Department of Transportation (Caltrans)

Lead Developer

May 2012 - March 2013

Within Caltrans, the Division of Mass Transportation's (DMT) primary responsibility is the administration of State (approx. \$3.1 billion spread across 7 programs) and Federal (approx. \$83.5 million spread across 7 programs) grant programs that provide funding for operating assistance and capital improvement projects in the area of public transportation. Prior to the implementation of the TransIT system, this information was tracked across multiple DMT-owned FileMaker Pro databases and spreadsheets. Because of this, DMT had difficulty meeting reporting requirements for transit grant programs. The TransIT solution used the base functionality of the existing Online Data Input System (ODIS) as the starting point and replaced the two existing FileMaker Pro databases that were being maintained by DMT staff. TransIT provided a single application to administer all transit grant programs administered by DMT. During this time, Mr. Kolina successfully participated in the following:

- Translated application design documents created by the client into Java application code
- Integrated that new code with the existing ODIS code base
- Organized the TransIT code using up to date design patterns and Java architecture principles (to serve as a model for future enhancements to the ODIS system)
- Introduced enhanced methods of documenting and unit testing code
- Introduced new capabilities into ODIS that allow the System to generate forms from Caltrans's current LiveCycle deployment (via web service call) and allow users to trigger e-mail based notifications to end users
- Conducted other ongoing maintenance and enhancement tasks (including debugging defects and providing solutions)
- Documented all enhancements so that Caltrans developers can begin to take over the maintenance of the new code
- The updated application was successfully deployed into production on November 28, 2012

**Environment:** Oracle 10g (including JDeveloper, App Server, and Database), Struts, Java 1.5, JUnit, LiveCycle (via Web Service calls), JDBC, Reflection, and various custom architectural frameworks (created for Database Access, Forms, Services, etc.).

## Combined Outcome Reporting Engine (CORE), Phase I California Department of Community Services and Development (CSD)

Lead Business Analyst

March 2012 - May 2012

The California Department of Community Services and Development manages energy programs that were created to assist low-income families with creating a more energy efficient home and paying utility bills. At the time, CSD had 9+ legacy systems to support these programs. The goal of the CORE Project was to replace these legacy systems and also to interface with 5+ external systems used by Local Service Providers (LSPs). CORE is to provide CSD with a single system containing all energy program data that can be leveraged for streamlining state and federal reporting processes. The CORE project is also expected to replace the Expenditure Activity Reporting System (EARS) used by all service providers to report program expenses for weatherization. The CORE project consisted of multiple

phases, and Mr. Kolina participated in the first of these phases (Requirements and FSR). During this phase of the project, Mr. Kolina served as the lead Business Analyst and participated in the following:

- Attended/ran Use Case elicitation sessions with SMEs
- Created and managed the documents associated with the Use Cases and Business processes identified in these meetings
- Identified requirements based on the documented business processes
- Tracked and managed outstanding issues
- Produced final Functional Specification and Gap Analysis documents
- Served as a functional expert for technical resources as they rolled on to the project

**Environment:** Microsoft Office (Word, Excel, and Visio) and Microsoft SharePoint.

## Pension System Resumption (PSR)

### California Public Employees Retirement System (CalPERS)

#### Build and Deployment Analyst

June 2011 - October 2011

During CalPERS' Pension System Resumption (PSR) Project, Mr. Kolina returned to assist with Production Readiness tasks for PSR Build and Deployment team.

- Wrote deployment verification and configuration management UNIX scripts (in BASH).
- Created and updated documentation related to the scripts and others.
- Maintained automated testing scripts used by the team to "smoke-test" new deployments.

**Environment:** Microsoft Office (Word and Excel), BASH, and XML.

## California Sex and Arson Registry (CSAR)

### California Department of Justice (DOJ)

#### Lead Developer

February 2008 - April 2011

The Sex Offender Tracking Program (SOTP), within the California Department of Justice, needed to extend its existing legacy offender registration & management program, known the Violent Crime Information Network (VCIN), to a statewide offender registration management & tracking system in order to provide additional offender registration and tracking capabilities for 4000+ law enforcement agencies across the state of California (as well as 12 other entities/systems both within DOJ and without). After considering the alternatives, DOJ determined that VCIN would be reengineered in order to facilitate the implementation of new business rules required by this extension. During this reengineering, Mr. Kolina participated in the following tasks:

- Analysis:
  - Contributed to the analysis and development of Interface Use Cases.
  - Conducted both technical and functional JAD sessions with client subject-matter experts as well as analysis of legacy PL SQL application code/business logic.
  - Assisted in debugging defects which arose in production (including data issues, and analysis of new/updated business rules) and providing possible solutions for those issues.
- Design:
  - As Interface Development Lead, Mr. Kolina created detailed design documents for the development of interface components. These documents included the following information: UML Class diagrams, high and low level process flows, database design

elements, interface record layouts, transformation rules, and component inventories (including estimation of development hours on a per-component basis).

- Development:
  - As a Senior Developer, Mr. Kolina worked to develop on-line, interface, and common components and services in the following areas: Registrant Maintenance, Error Handling, Event Handling, Batch Processing, Login and Security, and Business-tier components for interface processing.
  - Participated in the debugging of various defects that arose during development, testing, and into production as well as coding fixes for those defects.
- Standardization:
  - As a Development Lead, Mr. Kolina worked to create coding standards documents and guidelines.
  - Conducted regular code reviews with both Trinity and DOJ development staff, which improved code quality and eased the transition of code maintenance tasks over to DOJ development staff.

**Environment:** Eclipse, JBoss (including JBoss AS, JBoss ESB, JBoss Seam framework, and JBoss Developer Studio), EJB 3.0, JSF, Facelets, Smooks, Quartz, Hibernate, Rich Faces/AJAX, JIRA, Subversion, Toad, Oracle, and unit testing with Test NG.

## Pension System Resumption (PSR)

### California Public Employees Retirement System (CalPERS)

#### Business Analyst

July 2007 - January 2008

The goal of the Pension System Resumption (PSR) project was to replace the over 49 systems in use by CalPERS, including the Automated Communications Exchange System (ACES), in order to provide a more streamlined environment for managing member enrollments, benefits and contributions. During his time on this project, Mr. Kolina served as a Business Analyst at Accenture for the General Design phase of the PSR project. This included the following:

- Created Use Cases, Page Mock-Ups, and other functional design documents
- Conducted Peer-reviews and edited design documents created by other team members
- Participated in documenting and running JAD sessions with the client
- During this time, the following functional areas of the application were addressed:
  - Contracts and Enrollment
  - Statistics and Reporting
  - Health Enrollment
  - Security

**Environment:** Microsoft Office (Word, Excel, and Visio).

## CA Child Support Automation System (CCSAS)

### California Health and Human Services Agency (CHHS)

#### Department of Child Support Services (DCSS)

#### Lead Developer

August 2004 - July 2007

Federal laws enacted in 1988 and 1996 required all states to put statewide child support systems in place and establish a single state location for processing all child support collections and

disbursements. The goal of the California Child Support Automation System (CCSAS) project was to combine statewide case management capabilities (which, before this system, were scattered across several different applications at the county level) with centralized child support collection and payment processing through the State Disbursement Unit (SDU). During his time on this project, Mr. Kolina filled the following roles:

- Interstate Interface Team Led
  - Managed daily issues and defects in both testing and production environments
  - Guided efforts of team members to resolve those issues and defects.
  - Provided Technical expertise to testers and end users when necessary
  - Provided 24/7 "on-call" emergency technical support to Batch Operators during production.
- Functional Expert (CSENet Interface)
  - Contributed to functional design decisions during the detailed design process
  - Helped resolve functional issues that arose during development, testing, and production
  - Provided CSENet functional knowledge and APIs to other CSE capabilities and Testing Teams.
- Application Developer
  - Attended "Fast Track" design sessions with Functional and Technical Architects
  - Created and maintained detailed design documentation.
  - Implemented designs (code) and JUnit tests for new functionality
- Application Performance Tester
  - Developed and executed volume tests, as well as investigating/resolving performance related issues

**Environment:** Eclipse, Web Sphere Application Developer, Struts, JProbe, Rational ClearQuest/ClearCase, Wiley Introscope, Load Runner, DB2, Test Director, and JUnit.

## C-IV System

### Consortium IV (C-IV)

#### Analyst

June 2003 - September 2003

In 1996 the Consortium IV (C-IV) established itself as a Joint Powers Authority (JPA) by Agreement with the member Counties (Merced, Stanislaus, Riverside, and San Bernardino). As a JPA, the C-IV provides a single legal entity, separate from its members, for purposes of managing the Consortium and its C-IV System. In 2001, C-IV contracted to develop and implement a web-based, automated system to manage the increasing complexity of public assistance and employment programs. The C-IV System is a User-friendly, Customer-based, on-line and fully integrated information System designed to manage the Data for the following public assistance programs. During his time on this project, Mr. Kolina filled the following roles:

- Conducted System Performance Testing
- Maintained Execution Architecture, which involved administration of environments used by the System Test and Performance Test teams

**Environment:** Microsoft Office (Word, Excel, and Visio), Load Runner, JProbe, Apache, and Wiley Introscope.

Intern / Network Security Researcher  
 Center for Cyber Defenders (CCD)  
 February 2001 - April 2003

At Sandia National Laboratories (SNL), the Center for Cyber Defenders Program gives computer science students practical experience directed towards understanding computer systems, network operations, and information protection. The overarching goal of the Cyber Defender program is sharing and expanding knowledge in computer security and developing potential employees. The Cyber Defender program encourages a pipeline of qualified candidates in cyber security and protection (IT, information protection, distributed computing) to address Homeland Security and National Security needs. The Cyber Defender program is comprised of undergraduate through graduate level interns. During his time in the program, Mr. Kolina researched the following, under the mentorship of Dr. Fred Cohen:

- Information and Computer Security
- Distributed Computing
- Honey Pots
- Deception for Information Protection

**Environment:** Perl, C/C++, and Lisp.

## SKILLS

**Languages:** Java/J2EE, EJB 3.0, JavaScript, C/C++, Perl, Lisp, and Prolog

**Application Servers:** JBoss, Oracle, IBM WebSphere, Tomcat, and Mule ESB

**Web Technology:** Spring MVC, JBoss Seam, Struts, JSP, JSF, Facelets, AJAX, JQuery, Web Services (SOAP and REST), and Rich Faces

**Development Environments:** Eclipse (including JBoss Developer Studio, Web Sphere Application Developer, and Anypoint Studio) and Oracle JDeveloper

**Databases:** Oracle, Microsoft SQL Server, and DB2

**Tools:** Hibernate, Smooks, XML, Quartz, Spring Batch, Test NG, JUnit, JProbe, Wiley Introscope, Load Runner, Test Director, Subversion, Toad, the Rational tool set (ClearCase, ClearQuest, etc.), HAPI TestPanel, Ready! API, Mule Healthcare Toolkit, Microsoft Office (Word, Excel, Power Point, and Viso), and Microsoft SharePoint.

**Process:** Full SDLC experience, from requirements elicitation all the way to deployment and production support tasks.

## EDUCATION

BS, Computer Science (Emphasis in Mathematics), University of California, Davis.



## STEPHEN CROCKETT, DATA CONVERSION DEVELOPER

### PROFESSIONAL SUMMARY

Mr. Crockett is a Software Engineer with DBMS development experience in both educational and professional settings. He is well-versed in all parts of the SDLC and has in-depth knowledge of Microsoft technologies using the .NET platform. He also has experience in database management systems, developing complex SQL, and developing web applications.

### EXPERIENCE

#### California Hospital Association

##### Software Engineer

July 2015 – Present

TrinityTG is developing a Dynamics CRM 2015 solution to manage the membership data for California Hospital Association (CHA). This system extends Dynamics CRM 2015 to provide custom features that assist in the client's lobbying and marketing operations for the hospitals, of which there are over 400, in California.

- Designed, created, and implemented the repeatable data validation and integration process for CA Office of Statewide Health Planning and Development (OSHPD) and Medicare Data.
- Designed, created, and implemented the repeatable integration process for Legislative Data concerning CA Assembly, CA Senate, and CA US Congress members and districts.
- Converted and migrated member and contact information from CHA's legacy system, Memberweb.

**Environments:** Dynamics CRM 2013/2015, SQL Server 2012/14, Scribe Insight.

#### Quality Network Project (DocQNET)

##### California Department of Business Oversight

##### Software Engineer

June 2015 – July 2015

The DOCQNET system is a customized business solution to manage licensing, enforcement, and case management at the Department of Business Oversight.

- Designed, created, and implemented the CA Department of Financial Institutions (DFI) legacy data conversion and migration for the DocQNET Release 9 deployment.

**Environments:** Dynamics CRM 2011, SQL Server 2012/14, Scribe Insight.

#### Metro Division Database System

##### LaPorte County (Indiana) Sheriff's Department

##### Team Leader, DBMS/Software Engineer

January 2015 – May 2015

The Metro Division Database System (MDBS) is a modernization of the legacy case management system for the LaPorte County Sheriff's Metro Task Force Division. The MDBS allows the Metro Task Force Division to securely store, manage, and report (SSRS) their case information.

- Lead the project team through all phases of SDLC.
- Designed and built the relational database for handling case information.
- Created SQL functions, procedures, and triggers to maintain data integrity within the system.



- Designed and implemented C#, ASP.NET, and AJAX Toolkit based front-end interface (ADA Compliant).

**Environments:** .NET, C#, ASP.NET, AJAX, SSRS, SSIS, SQL Server 2014.

## Patient Information DBMS

### Purdue University – North Central (Coursework)

Team Leader, DBMS/Software Engineer

August 2014 – December 2014

The Patient Information DBMS was a coursework project designed to handle patient and doctor information regarding individual visits, prescriptions, lab tests/results, and additional notes.

- Lead the project team through all phases of SDLC.
- Designed and built the relational database for handling patient information.
- Designed and implemented Java desktop application as the front-end interface.

**Environments:** Java, NetBeans IDE, MS SQL Server 2014.

## Employee Payroll DBMS

### Purdue University – North Central (Coursework)

DBMS/Software Engineer

January 2014 – May 2014

Fully-functional payroll and employee database management system designed to calculate payroll, print checks, and report payroll information. The system calculates gross and net income, federal and local income taxes, Social Security, Medicare, Paid-Time-Off, and other standard deductions based on hours worked, salary, and/or sales commission. Mr. Crockett was entirely responsible for the development of this system.

**Environments:** Oracle PL/SQL, WebLogic middleware, Oracle Forms and Reports, Java applets.

## Veterans Treatment Court Web Application

### Laporte County (Indiana) Superior Court #3

DBMS/Software Engineer

January 2014 – May 2014

The Veterans Treatment Court Web Application is a web portal designed to deliver important information to the public about the program and to allow Veterans to apply to become a mentor for others in the treatment program. Mr. Crockett was the lead developer on the project and successfully completed the design and implementation of the web application's front-end interface (ADA Compliant), mentor application webform, and calendar portions of the system.

**Environments:** ASP.NET, C#, JQUERY, JavaScript, .NET Framework, Windows Server 2012.

## SKILLS

**Programming Languages & Frameworks:** TSQL, C#, .NET, JavaScript, JQuery, AJAX, HTML, CSS, Java, PHP, Visual Basic, VB.NET, ASP, ASP.NET

**Software Applications:** MS SQL Server Management Studio, MS Visual Studio 2010+, Eclipse, MS Office, MS Project, MS Visio, NetBeans, Expressions Web, Windows OS

**Database Systems:** MS SQL Server, Oracle PL/SQL, MySQL, MS Access

## EDUCATION

Bachelor of Science, B.S., Computer Networking and Information Technology, Concentration:  
Software/DBMS Development, Purdue University North Central, Westville, Indiana, 08/2012  
– 05/2015

## 6. Product Lifecycle

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### 6.1 Dynamics CRM, a Microsoft Product



Our proposed solution is built upon Microsoft Dynamics CRM, a market leader for customer relationship management software. The value of the software is not just for its customer relationship management functions, but also for the nearly limitless ability to extend and customize it. TrinityTG uses CRM's extensibility features to build tailored business solutions that feature a customized data model, tailored look and feel, and business specific workflows to meet any kind of case management needs.

The base product, Dynamics CRM, has the benefit of being supported by one of the largest software companies in the world. As such, Microsoft provides CRM in two forms:

- A traditional on-premise version that is installed on local servers
- A cloud-based offering that is hosted via Azure's Cloud services.
- Major releases occur twice a year:
- The Spring release introduces new features into CRM's cloud based offering
- The Fall release introduces those same new features into the on-premise version of the software

Minor release, known as "Rollups" occur on a more frequent basis (generally bi-monthly or quarterly) as needed to deploy hotfixes, patches, and other incremental improvements to the software.

A given release is supported by Microsoft for approximately 10 years. After 10 years, rollups are no longer released and the software is no longer certified for use with updated versions of other Microsoft software, such as Windows Server and SQL Server.

Each major release increments the software by one year, e.g. Dynamics CRM 2015, CRM 2016, etc. With each major release, Dynamics CRM gains additional integration and extensibility features that are used for creating custom business applications. Features built into the last two versions include:

- **One-Click Document Generation:** With CRM 2016 users are able to populate their pre-built Word and Excel templates with a single click.
- **Knowledge Management:** Teams and organizations are able to document and distribute a single source of truth with enhanced knowledge and Global Content.
- **Improved Business Rules with Process Flow:** Business rules and process flows work more closely in tandem. New Business Rules functionality can handle a number of processes that required code writing in the past.
- **Simplified Search Option:** CRM 2016 search provides a built in “global search” across all tables in the database.

Looking ahead the roadmap for Dynamics CRM includes additional enhancements that can be used to further enhance existing applications, or support new features for business applications. These include:

- Predictive analytics
- Improved mobile access
- Integrated External Web Portal experience

Because CRM 2016 is licensed by Microsoft, official product roadmap information is only available from Microsoft through a Non-Disclosure Agreement (NDA). TrinityTG can facilitate obtaining an NDA between State Bar and Microsoft if this information is required. However, starting in March, 2016 Microsoft will publish the roadmap on the upcoming site:

<http://crmroadmap.dynamics.com/>

## 6.2 A Proven Solution



The proposed solution consists of a suite of Microsoft tools including Dynamics CRM, SharePoint and ADXStudio Portals that are integrated and configured to provide a tailor-made business solution. This solution suite has been successfully implemented in multiple departments across the state, all at a scale similar (or larger) to what CMS will require.

*Table 6-1 – Experience with Proposed Solution*

### Experience Implementing the Proposed Solution:

For the California Department of Business Oversight, we implemented a licensing, compliance, and case management system that supports 5 distinct but related business divisions. With **over 300 departmental users**, DOCQNET

*We implemented a licensing, compliance, and case management system that fully automates the licensing, document upload, notification, approval, fee payment, enforcement, investigation and license printing business process.*

replaced nearly 50 disparate legacy systems, and provided an external web portal to support the licensing and document management needs of **more than 400,000 businesses nationwide**.

For CA Department of Insurance, we implemented IDCM, a legal case management and tracking system that automates the complaints, investigations, enforcements, and penalty tracking and case management process. The first phase of this project was **implemented in 3 months**, replacing a previous incomplete solution that had been in development for nearly 3 years.

For the California Technology Agency, we implemented a stimulus fund grant reporting solution using that supported state and local agencies in reporting federally mandated grant usage information. Hosted at the State Data Center, this solution supported **over 300 users** and was **implemented in only 3 months**, demonstrating the rapid build and deployment capabilities of the CMS framework.

For CA Hospital Association, we delivered a tailored CRM-based member management system. This system replaced a 15 year old legacy system, and integrates advanced email analytics, GIS, and marketing features into a customized CRM solution that is be used statewide by the organization and regional affiliates.

For CA Department of Community Services and Development, we are implemented CORE, an eligibility and case management system that fully automates the case management of the state's Low Income Housing Energy Assistance Program. This system supports **58 regional service providers** across the state and integrates a variety of Access, Java, .NET and mainframe legacy systems, both internal and external, used to currently support the programs. In the first year of use, **the system processed \$16 Million in claims**.

### 6.3 A Proven Partner



While the product capabilities are important, the project success is ultimately tied to the capabilities of your business partner to deliver projects of this scale and scope. We are a local firm, with local roots, and we know the State of California marketplace. We are based in Sacramento, and our focus is delivering total end-to-end solutions to California agencies. With 17 years of successful experience working almost exclusively for California agencies, we have built a body of work that demonstrates our ability to meet the needs of California agencies in terms of solution expertise, domain experience, and technical capabilities.

In addition to the above implementations, we also have large scale experience successfully implementing solutions for the domain of licensing/permitting, systems integrations and legacy data conversion. Understanding the complexities of these tasks and properly managing them are critical to the successful implementation of the State Bar Case

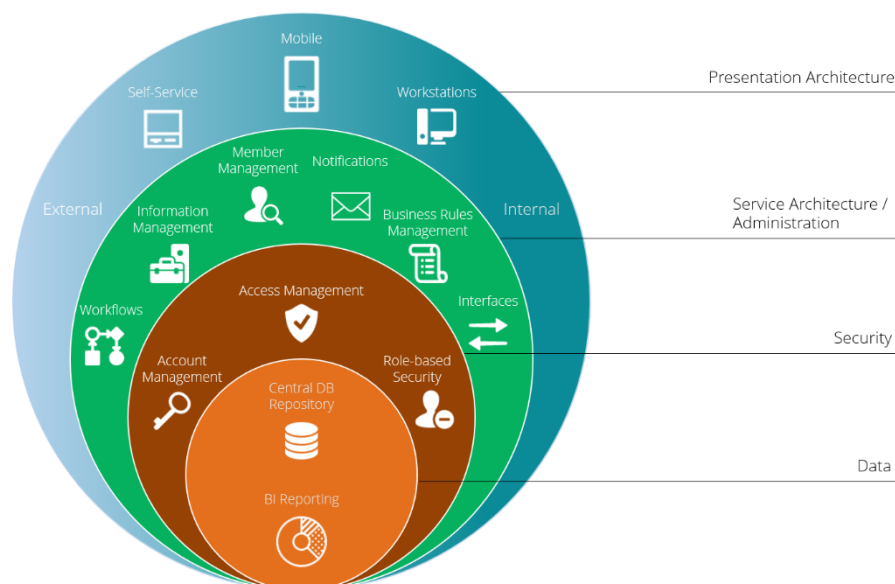
## 6.4 Proposed Solution



TrinityTG's proposed CMS solution is a customized web application that is built using an innovative combination of proven technologies, including the Microsoft .NET Framework, SQL Server 2014, Dynamics CRM, SharePoint, and ADX Studios Portals. These technologies have been in use for many years across many systems in the state, and we have extensive experience utilizing them for complex web-based applications.

Our solution is highly configurable, so once implemented for the mandatory business areas, it can easily be expanded to support Probation and Membership. In addition, because this is an open solution, if the State wanted, they or another vendor could add those pieces if desired. We are not locking the State into a proprietary solution that will limit your choices. This will provide the State with a low-risk solution, with the lowest total cost of ownership.

At a high level, the solution's functionality is based upon TrinityTG's CORE Case Management System (CMS) framework. This framework guides our functional decisions when integrating custom and COTS/ MOTS based software.



*Figure 6-1 - The CORE Framework represents common components that are part of any line of business application*

The CMS framework defines a series of logical modules. These modules are based upon our experience in seeing the common patterns and functions that most web applications require for public sector business operations. CMS will include:

#### 6.4.1 Multi-Channel Access

The ability for external users and internal users to access the same system is a key benefit to CMS. Users are able to submit Complaint data through the portal, and State Bar users use this data to investigate and create case if warranted. Even though the user interface is different, the database is the same.

To help articulate what users will see and experience, we have provided screenshots from existing applications currently in Production that use the same proposed framework and technology stack.

External users (e.g. Complainants, Attorneys) will experience CMS through a public facing web portal that allows them to log in, manage their profile, submit data, upload documents, pay fees and file complaints.

Figure 6-2 - External users have a user experience geared toward simplicity and ease of data entry

Featuring a Web 2.0 look and feel, and support for all types of devices, CMS' external users will benefit from having a UI that focuses on simplicity.

Internal State Bar users will see a different interface – one that is optimized for 'expert' users by showing more data on a single page, along with having all of the benefits of search, reporting, auditing, and workflow initiation available.

Case Number	Case Name	Law	Status	Category	Counsel Assigned	Date Counsel Assigned
enf-7705	Alternate Business Capital		Closed			7/17/2015
enf-7714	Altus Healthcare, Inc.		Closed			
enf-7718	Always Reliable Escrow	California Financ...	Closed			
enf-7732	Ameri Debt II		Closed			7/17/2015
enf-7790	American Express Financial...		Closed			
enf-7875	American Veterans Housin...		Closed			
enf-7897	Ameriquist Mortgage Cor...		Closed			
enf-7931	Androlewicz, John James		Closed			
enf-7965	Apodaca Investment Grou...		Closed			
enf-7979	Approchv.com, Inc.		Closed			7/20/2015
enf-7982	Aqua Inventions		Closed			
enf-7998	Architronix.com, Inc.		Closed			
enf-8004	Argoxy Capital Corporatio...		Closed			
enf-8141	Aurora Loan Services, Inc.		Closed			
enf-8147	Austin Lemoine Capital Ma...		Closed			
enf-8152	Auto-tripledial.com		Closed			
enf-8163	Automototrades.com		Closed	Administrative		
enf-8295	Bay Area Financial Corp.		Closed	Administrative		
enf-8376	Benefitescrow.com		Closed	Administrative		
enf-8419	Betterbusinesssupport.com		Closed	Administrative		
enf-8438	Bickerstaff & Associates		Closed	Criminal		
enf-8441	BidBay.com, Inc.		Closed	Administrative		
enf-8444	Big Capital Partners, LP		Closed	Administrative		
enf-8445	Rin Chalk French		Closed	Administrative		

Figure 6-3 - Internal users have a user experience geared toward review and management of data

## 6.4.2 System Integration/Interfaces

All interfaces are built using Service Oriented Architecture (SOA). With SOA, the API's functionality will be exposed through a collection of services. These



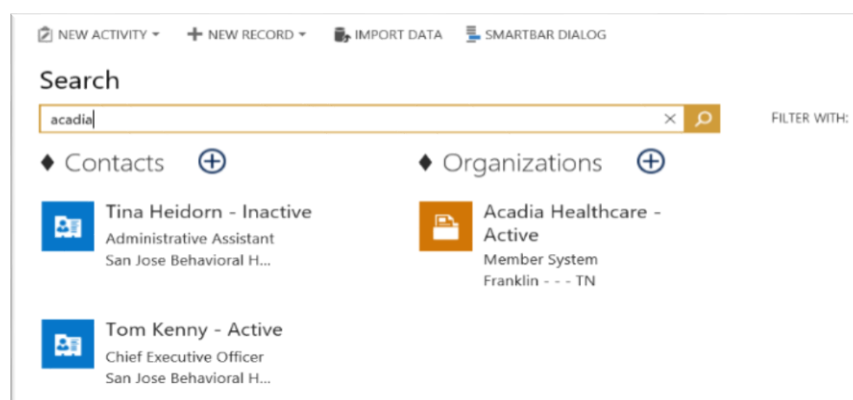
services will be independent and encapsulate both the business logic and its associated data. The services will be interconnected via messages with a schema defining their format; a contract defining their interchanges; and a policy defining how they should be exchanged. This design will allow for complex data mappings between inbound and outbound data sets. The middleware solution can transform, translate, and provide traceability/ticklers for both incoming and outgoing message types.

This approach has been used to create a variety of interfaces. For example, our solution for Department of Business Oversight integrated with multiple interfaces including third-party agencies, document scanners, and a payment API. For each interface ensuring all messages were processed and monitored was imperative.

### 6.4.3 Information Management

This is a broad category of functionality that pertains to managing the inputs and outputs of information in the system. The Dynamics platform provides a powerful framework for supporting the customized data model, including Search, Ad-Hoc Reporting, and Audit History.

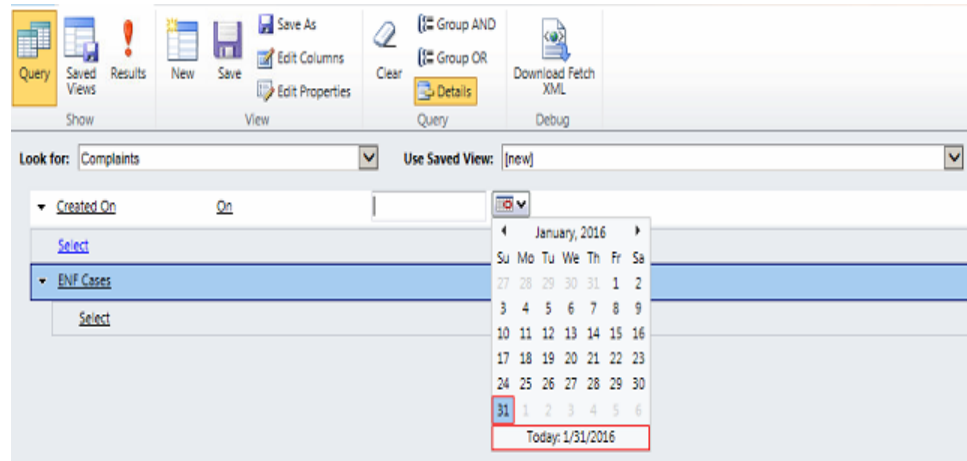
Built into Dynamics is an automated keyword search function. The keyword search allows you to search by any key field defined in the system, e.g. a record ID, name, description, status, etc.



*Figure 6-4 - Keyword search results provide visually appealing output*

For more advanced searches and ad-hoc reporting, the framework provides the Advanced Search function. Advanced Search gives users a graphical query builder along with access to the entire custom database. The benefits of Advanced Search include:

- **Business user access to ad-hoc reporting** – business users can build their own complex queries without having to rely upon a developer
- **Security access rules are inherited** – the search results will automatically filter results sets based upon security roles. In other words, it won't show you anything you're not allowed to see.





*Figure 6-5 - Advanced Search provides a GUI for building queries with calendar objects and other filters for easily building queries. This figure illustrates a search for any complaint created on a particular day which resulted in related enforcement case.*

Lastly is the built-in audit history. The solution's audit history provides both system and record level auditing that is configurable down to the field level. The audit history includes:

- Who made the change
- When the change was made
- What field(s) were impacted
- Old Value
- New Value

Update - enf-7386

Changed By  Kevin Kinsey Entity ENF Case  
 Changed Date 1/31/2016 4:18 PM

Field Name	Old Value	New Value
Date Closed	10/30/2008	
Date Counsel Assigned	7/17/2015	1/31/2016
Date Examiner Assigned		1/31/2016
Examiner Assigned		 Amit Rai
Status	Closed	D&R Follow Up In Progress

Help Close

*Figure 6-6- Audit history provides a GUI for users to view changes made over the life of the record, a group of changes made during a single interaction, or all changes to a particular field or by a particular user on that record.*

#### 6.4.4 Notifications

CMS will be responsible for producing emails, correspondence, and Notices as part of the workflow. In order to support this function, the notification module provides the ability to set up templates which are populated with data from the database. Templates come in two forms:

- **Email Templates** – an email template sets up the text content, the variable data to include in the text, and the business rules for how the “to” field is sent. Emails are typically used for workload related correspondence, such as notification that something was received, or something is in a pending status.
- **Document Templates** – users create documents in MS Word, and through a plug-in built into Word they can map data fields from the database. When the document is generated it automatically pulls the data from the database. Document templates are used when the formatting is critical (e.g. licenses, legal letterhead).

These notification templates are then sent out via workflow rules. The benefit to this module’s integration with the workflow engine and the database is that correspondence can be automated, while also allowing the database to store tracking and history data of a transaction as it relates to system records. In the case of documents, and document that is auto-generated in CMS can also

be saved in SharePoint at the time of creation, providing CMS with a written record of what was sent.

#### 6.4.5 Business Rules Role

Our business rules module is where we define and control logic for fees, calculations, and other automated functions in CMS. The technical approach to how rules are implemented can vary depending on the complexity of the rules. For CMS we are integrating TrinityTG's pre-built Business Rules Management framework (BRM), a customized .NET based object oriented rules engine that is designed for complex calculation and processing management. This pre-built framework will be customized to support the specific needs of CMS business rules.

#### 6.4.6 Role-Based Security

Security is configurable through a graphical user interface. This allows State Bar to create and manage an unlimited number of security roles that can be as large or as granular as needed to manage access. The security model lets you define the security at the table level, record level, event level, and even field level.

Entity	Create	Read	Write	Delete	Append	Append To	Assign	Share
Contact	None Selected	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Organization	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Activity	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Announcement	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Application File	None Selected	Organization	None Selected	None Selected	Organization	Organization	Organization	Organization
Connection	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Connection Role	None Selected	Organization	None Selected	None Selected	Organization	Organization	Organization	Organization
Customer Relationship	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Data Import	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Data Map	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Document Location	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Duplicate Detection Rule	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Email Template	Organization	Organization	Organization	Organization	Organization	Organization	Organization	Organization
Follow	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Import Source File	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Lead	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Mail Merge Template	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization
Note	Organization	Organization	Organization	None Selected	Organization	Organization	Organization	Organization

**Key**

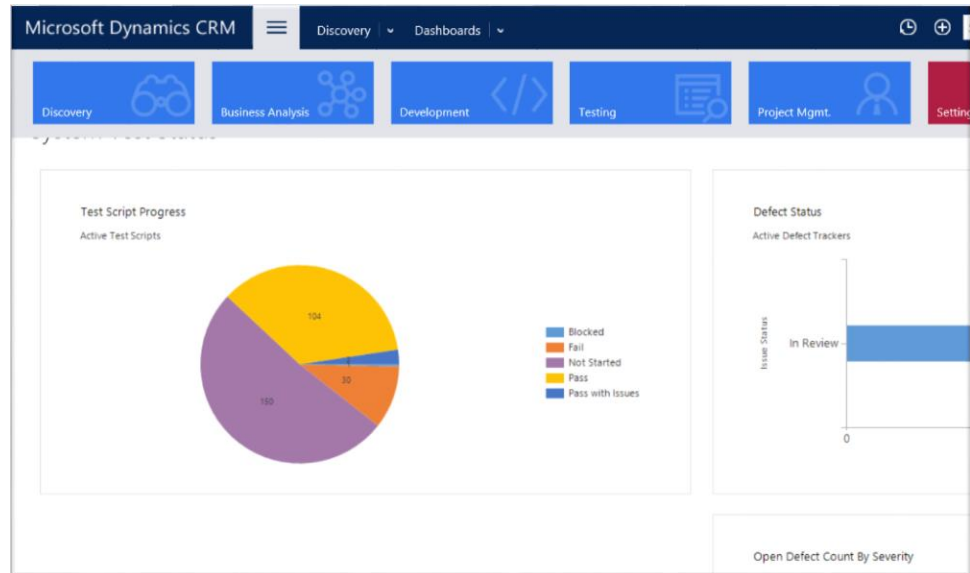
- None Selected (Red circle)
- User (Yellow circle)
- Business Unit (Orange circle)
- Parent: Child Business Units (Green circle with a dot)
- Organization (Green circle)

Figure 6-7 - The security model is highly granular and configurable, providing a visual depiction of record and event level access

#### 6.4.7 BI/Reporting

The solution provides advanced (and configurable) business intelligence options in the form of dashboards and custom reports. Dashboards can be

set up, either at the system level or at the personal level, to analyze and aggregate any data in the system.



*Figure 6-8 - Our customized Dynamics implementation use dashboards to give users an easy way to view and manage workload*

Dashboards can be used to track things like:

- Volume of registration types over a period
- Amount of registration revenues collected
- Status of registrations by type
- Renewal pending

In addition to dashboards, the system makes use of SQL Reporting Services to create custom reports.

The screenshot shows a custom report titled "Acadia Healthcare" generated on 1/6/2016 at 4:00:45 PM. The report includes a table comparing current and previous addresses.

	Current	Previous
<b>Address</b>	6100 Tower Circle Suite 1000 Franklin, TN 37067 USA	830 Crescent Centre Drive Suite 610 Franklin, TN 37067 USA

Page 5 of 135  
Report Print Date: 1/14/2016 9:19:17 PM

*Figure 6-9 - Custom reports provide greater control not only over the format, but also the query logic*

### 6.4.8 Central Database

At the heart of the solution is a central database that stores all of the CMS data. Built on top of MS SQL Server, the database houses all registration data, user account data, renewal data, and even the relationship linkages for the document libraries. The web portal, document management, notifications/printing function, and internal system all use the same database.

The Dynamics platform also provides a unique feature – a database that is configurable through a graphical user interface.

The screenshot shows the 'Field' configuration window in Microsoft Dynamics CRM. The title bar includes 'File', 'Save and Close', 'Show Dependencies', 'Managed Properties', and 'Help'. The main window is titled 'Field' and 'Account Rating of Organization'. The left sidebar shows 'Common', 'Information', and 'Business Rules'. The main area is divided into 'General' and 'Type' sections. The 'General' section includes 'Display Name' (Account Rating), 'Name' (accountratingcode), 'Field Requirement' (Optional), 'Field Security' (Disable), 'Auditing' (Enable), and 'Description' (Select a rating to indicate the value of the customer account). The 'Type' section includes 'Data Type' (Option Set), 'Field Type' (Simple), 'Use Existing Option Set' (No), and 'Default Value' (Default Value). The 'Options' section at the bottom shows a list of options with columns for 'Label' and 'Value'.

*Figure 6-10 - The database fields, data types, drop down values, and behaviors are all configurable, along with the data relationships between tables.*

This functionality provides almost limitless expandability and maintainability. The very typical scenario of adding or modifying a data field in the database is not only configurable, but it can be done by a systems analyst, and doesn't necessarily require a DBA or developer.

In the following sections, we provide specific details on Workflow Management, Document Management, Complaints, Case Initiation and Management, Investigation, Member Management and Web Portal, addressing the solution needs requested in the RFP.

### 6.4.9 Workflow Management

One of the key values of using the Dynamics platform is the availability of three distinct methods for configuring and implementing business rules. All three of these methods will be used for CMS. By using these configurable

methods, all of the business rules and workflows in CMS will be configurable and maintainable without the need for custom development, providing tremendous scalability and long term maintainability for State Bar.



Figure 6-11 – Different types of Workflows

**Business Process Workflows** – The first type of workflow is a business process workflow. This is a configurable option which allows the system to enforce a specific sequence of steps that users must complete for a unit of work. For the State Bar, each of the core processes like complaint life-cycle management, member registration, and case assignment are examples of a business process workflow that can be configured to improve standardization of processes.

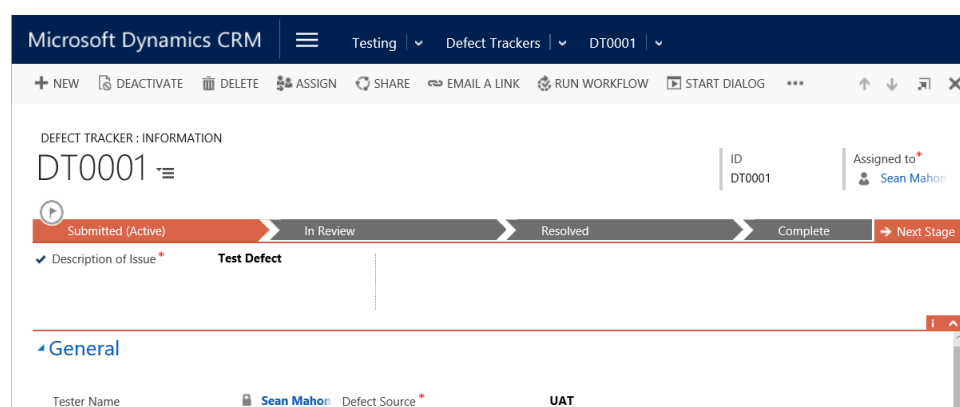


Figure 6-12- Business process workflows provide chevron-like visual indicators to show what step in the workflow a particular record is in.

The business process workflows allow the system to:

- visually depict a sequence of steps
- enforce activities that must be completed to go from one step to another

- provide iterative workflow, where uses can go forward and backwards in the process as needed to revisit a step
- accommodate process branching logic for managing complex business processes

**Business Rules** – the built-in business rules engine allows you to configure complex calculations, derivations, default values, and other types of data validations that would be needed. Business rules are configured in a graphical user interface that shows users the “branches” that are created through a series of “if/else” statements. The conditions for those rules are selectable via drop down menus that allow users to select database fields, as well as conditions (e.g. greater than, equals, does not equal, etc.).

**System Workflows** - workflows are designed to do the “heavylifting” of the system. Notifications, alerts, sending emails, data management, batch processes, and other complex business logic are handling via system workflows. These execute asynchronously in the background, allowing for maximum system performance. CMS functions like the case hearing notifications, document upload, renewal fee notice, etc. transactions would be handled by system workflows.

#### *6.4.9.1 Create and Amend Existing Workflows*

All of the types of workflows in the system are configurable through a graphical user interface. The graphical user interface differs slightly depending on the type of workflow used, but all of them follow the same event/condition/action model, where users define a series of conditional statements and the outcome, e.g. “If the Case status is updated, “send an email” to all related “parties” with a “party role” sufficient to require notification for this status change



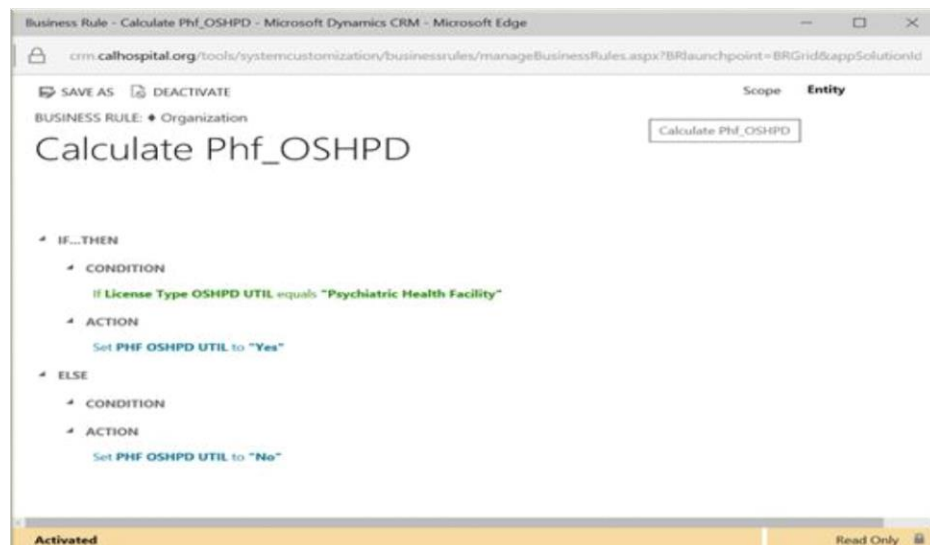


Figure 6-13 - business rules in the workflows are written in plain English using conditional statements.

Workflows exist in the system as either “Draft” or “Published”. A draft workflow is not active in the system and is editable. A published workflow is active and set to a read-only state. In order to amend a workflow, one simply has to deactivate the workflow, make the necessary edits, and re-publish the workflow. This can actually be done directly in the production environment without the need to rely upon a build process from development. However, we generally recommend that standard configuration management procedures be followed in order to maintain consistency.

#### 6.4.9.2 Iterative Workflows

Workflows in the system can include logic to be iterative. For example, a business process workflow that defines multiple steps in a process allows users to cycle back and forth through a particular step. This is useful for situations like a complaint intake with a pending investigation. If the more information needs to be submitted or edited based upon a the State Bar review, the State Bar user would be able to easily revert to the previous step to show that it is back in the previous status. Similarly, CMS would track the historical status changes in audit history so there is a running tally of how often the record iterated.

#### 6.4.9.3 Allow for electronic approvals and notifications

Approvals can be handled automatically by a workflow that is configured to assess all of the business rules related to an approval. For example, if the workflow is designed to review certain data values, confirm the presence of

documents, and verify that certain steps have completed in the registration process, then the outcome of that workflow would be one or more steps to set the approval status, as well as send notifications. Supported electronic notifications include:

- **Alerts** – Alerts are a type of “tickler” that is generated by Dynamics and provides users with a notification of a task or activity. Alerts show up on a user’s dashboard. Alternatively, alerts can be set up to be received via Outlook if Dynamics and Outlook are configured to integrate (this integration is an out of the box feature of CRM/Outlook)
- **Emails**- emails can be sent by a system workflow. An email template that includes the content as well as variable data from the database allows for a “mail merge” type of process where emails can be sent out automatically once a condition is met.
- **PDF correspondence** – if CMS needs to send a PDF correspondence that is generated by the system (e.g. for something that needs a wet signature) it is possible to create a workflow that triggers a document that is then attached to an email. It is substantially similar to the email workflow, but it provides a compelling alternative communication mechanism.
- **Popups** – System alerts can be added through configurable Business Rules as an out of box feature of CRM. These popups can notify users when certain field states are not in compliance and prevent saving. These popups can also be used to provide on-screen real-time information and notices. Additional popup functionality can be added for more robust notification features and customization logic using the system’s API.

#### *6.4.9.4 Support Configuring Business Process*

The business process workflow engine will be a key feature in supporting standardized business processes, because it provides the ability to create a standard sequence of steps that every user must follow in order to complete the process. In the implementation of CMS, we anticipate having at a minimum, distinct business process workflows for Complaint Intake, Case Initiation and Management, Docketing, Scheduling, Member Management, and Process Management reports. Each core process will have a defined business process flow with a specific sequence of steps configured for each. CMS users will have the benefit of being guided through a step by step process that promotes data quality, consistency, and accuracy.

BUSINESS PROCESS FLOW

## Complaint Processing

Details ▾

Stage Name \*

Enter a stage name

Step Name

Email

New Step

+

Value

Email

Select to enter data

Required

☐

☐

Entity \*

Contact

Stage Category

--

→ Insert stage after branch → Add branch

Field

If Status ▾

Operator

Equals ▾

Type

Value ▾

Value

☒ Active

☐ Inactive

✓ ✕

*Figure 6-14 - Each business process workflow can have a unique set of steps, AND include branches for more complex processes.*

But there are exceptions to the rule that need to be considered. This is where we will make use of Dynamics' ability to create "Personal workflows". Generally speaking, Dynamics allows you to configure a custom solution that makes use of common views, reports, dashboards, and workflows that operate at the system level. But you can also set up "personal" features that perform uniquely for a given user. This approach also applies to:

- **Views** – users can have personal views where they can choose what columns of data to see on their list views
- **Dashboard** – personal dashboards can be set up to show information unique to a user's needs
- **Reports** – personal reports can be configured for specialized use cases. Reports that are made for personal use still adheres to the security model, meaning that users cannot "get around" security by making their own reports.

#### *6.4.9.5 Facilitate Internal and External interactions and improved communication*

One important benefit to CMS is the ability to automate communications (e.g. emails, correspondence) that go to external users, as well as workflows that automate an action based on receiving information from an external user either through the web portal or via email. But the key benefit to the workflow module is traceability, or more specifically the ability to track and trace that all of these communications have occurred.

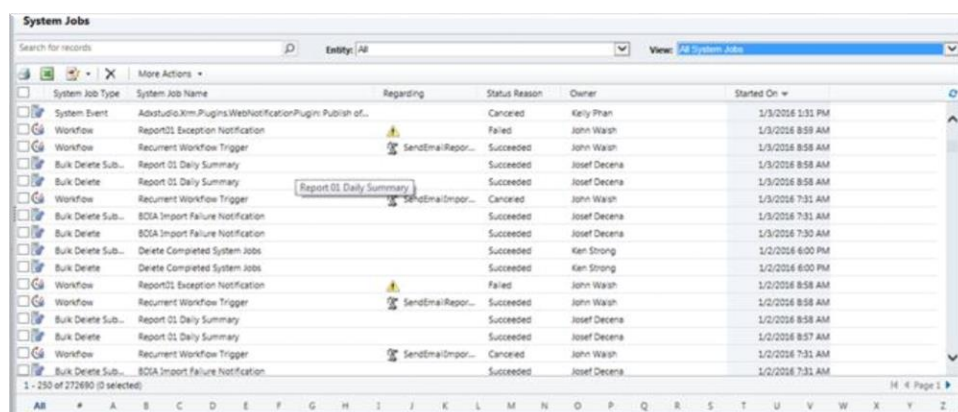


*Figure 6-15 - configuring Dynamics to display the history of correspondence and external communication to the external users is a key feature that improves the business process.*

This both external and internal users. For external users, it provides the ability to verify that they have sent and/or received information necessary for registration and renewal. For example, a CMS user will be able to quickly confirm if a Complainant has been notified of a pending action. But it also has benefits for internal users, as each of the separate divisions/ departments that work within the State Bar will be able to see through the workflow history what work has actually been done vs. what is pending, while seeing a visual indicator on each record of where it is the business process.

#### *6.4.9.6 Facilitate Workflow tracking and analysis*

System workflows are managed through an administration panel that provide a real time view of what workflows are completed, pending, and failed. These workflows stay in the system queue until they are reviewed by a system administrator.



*Figure 6-16 - Dynamics includes a built in system job monitoring tool that shows all jobs in all statuses.*

For a given job, the system provides technical details as to what failed or why it was queued. This helps system administrator to troubleshoot the root cause without having to necessarily rely upon a developer to analyze and resolve the issue. Not only is this a built in feature of the system workflow module in Dynamics, it is also available for ad-hoc reporting. System administrators can

build ad-hoc reports that help to monitor the queue and analyze overall system health long term.

#### 6.4.10 Document Management

The document management portion of CMS is driven by SharePoint, a well-known document management and collaboration tool. SharePoint integrates with both Dynamics CRM and Adxstudio to provide a “trifecta” of data and document management in a customer facing web application. The document management module of CMS is designed to meet the following objectives:

- Link documents to the specific record they are related to in the database
- Keep a version history of the document
- Attach metadata to the documents that allow for improved searching and categorization
- Identify and segregate confidential documents from publically available ones

While SharePoint is the engine that drives the document management feature, both internal and external user of CMS will almost never see it. It integrates with the system’s UI so that the documents are presented to the user in the same screen as the application data, so both data and documents are literally in the same place from the user’s perspective.

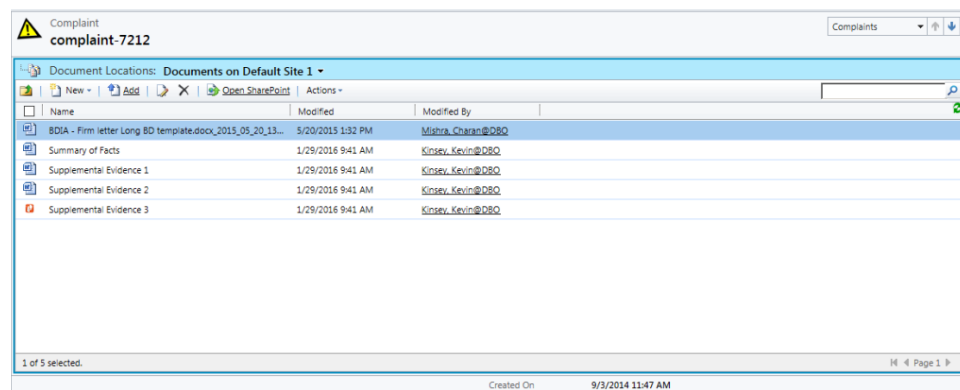


Figure 6-17 - The list of documents related to a specific application record is available in a convenient view for sorting, filtering, searching, and downloading/printing.

##### 6.4.10.1 Storing Electronic Documents

The proposed document management module is able to store a variety of electronic documents, including some of the most commonly used formats:

- MS Word
- MS Excel

- MS PowerPoint
- PDF
- JPEG
- GIF
- PNG
- TIFF

Documents are downloadable to CMS users' workstations for viewing and printing, requiring only standard desktop software like MS Office and Adobe Acrobat Reader to be installed.

Documents are stored in document library folders; the folder name corresponds to the unique identifier of the record in the database. For example, a Case is "14-AB-12345" in the database would have a document folder in SharePoint named "14-AB-12345". This is what the system uses to link documents in that folder to the record in the database. This provides several benefits to both internal CMS users and external portal users:

- **Documents are uploaded to a specific record securely** - because documents are closely linked to their corresponding pesticide registration data, CMS is able to facilitate document upload capabilities through the external portal.
- **Easier review of documents** - as CMS users are reviewing registrations, they will be easily able to access just the documents pertaining to that specific record. There will be no need to search a large unstructured document library because the system has automatically indexed the documents based upon the specific registration record.
- **Close linkage with the registration/amendment status** - this model of tying the documents to the database record allows us to support the concept of having registration or amendment workflows change statuses on the electronic record, all the while having the related documents easily accessible. For instance, court orders and documentation can be uploaded to a record and referenced internally as "private" and then made "public" if and when certain data values are updated in the system.

#### *6.4.10.2 Creating Searchable Content*

The other critical component to document management is searchability. The proposed solution's approach to creating searchable content is to allow for the use of index and metadata tags associated to each document. A common example includes adding a "Document Category" type to the SharePoint list, which allows users (or the system) to automatically add a tag to the document

based upon what the document is. This allows CMS to categorize documents in ways that are most meaningful. For example, a document library for a particular case would have a document category tag of “Evidence”. This approach is particularly beneficial because it completely removes any reliance on the name of the file. It is very difficult to enforce a standardized file naming convention when relying upon data being submitted from external customers, so the optimal solution is to build something that doesn’t rely on the file name at all. These tags can be added to the documents in one of two ways:

**Automatically via the web portal** – our portal solution has the capability to define a specific document category. When users upload something for that category, the document is automatically tagged with that category code.

**Manually by internal the State Bar users** – any documents that need to be added to CMS by State Bar users (e.g. items arriving via mail) can be uploaded through the user interface. As part of the upload process, users have the opportunity to select document categories from a drop down list of predetermined category codes.

It is important to note that CMS is scalable to allow for as many or as few metadata tags as needed in order to properly categorize documents. So if multiple categories are needed, these are simply added to the SharePoint list, and the customized integration logic that exists between the portal, Dynamics CRM, SQL Server, and SharePoint all update in sync.

Those tags are then used to provide searchability. Searching occurs in two ways. For internal CMS users, there is a simple keyword search directly in the SharePoint view that they can use to quickly find documents by name, title, create/modify date, or any defined categories.

For external users, the web portal provides an integrated document search that gives the general public a self-service document search. The portal integrates with SharePoint and the SQL Server database to provide users with a real-time search that provides indexed information, and then allows users to drill down to the specific documents tied to that record or registration.

Legal Name	Application/Notice Type	Filing Type	Received Date	Number of Enforcement Actions
Starbucks Corporation	Franchise Notice of Exemption	Exemption Filing	11/29/2012	0
Starbucks Corporation	Franchise Notice of Exemption	Exemption Filing	11/29/2012	0
Starbucks Corporation	Franchise Notice of Exemption	Exemption Filing	11/25/2013	0
Starbucks Corporation	Franchise Notice of Exemption	Exemption Filing	11/25/2013	0
Starbucks Corporation	Franchise Notice of Exemption	Consecutive Subsequent Notice	12/02/2014	0
Starbucks Corporation	Franchise Notice of Exemption	Consecutive Subsequent Notice	12/02/2014	0

*Figure 6-18 - A public facing document search gives users the ability to search and retrieve all publically available documents via any number of filter criteria.*

With a public search, one of the most important functions is provide access ONLY to publically available information. The CMS will have the capability to segregate public and confidential documents so that only public documents are available via the search. Confidential documents will be viewable only to internal State Bar users who have proper security roles to see both the data and documents.

#### 6.4.11 Web Portal

The CMS web portal is a fully integrated web application and content management system that works in unison with the internal CMS to provide a seamless data sharing experience between external registrants and internal State Bar users.

The proposed web portal solution is a customized web application built upon a product called Adxstudio, which provides a configurable framework for quickly building and maintaining a web application. The product's customization features are oriented around two main goals:

Provide a simple and easy to use interface

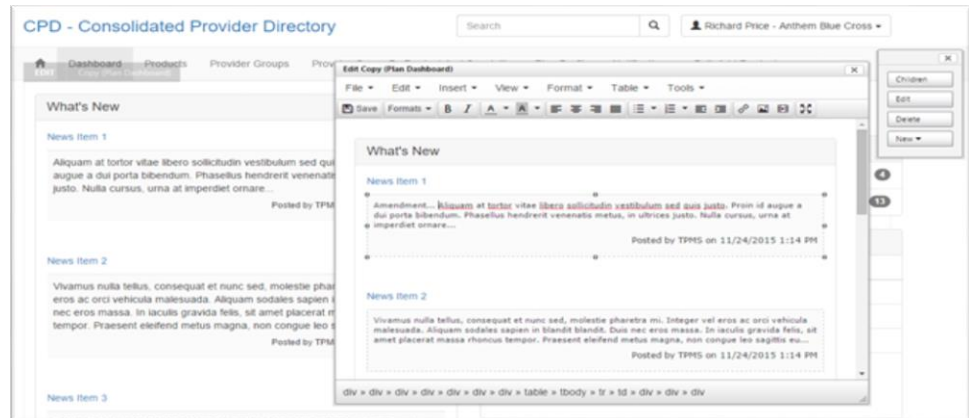
Integrate with the central database to provide high quality data.

Built on the latest technologies and user interface standards, the tool is proven mechanism for building a production-ready portal that can scale for State of California departments. Based on this previous experience, we have proposed a portal that contains all of the functionality needed to meet the business requirements defined in this RFP.



Below are the key features of the portal, **all of which are currently in production use at other California state agencies.**

**Configurable Content** – one of the highlights of the platform is that it is configurable; web pages do not need to be coded from scratch, but instead are configured and then rendered by the Adxstudio tool. Once rendered, the portal provides a real time system administration capability to add/modify content in real-time. This feature is the first (and fastest) method for customizing the look and feel of the site to match DPR's UI standards.



*Figure 6-19 - System Administrators can edit web content in real-time*

Simple changes such as updating image logos, modifying text content on page, and even formatting HTML pages can be done through the configuration function. But even more complex changes to the navigation pane, parent/child page setup, and security role settings can be modified through the system administration function.

**Responsive Page Design** – out of the box, the portal renders all pages using responsive page design, which dynamically reformats the page based upon the screen size of the user's computer. This means that the proposed CM Sportal is instantly mobile ready, because one website will work for ALL desktops, tablets, and smartphones.

*Figure 6-20 - The same page automatically re-sizes for smartphones and tablets*

**User and Account Management** – a key feature of the portal is the ability to create a fully automated registration and account management experience. The portal's account management structure supports individual login accounts that tie up to a central organization account. This model allows for multiple people representing a company to login and securely work with the same pesticide registration data for that particular company.

Prospective users are able to register for an account in the portal. The registration process confirms a registrant via email.

*Figure 6-21 - The registration process can be customized to include multiple paths in order to simplify the user experience*

Once they are logged in, the registrant is able to update organization information, as well as invite other users to access the organization account. This access is driven either by the user directly adding a new user's contact information, or through an "invite code" that provides a unique identifier to securely invite a new user to associate to the organization account.

**Configurable Security on Pages** – The portal supports the ability to control users' access to pages based on security roles. This feature is used to support use cases where the general public has access to capabilities (e.g. the product label search), but other features like application registration and payment processing are restricted only to users who have registered for an account.

**Document Upload** – A crucial component of the web portal is the ability to upload documents pertaining to pesticide registrations, exemption requests, and data studies. The portal features a customized document upload feature that automatically uploads all documents pertaining to a specific record into a corresponding folder in SharePoint. Internal State Bar users have the ability to quickly retrieve those documents as they are automatically displayed to the user in the CMS.

Not only does the portal support document upload, but the CMS will have the ability configure the document categories to be maintained by application type. We anticipate that over time, the necessary supporting documents for a given application could change. This feature will allow State Bar users to easily maintain the supporting document requirements as and when business rules change.

**Section 508 Complaint** – our delivery methodology includes running our customized portals through a tool called SortSite, which provides a comprehensive report of how pages are complying with the web standard. Based on our previous implementations, we can confidently state that the portals rendered by Adxstudio meet or exceed Section 508 standards.

In the following sections we present the specific information requested in the RFP, along with a mapping of what functionality is used to address business requirements that pertain to external applicants and the general public.

Unlike most web portal applications, the CMS Web Portal is fully integrated with the same database used by the CMS core system. The data that is entered by a registrant is saved directly in the same database that is then used and referenced by internal users. In other words, CMS sees new and updated registrant data in one place, in real time.

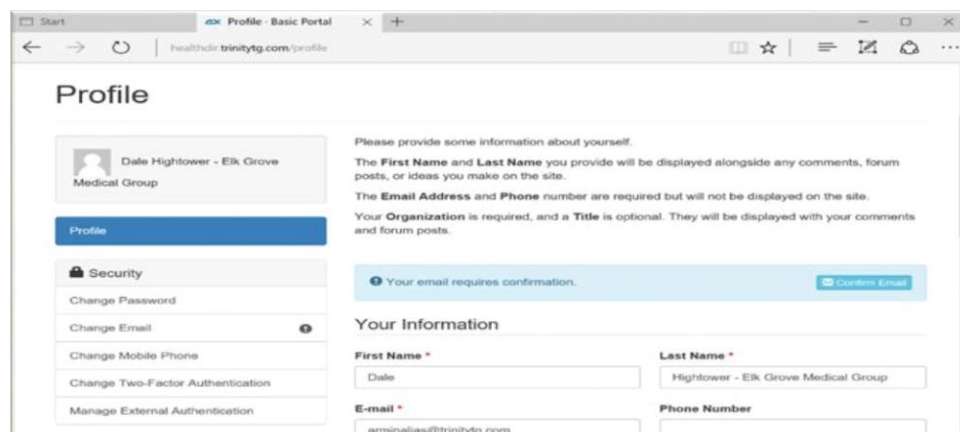
The web portal stores all user, account, registration, application, renewal and supporting document information in a single location. Users log into the web portal via a single, secure login. From there, users have access to all of the CMS portal's data submission functions. A Profile page give users one-click access to current and past applications and submissions, and the menu

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*All data in one  
location*

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across the top gives users quick links to the most actively used functions. So registrant data is not only stored in one location, it is also presented to the user in one location, providing for a very simple user experience.



*Figure 6-22 - A cleanly laid out profile page gives users a one-stop location in the portal to access all the functions*

#### 6.4.12 Complaints

The discipline process of attorneys most often starts with the receipt of a complaint by the State Bar. Since there is no standing requirement; anybody can make a complaint about a member. In the proposed solution public will be able to get the web portal and submit a complaint online.

Non-attorney complaint analysts in Intake will then be able to evaluate complaints under the supervision of Intake deputy trial counsel.

The complaints managed through the web portal are driven by statuses. The status of the application determines where it is in the process.

When a user clicks "Submit", the portal automatically updates the status in the internal CMS system, prompting the dashboards to show the submission as ready for the State Bar processing. As the submission makes its way through the process, the status is updated in the CMS, and then automatically reflected in real-time.

This real-time feedback allows registrants to see a status of their complaints at any point in time. All of the information is present on the single profile page. Another feature the portal supports is a record-specific status checker. The portal is able to query the database for a specific record and provide real-time status.

The screenshot shows the 'Attorney Complaint' page on the State Bar of California website. The header includes the bar's name, mission statement, date (January 29, 2016), a search bar, and a login button. The navigation menu includes Home, Attorneys, Public, Future Lawyers, and About Us. The breadcrumb trail shows 'Home / Attorney Complaint'. The main heading is 'Attorney Complaint'. Below it, section '(1) Your contact information' contains several input fields: 'Your name:', 'Your address:', 'Your city:' (with a dropdown for 'State:'), 'Zip Code:', and 'Your email address:'.

*Figure 6-23 - A real-time status check for public users provides true self-service access.*

### 6.4.13 Case Initiation and Management

From Case initiation through case closure and even beyond to post closure audits, the CMS provides extensive features for high-level case reporting for docketing and scheduling, granular work processing for precise capture of Case information and related events, and real time data capture to ensure up immediate access to the most recent case information.

Case reports can be filtered in real time to highlight major data sets of interest through pre-configured system wide reports or on the fly via ad-hoc Advanced Find reporting. For example, users can view all cases yet to be assigned, or all cases assigned by not yet in progress:

These cases can then be assigned or reassigned one at a time or in-bulk through the user interface.

Throughout the life cycle of a case, parties can be added, supplemental information can be submitted, case events can be associated, and documents as well as supplemental court files can be uploaded, stored, and linked to the case. To accommodate the business process related to the case, the left navigation of the case as well as grids on the case screen can be added and customized to provide users with a full picture of a particular case in real time.

For users with limited access, security roles can be configured to provide users with a subset of the total case information by restricting field and form access to some users:

After case closure, case records can be stored for reporting, deactivated, deleted, exposed (in whole or in part) for public consumption through the web based portal, and/or reopened at a later date depending on the court's needs and business rules.

#### 6.4.14 Investigation

The Core CMS has very robust features geared around investigation entity. The CMS provides a consolidate view of investigations. All the related information and field with investigation entity in core system are configurable and customizable. This view, like all grid-views in the core solution, is configurable to show any set of data in the grid:

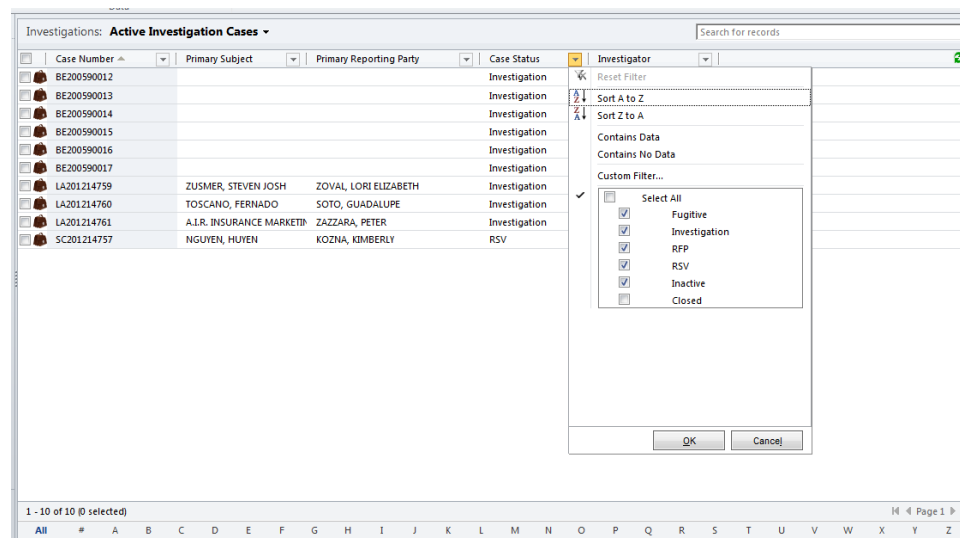
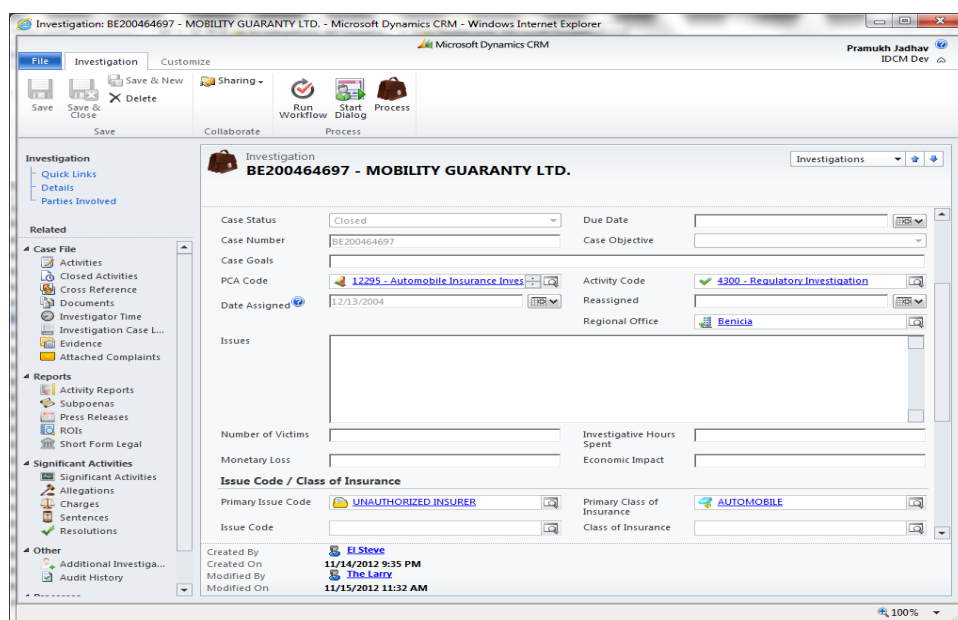


Figure 6-24 List of Investigations

The grid view is both searchable and filterable by every column. This includes the ability to filter by investigation types. From this screen the user navigates to a single investigation record. The following screenshot displays a standard Investigation record:



*Figure 6-25 Investigations Record*

During the course of the investigation evidence records are collected and attached to the investigation with the system tracking date received as well as any subsequent updates/modifications to the record. This evidence entity can easily be configured to be named as “Exhibits”. All the fields being can be update to meet State Bar’s specific requirements for exhibits.

The investigation is linked to the case and allows users to associate activity codes and legal codes, and other key references. We also support tracking of multiple parties related to an investigation as shown below:

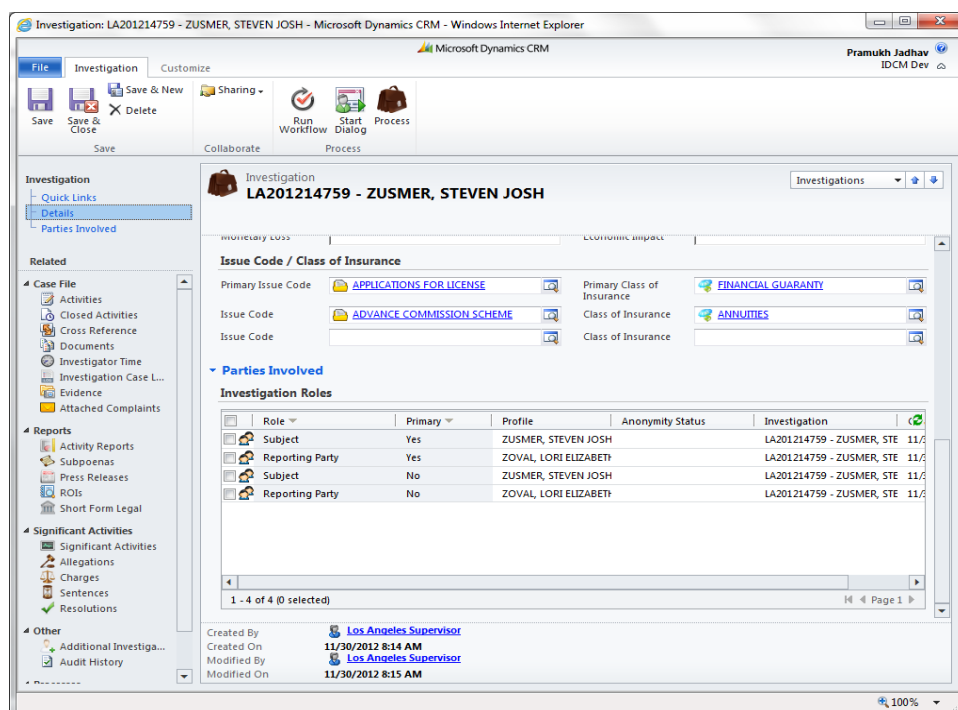


Figure 6-26 Parties Involved

As shown in the left navigation, Examiner is able to access many related entities, including:

- **Case File** – these entities store key details of the investigation such as evidence, originating complaints, and also time tracking for the users
- **Reports** – these entities relate to outputs of the examination process, including activity reports, press releases, Reports on Investigations, and subpoenas.
- **Significant Activities** – these entities relate to legal outcomes, particularly charges, sentences and resolutions.

Complaints are currently input as part of the mail intake process, and through modification of the self-service module will also be input via the web. During the course of the investigation evidence records are collected and attached to the investigation with the system tracking date received as well as any subsequent updates/modifications to the record:



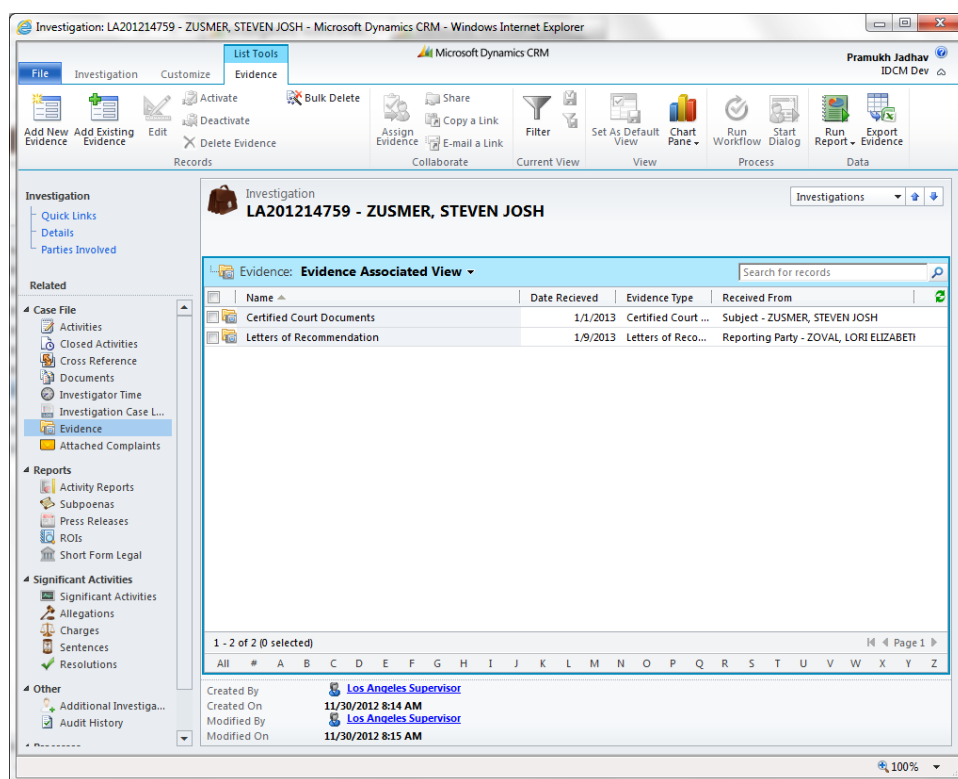


Figure 6-27 Evidence Collection

### 6.4.15 Cost Tracking

Recognizing the need for the State Bar to track the hours spent on case management, we support tracking of investigator time on individual cases, as shown below:

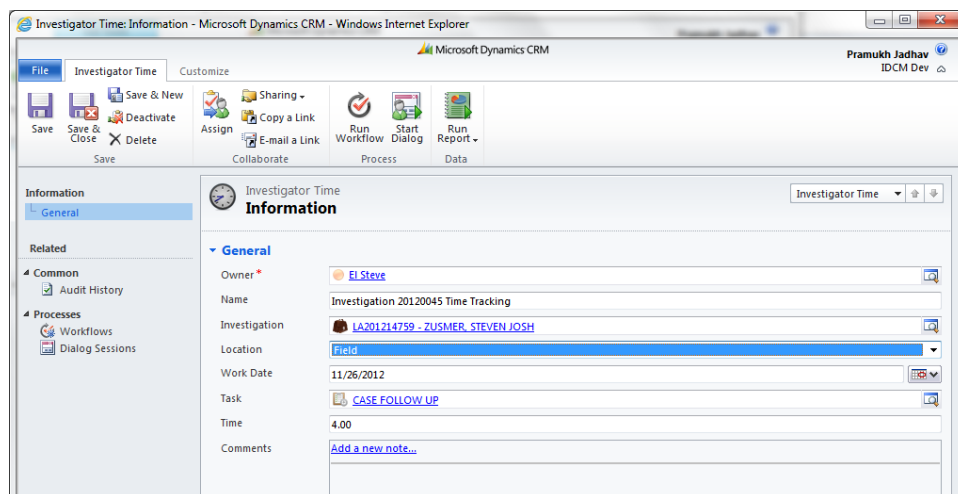


Figure 6-28 Time Tracking for Investigations

Investigators are able to track location, tasks, and input comments/notes as needed. We will also be able to add additional data fields to support expense tracking to this entity and print cost certificate.

### 6.4.16 Member Management

The proposed member management will be part of web portal solution that is a customized web application built upon a product called Adxstudio, which provides a configurable framework for quickly building and maintaining a web application. Some of the main features of the module updating member information, paying fees or submitting applications to update membership status. These applications and update transactions are submitted through the use of web forms – web pages that feature various data entry fields for capturing specific data elements. The web portal supports single line of text, multiple lines of text, calendars for entering dates, numerical values, and drop-down values. Drop down values are managed and maintained in the core solution database, and the portal relies upon those same lookup tables. This, for example, is how the web portal supports filing of an application from another web portal that is live in production selection.

These web forms allow us to configure a “TurboTax” like interface where a series of screens can be put together in a sequence to guide the user through a step by step process.

The screenshot displays the California Department of Business Oversight web portal. The main heading is "25102(f) or 260.103 - Limited Offer Exemption Notice (LOEN)". Below this, it indicates "Step 1 of 5". The form includes several input fields and drop-down menus:

- App ID (This is auto-generated):** A text input field.
- Section Code \*:** A drop-down menu with "25102(f)" selected.
- Type of Notice \*:** A drop-down menu with "Limited Offering Exemption Notice (LOEN)" selected.
- Type of Filing \*:** A drop-down menu with "Exemption Filing" selected.
- Notice Information:** A section containing three rows of data:
 

(a)(i) in money California \$(ai)	Total Offering \$(ai)
23000	23
(i) in consideration other than money California \$(aii)	Total Offering \$(aii)
23343	23343
(ii) total of (i) and (ii) California \$(aii) *	Total Offering \$ *
23423	324

Figure 6-29 - Numerical Indicators, drop down values, and data masks help to manage the user experience.

Most application submittal processes require an attestation page in order to communicate key legal and/or procedural terms and conditions. This solution

allows for adding customized web pages that contain text content to support use cases where key information must be agreed to prior to submission.

As part of submitting the application, electronic signatures are captured as part of the submission. The proposed solution features DocuSign, which allows users to electronically sign their documents.

Submission of files through the portal is supported in two ways:

- As part of the web form process described above, there is a step where registrants must submit specific files.
- At any point during the registration review or as part of ongoing findings, users can submit files individually

In either case, the portal presents users with a similar interface. A screen present users with the lists of required documents for that particular application.

The screenshot displays the California Department of Business Oversight (CA.gov) portal. The user is logged in as Kelly Phan. The navigation bar includes links for Financial Services Applications, File an Application, File a Notice, Securities & Franchise Search, FAQs, and Help. The breadcrumb trail shows: Home / Securities & Franchise Notices / Securities Notices / 25102(f) or 260.103 - Limited Offer Exemption Notice (LOEN). The main heading is "25102(f) or 260.103 - Limited Offer Exemption Notice (LOEN)". Below this, a progress indicator shows "Step 3 of 5". The section "Upload related documents:" includes a message: "Documents marked with a ✓ have already been received by DBO" and a "View Received Documents" button. There are two document upload sections: "Consent to Service of Process" and "Other Documents", each with a "Browse..." button. At the bottom, there are "Previous" and "Next" navigation buttons. The footer of the page reads "California Department of Business Oversight".

*Figure 6-30 - Documents can be uploaded as part of the step-by-step data entry process*

Users can upload one document or multiple documents depending on what they have available at the time. Users are able to come back at any time during the application process to continue uploading documents. The portal will display to the user which documents have already been received. In addition, users can view any files they have previously submitted.

For the second scenario, the portal has generic document upload feature that allows users to upload relevant files for any time of submission. Users simply enter the unique identifier of the application or registration they wish to

submit files for, and the portal automatically presents the user with the list of required files as well as a tally of any files previously submitted.

The screenshot displays a web portal interface for a user named Sean Mahon. On the left is a sidebar menu with links: My Account, Change Password, My Organization, Designated Emails, Securities/Franchise Applications, Securities/Franchise Notices, Payment History, Upload Documents, Escrow, California Deferred Deposit Transaction Law (CDDTL), and California Finance Lenders (CFL). The main content area is titled 'Select Notice or Application to upload documents' with radio buttons for 'Notice' and 'Application' (selected). Below this is a text input field containing 'app-2018' and a 'Check Application' button. A section titled 'Upload related documents:' includes a note: 'Note: Not all the documents are required to upload!' and a statement: 'Documents marked with a ✓ have already been received by DBO' with a 'View Received Documents' button. A table lists required documents with 'Browse...' buttons: 'Additional Documents for Release of Impounded Funds', 'Advertising', 'Application Transmittal Letter', 'Application/Facing Page', 'Auditor's consent', 'California Addendum', and 'Certificate of Compliance with Negotiated Sale-FIL'.

*Figure 6-31 - The portal allows you to upload supporting documents at any time throughout the application process*

The best aspect to the file submission component is that it's configurable. Our solution includes a table-driven dataset that allows system administrators to define the types of files/documents that should be required for a given application or submission. If business rules change such that a new file or document category is required for a given application, the system administrator just needs to update the table and the portal's content management system.

Payment processing is fully integrated in the portal. The portal integrates with several 3rd party payment processing services, including Paypoint, one of the State's currently approved payment providers. The payment integration includes an automatically calculated fee that is based on table-driven fee schedule managed in the system. Based on the application and the fee schedule, the portal provides users with an itemized breakdown of the fee structure.

When the user is ready to submit payment, they are taken to a 3rd party site that processes the payment. Through a real-time interface, the site is provided the fee amount and the unique identifier(s) needed to track the payment. Users enter their credit/ACH information on this site, and the payment is

securely processed through the 3rd party provider. The portal receives a confirmation page with the transaction number and amount.

Home / Financial Services Applications / CFL - Main Application

## CFL - Main Application

### Filing Summary

Date: 1/12/2016  
 Application ID: Pending  
 Contact: Sean Mahon  
 Address: This is Street Address 1, This is Street Address 2, This is the City, California, This is the Zip  
 Telephone: 816-515-5155  
 Business: org-23819 - Test Org 1337

**Transaction Details**

	Fee	Quantity	Amount
Application	\$200	1	\$200
Investigation	\$100	1	\$100
Fingerprint	\$86	3	\$258
Livescan	\$20	1	\$20
<b>Total Fee:</b>			<b>\$578</b>

*Figure 6-32 - Fees are calculated and presented to the user in real-time via a customized payment integration service*

CA .GOV California Department of Business Oversight

Home / Payment Result

## Payment Result

Thank you for submitting your payment. Your filing has been submitted. You will receive a subsequent e-mail notifying you of the date the filing was received and considered filed. The Department's hours of operation are from 8:00 a.m. to 5:00 p.m. Monday through Friday, excluding State holidays. Please note that any applications, notices, and documents uploaded on the system after regular business hours or during State holidays will not be received and considered filed until the next business day.

Transaction has been approved for **notice-2018**

Your Transaction Reference ID is: **payment613**

Upon approval of your payment, a detailed receipt, including the amount paid, will be sent to **kphan@trinitytg.com**

Please retain this copy for your records.

[Click here to return to Home page](#)

California Department of Business Oversight

*Figure 6-33 - Users are presented with real-time view of the payment interface transaction*

In addition, the internal system is updated to show that the payment for that application has been processed. This approach has several benefits for both the external and internal user:

- CMS does NOT store any financial information; all of the credit card processing occurs on the secure 3rd party site providing users with a high degree of encrypted security.
- CMS automatically tracks payment progress, allowing internal State Bar staff to track accounts receivable, delinquencies, and any other metric tied to the amount of money being brought in by CMS.
- The fee schedule is configurable, allowing for simple system maintenance as and when registration fees need to be changed.

The real-time interface allows CMS to support refunds, partial payments, and other payment options to provide maximum benefit for the external user.

## 6.5 Technical Solution



Under this section we will talk about the solution will be architected:

- Describe the hardware and software needed to implement to proposed solution
- Identify how the solution will be architected

### 6.5.1 Describe the hardware and software needed to implement to proposed solution

TTG proposes a Microsoft Dynamics CRM solution to meet the needs of the State Bar's Case Management System. This section describes the hardware required to host all environments, including the co-location site for disaster recovery.

Dynamics CRM is typically deployed in a 3-tier configuration consisting of a Database server, an Application Server and a Web Server. To meet scalability requirements, TTG recommends load balancing at the web and application tiers. The data tier will use Microsoft fail-over clustering to ensure 24/7 access to the system even in the event of hardware failure.

Microsoft Sharepoint is also often deployed in a 3-tier configuration. TTG recommends conforming to this architectural pattern to employ load balancing at the web and application tiers. The data tier will use Microsoft fail-over clustering.

Multi-environment systems, which provide separate server configurations for development, testing, staging and production, typically separate environments by placing them in isolated networks, separated by firewalls. This is done to impose barriers between less protected environments like the

development environment and more stringently protected environments like the production environment.

The following diagram shows TTG's proposal to provide a Development, Test, Training, Staging and Production environment hosting Microsoft Dynamics CRM, Microsoft Sharepoint and SQL Server Reporting Services. A co-located production environment will be provisioned in a separate data center and configured to remain on stand-by through database replication in case of a major building or hardware incident at the primary site.

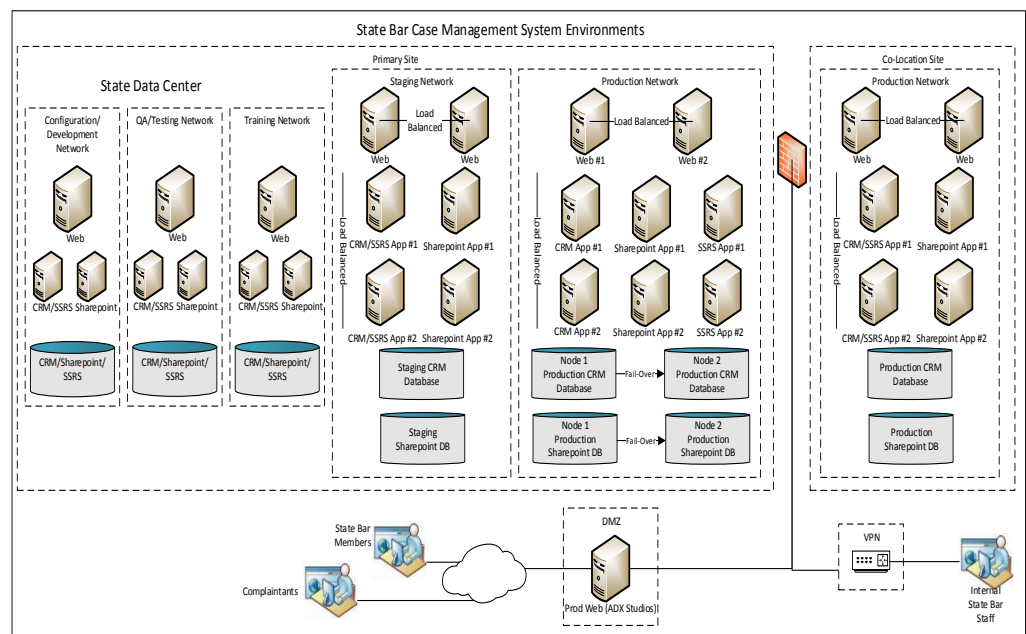
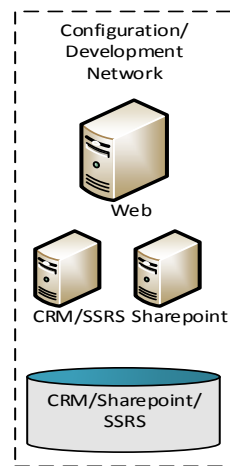


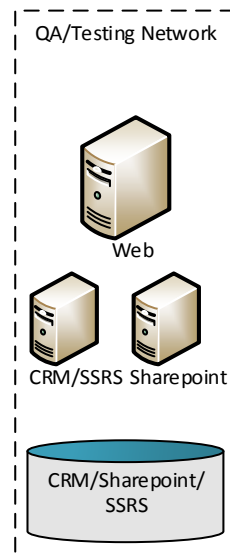
Figure 6-34 – The proposed system architecture

The Configuration/Development Network will consist of a single web server, two application servers and a database server. Each server will host the respective web, application and data component of Microsoft Dynamics, Microsoft Sharepoint and Microsoft Reporting Services.



*Figure 6-35 – The proposed system architecture*

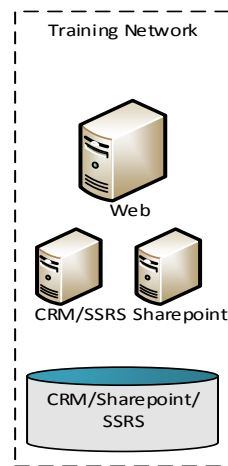
The QA/Testing Team will have a dedicated network consisting of a web server, two application servers and a database server. Like the Development Network, the servers will host the respective web, application and data component of Microsoft Dynamics, Microsoft Sharepoint and Microsoft Reporting Services.



*Figure 6-36 – The proposed system architecture*

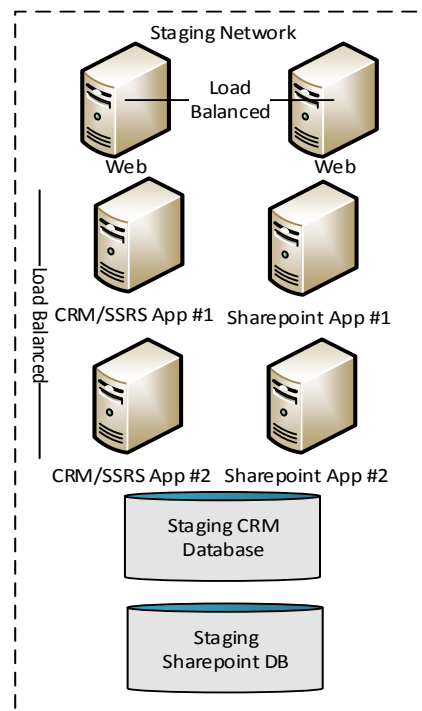
The Training Network provides a web server, two application servers and a database server for training new State Bar personnel on the intricacies of the Case Management System. Like the other preceding networks, the servers will host the respective web, application and data component of Microsoft Dynamics, Microsoft Sharepoint and Microsoft Reporting Services.





*Figure 6-37 – The proposed system architecture*

The staging environment is intended to duplicate configuration and access patterns found in the production environment, yet still be a separate environment. For this reason, the web and application servers are load balance, and the database servers for CRM and Sharepoint are separated. However, the staging environment is not an exact duplicate of the production environment because the expense of maintaining 12 servers for an infrequently used staging environment is prohibitive. Therefore, the staging environment attempts to duplicate the configuration and access patterns that are most likely to have a significant impact on the connectivity, programming and complexity of the application. These patterns are multi-server load balancing at the web and application level, and separate database servers for CRM and Sharepoint. Like the other preceding networks, the web and application servers will host the respective web and application components of Microsoft Dynamics, Microsoft Sharepoint and Microsoft Reporting Services.



*Figure 6-38 – The proposed system architecture*

Finally, the production environment consists of a pair of load-balanced web servers, and three pairs of applications servers, each dedicated to hosting the middle-ware components of CRM, Sharepoint and Reporting Services. The CRM and Sharepoint databases are separated on individual servers, and each server is clustered in a two-node fail-over configuration. A co-located production environment will be hosted in a separate data center to provide continuity if the primary site is rendered unusable. In the event of such as disaster, traffic can be redirected to the co-location site through a simple DNS change. Database replication will keep the Co-location site up to date and prepared to take over on short notice. The Co-location architecture is identical to the Staging environment. It is sized to allow moderate production activity for a short period of time, with the anticipation that the primary site will be

returned to working order.

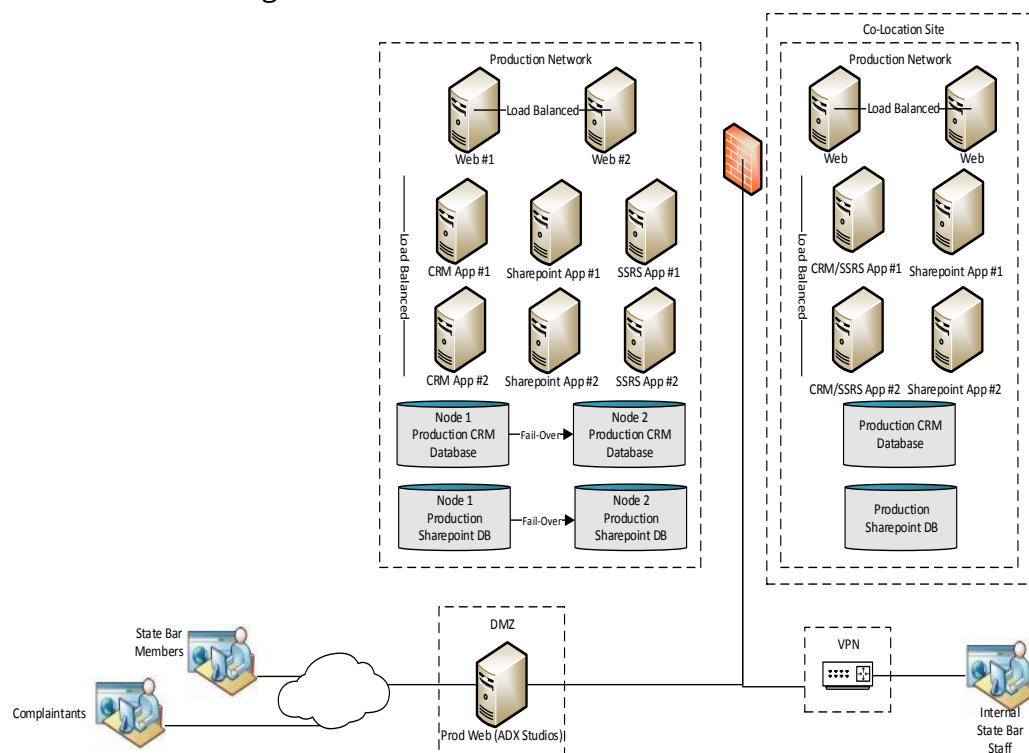


Figure 6-39 – Production fully reflects the security architecture that needs to be put in place.

## 6.5.2 Software Component Review

### 6.5.2.1 Microsoft Internet Information Services

Internet Information Services (IIS) is a fully-featured web server application that runs on Microsoft Windows to provide web site and web application services. The web server includes support for authentication, security, certificates, caching and an extensive array of additional features.

### 6.5.2.2 Microsoft Dynamics CRM

Microsoft Dynamics CRM is an enterprise software system that provides a platform for managing large scale data systems containing relational data. The software product has evolved over eight versions and twelve years, and is a highly regarded system. Dynamics CRM runs on the Windows Server operating system. It is hosted in Internet Information Services (IIS) to expose the data via a web application, and is based on Microsoft's ASP.NET application platform. Dynamics CRM uses SQL Server as a database engine, and includes a custom security layer to allow for flexible configurable record and role-based access to data.

Dynamics CRM includes a complete model for account management and integrates with Active Directory to manage user account authentication. It also

allows for federated identity via forms authentication using Active Directory Federation Services (ADFS). Dynamics CRM has built-in support for importing and exporting bulk data in CSV or Excel formats. This feature is often used to migrate data into a new CRM system from a legacy database.

Most importantly, Dynamics CRM is a framework that supports a vast capability for implementing custom features on the base platform. These customizations include a user interface builder that provides a drag-and-drop interface for developing custom pages. These custom pages have all the features of the out-of-the-box CRM pages, including support for client-side validation and business rules.

The Dynamics CRM database layer is fully implemented out-of-the-box, with all database artifacts, including tables and views, managed automatically by the CRM platform. This data layer is fronted by a complete set of web services for managing all data in the system. This web service allows for custom built service methods that are integrated into the services layer, which can be used to expose custom business processes and rules to the presentation layer.

#### *6.5.2.3 Microsoft Adxstudio Portal*

Microsoft Adxstudio Portal is a platform for building web site portals on a Dynamics CRM installation. The portal includes a complete content management system, with additional features for managing customer portals, help desks, partner portals, service requests, retail portals, and many other pre-built portal solutions. The authentication system is fully featured and includes integration with Dynamics CRM for managing user logins and security access. The portal users can include existing CRM system users, as well as additional users from outside the organization. The Adxstudio portal is a rapid development platform that allows for complete customization of the web experience, with built in support for responsive web design to allow the application views to be optimized for the end user's screen size.

#### *6.5.2.4 Microsoft SharePoint*

Microsoft SharePoint is an application platform that focuses on document and content management. It includes extensive workflow and automation support, as well as business intelligence, search, and website authoring, collaboration. All of this is packaged in a complete environment including administrative services to support the configuration and maintenance of the system implementation. Dynamics CRM is closely integrated with SharePoint. From within CRM, users can seamlessly access and store unstructured data in SharePoint.

#### *6.5.2.5 Microsoft SQL Server*

Microsoft SQL Server is an enterprise database engine. Known to most State departments and agencies that use Microsoft-based applications, SQL Server is a proven RDBMS that can handle tens of millions of records.

#### *6.5.2.6 Microsoft SQL Server Reporting Services*

Microsoft Reporting Services is a component of SQL Server that provides the ability to author, execute, and manage parameterized reports that display and present data from SQL Server and other data sources.

### **6.5.3 Identify how the solution will be architected**

In this section we describe how the above software components work together to address each of the major categories of technical requirements defined in the RFP.

#### *6.5.3.1 Application Architecture*

The following diagram presents the overall solution architecture, along with a brief description of what each component does.

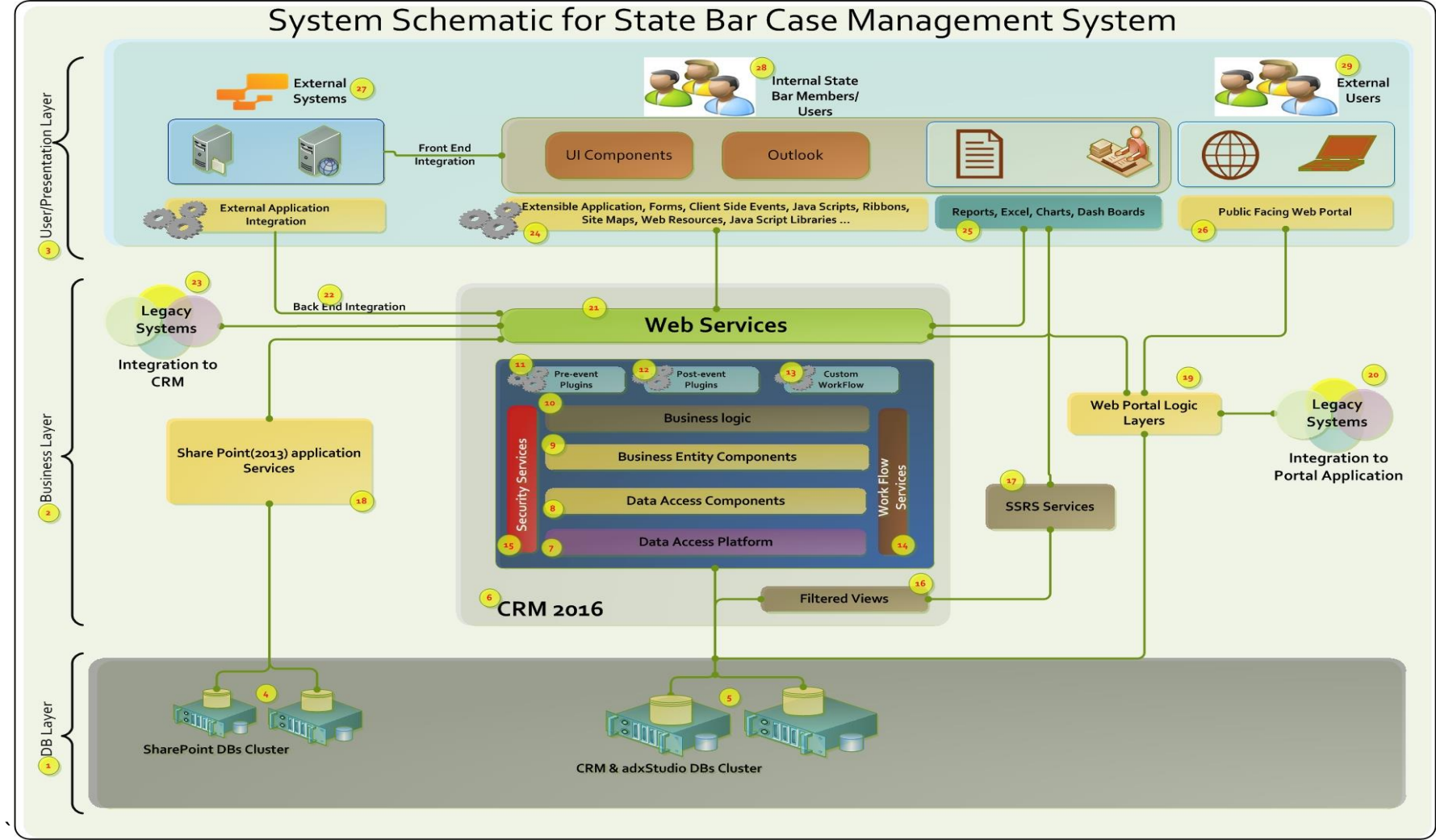


Figure 6-40 - CMS features a standard 3 tier architecture

The CMS system uses a N-tier architecture to separate the application into multiple logical and/or physical layers. This architecture creates well-defined interfaces between the logical application layers. The clear dependencies among the layers ensures that their components can be maintained independently and tested in isolation, and reduces potential regressions in functionality when one component is modified to add features or to fix bugs. The multiple layers in the system include the presentation layer, application, and data layer.

- **Presentation layer** - includes all visual components, including web pages, style sheets, and JavaScript, that provide for user interaction with the system.
- **Application layer** - consists of application code and script, whose primary purpose is to transform and validate the inputs submitted by the user, and to enforce major application business rules.
- **Data layer** - includes all logic for ensure data integrity and is encompassed by the SQL Server database engine, and a data logic library to manage all database calls. The combination of SQL Server, with its inbuilt data management tools and data integrity artifacts, and the Dynamics CRM model management tools comprise the database layer for the application.

No	Component	Tier	Description
1	DB Layer	DB	CRM DB Instances, SharePoint DB Instances, and Web Portal SQL Instances fall within the DB tier.
2	Business Layer	Business	CRM 2016 application server and services; Share point application server and services; and SSRS Reporting application Server and Services are in the business layer.
3	User/ Presentation Layer	Presentation	Graphical User Interfaces (GUI), dashboards, reports, and self-service front-end website are in this layer.
4	SharePoint DB Server Instance(s)	DB	The version of this database is SQL Server 2012 R2 Enterprise in clustered environment.
5	CRM & adxStudio DB Instance(s)	DB	The version of this database is SQL Server 2012 R2 Enterprise clustered, and is the primary database of record
6	CRM 2016	Business	Dynamics CRM is a software product that provides the primary framework for the solution.
7	Data Access Platform	Business	A windows platform that facilitates communications between CRM DB instances and CRM data components.
8	Data Access Components	Business	These components are part of the data access platform specific to windows data access components, (MDAC) core data access components such as the Microsoft SQL Server™ OLE DB provider, and ODBC drivers.
9	Business Entity Components	Business	These components are internal CRM components that contain CRM custom entities and attributes.
10	Business Logic	Business	Business logic is an internal CRM component that contains the business logic implementation



			for Microsoft Dynamics CRM Business Entities.
<b>11</b>	Pre-Event Plugins	Business	Customized Microsoft .NET code which is implemented on an entity that gets activated before the record is saved at the CRM database.
<b>12</b>	Post-Event Plugins	Business	Customized Microsoft .NET code which is implemented on an entity that gets activated after the record saved at CRM database.
<b>13</b>	Custom Workflows	Business	Customized processes (formerly known as workflows) that leverage .NET code to create an assembly which contains one or more classes derived from the Windows workflow foundation code activity class. This assembly is annotated with .NET attributes to provide the metadata that CRM uses at runtime to link the customized code with the workflow engine.
<b>14</b>	Work Flow Services	Business	This is a service interface to invoke business logics implemented at asynchronous and synchronous workflow handler from CRM work flow activities.
<b>15</b>	Security Services	Business	Allows user to be authenticated using the Windows identity foundation which forms the claims based authentication.
<b>16</b>	Filter Views	Business	These are CRM views created from CRM data and metadata for reporting and dashboard purpose.
<b>17</b>	SSRS Services	Business	SQL Server Reporting Services that uses filter views from CRM to produce customized reports for user. SQL Server 2012 Reporting Services will be used.
<b>18</b>	SharePoint Application Service	Business	SharePoint application server exposes services that are used by CRM services to store documents

			for a specific entity or record. The version of SharePoint application server is SharePoint 2013. The Microsoft Dynamics CRM list component for Microsoft SharePoint Server 2013 will be installed on the SharePoint server.
<b>19</b>	Web portal logic layer	Business	This is the customized .NET business logic that the dynamic link libraries (DLLs) serve to a self-service website GUI.
<b>20</b>	Legacy System Integration to Portal Application	Business	Customized windows service that executes periodically to synchronize the required entity attributes from CRM, portal and any legacy system.
<b>21</b>	Web Services	Business	Microsoft Dynamic CRM exposes web services that are used to identify organization and access CRM data and metadata.
<b>22</b>	Back End Integration	Business	The back-end integration mechanism uses CRM web services in customized .NET code to integrate to various external systems.
<b>23</b>	Integration to CRM	Business	Internal legacy System Integration using CRM Web Services
<b>24</b>	Applications, Forms, Client Side Events, Ribbons, Web Resources etc.	Presentation	These are client side components the client views on the Graphical User Interface (GUI). This displays what a user will see based on their respective role and credentials.
<b>25</b>	Reports, Spreadsheets and Dashboards	Presentation	Reports will be generated using both SQL Reporting Services and CRM reports. Dashboard, spreadsheets, and charts are created from CRM filter views and metadata.
<b>26</b>	Public facing web portal	Presentation	The public creates their own user profile. They are able to perform tasks such as create profiles, apply/renew applications, and

			check the status of those applications.
27	External System	Presentation	This is the external system integration through the front end. Using the CRM interface, users import data from other systems in any open format including Excel and Extensible Markup Language (XML).
28	Internal State Bar Members/Users	Presentation	Internal users will login to the system. Based on their role they will see the respective graphical user interface, dash board, and Reports.
29	External User	Presentations	External Users login to the external web application created in .NET and adxstudio and carry out tasks such as application and renewal processes.

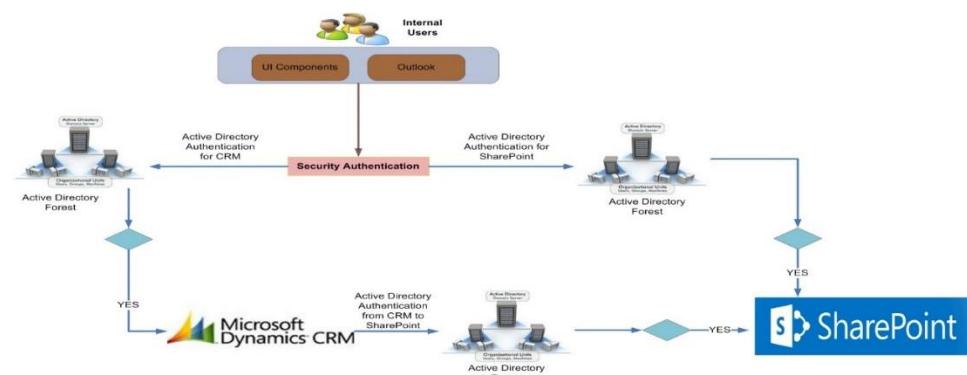
*Table 6-2 - Application Component Description*

These separate application layers can be deployed in a multitude of physical configurations, with each layer being split across one or more physical machines. This infrastructure ensures the performance of the system both by separating the processing load of each component into different computers and by allowing for each layer to be further scaled. This scalability is achieved by increasing the resources of a machine, or by implementing load balancing. Load Balancing allows for the processing load to be split over two or more machines, whose separateness is abstracted from the rest of the server by hardware or software. This abstraction is important in that a load balanced part of the system can be updated to improve performance without affecting the configuration of the rest of the application layers or components. Similar techniques to load balancing can also be applied in order to ensure the reliability of the system, by implementing failover clusters that move the processing load from an active server that has failed into a previously idle server. The load balancing can also provide for failover in that the system will continue to function if at least one of the load balanced servers continues to function in the event of the

failure or downtime of one or more of the other servers in the load balanced system.

The database layer will allow for business key values on database records that are unique and mandatory. Some of these may be composite keys made up of one or more fields. Further, the value of these business keys will not be used to enforce data integrity, and the modification of the business key will not affect entity record integrity. Data integrity and row uniqueness shall be enforced by having surrogate primary keys on database tables that are based on a Globally Unique Identifier (GUID).

The application will provide for a document repository based on Microsoft SharePoint. This system provides out of the box integration with Dynamics CRM to allow for documents to be associated with a database entity record. The SharePoint repository will be internally exposed via the internal CRM application web site. The documents shall also be available to the external users via the external web portal, allowing authenticated and authorized users to access the documents stored in the internal SharePoint repository.



*Figure 6-41 – Application Architecture*

The above picture demonstrates the SharePoint and Microsoft Active Directory Integration. A request to authenticate a user will be sent from Microsoft Dynamics CRM and SharePoint to Active Directory. The WCF (Windows Communication Foundation) stack manages the authentication process for Microsoft Dynamics CRM SDK API calls from an application, whereas Internet Information Services (IIS) manages authentication for a web application.

#### 6.5.4 Security

The internal and external web applications scale to support multiple user access and ensure database concurrency. With an N-tier layered approach to include separation of user interface, business rules, and database access, the system can support many simultaneous users, and can be scaled out in the future with more servers to extend the number of users allowed for concurrent access. The layered approach of the system also ensures that SQL injection attacks are not possible, by validating and encoding all user inputs, and by transforming all data queries through a business layer to create the database access routines and SQL statements. The system is also secured by using the Principle of Least Privilege, which ensures that each user is granted only the security roles and permissions that are necessary to perform the complete tasks that the user performs as part of his or her business role.

Dynamics CRM has built-in auditing that captures every user login and change to the system, including the previous and current values of each field that changed, the user's identity and the date and time of the change. It captures creation and deletion of records, as well as user connections to the system. Additionally, data auditing features track the user making the data change, including their IP address if needed. All auditing data shall be made available to internal users via summary and detail audit pages.

Microsoft Dynamics CRM

Discovery

Action Items

A0001

Search CRM

ACTION ITEM : INFORMATION

A0001

Audit History

Filter on: All Fields

Changed Date	Changed By	Event	Changed Field	Old Value	New Value
11/16/2015 6:20 AM	Michael Tomlin	Update	Responsible		Larry McCoy
11/16/2015 6:20 AM	Michael Tomlin	Update	Scope LOE		Changed after initial implemer
11/16/2015 6:19 AM	Michael Tomlin	Update	Scope Variation		Slight
11/16/2015 6:19 AM	Michael Tomlin	Update	Responsible		
11/16/2015 6:12 AM	Michael Tomlin	Update	Responsible	Christine Chang	
11/16/2015 6:12 AM	Michael Tomlin	Update	Responsible		Christine Chang
9/8/2015 10:26 AM	Michael Tomlin	Update	Responsible Stage	Backlog	Done
9/1/2015 2:36 PM	Michael Tomlin	Update	Status	2 - In Progress	5 - Completed
8/26/2015 12:05 PM	Michael Tomlin	Update	Title	015.00 - CHA Membership...	015.00 - Organization Mem...
8/22/2015 3:25 AM	Michael Tomlin	Update	Responsible Stage		Backlog
			Deadline	8/21/2015	8/28/2015
			Due Date		8/28/2015
			Go-Live	Before Go Live	Before Go Live

1 - 20 of 20

Created By

Armin Nasufovic

Created On

8/21/2015 2:03 PM

Modified By

Michael Tomlin

Modified On

11/16/2015 6:20 AM

Active

*Figure 6- 42 - Audit history is built into our solution framework, providing instant access to all the details of field level changes*

All audit records will be read-only to prevent unauthorized tampering or deletion. Only users granted explicit security role permissions to delete audit records will be allowed to remove them. No users will be granted the permission to alter the audit records to ensure integrity of the audit system. To maintain a high level of application performance, the audit data shall be partitioned by annual quarter, and each audit partition can be purged from the system.

128 bit SSL/TLS connectivity is used to encrypt all web traffic for security, and can be restricted to the HTTPS protocol as necessary. The system will use encryption to protect data at rest. This encryption uses SQL Server's Transparent Data Encryption (TDE).

CAPTCHA capabilities can be incorporated into the base portal via a custom application component or by evaluating the integration of open-source components that have been fully integrated and tested with the existing Adxstudio portal application, including Google's reCaptcha component.

The web portal and internal web applications use 128 bit or better encryption utilizing SSL/TLS connectivity over HTTPS, to ensure secure transactions of all web interfaces. This configuration is done via a setting in the IIS ASP.NET configuration for web applications. It will

satisfy the need to allow for encrypted data import and data export functionality through the CRM application. Moreover, the public web portal utilizing Adxstudio can be configured to permit both authenticated and anonymous access, through which users will be permitted to upload and download data as necessary to meet program and system needs. Additionally, all necessary web portal access will require secure user authentication, while anonymous access will be permitted for non-secure user access including reports and downloads that are available to the general public. An authenticated user will automatically be logged out of the system, after a predetermined period of inactivity, utilizing Session Timeout settings in the ASP.NET configuration.

Table 6-3 - Comparison

CMS	DOCQNET
3 second page performance for CRUD transactions	<1 second CRUD transactions
15 million database records with 10% growth	Currently at 40+ million records
5 million initial documents + 100k annually	2 million documents, plus 100k annually
Support 2GB upload	Upload files size is technically unlimited, but configured to limit to 20mb
Document inaccessible via public URL	Public portal limits document access only to documents made public based upon business rules
Limit file upload types	Configurable via SharePoint to restrict file types
Allow at minimum 500k items/activities to be associated with registrations/renewals per year, plus some annual growth	No limit to item/activity association. Daily workflows/system job activities averages 20k/per day.
Allow a minimum capacity of 40k registrations and other actions per year, plus; The above two items mean that there are, on average, 12 activities per registration	Total actions in the system number in the hundreds of thousands per year.
Allow 200 concurrent CRM users, plus 200 read-only users	Currently supports 325 concurrent users
Allow 3000 primary portal accounts, with about 10 users per account. Allow for growth of 30 accounts per year.	Currently supports 12,000 active portal accounts
Support up to 1600 concurrent internal and external users	Average internal/external concurrent users is ~1000
Allow rule based data purges	Daily system jobs conduct purging based upon business rules

### 6.5.5 Availability

The CMS is a highly available environment. Each tier (data, application, and web) features redundancy through the use of load balancing and



clustering. The web and application tiers use load-balanced sets of servers that will automatically avoid servers that have become non-responsive. This feature is highly dependent on the capabilities and configuration of the load balancing server or device. For example, many load balancers must be configured to poll web pages in the web tier and web services in the application tier, in order for the load balancer to accurately determine whether a particular server is responsive.

#### 6.5.6 User Interface

The application user interfaces for the internal and external web applications will be based on existing frameworks and platforms. The internal web application will be based on Dynamics CRM, and will include all out-of-the-box functionality. It will be augmented and enhanced as necessary to meet all functional and technical requirements of the system. The external web portal application will be developed on the Adxstudio platform, which is based on Microsoft ASP.NET and consists of web pages, web page templates, and supports completely custom web pages to allow compliance with all necessary system requirements.

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*Previous implementations have successfully met Section 508 ADA compliance standards in the State of CA*

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Microsoft has developed Voluntary Product Accessibility Templates, or VPAT, for Dynamics CRM 2016. A VPAT is a standardized form developed by the Information Technology Industry Council to show how a software product meets key regulations of Section 508 of the Rehabilitation Act. These templates explain the elements of the product's ADA compliance with Federal Regulations section 508. Microsoft also provides guidance and documentation on ensuring that all additional customizations of the Dynamics CRM user interface comply with accessibility standards, and these guidelines will be followed by the application development team to ensure that the solution meets all necessary ADA standards. Additionally, the public Adxstudio web site portal meets general web accessibility best practices. Existing production implementations using our framework have been tested using SortSite, a web-based tool that conducts a page level review and validates the page's compliance with Section 508 compliance guidelines. Based on this past experience we know for a fact the solution is ADA compliant.

The web portal supports all mainstream browsers, including Microsoft Internet Explorer and Microsoft Edge, Google Chrome, Mozilla Firefox, and Apple Safari. The product frameworks utilized in the solution, Dynamics CRM and Adxstudio, already have full support for these mainstream browsers, and all custom pages and elements will be developed to ensure compatibility across browsers.

The web application follows standard user interface practices to ensure that the application is familiar to users and meets normal expected behaviors to promote ease of use and to encourage users' adoption of the system. For example:

- By displaying verification prompts when a user attempts to delete a file, the system shall prevent inadvertent or accidental deletion of files.
- The user interface pages and forms follow industry standards to ensure the application is consistent and intuitive to users. Familiar controls like drop down lists, select lists, radio buttons and checkboxes guide users to select from appropriate values. The web applications forms and pages will also include standard intelligent data entry, with autocomplete for text entry when applicable, and with logical tab order to allow for streamlined entry of form data.
- The system also provides for industry-standard navigation and graphical user interface (GUI) features, including mouse gestures such as "drag-and-drop" and "point-and-click" to allow navigation when adding, deleting or modifying data.

The user interface pages and forms follow industry standards to ensure the application is consistent and intuitive to users. The labels and heading for data fields will be customized to make certain that the pages accurately reflect the department's terminology, and menus will be configurable to ensure consistency with terminology used by department staff and their clientele. By utilizing CSS frameworks, such as Bootstrap, the solution will ensure responsive application design compliance, and the application will follow additional User Experience (UX) standards to ensure ease of use and user efficiency. The application will support a minimum screen resolution of 1024 by 768

pixels, and will scale appropriately to optimally support higher resolutions.

#### 6.5.7 Help Functionality

The system shall include a help system, to provide online documentation. The help files are stored as XML files which can be exported, updated, and re-imported back into the system for updates and changes. This help system will be indexed and searchable. The search feature will include searching by field, topic or alphabetically.

#### 6.5.8 Reports and Queries

The application will provide the ability for users to query and report on CMS data stored in the SQL Server database. The internal web portal, based on the Dynamics CRM framework, shall include configurable views for every type of record via grid-based lists. These grids support filtering and sorting by the column fields for the entity, and allow for one or more columns to be searchable by a text based entry field. Moreover, Dynamics CRM includes an Advanced Find capability that consists of a complete query builder tool, with user friendly drop downs and the capability to add complex filters. The results of these queries are displayed in a user-friendly grid similar to the aforementioned views. Further, Dynamics CRM utilizes SQL Server Reporting Services (SSRS) to allow completely customizable reporting. These reporting capabilities include a simplified report wizard that guides the user through the steps to generate a report.

Additionally, all SSRS reports support the ability to be exported to Excel, Word, PDF, image, or text files such as XML and CSV. The system shall allow a user to cancel a query or report after it has been submitted, and the system shall allow a user to execute multiple reports and queries simultaneously.

#### 6.5.9 Documents

The CMS system shall provide a repository based on Microsoft SharePoint to store documents, images and other artifacts that are needed to support submissions and studies, or any other system record that requires documents. The system will support upload of documents to SharePoint in their original format, whether it be an image, office document, or other supported format as outlined by program staff, and shall retain the original document formatting and

resolution, including original document coloring, and shall allow the document to be displayed with its original format and coloring. The system shall support up to 5000 document pages to be associated with a study, and permit storage and retrieve of said documents. The documents stored in the system may be associated with one or many submissions. The submitted files shall be retained and associated with the appropriate submissions, and this association will continue in the system while the submission and document both remain part of the system. Since these supporting documents provide critical value to the submissions managed by the CMS, their integrity and their association with their related data elements shall be ensured by the application.

#### 6.5.10 Interfaces

The system shall support integration with other systems and databases to allow transfer of data and combining the CMS's business workflows with the processes of other systems. This integration shall include integration with other web services that are both external and internal to The State Bar. Dynamics CRM has a built-in web service exposes all primary data operations, including Create, Read, Update and Delete (CRUD), record ownership, permission sharing, and also custom business processes. Exposing CRM data to external systems outside of the department could be supported by developing custom services to expose the subset of data operations whose access is required externally. The CMS shall also support communication with other systems by a batch processing system based on file exchange. This would involve a file created by an external process or by a user, such as FTP, and then loaded into a predefined network directory and having the system automatically consume and process the file contents. Additionally, the CMS system can serve as the source of the file and allow an external process or system to consume and process the file.

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*Our experience integrating solutions with State approved payment processing services includes collecting over \$700,000 in filing fees during the 1<sup>st</sup> year of implementation*

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The system shall also provide incoming and/or outgoing interfaces to a payment processing system or systems. One example of our use of State approved payment processing services is Paypoint, a First Data/Bank of America services that currently has a master services agreement with the State.

#### 6.5.11 Authentication, Authorization and Account Management

The security and account management of the system allow for the separate management of internal and external users of the system. The system shall provide for authentication of users via a secure login requiring a username and password. Authorization shall be applied to all users, once authenticated, to ensure that the user is restricted from accessing or modifying resources to which the user does not have permission. All external users shall be managed via an account management system based on Dynamics CRM and Adxstudio's existing account management component, which is a fully featured system that supports additional extensibility to provide for flexibly meeting additional business needs. The system shall authenticate all internal users via the Active Directory data store. The system shall provide for an automatic lockout procedure for a user who has exceeded a predefined number of failed login attempts, preventing the user from logging in to the system until an account recovery procedure has been undertaken. The system recovery procedure shall be developed with input from The State Bar staff to determine the technique for recovering logins to allow for a sufficiently secure algorithm, which may require a system administrator's intervention or may provide a means for a user to recover his/her account as deemed appropriate. The authorization of both internal and external users to allow for access to and to deny permission to resources and records shall be implemented via flexible security roles. These roles shall provide for fine-grained permissions and flexible configuration.

#### 6.5.12 Information System Customization Maintenance

The system customization shall involve the development of various types of components and resources. These shall include, but will not be limited to, C# source code files, JavaScript files, CSS style sheets and HTML and ASPX web pages, as well as XML and other text configuration files. All of the source code files and resources shall be stored in a secure configuration management environment. The software used for this configuration management shall be approved at project initiation by The State Bar, but Microsoft Team Foundation Server is the recommended choice of software.

## 7. Project Approach

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### 7.1 Approach to Project Management



TrinityTG's project management methodology, *ProjectVue*, has been developed and refined over the last sixteen years of delivering successful, complex technology projects to many California agencies. *ProjectVue* closely follows the principles of the California Department of Technology's (CDT) California Project Management Methodology (CA-PMM) and the underlying Project Management Institute's Project Management Book of Knowledge (PMBOK). These best practice methodologies are at the core of TrinityTG's approach, and assure a strong implementation methodology that reduces risks for our clients by upholding the following principles:

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*We find the more transparency, the better positioned client and vendor participants are to work together and move the project forward.*

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- **Consistent, frequent and tailored communication** to the various stakeholder groups so that everyone is “in the know” on project status.
- Integrated **project management best practices** from the Project Management Institute with our knowledge of what has worked for our clients to develop *ProjectVue*. Our methodology utilizes PMI principles, including the PMBOK and adheres to CDT's CA-PMM.
- Comprehensive project management tools, templates, and examples to help **jump-start development of deliverables** and facilitate delivery of high-quality work products.
- Staff management tools that allow TrinityTG to manage and deliver **project resources at the right time**, to meet deadlines and enable a timely implementation while delivering a quality product.
- **Focus on quality** management and risk mitigation by a seasoned project team. Through a combination of demonstrated methodologies and experienced project team members, Trinity will drive to project success.
- **Collaboration with clients** to balance individual needs of users with broader needs of stakeholders.

The results from *ProjectVue* are best measured by our successes and satisfied clients. At the California Department of Business Oversight, for example, the TrinityTG project team successfully implemented a Dynamics xRM-based enterprise solution for licensing and compliance management. **This complex solution was delivered on-time and under budget.**

This success can be attributed in large part to TrinityTG's ability to manage a project, using an approach that utilizes a strong project management methodology and toolset, maximizes functionality and quality while minimizing and managing risk. Our project at the Department of Business Oversight was successfully measured against stringent oversight by multiple state control agencies, and deemed by all State parties to be an unqualified success.

TrinityTG's approach is to facilitate the building of complex software solutions in a sustainable and predictable manner. Our core project management approach utilizes the following processes of the project management life cycle:

- **Project Initiation** - Includes the activities conducted at the beginning of each project to determine or reaffirm the management team and to document and accept the business criteria and strategy for the project.
- **Project Planning** - Develops and maintains a workable method for accomplishing the business

needs and objectives the project was undertaken to address. This includes the activities conducted throughout the project that identify and reaffirm the processes, practices, procedures, resources, schedules, and deliverables that are needed or

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*ProjectVue proven at Department of Business Oversight and California Energy Commission with waterfall, agile, and hybrid development strategies*

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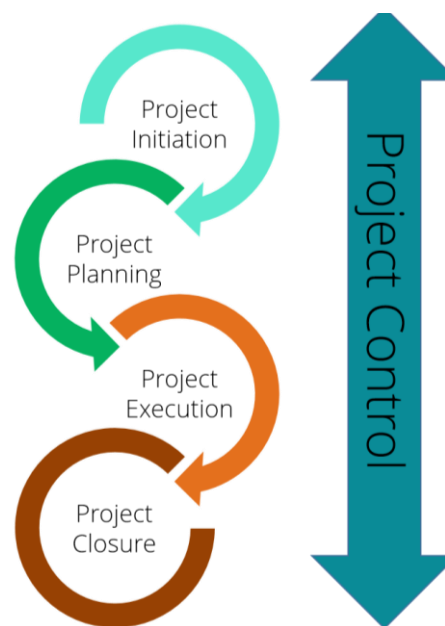


Figure 7-1- Core Project Management Processes



expected for successful completion of the business goals and objectives.

- **Project Execution** - Includes the activities performed by the resources to prepare and accept the deliverables needed to meet the business objectives according to the plan and the activities to capture and report on the progress of the work planned.
- **Project Control** - Includes the activities conducted by the management team to monitor the progress of planned and unplanned work and the corrective actions taken to avoid or resolve performance problems that may endanger the business objectives of the project.
- **Project Closure** - Includes the activities conducted at the end of a project to transition resources from the project back to their normal duties and the activities required to end the project in an orderly manner.

The project management approach starts with a solid foundation of planning, risk avoidance, and expectation setting. A few of the most important steps include:

- Providing highly skilled/trained resources for project activities;
- Identifying and defining appropriate processes for the project;
- Assuring adherence to the processes and standards defined for the project;
- Tracking project progress through project management controls tools;
- Delivering effective project management combined with analytically measurement project performance status;
- Controlling project execution through metrics with feedback loops for process improvements;
- Involving customer in all project activities – sign offs, issue resolutions, joint reviews; and
- Having well-defined, continuous and consistent communication among all parties.

### 7.1.1 Supporting the Project with *ProjectVue*

Our project management approach is supported by an proprietary toolset, also called *ProjectVue*. Our *ProjectVue* toolset was built from the ground up by TrinityTG, based on our years of experience in the industry. *ProjectVue* manages the tracking and management of

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*ProjectVue integrates a database for multi-user entry, update, workflow, tracking, traceability, and reporting.*

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complex public sector IT projects. *ProjectVue* provides complete transparency, so all stakeholders will have access to the same key information in real-time, thus providing State Bar staff with an unprecedented level of access to the project's status. While TrinityTG is responsible for project leadership and management, we find that the more communication which takes place, and the more transparency, then the better positioned both sides are to work together and move the project forward.

The days of project management done with Word and Excel with a single person serving as a choke point, which prevents visibility, are (or should be) over.

The following figure illustrates the main project management modules that are available in the *ProjectVue* tool.

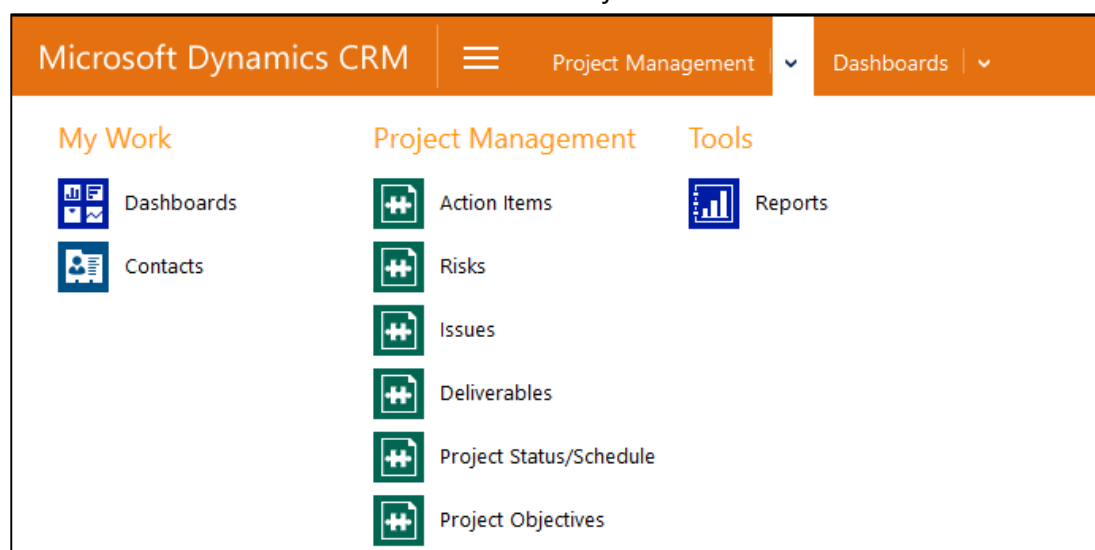


Figure 7-2 – Main Menu of ProjectVue tool

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Transparent  
Traceable  
Truthful

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The key principles of *ProjectVue* are to be **Transparent**, **Traceable**, and **Truthful**. Our operational and analytical project dashboards allow staff to assess key project information and repositories at any time, in real-time.

These guiding principles encompass the entire lifecycle with full traceability for all project artifacts – from requirements on day-one to implementation. *ProjectVue*:

- Enables a **sustained commitment** to executing the plans throughout the project lifecycle.

- Provides **transparency** to project management activities including ongoing executing of the plans.
- **Documents, tracks and verifies** activities, assignments, and commitments, from status review and project management meetings.

We have incorporated specific features into *ProjectVue* to reinforce our project management approach, they include:

- Action Items
- Risks
- Issues
- Deliverables
- Project Status and Scheduling
- Project Objectives, and
- Change Control.

The following figure illustrates a Change Request that has been documented in *ProjectVue*.

The screenshot shows a Microsoft Dynamics CRM interface for a Change Request. The title is "Provide some extra features for GIS functionality". The status is "Trinity Initiate (Active)". The workflow shows stages: Client Review, Implementation, Conclusion, and Next Stage. The "General" tab is selected, showing details like CR #, Title, Requester Name (Amit Rai), CR Status (Ready for Internal TTG Review), Criticality (High), Category (Must Have), and Summary Description (Business user has requested to provide some extra features for GIS functionality. In exchange they have agreed to reduce number of report to 15).

CHANGE REQUEST : INFORMATION			
Provide some extra features for GIS functionality			
<div> Trinity Initiate (Active) Client Review Implementation Conclusion Next Stage </div>			
✓ Created On	12/15/2015 3:54 PM	Team Review Outcome	click to enter
✓ Created By	Amit Rai	PM Submit to Account Mar	--
PM Review Change Control	--	Client Submittal On	--
<div>Client Submittal To</div> <div>click to enter</div>			
<div>General</div>			
CR #	--		
Title *	Provide some extra features for GIS functionality		
Requester Name *	Amit Rai		
CR Status *	Ready for Internal TTG Review		
Criticality *	High		
Category *	Must Have		
Summary Description *	Business user has requested to provide some extra features for GIS functionality. In exchange they have agreed to reduce number of report to 15		
Active			

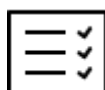
Figure 7-3 –Change Request Tracking

*ProjectVue* provides built-in analytical dashboards and ad-hoc reporting features for real-time access to a single point of truth.

Beyond these core project management features, *ProjectVue* also provides the entire project team – including business analysts, developers, and quality assurance analysts – access to crucial project information, including:

- Requirements Management
- Development Artifacts
- Release Management
- Document Repository
- Test Script to Defect Tracking

### 7.1.2 Use of Deliverable Expectation Documents



Our approach to finalizing the contents of the key project plans, and all other written deliverables on the project, will be to utilize a Deliverable Expectation Document (DED) as recommended by the California Office of Systems Integration's (OSI's) Best Practices. A DED will define our approach to preparing a deliverable, including the methodology, format, content, target audience, reviewers, and level of detail. This document is prepared prior to beginning work on the deliverable and must be approved by the State Bar before work begins. This ensures that all stakeholders are on the same page about the purpose and final content of a deliverable and there are no surprises at the end of the day.

The following table outlines the proposed content of each DED.

*Table 7-1 – Deliverable Expectation Document Content*

Section	Content
<b>Introduction</b>	A brief overview defining the purpose of the deliverable and how it fits within the overall completion of the project. Indicates if there are pre-requisite tasks and subsequent tasks.
<b>Deliverable Description</b>	Describes the deliverable's objectives and scope. Discusses the level of detail to be provided.
<b>Methodology for Creating the Deliverable</b>	Provides a brief explanation of the tasks, activities and methods to be used to develop the deliverable. If appropriate, includes a process flow diagram. Does not duplicate methodologies described elsewhere. Indicates if there are any assumptions or constraints on the development of the deliverable.
<b>Applicable Standards</b>	Lists the specific industry and/or government standards which must be observed.

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*Deliverable Expectation Document explains the scope, depth, and format at the beginning of word product preparation for clear understanding*

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Section	Content
<b>Table of Contents</b>	Lists the anticipated table of contents or outline of the document. Discusses the content of each major section. Where appropriate, includes a sample of this document from other projects.
<b>Deliverable Requirements</b>	Lists the specific requirements for this deliverable from the Request for Proposal, Statement of Work, and/or contract.
<b>Deliverable Format</b>	Lists any required templates, diagrams, tables or specific content required for this deliverable. Estimates the length of the document and number of copies to be delivered.
<b>Deliverable Acceptance Criteria</b>	Lists the specific acceptance criteria for the deliverable. The first criteria will always be “were the requirements met”. The criteria should be specific to the deliverable and indicate key needs of the project.
<b>Key Deliverable Dates</b>	Lists the key activities and due dates in the preparation and review of this deliverable. If appropriate, list key meetings, walkthroughs, inspections and reviews. These tasks will be consistent with the activities and dates in the schedule and contractual timeframes regarding deliverable delivery, review and approval/rejection. Includes time for State Bar review of the deliverable and TrinityTG incorporation of comments. Indicates if any activities/dates are on the critical path or have significant dependencies.
<b>Resources Required</b>	Lists the specific resources involved in the deliverable preparation and review. Estimates the amount of time required from each key resource, particularly for any sponsor, user, or stakeholder staff involved. If appropriate, list the specific skill or knowledge required, such as knowledge of member management policies or experience with current system's reports.
<b>Deliverable Payment</b>	If applicable, indicate if this is a payment deliverable, if progress payments for this deliverable will be paid, and the estimated amount for developing this deliverable.

### 7.1.3 Schedule Management

Schedule management is the planning, organizing and controlling of time utilization and consumption. To manage schedules, a comparison is made between the baselined work plan and actual time consumed. Many factors may impact schedule; consider the following:

- Effectiveness of the people carrying out tasks or activities
- Delays associated with reviews or approvals
- Difficulty in completing a task due to complexity or ambiguity
- Quality performance that requires rework
- Changing requirements or scope
- Impacts from other interdependent projects that are delayed
- Interruptions to the project by other activity for assigned resources
- Procured items not delivered on time

The objective of schedule management is managing the time expenditure required to successfully complete the project. Since initial estimates for time requirements are rarely 100% accurate, schedule management focuses on continuous updates to validate estimates and the time required to complete a project.

#### 7.1.3.1 *Baseline*

In order to manage the schedule, a baseline must be established. The baseline schedule will include:

- Durations for resources to accomplish all activity on the project (normally in days for all resources, both State and contractor)
- Method used to determine the time required to complete each project activity so changes can be estimated in a similar fashion
- Dependencies for each activity
- Management adjustments for risk, etc.
- Availability of resources, environments and facilities

The detailed project Work Plan is a separate deliverable developed and maintained in Microsoft® Office Project Standard 2016. Its initial version is submitted with this Project Management Plan. Following the State Bar review and approval of the detailed schedule, the TrinityTG Project Manager establishes the baseline version, enabling subsequent planned vs. actual comparisons and analysis.

#### 7.1.3.2 *Schedule Updates*

Over the course of the project, the TrinityTG Project Manager updates the detailed schedule at least weekly with actual task progress and accomplishment information. As new information is learned, and as tasks are completed, updates to the current plan are recorded and analyzed. Whether presented in a task sheet, resource usage, or Gantt

chart format, the updated detailed schedule is the core instrument used by:

- TrinityTG and State Bar project managers to monitor and evaluate project accomplishments at their weekly working meeting
- Project team members to review and discuss task progress at weekly status reporting meetings

#### *7.1.3.3 Schedule Variance*

During execution, the TrinityTG Project Manager is responsible to compare actual projects with planned activities to identify where variances occur. These variances will be documented for discussion with the State Bar project management.

#### *7.1.3.4 Schedule Reporting*

If the impact of schedule variances is likely to cause the project to alter from the baseline schedule of the project by more than 10%, the variances will be reported along with recommendations to remediate them to the appropriate levels of management and oversight authorities.

#### *7.1.3.5 Schedule Control Measures*

The following methods will be used for managing schedule changes during project execution:

- The Change Management Plan and risk mitigation strategies will be used to prevent delays in the schedule.
- Opportunities to decouple dependencies will be identified so more activities can be conducted in parallel where possible.
- Resources will be swapped where possible to other tasks complete sooner.
- We will assess the technical skills to determine proper task coordination, and identify when additional training is needed.
- Plan lead times to avoid idle resource time on tasks.
- Reduce dependencies from uncontrollable sources.
- In order to avoid delays with obtaining reviews, work will begin on each succeeding phase or deliverable while waiting for approval of the current or previous phase or deliverable.
- The Project Manager will make every effort to expedite reviews.

During the Analysis and Build phases, technical leads will determine any tasks which will be particularly onerous or difficult and will ensure

that resources with critical tasks be given additional help for these tasks.

#### 7.1.4 Project Status Reporting

The purpose of the Status Reports is to ensure that all members of the project team are fully apprised of the progress of the project in all areas not just theirs specifically. In addition, status reports serve to establish and maintain a contract between the TrinityTG Project Manager and the State Bar Project Manager that ensures a clear and constant communication method throughout the life of the project. It defines the frequency, format and delivery methods of the status reports. Status Reports help to ensure a common understanding of the health of the project with regard to risks, issues, schedules and progress.

Status reporting is an important component to assure the project manager and key staff understand all activities and their progress. The Status report can be customized for specific needs of our clients, but the following reporting outline is based on our *ProjectVue* methodology, using previous experience and industry standard practices.

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*Status Reporting  
aligned with Project  
Schedule for work  
in progress, Issues,  
Risks, special  
activities,  
stakeholder  
coordination*

---

*Table 7-2 – Project Status Report Content*

Section	Description
<b>Summary Information</b>	Includes name of the project, reporting period covered, and presenter of the report.
<b>Progress</b>	Includes main accomplishments since the last reporting period. Also discusses items that were not completed as scheduled.
<b>Planned</b>	Includes tasks planned to begin or conclude during the next reporting period.
<b>Action Items</b>	Includes tasks assigned to individual team members with estimated completed dates that were identified in the last reporting period.
<b>Issues</b>	Summarizes open and recently closed project issues.
<b>Risks</b>	Inventories open project risks currently being mitigated.

### 7.1.5 Communication Management

TrinityTG's approach to the Communications Management includes collaborating with the state to identify a formal communication plan for this project that incorporates proven best practices and existing state policies. The Communication Management Plan details the types of communications, who is involved, how the communication occurs and any required timeframes. Examples of types of communication include:

- Status Reports;
  - Review process for deliverables;
  - Review process for work in progress; and
  - Requests for reference materials.
- Who is involved in the communication for the Status Report might include:
  - Team Leads prepare weekly report that is forwarded to the TrinityTG Project Manager.
  - The TrinityTG Project Manager synthesizes the reports from his/her team leads and submits a written report to the state Project Manager each week.
  - The state Project Manager holds a meeting with the TrinityTG Project Manager and others designated in the Communication Plan each week following the written request.

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*Communication Plan ensures client chain of command understood and followed by vendor staff for timely, complete, actionable information sharing*

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There may be overlap between the Quality Management Plan and the Communication Plan in the description of participation in the review of deliverables. The key is to clarify who will participate in the review and approval of deliverables as early as possible in the process of deliverable preparation.

For example, the project is at risk if the people designated to approve a deliverable lack adequate preparation, either through a lack of active participation in the project or in the earlier review of work in progress for the specific deliverable.





Figure 7-4 - Clear communication at all levels is key to managing expectations

*Enable and promote work in progress review to ensure expectations met, providing learning opportunities, demystify activity, and make adjustments that avoid re-work during formal review process*

Our experience suggests that in addition to a formal review of deliverables at the draft stage, projects benefit when reviewers have the opportunity to review work in progress throughout the deliverable preparation process. This makes review and approval of the deliverable go faster, as most input and corrections have already occurred by the time the draft is submitted.

It is also critical to define who needs to receive project communication. Members of our team will frequently want to obtain clarification of a requirement or business rule. The communication plan will clarify whether our team members can make the request directly to a State subject matter expert or whether requests should go through a team leader or to a designated State contact person. E-mail distribution is another area where the scope of whom to include in communication is important to clarify. When a team member wants to raise an issue, the communication plan should clarify whom to contact.

#### 7.1.6 Scope Management

TrinityTG's approach to scope management includes the detailed processes that are completed to confirm the initial project scope, and that define the work by creating the Product Breakdown Structure

(PBS) and the Work Breakdown Structure (WBS) that subdivide the major project deliverables and activities into smaller manageable pieces. This allows the State Bar and TrinityTG project managers to start with a detailed plan to implement the baseline requirements to complete the project.

Once the initial scope and work is defined and the business analysis of detailed requirements begins, our approach is for the TrinityTG project manager to work with the state project manager to monitor potential project scope changes through routine status reporting and review meetings. When a potential change to scope is identified, we will use the formal change control process detailed in the Project Change Control Management Plan to evaluate the potential scope changes.

The details (including description, category, benefits, impact of change, and risk) of the change request and real-time approval progress will be available to review within *ProjectVue*.

When a change to scope is agreed upon, then the necessary details are linked and integrated as detail requirements and enter the development lifecycle. The source of these new requirements will now be traced back to the change request instead of the original baseline requirements. If a change request is not approved, the facts are saved within *ProjectVue* and available for future consideration.

The project scope will be managed through the project's scheduled reviews at Weekly Status Meetings, and through the change control process. Communication will play a key role in scope management.

Although the objective is to minimize changes to the project scope, some changes should be anticipated. In the event that scope changes are desired, the changes will be handled according to a formal change control process. As desired changes to technical and business requirements, hardware, software, documents, and system design are identified; the impact to the project's scope will be assessed and addressed as required by the Change Control Plan.

There are several tools and plans that will be used to control the scope of the project:

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*ProjectVue  
database enables  
rapid maintenance  
of requirements  
and User Stories  
when using Agile  
process*

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- **Project Charter** – The Project Charter will establish the overall purpose and scope of the project, defining key business objectives that will drive decision-making about scope details.
- **Product Breakdown Structure** – Product Breakdown Structure lists a high-level all the components needed to make a project successful.
- **Work Breakdown Structure** – Work Breakdown Structure (WBS) breaks the entire project into small manageable chunks of work allowing for the creation of smaller package of work items that are more easily assigned to the project teams.
- **Requirements Management** - The requirements will be documented in *ProjectVue*. The repository includes a list of baselined requirements from which the requirements can be traced at any point during the project, forward or backward, and reconciled to all deliverables and deliverable components throughout the project life cycle. This will provide the State with a high degree of confidence that the end solution meets 100% of the State's requirements. Additional requirements may be added to this list during the development process. However, new requirements must be reviewed by the joint Project Management Team, through the change control process, to determine how, where and when the requirements could fit into the project scope. Additional details on our approach to Requirements Management can be found in Section 7.1.10 below.

#### 7.1.7 Risk Management

Project risks are future uncertainties, liabilities, or vulnerabilities that may cause a negative impact to the project. Recognizing that every project carries some risks, it is important to manage risk proactively and through a formal risk mitigation process.

TrinityTG's approach is to understand that risks come from a wide range of factors that must be vetted and mitigated throughout the project. The risk management process seeks to minimize the impact of unplanned incidents on the project by identifying and addressing potential risks before significant negative consequences occur.

The following process flow defines the roles and main activities involved in managing risks.

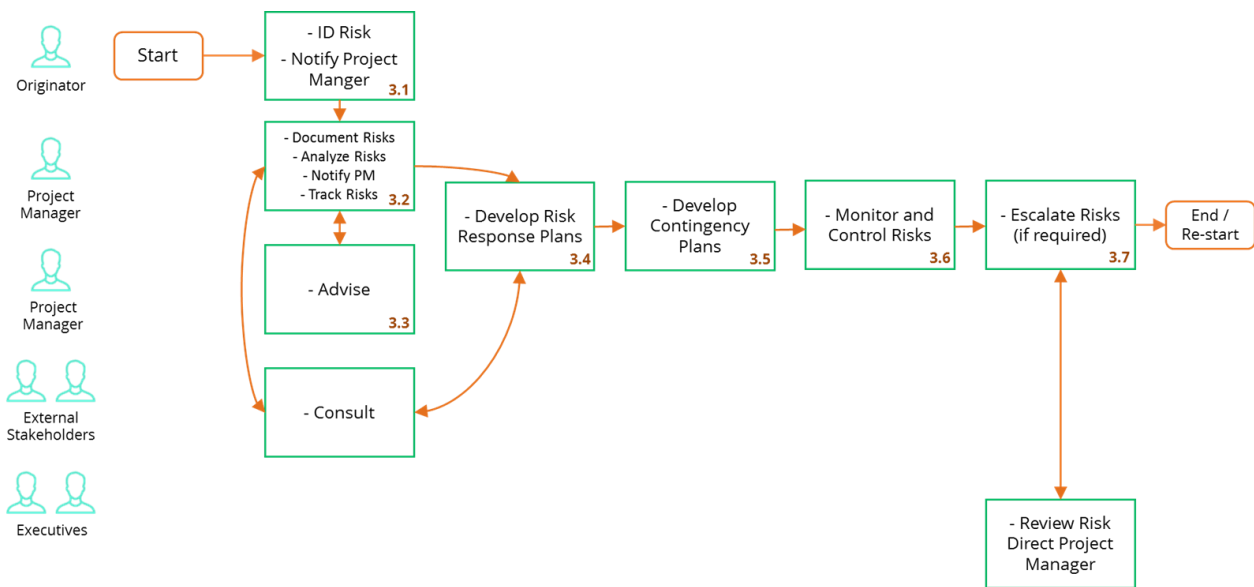


Figure 7-5 - Risk Management Process Flow

Risk management is a critical process to manage uncontrollable project activities or circumstance that may result in negative consequences to project or product performance. The project team develops mitigation plans to minimize the occurrence of risk, as well as contingency plans, in case the risks occur.

*ProjectVue* integrates the risk management process by including action items, risk, and issues. One risk that *ProjectVue* directly removes is that it does not allow plans to collect dust. Often, project plans collect dust because they lack usability and access. With *ProjectVue* risk management is documented as a formal project deliverable. Our Risk Management Plan encompasses these steps:

- Risk identify
- Risk escalation
- Define probability and impact of the risk
- Catalogue risk characteristics
- Monitor risks throughout the risk's lifecycle
- Evaluate the effectiveness of the risk response.

Typically, when a project of this size and complexity has a contractor join the project, there are already risks that have been catalogued by the State. TrinityTG's approach is to establish the agreed upon process for risk management and mitigation very early in the project. We start with industry best practices and our tool, *ProjectVue*.

*ProjectVue enables authorized staff to track and update risks and issues to ensure timely information*

The following figure illustrates recording a new risk in *ProjectVue*.

Microsoft Dynamics CRM | Project Mgmt. | Risks | New Risk

SAVE SAVE & CLOSE + NEW FORM EDITOR

RISK : INFORMATION

## New Risk

General

Title \*

Description

--

Type

--

Priority

--

Impact

Probability

--

*Figure 7-6 – ProjectVue Data Capture form for Recording a New Risk*

Then, working with State Bar staff, we build the appropriate detailed mitigation strategies – complete with named resources that identify their roles, responsibilities for mitigating the risk. We also, as part of our project management review the mitigation strategies, and alter our approach on an ongoing basis as needed.

This approach gives the risks visibility to the project team and the state risk manager. Entry into *ProjectVue* begins the traceability process of project risks through the steps identified above. This also gives a single source of truth of risk status.

The heart of Risk Management is to communicate and resolve risks. The categories typically deployed in Risk Management are:

- **Ownership** – the individual or team that is assigned responsibility of the risk.
- **Accept** – accept the risk and move forward with the project.
- **Triggering Events** – what activities indicate the risk will occur
- **Mitigate** – perform some sort of an action to remove the risk.
- **Reduce** – perform some sort of an action to reduce the impact of the risk.
- **Transfer** – transfer the risk to some other entity (i.e. Insurance is type of transferring the risk to the insured, warranties and etc.).

Risks are identified, and the characteristics of it are evaluated, to measure the severity, probability, and the impact to project health. Key aspects to consider when evaluating risk is to, 1) identify *when* and, 2) *how often* the project will be exposed to the risk (i.e. once, weekly, in N months). Risks must also be rated relative to each other. This aids the project team to evaluate and focus on higher risks first.

#### 7.1.8 Issue Management

An issue is a situation, action, problem, or question arising during the performance of the project. Left unresolved, an issue would impede or prohibit project-related progress or development by delaying or suspending a task or project.

---

*Issues can evolve into risks, requirements, changes, project tasks. ProjectVue database enables maintaining findings and tracking status*

---

The purpose of issue management is to establish a standard method to document, analyze, approve, and communicate issue resolutions. Any team member can identify and report an issue. Many types of issues will arise during a project. Effective issue management accomplishes the following objectives:

- Facilitates the resolution of issues,
- Controls and coordinate issues and their deliverables,
- Encourages issues to be raised by providing a tracking system,
- Communicates the resolution to the affected enterprise areas, and
- Captures the trends and types of issues that are raised over time.

The issue management methodology employed during this project will use the following steps outline to define the issue management lifecycle:

1. Identify the project team member who is responsible for the administration of the project's issue management.
2. Develop a format and procedures for documenting issues as they arise.
3. Document each issue within two business days of its origination.
4. Track the issues in *ProjectVue*.
5. Prioritize the issues in *ProjectVue* for resolution.
6. Analyze each issue.
7. Create issue reports based on the current Issue log.
8. Have weekly Team status meetings to discuss the issues.

9. Define the procedures for escalating intractable issues to higher levels of management as defined by the Project Communication Plan.
10. Certify when an issue was resolved and who resolved the issue.
11. Create an archive of resolved issues for future use such as a “Lessons Learned” document.

#### *7.1.8.1 Issue Terms & Definitions*

The following terms and definitions will be used for issue tracking purposes:

##### **Valid Issues**

- Include disagreements, roadblocks, or specific questions that have an immediate impact on some aspect of the project and prevent the project from moving forward as planned.
- Present an immediate threat or potential impact to the project’s scope, schedule, and costs.

Problems or questions that do not meet the definition described above should be managed at the project team level.

##### **Invalid Issues**

- Do not present an immediate threat to meeting project objectives and will not be tracked. Issues which are NOT considered valid include:
  - General questions
  - Action Items
  - Issues not directly impacting the project

All project team members and stakeholders are urged to give proper consideration to the terms and definitions described in this section before generating an issue.

#### *7.1.8.2 Identification & Submission of an Issue*

Project team members or stakeholders who identify an issue or problem that presents a barrier to the progress or success of the project will submit the issue stated clearly and concisely in writing to the TrinityTG PM. If deemed necessary, the TrinityTG PM may ask the submitter to complete an issue analysis in order to gain a clearer understanding of the issue and its importance. If it’s determined that the matter submitted is not valid, the TrinityTG PM will notify the

submitter. These matters are typically addressed via the Weekly Status Report or other process so that the information is not lost. The Issue Manager will document valid issues in *ProjectVue* and track to closure.

#### 7.1.8.3 Issue Ownership

Once an issue is logged and accepted into *ProjectVue*, the TrinityTG PM will assign an owner who will be responsible for coordinating any/all related actions. If deemed necessary, the TrinityTG PM will require a written analysis of the issue. If an issue analysis is required, the issue owner is responsible for coordinating completion and submittal of the analysis in addition to providing updates and status for the issue.

#### 7.1.8.4 Issue Tracking

If a risk is not mitigated and becomes an issue, this information is transferred and tracked as an issue in *ProjectVue*.

The following figure illustrates recording a new issue into *ProjectVue*:

The screenshot shows the Microsoft Dynamics CRM interface for creating a new issue. The top navigation bar includes 'Project Mgmt.', 'Issues', and 'New Issue'. The main form area is titled 'New Issue' and contains a 'General' tab. The form fields are as follows:

Field	Value
Title *	--
Priority	--
Status	--
Target Resolution Date	--
Description	--
Open Date	--
Actual Resolution Date	--

Figure 7-7 - ProjectVue Data Capture form for Recording a New Issue

When an issue is sourced as a risk, this relationship is maintained and traced in *ProjectVue*. Key characteristics of an issue repository includes:

- the source of the issue,
- the assignment and evaluation responsibility, and
- the relative priority to other issues.

This important process provides necessary transparency, traceability and a single source of truth for issues for the project team and stakeholders.



Risk and issue tracking are available through our operational and analytics dashboards. This allows risk and issue assessment capability to project staff at any time, real-time.

#### 7.1.8.5 Issue Escalation

The TrinityTG PM will escalate issues, which cannot be resolved at the team level to the project Executive Steering Committee or if warranted, the Project Sponsor(s) for decision. A report from *ProjectVue* and any written analysis shall be provided as a reference. The Issue Manager shall assemble the proper documentation so that the appropriate authority can make a timely and informed decision. Issues should be fully analyzed and clearly articulated and documented prior to escalation.

- If issue resolution is not progressing according to assigned due dates and expectations, the Issue Manager is responsible for working with the assigned issue owner to determine the obstacles to resolution. The Issue Manager follows up on unresolved issues on a continuous basis and provides updates to the TrinityTG PM. The TrinityTG PM will escalate issues, which have not been resolved in a timely manner to the Executive Steering Committee for a decision.
- If an issue cannot be resolved due to conflicting positions, the issue will be escalated to the Executive Steering Committee who will determine next steps and make a final decision. Issues that cannot be resolved at the Executive Steering Committee level will be escalated to the Project Sponsor for resolution.

#### 7.1.8.6 Issue Management Roles & Responsibilities

The following table describes the roles and responsibilities of project participants in terms of issue management.

*Table 7-3 – Issue Management Roles & Responsibilities*

Role	Responsibility
<b>Issue Owners</b>	Takes necessary steps to resolve and bring closure to an assigned issue, provide status updates, coordinates and/or develops issue analysis as required.

Role	Responsibility
<b>Issue Manager</b>	Manages and tracks issues to closure and performs administrative issue documentation. Maintains <i>ProjectVue</i> .
<b>Project Managers</b>	Possesses the overall accountability for managing issues for the project.
<b>Project Team Members and Internal</b>	Submit perceived issues to the TrinityTG PM or Issue Manager as they are identified and provides input to or develop issue analysis as required.
<b>Executive Steering Committee</b>	Possesses the second highest level of authority for the project and may be called upon to render a decision for escalated issues.
<b>Project Sponsor</b>	Possesses the highest level of authority for the project and may be called upon to render a decision for escalated issues.

### 7.1.9 Requirements Management

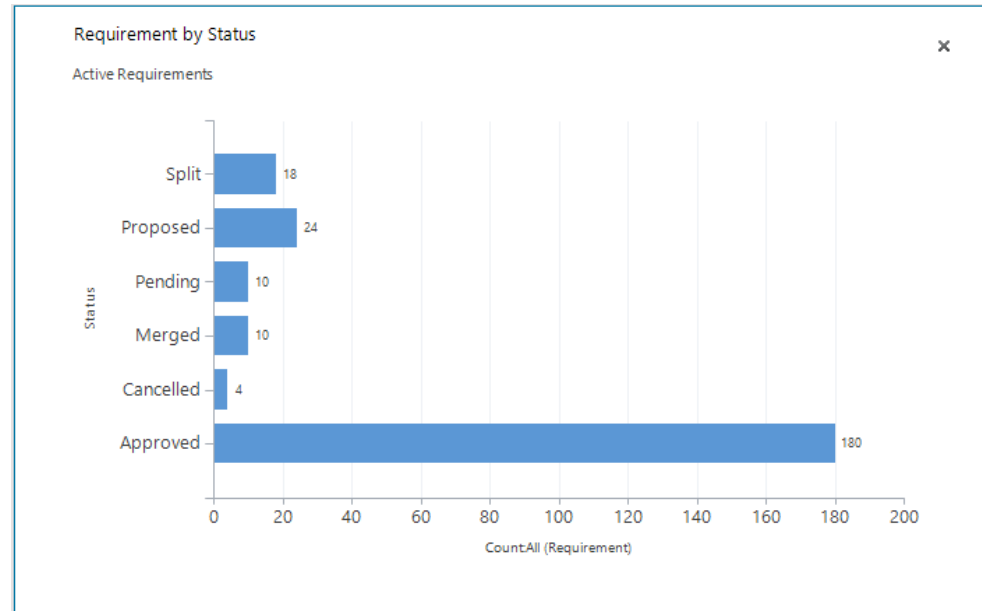
Requirements management is the set of activities that consists of gathering requirements, identifying the “right” ones to satisfy, and documenting them.

TrinityTG’s approach is to use the project charter, the scope management plan, and the requirements management plan as inputs. This inputs are combined with our tools and techniques to elicit and document stakeholder needs into product requirements (for example, product specifications, performance, quality, security, etc.) or project requirements (business guidelines, project management practices, delivery schedules, etc.).

The key is to use automation and bring the contract requirements into TrinityTG’s *ProjectVue* and verify the baseline. After the baseline requirements have been imported and verified, our project team uses a variety of techniques to enhance the requirements and prepare them to be used as a basis for the upcoming JAD sessions that result in the detailed design specification. These techniques typically include:

- process modelling,
- diagramming,

- documenting,
- analyzing and mapping requirements,
- identifying relationships between requirements,
- tracking and storing requirements artifacts, and
- communicating with stakeholders.

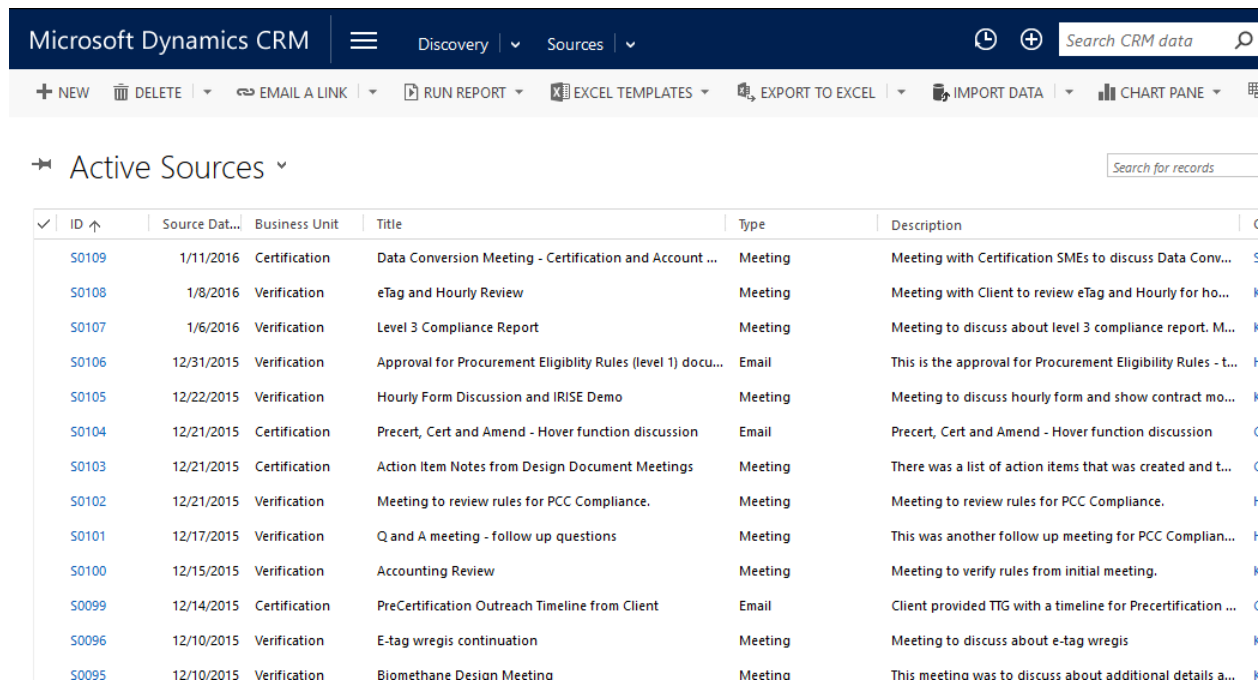


*Figure 7-8 - Requirement Statuses give stakeholders a real-time view of how requirements are managed over time.*

These requirements techniques are supported with *ProjectVue* to manage the workflow for requirements at this phase that include baselining, approvals and sign-offs, change control and implementation status. The key activities for a project of this complexity is to maintain the backwards traceability, forwards traceability, relationships between requirements, and impact analysis of requirements change. Our approach **does not** include taking the contract and disappearing for weeks or months; a critical behavior for our project team is collaboration with our clients with real-time verification and socialization to the state project team in *ProjectVue*.

### 7.1.10 Requirements Identification & Classification

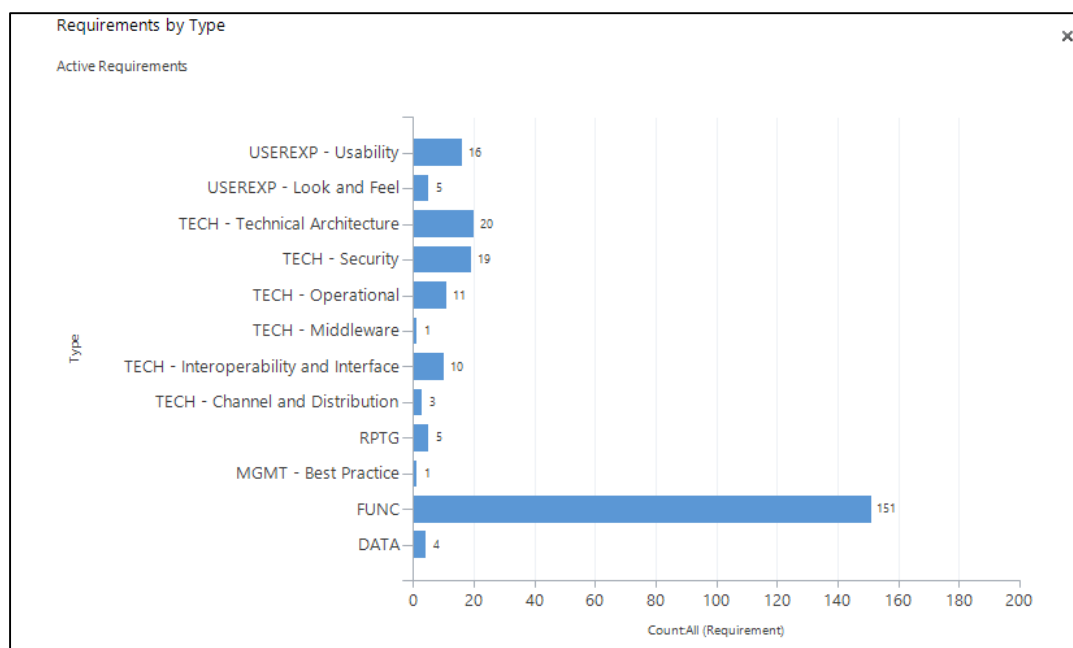
The next steps in requirements development will include the classification of requirements into functional similar categories. This will allow the project team to prepare a series of JAD sessions to further develop the requirements. A critical aspect of requirements management is traceability.



ID	Source Date	Business Unit	Title	Type	Description
S0109	1/11/2016	Certification	Data Conversion Meeting - Certification and Account ...	Meeting	Meeting with Certification SMEs to discuss Data Conv...
S0108	1/8/2016	Verification	eTag and Hourly Review	Meeting	Meeting with Client to review eTag and Hourly for ho...
S0107	1/6/2016	Verification	Level 3 Compliance Report	Meeting	Meeting to discuss about level 3 compliance report. M...
S0106	12/31/2015	Verification	Approval for Procurement Eligibility Rules (level 1) docu...	Email	This is the approval for Procurement Eligibility Rules - t...
S0105	12/22/2015	Verification	Hourly Form Discussion and IRISE Demo	Meeting	Meeting to discuss hourly form and show contract mo...
S0104	12/21/2015	Certification	Precert, Cert and Amend - Hover function discussion	Email	Precert, Cert and Amend - Hover function discussion
S0103	12/21/2015	Certification	Action Item Notes from Design Document Meetings	Meeting	There was a list of action items that was created and t...
S0102	12/21/2015	Verification	Meeting to review rules for PCC Compliance.	Meeting	Meeting to review rules for PCC Compliance.
S0101	12/17/2015	Verification	Q and A meeting - follow up questions	Meeting	This was another follow up meeting for PCC Complian...
S0100	12/15/2015	Verification	Accounting Review	Meeting	Meeting to verify rules from initial meeting.
S0099	12/14/2015	Certification	PreCertification Outreach Timeline from Client	Email	Client provided TTG with a timeline for Precertification ...
S0096	12/10/2015	Verification	E-tag wregis continuation	Meeting	Meeting to discuss about e-tag wregis
S0095	12/10/2015	Verification	Biomethane Design Meeting	Meeting	This meeting was to discuss about additional details a...

*Figure 7-9 – Requirements all come from somewhere; ProjectVue helps to track the source of requirements.*

Our team uses *ProjectVue*'s source tracking components to identify the source for any information that impacts requirements. These typically sources include meeting, email, conversations as well as institutional knowledge such as feasibility studies or legislation.



*Figure 7-10 – Requirements by Type help to clarify where the majority of the effort will need to be.*

TrinityTG uses three main requirements categories for technology projects that include **functional, non-functional and transition requirements**. Functional requirements are the subject of the solution discussion primarily between the business analyst and the line-of-business subject matter experts.

The non-functional requirements are typically handled by the technical team members such as a solution architect or systems analyst.

Transition requirements are necessary only during the migration from the existing system to the new solution and typically encompass data mobilization requirements, organization change management and other one-time tasks.

These distinctions are important to make early because TrinityTG's approach is to have requirements elicitation and refine occur down multiple tracks by specialists. The identification of different categories of requirements allows our project team to complete elicitation, verification and sign-off within different tracks simultaneously. For example, non-functional requirements can be verified with technical specialists allowing our technical architecture team to build the environments and solution components while the business analysts are gaining approval of line-of-business requirements.

*Functional requirements classified according to findings from business process modeling*

*ProjectVue* is available by the entire project team including business analysts, technical team, the project manager and all appropriate client staff to transparently provide a single source of project truth.

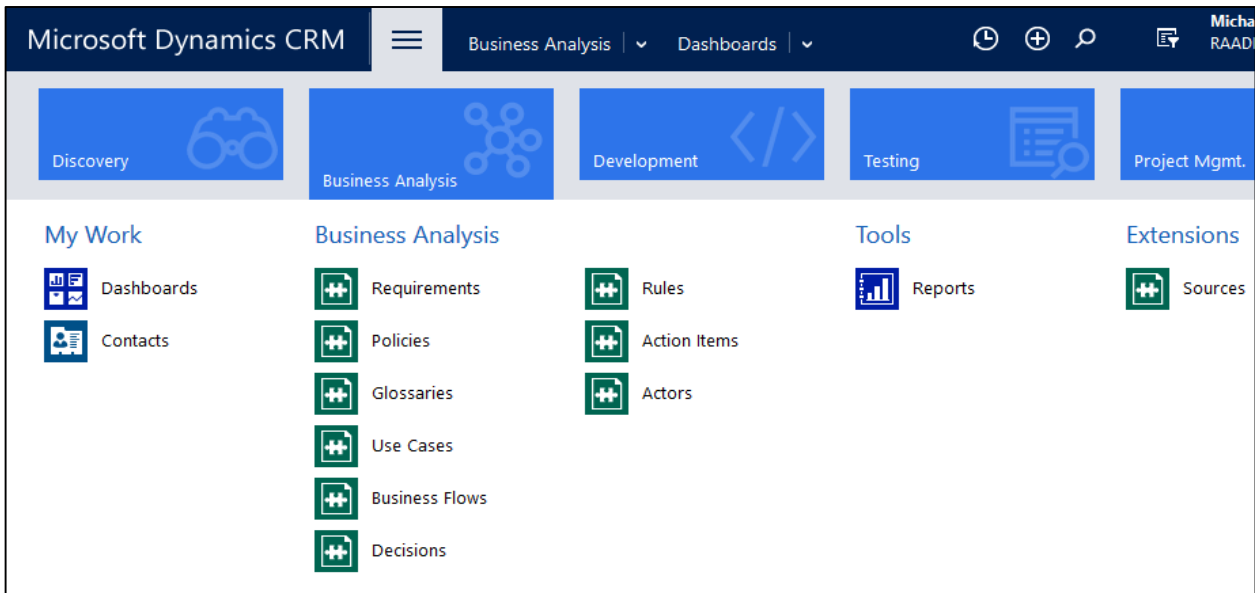


Figure 7-11 – ProjectVue has tools to manage the entire development lifecycle.

### 7.1.11 Requirements Integration, Tracking, Reporting, and Approval

As requirements are gathered, they are integrated into the *ProjectVue* requirements management solution and reviewed with stakeholders. Once the requirements documentation has been reviewed and approved as complete, consistent, traceable, and clear, requirements are baselined as part of the scope baseline using the Scope Management Plan and other project governance processes documented in the Project Management Plan.

Requirements management is an ongoing activity. Although it is one of the first activity to be initiated, it is more than just the first phase of software development. In the beginning, the TrinityTG project team is actively listening to customers, perhaps inspiring them with questions, conducting brainstorming sessions, and other proven techniques.

*ProjectVue* supports discovery and elicitation of requirements by providing functionality to:

- add new requirements
- delete requirements
- change a previously approved requirement

- redirect the development staff
- initiate a parallel development effort to satisfy new requirements
- provide current disposition of all requirements to entire team.

ID	Contract ID	Business Unit	Title	Type	Status	Con/Proj	Description
RE0050	DE-24	All	partial saving of transactions shoul...	FUNC	Approved	Contract	The system shall provide the user with
RE0051	DE-25	All	Saving Application should be allo...	FUNC	Approved	Contract	The system shall provide the capability
RE0052	DE-26	All	The system shall provide the ability ...	FUNC	Merged	Contract	The system shall provide the ability fo
RE0053	DE-27		Data Entry Requirements	USEREXP - Usability	Approved	Contract	The system shall prompt the user of tr
RE0054	DE-28	All	Allow to prepopulate already save...	FUNC	Split	Contract	The system shall present specific store
RE0208	DE-28a	All	Record Data Reference	FUNC	Approved	Project	The system shall present specific store
RE0210	DE-28b	Verification	Record Data Reference	FUNC	Approved	Project	The system shall present specific store
RE0055	DE-29	All	Not allow Duplicate Entry of uniqu...	FUNC	Pending	Contract	The system shall not allow duplicate e
RE0029	DE-3	All	Tracking and/or Identification Num...	FUNC	Approved	Contract	The system shall assign a unique iden
RE0056	DE-30	All	Flag duplicate entries	FUNC	Pending	Contract	The system shall validate entered or u
RE0057	DE-31	All	Display warning on delete or navig...	USEREXP - Usability	Approved	Contract	The system shall display a warning to
RE0058	DE-32	All	Record Deletion Acknowledgement	USEREXP - Usability	Approved	Contract	The system shall provide action-speci
RE0059	DE-33	All	Prompt user when irreversible actio...	FUNC	Approved	Contract	The system shall prompt system users

Figure 7-12 - Requirements are stored as simple lists for export, searching, and individual review.

Original version of requirements always kept, but ProjectVue database enables restating for clarity, breaking one into multiple, merging, and replacing requirements.

The major steps of a requirement at this phase of the project includes the transformation into business processes using process modeling and cross-function swimlane diagrams, use cases, decisions, rules and the association of these objects with project participants (actors) and the specialized language in the project glossary.

#### 7.1.12 Requirements Prioritization

TrinityTG's approach to requirements prioritization is to work with the state project team and consider a number of possible considerations, including value, cost, risk, difficulty of implementation, likelihood of success, stakeholder agreement and urgency. Each of these factors would be given a relative weight.

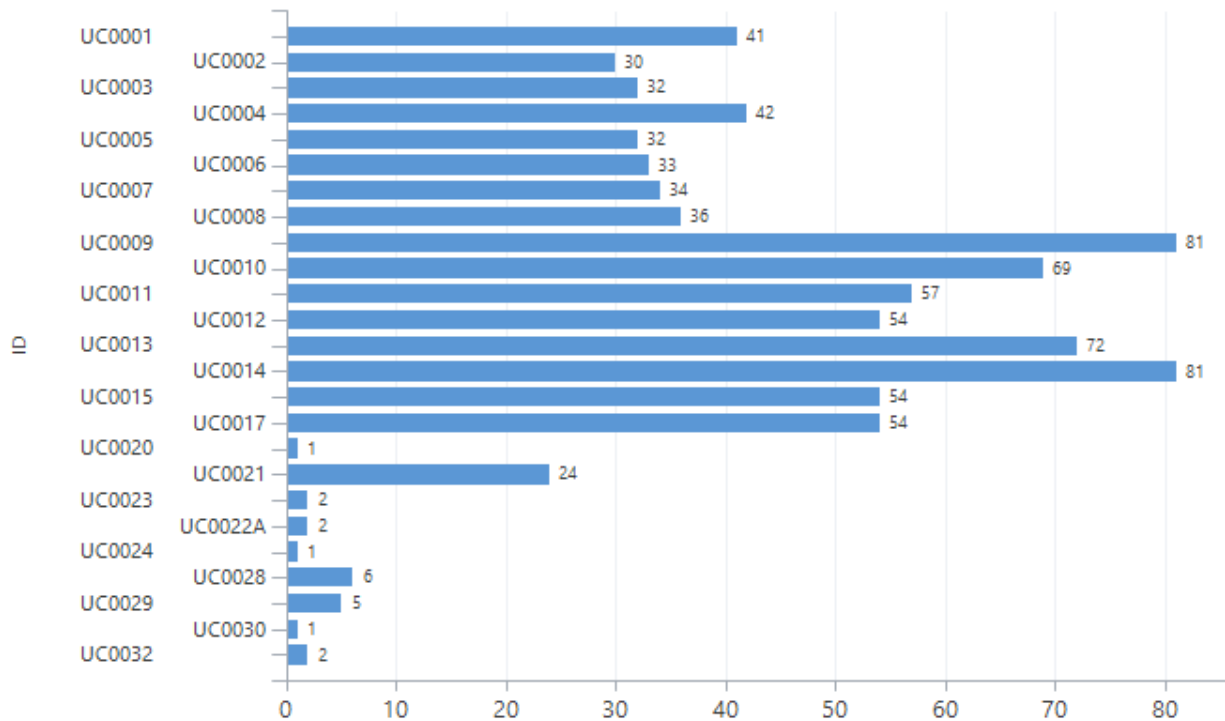
The resulting prioritization categories typically break down into:

- **Essential** - the solution is not acceptable unless these requirements are satisfied

- **Conditional** - would enhance the solution, but the product is not unacceptable if absent
- **Optional** - functions that may or may not be worthwhile

#### Number of Requirements by Use Case

Active Use Cases



*Figure 7-13 - Use Case/Requirements Mapping help demonstrate which use cases are most critical to the system.*

#### 7.1.13 Project Progress Matrices

TrinityTG's approach to development metrics and measures for project progress included working with state staff to identify what quantitative characteristics must be measured to gauge the progress and project health. Solution metrics are usually technical in nature. Such metrics may consist of performance, quality, or cost specifications. Metrics may also be based on the identified solution requirements.

#### 7.1.14 Requirements Traceability Matrix

TrinityTG's approach to requirements traceability is based on the concepts and principles identified in the Department of Technology's California Project Management Methodology.



The Requirements Traceability Matrix is used to document and track the requirements from contract initiation through formal system acceptance. TrinityTG will work with the state project team to customize the requirement traceability needs of this project. The baseline components of the Requirements Traceability Matrix are:

- **Unique identification number** – each requirement must have a unique identification number to facilitate tracking and avoid duplication
- **Description** – a brief narrative describing the requirement
- **Rationale for Inclusion** – a brief description of why that requirement is important to the success of the project
- **Owner** – the individual who initiates the requirement
- **Source** – the business need that is driving this requirement
- **Priority** – an extremely critical component of the matrix; each requirement must be tagged “Must Have” (essential to the viability of the product), “Should Have” (significantly impacts quality and or usability), or “Nice to Have” (improves aesthetics, extra features), this rating is used to establish scope boundaries and to renegotiate scope if cost or time becomes an issue
- **Current Status** – the status of the requirement can be described as Approved (approved for inclusion in the scope of the project), Active (the work is underway to fulfill the requirement), Deferred (the requirement will not be fulfilled at this time; will be reconsidered at a later date), or Cancelled (once the work is underway, the decision is made not to fulfill the requirement)
- **Testing Methodology** – a description of how the requirement will be tested to see that it has been fulfilled
- **Date Completed** – the date the requirement is proven to be fulfilled through testing.

---

*Trace requirements  
to Process Models,  
User Stories,  
Database Design,  
Decision Models,  
web page designs.*

---

Requirements specification deals with documenting the external behavior of the desired system.

#### 7.1.15 Change Control Management

The purpose of a Change Control Management is to protect the achievability of the approved project scope. When the original project scope is defined, assumptions and agreements are to lay out what the project is going to produce. If the deliverables change during the

project, the estimates for cost, effort and duration may no longer be valid. However, if a project sponsor agrees to include the requested changes into the project scope, the cost, staff and/or duration should be modified to reflect the additional work.

This new cost, effort or duration now becomes the approved target. It is imperative that the processes defined in the change management plan identify how change requests are recognized and reconciled, and ultimately, the plan must be rigorously executed.

TrinityTG's approach to Change Control Management is to track necessary changes in several ways. The first process is to use *ProjectVue* to catalogue the necessary information, including responsibility, authority and outcomes of all requested project changes. This important process provides necessary transparency, traceability and a single source of truth for project change for the project team and stakeholders.

The following figure illustrates documenting a new Change Request item in *ProjectVue*.

The screenshot displays the Microsoft Dynamics CRM interface for a Change Request. The title bar shows 'Microsoft Dynamics CRM' and the navigation pane includes 'Project Mgmt.' and 'Change Requests'. The main content area is titled 'CHANGE REQUEST : INFORMATION' and 'Provide some extra features for GIS functionality'. A progress bar indicates the status: 'Trinity Initiate (Active)' followed by 'Client Review', 'Implementation', and 'Conclusion'. Below the progress bar, a table lists key information:

✓ Created On	12/15/2015 3:54 PM	Team Review Outcome	<a href="#">click to enter</a>	Client Submittal To	<a href="#">click to enter</a>
✓ Created By	Amit Rai	PM Submit to Account Mar	--		
PM Review Change Control	--	Client Submittal On	--		

Below the table, the 'General' tab is selected, showing the following details:

- CR #: --
- Title: Provide some extra features for GIS functionality
- Requester Name: Amit Rai
- CR Status: Ready for Internal TTG Review
- Criticality: High
- Category: Must Have
- Summary Description: Business user has requested to provide some extra features for GIS functionality. In exchange they have agreed to reduce number of report to 15

The status bar at the bottom indicates 'Active'.

Figure 7-14 - ProjectVue screen for reviewing the details of a documented Change Request

Once a change request has been requested, the steps taken typically include:

- Proposed Changes are evaluated
- Appropriate Individuals make informed decisions
- Change Activity is made Visible to Stakeholders
- Approved Changes are communicated
- Changes are incorporated in a consistent and effective manner



*Figure 7-15 – Change Control is designed to be an iterative process.*

The second process is to link this authority for change to the actual work as an approved project change that creates or modifies project scope and requirements.

Project changes primarily impact resources, scope or project timeline. If there is a cost associated with the change, the Change Control

Management plan will detail the necessary steps and authority to modify the contract between the state and the contractor

## 7.2 Approach to Analysis



### 7.2.1 Process Modeling

During this phase the subject matter experts, business analysts, and architects work to define business process models. Process models are visual depictions of the core business processes.

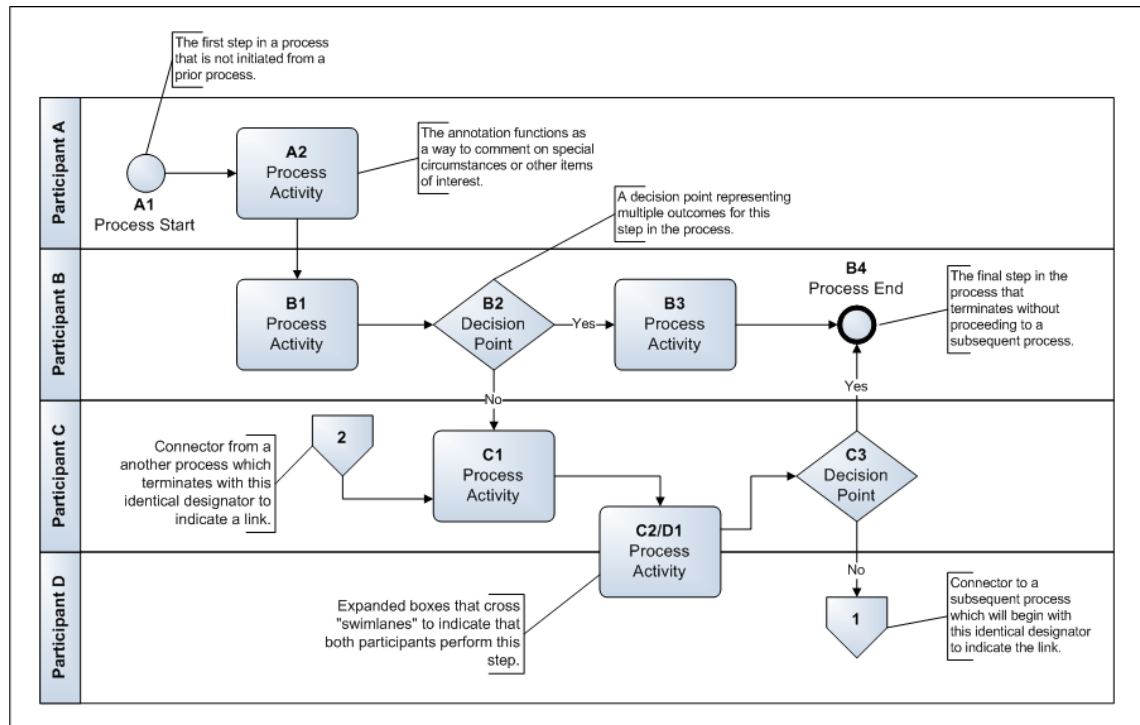


Figure 7-16 – Sample Process Model

The process models show both the “as-is” (how the business currently operates) and the “to-be” (how the business will operate). Each step is documented in a “swimlane” showing the responsible party for the activity. But we also depict how and where a specific system is involved in a step. This is a critical piece of information that provides value in several ways:

- This method highlights any gaps in the as-is business process by visually depicting what steps are addressed by the system
- This method will clearly depict where we expect the CMS to address the business function in the To-Be model, and what will still be outside the function of the system.

- This information will be crucial to organizational change management as it helps to clearly identify specific aspects of a user's work that will be impacted by the new system.

In other words, both the as-is and to-be are important artifacts for understanding how the CMS will function, what the scope of the project is, and how an individual's job function may be impacted.

### 7.2.2 Requirements Validation

The requirements provided in the RFP are analyzed and mapped to the process maps. During the validation process, we elicit details about each requirement in order to confirm our understanding of the requirement and provide insight to the State Bar about possible alternatives or methods to meet that requirement. These activities help us to understand how and where the functional needs defined in the RFP fit into the State Bar's business interaction model and processes. The output of the requirements mapping effort is placed into a traceability matrix in *ProjectVue*:

ID	Contract ID	Title	Type	Status	Conf/Proj	Description	Restatement
RE0001	CHA-001	Submit Application for a New System or Hospital	FUNC	Approved	Proj	The CRM solution shall allow Submit Application for a Ne...	The CRM solution shall allow an authorized user with th
RE0002	CHA-002	Create System	FUNC	Approved	Proj	The CRM solution shall allow Create System so that Creat...	The CRM solution shall allow authorized user with the r
RE0003	CHA-003	Create System Contacts	FUNC	Approved	Proj	The CRM solution shall allow Create System Contacts so t...	The CRM solution shall allow an authorized user with th
RE0004	CHA-004	Create Primary Reporter	FUNC	Approved	Proj	The CRM solution shall allow Create Primary Reporter so t...	The CRM solution shall allow an authorized user with th
RE0005	CHA-005	Create Utilization Location	FUNC	Approved	Proj	The CRM solution shall allow a user with the role of [ ] to c...	The CRM solution shall allow an authorized user with th
RE0006	CHA-006	Create Other Hospital (VA and Military Hospitals)	FUNC	Approved	Proj	The CRM solution shall allow a user with the role of [TBD]...	The CRM solution shall allow an authorized user with th
RE0007	CHA-007	Create Company (not a Hospital/System)	FUNC	Approved	Proj	The CRM solution shall allow a user with a role of [TBD] to...	The CRM solution shall allow an authorized user with th
RE0008	CHA-008	Add Contact related to Non-Hospital	FUNC	Approved	Proj	The CRM solution shall allow a user with a role of [TBD] to...	The CRM solution shall allow an authorized user with th
RE0009	CHA-009	View System/Hospital Hierarchy	FUNC	Approved	Proj	The CRM solution shall allow View System/Hospital Hierar...	The CRM solution shall allow an authorized user to view
RE0010	CHA-010	Approval Member Application	FUNC	Approved	Proj	The CRM solution shall allow validation workflows for the...	The CRM solution shall allow validation workflows for tl
RE0011	CHA-011	Add Contact Group Position for Contact	FUNC	Approved	Proj	The CRM solution shall allow Add Contact Group Position...	The CRM solution shall allow an authorized user with th
RE0012	CHA-012	Enter Member Dues or Payment Information	FUNC	Approved	Proj	The CRM solution shall allow Enter Member Dues or Pay...	The CRM solution shall allow an authorized user with th
RE0013	CHA-013	Add new Contact Group	FUNC	Approved	Proj	The CRM solution shall allow Add new Contact Group so t...	The CRM solution shall allow an authorized user with th
RE0014	CHA-014	Enter Associate Member Application Information	FUNC	Approved	Proj	The CRM solution shall allow Enter Associate Member Ap...	The CRM solution shall allow an authorized user with th
RE0015	CHA-015	Create Hospital Contacts	FUNC	Approved	Proj	The CRM solution shall allow Create Hospital Contacts so...	The CRM solution shall allow an authorized user with th
RE0016	CHA-016	Add Company Membership to a Company	FUNC	Approved	Proj	The CRM solution shall allow Add Company Membership...	The CRM solution shall allow an authorized user with th

Figure 7-17 - Requirements are itemized and categorized for tracking and traceability

Details of each requirement are also captured, including an audit trail of updates, to promote as much detail and transparency as possible. This effort has two outcomes:

1. It reduces the risk of miscommunication down the road about what is considered in scope for a requirement.

2. It helps to improve change control, as project stakeholders will be able to see if and how the system is impacted.

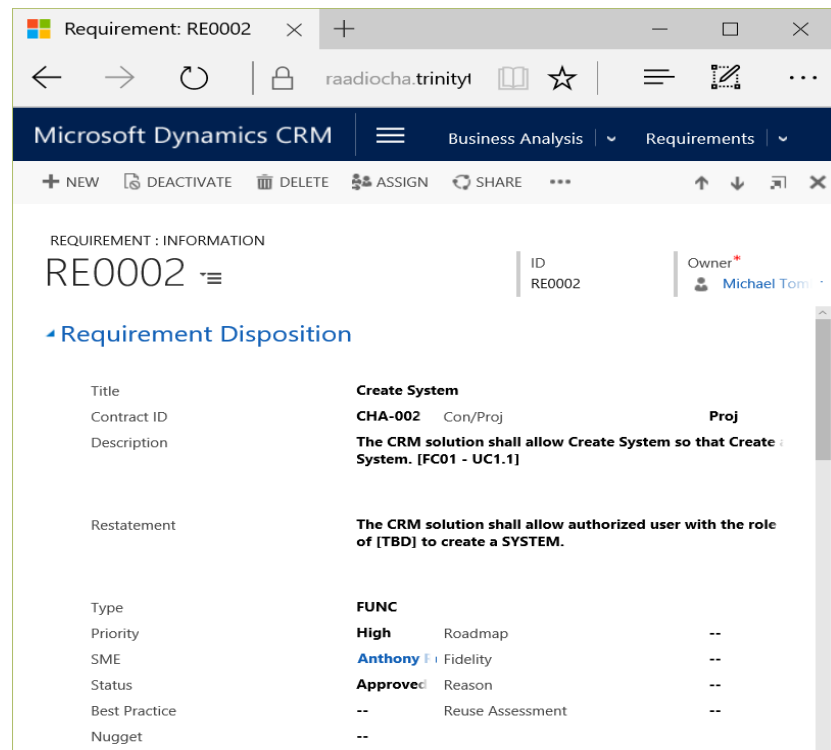


Figure 7-18 - The requirements register includes details on analysis, related use cases, and links to discovery artifacts

*Data modeling crosses phases from subject areas, conceptual model, to logical model, to physical database schema*

### 7.2.3 Conceptual Data Model and Data Dictionary

The Conceptual Data Model is the starting point for our customization efforts. The conceptual data model identifies the “entities” that need to be represented in the data, as well as their relationship to one another. The data dictionary provides a detailed view of each data element in the database, including:

- Name
- Description
- Type
- Values

### 7.2.4 Joint Application Design

We conduct requirements definition and validation primarily through Joint Application Development (JAD) sessions. Covering the right topic and selecting the right people to attend JAD sessions is the first critical step. Areas that impact only a few people are analyzed using interviewers or smaller meetings. However, when multiple perspectives, uncertainty, consensus, or group thinking are required,

JAD sessions provide an effective way to quickly achieve the desired results.

We understand the complexity and scale of the requested requirements validation. Based on our experience and the number of functional areas identified, we will use our JAD sessions to accomplish the following:

---

*Process Models  
have Activities  
which have  
Decisions which  
have Business  
Rules.*

---

- **Requirements Validation** - We will perform a requirements validation session to review the functional and reporting requirements and help make sure that all parties are in agreement as to how the requirements of the PRDMS application are met. It is important to note that not all requirements make it into applications on fix price projects because there is often more functionality requested than what can be accommodated in the project budget. Prioritizing requirements is critical to making sure that the application meets the business objective.
- **Business Rules Validation** - During the JAD sessions we will be looking to document business rules. Business rules for the application are specific actionable and testable directives that are under the control of the organization and support a business policy.
- **Volumetric Validation** - Volumetric data are important for identifying dominant workloads. These dominant workloads (using 80/20 rule) are ones that affect database, network, and hardware configuration and sizing. While some of the rough volumetric data has been provided in documentation, during JADs we will gather more details

The team will provide a JAD schedule to all stakeholders. The schedule helps stakeholders plan their activities and preparation for the meetings as well as understand the overall process and timeline.

The following is an example JAD schedule that will be produced for each effort.

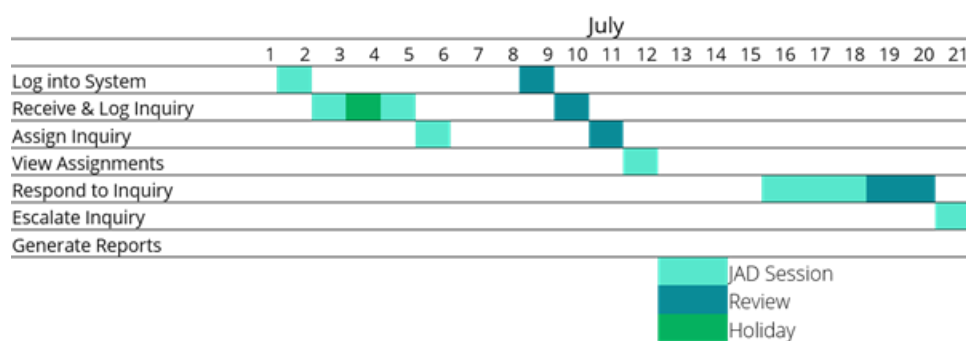


Figure 7-19 – Sample JAD Session Schedule

### 7.2.5 Gap Assessment

Because the TrinityTG Core Case Management System (CMS) has a wealth of built-in functionality, we have found that it is often most appropriate to approach business analysis from a perspective of a gap fit analysis with the proposed CMS.

Our plan will be to sit with the business and technical leads for the State and review every requirement, and do it with the proposed application so we can show them how the requirement will be met. Rather than something opaque, users will be able to see how the requirement will be met, up front, so there are no late surprises in the project.

This allows us to maximize the value of the baseline CRM application, by showing how the system can be configured to meet the needs of the Bar Association, rather than evaluating a requirement in a vacuum which can lead to an implementation approach that would add time, risk, and long-term maintenance costs for the State. This approach shows how CMS functions can fit within the existing baseline business process, as well as identifying potential concerns where a particular process might not fit into CMS's usage paradigm.

Coming out of this assessment will be a gap analysis which will highlight differences between what TrinityTG proposed to deliver, and any detailed requirements where the State Bar doesn't believe their needs will be met. This will typically come from requirements which were included in the RFP, but not completely detailed out - most of which should be able to be delivered through configuration. It may also be the case that there are disagreements on the interpretation of a few requirements, and those can be resolved through the project management issue control process.



### 7.2.6 Use Cases

Use Cases are developed to capture and refine the behavior of both a system's users and the system itself. The use case evolves from a rough sketch of steps illustrating business activities to specific tasks that are inputs to system design artifacts. The team uses JADs to review and refine the use cases in a collaborative fashion. We have significant experience conducting, refining, and documenting JADs. Drafts of the use cases are prepared ahead of time to establish the process flow so additional time can be spent on requirements and business rule validation.

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*Use Cases organize  
User Stories and  
support ongoing  
documentation for  
system  
maintenance  
following  
implementation*

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When we document use cases technical jargon is reasonably avoided preferring instead the language of the end user or the experts. We will work with the end-users and business owners to document the use cases.

The use case specifications are used as an input to design, development, and testing. Use case documents will contain the following sections:

- **Purpose** - Describes of the overall purpose of the Use Case (e.g., Defining the functional requirements for the targeted system).
- **Overview** - Summarizes the area of system functionality that the use case specifies.
- **Structure** - Lists the sections of the use case and a brief description of each section's purpose.
- **Process Model** - Provides a visual representation of the logical flow of events that are specified in the use case.
- **Actors** - Gives a list and description of the actors involved in the process being described. An Actor can be a person who interacts with the system, another automated system, or the targeted system itself.
- **Trigger** - Provides a description of the event or reason that would initiate the activity described in a use case.
- **Pre-Conditions:** Lists all conditions that must be true or satisfied prior to initiating the functionality depicted by this use case.

- **Flow of Events** - Addresses the series of events that make up the functional activity that defines the use case. This section also includes a Main Event Flow and any alternate or exception flow of events.
- **Main Event Flow** - List the events that will occur when the use case is executed. Includes all the primary activities that the use case will perform.
- **Alternate Event Flow** - Subsidiary events that can occur in the use case are listed separately. A use case can have multiple alternative flows.
- **Post-Conditions** - Describes how the state of the System has changed after the use case has been completed.
- **File Format Specifications (if applicable)** - Provides a table of the file format(s) and any additional file specifications, such as file type, file naming convention, and required fields.
- **Prototypes** - Provide a visual representation of user interfaces, reports, or reference data.
- **Business Rules** - Explicitly describes and numbers the business rules that are applied to the activities within the use case.
- **Metrics** - Identifies (or estimates) the frequency, duration and volume of key processes and data involved in the use case.
- **Requirements** - Lists the Functional Requirements that pertain to the use case.
- **Questions** - Lists outstanding questions and issues to be resolved in order to finalize the specification or the build of this use case. The resolution may also be entered here.
- **Possible Future Enhancements** - Lists possible enhancements that are beyond the scope of this project but may be implemented in future versions of the system

#### 7.2.7 Business Rules

Business rules allow for the system logic to be specified at the most granular level, including data element names, values, exceptions, dependencies, calculations, and outcomes (resulting actions within system). The rules are specified within the corresponding Use Case

document under the business rules section, and are enumerated based on the ordering in the process flow.

*Table 7-4 - Simple Business Rules Notation*

Rule Number	Business Rule
<b>1.2.01</b>	If the status of a case has not changed in 5 business days, send an alert e-mail to the assigned supervisor.
<b>1.2.02</b>	If an inquiry has not been assigned within 48 hours of being received, flag the inquiry as URGENT.
<b>1.2.03</b>	If the user selects an end date that falls on a weekend, change the date to the next business day.

If the system requires more complex business rules with multiple variations of similar logic that have shared data elements and outcomes, these will be documented in a matrix. This allows for clear decomposition and ease of understanding for both the project team and the SMEs.

*Table 7-5 - Complex Business Rules Matrix*

Conditions								Conclusion	
Rule Pattern	Person Employment History		Person Mortgage Situation		Person Miscellaneous Loans Assessment		Person Likelihood of Defaulting on a Loan		
1	Is	Poor	Is	Poor	Is	High	Is	High	
2	Is	Good					Is	Low	
1	Is	Poor	Is	Poor	Is	Low	Is	Medium	

The business rules are tracked in *ProjectVue*:

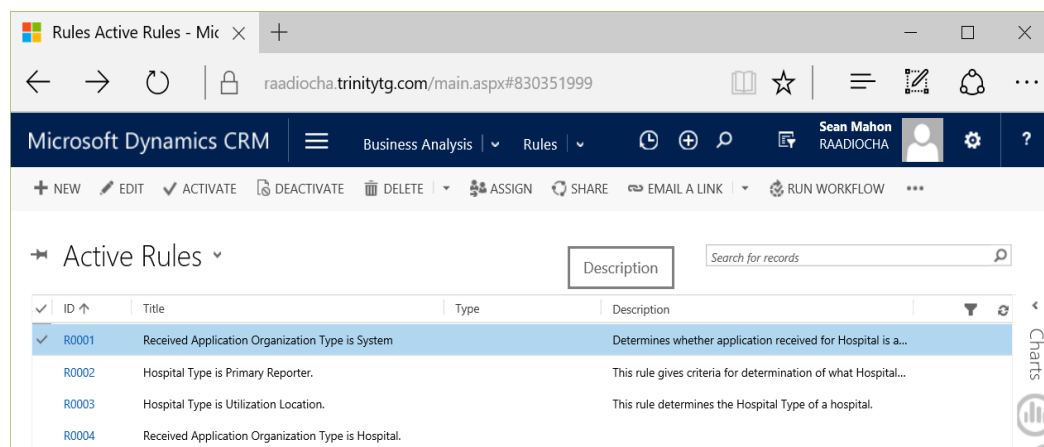


Figure 7-20 - The business rules are tied to BOTH requirements as well as decisions

The benefit to this separate inventory is that we can classify the business rules into Decision Sets. Decisions are categories of rules that are associated based on a broad business function. For example, a business rule that states “a license type must be renewed every 12 months” is part of a Decision Set called “License Renewals” where multiple rules related to the differing certification/renewal procedures would be stored. This is a helpful method of categories rules for analysis and validation, but it also a direct input into the technical design of the rule-sets, as we are able to ***create rules in a logical manner that is more intuitive to understand and therefore easier to maintain in the long term.***

### 7.2.8 Nature of the User Base

Our business process analysis approach focuses on identifying users, either in the swim-lanes or in the use cases. While this is a standard analysis approach, it is important to characterize the type of users and in particular what kind of access they need. Not only does this help with designing role-based security assignments, but it is also a critical input to licensing costs. Because CRM is licensed on a seat basis, it is important to understand who precisely needs full access and why so as to best manage ongoing license costs.

User permissions matrices will be developed to specify the user groups and the detailed permission levels for key user actions for each user group.

A typical security role configuration screen within CRM is displayed below.

Security Role: **DOCQNETClientExecutive** role

Working on solution:

Entity	Create	Read	Write	Delete	Append	Append To	Assign	Share
Action Items	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Auto Numbering Definition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto Numbering Request	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bing Map Lookup	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bool Parse Request	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Flow	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Change Request	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Component	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Corp Exhibit	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Corp Form	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Corp License	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Corp System	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Data Migration Tracking	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Date Parse Request	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decision	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Deliverable	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Issue	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Item	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Melissa Data Address Check	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal Detail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal Detail Two	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Policy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Profile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Privileges

Entities/Tables

Access Level

Key

- ☐ None Selected
- ☒ User
- ☒ Business Unit
- ☒ Parent: Child Business Units
- ☒ Organization

Figure 7-21 – CRM Security Configuration Screen

## 7.3 Approach to Architecture & Design



### 7.3.1 System Architecture

During this phase the functional and technical resources produce detailed schematics of how the system will be physically and logically designed. The updated system architecture provided during this phase seeks to account for deployment considerations such as installation, configuration, and the quality of service, which describes all the non-functional design factors which impact performance, availability, and reliability.

- **Scalability Requirement** - Specify scalability requirements, current expected number of concurrent users, frequency of transactions per second, size of message/file, and any other measurable factor that affect scalability
- **High Availability Requirement** - Specify the availability of requirement of the service, and if high availability is required, such as redundant services in case of failure. Specify the uptime requirement of each service in the project

- **Containers** - Specify number of containers required to deploy the services of the project. State if any special container is required on certain platform such as Windows/Linux
- **Configuration Scripts** - Specify the configuration scripts require to deploy the service into the container. These scripts describe the resources, object pools, adapter, service handlers, and providers used to deploy the service
- **Capacity Planning** - Specify projected number of users for the next 3 years. Describe the expected load during the time of day, and excepted peak and minimum load times
- **Service Level Agreements (SLAs)** - Specify SLAs related to the overall implementation

### 7.3.2 Logical Data Model

The data modeling process will define the logical and physical representations of persisted data used by the application. Data models are developed iteratively. The Logical Data Model is initiated early in the life cycle of the elaboration phase and is used to facilitate the Design phase. The purpose of this process is to develop a model which represents the logical data groupings, relationships, and data definitions. The Logical Data Model is independent of the physical implementation and does not include items such as persisted media, platforms, and performance considerations.

### 7.3.3 Interface Specifications

The TrinityTG Interface Lead validates the interface requirements and thoroughly documents them. To accomplish these tasks, TrinityTG uses a standardized template. The template ensures that interface details such as the following are captured:

- Context diagram illustrating the interface provider and possible consumers.
- Provider program specifics: e.g., database instance/schema names, table names, host names and port numbers
- Interface input and output parameters to include field name, field description, data type, whether a parameter is optional, mandatory, or depends on another parameter
- Data transformation and validation rules
- Error handling to include output parameters and messages
- Protocols
- Programming pattern: Request/Reply, Publish/Subscribe

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*Good use of interfaces avoids duplicate data entry and promotes shared planning across systems with diverse stakeholders*

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- WSDL reference URL
- Sample test data, or a link to a test data store
- Service Level Agreements (SLAs)

### 7.3.4 Report Specifications

Forms and reports need to be analyzed at the same time as the data model because they are highly dependent on the data model. The new forms and reports are designed to produce information that is stored in the database, so the design of the data model will define the capabilities and constraints of the output.

During design, we focus on the following design objectives:

- **Report Design** – Report design starts with a simple question – “What is this report used for?” The answer will greatly impact the decision on if and/or how to implement the report. But it also helps to understand how the report is used, which in turn drives the design of the filtering parameters. The reports are reviewed and broken down to the individual data element level to understand what data is required. Then those elements are mapped to the corresponding field in the designed data model. This approach helps to ensure that we are properly capturing all the necessary data needed to generate the report.
- **Form Design** - For forms, we review the form design to see if it is conducive to being printed from an automated system. Consider a sample scenario where the Application for Registration needed to be produced in a printable form at the end of the submission process. Question 11 contains several checkboxes, which indicates that the user will select one option. A user filling this out on the portal will likely use a drop down or selection of radio buttons to denote this online. So on a printed form, it could be re-designed to simply print the one choice. These differences are subtle, but such design considerations help to reduce complexity and improve ease of maintenance long term

### 7.3.5 Prototyping

With software development, seeing is quite literally believing. For this reason, our design approach includes development of a working prototype that demonstrates to users how the system will look and feel. We use iRise, a specialized prototyping tool, for building and demonstrating these features. Within iRise, we create a simulated

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*We encourage early identification of the type of reports needed but leave report specifications until later in the project. This gives time for client staff to get a better idea of how the new solution can support better business processes and change the type of reports needed*

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*Dynamics CRM's ability to demonstrate partial functionality out of the box offers a rapid prototyping strategy*

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presentation layer that actively shows how the application behaves between user clicks and screens. The iRise simulation runs in a standard web browser, and does not require Internet access.

The prototype typically goes through two iterations. The first iteration is created by TrinityTG as part of the initial design. The prototype is then updated based upon feedback from users, and presented a second time to validate the feedback

## 7.4 Approach to Development

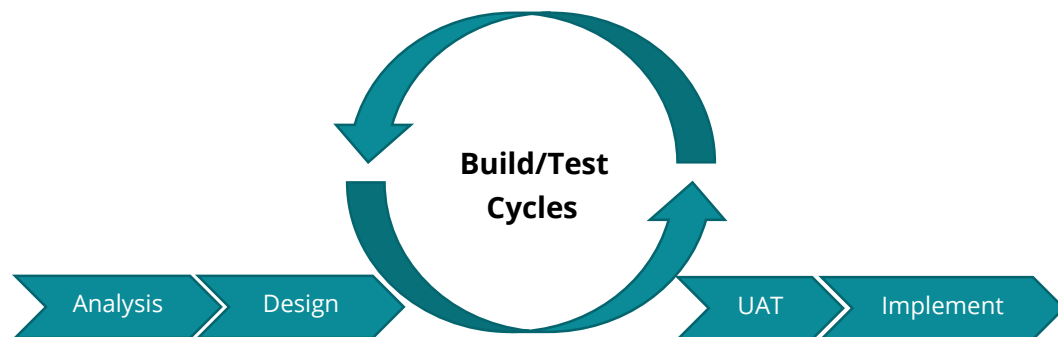


The phase involves the actual construction of solution. The specific tasks differ depending on the solution set being implemented, but the primary development tasks include:

- **Workflow Configuration** - Automated workflows are built to orchestrate the various business processes that were to be automated as per the design specifications.
- **Document Management Setup** - The solution's corresponding SharePoint repository is setup and configured to integrate with the database solution based upon the detailed design specifications. It is during this process that we establish the site collection, and configure the document repository to align with the case folders. We anticipate creating a single repository with all documents, which are then tagged with case metadata to allow for faster sorting and filtering.
- **Custom Web Pages** - If custom web pages are needed, they are created in ASP.NET and rendered through an iFrame in Dynamics. A web service will feed data into the presentation layer, allowing for a custom page to access data through CRM's proprietary business object layer. This task may also include use of JavaScript to create custom behavior on standard data forms.
- **Server-side Components Integration** - Any custom plug-ins or similar functionality built within Dynamics is built in the .NET framework and checked into the custom code library for inclusion in the overall publishing of builds.
- **Iterative Builds** - The iterative build process refers to the approach we take in scheduling development cycles. We schedule the development phase into a series of smaller, manageable sprints. The objectives of the sprint are to:



- Develop and unit test a smaller component of the system
- Conduct a feedback session with project subject matter experts in order to in order to make course corrections quickly
- Complete validation testing for each sprint, leading to a single regression test upon completion of all sprints.



*Figure 7-22 - Iterative builds maximize transparency and time to market.*

- **Coding Standards and Configuration Management** - The development will be carried out in an iterative process, moving towards some end goals or milestones in the form of a release, either unit testing or to deploy a build for test, staging, or production servers. Configuration and release management is the process of ensuring releases can be reliably planned, scheduled and successfully transitioned (deployed) to test, staging, and production environments. This section of this document defines the practices that will be adhered for successful management of software versions and builds.

The following table describes the methodologies that will be adopted:

*Table 7-6 - Configuration Management Terms & Methodologies*

Terms	Definition	Description
<b>Release</b>	A stable, executable version of the System that can be deployed to production	A release is considered completed once UAT has been completed. The release number will be four numbers separated by dots.

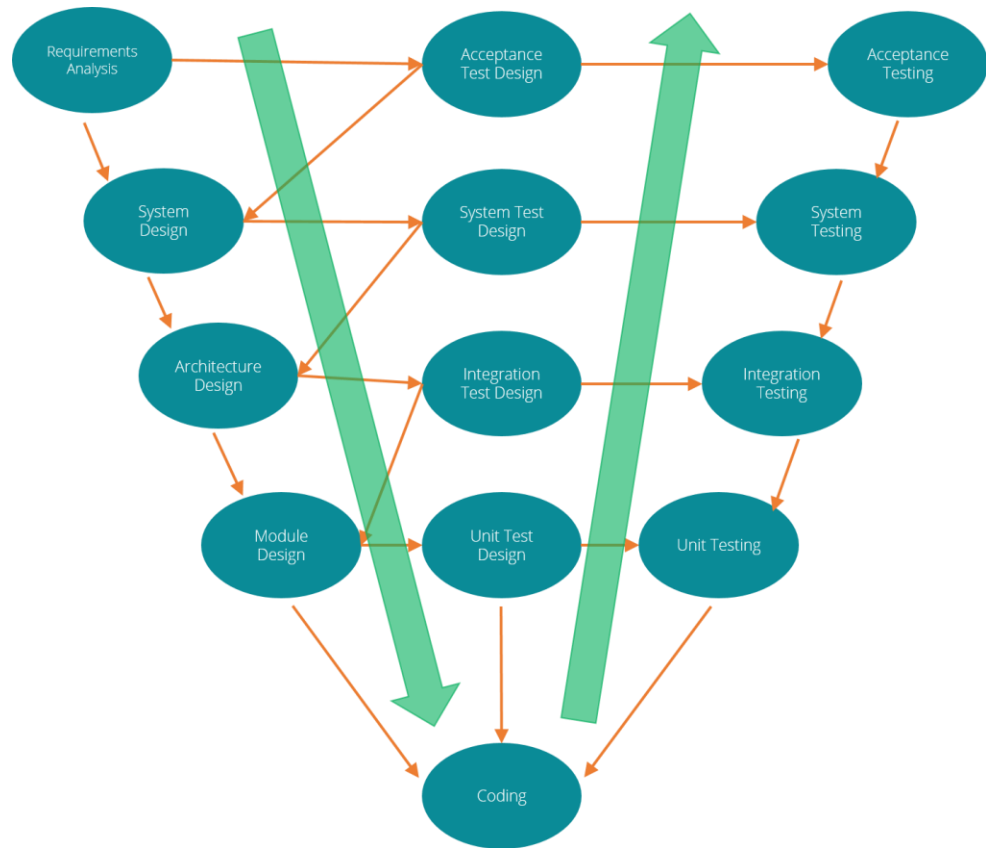
Terms	Definition	Description
<b>Release Package</b>	A logical container that holds the all component releases	A package will consist of a the code artifacts that comprise the solution
<b>Release Type</b>	The type of release that needs to be implemented	The system will have the following types of release(s): <b>Major:</b> Major releases are defined as releases that include new functionality. Within the scope of the project, <b>Minor:</b> Minor releases are defined as releases that include fixes to defects or incremental updates to existing functionality.
<b>Release Policy</b>	Organization's published policy that defines under which circumstances different release types should be published	State Bar's release policy will be based on the release management terms and methodologies defined in this section.
<b>Release Calendar</b>	A set of Published milestone details describing when releases are planned to be made	The project management plan will be used to manage major releases through Phase 1 of the project.
<b>Baseline</b>	A snapshot of the exact version of configuration items, executable, libraries, configuration files and documentation that are to be deployed	Each release that will be deployed to staging or production will be a base line release
<b>Builds</b>	Builds are operational versions of the system, not all builds become releases	The system will have builds for unit test.

## 7.5 Approach to Testing



The project testing methodology is based on the "V-Model." The V-Model demonstrates the relationships between each phase of the development life cycle and its associated phase of testing. This involves testing the system in levels starting with the small and progressing through the large. The approach provides an orderly method of testing that separates concerns and applies the appropriate level of testing at the appropriate point in the

systems development lifecycle. The tests in the ascending (Validation) hand are derived directly from their design or requirements counterparts in the descending (Verification) hand.



*Figure 7-23 – The V-Model ensures quality checks at every hand-off.*

The following table identifies the levels of testing that will be applied for this project and gives the characteristics of each level:

Level	Type of Testing	Object of Testing	Responsible Team	User Involvement
1.	Unit	Code	Development	None
2.	Integration	Design	Development	None
3.	Validation	Functional Requirements	Independent Test	High
4.	System	Non-Functional Requirements	Development, Independent Test	Low
5.	User Acceptance	Acceptance Criteria, Fitness for Use	Independent Test	High

Testing will be conducted in sequence from level one through level five. The “Object of Testing” column identifies what is being tested at each level. Looking down this column demonstrates what is meant by “testing from the small to the large.” The Development Team and the Testing Team will have primary responsibility for planning and conducting the testing. The customer/end user will be involved with the testing primarily during validation and acceptance testing. This will provide assurance to the end users that the product meets stated requirements and is fit for use (i.e., will meet the test of operational realities). Regression testing is a technique that will be applied at each level as appropriate to ensure that fixes applied after one testing iteration have not adversely affected features validated during prior iterations. The object of technical testing is non-functional requirements (i.e., the characteristics the system must possess) such as performance, throughput, reliability, stress tolerance, etc.

The Development Team, Technical Architect, and Test Team will determine the number of testing environments required to support the technical architecture and the levels of testing within the constraints of the available project hardware and software resources. Each environment will support a test bed of test data (i.e. database, flat files, etc.), based upon converted production data, and designed to support the required test cases. Once created, the test bed will be archived and can be refreshed at-will by the Test Team in order to support iterative, repeatable testing processes.

Control over the testing process will be achieved at each testing level. Each level of testing will have planned exit criteria. The exit criteria at a given level must be met before proceeding to the next level of testing and before final acceptance of the system. Exit criteria typically include: all test cases must have been executed, all test cases must either be in a passed or a failed status, all incident reports remaining open must not be in a critical status, and all parties agree that any open incidents should not prohibit moving to the next level of testing.

The testing methodology used for this project is complete and conforms to IEEE Standards, PMBOK standards, and current best practices. Testing will progress from the small to the large. Appropriate standards-based documentation will be used. Control will be maintained at each level of testing. In addition, the Development

Team, the Test Team, the Project Manager, and the customer will be involved and informed throughout the testing process

### 7.5.1 Creating the Test Plan

The purpose of the Test Plan is to prescribe the scope, approach, resources, and schedule of testing activities. The test plan identifies items and features to be tested, testing tasks to be performed, personnel responsible for each task, and risks associated with the testing activity. As the project approaches the testing phase, the project team may decide to break this Test Plan into multiple plans covering the scope of testing (e.g., unit/component test plan, system integration test plan, stress test plan, performance test plan, regression test plan) instead of combining them into one overarching plan.

Prior to the validation testing phase for the project, the team will use this approved Deliverable Expectation Document as the basis for creating the core material for the Test Plan. The project team will then work with other State Bar stakeholders who will participate either actively or passively in the testing process to coordinate environments, coordinate schedules, record commitments, and record service levels in the appropriate sections.

The following table outlines the proposed content of the Validation Test Plan.

*Table 7 - Test Plan Content*

Section	Content
<b>Introduction</b>	This section provides a general introduction to the system, software items, and features being tested. This section will identify the other project documents referred to in order to create the test plan.
<b>Test Items</b>	This section identifies the software components being tested, and includes revision/version levels as appropriate. It refers to the documentation describing the components (e.g., requirements specification, design specification, etc.).
<b>Features to Be Tested</b>	This section identifies all software features and combinations of features to be tested. It refers to the design specification that covers the testing of each feature.

Section	Content
<b>Features Not to Be Tested</b>	This section explains what features, if any, will not be tested and why.
<b>Approach</b>	<p>This section will be lengthy and describes the overall approach to testing, including test philosophy, objectives, and methodology. The levels and types of testing will be discussed along with how the testing will satisfy specific objectives and performance measures and acceptance criteria. Major testing tasks will be identified and described. Any design modules that will undergo data flow analysis will be described. Tools and techniques used to support and to determine the comprehensiveness of the testing will be identified.</p> <ol style="list-style-type: none"> <li>1. Unit and Component Testing</li> <li>2. System Integration Testing</li> <li>3. User Acceptance Testing</li> </ol>
<b>Item Pass/Fail Criteria</b>	This section specifies the criteria to be used to determine whether each test item has passed or failed. Also discusses how testing results will be published and reviewed and the exit criteria from each level of testing.
<b>Suspension Criteria and Resumption Requirements</b>	This section specifies the circumstances under which testing must be suspended and the requirements for the resumption of testing.
<b>Test Deliverables</b>	This section identifies and describes all deliverables associated with the testing process. As mentioned above, a number of other deliverables will accompany this test plan throughout the testing process, including test designs, test cases, test procedures, incident reports, and phase summary reports. The documentation for the test designs and test procedures will include constraints, initialization, termination, inputs, expected outputs, criteria for evaluating results, and interfaces exercised.
<b>Testing Tasks</b>	This section identifies the tasks necessary to prepare for and perform testing. It identifies what resources, both State Bar and TrinityTG, will be assigned to what tasks, and whether any special skills are required. It describes all inter-task dependencies. Data sanitation procedures used to remove all confidential and sensitive information will be highlighted here.
<b>Environmental Needs</b>	This section describes all the required characteristics of the test environment(s), including hardware,

Section	Content
	software, networking, communication, and data needs. Any special testing tool needs are outlined as well.
<b>Responsibilities</b>	This section identifies all of the groups involved with testing and describes each group's roles and responsibilities. It also describes the turnaround time required for review and validation of testing deliverables.
<b>Staffing and Training Needs</b>	This section identifies staffing needs by skill level. It also identifies required training needs in order to ensure required skill levels.
<b>Schedule</b>	This section includes a detailed schedule including specific testing tasks and milestones.
<b>Risks and Contingencies</b>	This section identifies the high-risk assumptions of the test plan. It describes contingency plans should the identified risks occur.

The testing documentation used for this project will conform to IEEE 829-1998, Standard for Software Test Documentation. Documentation will include: a test plan(s), test designs, test cases, test procedures, test results, test data, incident reports, and a test summary report. There will be at least one, possibly more, test plans describing the testing activities for the project. The remainder of the documentation set will be applied at each level of testing (e.g. validation test cases, system test cases, and user acceptance test cases, etc.).

### 7.5.2 Unit Testing

Unit testing focuses on individual component testing. As components are completed in each build, they must be unit tested prior to integration into the larger platform. Because the custom code is written in Visual Studio, we use Visual Studio's Team Test framework that enables:

- Code generation of test method stubs.
- Running tests within the IDE.

In addition, to mock external dependencies the development team used the "Microsoft Fakes" framework to support/conduct unit testing.

Microsoft Fakes helps isolate the code that is being tested by replacing other parts of the application with stubs or shims. These are small pieces of code that are under the control of the tests. By isolating the code for testing, we know that if the test fails, the cause is there and not somewhere else. Stubs and shims also let us test the code even if other parts of the application are not working yet.

#### 7.5.2.1 *Creating a Unit Test*

There are two important attributes related to testing with Team Test. First, the designation of a method as a test is through the `TestMethodAttribute` attribute. In addition, the class containing the test method has a `TestClassAttribute` attribute. Both attributes are found in `Microsoft.VisualStudio.TestTools.UnitTesting.Framework` namespace. Team Test uses reflection to search a test assembly and find all `TestClass` decorated classes, and then find the corresponding `TestMethodAttribute` decorated methods to determine what to execute. One other important criteria, validated by the execution engine but not the compiler, is that the test method signature be an instance method that takes no parameters. The name is irrelevant because reflection searches for the `TestMethodAttribute`.

#### 7.5.2.2 *Unit Test Detail*

For Unit testing the custom code one needs to mock/fake all the platform objects that are needed to execute that custom code. When the Dynamics platform custom code executes, it connects to the registered CRM objects and using these connected objects, perform operations on the database entities. As unit testing implies testing in isolation, we need to simulate these objects without actually connecting to the database.

The following table presents the three components of Unit testing custom code.

*Table 7-8 – The Three Components of Unit Testing*

Test Component	Description
<b>Arrangement</b>	In this step, we prepare all the mock/fake code required by the custom code to execute. There are many classes that need to be defined:



Test Component	Description
	<ol style="list-style-type: none"> <li>1. <i>ILocalPluginContext</i>: This is the context of the database instance where the custom code executes in. This object contains information that describes the runtime environment that the plugin code executes in, such as e execution pipe, entity business information, etc.</li> <li>2. <i>i</i>: This class provides the mechanism for retrieving the service object which provides custom support to other objects. We pass this mocked container to the plugin Execute method, so that it uses this object to get started with the plugin execution.</li> <li>3. <i>IPluginExecutionContext</i>: This class provides all the information to kick start the plugin. I.e. it has all the information about the particular plugin that executes. It should have the objects such as EntityName, the stage it executes in, MessageName (Update or create new plugin, etc.), and all the parameters the plugin uses.</li> <li>4. <i>IOrganizationService</i>: This interface provides the programmatic access to the metadata and data for an Organization. For unit test, we provide the attributes it needs to get the metadata. Methods like Update, Retrieve, RetrieveMultiple, etc. will be mocked here.</li> <li>5. <i>ITracingService</i>: This interface provides methods to log runtime trace information in the plugin. We need to mock/fake this object as every custom code will have tracing. For unit testing we mock/fake this interface, so that it writes to the test console.</li> </ol>
<b>Act</b>	In this step, we call the method to be unit tested with the above mentioned mocked/faked objects. We can also unit test each method in the custom code one by one or/and unit test the entire plugin execution.
<b>Assert</b>	This step verifies the condition in the unit test using true/false propositions. This step verifies the expected result with the result from the unit test execution.

### 7.5.2.3 Running Unit Tests

To run all tests within the project simply requires running the test project. To enable this action, Click the Test from the Menu Bar and Select Run and then hit “All Tests”. The Test Results window will appear listing all the tests within the project. Initially, the test will be in a state of pending, but once the test completes it will have a result of Failed or Passed.

### 7.5.3 Integration Testing

The purpose of Integration testing is to ensure that the various units of code created in the previous step work together. The main function or goal of Integration testing is to test the interfaces between the units/modules.

The individual modules are first tested in isolation. Once the modules are unit tested, they are integrated one by one, till all the modules are integrated, to check the combinational behavior, and validate whether the requirements are implemented correctly or not.

### 7.5.4 Validation Testing

Validation testing (sometimes called functional testing) focuses on testing the integrated functionality. This is the first time that the system is reviewed from a functional perspective to see how the individual components work together to support the business functions.

Each testing phase progresses through its own life cycle with each step leading directly into its successor. The process continues to refine the product until it is ready for UAT. This life cycle is illustrated below.

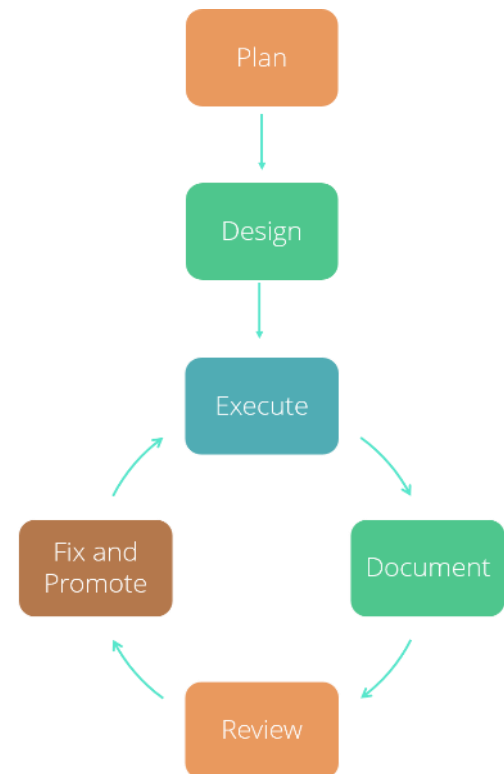


Table 7-9 - Testing Lifecycle Descriptions

Process Step	Activity	Description
<b>Plan</b>	Develop a Test Plan	Define strategy, test types, tools, approaches, timelines, testing hardware and software.
<b>Design</b>	Create Scenarios and Scripts	Create test cases and test scripts and have them reviewed prior to the commencement of testing. Test data creation is included in this phase.
<b>Execute</b>	Execute Test Cases/ Scripts	Execute test scripts in the test environment: <ol style="list-style-type: none"> <li>1. Retrieve the Test Case assignment from the Test Tracking spreadsheet.</li> <li>2. Retrieve the Test Case and applicable data to run the test.</li> <li>3. Execute the steps in the test and record the results.</li> <li>4. If the script passes, update the Test Tracking spreadsheet.</li> <li>5. If the script fails, log an issue via SharePoint, and update the Test Tracking spreadsheet.</li> </ol>
<b>Document</b>	Document Test Results	Testers will document test progress in a spreadsheet that contains the list of test cases, using a simple pass/fail mechanism. Once a script has been executed the tester will determine if the status will be changed to "Passed", "Failed", or "Passed with Issues." The following descriptions define what each of these statuses mean: <ul style="list-style-type: none"> <li>• <i>Passed</i> – A test case will be considered "Passed" when no issues have been logged.</li> <li>• <i>Failed</i> – A test case will be considered "Failed" when one or more issues have been logged of Severity type 1 or 2 (severity definitions are provided below)</li> <li>• <i>Passed with Issues</i> – A test case will be considered "Passed with Issues" when one or more issues have been logged of Severity type 3</li> </ul>

<b>Review</b>	Review Execution Results	Review the test results and defect reports with the Project Management, and relevant testing and development staff. A short meeting should be used for communication between testing and development staff (as well as key project management) to identify priority defects and discuss issues and trends in the build. In this meeting, the system test team will provide the following metric reports to aid the discussion: 1. Overall System Test Report – For the overall effort what is the status of the scenarios/scripts? 2. Scenario/Script Status – For each scenario/script what is the status?
<b>Fix and Promote</b>	Fix Software and Promote Changes	Fix software based on documented issues with the system. Work with the configuration management lead to promote changes to the various environments.

#### 7.5.4.1 Test Cases

A specific executable test that examines all aspects including inputs and outputs of a system and then provides a detailed description of the steps that should be taken, the results that should be achieved, and other elements that should be identified. Steps explained in a test case include all details even if they are assumed to be common knowledge. An example of a test case is shown below.

*Table 7-10 – Sample Test Case Format*

Step	Directions	Data	Expected Result
1.	Enter an invalid Username/ Password	Enter wrong username and password combination.	
2.	Click on “Login” button		System does not allow login, and presents user with a message that user credentials or user are not valid.

#### 7.5.4.2 Test Data

To permit a thorough testing of the system we create test cases that require the user to input test data that will be used throughout the testing process. By entering the test data we can know with a surety whether or not certain functionalities of the system are working properly.

#### 7.5.4.3 Test Environment

The test environment is created for the purpose of testing the system before it is sent to the production environment. This environment is primarily used by both testers and developers to verify that functionality meets the requirements. We also use a staging environment, which identical to the production environment, but it is used by end users as part of UAT to verify the application meets their specific business needs.

#### 7.5.4.4 Test Execution

To thoroughly test the system we will create a test execution plan to decide which users will be testing each part of the system and when they will complete the testing.

#### 7.5.4.5 Analyze and Group Defect Correction

As defects are detected during the testing process they will be logged and tracked on SharePoint by those who detect them. Users will be able to attach screenshots to their logged defect and will be able to track the progress of the defect until it is fixed.

#### 7.5.4.6 Defect Lifecycle

When a defect is found it is sent through an entire lifecycle where the defect is first reviewed, assigned, fixed and ultimately validated. The typical defect lifecycle is detailed below:

*Table 7-11 – Sample Test Case Format*

Status	Description
<b>Not Started</b>	This is the first state of an issue when it is documented. The lead will update it once a person is assigned.
<b>Assigned</b>	Assigned has many different entry points which illustrates that many people can assign issues back to this state.
<b>In Bug Fix</b>	This state is the analysis of what has happened during testing. There are three separate outcomes. The issue can be fixed, determined test data was a problem, or the application was determined to be functioning as it was designed.

Status	Description
<b>Fixed</b>	Once an issue is fixed it stays in this state until a build is deployed to the testing environment. The development lead will set all issues in the fixed state to Ready for System Test when the build has been pushed out into the environment.
<b>Ready for System Test</b>	This state indicates the testers can retest the issues in the system test environment. If the problem is fixed, the issue state will be updated to complete. If it is not then the state can be changed back to Assigned.
<b>Complete</b>	Complete indicates there is nothing left to do with the issue that has been logged.
<b>Test Data</b>	A developer can determine the problem was incurred because of test data that was used in the execution of the script.
<b>As Designed</b>	This state indicates the system is functioning as it was designed. If the tester agrees it can move to Complete, but if they disagree it can be Assigned back to a developer.

#### 7.5.4.7 Regression Testing

Whenever a change is made to the system we will perform a regression test on a set of scripts to make sure that a new fix did not introduce new errors into existing functionality. The intent of regression testing is to ensure that a change did not introduce new faults.

#### 7.5.5 System Testing

System testing ensures that the software and hardware are configured correctly to meet the non-functional requirements defined for the system such as volume, load, stress, and scalability,

##### 7.5.5.1 Performance Testing

Performance testing measures and evaluates response times, transaction rates, and other time sensitive requirements of a system in order to verify that performance requirements have been achieved.

Through the execution of performance testing, the project is able to evaluate the following areas:

- Assessing release readiness by:
  - Enabling the team to predict or estimate the performance characteristics of an application in production.
- Assessing infrastructure adequacy by:

- Evaluating the adequacy of current capacity.
- Determining the acceptability of system performance and identify any areas that performance is not at an acceptable level.
- Evaluate the stability of the system under stress.
- Determining the capacity of the application's infrastructure, as well as determining the future resources required to deliver acceptable application performance.
- Verifying that the application exhibits the desired performance characteristics, within budgeted resource utilization constraints.
- Improving the efficiency of performance tuning by:
  - Analyzing the behavior of the application at various load levels.
  - Identifying bottlenecks in the application.
  - Providing information related to the speed, scalability, and stability of a product prior to production release, thus enabling you to make informed decisions about whether and when to tune the system

#### 7.5.5.1.1 Identifying the Test Environment

During this step the team will identify the environment in which the performance tests will be executed, along with the tools and associated hardware necessary to execute the performance tests.

For executing load test, we will use Visual Studio test tools to isolate performance issues. The following steps will be taken to create and execute load tests:



Figure 7-24 – Steps for Load Test Creation and Execution

#### 7.5.5.1.2 Recording Web Performance Tests

In this step a web performance test is created using a recorder and Visual Studio tools. Later during the testing this test was used to generate appropriate load.

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*Load Testing reveals performance improvement needs. Performance improvements typically involve refining secondary keys for faster searches*

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The web performance test served two purposes. First, it tested what is expected to be the most strenuous and high volume transaction (submitting data through the portal with a large document set). Second, it simultaneously tested the Create/Update/Read/Delete (CRUD) transaction in the CRM application. Because the portal uses the same set of service that the internal UI uses, the performance characteristics of the web portal are a good proxy for the performance characteristics of the internal UI.

After recording all the actions that needed to be tested, the web performance test is saved. In the next step the team will create a Load test that leverages the previous recorded “Web Performance step.”

#### 7.5.5.1.3 Creating a Load Test

Creating a load test in Visual Studio is illustrated in the screenshots below.

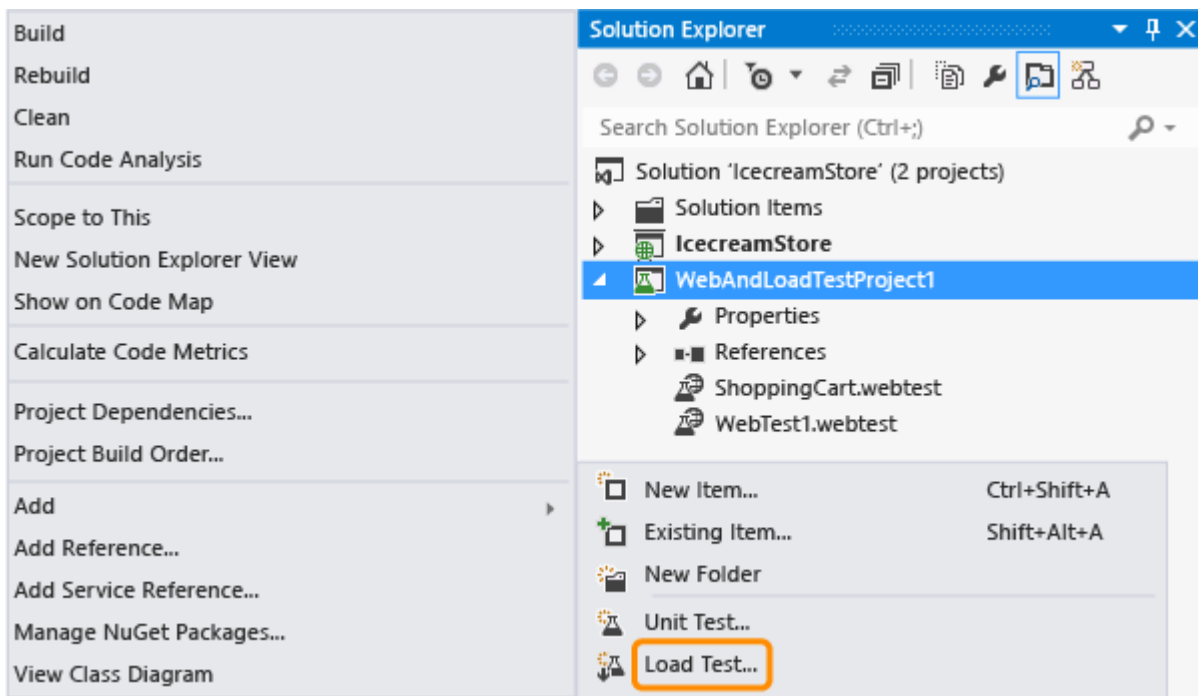


Figure 7-25 – Creating a Load Test in Visual Studio

Clicking on “Load Test” opens the load test wizard appears, where different load pattern are chosen based on the stress level needed for testing.



**New Load Test Wizard** ? X

**Edit load pattern settings for a load test scenario**

Welcome

Scenario

**Load Pattern**

Test Mix Model

Test Mix

Network Mix

Browser Mix

Counter Sets

Run Settings

Select a load pattern for your simulated load:

☐ Constant Load:

User Count: 25 users

☒ Step load:

Start user count: 10 users

Step duration: 10 seconds

Step user count: 10 users/step

Maximum user count: 100 users

< Previous Next > Finish Cancel

And in the final step added the web performance test to the load test

**New Load Test Wizard** ? X

**Add tests to a load test scenario and edit the test mix**

Welcome

Scenario

Load Pattern

Test Mix Model

**Test Mix**

Network Mix

Browser Mix

Counter Sets

Run Settings

Add one or more tests to the mix:

	Test Name	%	Distribution	
1	WebTest1	100		<input type="checkbox"/>
<b>Total</b>		100		

Add... Remove Distribute

< Previous Next > Finish Cancel

#### 7.5.5.1.4 Execution and Analysis of Tests

After execution, a results window appears listing test results. The test results are represented in graphical form showing results over a 10-minute period for each test. Then those results are presented to the user in a summary table. The table below lists out the definitions of the performance metrics used in result analysis and presented in the output from Visual Studio.

*Table 7-12 – Load Test Measures*

Measure	Definition
<b>Max User Load</b>	Represents number of concurrent users being run to execute performance test.
<b>Tests/Sec</b>	Number of tests executed per second
<b>Tests Failed</b>	Number of tests failed
<b>Avg. Test Time (sec)</b>	Average time taken in seconds to complete one test
<b>Requests/Sec</b>	Number of Requests sent to server, processed per second
<b>Requests Failed</b>	Number of requests sent to server that failed
<b>Avg. Response Time (sec)</b>	Average response time for each request in seconds
<b>Available Memory (MB)</b>	Amount of RAM available for allocation to a process
<b>% Network Utilization</b>	Percentage of Network bandwidth being used
<b>Avg. Disk Queue Length</b>	Average number of Read/Write requests that were queued
<b>% Processor Time</b>	Percentage of CPU time being used

We anticipate using the following load test patterns to generate stress for the system:

- Load generated by 25 users
- Load generated by 25 users and 100 iterations
- Load generated by 50 users and 50 iterations
- Load generated by 50 users and 500 iterations

- Load generated by 100 users and 1,500 iterations

One iteration means a cycle of creation of record and upload documents for all users in a batch. So for 25 users one iteration will be complete when all 25 users are done executing the recorded load test script.

#### 7.5.5.2 Security Testing

Security Testing is necessary to identify the threats in the system and measure its potential vulnerabilities. It also helps in detecting all possible security risks in the system and help developers in fixing these problems through coding. Not just a stand-alone activity, we incorporate security testing throughout the entire lifecycle of the project as shown in the table below:

*Table 7-13 – Security Testing Throughout the SDLC*

Project Phase	Security Processes
<b>Analysis</b>	Security analysis for requirements and check abuse/misuse cases.
<b>Design</b>	Security risk analysis for designing. Development of test plan including security tests.
<b>Unit Testing</b>	Static and Dynamic Testing and Security white box testing
<b>Integration Testing</b>	Black Box Testing
<b>System Testing</b>	Black Box Testing and Vulnerability scanning
<b>Implementation</b>	Vulnerability Scanning
<b>Maintenance &amp; Operations</b>	Impact analysis of patches and enhancements

Static, dynamic, white box, and black box testing are incorporated in the larger test plan and test cases. A separate toolset is utilized for vulnerability scanning.

##### 7.5.5.2.1 Vulnerability Scanning

Vulnerability Scanning will be done by testing against the Open Web Application Security Project's (OWASP) Top 10 vulnerability list shown in the table below:

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*With Dynamics CRM, the most likely security issue is refining what functionality and view of data each Role has — and which users are assigned to each Role. Time taken early in the project during process modeling helps to verify needed Roles and what capability to assign to each Role.*

---

Table 7-14 – OWASP's Top 10 Vulnerabilities

Risk	Description
<b>Injection</b>	Injection flaws, such as SQL, OS, and LDAP injection occur when untrusted data is sent to an interpreter as part of a command or query. The attacker's hostile data can trick the interpreter into executing unintended commands or accessing data without proper authorization.
<b>Broken Authentication and Session Management</b>	Application functions related to authentication and session management are often not implemented correctly, allowing attackers to compromise passwords, keys, or session tokens, or to exploit other implementation flaws to assume other users' identities.
<b>Cross-Site Scripting</b>	XSS flaws occur whenever an application takes untrusted data and sends it to a web browser without proper validation or escaping. XSS allows attackers to execute scripts in the victim's browser which can hijack user sessions, deface web sites, or redirect the user to malicious sites.
<b>Insecure Direct Object References</b>	A direct object reference occurs when a developer exposes a reference to an internal implementation object, such as a file, directory, or database key. Without an access control check or other protection, attackers can manipulate these references to access unauthorized data.

Risk	Description
<b>Security Misconfiguration</b>	Good security requires having a secure configuration defined and deployed for the application, frameworks, application server, web server, database server, and platform. Secure settings should be defined, implemented, and maintained, as defaults are often insecure. Additionally, software should be kept up to date.
<b>Sensitive Data Exposure</b>	Many web applications do not properly protect sensitive data, such as credit cards, tax IDs, and authentication credentials. Attackers may steal or modify such weakly protected data to conduct credit card fraud, identity theft, or other crimes. Sensitive data deserves extra protection such as encryption at rest or in transit, as well as special precautions when exchanged with the browser.
<b>Missing Function Level Access Control</b>	Most web applications verify function level access rights before making that functionality visible in the UI. However, applications need to perform the same access control checks on the server when each function is accessed. If requests are not verified, attackers will be able to forge requests in order to access functionality without proper authorization.
<b>Cross-Site Request Forgery (CSRF)</b>	A CSRF attack forces a logged-on victim's browser to send a forged HTTP request, including the victim's session cookie and any other automatically included authentication information, to a

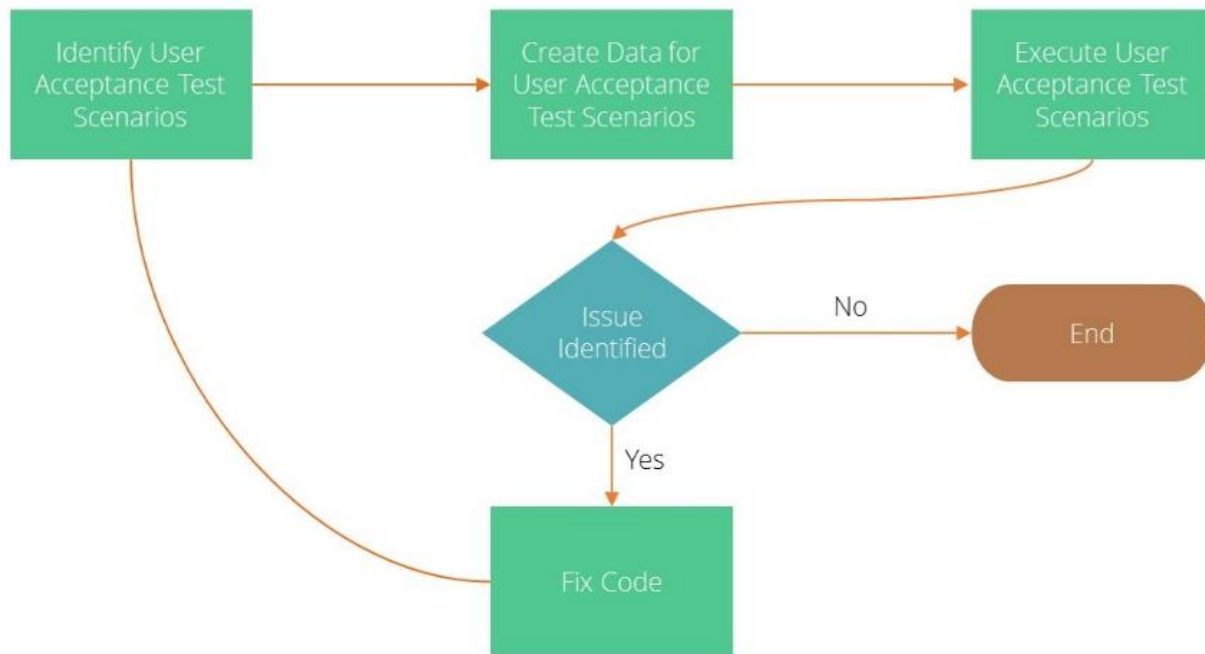
Risk	Description
	vulnerable web application. This allows the attacker to force the victim's browser to generate requests the vulnerable application thinks are legitimate requests from the victim.
<b>Using Components with Known Vulnerabilities</b>	Components, such as libraries, frameworks, and other software modules, almost always run with full privileges. If a vulnerable component is exploited, such an attack can facilitate serious data loss or server takeover. Applications using components with known vulnerabilities may undermine application defenses and enable a range of possible attacks and impacts.
<b>Unvalidated Redirects and Forwards</b>	Web applications frequently redirect and forward users to other pages and websites, and use untrusted data to determine the destination pages. Without proper validation, attackers can redirect victims to phishing or malware sites, or use forwards to access unauthorized pages.

Scanning is done by submitting the code to an online service provider, such as Veracode (<http://www.veracode.com/>), and receiving back a detailed report which identifies any security flaws found and their severity.

#### 7.5.6 User Acceptance Testing

When validation testing is complete, the software is ready for User Acceptance Testing (UAT). User acceptance testing is a phase of development in which the software is tested by the end users. The goal of UAT is to help the business users visualize how the application is meeting the requirements which the application was built off of.

UAT will be led and executed by State Bar program staff, with TrinityTG support. The following methodology describes a recommended approach for facilitating the UAT, which is based on a model we typically use when we have the responsibility to conduct and manage the testing process.



*Figure 7-26 - UAT Testing focuses on end-to-end review of the system*

#### 7.5.6.1 UAT Scenarios, Test Cases

Components of the application that are intended to be tested will have scenarios and scripts defined. The scenarios are typically a subset of the system test scenarios, but this varies depending upon the scope of UAT. The Test Plan that we create for the project will propose a method for scripting UAT.

#### 7.5.6.2 Acceptance Environment Prep

Before testing can begin there needs to be an appropriate sign off on the condition of the UAT environment. Ideally this is a single use environment that is just for UAT, however it can be used as a "System Test" environment if need be. If it does become a dual purpose environment there is a coordination effort that needs to occur.

#### 7.5.6.3 Test Execution

There are several components to the test execution described in more detail below:

- **Internal Team Execution** – Scenarios and scripts that are executed by internal State Bar staff, defects are logged where appropriate. Testing is completed when the scenarios pass at an appropriate level.
- **Business Partner Testing** - Scenarios and scripts that are executed by external business partners, defects are logged where appropriate. Testing is completed when the scenarios pass at an appropriate level.
- **Analyze Results and Determine Action** – Results of the testing are reviewed; scenarios are either passed or failed. If too many scenarios fail, there may be a need for an additional round of UAT testing.
- **Modify Application** - Defects are fed into a defect lifecycle and fixed where appropriate, these defects eventually cause modification to the application and are retested.

#### 7.5.6.4 Fix Defects

As users identify and log defects, our developers will resolve defects using the established configuration management process described earlier.

#### 7.5.6.5 Regression UAT

In order to validate the various releases to the testing / UAT environment, the regression script execution will be coordinated with each build cycle to the test environment.

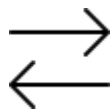
There may be points in time where there are minor overlaps between System Testing activity and UAT. This occurs when certain portions of the application have gone through system test and ready for UAT but other portions are still in validation testing. During these timeframe defects may be promoted to a build only for validation testing purposes even though UAT is occurring.

#### 7.5.6.6 Signoff

User Acceptance Testing sign off ends the UAT period and allows for the preparations to be made for the production environment and go-live.



## 7.6 Approach to Data Conversion



### 7.6.1 Data Conversion Strategy

With the number of legacy systems involved, it is critical to have a strategy that helps to prioritize and structure what will be a multi-source data conversion effort. The proposed strategy for State Bar includes the following key actions:

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*Investigating legacy data sources begins early in the project. Challenge to bring multiple data sources together, determine source of truth when sources conflict, transform multiple code sets into one.*

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#### 7.6.1.1 Determining Priority

The first step to working with multiple sources is to determine what relates to core business functions and how. The following diagram illustrates a preliminary understanding of how State Bar's source systems map to the core business processes.

Our overall system implementation approach is about mapping to the core business processes, so this approach to determine what sources are needed to support a core process will help us to plan and prioritize what sources need to be converted in the project, and when. It will also help to determine what dependencies exist amongst the systems.

#### 7.6.1.2 Deriving Data Relationships Where None Currently Exist

It is our understanding that the current legacy systems are not well integrated. By contrast, the new system will feature a fully integrated data model where all of the business data will be related and accessible. This means that during conversion it will be necessary to derive data relationships amongst the sources where none currently exist. This means the conversion scripts will feature a significant amount of business logic and transformation rules. Our Data Conversion Plan will therefore need to document the proposed business logic for each source system to be converted, and will also discuss the approach for several key aspects important to the system:

- Determining the sequence in which sources must be converted so that data relationships can be properly derived. As an example, it is likely the Registration Tracking Database will need to be the first source converted to create all the "parent" information, into which the other systems would be converted as "child" records.
- Test iterations of the converted datasets in a dedicated environment. We will need to run multiple conversion tests to see how the relationships properly

- Provide a mitigation strategy for duplicates and other data issues. A very likely outcome of multi-source conversion is that there will be duplicate records, especially if the source systems have not been cleansed. For this reason, it is important to have a mitigation plan for dealing with such records, including reporting output for identifying such records and a post-conversion cleansing approach.

### 7.6.2 Data Conversion Methodology

The following table provides a summary of each step in our methodology:

*Table 7-15 – Summary of Data Conversion Methodology steps*

Phase	Description
<b>Define/Confirm Conceptual Data Model</b>	The Trinity Team completes and validates the conceptual data model. This task includes: <ul style="list-style-type: none"> <li>• Review and complete the data requirements as part of Gap analysis.</li> <li>• Identify / confirm major entities</li> <li>• Identify / confirm major relationships</li> <li>• Validate Conceptual Model</li> </ul>
<b>Design Conversion Inventories</b>	Within the business analysis phase of the project, we review the requirements and gaps to determine the conversion inventories. The conversion inventory includes a list of conversion programs for extraction, cleansing, loading, and validation of data.
<b>Design Data Conversion</b>	The objectives of this task are to: <ul style="list-style-type: none"> <li>• Evaluate the data required for the conversion availability and accuracy</li> <li>• Analyze the existing data sources</li> <li>• Design a technical approach for extracting, manipulating, and staging the data</li> <li>• Identify and setup conversion tools for improving data conversion efficiency and managing risks</li> </ul>
<b>Develop Data Conversion Plan</b>	Once the prerequisite analysis and design activities have been completed, we develop the Data Conversion Plan. This deliverable documents the data sources, conversion methods, timelines, tools, and environments needed to manage the conversion effort.
<b>Perform Detailed Data</b>	The activities in Design include creating a Data Mapping document for each conversion data source. Each program has a detailed design that includes:

*Data conversion successfully done for ten major applications. Business Oversight's DOCQNET system had over twenty applications to integrate, including multiple document management systems.*

Phase	Description
<b>Conversion Design</b>	<ul style="list-style-type: none"> <li>• Source format</li> <li>• Detailed Data Maps</li> <li>• Conversion rules for each condition or transaction being converted and methods for calculating default values as appropriate</li> <li>• Description of the conversion method for each data source</li> <li>• Table updates or additions</li> <li>• Error handling</li> <li>• Validation requirements</li> </ul> <p>Besides conversion load programs, we also develop reports and queries required to assist with data validations and remedies.</p>
<b>Build and Test Conversion Components</b>	<p>Developers code the conversion programs using the error processing and reporting defined in the conversion approach and designs.</p> <p>The code goes through a code review and component test (unit test) within the conversion environment. We complete fixes as needed until obtaining validation of a successful component test.</p>
<b>Perform Mock Conversion</b>	<p>Mock conversions include the full volume of data for the conversion they intend to test. We complete successful mock conversions before each phased Production conversion to validate the conversion process and converted data. This also is used to launch the data clean-up process.</p>
<b>Convert Data</b>	<p>Execution of the final data conversion scripts during the production implementation phases.</p>

### 7.6.3 Creating the Data Conversion Plan

The Data Conversion Plan contains the following information about in-scope data sources:

- Document the Conversion method, strategy and environments
- Review the logical data model and determine the structure of data to be converted
- Document the file and database names and descriptions
- Document dependencies
- Confirm data history requirements
- Develop a cross-reference of source data elements to the new data elements

- Determine and define any specific data requirements, such as null values or calculations, for target data
- Develop a high level conceptual design of the conversion process coupled with a more detailed design illustrating inputs and outputs
- Document error and exception handling (we use an error logs to allow reporting against errors and production of a data purification log showing the keys for data needing to be addressed)
- Document the controls (controls include business controls allowing a comparison of the converted data to the source data) and reports
- Document the checkpoint approach (checkpoints are validation and rollback spots within the conversion process)
- Document Conversion reversal (this is the contingency approach to roll back to a prior conversion checkpoint or completely reverse a conversion if it does not get a “go” at the go/no go checkpoint for any reason)
- Identify all security access and controls needed
- Identify the assumptions and risks and document the mitigation strategy
- Any assumptions or constraints
- Any outstanding issues

#### 7.6.4 Data Conversion Design

The design phase of data conversion is where many of the critical path activities are completed. The following section provides details on how we approach the design of data conversion and the overall methodology for design.

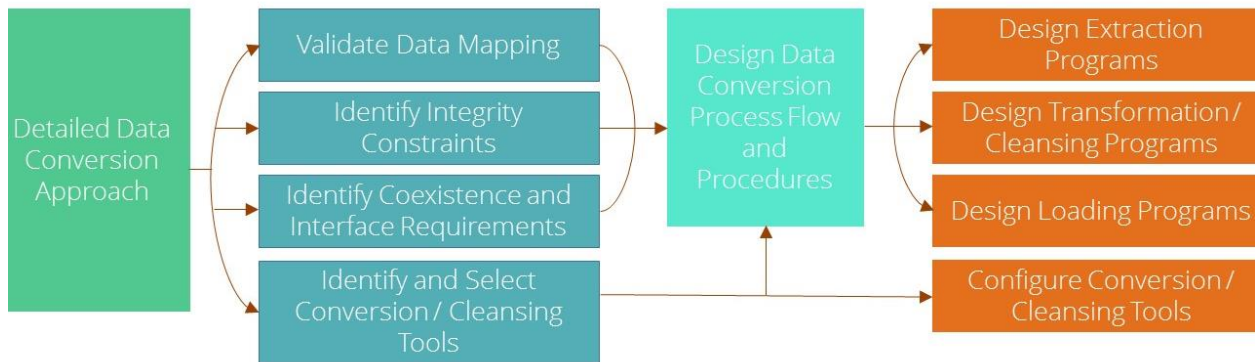


Figure 7-27 – Data conversion design focuses on taking data maps and transforming them into a mechanism to physically move the data.

#### 7.6.4.1 Validate Data Mapping

Based on identified data sources, we produce a detailed data mapping document for each data source that shows all of the tables and field mapping between source and target, including:

- ID-element unique id
- Name-element name
- Priority-determination of whether or not a field is required from a mapping perspective
- Format-type of data, e.g. varchar
- Status-mapped/not-mapped
- Derivation Rule-specific data element and derivation rules being used to migrate data.
- Last Update-tracking date that shows if/when updates were made to mapping information

A sample formatted data mapping report is shown below:

2 Table Name: Recipient

Table Derivation:

Use:  
recipient  
stateagency  
state  
congressdistrict  
contractingoffice  
statesenatedistrict  
stateassemblydistrict  
  
Join:  
recipient.stateagencyid = stateagency.id  
recipient.stateid = state.id  
recipient.ppopstateid = state.id  
recipient.InfrastructureContactStateId = state.id  
recipient.CongressionalDistrictId = congressdistrict.id  
recipient.ppopCongressionalDistrictId = congressdistrict.id  
recipient.ContractingOfficeId = Contractingoffice.id  
recipient.PPoPStateSenateDistrictId = statesenatedistrict.id  
recipient.PPoPStateassemblyDistrictId = stateassemblydistrict.id  
  
Create a record for each record in recipient.

Last Update: 2/12/2010 3:05:09 PM

Target Element Information:

ID: 1Name: StateAgencyNamePriority: FUNCTIONALFormat: varchar(55)Status: Mapped

Derivation Rule: set StateAgencyName = stateagency.AgencyName

Last Update: 2/12/2010 2:26:50 PM

Target Element Information:

ID: 2Name: DUNSNumberPriority: FUNCTIONALFormat: varchar(9)Status: Mapped

Derivation Rule: set DUNSNumber = recipient.DUNSNumber

Last Update: 2/12/2010 2:27:17 PM

Figure 7-28 - The data mapping report is literally the roadmap for how the data will be converted.

This deep level of granularity in the data conversion process allows for a high level of accuracy, reduces the error rate, and provides a workable format for State Bar functional and technical staff to read and understand how our data conversion scripts are transforming data.

#### 7.6.4.2 Identify Integrity Constraints

Integrity constraints are a set of data validation rules that can restrict the data values accepted into a data file. Using integrity constraints preserves the correctness and consistency of stored data. In this step, we identify and document the integrity constraints of the data considering the source system and database design. Constraints are defined within the business rules and are part of the validation during program execution.

#### 7.6.4.1 Identify Co-existence and Interface Requirements

If needed, we identify the issues related to coexistence of data in multiple sources. For example, we identify which source takes precedence, when to synchronize, what is updated, when, and by whom.

#### *7.6.4.2 Identify and Select Conversion and Cleansing Tools*

For database conversions, there are different options, including SQL procedures and interactive database tools. In general, we recommend using SQL procedures when converting a large amount of data, especially with data needed in many tables. The procedures use temporary tables and cross-reference tables to convert the data. Interactive database tools are very useful for inserting new data when the amount of data is relatively small.

#### *7.6.4.3 Data Conversion Process Flow and Procedures*

The steps to design efficient and effective data conversion process flows are:

- Determine the data conversion tasks that is carried out in advance or during the conversion runs.
- Determine other tasks related to updating, maintaining, or loading the data.
- Define the flow of the data conversion programs, including extraction, cleansing, summarizing (if needed), and loading.
- Determine which tasks are automated, which are manually executed, and the interactions between the automated and non-automated tasks.
- Include time constraints, interaction with personnel executing the data conversion.
- Determine the order of conversion processes. For example, you have to load some data tables before you can load other tables.
- Document the location of all data conversion processing, including associated physical resources.
- Refine the time dependencies between the conversion tasks.

#### *7.6.4.4 Design Extraction Programs*

As part of the design we will work with State Bar to determine the optimal method of ETL. Based on our experience with the technology platforms involved we are likely to use SQL Server Integration Services (SSIS) and Scribe Insight to create a series of repeatable scripts that will access data from the various legacy systems. The following table identifies common legacy sources and proposed conversion tools.

*Table 7-16 – Proposed Conversion Tools for common Legacy sources*

Type	Conversion Method
<b>Oracle</b>	We use a custom-developed C# script that imports the Oracle tables into a temporary SQL staging table to conduct any validation/transformation logic. Once completed these records are then imported into SQL Server via SQL Integration Services (SSIS)
<b>SQL Server</b>	For the existing applications with a SQL Server database we use SQL Server Integration Services (SSIS). We write an import package that imports the data into a staging database where we run the validation logic before committing to the target environment.
<b>MS Excel</b>	Dynamics CRM 2016 has a built-in Excel import wizard that can be configured to import a spreadsheet across a single entity (DB table) or across multiple entities.
<b>MS Access</b>	We use Scribe for Access databases, which has a built-in mapping and translation tool for migrating Access records into SQL Server. This allows for extraction, transformation and loading of the data without the need for a temporary table.
<b>MS Word</b>	<p>The MS Word files will be handled one of two ways:</p> <ul style="list-style-type: none"> <li>For templates or other form/correspondence that are produced as part of the ongoing registration management, we will import those into Dynamics CRM, where our solution includes a built-in Word merge utility that allows us to take existing form templates and re-map variable values (e.g. names, addresses, etc.) onto the form template using the new database</li> <li>For static or referential documents we propose migrating these as files into the SharePoint repository.</li> </ul>

A parallel activity to the design of the ETL programs is the approach for data clean-up. Data clean-up/purification involves identifying problems and cleansing legacy system data to ensure the complete and accurate conversion of data to the new system for production. While TrinityTG supports the identification and recommendation of cleanup activities, ultimately we rely upon the owners of the data (State Bar staff) to take an ownership role in the cleanup. To support this effort, we establish a formal communication process of progress, status, and issues on a regular basis. This includes the tracking of



exceptions and errors, the volume of errors and their status within spreadsheets developed and managed by the Development lead.

Our experience has shown that Data clean-up activities involve automated, semi-automated, and manual processes depending on complexity, schedule, and data volume. If possible, we recommend source systems cleanse their data prior to capturing the data to convert. We understand the constraints in this approach and program purifications into the process where a value can be calculated, derived, or defaulted.

In a few cases, data problems may be corrected within the new system after conversion, once the system becomes available in production. This is only an option if the data does not impact production processing.

#### 7.6.5 Data Conversion Environments

We are proposing that conversion can be completed without the need for a separate conversion environment. For the majority of our implementations we have been able to make use of the development and testing environments for parallel data conversion development and testing without disruption to the application build/test activities.

This has worked successfully for two reasons:

1. Our toolset enables us to minimize disruption to the environment. For example, import of Excel and Access based data is managed by built-in scripting tools that reduce the need for an intermediate environment. And for custom sources we use temporary tables (e.g. TEMP\_systemname\_tablename) that are instantiated separately from the new system application tables allowing us to test the raw data before loading into the system. Using our approach, the conversion quality is typically high enough (50% or more) in our initial loads that we can conduct valid tests directly on the application.
2. Our testing approach relies upon converted data in all phases of testing and implementation. As early as validation testing we are using converted data to test functionality, meaning that it is beneficial to move data into the testing environment as early as possible.

With respect to the conversion effort, the tasks will differ based on the stage of development. The following table provides a high level

summary of the key focus areas for each phase of the data conversion process as it progresses through the SDLC.

*Table 7-17 - Data Conversion Tasks by SDLC Phase*

SDLC Phase	Details
<b>Analysis</b>	During this phase of requirements validation, we are also identifying data sources and candidate conversion methods
<b>Design</b>	During design, we are heavily involved in data mapping, identifying integrity constraints, and actually creating data conversion scripts based upon the base data model of the Core CMS. It is during the design phase that we produce the data conversion mapping.
<b>Build</b>	During Build we are developing the data scripts and validating their functionality in two ways: <ol style="list-style-type: none"> <li>1. The performance of the scripts vs. the mapping artifacts (e.g. are we transforming the data per the specifications)</li> <li>2. The performance of the converted data against the target database (e.g. does the data properly load and adhere to the integrity constraints of the development database)</li> </ol>
<b>Test</b>	During testing we are actively converting data iteratively into the testing environments. The objective is both to test the functionality as well as the business functionality of the converted data. For UAT, we migrate data resulting from our Mock data conversion efforts in order to deliver a higher-fidelity dataset for UAT testers.
<b>Implementation</b>	In addition to actually converting the final production data, we spend considerable time in a planning and monitoring mode so that we can properly orchestrate the load of data with all of the other implementation and deployment activities. Activities include: <ul style="list-style-type: none"> <li>• Review of the planned checkpoints in the conversion process where it is backed-up and validated - these checkpoints provide rollback spots in the conversion process and mitigate against a failed conversion window</li> <li>• Review of manual processes required including preparation and validation, and an estimated work effort and timeline for each</li> <li>• Validation all special conversion training, such as conversion data entry or validation and control, the number and type of support staff and required time frames</li> </ul>

SDLC Phase	Details
	<ul style="list-style-type: none"> <li>Review of assumptions or constraints</li> <li>Review outstanding issues</li> <li>Review of Conversion checklist that includes items such as backups, staffing, legacy system readiness, freezes, etc.</li> </ul>

### 7.6.6 Data Conversion Reporting

We develop a detailed set of metrics to report against for each Mock and the Conversion to Production. This reporting includes timings, errors, warnings, validations, and inventories of any records requiring manual cleanup. This will be detailed further when the plan is submitted for approval during the Design activities.

#### 7.6.6.1 Roles & Responsibilities

The Data Conversion Plan will detail conversion staffing requirements. Roles and expectations for different activities are detailed below. Our project plan and project team organization deliverables will contain the schedule and resources.

*Table 7-18 – Data Conversion Roles & Responsibilities*

Role	Responsibility
<b>TrinityTG</b>	
Project Manager	Manage overall conversion from beginning to end
	Report on conversion progress, issues
	Define detailed conversion plan, schedules and contingencies
	Define the conceptual data model
Data Conversion Lead	Design, build, and test conversion programs
	Design, build, and test validation programs
	Provide file formats for required data from legacy systems
	Build and test extracts from legacy systems
Data Conversion Developer(s)	Define Conversion Inventory and design data conversion
	Responsible for data mapping
	Provide initial list of conversion validation controls
	Provide post conversion cleanup if required
	Perform Mock Conversions

Role	Responsibility
	Extract files for each Mock conversion
	Execute conversion programs, document and resolve errors
	Provide files by error type for data purification
	Provide conversion validation training
	Provide Data Conversion Clean-up Log which lists each purification item and the volume associated after each Mock conversion
	Convert data and extracts data files
	Execute conversion processes including validation and control reports
<b>State Bar</b>	
Subject Matter Experts	Meet weekly with TrinityTG to discuss purification items and resolution approach (if defaults or calculations can be used, TrinityTG programs those into the conversion programs)
Internal Data Conversion Lead and/or Project Lead	Validate the conceptual data model
	Assist in data mapping / identifying sources and translations
	Review and add to list of conversion validation controls
	Participate in validations steps at conversion checkpoints and provide overall approval for conversion
	Where values cannot be derived - the State Bar cleans up items in legacy systems or provides a file of valid values to TrinityTG team to script an update
	Participate in validation checkpoints (review of validation and control reports as well as ad-hoc checking of conversion data)
	Provide go/no-go decision
Legacy Systems Support	Provide access to legacy data sources
	Provide file formats for required data from legacy systems
	Build and test extracts from legacy systems
	Verify that Peer Reviews are conducted according to Quality Assurance processes and document and

Role	Responsibility
	communicate risks and issues related to conversion activities

#### 7.6.6.2 Validation Strategy

The conversion validation approach is an iterative review process that includes having program subject matter experts review the converted data in a dedicated environment as part of both validation testing and user acceptance testing. The objectives for each of the testing types differ, however:

- In validation testing, the focus is on confirming that the structure of the data is correct; if the system test functionality is not hampered by the converted data then we can confirm that structurally the migrated data conforms to the State Bar data model and is free of integrity constraints and/or data defects that hamper the system's functionality.
- In UAT, the focus is on validating the content of the converted data rather than structure. The testers are the Lead Subject Matter Experts (SMEs) for each of the business divisions, who have the best perspective on the accuracy of the conversion. Given the time constraints of the project preclude a separate conversion testing phase, this approach provides the most efficient means of validating that the conversion is accurate.

When data conversion scripts are run, we provide a report to the designated program users that includes the following elements:

*Table 7-19 – Data Conversion Reporting Elements*

Item	Description
<b>Business Unit</b>	Name of the business unit to which the data belongs
<b>Data Object Name</b>	Logical name of the data being converted from the source
<b>Source Type</b>	Identification of the source database technology
<b>Source Name</b>	Business Name of the data source
<b>Source Location</b>	Physical location of the source file
<b>Destination Entity Name</b>	List of target entities
<b>Entity Display Name</b>	The display name of the target entities

Item	Description
<b>No. Records Migrated</b>	Number of records migrated using the migration scripts
<b>No. Records not Migrated</b>	Number of records not migrated from the source system
<b>Migration Procedure</b>	Description of the approach or method used
<b>Migration Scripts (if any)</b>	Physical location of the scripts used to migrate the data
<b>Error or Exception Logs</b>	Physical location of the error logs produced as a result of the migration process
<b>Comments</b>	Specific notes and comments regarding the conversion effort for the source listed

From this report, we work with SMEs to validate the reported results and gauge them in terms of how well the converted data performs with the system test and user acceptance test scripts. This approach provides a “real-world” validation strategy for looking at the data. In short, if the scripts can be executed using converted data, then we know the output will work within the system.

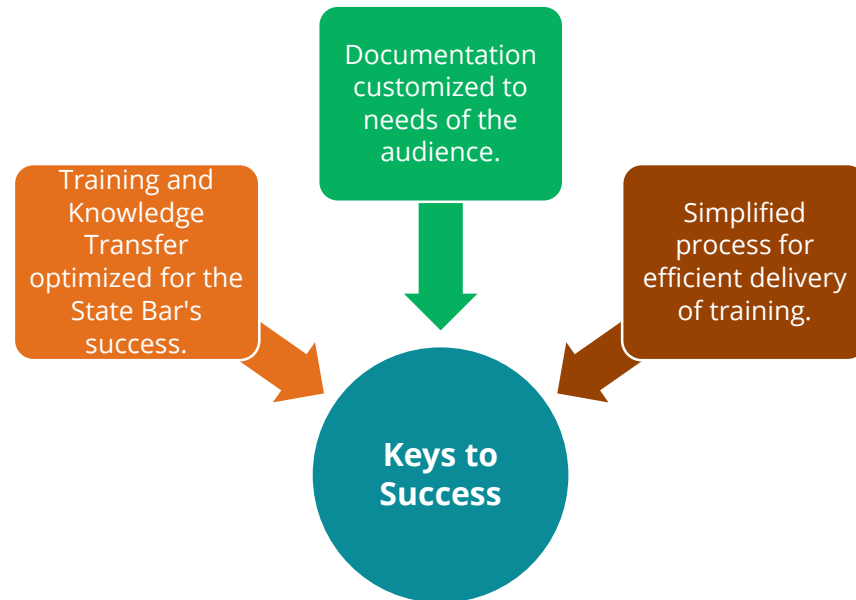
While this validation strategy works for data that successfully converted, it does address data that did not convert. The error/exception logs in the report will show what data did not convert and why. As part of the validation effort, we will review these reports with the State Bar program experts to determine next steps. This will include at least one of the following:

- If the volume of exceptions is significantly high, then cleanse the data in the source system and re-run the conversion
- If the volume of exceptions identify a need to change the business logic, then the project’s change control process will be used to manage the effort and time needed to modify the conversion scripts
- If the volume and/or nature of the exceptions reflect the minority of data, then it is possible to cleanse post-implementation. The proposed platform, Dynamics, allows for relatively easy data modifications given proper security roles. So unlike a pure custom build, our platform will allow for greater ease of post-production cleanup.

## 7.7 Approach to End-User Training



Training and knowledge transfer is one of the most important parts of working on any project with the. We will employ an approach to training and knowledge transfer that aims to help State Bar become self-sufficient on the use of the processes and tools utilized.



*Figure 7-29 – Several dimensions to training are needed to ensure success.*

When designing a training program for clients, we design a program that takes into account a series of success factors. By considering these factors ahead of time, we are able to create a program that is both efficient and comprehensive. The success factors include:

- **Keeping it simple** – the approach, process, and actual content should all be straightforward and understandable.
- **Easy to Use Materials** – concisely written documents with no technical jargon is a goal of our training material development.
- **Audience Analysis** – early in the project, determine the different audiences so that material and course development can be optimized.
- **Logistics Defined and Secured** – work with clients early in schedule to define space, workstations, handouts, and timeframes to make planning process easier.
- **Posted Schedule** – all stakeholders have access to a central schedule, either in SharePoint or other accessible repository.

We provide a simple, linear process to develop a training program that helps us to deliver the right level of training in a timely manner:



*Figure 7-30 – Training and Knowledge Transfer Approach*

#### 7.7.1.1 Plan

During the planning process, we identify all the major factors that drive the decisions made in later phases

- **Conduct audience analysis** – as a precursor to material development, we conduct an analysis of the skill-sets and expected usage of the system to determine what level training and what details are needed.
- **Identify participants** – even at this early stage, the participants for the training can be identified based upon whether they are functional staff or technical staff.
- **Provide repository location of training materials** – a repository within *ProjectVue* will be set up to store all training materials.
- **Define logistics** – the training schedule is defined by the project schedule. Using that as a starting point, we can determine timeframes in which logistics need to be constrained, such as staff availability, workstations, and printed materials.

#### 7.7.1.2 Develop

At this stage in the process, we develop the training materials. This consists of:

- **Formal Documentation** – a first draft of the end-user documentation is the basis for the more abbreviated slide deck that will be used in any formal training.
- **Summary Slides** – the formal documentation is compressed into a slide deck more suitable for a classroom setting. However, the formal documentation is provided as reference for all participants.

#### 7.7.1.3 Execute

Formal and ad-hoc training and knowledge transfer will be provided to Commission staff as needed. The team will customize the training and knowledge transfer based on specific job functions. The training



and knowledge transfer activities will be both structured and somewhat flexible to support varying learning styles. For example, some staff prefer less lecture and more hands-on experience.

#### 7.7.1.4 Evaluate

The team will continuously monitor feedback to see if the training and knowledge transfer delivery needs to be altered to meet the business or technical needs. Adjustments to the training and knowledge transfer activities will occur as needed.

## 7.8 Approach to Technical Training



Our approach to Technical Training is part of a larger user readiness approach that involves exposing State Bar technical support staff and end users to increasing levels of information about their job processes and the new System. Formal training is not the first exposure technical staff or end users have to the System.

Staff that State Bar designates will have the opportunity to participate in the design and system configuration from early in the project. Functionality will go through review during analysis, design, build, and testing phases. This will enable technical staff to gain an increasing understanding of page designs as well as the features and benefits of the new system over time. Early exposure to the system is a way to convince stakeholders that the new system is really coming and it is important for them to pay attention to communications, take part in implementation activities, and prepare for user acceptance testing, training, implementation and rollout.

Because learning styles vary, we use a variety of training methods and tools to address the different learning styles and methods designed to deliver the right information to each audience group at the right time.

Our identified training methods and tools include:

- Presentation / Overviews
- Instructor-led Training (ILT)
- Job Aids
- Reference Materials
- On-the-Job Training

### 7.8.1.1 *Presentation / Overviews*

Presentation or overview sessions provide introductory, overview, or conceptual information to large numbers of people at one time. We use this method when the content is less complex and typically does not require hands-on learning. The technologies we use to deploy this method of training may vary depending on the size and locations of the audience. For example, we may provide town hall meetings, large group presentations, or web casts to deliver this type of training.

### 7.8.1.2 *Instructor-led Training (ILT)*

Instructor-led training (ILT) is our primary method of training for State Bar technical staff with an interest or responsibility for the ongoing maintenance and support of the system. This method of training provides hands-on, performance-based training delivered in a classroom by a trainer knowledgeable in the content. Each instructor-led end user training course comprises short periods of trainer-delivered instruction, followed with business scenario-based, hands-on activities that enable users to perform specific tasks in an available version of the system.

The advantages of ILT include:

- Opportunity for Students to ask questions and receive feedback immediately
- Ability to deliver large amount of information at one time
- Individualized attention from Instructors
- Interpersonal activities such as role play or real life exercises in a risk free environment to practice the learned skill and/or theory

ILT does have limitations. For example, the success of an ILT class is contingent upon Instructors having good subject knowledge and presentation skills. Active class participation is also crucial to making sure the success of ILT courses. Class size and Student characteristics may limit opportunity for feedback. Additionally, the pace of the slower learners limits class progress.

### 7.8.1.3 *Job Aids*

This method includes materials that are designed to assist users in performing their jobs and tasks during a training class, as well as back at their job, after the training is completed. Examples of job aids include checklists, process models for business scenarios, quick

reference cards, and forms. Training may reference or use one or more job aids during the training sessions.

#### 7.8.1.4 *Reference Materials*

Reference materials include a variety of hardcopy or online materials available to support a particular topic, tool, or functional area. This could include software documentation, project documentation, policies and procedures or training manuals.

#### 7.8.1.5 *On-the-Job (OJT) Training*

On the job training starts with State Bar personnel monitoring TrinityTG working on production issues and change requests for the specified amount of time as per the transition schedule. Then State Bar personnel will start handling the production issues and change requests with TrinityTG monitoring their work and helping them out whenever necessary. TrinityTG conducts bi-weekly assessments during this time. At the end of the OTJ training, a final OTJ assessment will be conducted.

## 7.9 Approach to Implementation



### 7.9.1 Configuration Management Practices

By applying the following Configuration Management practices we ensure that each implementation is complete and minimizes risk of introducing issues that will impact users' ability to conduct their business.

1. Regular and targeted release dates will be defined through a release calendar.
2. Each release will have a back out plan. The releases that are deployed at the production and staging environments will have a back-up version in the TFS. If a tested release is deployed on production and subsequently problems are found, there will be a process to roll back to the last good version deployed.
3. The Development team will deploy the builds on the development environment for unit testing and on the test environment for validation testing.
4. Deployment and distribution to the Staging and Production environments will be carried out by a team of administrators who are independent of the development team.

5. Development will be carried out by multiple developers. The source code will be kept in the TFS.
6. TFS will have a root folder with corresponding sub-folders as shown below:

*Table 7-20 – TFS File Organization*

Sub-folder	Description
<b>Plugins</b>	C# .NET code in a solution
<b>Web Resources</b>	JavaScript, HTML, images, style sheets, and icons.
<b>Images</b>	Physical image locations
<b>Custom Workflows</b>	C#.NET code in a solution
<b>Application</b>	.NET Application source code
<b>Scripts</b>	SQL Scripts used for extraction and loading of data
<b>Programs</b>	C#.NET code used for custom data transformation
<b>Batch Scripts</b>	Custom workflows, C#.NET Code

7. Each Development build for unit testing will increment the revision number. Revision number is the last number in the 4-number sequencing system: <Major Version Number>.<Minor Version Number>.<Build Number>.<Revision Number>. Each of these numbers will be version controlled within TFS.
8. Test deployment build numbers will be numbered as an incremental version of <Build Number>.
9. For Staging and production distribution, the release number will be incremental of 'Major build number' or 'Minor build Number' depending upon the type of release. The version number is four numbers separated by a decimal.
10. For Staging and production distribution, the release number will be an increment of 'Major build number' or 'Minor build Number' depending upon the type of release. Development builds will be increments of the revision number. Once a development build is stable enough to pass through unit test, the build number will be increased. For example:

- Development version 1.0.0.9 is stable and passed through unit test, the version that will be deployed to Test is 1.0.1.9.
- Version 1.0.8.56 is passed through system test and ready to be deployed at staging/training for UAT. The version that will be deployed at staging for UAT is 1.0.9.56.
- Version 1.0.12.82 has passed the staging and ready for production, version that will be deployed at production is 1.0.13.1098, where '1' is the major build, '0' minor build, '13' build number, '1098' revision number.

### 7.9.2 Implementation Planning and Execution

Implementation is when the actual solution is brought out to a production environment and access is given to the end users of the system. At this phase of the project the system has already been approved for go-live and users have been trained.

The implementation plan consists of several important sections and covers in significant detail how the implementation will occur, what checklists need to be performed before the implementation and after the implementation, what the roll back plan is, and integration of the implementation schedule with the project schedule. The implementation is actually developed much earlier than the implementation phase, so that the tasks, dependencies, and activities leading up to implementation can be properly planned and measured.

#### 7.9.2.1 Installation

In our delivery approach, the setup of all environments happens early in the project during the design phase. This is for two reasons:

1. It eliminates a dependency during a critical timeframe
2. It allows the project to use the proposed release and configuration management procedures much earlier the project, as builds can be promoted into the Production environment as a way of testing that the deployment procedures are valid and correct.

Assuming the use of virtual servers, we would not anticipate the need to install Windows Server, we would work with State Bar IT staff to install all of the core components of the system, including:

- Dynamics CRM 2016
- SharePoint 2013
- SQL Server 2014
- ADX Studios V7
- Document Core Pack
- PDFS
- DocuSign
- SSL Certificates
- Antivirus
- SQL Reporting Services

#### 7.9.2.2 Stakeholder Readiness

Stakeholder Readiness evaluates who needs to be contacted prior and during implementation, and the training activities that must occur for staff to be ready to assume their role in supporting the system. Activities associated with the stakeholder readiness are documented in the Implementation and Acceptance Schedule and include:

- Key stakeholders contacted regarding cutover status.
- Training Approach presented.
- Training plan developed and approved.
- Training materials developed and approved.

#### 7.9.2.3 Infrastructure Readiness

Infrastructure Readiness activities determine the state of the production environment including:

- Hardware is designated and configured.
- System software and instances are installed.
- Databases and network setup and configurations occurred.
- Interfaces have been verified.

#### 7.9.2.4 Application Readiness

Application Readiness ensures that all necessary QA and configuration functions have been completed. Activities that fall under this category include:

- Validation testing complete and accepted
- Security roles configured
- UAT complete and accepted

- Provide Training Materials
- Deployment to production environment

#### 7.9.2.5 *Go/No-Go Criteria*

Prior to entering the Go-Live, a series of Go/No-Go decisions must be made by key members of the project team, based on agreed-upon criteria that illustrates the level of readiness of the application and end-users' readiness to begin using the system in a live environment. Following are the Go/No-Go criteria to be used to make the decision whether to proceed with the Go-Live.

- Have all critical items still outstanding been fixed?
- Are the total numbers of outstanding bugs which require workarounds workable?
- Is the production hardware deployed and ready?
- Are interfaces ready?
- Are system support resources ready?
- Have appropriate communications been completed?

#### 7.9.2.6 *Post-Production Monitoring*

After the system "Go-Live", problem monitoring, assessment, and resolution activities are initiated. Post-production monitoring will allow the project management team to assess 820 Phase 2 performance and system usage during the first weeks after go-live. The monitoring measures to be used after Go-Live will be based on system monitoring activities that are slightly more rigorous than standard maintenance activities. Post Production Monitoring includes these steps with the overall goal to proactively identify and resolve issues prior to user detection:

- Performance Monitoring
- Database Integrity Checks
- Scanning Log Files
- Database response time
- Error logs
- Application response time
- Turnaround time from issue identification to resolution

## 7.10 Approach to Maintenance & Operations



### 7.10.1 System Maintenance

System maintenance is a natural part of the system development lifecycle cycle. Many factors generate a need for new or refined functionality such as:

- new legislation,
- missing functionality from a previous phase,
- new business partners,
- changes in business process, and
- end-user requests based on experience gained from prolonged use of the system.

Regardless of the basis for the change request, we apply a consistent approach to ensure the most value possible is attained during this iteration of the maintenance cycle.



*Figure 7-31 – Steps of System Maintenance Cycle*

#### 7.10.1.1 Evaluate

We first evaluate a change request that is logged into *ProjectVue*. The technical lead and an application analyst will review the request and define an estimated Level of Effort (LOE) to fully analyze, develop, and test.

#### 7.10.1.2 Prioritize

After the initial evaluation is complete, we then work with the requestor and other impacted stakeholders to prioritize the requests. There is a standing weekly change control meeting to examine each request not only on an individual basis but also in the larger context of all the requests so that similar work and functionality can be investigated as a group. There are several criteria that should be considered when prioritizing a change:

- What is the source of the enhancement request (end-user, legislation, new or updated business process, etc.)?
- Are there any time constraints, real or artificial, that affect the release of the enhancement?
- What is the effort required to make the enhancement?



- What is the duration required to make the enhancement?
- What percentage of end-users will make use of the enhancement?
- Is there existing code or data structures that can be re-used to implement the enhancement?
- Would the enhancement fundamentally change a core goal or business process provided by the system?
- Do the current system and/or process provide a reasonable “work-around” if the enhancement was not implemented at this time?

Once these questions are answered, the enhancement requests will begin to fall into a natural order. Those that do not will be prioritized by the project team or sponsor. The requested changes are given a priority and a scheduled release date.

#### *7.10.1.3 Execute*

In this stage, we perform the changes necessary to implement the enhancement requests from start-to-finish. This is an iteration of the traditional SDLC. Requirements, analysis, design, build, and test are all executed here. Specifically, the process we recommend includes:

1. Requested change is assigned to analyst, then a developer, and finally a tester.
2. A new code branch is created for the appropriate release.
3. Issue is developed on an appropriate code branch.
4. Code must be checked in using the appropriate request number.
5. The lead developer gets notified for any newly checked in code and performs a review.
6. The lead developer moves the reviewed code into the QA branch.
7. The QA branch is built and deployed for testing.
8. The assigned developer assigns the requested change to a tester.
9. The tester prepares or updates test scripts for the requested change.
10. The tester executes the test scripts
11. The tester assigns failed scripts to developer and items 2-9 are repeated.

#### *7.10.1.4 Release*

In the final stage of the approach, the changes are released and monitored in the production environment. In addition, we identify

any potential “behind the scenes” enhancements discovered during the execution stage such as:

- code that should be refactored,
- data structures that should be extended,
- enterprise or industry standards that should be applied,
- possibly security issues,
- opportunities to improve performance, and
- opportunities to improve usability.

#### 7.10.2 Operations

Operations include the day-to-day tasks required to maintain the health and integrity of the system. These activities include:

- **Administrative activities** - such as ongoing security, user access rights, backup/recovery, and availability/performance monitoring.
- **Service Level Agreement (SLA) Monitoring** - ongoing reporting and monitoring of our compliance with the agreed upon Service Level Agreements
- **Coordination** - with State Bar technical staff on system maintenance, such as scheduled downtime, data backup schedules, and patches to operating systems.
- **Software patches** -updates to the solution’s software base will be included in ongoing support services. This includes the patches and roll-ups for software produced by Microsoft. Deployment of the software will be planned with other maintenance/ modification releases to maintain quality and version control.
- **Code optimization** - minor updates to the solution that enhance performance or response time, but do not change any requirements or functionality
- **Documentation Updates** - periodic updates to existing documentation based upon new releases, changes implemented, or other events as warranted.

#### 7.10.3 Ongoing Monitoring

Ongoing monitoring will allow the team to assess production performance and system usage. Monitoring includes these steps with the overall goal to proactively identify and resolve issues prior to user detection:

- Performance Monitoring,
- Performance Tuning,
- Database Integrity Checks,
- Scanning Log Files,
- Database response time,
- Error logs,
- Application response time, and
- Turnaround time from issue identification to resolution.

#### 7.10.4 Issue Logging

All Issues are reported in the Issue Log. The TrinityTG Project Manager will regular monitor the log and the work of staff to ensure that the Issue log is current. The assigned analyst to address each Issue examines the end to end business process and not just the boundaries within the system. The end-to-end analytical approach is necessary in order to determine potential causes of problems especially when the problem is determined not to be in the application or database. However, it is critical to verify whether the application had a role directly or indirectly in any problem that arises. It is part of our mantra to be the first to find a problem; and if we are not the first to see the error, be the first to admit it.

#### 7.10.5 System Updates and Update Schedules

All new releases shall be scheduled based on three criteria:

- Urgency;
- Assessment of the impact of having to roll back in case a problem arises (interaction of changes to be released); and
- The published date of regular new releases.

In all instances, no new release will be proposed without verification of testing, user acceptance, and any conditions established by the State Bar project manager.

The State Bar project manager may need to coordinate with internal IT resource in order to balance application releases with technical infrastructure planned updates to system software or upgrades to hardware or networking equipment.

Ideally, enhancements that will require at least six weeks to have ready should be added to a defined, regular release schedule. A release may require a separate schedule when there is a

determination that in case of unforeseen circumstances it is necessary to roll back, and that roll back would be complicated when multiple enhancements are introduced at the same time. As part of smoke testing a new release, it is possible that a potential problem is not interpreted correctly because of the multiple changes so that separate releases can be a safer way to go.

We strive to ensure that all documentation updates are made prior to a new release. The release manager may request proof that all documentation is current. We will strive not to request exemptions given the importance of current documentation in order to be ready for whatever enhancement request comes next.

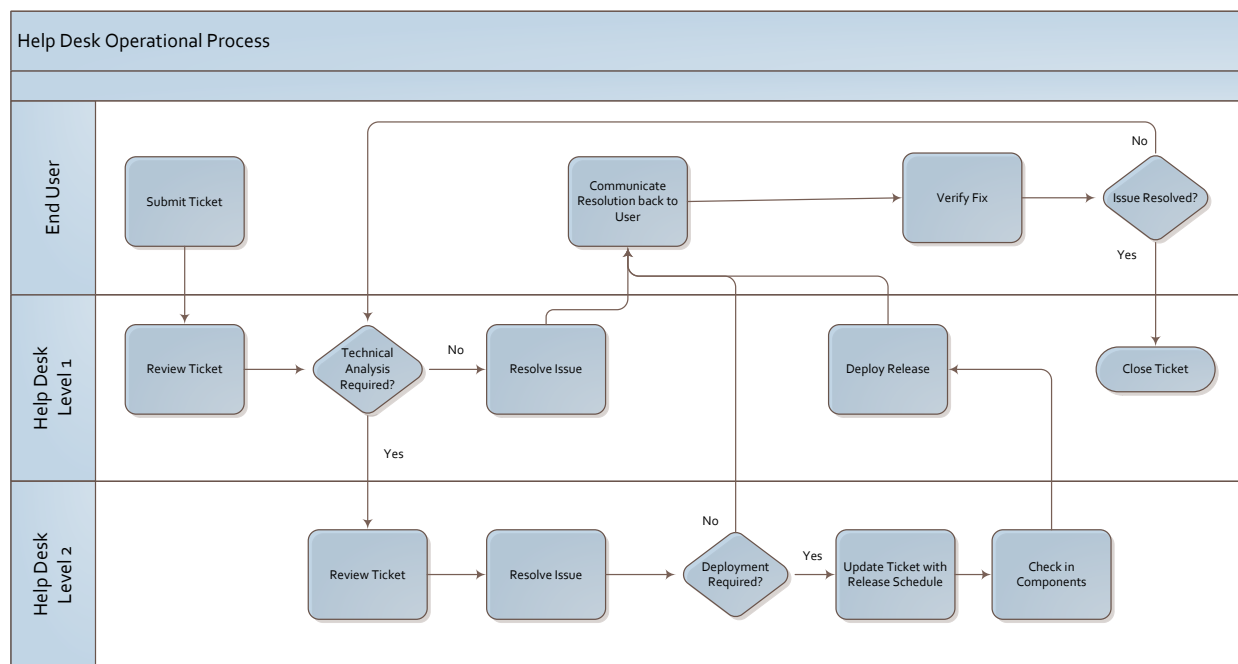
#### 7.10.6 User and System Documentation Updates

System updates and documentation shall be submitted to the State Bar Project Manager or the designated persons. Each new release should include verification of changes made to use cases, design specifications, source code version, test cases, training materials, user manuals, system administration, and other documents that are an appropriate part of the release approval. System success is due in significant measure to the discipline established through the State Bar Project Manager, the overall project culture, and commitment of those involved. Over time, it is important to further emphasize the processes and documentation as more people are involved as a result of growth as well as the inevitability of turnover.

#### 7.10.7 Customer Service

TrinityTG strongly believes in on-site support for customers, and given our local presence we are committing to having one full time on-site support resource for the 90-day maintenance period. This enables us to provide availability that matches with the State Bar's working hours. This same team would be available via phone from 8:00 AM – 5:00 PM Saturdays (excluding state holidays). Note that during this period we are concurrently conducting knowledge transfer activities as well.

Communication will be managed through a two-level incident management process. Using *ProjectVue*, we will create an incident management list where the State Bar users can enter service requests. The onsite analyst will be responsible for monitoring this list on a daily basis and responding to incidents. The following diagram demonstrates the process flow for a service request:



*Figure 7-32 - A straightforward help desk process is important to managing the flow of incidents*

The Level 1 Help Desk Analyst then reviews the issue to determine if the issue can be resolved via system administration activities, such as security updates, user provisioning, advanced find reports, or configuration assistance with personal dashboards or views. If the request falls under one of these activities the analyst completes the task, marks the ticket as Resolved, and communicates a resolution back to the user. Upon confirmation from the user that the issue is resolved, then Level 1 Help Desk analyst closes the ticket.

If the issue requires additional analysis, then it is routed to a Level 2 Help Desk support staff. This is a technical analyst responsible for both configuration and code changes to the system. The Level 2 analyst reviews the ticket and conducts root cause analysis. If the issue can be resolved without a code change or a deployment, then the analyst completes the work to resolve the issue, updates the ticket with the resolution, and assigns back to the Level 1 analyst for communication to the end user.

If the issue requires a code change or configuration change that requires a deployment, then the ticket must be routed into the configuration/release management process. The Level 2 analyst updates the ticket to "In Bug Fix", and assigns a release number to the ticket based upon the estimated level of effort and timing of the upcoming release (major releases are typically in three month

increments). The Level 2 analyst then implements a fix and updates the ticket with resolution details. At this point, the steps related to managing and deploying a release are executed. These steps are discussed in Section 2 of this deliverable.

The Level 1 Help Desk Analyst then communicates the resolution back to the end user. For cases where a release is required, this communication should also include the release date and any relevant workaround information.

It is possible for end users to open a ticket that is determined to be an enhancement to the system. For this scenario, either the Level 1 or Level 2 support staff will place the ticket in "In Review" status. A related Enhancement Request record is then created in the project repository and assigned a release number once it has gone through the approved change management process. Upon receipt of a release number, the originating ticket status can be updated to Resolved with a corresponding release number assigned so it can be closed and verified after the release.

## 8. Project Chronology

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The project chronology divides the project into logical phases, tasks, subtasks, and milestones. It is built utilizing estimated durations, task predecessor and successor relationships, and constraints (usually contractual deliverable due dates) to drive task starting and ending dates forward to anticipated completion. These durations, dependencies, and constraints were defined based on real experiences TrinityTG has had on other similar engagements. As the complexity of the project plan shown below can demonstrate, we have done this before successfully, which greatly reduces risk for the State. There is no substitute for real-world practical experience.

Additionally, the project schedule has been fully loaded with resource (i.e., team member) assignments. State of California holiday schedules and individual team member work schedules and vacations are also incorporated, as are assumptions and commitments to the project concerning the percentage of availability for each TrinityTG and State staff member. The resulting project plan is therefore one which TrinityTG can stand behind so we can achieve the dates laid out in our proposal. We deliver on-time, and on-budget.

Tasks may run sequentially or in parallel, depending on the nature of the work. Staff resources may be split across tasks, as long as they are not overcommitted or unreasonably assigned to too many work areas at once.

This structure enables TrinityTG and the State Bar management stakeholders to identify and highlight the project critical path, closely monitoring its tasks and their progress. The detailed project schedule also indicates the key activities and timeframes in which TrinityTG seeks State Bar's staff member involvement.

The detailed work plan has been developed and will be maintained in Microsoft® Office Project 2016 and shared in PDF and MS Project to maximize consumption and analysis. Following the State Bar review and approval of the work plan, the TrinityTG Project Manager establishes the approved plan as the baseline version, enabling subsequent planned versus actual comparisons and analysis.

Over the course of the project, the TrinityTG Project Manager updates the detailed schedule at least weekly with actual task progress and accomplishment information. Whether presented in task sheet, resource usage, or Gantt chart format, the updated detailed schedule is the core instrument used by:

- TrinityTG and State Bar managers to monitor and evaluate project accomplishments at their weekly working meetings.
- Project team members to review and discuss task progress at weekly status reporting meetings.

## 8.1 Work Plan and Deliverables for the Required Components (SBC and OCTC)



In this section we provide the highlights of our work plan and approach to completing the project. Based on our deep experience in this area, we have laid out a detailed plan in Section 8.5 that will allow us to go live after an implementation period of nine months for the required components (SBC and OCTC) from the start date of the project. We have used April 1, 2016 as the start date for planning purposes, but this schedule would apply regardless of the actual start date. Based on an April 1, 2016 start date, our planned implementation date is December 29, 2016. The following tables outline the Work Plan in terms of broad phases structured by the Software Development Lifecycle.

*Table 8-1 – Overview of Project Management Phase*

Project Management (SVC-001)	
<b>Timeframe</b>	4/1/2016 – 12/29/2017
<b>Description and Tasks</b>	<p>Project Management includes the development and maintenance of the Project Management Plan, status reporting, and project schedule maintenance by the proposed Project Manager. The Project Management Plan will also be updated as needed if the project's governance structure needs to be modified during the project duration.</p> <p>Project Manager will continue to manage the execution according to the schedule agreed upon in PMP and will provide weekly status reports and conduct project status update meeting with client.</p>
<b>Deliverable</b>	DEL-1 Project Management Plan (PMP)



Project Management (SVC-001)	
<b>Dependencies</b>	The thread of the project occurs concurrently with all tasks throughout the duration of the implementation period.

*Table 8-2 – Overview of Analysis Phase*

Perform Analysis (SVC-002)	
<b>Timeframe</b>	4/1/2016 – 6/21/2015
<b>Description and Tasks</b>	<p>During this phase of the project, the TrinityTG Team analyzes the existing systems, confirms our implementation approach for each requirement and documents any gaps that remain.</p> <p>Staff will be interviewed to gain an understanding of the business process and functional specifications, as well as validate our understanding of the business and technical requirements.</p> <p>The validated requirements are mapped to the process model diagrams, and are included in the Requirements Document. We also start creating traceability matrix that is managed in the project repository. During this phase requirements are mapped to all the Business Processes.</p>
<b>Deliverable</b>	DEL-2 Requirements Validation for OCTC and SBC
<b>Dependencies</b>	<p>Because the analysis phase begins at the start of the project, there are no key dependencies on previous tasks.</p> <p>We also use this time to concurrently set up the development environment and install the base software.</p>

*Table 8-3 – Overview of Design and Configuration Phase*

Perform Design and Configuration (SVC-002)	
<b>Timeframe</b>	4/22/2016 – 8/4/2016
<b>Description and Tasks</b>	<p>During this phase of the project, the TrinityTG team begins the detail design of the CMS and interfaces. This phase includes following tasks:</p> <ul style="list-style-type: none"> <li>Identifying Use Cases and mapping them to Process Models which have already been mapped to requirements in previous step.</li> </ul>

Perform Design and Configuration (SVC-002)	
	<ul style="list-style-type: none"> <li>Identifying components (Reports, Screens, interfaces) to be configured or built and mapping them to Use Cases. This mapping creates a traceability from the requirements to the actual components that need to be configured or built and tested.</li> <li>Modification of the entity relationship model.</li> <li>Configure components.</li> <li>Design of the service layer and common framework for interfaces</li> <li>Design of the system Architecture</li> <li>Develop Object Model</li> <li>Develop UML Diagrams</li> </ul> <p>These design details are consolidated into the Detailed Design document deliverable for this phase.</p>
<b>Deliverable</b>	DEL 4 - Detail Design and Configuration for OCTC and SBC
<b>Dependencies</b>	The design phase starts with functional specifications (Process Models). These are derived from staff interviews, validated requirements, and system reviews. These tasks are completed about halfway through the Analysis phase, allowing us to commence design tasks while the remainder of the analysis phase wraps up.

*Table 8-4 – Overview of Configure/Customize and Validation Test Phases*

Configure/Customize and Validation Test (SVC-002 & SVC-003)	
<b>Timeframe</b>	6/2/2016 – 10/13/2016
<b>Description and Tasks</b>	<p>During this phase of the project, the TrinityTG team configures, develops the interfaces and tests the system. We divide the development cycle in several agile delivery sprints.</p> <p>Each sprint includes build and validation testing. At the end of each iteration, system is deployed to get feedback early and often from a subset of users.</p> <p>This approach helps in building the product as per the end user's real business requirements, getting quick updates, reduce errors and reduce time wasted in unwanted functionalities.</p> <p>Overall we will divide development in two phases one for OCTC and other for SBC. These phases will be further divided into multiple smaller sprints. And at the</p>

Configure/Customize and Validation Test (SVC-002 & SVC-003)	
	<p>end of each sprint a subset of users will provide feedback to TrinityTG team. This feedback will then be incorporated in the next sprint cycle.</p> <p>During and after each cycle, the TrinityTG testing team conducts Functional test, Smoke test, Regression test and Performance test. All scripts are documented and bugs are tracked using project repository.</p> <p>At the end of build cycle, few iterations of integration and Performance testing are also executed.</p> <p>For OCTC we will have following iterations:</p> <ul style="list-style-type: none"> <li>• Iteration 1 - "Case Initiation and Inquiry and Investigation and Litigation" – 6/2/16 – 7/21/16</li> <li>• Iteration 2 - "Closeout and Cost Tracking and Interfaces"– 6/16/16 – 8/8/16</li> <li>• Iteration 3 -</li> <li>• "Case Initiation, Docketing and Exhibits, Calendaring, Scheduling and Case Management"– 7/28/16 – 9/2/16</li> <li>• Iteration 4 -</li> <li>• "Adjudication and Event Management and Interfaces"– 8/25/16 – 9/27/16</li> </ul>
<b>Deliverable</b>	DEL 6.1 - Build OCTC and SBC and System Test, DEL 6.2 - Build OCTC and SBC and System Test, DEL 6.3 - Build OCTC and SBC and System Test, DEL 6.4 - Build OCTC and SBC and System Test
<b>Dependencies</b>	Similar to the design phase, the build phase has several tasks that can begin in advance of the design phase being completed.

*Table 8-5 – Overview of Data Conversion Phase*

Perform Data Conversion (SVC-005)	
<b>Timeframe</b>	6/16/2016 – 10/10/2016
<b>Description and Tasks</b>	<p>Data conversion starts in June, 2016 with data mapping of the legacy source systems to the target database. This is followed by the creation of scripts that transform the data into the necessary format. Iterative mock conversions occur throughout the lifecycle of this phase, culminating in a final conversion just before the go-live date on 12/29/16.</p>
<b>Deliverable</b>	DEL 7 - Data Conversion

Perform Data Conversion (SVC-005)	
<b>Dependencies</b>	Data conversion is dependent upon completion of the logical data model, as this defines the target database and is necessary to conduct data mapping. Having production-ready data is a necessary precursor to being able to go-live.

*Table 8-6 – Overview of UAT and Training Phases*

User Acceptance Testing and Training (SVC-003 & SVC-006)	
<b>Timeframe</b>	8/5/2016 – 12/8/2016
<b>Description and Tasks</b>	<p>During this phase of the project, we develop training materials, schedule sessions, and deliver training for admin users, end users, and other user. Prior to delivery of end user training, however, we first run UAT users through the training program. This not only prepares the UAT users to actually use the system, but it also helps us to test the training materials and solicit feedback on their content prior to delivering to the larger audience.</p> <p>User Acceptance Testing is the phase where we seek formal acceptance and approval of the final system prior to officially going live. A subset of qualified State Bar users would be needed for a period of approximately 2 weeks in order to conduct acceptance testing. Testers will execute a series of scripts that will be provided to them by TrinityTG QA analysts, and we provide full incident/defect management in tracking reported defects.</p>
<b>Deliverable</b>	DEL 8 - UAT and Training Sessions for OCTS and SBC
<b>Dependencies</b>	<p>Training of the UAT users is conducted prior to end user training. UAT user training can occur toward the end of the load/integration test phase.</p> <p>UAT does not commence until Load/Integration testing is completed.</p>

*Table 8-7 – Overview of Implementation Phase*

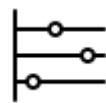
Implementation (SVC-004)	
<b>Timeframe</b>	10/11/2016 – 12/29/2016
<b>Description and Tasks</b>	During implementation, we complete the tasks necessary to prepare all users to being using the

Implementation (SVC-004)	
	<p>system. This includes provisioning, updating security role configuration, and conducting one last round of smoke testing to ensure the system is properly configured.</p> <p>Following the first deployment, we will have a one-month warranty period where TrinityTG team will have weekly releases of the new system to fix any critical errors.</p> <p>This period can also be used to have pilot releases followed by one final deployment at the end of warranty period.</p>
<b>Deliverable</b>	DEL 9 - Final Deployment OCTS and SBC
<b>Dependencies</b>	Implementation depends upon UAT being completed and accepted and data has been converted to production environment.

Table 8-8 – Overview of System Support Phase

Support System (SVC-007)	
<b>Timeframe</b>	12/30/2016 – 3/28/2017
<b>Description and Tasks</b>	<p>During this phase of the project, the TrinityTG Team provides ongoing maintenance and support for 3 months from the production go-live date. Also during this period we conduct knowledge transfer sessions with the State Bar staff. We propose bi-weekly sessions to review a series of topics related to administration and maintenance of the system.</p> <p>At the end of the support period, the Project Lead provides the State Bar staff with the Final Acceptance document.</p>
<b>Deliverable</b>	DEL 10 - Support the system
<b>Dependencies</b>	Support system will start after completion of one month of warranty.

## 8.2 Timelines and Milestones for the Required Components (SBC and OCTC)



The timeline graphic shows how each of the deliverables and major task areas in the scope to the software development lifecycle methodology we use (this is discussed in more detail in Section 7. It also highlights several important aspects of our delivery approach.

We are proposing a phased implementation. While the details and rationale for this are discussed further in Sections 7.1 and 7.4, it does highlight the need to iterate several deliverables. Tasks related to analysis, design, build, testing, training, and deployment in particular are iterated over each phased rollout.

Project Management remains constant throughout the project. Our staffing approach includes a full-time project manager for this engagement. Given the size and number of tasks involved, a Project Manager is essential to delivery of CMS.

Many of the deliverables are detailed specifications (e.g. design documents, admin manuals) that contain technical details that quite possibly will change over time. One of our value add methods of managing deliverables is to create “living versions” of key document artifacts that are updated throughout the duration of the project. Examples include:

- Data Models
- Security Models
- Traceability Matrices
- User Manuals/Materials

In our SharePoint repository we create document libraries that have ongoing, version controlled artifacts that are maintained well past the actual delivery of a static deliverable. This approach gives t the benefit of always having up to date functional and technical specifications in a format that does NOT rely exclusively on a classic document.

This approach has many benefits like:

- The product is developed as per the end user’s real business requirements
- Getting quick updates
- Reduce errors
- Reduce time wasted in unwanted functionalities.

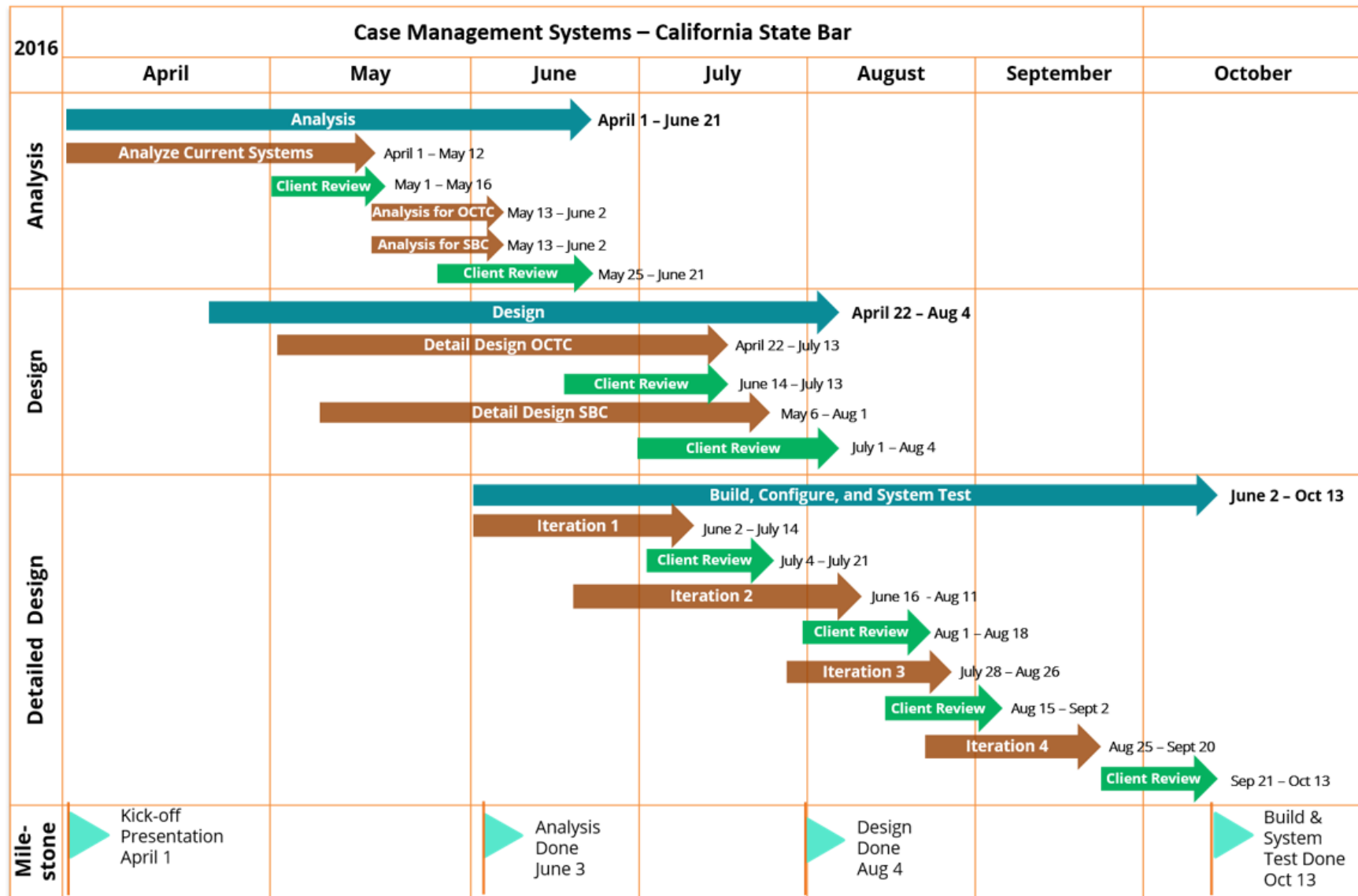


Figure 8-1 - OCTC and SBC TimeLine

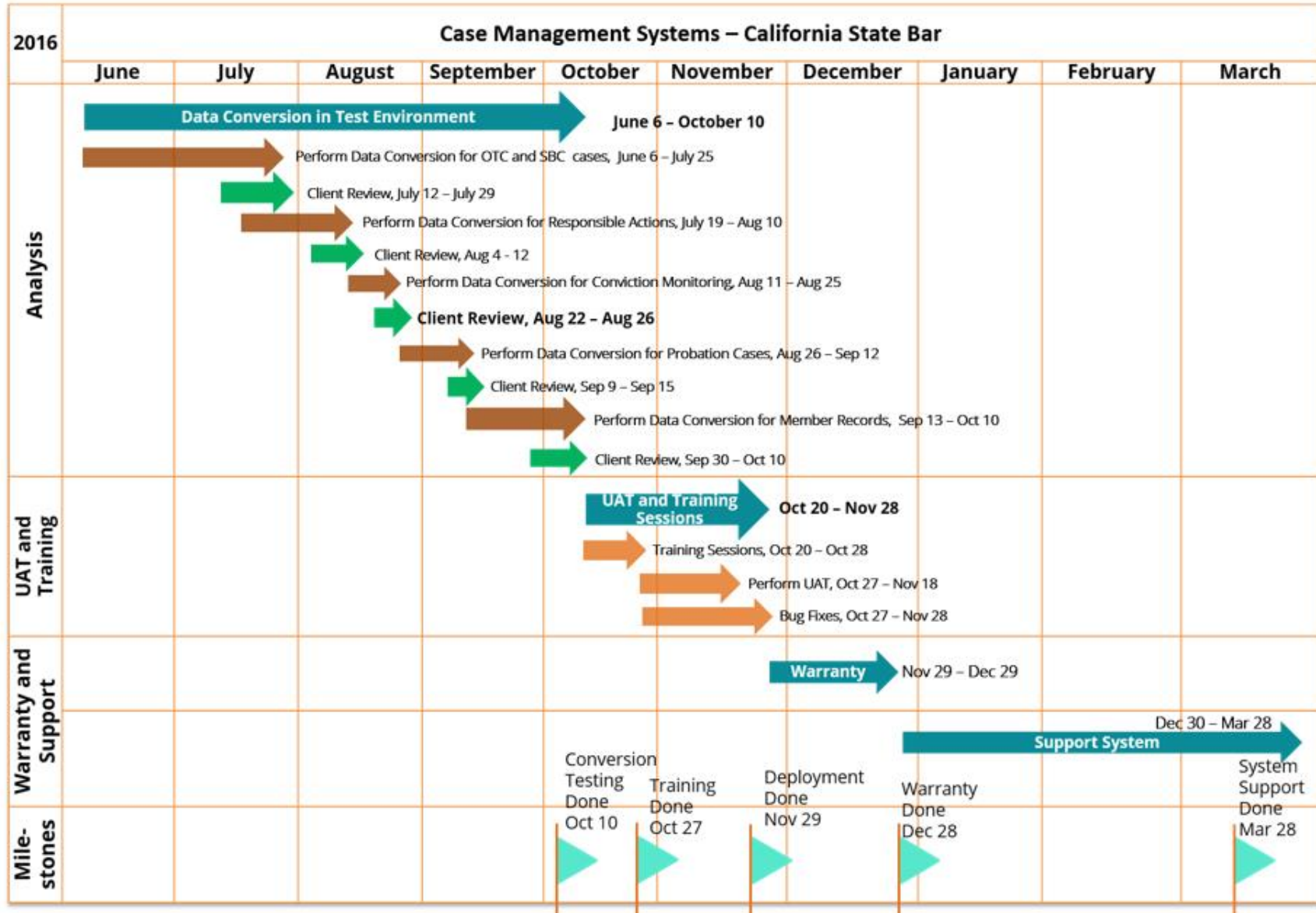


Figure 8-2 - OCTC and SBC TimeLine, cont.



### 8.3 Work Plan and Deliverables for Optional



#### Components (PCM and MRS)

In this section we provide the highlights of our work plan and approach to completing the optional PCM and MRS components of the project. This work plan is based upon the project schedule presented in Section 8.5 of this proposal.

Based on our deep experience in this area, we have laid out a detailed plan that will allow us to go live after an implementation period of fifteen months for the optional components (PCM and MRS) from the start date of the project. We have used April 1, 2016 as the hypothetical start date for planning purposes, but this schedule would apply regardless of the actual start date. The proposed implementation date is June 15th, 2017. The following tables outline the Work Plan in terms of broad phases structured by the Software Development Lifecycle.

*Table 8-9 – Overview of Project Management Phase for Optional PCM and MRS Components*

Project Management (SVC-001)	
<b>Timeframe</b>	4/1/2016 – 6/14/2017
<b>Description and Tasks</b>	<p>Project Management includes the development and maintenance of the Project Management Plan, status reporting, and project schedule maintenance by the proposed Project Manager. The Project Management Plan will also be updated as needed if the project's governance structure needs to be modified during the project duration.</p> <p>Project Manager will continue to manage the execution according to the schedule agreed upon in PMP and will provide weekly status reports and conduct project status update meeting with client.</p>
<b>Deliverable</b>	DEL-1 Project Management Plan (PMP)
<b>Dependencies</b>	The thread of the project occurs concurrently with all tasks throughout the duration of the implementation period.

*Table 8-10 – Overview of Analysis Phase for Optional PCM and MRS Components*

Perform Analysis (SVC-002)	
<b>Timeframe</b>	4/1/2016 – 7/19/2016
<b>Description and Tasks</b>	<p>During this phase of the project, the TrinityTG Team analyzes the existing systems and document gaps. Staff will be interviewed to gain an understanding of the business process and functional specifications, as well as validate our understanding of the technical requirements.</p> <p>The validated requirements are mapped to the process model diagrams, and are included in the Requirements Document. We also start creating traceability matrix that is managed in the project repository. During this phase requirements are mapped to all the Business Processes.</p>
<b>Deliverable</b>	DEL-3 Requirements Validation for PCM and MRS
<b>Dependencies</b>	<p>Because the analysis phase begins at the start of the project, there are no key dependencies on previous tasks.</p> <p>We also use this time to concurrently set up the development environment and install the base software.</p>

*Table 8-11 – Overview of Design and Configuration Phase for Optional PCM and MRS Components*

Perform Design and Configuration (SVC-002)	
<b>Timeframe</b>	6/27/2016 – 9/13/2016
<b>Description and Tasks</b>	<p>During this phase of the project, the TrinityTG Team begins the detail design of the CMS and interfaces. This phase includes following tasks:</p> <ul style="list-style-type: none"> <li>Identifying Use Cases and mapping them to Process Models which have already been mapped to requirements in previous step.</li> <li>Identifying components (Reports, Screens, interfaces) to be configured or built and mapping them to Use Cases. This mapping creates traceability from Requirements to the actual components that need to be configured or built and tested.</li> <li>Modification of the entity relationship model.</li> </ul>

Perform Design and Configuration (SVC-002)	
	<ul style="list-style-type: none"> <li>• Configure components.</li> <li>• Design of the service layer and common framework for interfaces</li> <li>• Design of the system Architecture</li> <li>• Develop Object Model</li> <li>• Develop UML Diagrams</li> </ul> <p>These design details are consolidated into the Detailed Design document deliverable for this phase.</p>
<b>Deliverable</b>	DEL 5 - Detail Design and Configuration for PCM and MRS
<b>Dependencies</b>	The design phase starts with functional specifications (Process Models). These are derived from staff interviews, validated requirements, and system reviews. These tasks are completed about halfway through the Analysis phase, allowing us to commence design tasks while the remainder of the analysis phase wraps up.

*Table 8-12 – Overview of Configure/Customize and Validation Testing Phases for Optional PCM and MRS Components*

Configure/Customize and Validation Test (SVC-002 & SVC-003)	
<b>Timeframe</b>	10/6/2016 – 3/22/2016
<b>Description and Tasks</b>	<p>During this phase of the project, the TrinityTG team configures, develops the interfaces and tests the system. We divide the development cycle in several agile delivery sprints.</p> <p>Each sprint includes build and validation testing. At the end of each iteration, system is deployed to get feedback early and often from a subset of users.</p> <p>This approach helps in building the product as per the end user's real business requirements, getting quick updates, reduce errors and reduce time wasted in unwanted functionalities.</p> <p>Overall we will divide build in two phases one for PCM and other for MRS. These phases will be further divided into multiple smaller sprints. And at the end of each sprint a subset of users will provide feedback to TrinityTG team. This feedback will then be incorporated in the next sprint cycle.</p> <p>During and after each cycle TrinityTG testing team conducts Functional test, Smoke test, Regression test</p>

Configure/Customize and Validation Test (SVC-002 & SVC-003)	
	<p>and Performance Test. All scripts are documented and bugs are tracked using project repository.</p> <p>At the end of build cycle few iterations of integration and Performance testing are also executed.</p> <p>For this phase we will have following iterations:</p> <ul style="list-style-type: none"> <li>• Iteration 1 - "Add and update individual attorney member profile and Add and update law corporation information" – 10/6/16 – 1/6/17</li> <li>• Iteration 2 - "Iteration 2 ( Submit MCLE credit request for member and Generate correspondence for members )"– 12/28/16 – 2/6/17</li> <li>• Iteration 3 - "Define and add probation events and Track respondent compliance with probation conditions."– 1/17/17 – 2/22/17</li> <li>• Iteration 4 - "Compile a probation case motion and Generate inquiry of related probation cases"– 2/13/17 – 3/22/17</li> </ul>
<b>Deliverable</b>	<p>DEL 12.1 - Build PCM and MRS and System Test,</p> <p>DEL 12.2 - Build PCM and MRS and System Test,</p> <p>DEL 12.3 - Build PCM and MRS and System Test,</p> <p>DEL 12.4 - Build PCM and MRS and System Test,</p>
<b>Dependencies</b>	<p>Similar to the design phase, the build phase has several tasks that can begin in advance of the design phase being completed.</p>

*Table 8-13 – Overview of the UAT and Training Phases for Optional PCM and MRS Components*

User Acceptance Testing and Training (SVC-003 & SVC-006)	
<b>Timeframe</b>	9/14/2016 – 5/8/2017
<b>Description and Tasks</b>	<p>During this phase of the project, we develop training materials, schedule sessions, and deliver training for admin users, end users, and other user. Prior to delivery of end user training, however, we first run UAT users through the training program. This not only prepares the UAT users to actually use the system, but it also helps us to test the training materials and solicit feedback on their content prior to delivering to the larger audience.</p> <p>User Acceptance Testing is the phase where we seek formal acceptance and approval of the final system</p>

User Acceptance Testing and Training (SVC-003 & SVC-006)	
	prior to officially going live. A subset of qualified State Bar users would be needed for a period of approximately 2 weeks in order to conduct acceptance testing. Testers will execute a series of scripts that will be provided to them by TrinityTG QA analysts, and we provide full incident/defect management in tracking reported defects.
<b>Deliverable</b>	DEL 13 - UAT and Training Sessions for PCM and MRS
<b>Dependencies</b>	Training of the UAT users is conducted prior to end user training. UAT user training can occur toward the end of the load/integration test phase. UAT does not commence until Load/Integration testing is completed.

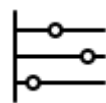
*Table 8-14 – Overview of Implementation Phase for Optional PCM and MRS Components*

Implementation (SVC-004)	
<b>Timeframe</b>	4/28/2017 – 6/14/2017
<b>Description and Tasks</b>	<p>During implementation, we complete the tasks necessary to prepare all users to being using the system. This includes provisioning, updating security role configuration, and conducting one last round of smoke testing to ensure the system is properly configured.</p> <p>We will also convert data that has changed for Legacy MRS and PCM Applications since the data conversion was done for required components.</p> <p>Following the first deployment, we will have a month of warranty period where TrinityTG team will have weekly releases of the new system to fix any critical errors. This period can also be used to have pilot releases followed by one final deployment at the end of warranty period.</p>
<b>Deliverable</b>	DEL 14 - Final Deployment PCM and MRS
<b>Dependencies</b>	Implementation depends upon UAT being completed and accepted and data has been converted to production environment.

*Table 8-15 – Overview of System Support Phase for Optional PCM and MRS Components*

Support System (SVC-007)	
<b>Timeframe</b>	6/15/2017 – 9/27/2017
<b>Description and Tasks</b>	<p>During this phase of the project, the TrinityTG Team provides ongoing maintenance and support for 3 months from the production go-live date. Also during this period, we conduct knowledge transfer sessions with the State Bar staff. We propose bi-weekly sessions to review a series of topics related to administration and maintenance of the system.</p> <p>At the end of the support period, the Project Lead provides State Bar with the Final Acceptance document.</p>
<b>Deliverable</b>	DEL 15 - Support the system
<b>Dependencies</b>	Support system will start after completion of one month of warranty.

## 8.4 Timelines and Milestones for the Optional Components (PCM and MRS)



The timeline graphic shows how each of the deliverables and major task areas in the scope to the software development lifecycle methodology we use (this is discussed in more detail in Section 7.1 and 7.4). It also highlights several important aspects of our delivery approach.

We are proposing a phased implementation. While the details and rationale for this are discussed further in Section 7.1 and 7.4. It does highlight the need to iterate several deliverables. Tasks related to analysis, design, build, testing, training, and deployment in particular are iterated over each phased rollout.

Project Management remains constant throughout the project. Our staffing approach includes a full-time project manager for this engagement. Given the size and number of tasks involved, a Project Manager is essential to delivery of CMS.

Many of the deliverables are detailed specifications (e.g. design documents, admin manuals) that contain technical details that quite possibly will change over time. One of our value add methods of managing deliverables is to create “living versions” of key document

artifacts that are updated throughout the duration of the project.

Examples include:

- Data Models
- Security Models
- Traceability Matrices
- User Manuals/Materials

In our SharePoint repository we create document libraries that have ongoing, version controlled artifacts that are maintained well past the actual delivery of a static deliverable. This approach gives t the benefit of always having up to date functional and technical specifications in a format that does NOT rely exclusively on a classic document.

This approach has many benefits like:

- The product as per the end user's real business requirements
- Getting quick updates
- Reduce errors
- Reduce time wasted in unwanted functionalities

Our project deliverables will be provided on the due dates outlined in a detailed project plan that would be provided at the outset of the engagement. We have also drafted a high-level delivery timeline that highlights the shows where we anticipate implementing each phase in the timeframe of April 2016 – June 2017. The following graphics depict the timeframe for the implementation.

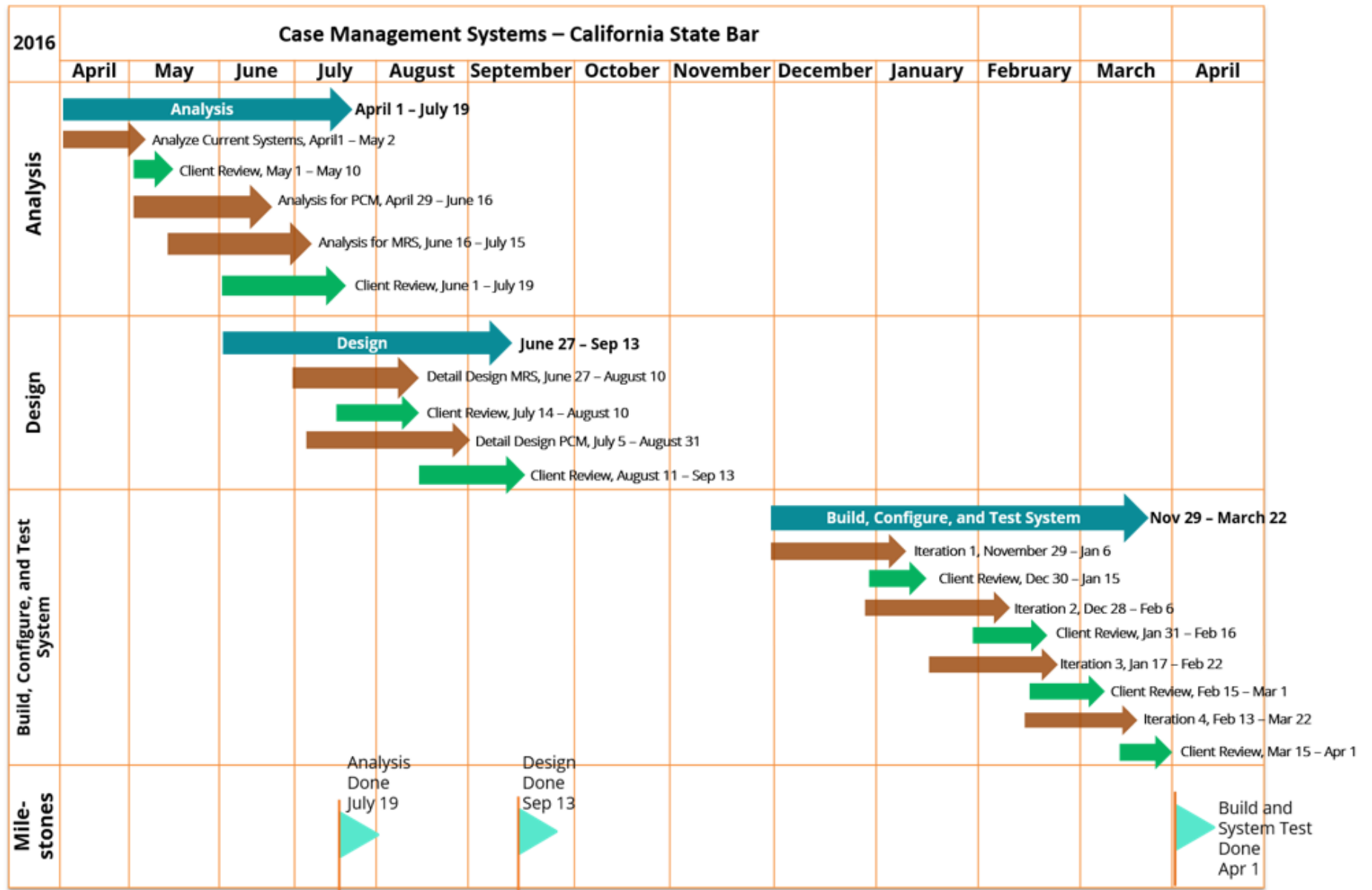


Figure 8-3 - PCM and MRS TimeLine



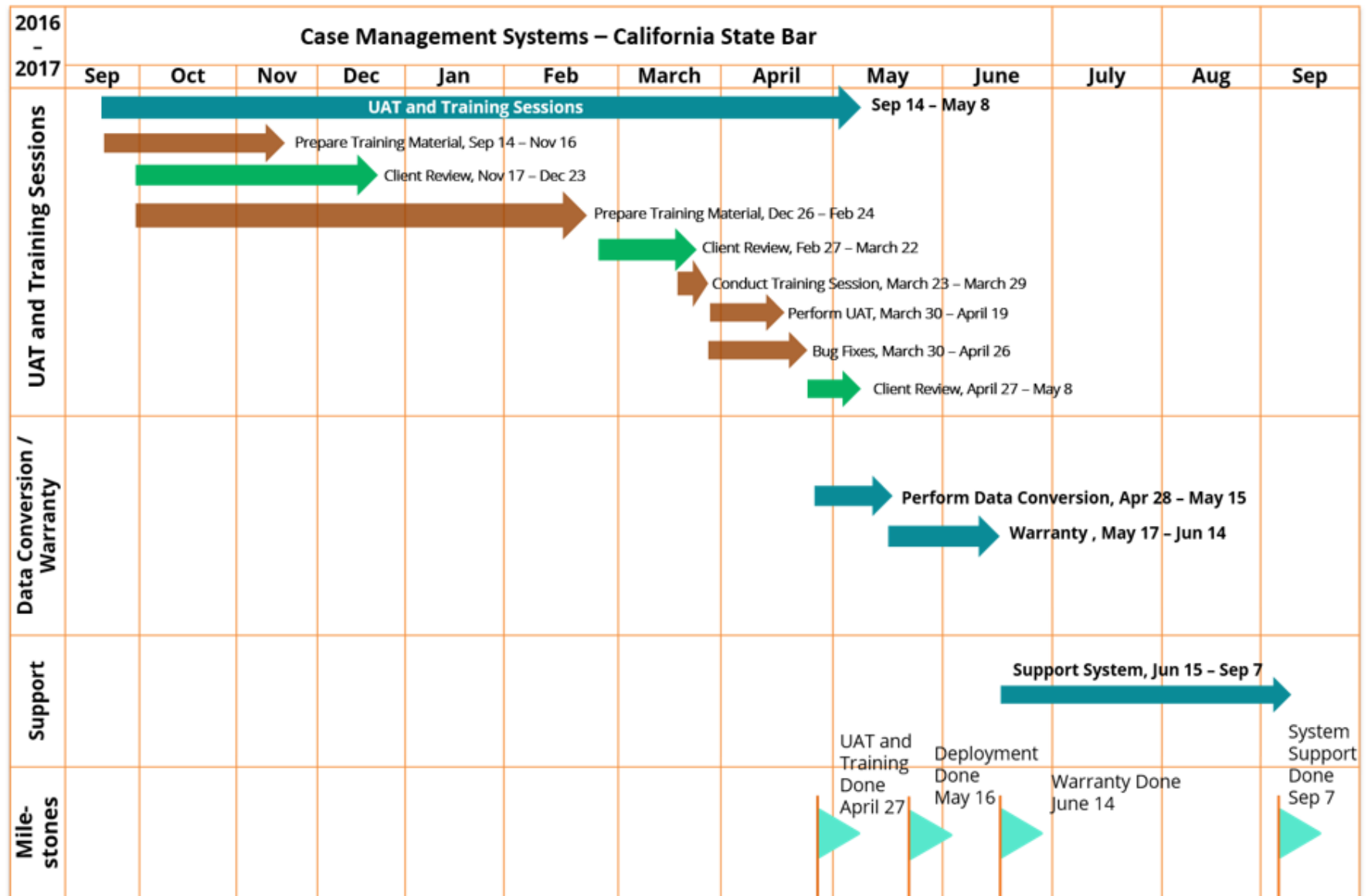
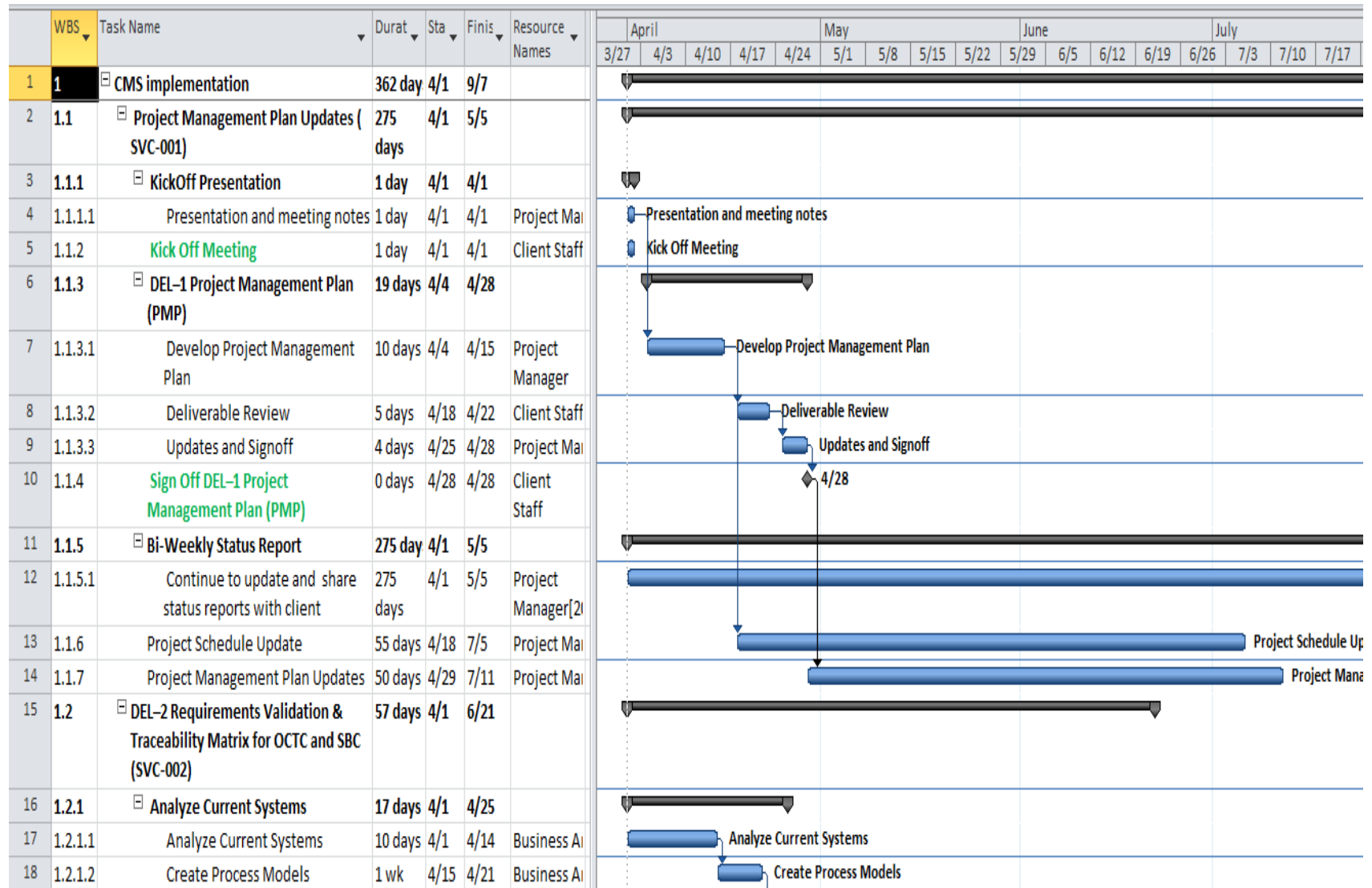


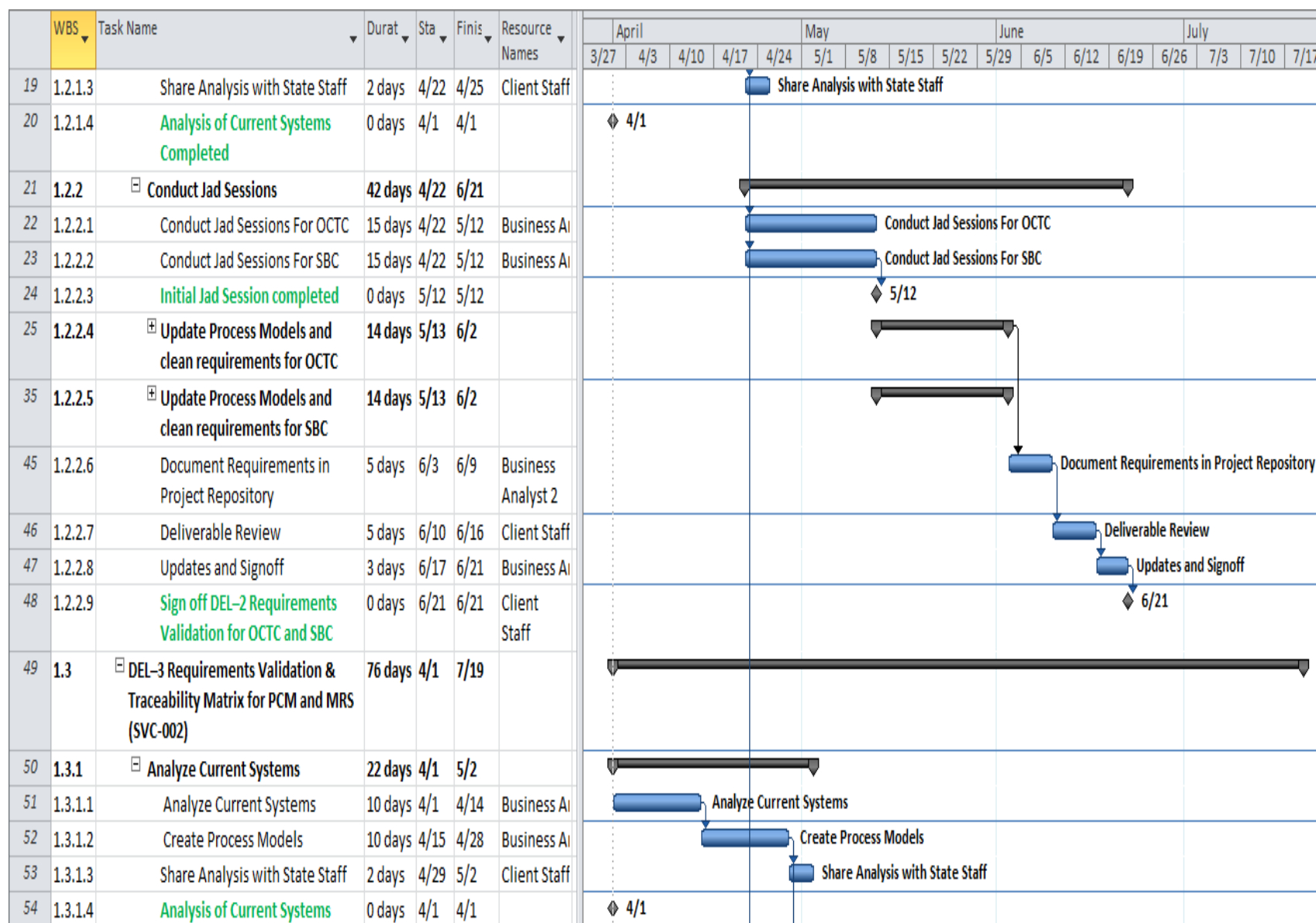
Figure 8-4 - PCM and MRS Timeline, cont.

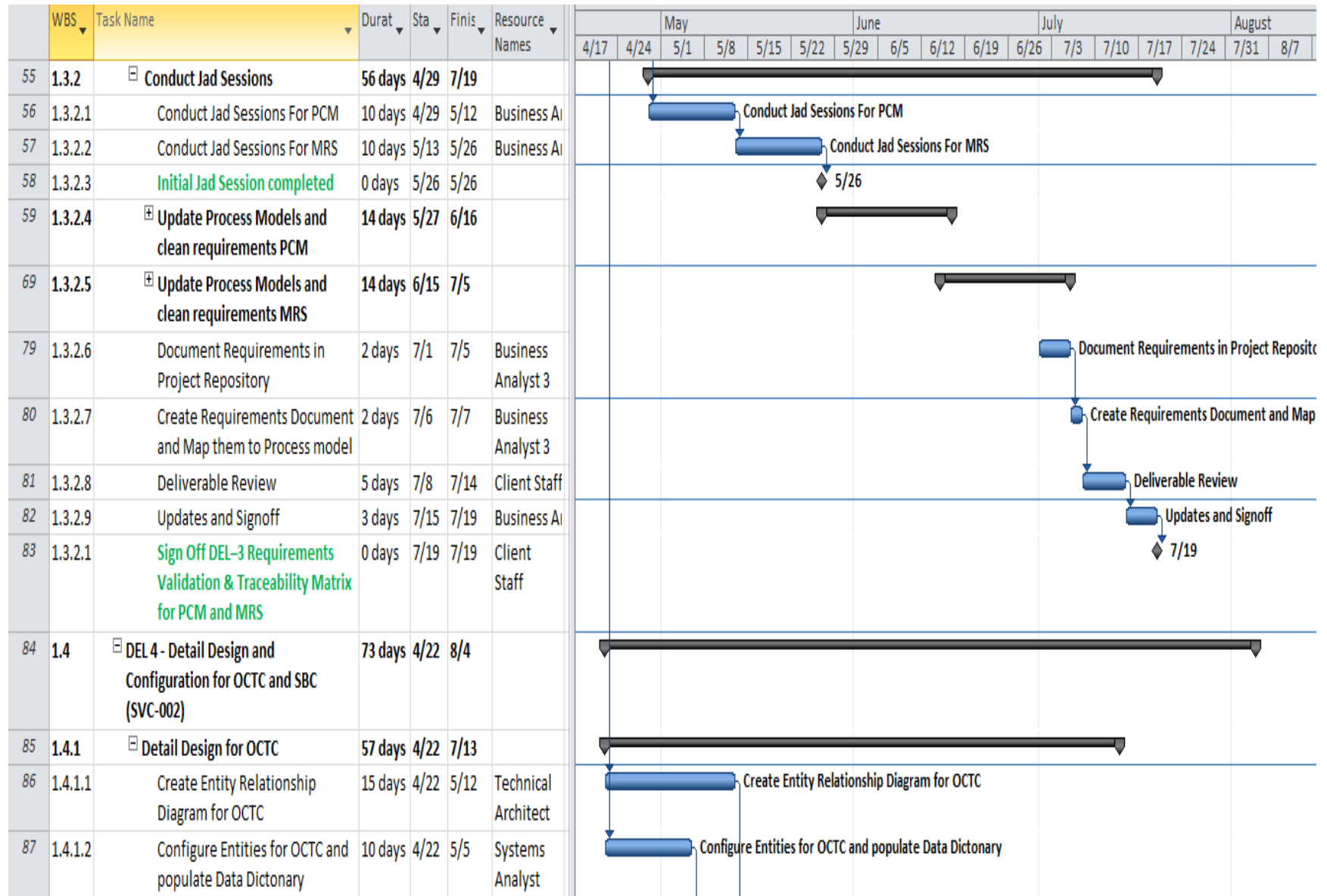
## 8.5 Project Schedule

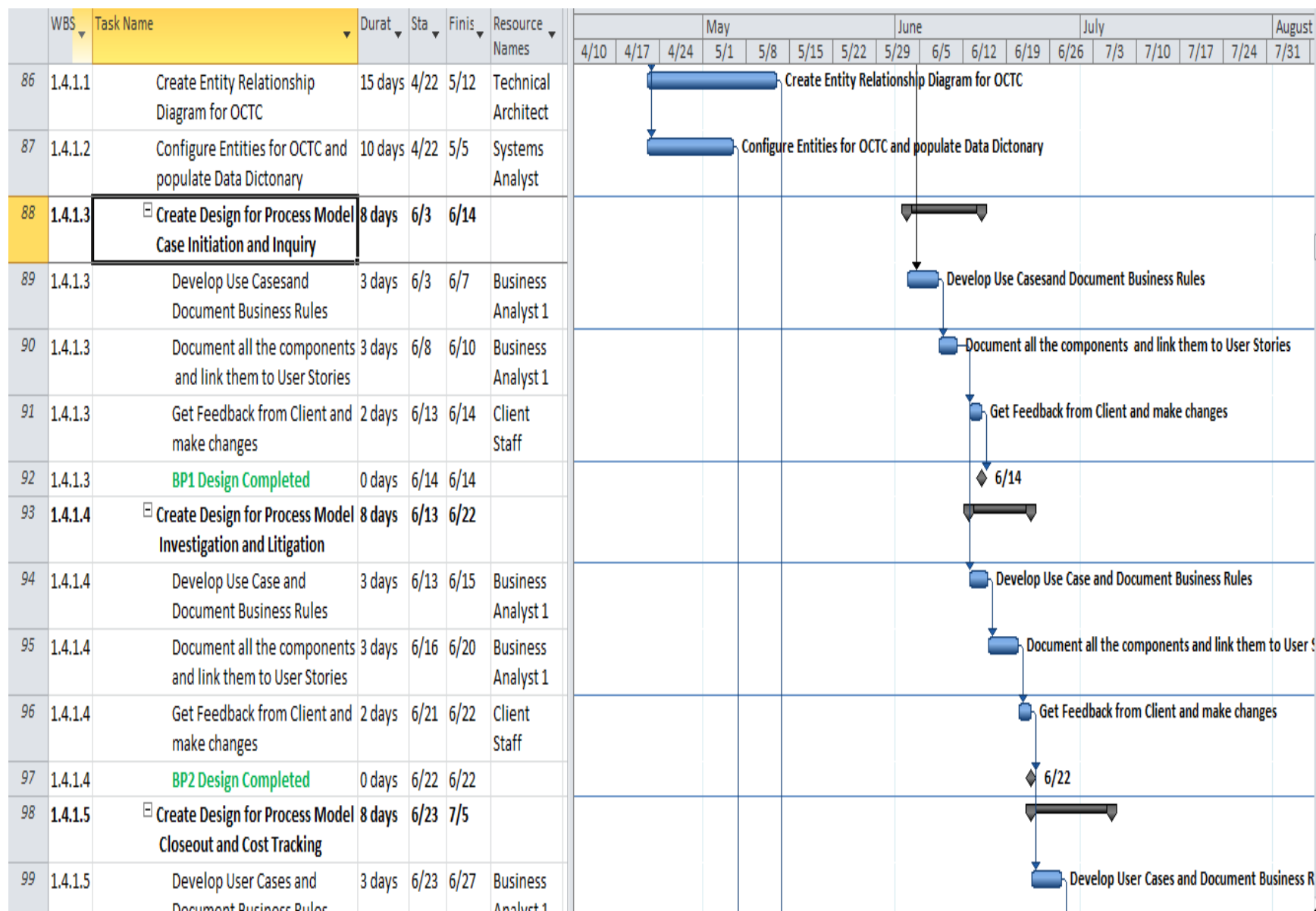


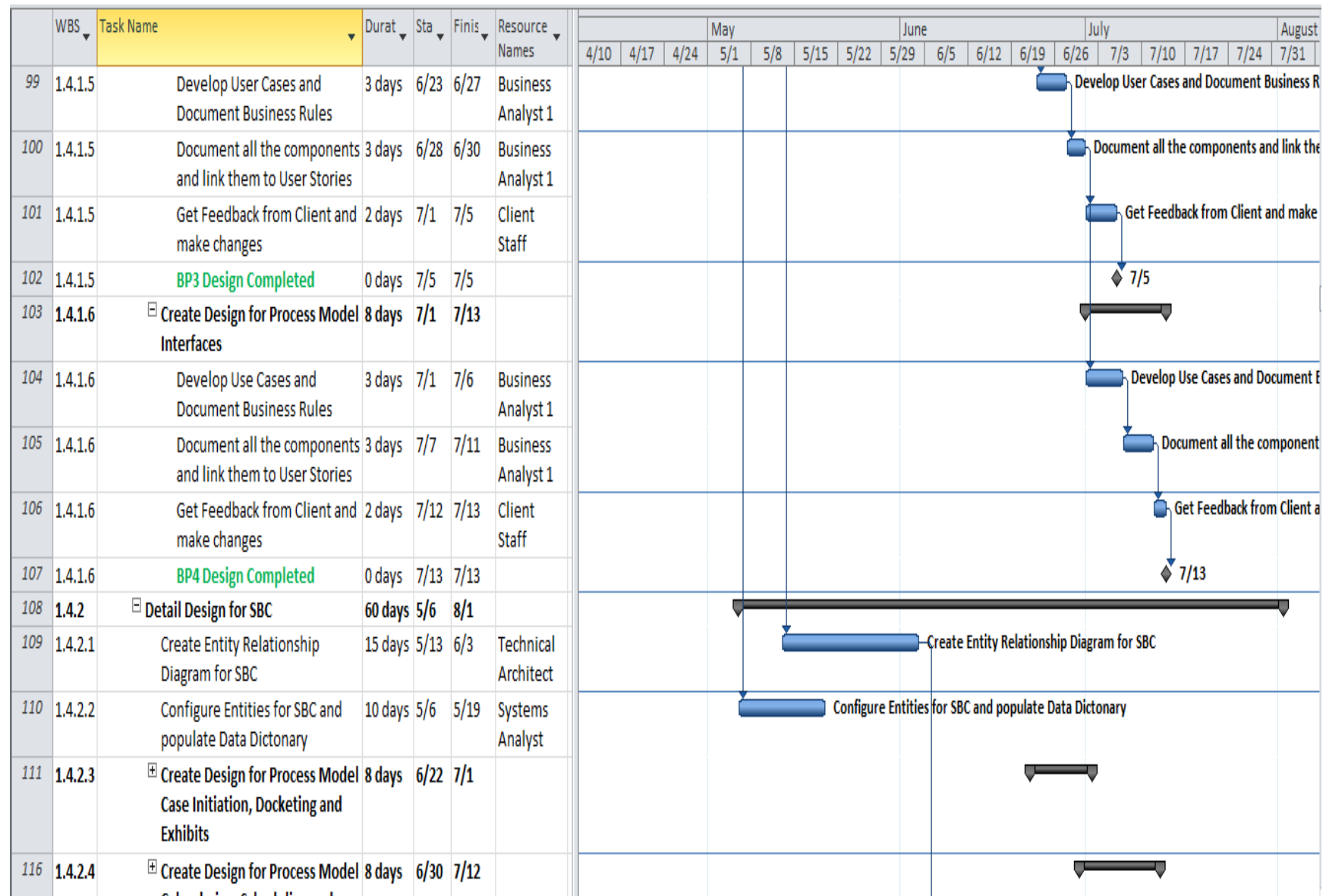
In this section we have included a printout of the expected tasks and subtasks, along with dependencies, estimated staff, and timeframes for each task. The detailed project schedule also indicates the key activities and timeframes in which TrinityTG seeks the State Bar's staff involvement.

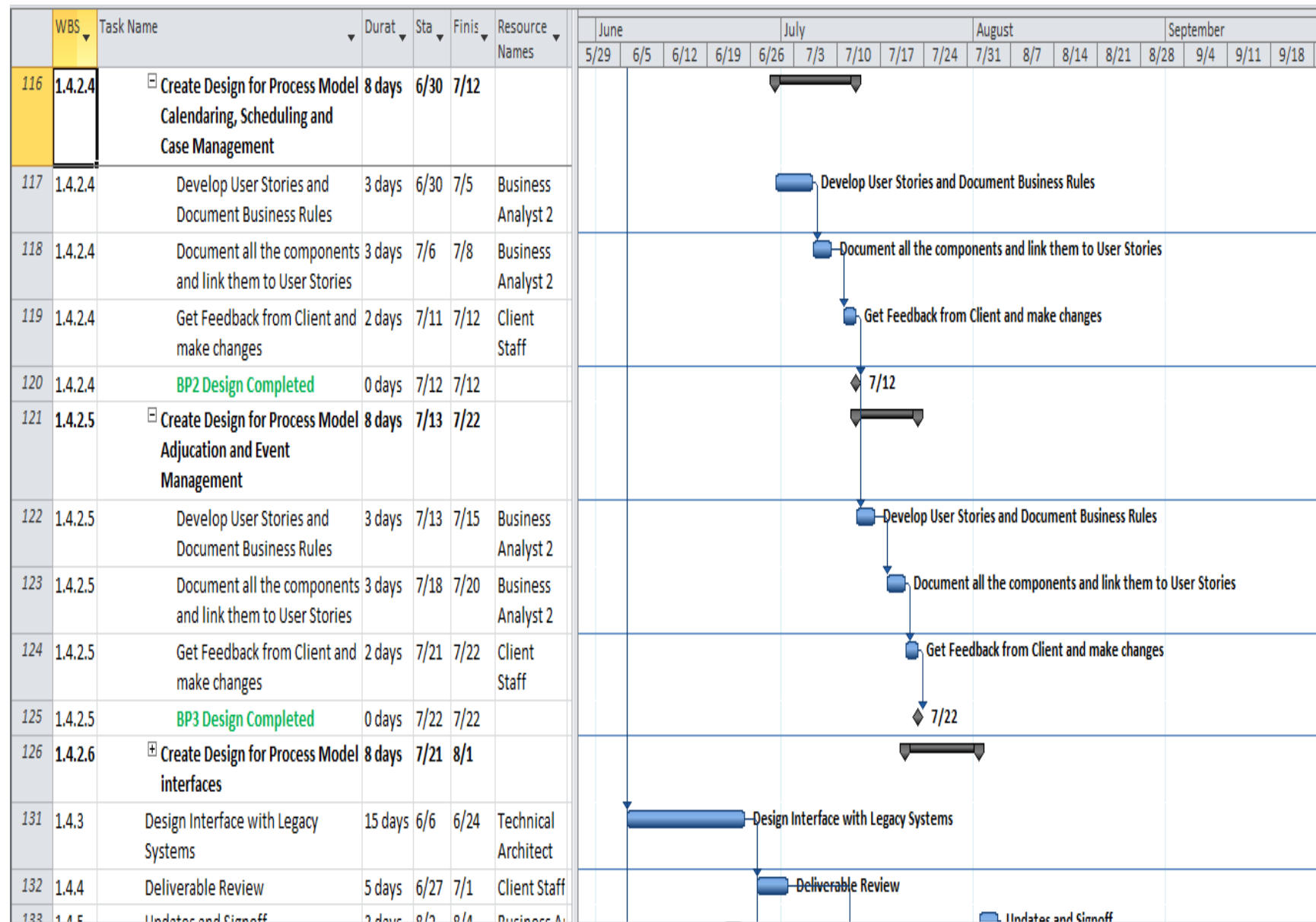






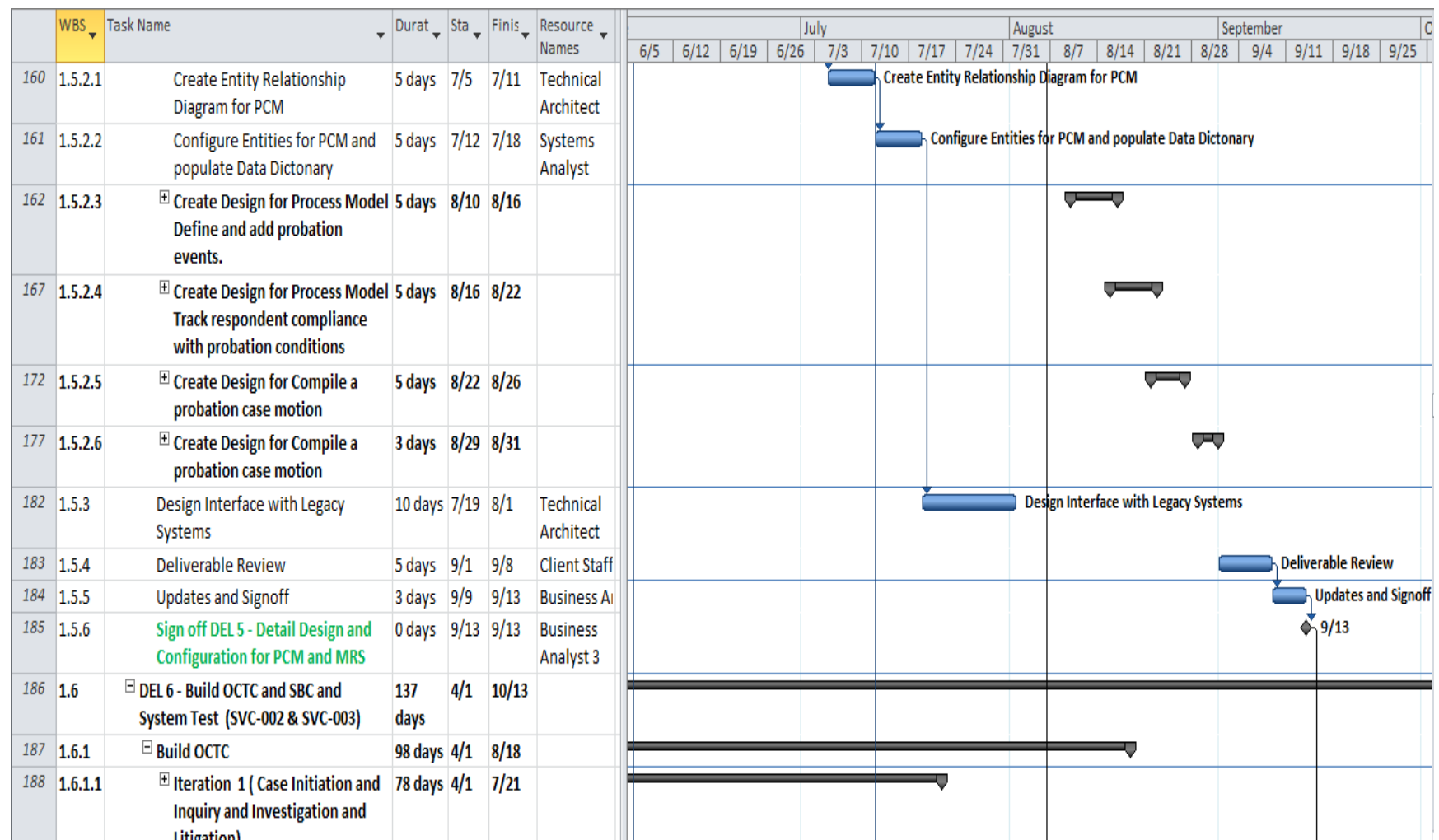


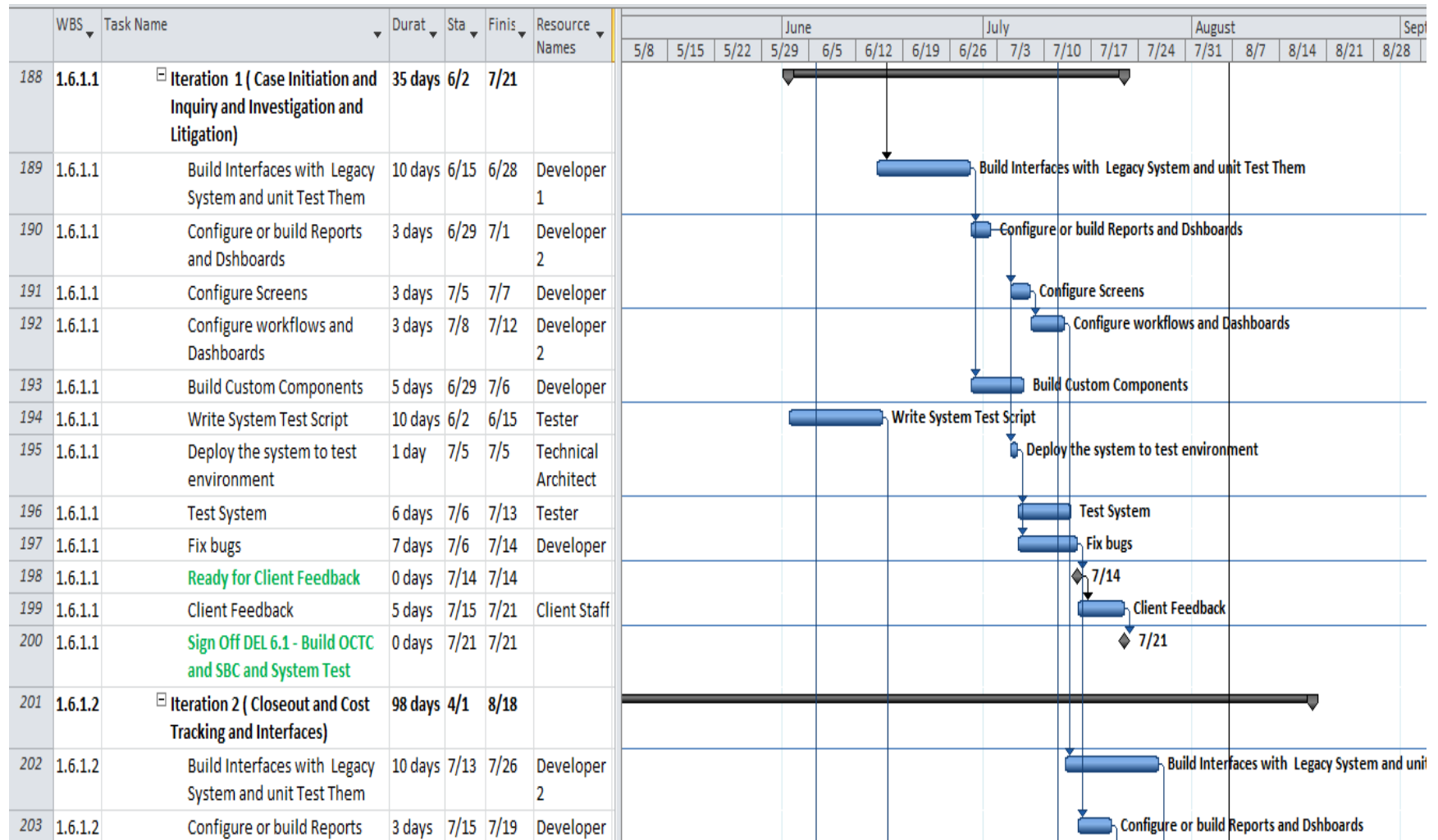


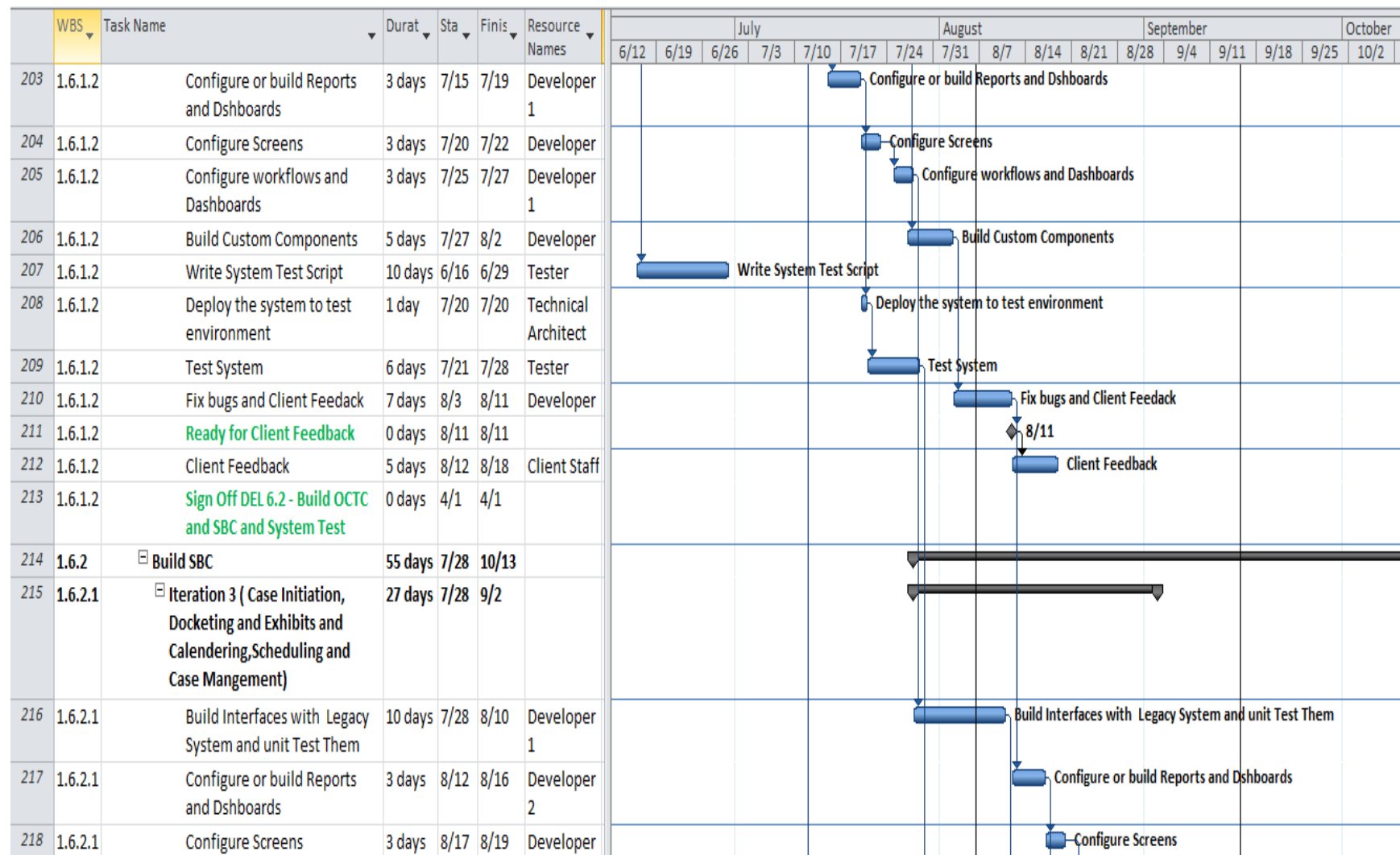


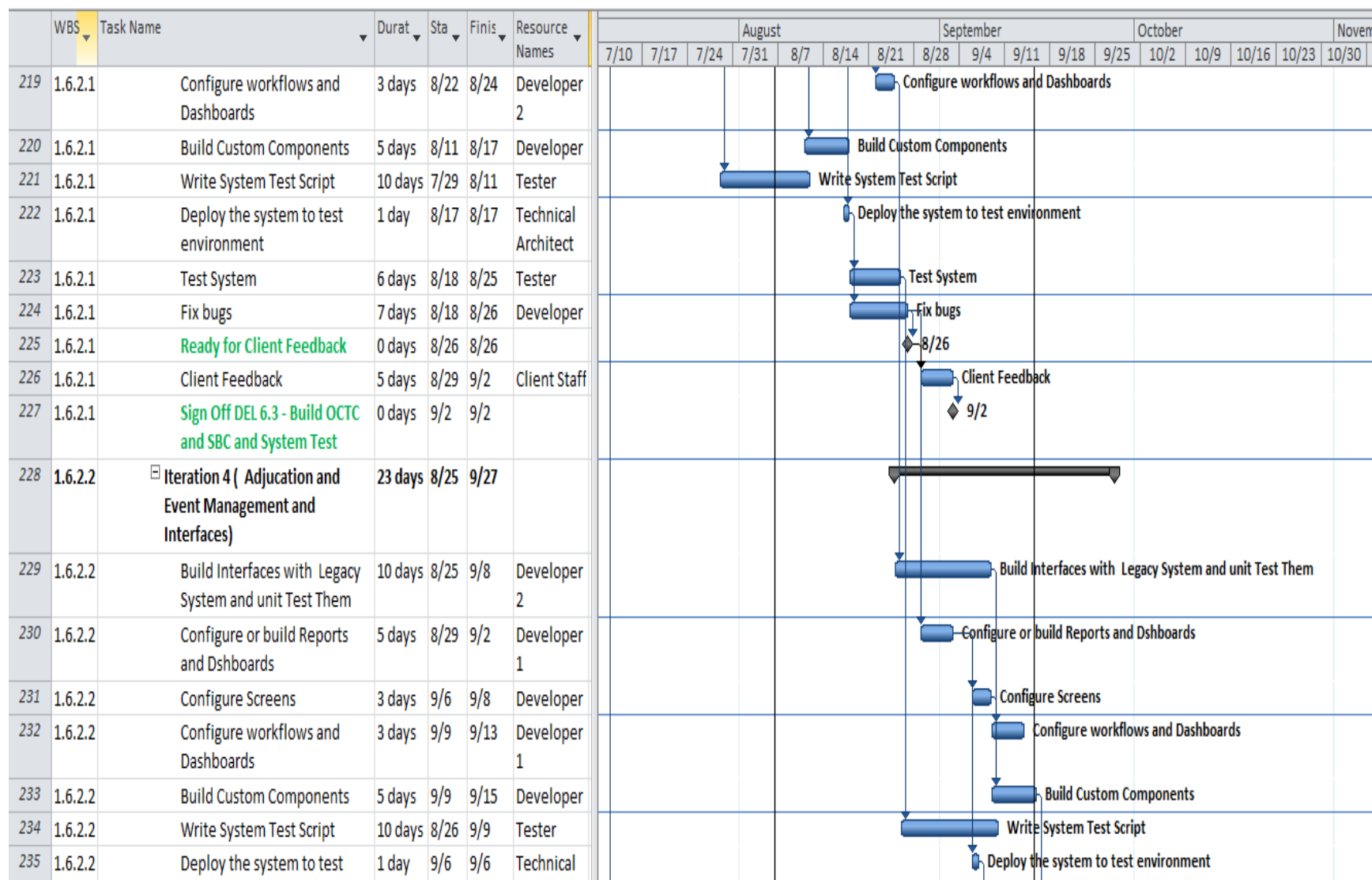


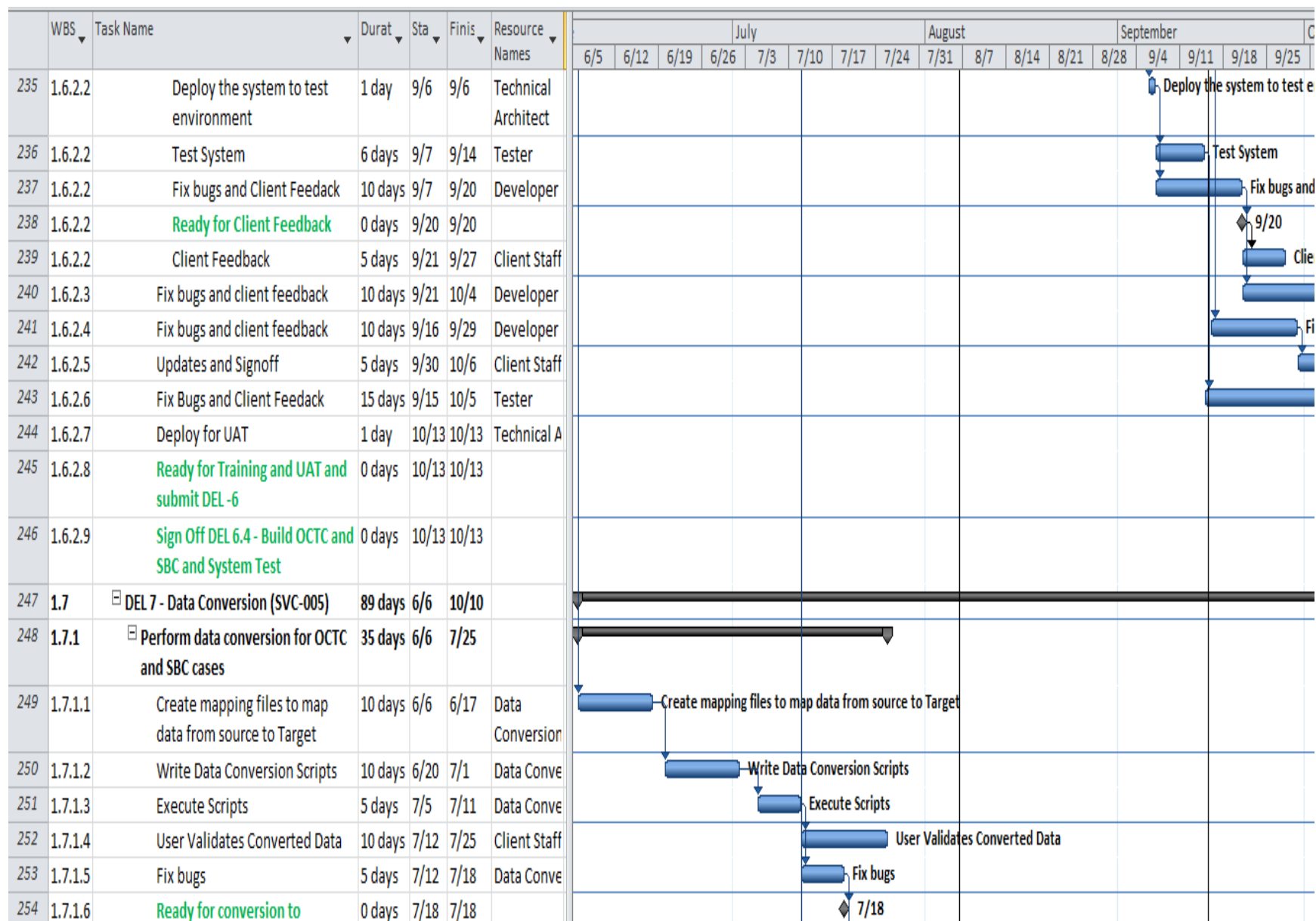
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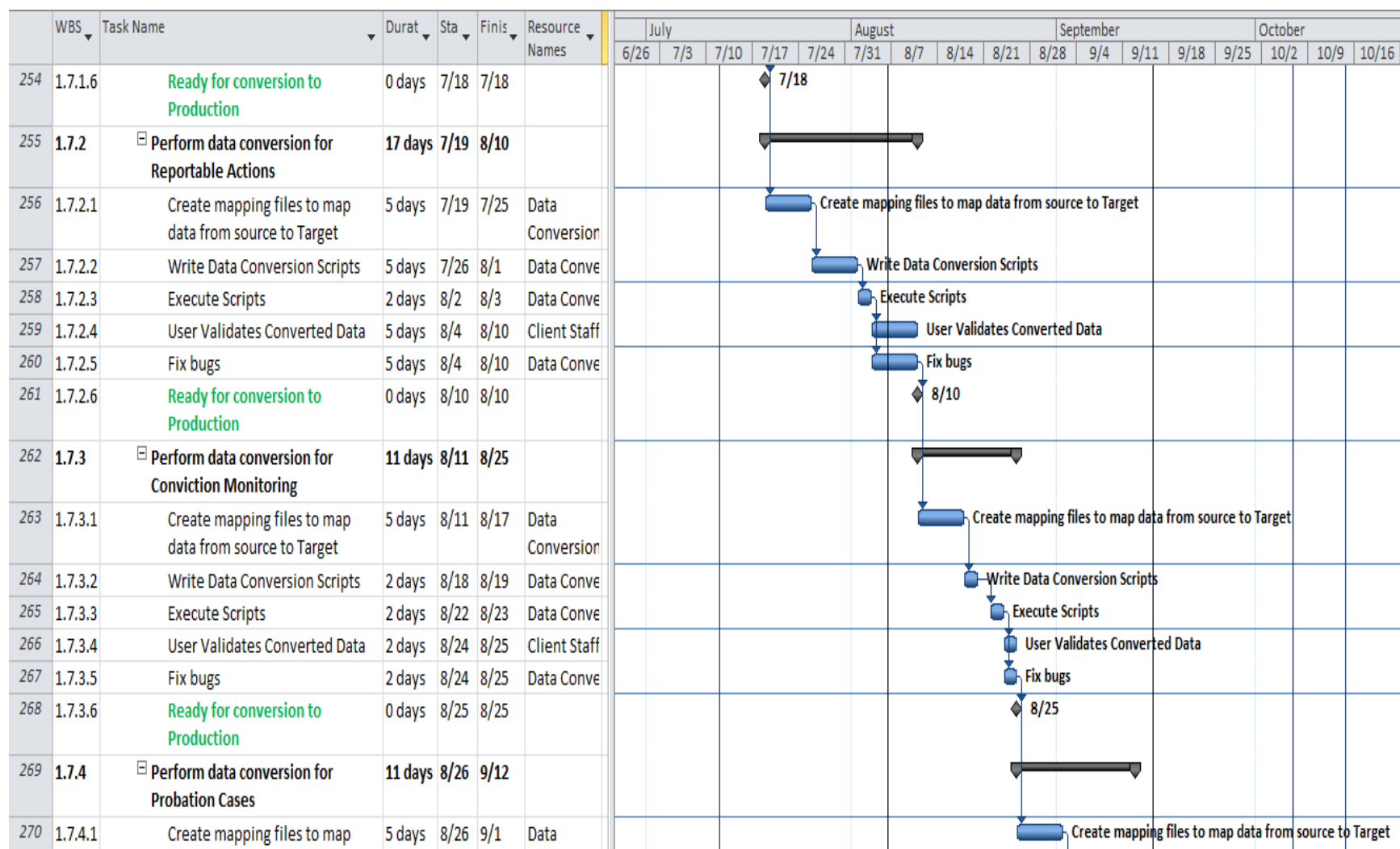




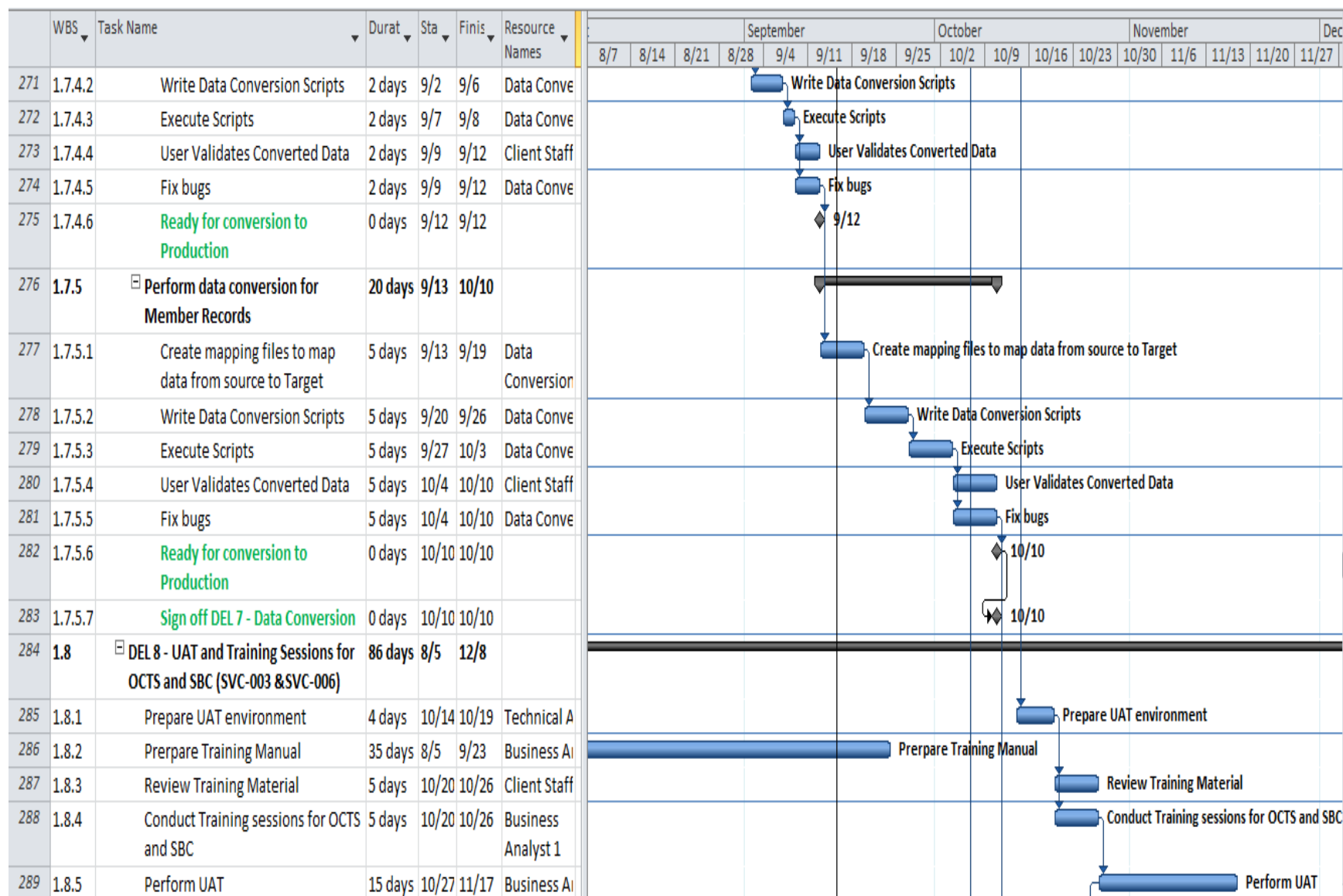




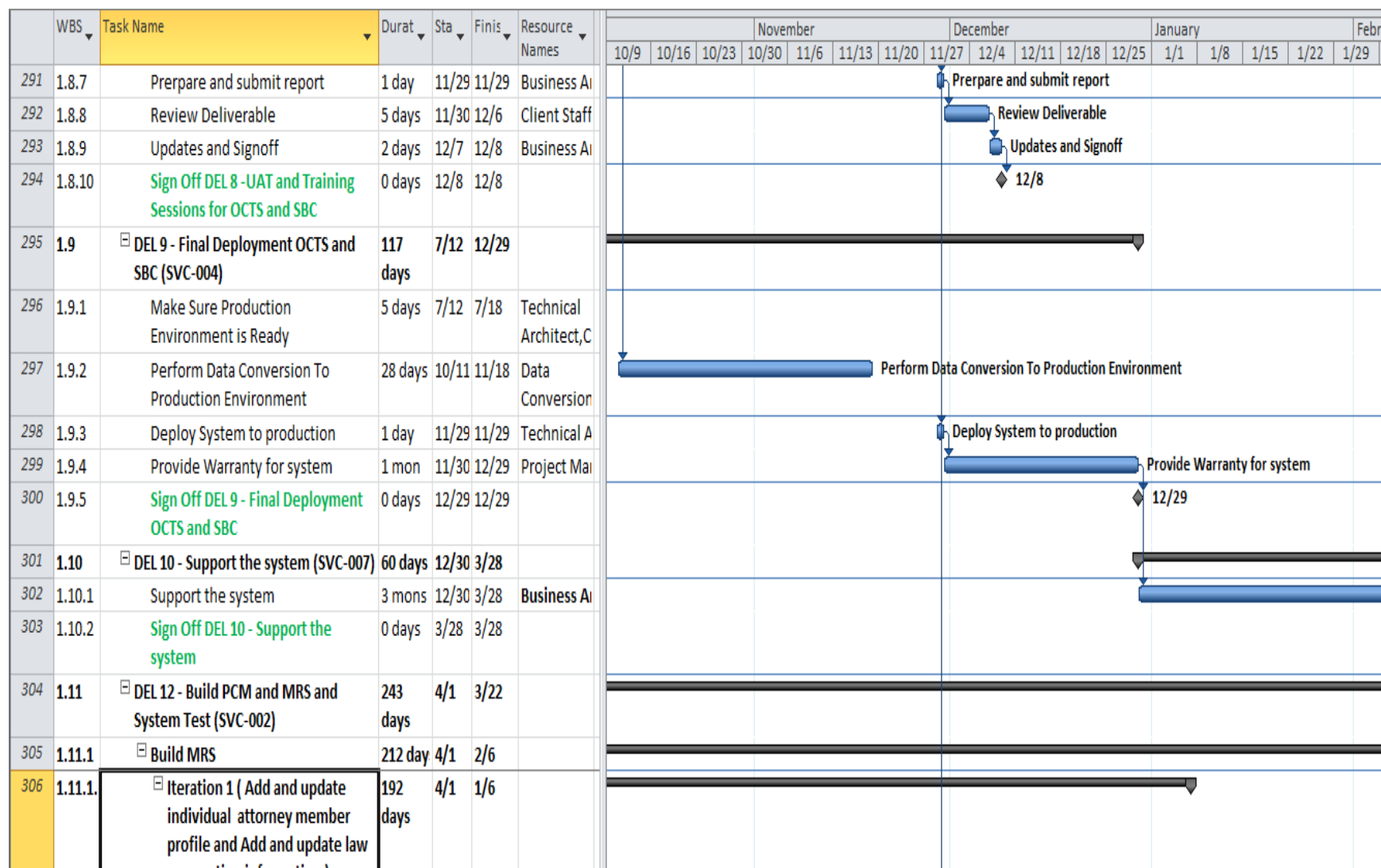


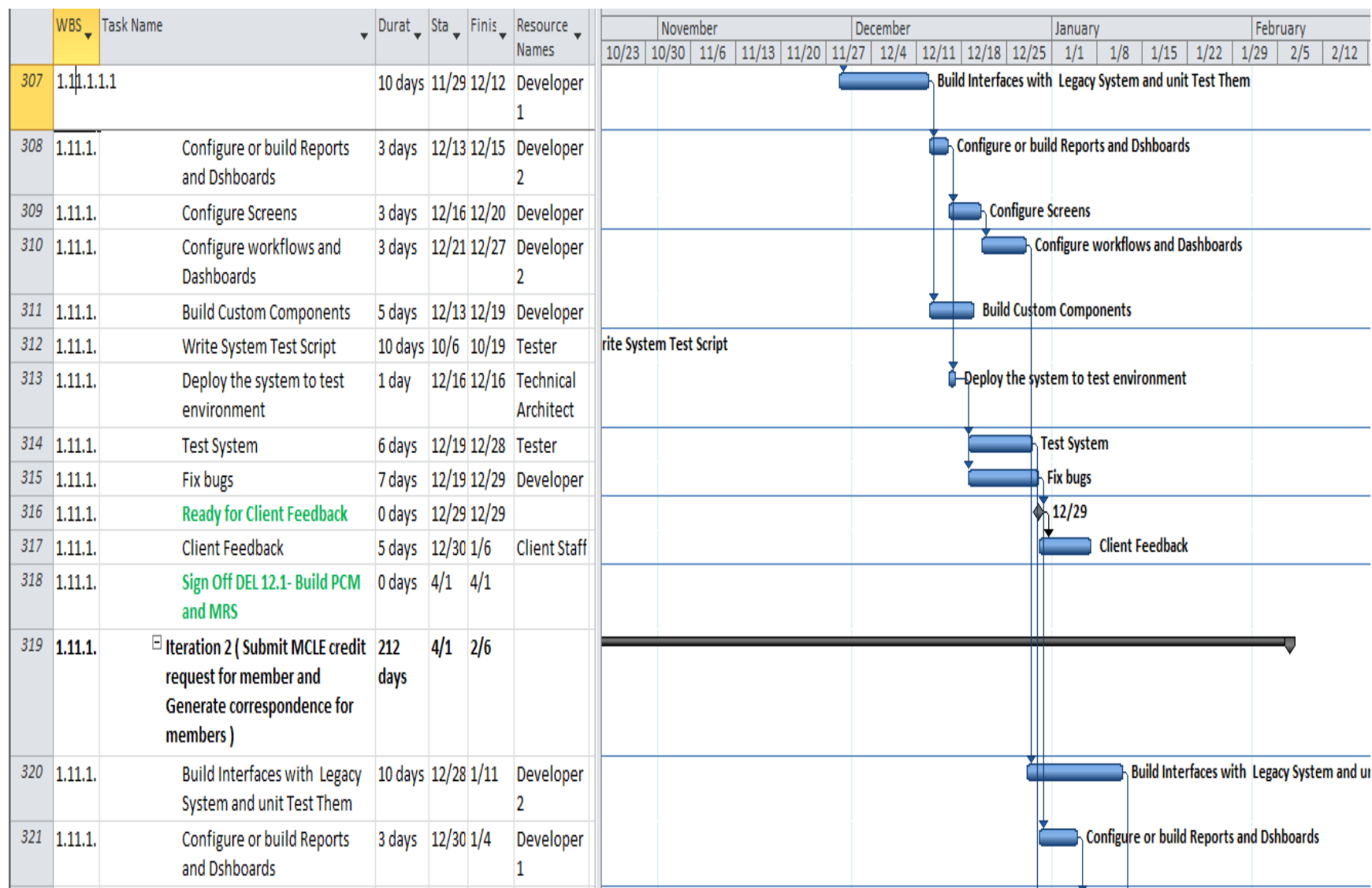


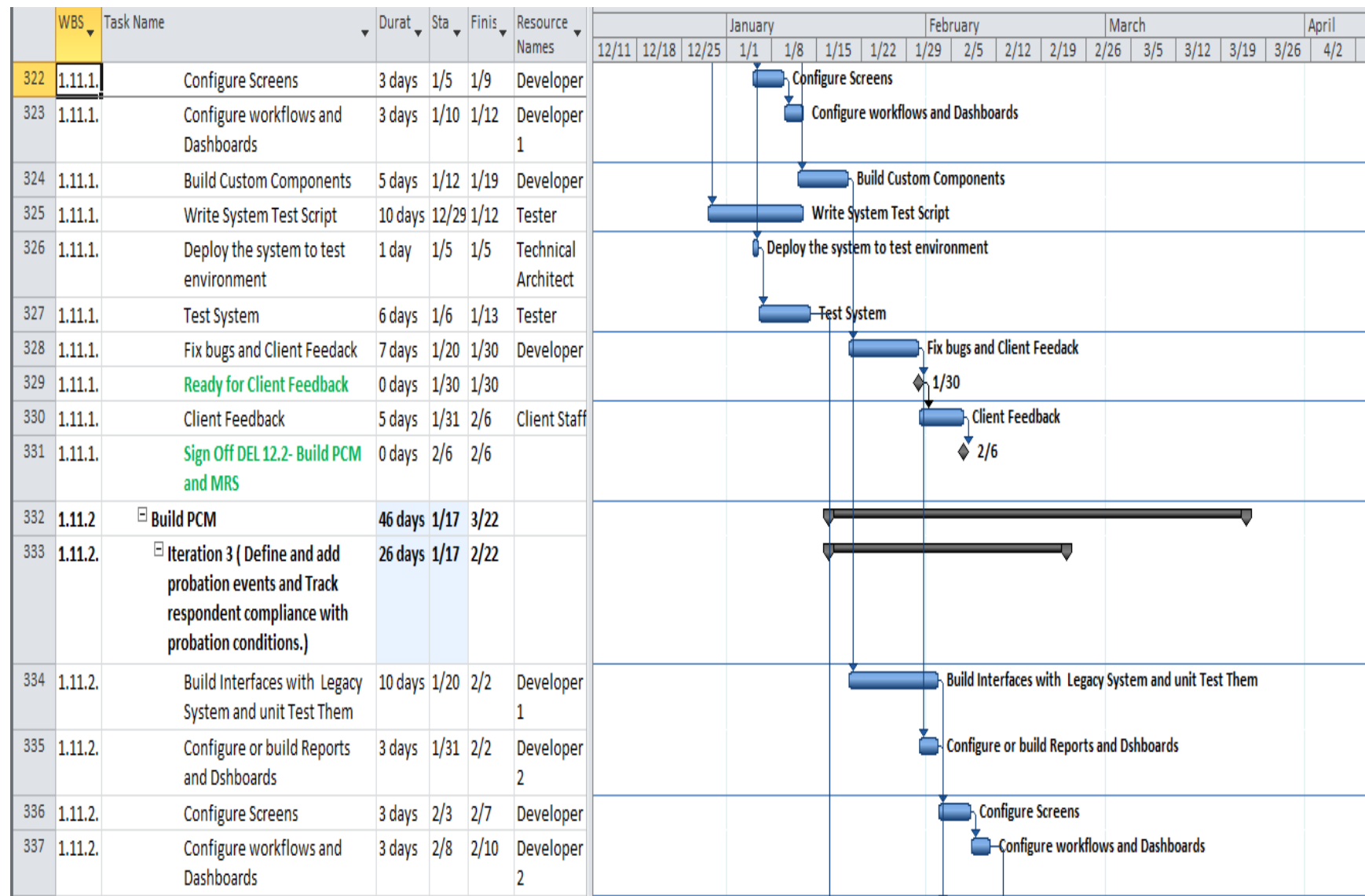


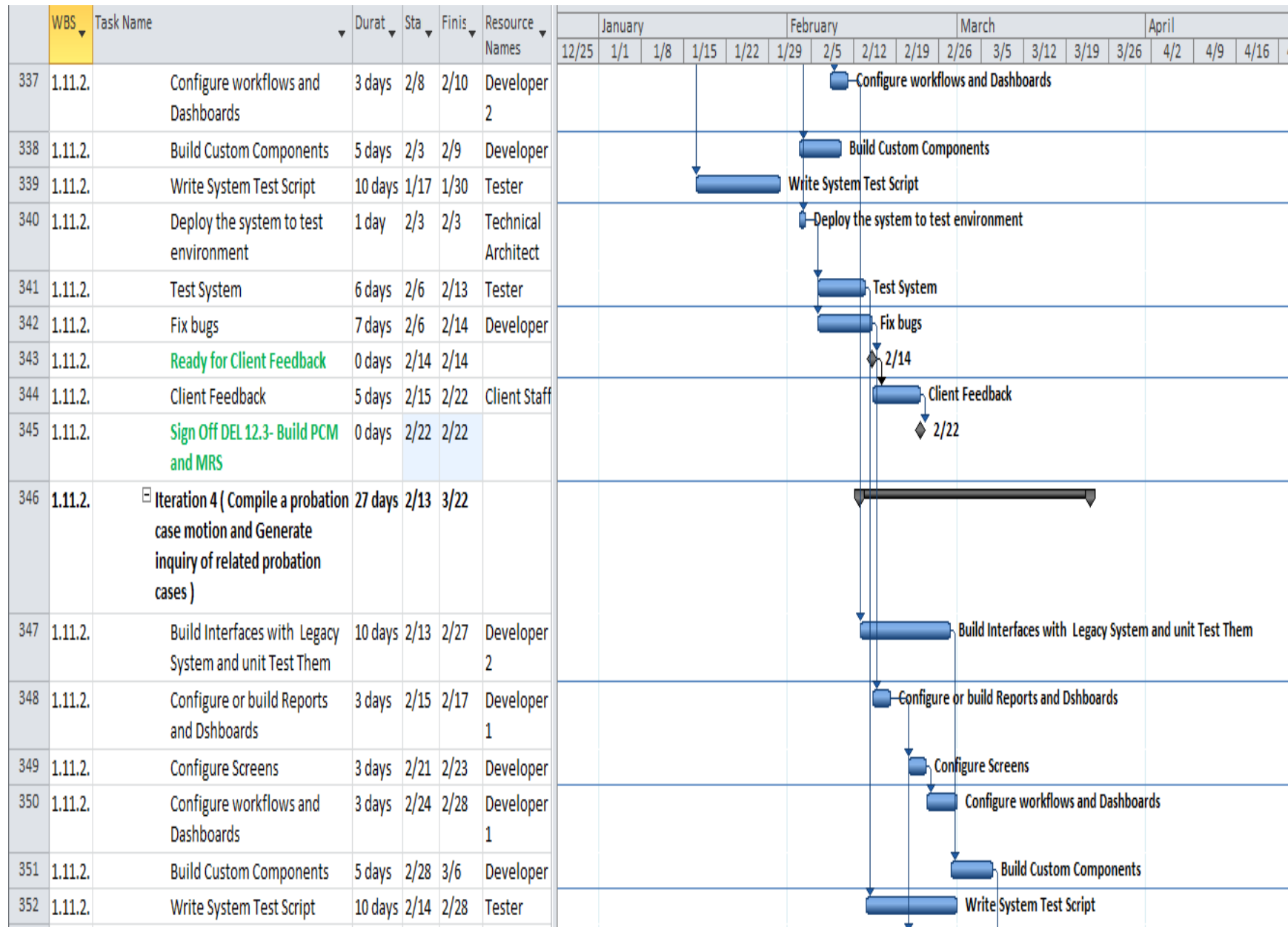


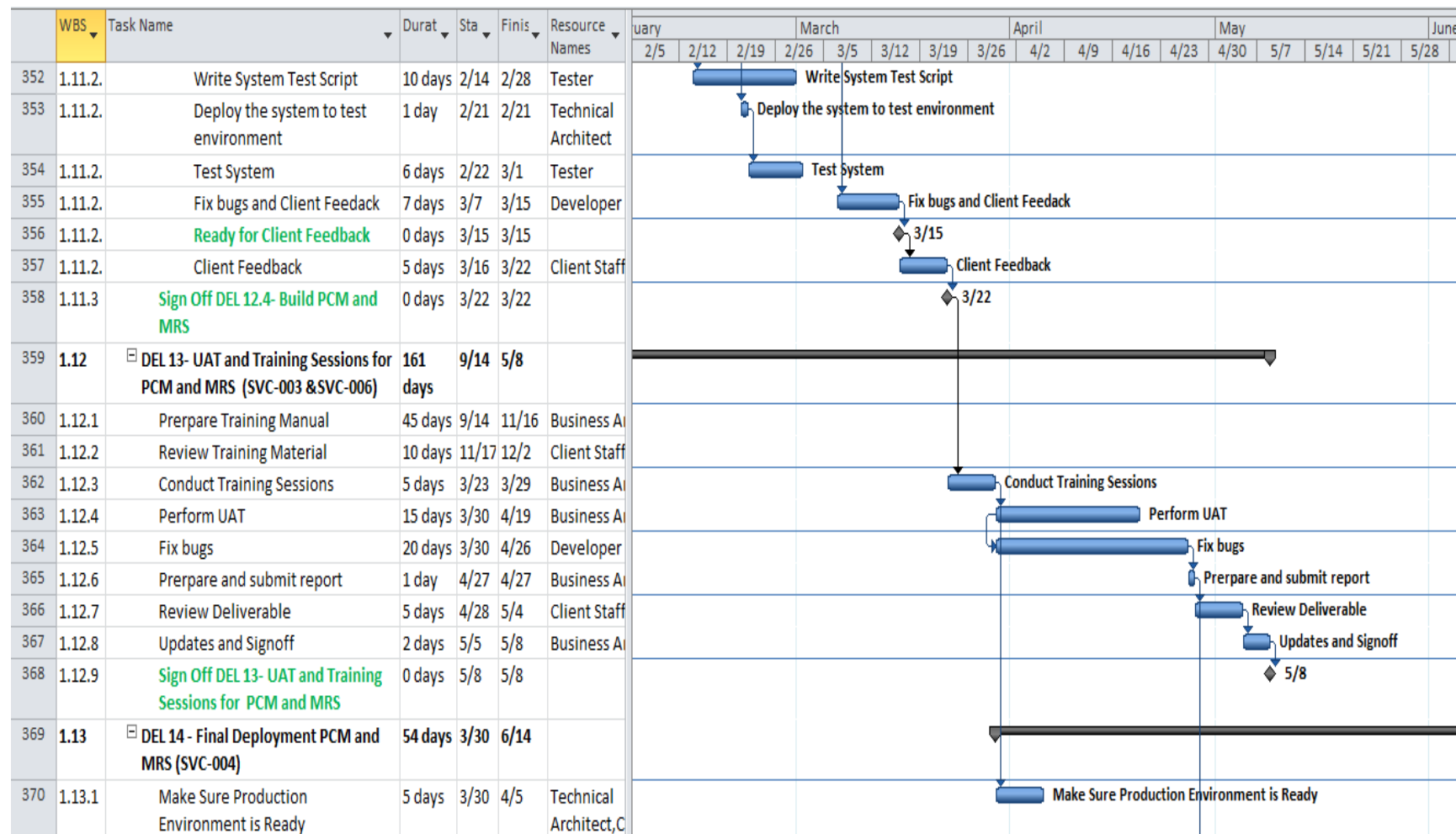


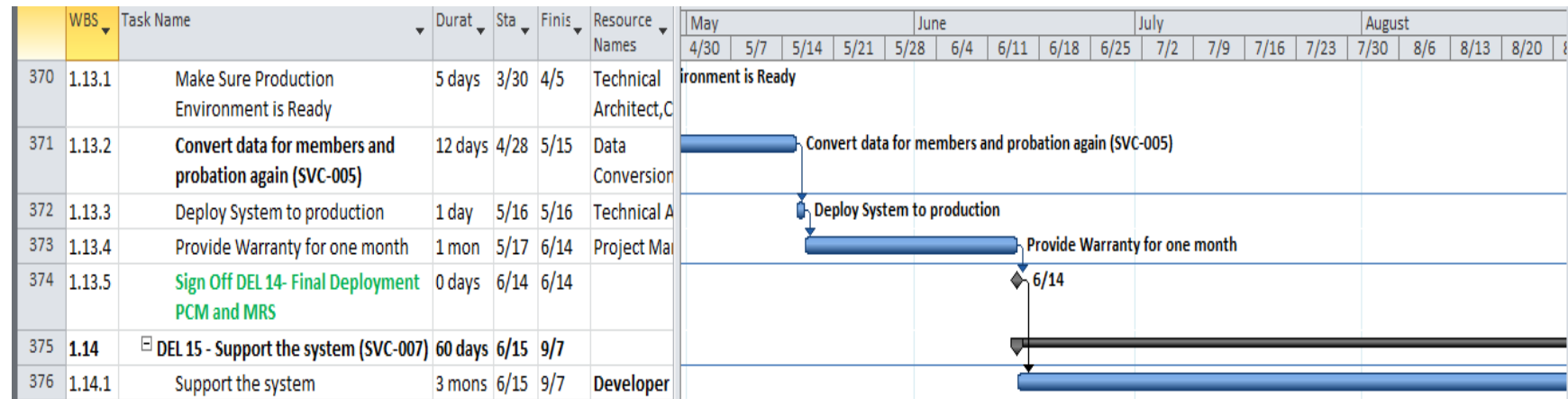












## 9. Reseller Certification

~~3/3/2014~~

Registration Status

03/03/14



California State  
Board of Equalization

||| [FAQ](#) | [MAIN MENU](#) | [BOE ELECTRONIC SERVICES](#) | [LOG OUT](#) |||

**Registration Status**

For assistance during regular business hours call 1-800-400-7115 (TTY:711)

Registration Id: 514959 TIMOTHY JOHN PURDY

Last Updated By TIMOTHY JOHN PURDY on 03/03/2014 at 12:52:03 PM

**Owner Name:** Trinity Technology Group, Inc.**Application Status:** Submitted[Application Detail](#)[General Publications](#)[Online Services Survey](#)

Express Login Code: s017939f

**\*Please Note:** Once you have submitted your application, account information can only be updated by contacting the BOE.

**Seller's Permit****Registration Status:** Issued**Your registration with the BOE is complete, please review the following information:**

Reporting Basis: Quarterly Reporting

Period: 01/01/2014 - 03/31/2014

Due Date: 04/30/2014

*A security deposit is not required at this time. However, a security deposit may still be required in the future.***Account Number:** 102531299Click here to review and print your [Registration Information Packet](#) and permit/license<https://efile.boe.ca.gov/ereg/registration/status.boe?cid=21279#>

1/1

## 10. Third-Party Security Audit

---

Trinity Technology Group commits to having a 3<sup>rd</sup> party Security Audit completed, using the Open Source Web Application Security Project, prior to contract execution. This audit will be conducted on a production system using the same platform that is being proposed for the State Bar Case and Record Management System.



## 11. Introduction to Attachment K

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*TrinityTG is proposing a solution that meets or exceeds all of your requirements for the Case Management System (CMS) that will allow you to go live with 100% of the mandatory functionality and interfaces in only 9 months.*

---

TrinityTG has been a successful partner for the State of California on various strategic IT projects for more than 16 years. Over that time, we have proven ourselves to be a highly effective partner who has implemented many mission-critical systems for the State. We are not a product company that only tries to mold each problem around our IP, rather we are an information technology company that works to understand our client's goals, and implements the best possible solution for their needs. We know that each State agency is different, and that a Commercial off the shelf software package is not likely to meet the needs of the State, will likely limit your ability to grow, and lock you into expensive maintenance from a single vendor.

Over this time, we have seen that other firms over-promise, and under-deliver on their commitments. This occurs because the firm doesn't have the deep experience with the State to understand the unique needs of California. At TrinityTG our business is delivering successful solutions to the State, and that is why client-after-client is highly referenceable, and we prove time and again that we can successfully deliver mission critical solutions to our State clients.

TrinityTG delivers on our commitments.

We have studied your RFP in detail, and are providing a response that meets or exceeds all of your requirements for the Case Management System (CMS) that will allow you to go live in only 9 months using our proven platform. We are confident of this timeline based on our successes with other State agencies.

We are proposing a proven system that has been successfully implemented at numerous State of California agencies. Our solution is highly configurable, so once implemented for the mandatory business areas, it can easily be expanded to support Probation and Membership.

TrinityTG's proposed CMS solution is a customized web application that is built using proven technologies, based on the Microsoft .NET Framework. These technologies have been in use for many years across many systems in the state, and we have extensive experience utilizing them for complex web-based applications.

In addition, because this is an open solution, if the State wanted, they or another vendor could extend or maintain the solution themselves. Some COTS vendors will propose a low introductory price, but the State will be required to pay an expensive maintenance cost in perpetuity. Our approach is to use an open technology platform from Microsoft that leaves the Bar Association in control of its approach to long-term maintenance and support.

Our solution will not lock the State into a proprietary solution which will limit your choices. This platform is an industry standard solution, which means TrinityTG or State staff (or staff from another vendor) can provide support for the application as desired. This will provide the State with a low-risk solution, staffing flexibility, and the lowest total cost of ownership.

This section of our proposal describes the cost elements of our proposed solution. Our completed pricing form, Attachment K of the RFP, includes all the costs necessary to implement our solution and provides the ongoing fees for the base project period and all potential optional extensions, all on a firm fixed price basis.

## 12. Contracting Requirements Agreement

---

Trinity Technology Group has reviewed the Contracting Requirements as they are expressed in section IV of the RFP. We accept the contracting requirements as they are expressed in the RFP, but reserve the right to negotiate the four items identified below:

- Section B. - Warranties and Representations, Paragraph 5: We would like to clarify that this requirement does not apply to third-party software, since the third-parties may not currently comply with the escrow provisions.
- Section G. – Rights in Work Product, Paragraph 2: We ask for joint ownership of any Intellectual Property resulting from services rendered pursuant to the Agreement, with both parties having the right to re-use or re-sell the Intellectual Property. TrinityTG expects that the configurations it will add for this product, where it is not confidential to the Bar Association may be of value to other TrinityTG clients. This treatment is consistent with Paragraph 37 of the California Department of General Services General Provisions for Information Technology.
- Section I. – Termination, Paragraph 1: We ask that the State Bar provides thirty (30) days' notice when the termination is without cause, as it is difficult to place consultants on other projects with only 7 days' notices.
- Section I. – Termination, Paragraph 4: We ask that third-party software and hardware which has been purchased for and accepted by the State should not be subject to return provisions identified in this paragraph in the event of termination for non-appropriation of funds.

**A SOLUTION PROPOSAL FOR:  
The State Bar of California**

**Request for Proposal  
*Case and Records  
Management System***

**PRESENTED BY:**  
Tyler Technologies



**February 4, 2016**

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February 4, 2016

The State Bar of California  
Office of the Executive Director  
Attn: Leah Wilson  
180 Howard Street  
San Francisco, CA 94105-1639

*Case and Records Management System*

Tyler Technologies is pleased to provide our proposal for a case management system for the Office of Chief Trial Counsel (OCTC) and State Bar Court (Court) with optional Probation Case Management and Membership Records (MRS) Systems. Moreover, we look forward to the opportunity of successfully implementing our Odyssey case management solution for the State Bar and further strengthening the abilities for attorneys to provide justice services to the constituents in the State of California.

On behalf of Tyler Technologies, we would like to thank the State Bar of California for the opportunity to present this proposal. Tyler is fully vested in California's success and we firmly believe that we can provide a successfully proven and low risk approach that will allow the State Bar to quickly achieve the goals set forth for this project. We look forward to working with you as you consider the options for this upcoming project.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Puckett", with a long, sweeping horizontal line extending to the right.

Jeff Puckett  
President

**TYLER TECHNOLOGIES**  
Courts & Justice Division  
5101 Tennyson Parkway  
Plano, Texas 75024  
Office: (972) 713-3765



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## Executive Summary

Tyler Technologies understands that the California State Bar is seeking a modern Case Management System (CMS) to meet the core business operations of the Office of Chief Trial Counsel (OCTC) and State Bar Court (Court) with optional Probation Case Management and Membership Records (MRS) Systems. Tyler's proposed solution and approach offers a unique opportunity for the State Bar that leverages a proven centralized case management solution framework that can cater to all the participating State Bar departments' operational business needs. Moreover, Tyler is proposing an implementation approach that demonstrates Tyler's proven technical ability, capacity, and flexibility to successfully complete the contract on time and on budget. Tyler's Odyssey Commercially-Off-The-Shelf (COTS) case management system is successfully proven across the country, and more importantly, Odyssey has a strong presence in California as it is currently being implemented, or currently in production serving over 70% of the State's population.

Tyler Technologies is excited for the opportunity to assist the State Bar with achieving its goals. We look forward to the opportunity of implementing Tyler's proposed approach and solution within the State Bar's environment and business process. Tyler further looks forward to the prospect of sharing our experiences from other implementations and working together with the State Bar to establish a modern and consolidated CMS solution framework.

### About Tyler

Tyler Technologies, Inc. ([www.tylertech.com](http://www.tylertech.com)), founded in 1966, is based out of Plano, Texas and is the largest company in the United States dedicated solely to providing software for state and local government. Tyler is a nationally recognized provider of integrated system solutions and professional services to more than 13,000 government clients in all 50 states, Canada, Puerto Rico, and the United Kingdom. We understand the importance of supporting our clients' mission-critical systems and maintaining the confidentiality of related justice and public safety information.

Tyler offers a full range of professional services including system implementation, data conversion, change



### Proven Success

With 30 years of experience as a justice software provider, Odyssey is, without question, the most widely adopted Commercial-Off-The-Shelf Case Management System framework nationwide. Tyler can combine all of the elements required to quickly and successfully transition the State Bar to a modern enterprise Case Management System across all participating departments.

#### Proven Solution

- Utilizes core framework that is installed and operational in over 400 organizations across the country
- Multi-department and multi-location design

#### Proven Methods, Tools, Process

- 100% implementation success rate – Tyler has succeeded where others could not

#### CMS Platform Market Leader

- 11 statewide implementations
- 25 of 58 California counties, representing 70% of the State's population

#### Corporate Maturity

- Financially stable and growing organization
- Publicly traded (NYSE:TYL)

## The State Bar of California Case and Records Management System

management, disaster recovery, implementation, product training, and ongoing software support. With the development and release of the Odyssey solution, Tyler has risen to market-leader status for serving counties of all sizes across the country. Since its initial release, Odyssey has been selected in approximately 70% of all competitive procurements. Through each one of those implementations, Tyler has continually refined and improved the Odyssey product as well as our implementation methods and tools.

Figure 1 – Tyler Courts & Justice Headquarters in Plano, TX



Within our Courts & Justice Division, we have more than 750 clients, including eleven statewide environments and six of the twenty largest and most complex jurisdictions in the country. Through each of these implementations, Odyssey has continually proven itself as the best and most reliable solution available in the marketplace.

### Qualifications Summary

Tyler is extremely proud in the fact that we have a 100% success rate for implementing Odyssey. We truly understand the challenges of implementing case management systems and have watched many of our competitors fail to deliver their solutions under unrealistic promises and/or project budgets. In fact, the vast majority of Tyler's competitors in this market space have either closed their doors or consolidated into a single umbrella vendor with no clear future direction for their products.

Our proposed software platform, called Odyssey, is the only solution that has been proven capable to meet the needs of some of the most complex jurisdictions in the country. Below is a brief summary of Tyler's experience with successfully implementing the Odyssey solution:

- **Statewide Implementations** – Odyssey is currently implemented, or being implemented, in 11 statewide implementations. Experience with statewide implementations is important

because it demonstrates the ability for the solution to scale across jurisdictions of various sizes and proves that the solution can address the specific business requirements of the various counties within the state, and substantiates that the solution has a high availability rate – which is critical to justice solutions. The Odyssey statewide implementations include the following:

- State of Oregon
- State of New Mexico
- State of North Dakota
- State of South Dakota
- State of Minnesota
- State of Indiana
- State of Maryland
- State of New Hampshire
- State of Rhode Island
- State of Washington
- State of Idaho

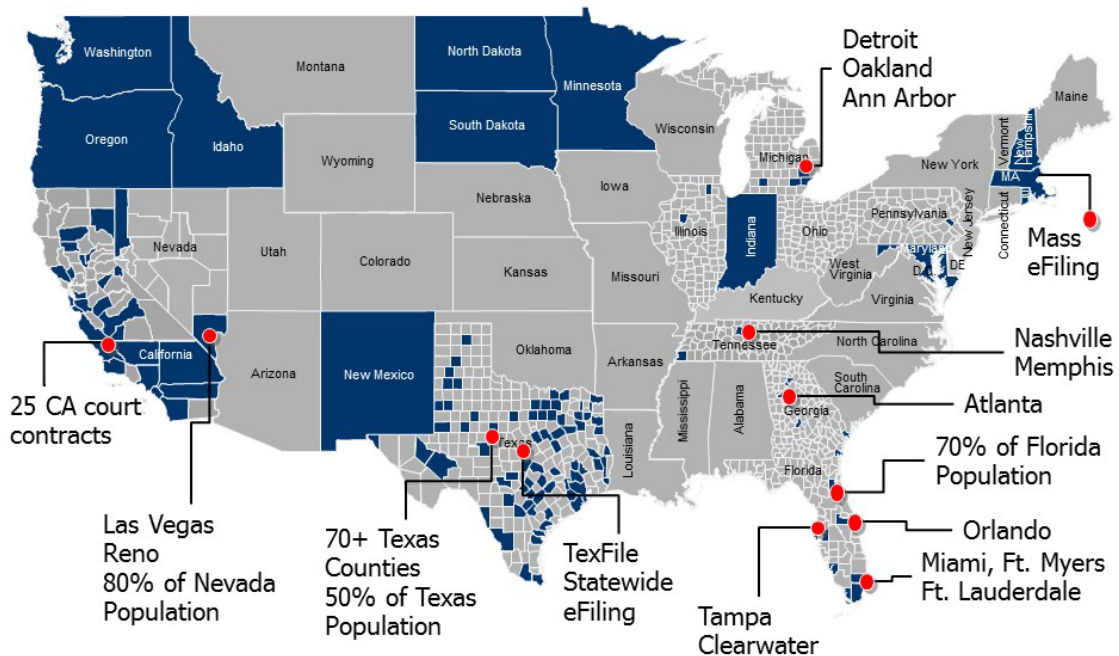
➤ **Large Urban Implementations** – Odyssey is currently in use or being implemented in some of the largest and most complex urban areas throughout the country. These include:

- Santa Clara County, California (San Jose)
- Fulton County, Georgia (Atlanta)
- Miami-Dade County, Florida (Miami)
- Orange County, Florida (Orlando)
- Hillsborough County, Florida (Tampa)
- Dallas County, Texas (Dallas)
- Tarrant County, Texas (Ft. Worth)
- Hennepin County, MN (Minneapolis)
- Alameda County, California (Oakland)
- Bernalillo County, NM (Albuquerque)
- Wayne County, MI (Detroit)
- Clark County, NV (Las Vegas)

➤ **Population Served** – As depicted in the map below, Odyssey is currently serving approximately 30% of the population in the United States of America.

## The State Bar of California Case and Records Management System

Figure 2 – The Tyler Odyssey Community



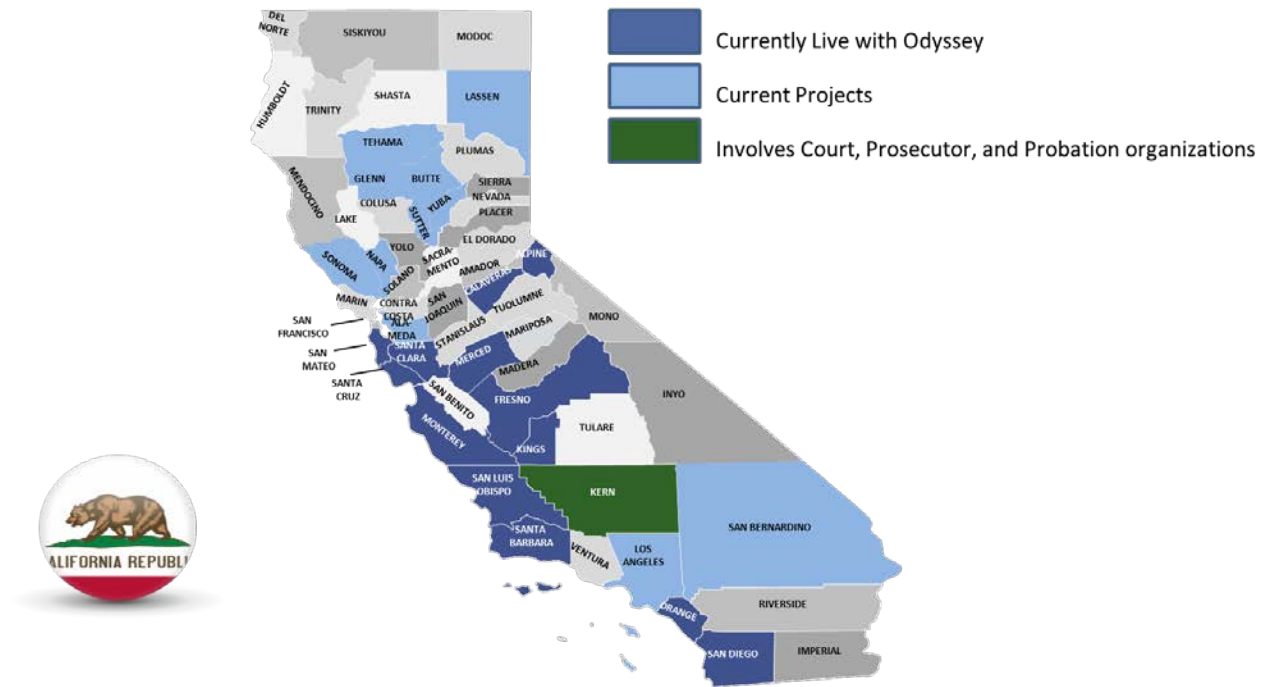
The Odyssey community continues to grow, not just across the country, but especially in California. Tyler Technologies successfully contracted its first Odyssey customer in California three years ago in November of 2012. Today, Odyssey has been contracted in 25 of the 58 counties within the State of California serving over 70% of the state's population.

Furthermore, Tyler is proud to be able to state that Odyssey is live, and operational in production in fourteen California counties today:

- |                    |                  |
|--------------------|------------------|
| 1. San Luis Obispo | 2. Kings         |
| 3. Merced          | 4. Kern          |
| 5. Fresno          | 6. Santa Barbara |
| 7. Calaveras       | 8. Alpine        |
| 9. Santa Cruz      | 10. Monterey     |
| 11. San Diego      | 12. San Mateo    |
| 13. Orange         | 14. Santa Clara  |

Odyssey's presence in California has grown at a very rapid pace over the last several years, as our first successful implementation (go-live) in San Luis Obispo commenced in January of 2014. This is primarily due to the superior courts' business and operational needs in California. However, Odyssey is a multi-module framework that caters to all aspects of the justice system, thus it is worth emphasizing how fast the Odyssey community has grown.

Figure 3 – The Tyler California Odyssey Community



Odyssey implementation projects are also ongoing in another 11 counties throughout the state of California, with the vast majority to be live with Odyssey in 2016 for call case types:

- |                 |                    |
|-----------------|--------------------|
| 1. Butte        | 2. Tehama          |
| 3. Lassen       | 4. Glenn           |
| 5. Yuba         | 6. Sutter          |
| 7. Napa         | 8. Sonoma          |
| 9. Alameda      | 10. San Bernardino |
| 11. Los Angeles |                    |

By selecting Odyssey, the State Bar would solidify its investment in joining the largest justice solution community in the country and more importantly, in the State of California. This collective community of knowledge, experience, and insight can be incredibly valuable during the transition process to a modern CMS, as well as for establishing creative solutions for meeting the demands for future business growth and service needs of attorneys in the State.

### Proposed Solution Overview

California is an important market for Tyler's Courts and Justice Division. Tyler has made substantial investments into the Odyssey software products and into Tyler resources and staffing to meet the specific demands in California. Given the unprecedented growth in the State, where half of the State sought for new CMS solutions at the same time, Tyler was the only CMS solution provider that was prepared to handle the market demand.



### The State Bar of California Case and Records Management System

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Tyler quickly adapted to the market demand in California and has built a California specific team of resources that are dedicated to all California aspects, from minutes generation, financials, to delivering online services to attorneys and the public. Internally, we have established an approach that enables our most experienced resources to share knowledge and time across multiple California projects. This enables our customers to gain insight on what other California projects have completed so that other customers in the State can take advantage of such features and configurations. Although the State Bar Court operates differently from a California superior court, there would be numerous benefits from the lessons learned that Tyler has accumulated over the past several years given our large customer base in California. Tyler resources' knowledge of California specific business processes, statewide integrations, and attorney services could prove instrumental to the California State Bar's case management solution implementations.

#### Observation of RFP Requirements

Tyler has read all the RFP materials and addenda thoroughly, and we believe that we have a good understanding of the State Bar's goals and objectives of this project. However, during the preparations and writing of Tyler's proposal responses to the RFP requirements, Tyler observed significant changes and differences in this RFP when compared to those requirements presented in the separate OCTC and State Bar Court RFPs published in 2012.

It is Tyler's humble opinion that the new requirements introduced in this 2016 RFP, especially those included for the OCTC, present significant risk to the State Bar and an unnecessary level of complexity to the project. Tyler has responded to the requirements matrices accurately and honestly based on our understanding of the requirement with existing Odyssey features and functionality available today. We believe that we can meet the intent of the majority of the RFP-stated requirements, but given the prescriptive manner in which some of the requirements were written and structured, Tyler had to provide responses accordingly.

Unsupported requirements can often be met through application customization or enhancements, or through an alternative business process. It has been the overwhelming best practice throughout this industry, to make as few customizations to an off-the-shelf solution as possible. Doing so not only lowers the cost associated with an implementation, but also greatly reduces project risk and duration.

Tyler recognized the intent or end goal of the RFP requirements; however, many of them also contained preconceived notions on *how* the concepts are to be executed. Often times Tyler is forced to answer certain requirements as "Requires Customization" or "Alternative Proposed" when the requirement is too prescriptive in nature, listing the individual steps to complete a function, rather than being objective in nature, simply stating the desired end goal function. No matter what response is provided through the RFP process, the State Bar should fully expect that its business practices, and associated requirements, will change with the implementation of a new case management system.

Tyler believes that the RFP's OCTC functional requirements, as they are currently written and structured, does not serve the best interest of the State Bar and would result in a highly expensive and complex solution that would be very difficult to maintain over time. More

importantly, Tyler believes that the RFP's current OCTC functional requirements present the greatest risk to the project timeline and overall success of the project – regardless of the CMS solution provider. As such, Tyler requests that the OCTC revisit their overall expectations of their CMS functional requirements and consider Tyler's proposed solution and approach that would benefit the State Bar as a whole –across all departments: OCTC, State Bar Court, Probation Department and Membership Records.

Together with Tyler's best practices approach for configuration and process improvements, Tyler believes that the State Bar will find Odyssey to be highly configurable and adaptable to address the State Bar's needs, so that future maintenance and enhancement of the resulting system requires minimal assistance from Tyler.

In summary, Tyler is proposing an alternative approach to work collaboratively with the State Bar to implement a proven COTS-based CMS solution platform that can be deployed across the OCTC, Court, Probation Department and Membership Records. Tyler's proposed approach presents a simpler, more cost effective implementation with significantly higher probability of success.

### Benefits of a COTS Solution

Tyler is uniquely qualified to offer the State Bar the benefits of a modern, proven, functionally rich, enterprise-level Commercially-Off-The-Shelf (COTS) case management system. Moreover, Odyssey is the only modern COTS case management system being implemented in California for a court, prosecutor agency, and probation department under a single solution platform. Odyssey was designed from the ground up as a truly integrated solution. Odyssey is not a collection of independently developed applications. Rather, all of the applications in the product suite were designed to share a common database – allowing data to seamlessly flow from one operational area to another without the need for duplicate data entry or expensive inter-application interfaces.

Odyssey offers the State Bar the benefits of both worlds: the proven success rate of implementations, combined with the highly configurable nature of the application to address the unique needs and processes of the State Bar. Odyssey has the flexibility to be configured at various levels within an organization, department, or sub-department or location. This enables the State Bar to define State Bar-level behavior for certain codes or features, while allowing local variation for specific locations (Los Angeles or San Francisco) or specific departments (OCTC or Court). The ability to configure different areas is controlled by security rights and roles, allowing State Bar administration personnel domain over certain functions, while granting local control on others.

Additional high-level benefits that Odyssey can provide the State Bar:

- Odyssey is designed to operate in a multi-stakeholder and multi-location environment. Tyler understands the importance of maintaining independence of the State Bar Court in promoting public confidence and impartiality of the judiciary. Tyler's robust security infrastructure supports this and offers the State Bar the benefits of separate modules



## The State Bar of California Case and Records Management System

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under a shared framework that can cater to the OCTC, Court, Probation Department, and Membership Records.

- Case Management, Party (person) Management, Document Management, and Financial Management are provided in a seamless unified design.
- Odyssey is highly configurable, limiting the need for software customization. Tyler's experienced experts can also advise the State Bar on best practices that balance flexibility with long-term maintainability.
- Tyler continues to innovate and provide leadership in the areas of paperless systems, mobility, and eServices such as eFiling, ePayments, eDocument Management, eSchedules, eNoticing, and public-facing Web solutions.
- Tyler's Evergreen perpetual licensing strategy ensures that State Bar can safeguard their investment by benefiting from new features, evolving core technology, and continued compliance with legislative requirements for as long as the State Bar stays on a maintenance plan – this means that the State Bar would never have to be concerned with the CMS becoming obsolete or having to purchase the next release of Odyssey.

We look forward to the opportunity of deploying Odyssey within the State Bar's participating departments, and firmly believe that our proposed approach combines the product and methods to successfully meet the State Bar project current objectives and future business growth needs.

### Cost Proposal Benefits

Tyler's proposed solution and corresponding costs outlined in this cost proposal includes the following benefits for the State Bar:

- **Inherent Integration:** The primary advantage of the Odyssey solution is the inherent integration available through a centralized case management system platform. Meaning that the OCTC, State Bar Court, and optionally the Probation Department and Membership Records can all be on the same case management system platform. Although each department operates independently, the core case and party data is stored and tracked centrally – enabling accuracy of information, minimal duplicate data entry, and improved overall automation. Viewing of pertinent information is protected by the robust security framework within Odyssey. This setup is not unlike the many Odyssey Integrated Criminal Justice (ICJ) implementations across the country where multiple agencies, such as the court, district attorney, and probation department are all on the same Odyssey platform and each agencies information is guarded by security rights and roles of users of the application.
- **Proven Implementation Approach:** Another key benefit to Tyler's proposal is it reflects an implementation approach that is proven successful over hundreds of customers – including 14 (fourteen) recent Odyssey Go-Live events in California over the past several years. Tyler proposes a low risk, yet cost effective approach for implementing Odyssey successfully across the OCTC and State Bar Court. Additionally, Tyler can easily incorporate the addition of the State Bar Probation Department and Membership Records into the project

implementation, should the State Bar determine to include these two optional components. Tyler has the proven methods and implementation experience to successfully deploy the Odyssey CMS across all four participating State Bar departments.

- **Inherent Document Management:** The Odyssey case management solution inherently includes content management. Thus, State Bar can use Odyssey as a centralized platform for managing all content media including electronic documents, photos, video, sound wave files, etc. Moreover, all the electronic content is managed accordingly and linked to their corresponding electronic case files. No additional costs for purchasing and maintaining software licenses for document management is necessary.
- **Easily Add Optional Components:** Although smaller in user count, Tyler understands that the Probation Department is critical to the State Bar's business and operations. Tyler has designed an implementation approach and cost proposal where the State Bar can easily decide to add the Probation Department to be in scope of the Odyssey CME deployment project. The optional costs presented in Tyler's cost proposal is a fraction of what it would cost if the Probation Department implemented Odyssey under a stand-alone implementation. Incorporating the Probation Department into the project together with the OCTC and State Bar Court Odyssey implementation would yield economies of scale, specifically around the costs for professional services (cost of implementation).
- **Leverage Existing Bar Membership Services Functionality:** Similar to the Probation Department, the optional Membership Records CMS implementation can also realize economies of scale for implementation costs. Although the CMS functionality of Membership Records is unique, Tyler has built some relevant attorney and bar membership functionality for the Odyssey statewide implementation in Rhode Island, specifically for the Rhode Island Supreme Court. An example of relevant functionality includes the ability to electronically manage the process and information associated with attorney registration and the corporate entities formed for the practice of law. Tyler has populated Attachment F Membership Services Requirements Matrix and has included optional costs for this portion of the RFP for the State Bar's consideration.
- **Reduced Maintenance and Support Costs:** Tyler has implemented over 70 multi-department and multi-module Odyssey implementations across the country, including in some of the most complex jurisdictions in the country, such as Texas and Fulton County, GA (Atlanta). Tyler is also currently implementing Odyssey Case Manager, Attorney Manager, and Supervision for the justice agencies in Kern County, CA (Bakersfield). The project includes the Superior Court, District Attorney, Public Defender, and Probation Department. Based on such implementations, Tyler and our customers have found that the one of the largest benefit from migrating to a consolidated CMS environment is lowered overall maintenance and support costs. This outcome is a result of being able to maintain and troubleshoot issues for only one technology environment for case management, party management, and document management business needs. There is no longer a need to maintain and support multiple systems. Furthermore, due to the Evergreen philosophy of Odyssey, our customers no longer have to concern themselves with aging technology, because Odyssey continues to evolve with every new customer, every year. With the

### The State Bar of California Case and Records Management System

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growing customer population in California, the State Bar will benefit tremendously in the future from the state's familiarity and use of Odyssey solutions throughout the State.

Tyler welcomes the opportunity to conduct cost discussions with the State Bar to collectively determine an optimal project scope and corresponding affordability of an Odyssey implementation. We have always been able to make the financials work when a customer has awarded Tyler during the procurement process and designated Odyssey as their future solution.

We look forward to the opportunity of successfully implementing the Odyssey case management solution for the California State Bar and further strengthening the abilities for attorneys in the State to provide justice services to the constituents in the State of California. Tyler is fully vested in California's success and we firmly believe that our proposed solution combines the products, the experience, and the approach to support the State Bar's short term and long term goals.

## 1.0 Company Overview and History

*A brief description of the history and organization of the bidder's firm, and of any proposed subVendor.*

### Company Profile

Based in Plano, Texas, Tyler Technologies is the largest national provider of integrated software systems and information technology services exclusively focused on the public sector. Simply put — Tyler empowers people who serve the public.

We devote all of our time, energy, and resources to help state and local governments become more efficient, accessible and responsive to the needs of their constituents.

At more than 13,000 government entities throughout the United States and its territories, Canada, and the United Kingdom, our clients can attest to our ability to fulfill this promise.

Tyler is one of the few information technology organizations whose sole business focus is the government sector. We understand the importance of supporting our clients' mission-critical systems and maintaining the confidentiality of related attorney and court information.

Having current annualized revenue in excess of \$493.1 million (2014) and a staff of 3,600 employees in eight major locations, Tyler is one of the largest companies providing commercial off-the-shelf (COTS) software applications and services to the government marketplace delivering solutions designed to automate operations in five major areas:

- Courts and judicial case management, prosecuting agencies, law enforcement, public safety and corrections
- ERP (Enterprise Resource Planning) financial management, fund accounting, personnel and human resources, and utility billing
- Property appraisal, automated mass appraisal, and tax billing and collections
- K-12 school financial and human resource management, student information systems and transportation
- Document and content management for land and vital records

To complete our comprehensive portfolio, Tyler offers a full range of professional services, including multiple hosting options, change management, disaster recovery, implementation,



**Figure 1.0.1 – Tyler Courts & Justice Headquarters in Plano, TX**

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product training and ongoing software support. No other company offers the same range of products and services for the public sector.

We are known for long-standing client relationships, functional and feature-rich products, and the latest technology. In addition to software products, Tyler provides related professional services including installation, data conversion, consulting, training, customization, support, disaster recovery, and application and SaaS (Software as a Service) hosting and support.

Tyler always puts its clients first. We succeed because we take our client's success seriously, and we have a proven record of delivering superior software solutions and services. The overwhelming majority of clients are up and running on time, and within budget. Whether it's developing, enhancing, and implementing our software, or providing excellent service and client support—we succeed because our clients succeed. The result: a loyal client base developed over years of dedicated service.

#### Industry Leadership

Tyler strives to provide the best client services in the industry. Our products undergo testing by trained quality assurance and certified usability analysts, therefore our clients benefit from products that work logically based upon user experience and input. We also focus our implementation and support professionals on specific groups of applications so they are able to offer more specialized services.

Our commitment at Tyler is to ensure the highest level of client satisfaction through the efforts of Tyler's most valued resource: its people. We challenge our employees to pursue new initiatives aggressively and become industry leaders in their respective fields. Tyler employs 3,600 individuals, many of whom are seasoned professionals with unique and proprietary skills and years of industry experience. In fact, our employee turnover rate is very low—in recent years, about half of the industry average.

#### Courts & Justice Division

Tyler has been in business since the mid-1960s. However, it was not until 1996 that Tyler Corporation changed its name to Tyler Technologies, Inc. and positioned its growth toward becoming a recognized leader in the delivery of software solutions focused on state and local government entities. One example of this change relates to Tyler's Courts & Justice Division that has been in the business of providing software applications and services since 1980. Our products encompass all justice functions including courts, jail, law enforcement, prosecution, child support, hot checks, and supervision as well as business continuity services.

With more than 550 employees in our Courts & Justice Division focused exclusively on the technology needs of the justice community, we are the largest provider of justice solutions in the marketplace. Tyler brings to the table a track record of 100% successful implementations and expertise in complex projects, ranging from mid-sized counties to entire states. Tyler is also proud to state that all of our employees are located in the United States, and we do not outsource any of our development or support to off-shore resources.

While many competitors target multiple vertical markets, we believe our singular focus on delivering essential software solutions that empower the judicial sector is truly what sets us apart. Tyler enlists the best and brightest personnel as a part of our Courts & Justice Division to lead, and partner with our customers on the implementation of the Odyssey suite of products. The Odyssey suite is developed as a Web-centric, browser-based set of applications to leverage the economy and scalability of today's sophisticated enterprise architectures. Odyssey takes advantage of the expertise gained in hundreds of justice implementations nationwide into a product that takes full advantage of today's most modern, forward-looking technologies. It is the foundation for future Tyler products and defines our strategic direction for generations to come.

As a vertical software company, we are able to focus all of our resources on delivering the software solutions and services that result in an unmatched scope of products and services. We provide our clients with a competitive offering that's always fresh and never taken for granted. Our experience, success and professional staff ensure that we have the resources and dedication to execute this vision.

Tyler will perform all the work in this proposal and does not anticipate the use of any subcontractors.

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## 2.0 Business Licenses

*Copies of business licenses, professional certifications or other credentials, together with evidence that bidder, if a corporation, is in good standing and qualified to conduct business in California.*

Tyler Technologies is licensed/registered and is in good standing and qualified to conduct business in the State of California. The illustration below reflects our active status with the California Secretary of State followed by the Certificate of Status on the following page.

The screenshot shows the California Secretary of State website. The header includes the state seal and the text "All people Liberty Speak without discrimination". The main navigation bar lists: Secretary of State Main Website, Business Programs, Notary & Authentications, Elections, Campaign & Lobbying, State Archives, and Registries. The left sidebar contains a menu with categories like Online Services, Main Page, Service Options, Name Availability, Forms, Samples & Fees, Statements of Information, Filing Tips, Information Requests, Service of Process, FAQs, Contact Information, Resources, and Customer Alerts. The main content area is titled "Business Entity Detail" and displays information for TYLER TECHNOLOGIES, INC. (Entity Number: C2722711, Date Filed: 02/23/2005, Status: ACTIVE, Jurisdiction: DELAWARE, Entity Address: 5101 TENNYSON PARKWAY, Entity City, State, Zip: PLANO TX 75024, Agent for Service of Process: CAPITOL CORPORATE SERVICES, INC., Agent Address: 455 CAPITOL MALL COMPLEX STE 217, Agent City, State, Zip: SACRAMENTO CA 95814). Below the table, there are footnotes and a list of links: Modify Search, New Search, Printer Friendly, and Back to Search Results.

**Business Entity Detail**

Data is updated to the California Business Search on Wednesday and Saturday mornings. Results reflect work processed through Friday, January 22, 2016. Please refer to [Processing Times](#) for the received dates of filings currently being processed. The data provided is not a complete or certified record of an entity.

Entity Name:	TYLER TECHNOLOGIES, INC.
Entity Number:	C2722711
Date Filed:	02/23/2005
Status:	ACTIVE
Jurisdiction:	DELAWARE
Entity Address:	5101 TENNYSON PARKWAY
Entity City, State, Zip:	PLANO TX 75024
Agent for Service of Process:	CAPITOL CORPORATE SERVICES, INC.
Agent Address:	455 CAPITOL MALL COMPLEX STE 217
Agent City, State, Zip:	SACRAMENTO CA 95814

\* Indicates the information is not contained in the California Secretary of State's database.

- If the status of the corporation is "Surrender," the agent for service of process is automatically revoked. Please refer to California Corporations Code [section 2114](#) for information relating to service upon corporations that have surrendered.
- For information on checking or reserving a name, refer to [Name Availability](#).
- For information on ordering certificates, copies of documents and/or status reports or to request a more extensive search, refer to [Information Requests](#).
- For help with searching an entity name, refer to [Search Tips](#).
- For descriptions of the various fields and status types, refer to [Field Descriptions and Status Definitions](#).

[Modify Search](#) [New Search](#) [Printer Friendly](#) [Back to Search Results](#)



**State of California**  
**Secretary of State**

CERTIFICATE OF STATUS

ENTITY NAME:

TYLER TECHNOLOGIES, INC.

FILE NUMBER: C2722711  
REGISTRATION DATE: 02/23/2005  
TYPE: FOREIGN CORPORATION  
JURISDICTION: DELAWARE  
STATUS: ACTIVE (GOOD STANDING)

I, DEBRA BOWEN, Secretary of State of the State of California,  
hereby certify:

The records of this office indicate the entity is qualified to transact  
intrastate business in the State of California.

No information is available from this office regarding the financial  
condition, business activities or practices of the entity.



IN WITNESS WHEREOF, I execute this certificate  
and affix the Great Seal of the State of  
California this day of October 17, 2008.

DEBRA BOWEN  
Secretary of State

### 3.0 Financial Data

*The most recent year's annual reports, or comparable document, including detailed current profit and loss, assets and liabilities, and other relevant financial data. Bidders must submit Attachment J: Vendor History Questionnaire electronically in native .xlsx format per instructions below.*

With above-market growth rates from our core business, Tyler Technologies is a financially stable business. Amongst our competitors, Tyler consistently scores the highest on case management system procurements in the financial viability scoring criteria given both our financial stability and financial capacity. Experiencing significant growth opportunities from an increase in staff and expanding territories, we anticipate additional product offerings and new technology will accelerate this growth substantially in the future. Conversely, we believe a debt-free balance sheet, substantial cash reserves, and a committed customer base put Tyler in a great position in our industry to weather any unexpected turbulence in the economy.

Our financial strength provides the resources to reinvest in our products and services. As technologies advance, we continually strive to adhere to new standards and practices that allow us to deliver distinct products to our clients and to maintain a long-term vision that is in sync with them.

Table 3.0.1 below reflects Tyler Technologies revenue and earnings for the past five years with the complete 2014 Annual Report included in the Appendix.

**Table 3.0.1 – Tyler Revenue and Earnings**

Year	Total Corporate Revenue (in Thousands)	Corporate Net Earnings (in Thousands)
Fiscal Year 2014	\$493,101	\$58,940
Fiscal Year 2013	\$416,643	\$39,101
Fiscal Year 2012	\$363,304	\$32,994
Fiscal Year 2011	\$309,391	\$27,557
Fiscal Year 2010	\$288,628	\$25,054

Tyler has followed the instructions for RFP Attachment J: Vendor History Questionnaire and has included the completed Attachment J on the following page.

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# Attachment B: Vendor History Questionnaire

## Appendix E

Enter relevant information in all yellow cells below, choosing from menu as applicable. Enter n/a if not applicable to your organization.

Business Details		Complete fields below	
Legal Name of Business or Full Name of Individual	Tyler Technologies, Inc.		
Name of Ultimate Holding Entity <i>if applicable</i>	N/A		
Registered Business or Trading Name <i>if applicable</i>	N/A		
Registered Business Address--Street	5101 Tennyson Parkway		
Registered Business Address--City, ST Zip	Plano, TX 75024		
Business URL	www.tylertech.com		
Business Type	Corporation	State of Registration / Incorporation	DE
Taxpayer Identification Number <i>TIN or SSN</i>	75-2303920	# of Years in Business	50
Publicly traded?	yes	Trading Symbol	TYL
Number of Full-Time Employees	3,600	Part-Time Employees	97
Former Business Name <i>if applicable</i>	N/A		
RFP Point of Contact Name / Title	Bona Nasution	Senior Account Executive	
RFP Point of Contact Email Address	Bona.Nasution@tylertech.com		
Subcontractor Use: Vendor is solely responsible for all deliverables?	Vendor above solely responsible for all requirements & deliverables		
Financial Details		Summarize financials below. Enter n/a or zero as applicable.	
		2013	2014
Revenue/Sales	\$	416,643,000	\$ 493,101,000
Cash	\$	78,876,000	\$ 206,167,000
Accounts Receivable	\$	106,570,000	\$ 112,660,000
Short Term Investment			
Current Assets	\$	217,235,000	\$ 346,710,000
Total Assets	\$	444,488,000	\$ 573,982,000
Current Liabilities	\$	192,110,000	\$ 232,839,000
Total Liabilities			
Cash From Operations	\$	66,090,000	\$ 123,437,000
Current D&B Rating	5A2	Audited Financials Included?	yes
Explanation for Any Missing Financial Information Above:			
Conflict of Interest		Attach detailed explanation for any item(s) marked yes.	
Are there any known business or financial relationships between your firm and members of the State Bar's Trustees?	<a href="#">Current Board of Trustees Roster</a>		no
Are there any known business or financial relationships between your firm and the following State Bar staff:	EMPLOYEE NAME	DEPT / ROLE	Y / N
	Leah Wilson	Executive Directors Office	no
	Resty Buenavidez	Information Technology	no
	Murat Avsar	Information Technology	no
	Coling Wong	State Bar Court	no
	Marilyn Tichenor	State Bar Court	no
	Dane Dauphine	Office of Chief Trial Counsel	no
	Joy Nunley	Office of Chief Trial Counsel	no
	Dina DiLoreto	Member Records	no
	Michele Crampton	State Bar Court	no
	Justine Ewert	Executive Directors Office	no
	Dina Goldman	General Counsel	no
	Andrew Conover	Procurement & Risk	no
Principal Officers / Account Management		Attach detailed explanation for any item(s) marked yes.	
Principal 1 Name / Title	Jeff Puckett	President - Courts & Justice Division	
Principal 1 Primary Office Address / Direct Email Address	5101 Tennyson Parkway, Plano TX 75024	Jeff.Puckett@tylertech.com	
Principal 2 Name / Title	Eric Cullison	Vice President, Sales - Courts & Justice Division	
Principal 2 Primary Office Address / Direct Email Address	5101 Tennyson Parkway, Plano TX 75024	Eric.Cullison@tylertech.com	
Account Manager name, phone	Bona Nasution, (206) 465-6556	Senior Account Executive	
Account Manager primary office address, direct e-mail address	5101 Tennyson Parkway, Plano TX 75024	Bona.Nasution@tylertech.com	
Supplementary Information		Explain any item(s) marked yes below.	
Has any current office bearer above been involved with a business failure?	no		
Has any current office bearer declared bankruptcy?	no		
Has any current office bearer been involved in a government investigation?	no		
Is there any current, pending, or finalized litigation against your organization during the past 5 years?	no		
Any debt collections by debt collection agency on behalf of creditors of your organization or current office bearers?	no		
Are there any other contingent liabilities not reported in the financial statements, that are likely to impact your financial position?	no	E25	

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## 4.0 References

*A description of at least three (3) similar projects completed by the bidder within the past three (3) years. Include references with contact information for each. References for the proposed application software must be currently in use supporting operations similar to the departmental areas specified in this RFP*

### Tyler Technologies Clients

Odyssey is, without question, the most widely adopted Commercial-Off-The-Shelf (COTS) case management system nationwide. Tyler Technologies has an extensive installed user base extending across multiple states and numerous counties. Over 33% of the U.S population is served by Odyssey, spanning 21 states and over 400 counties. With the development and release of the Odyssey solution, we have risen to market-leader status and are proud to serve jurisdictions of all sizes across the nation. Currently, Tyler's Odyssey case management solution has been implemented in thirteen statewide contracts including hundreds of counties within those states. Many of these clients share similar scope to the project being proposed by the California State Bar.

Many of the customers that Tyler serves has unique needs that can optimally be addressed by a single case management solution environment. We believe that only our dedicated Odyssey implementation team has the depth of experience necessary to implement such solutions in organizations that are as complex and sizable as the California State Bar. More importantly, Odyssey is the only solution that has been proven capable to meet the needs of some of the largest and most complex justice organizations in the State of California, and across the country. Below is a brief summary of Tyler's experience with successfully implementing the Odyssey solution:

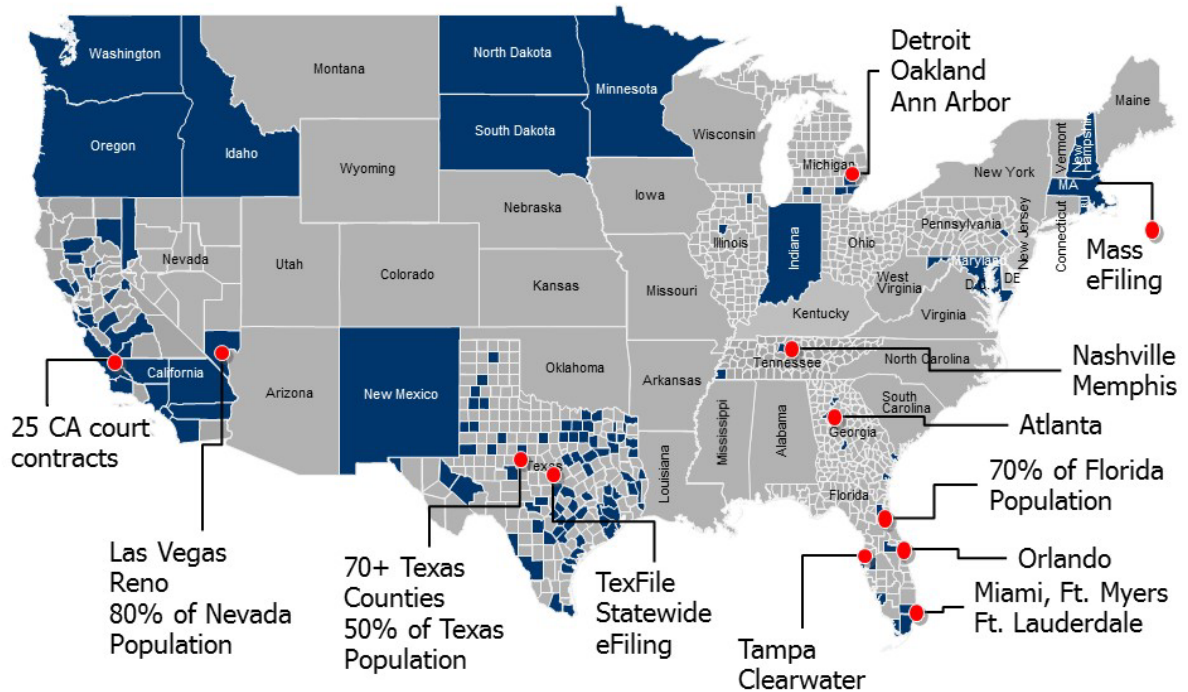
- **Statewide Implementations** – the Odyssey suite is currently implemented, or being implemented, in thirteen statewide implementations. These include the following:
  - State of Oregon
  - State of North Dakota
  - State of Minnesota
  - State of Maryland
  - State of Rhode Island
  - State of Washington
  - State of Massachusetts (efiling only)
  - State of New Mexico
  - State of South Dakota
  - State of Indiana
  - State of New Hampshire
  - State of Idaho
  - State of Texas (e-filing only)
- **Large Urban Implementations** – Odyssey is currently in use, or being implemented, in some of the largest urban jurisdictions throughout the country. These include:
  - Los Angeles, California
  - San Jose, California
  - Harris County, Texas
  - San Diego, California
  - Dallas County, Texas
  - Alameda County, California (Oakland)
  - Orange County, Florida (Orlando)
  - Wayne County, MI (Detroit)
  - Hennepin County, MN (Minneapolis)
  - Clark County, NV (Las Vegas)

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- Miami-Dade, Florida
- Bernalillo County, NM (Albuquerque)
- Tarrant County, Texas (Ft. Worth)
- Hillsborough County, Florida (Tampa)
- Orange County, California

- **Population Served** – As depicted in the map below, Odyssey is currently serving approximately 33% of the population in the United States of America.

**Figure 4.0.1 – The Tyler Odyssey Community**



By selecting Odyssey and Tyler, the State Bar would be joining the largest state and local justice community in the United States. This collective community of knowledge, experience, and insight can be incredibly valuable to the State Bar during the transition process of deploying Odyssey as well as for establishing creative solutions for meeting future growth needs.

The Odyssey community continues to grow, not just across the country, but especially in California. Tyler Technologies successfully contracted its first Odyssey customer in California three years ago in November of 2012. Today, Odyssey has been contracted in 25 of the 58 counties within the State of California serving over 70% of the state's population.

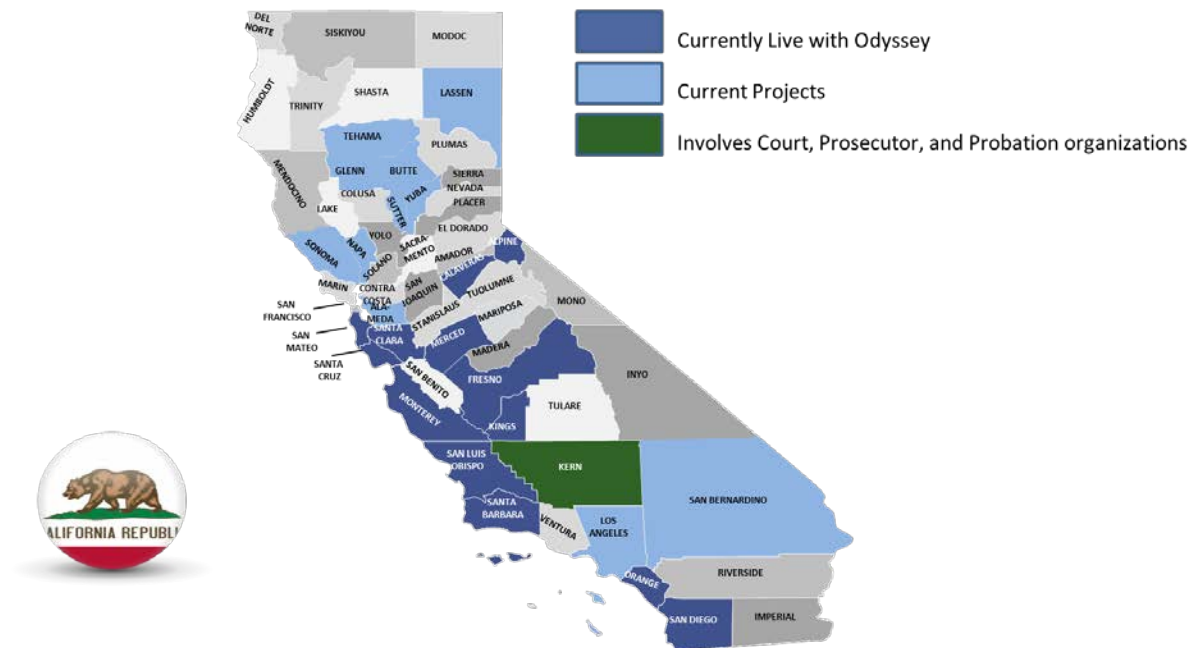
Furthermore, Tyler is proud to be able to state that Odyssey is live, and operational in production in fourteen California counties today:

1. San Luis Obispo
2. Kings
3. Merced
4. Kern
5. Fresno
6. Santa Barbara
7. Calaveras
8. Alpine

- |               |                 |
|---------------|-----------------|
| 9. Santa Cruz | 10. Monterey    |
| 11. San Diego | 12. San Mateo   |
| 13. Orange    | 14. Santa Clara |

Odyssey's presence in California has grown at a very rapid pace over the last several years, as our first successful implementation (go-live) in San Luis Obispo commenced in January of 2014. This is primarily due to the superior courts' business and operational needs in California. Odyssey is a multi-module framework that caters to all aspects of the justice system, thus it is worth emphasizing how fast the Odyssey community has grown.

Figure 4.0.2 – The Tyler California Odyssey Community



Odyssey implementation projects are also ongoing in another 11 counties throughout the state of California:

- |                 |                    |
|-----------------|--------------------|
| 1. Butte        | 2. Tehama          |
| 3. Lassen       | 4. Glenn           |
| 5. Yuba         | 6. Sutter          |
| 7. Napa         | 8. Sonoma          |
| 9. Alameda      | 10. San Bernardino |
| 11. Los Angeles |                    |

Additionally, Kern County (Bakersfield, CA) has recently executed a contract with Tyler to implement an Integrated Criminal Justice (ICJ) solution for the Jail, Probation Department, District Attorney, and Public Defender. This project would be coordinated with the Kern Superior Court's ongoing Odyssey implementation.

By selecting the Odyssey, the State Bar would solidify its investment in joining the largest justice solution community in the country. This collective community of knowledge, experience, and



insight can be incredibly valuable during the transition process to a modern solution, as well as for establishing creative solutions for meeting future business growth needs.

## References

The references that Tyler is providing below includes the same application software being proposed to the departmental areas specified in the State Bar's RFP. More importantly, the software is currently in use (operational in a production environment). Each of the projects listed below are either ongoing (with portion of the customer live for certain case types) or fully completed within the past three years.

### Reference 1

San Mateo Superior Court, California	
<b>Contact Information</b>	Mr. Rick Walery Court Director of Information Technology 400 County Center Redwood City, CA 94063 (650) 261-5182 <a href="mailto:rwalery@sanmateocourt.org">rwalery@sanmateocourt.org</a>
<b>Customer Base/Population Served</b>	739,311
<b>Number of System Users</b>	Approximately 300 total users (including 30 judges), spread over 4 locations.
<b>Project Status/Date of Installation</b>	Ongoing. Currently live with Odyssey for criminal and juvenile delinquency case types. All remaining case types scheduled for completion in 2016.
<b>Project Value</b>	Multiple contracts totaling \$3.7 million
<b>Project Summary</b>	Complete Odyssey implementation throughout the Court for all case types, to include case management, in-courtroom tools, document management, financial management, electronic filing, and electronic payments.

### Reference 2

Kern Superior Court, California	
<b>Contact Information</b>	Mr. Tim Davis Deputy Court Executive Officer, Information Technology 1415 Truxtun Avenue Bakersfield, CA 93301 (661) 868-2696 <a href="mailto:Tim.Davis@kern.courts.ca.gov">Tim.Davis@kern.courts.ca.gov</a>
<b>Customer Base/Population Served</b>	864,124

<b>Number of System Users</b>	Approximately 400 total users (including 40 judges), spread over 12 locations.
<b>Project Status/Date of Installation</b>	Ongoing. Currently live with Odyssey for non-criminal case types. All remaining case types scheduled for completion in 2016.
<b>Project Value</b>	\$4.1 million
<b>Project Summary</b>	Complete Odyssey implementation throughout the Court for all case types, to include case management, in-courtroom tools, document management, financial management, electronic filing, and electronic payments.

## Reference 3

Collin County District Attorney's Office, Texas	
<b>Contact Information</b>	Ms. Misti Bilderback Functional Analyst 2400 Bloomdale Rd, Suite 100 McKinney, Texas 75069 (972) 548-4159 <a href="mailto:mbilderback@co.collin.tx.us">mbilderback@co.collin.tx.us</a>
<b>Customer Base/Population Served</b>	854,778
<b>Number of System Users</b>	166 total users
<b>Project Status/Date of Installation</b>	Currently live with Odyssey Attorney Manager and other Odyssey products
<b>Project Value</b>	Part of multi-agency county contract with multiple contracts totaling roughly \$4 million
<b>Project Summary</b>	Collin County, TX has implemented the Odyssey justice suite throughout the County, including the courts, jail, and district attorney's office.

## Reference 4

Santa Clara Superior Court, California	
<b>Contact Information</b>	Mr. David Yamasaki Court Executive Officer 191 N. First Street San Jose, CA 95113 (408) 882-2700 <a href="mailto:DYamasaki@scscourt.org">DYamasaki@scscourt.org</a>
<b>Customer Base/Population Served</b>	1.862 million

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<b>Number of System Users</b>	Approximately 700 total users (including 70 judges).
<b>Project Status/Date of Installation</b>	Ongoing. Currently live with Odyssey for non-criminal.
<b>Project Value</b>	\$4.4 million
<b>Project Summary</b>	Complete Odyssey implementation throughout the Court for all case types, to include case management, in-courtroom tools, document management, financial management, and electronic filing.

## 5.0 Project Team Qualifications

*Qualifications, background and experience of the project director and other staff proposed to work on the project.*

California is an important new market for Tyler's Courts and Justice Division. Tyler has made substantial investments into the product and into Tyler resources and staffing to meet the specific demands in California. Given the unprecedented growth in the State, where half of the State sought for new CMS solutions in the last several years, Tyler was the only CMS solution provider that was prepared to handle the market demand.

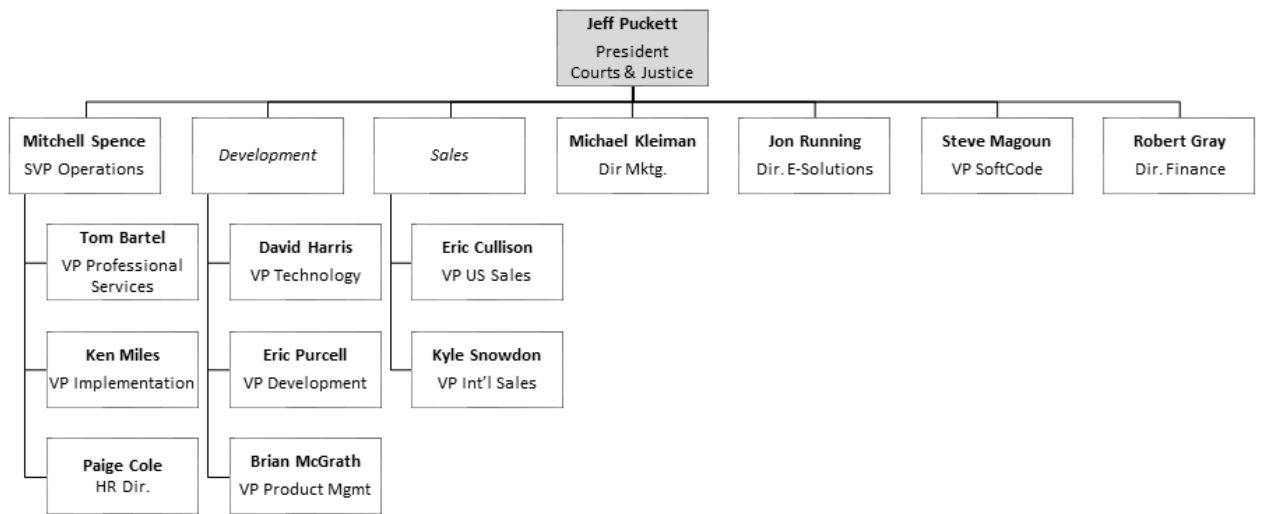
Tyler quickly adapted to the market demand in California and has built a California specific team of resources that are dedicated to all California aspects, from minute generation, financials, to sentencing. Internally, we have established an approach that enables our most experienced resources to share knowledge and time across multiple California projects. This enables our customers to gain insight on what other California courts have completed in certain business areas. Although the State Bar Court operates differently from a California superior court, there would still be many benefits from the lessons learned that Tyler has accumulated over the past years given our large customer base with California superior courts. Tyler resource's knowledge of California specific business processes, statewide integrations, and attorney services could prove instrumental to the California State Bar's case management solution implementations.

The State Bar will benefit from the fact that Tyler has several years of California case management solution implementations under its belt now. This experience shows in the growth and depth of our project resources and staffing. Consistent with the proposed implementation approach, Tyler recommends a small and dedicated project team with oversight direction and guidance from experienced Tyler operational directors and vice presidents. A corresponding focused project team of individuals ensures that decisions are made quickly and the State Bar resources aren't having to balance project work with other day-to-day activities.

### Project Governance

For complex, highly visible projects such as this, the State Bar can expect oversight and involvement from the Tyler Executive Leadership Team to continually support our implementation teams and monitor the project's progress. This includes continuous monitoring of the project schedule, development progress, and political environment; providing assistance and supplemental expertise to address emerging problems and allocate resources as required. The organizational charts below identifies Tyler's Executive Leadership Team identified in Figure 5.0.1.

Figure 5.0.1 – Tyler Courts &amp; Justice Executive Leadership Team



To perform the anticipated project activities, Tyler will provide resources divided into teams. These teams then conduct a validate project scope and develop detailed plans for their respective project tasks, based on a phased implementation approach. Typically, activities are assigned to following teams:

- **Business Team** – Responsibilities include software modifications, application configuration, and business process re-engineering.
- **Conversion Team** – Responsibilities include data conversion, validation, and verification.
- **Integration Team** – Responsibilities include integration design, implementation, and testing.
- **Training Team** – Responsibilities include training/help materials development, curriculum planning, scheduling, and training delivery.

Teams are then assigned specific responsibilities for each activity. In all cases, a specific team retains primary ownership for a project activity. However, other teams may be specifically designated as activity participants. This collaborative approach ensures teams do not function in silos and cross-team information sharing occurs where appropriate. The following figure depicts project team structure and roles.

Activities	Implementation Teams			
	Business Team	Conversion Team	Integration Team	Training Team
Fit Analysis	Owns	Participates	Participates	Participates
Data Conversion	Participates	Owns		
Modifications	Owns			Participates
Integrations	Participates		Owns	
Configuration	Owns			Participates
Training Preparation	Participates			Owns
Go-Live Preparation	Owns	Participates	Participates	Participates
Training	Participates	Participates	Participates	Owns
Go-Live Assistance	Participates			Owns

Tyler does not use a standard consultant services methodology to staff its implementations. Rather than assigning a fixed team of resources to the State Bar, Tyler believes in establishing a permanent Tyler project management structure and then allocating resources to the client based on current project activities. Tyler maintains specialized teams for conversion, business analysis, training, integration, configuration, and development. While the project management team will be assigned to the project full time, other resources will be assigned on a task-by-task basis, based on the activities currently in progress on the project. This provides the client with the right resources, at the right time, for the right task.

## Project Team Management

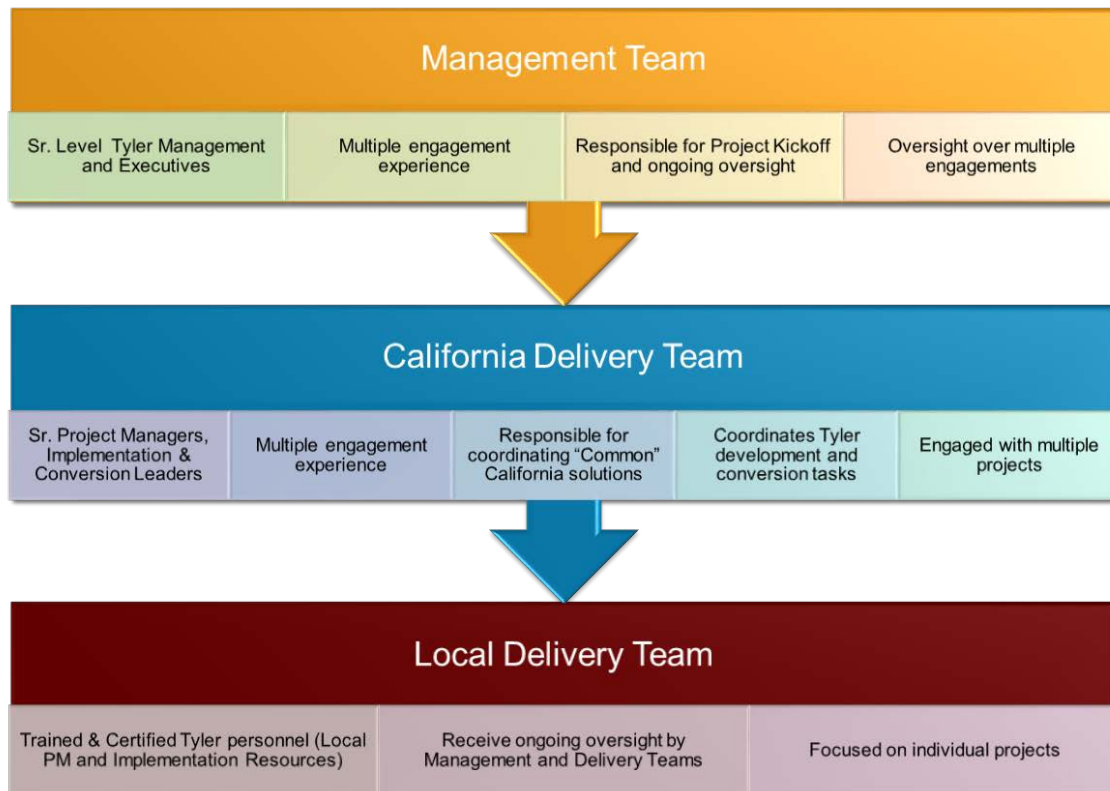
Unlike any of Tyler's competitors in the marketplace, Tyler has a wealth of relevant experience deep into multiple project teams and hundreds of staff resources. This relevant experience extends to California-specific knowledge and experience pertaining to California financials, sentencing, minute order development, data conversion, state-level integrations, and business processes.

For the State Bar, Tyler is proposing to leverage the same recipe for success that has taken an unprecedented fourteen California superior courts live to production in the last two years. Tyler is consistently building, sharing, and leveraging implementation experience across internal teams to establish efficiencies and learn from any previous project shortcomings.

Figure 5.0.2 below illustrates the hierarchical structure of Tyler's experienced project team. The foundational layer "Local Delivery Team" will consist of the dedicated project staff working on the State Bar's project. The specific names of these individuals is dependent upon the exact timing of contract execution and/or project initiation, should the State Bar decide to award Tyler with the CMS implementation project.

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Figure 5.0.2 – Tyler Proposed Project Organization Chart



The "California Delivery Team" and "Management Team" layers consists of Tyler resources that are involved with multiple California projects. These layers offer benefits that no other competitor in the market can offer the State Bar. Specifically, this layer of resources can provide real-world answers pertaining to how other California agencies met a specific business need. For e.g., the State Bar will have direct access to knowledge pertaining to how the Kern County District Attorney files their complaints, or how the San Mateo Superior Court implemented in-courtroom tools for their judges. With experience in over two dozen other California projects, the State Bar will gain answers to an unlimited number of unforeseen questions that come with every software implementation project.

Based on resource availability at the time of contract execution, Tyler will finalize members of our proposed project team. Tyler's Project Team will be headed by a resources under the direction of Tyler's Director of Implementation, Ronnie Everett and Tom Bartel, Vice President of Professional Services.

In addition to the Project Management and California Delivery Team above, Tyler conducts all of our Odyssey implementations using our internal implementation staff led by the following individuals or members of their team.

***Ken Miles – Vice President of Operations***

Mr. Miles reports to the Senior Vice President of Operations of Tyler's Courts and Justice Division and is responsible for managing the Odyssey Implementation, Consultant, and DBA Conversion teams. Mr. Miles has six years of law enforcement experience as a commissioned officer working in and around courts, prosecutors, clerks, jails, sheriff, and police agencies. Mr. Miles also has 10 years of experience implementing integrated justice solutions and process re-engineering. His responsibilities include managing budgets, project scheduling, product configuration, site rollout, and client communication. He has assisted our analyst team, overseeing product modifications to ensure compliance with state-mandated interfaces and reporting. Mr. Miles has been with Tyler since the initial launch of the Odyssey Case Manager product performing training, implementation support, analysis, and project management.

***Amy Puckett – Senior Product Director***

Ms. Puckett is the Product Manager for Tyler's Courts and Justice Division software products. As Product Manager, she defines the product direction and enhancement roadmap. She also leads a team of Product Owners who work closely with the client to obtain and prioritize business requirements for new software development. She has more than 20 years of professional experience in the judicial sector, with an emphasis on courts and integrated criminal justice. Ms. Puckett has worked on designing, implementing and supporting products in all of Tyler's justice related products, including being the initial primary designer for Tyler's Odyssey Case Manager. She has a Bachelor's Degree in Business Computer Information Systems and is a vendor representative on the National Center for State Court's Case Management Standards Committee.

***Ronnie Everett – Director of Implementation***

Mr. Ronnie Everett is Tyler's Director of Implementation and is ultimately responsible for the project. Mr. Everett has over 10 years of experience implementing the Odyssey environment and served as the Project Manager for the Odyssey implementation for the State of North Dakota and Reno/Sparks Justice Courts. Mr. Everett is was also instrumental in providing leadership for a number of Tyler's current California Odyssey implementations, including the San Diego Superior Court, the Alameda Superior Court, and the Santa Cruz Superior Court – one of the California courts most similar in size to the State Bar Court.

***Stephanie Ives – Senior Product Owner***

Ms. Ives is currently the Senior Product Owner for Odyssey's eSolutions products. Starting her Tyler career almost 15 years ago as a Support Specialist, she has a wide breadth of knowledge of the courts and justice process. Since transitioning to the Development Department in 2004, Ms. Ives has served many roles, including Development Manager and Product Owner for Odyssey's Attorney Manager, Check Manager, and Law Enforcement product centers. She has continued to implement and support all of Tyler's justice-related products and has been pivotal in the continuous growth of the Odyssey Product Suite. She graduated from Texas A&M University with a Bachelor's degree in Business Administration with an emphasis in Management Information Systems.

***Vanessa Gomez – Product Owner***

Ms. Gomez is currently a Product Owner for the Integrated Courts and Justice (ICJ) solution and Odyssey's Attorney Manager. She is currently working with development and project



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management on implementing the first Attorney Manager and ICJ client in California. She has 10 years of experience with all Odyssey products in the Odyssey product suite. Ms. Gomez has strong client experience serving in many roles at Tyler including Senior Business and Design Analyst and Client Support Representative. She graduated from Midwestern State University with a Bachelor of Business Administration.

#### *Kevin Jones – Conversion Team Manager*

Mr. Jones has been with Tyler for over eleven years and leads a team of conversion architects and developers who assist with and perform Odyssey data conversions. Mr. Jones has twenty years of experience ranging from application development and database administration to implementation, conversion, deployment, support, and consulting. Mr. Jones worked for two Fortune 500 companies and a big four consulting firm before coming to work at Tyler. Mr. Jones oversees Tyler's conversion activities for consistency, quality, efficiency, and timely delivery. Mr. Jones holds a Bachelor of Business Administration with a focus on Management Information Systems from Texas A&M University.

#### *Karen Hunter – Odyssey Development Manager*

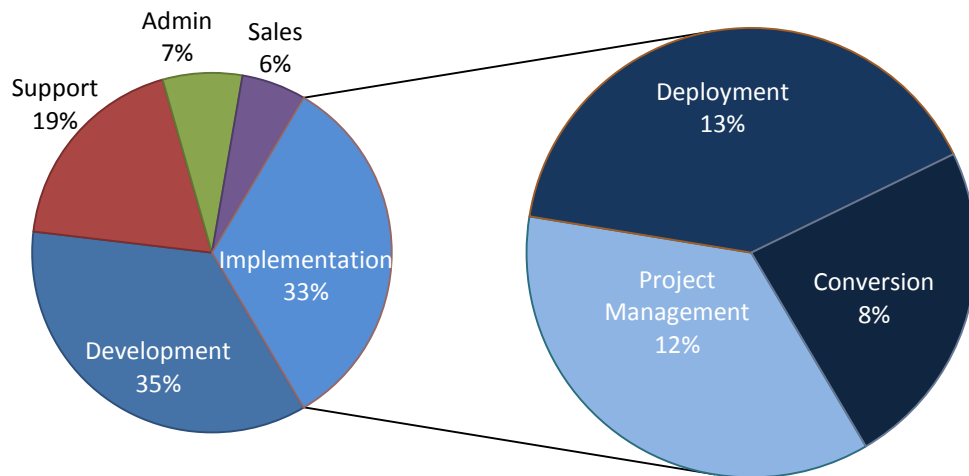
Ms. Hunter is the manager of Client Solution Architects (CSAs) who specialize in the business consultation of the Odyssey application and are responsible for the Fit Analysis and resulting projects. As one of the original Business Analysts of the Odyssey Courts and Justice Suite, Ms. Hunter has over 10 years of experience with the Odyssey application and has worked on designing, implementing and supporting products in all of Tyler's justice-related products. She graduated from Texas A&M University with a Bachelor's Degree in Business Analysis and a minor in Accounting.

### Implementation Staff

Tyler is proposing this proven model for the implementation of this project using experienced internal resources. Figure 5.0.3 below provides a graphical representation of the allocation of staff internally within the Courts and Justice Division, and specifically the professional services group responsible for a successful implementation.

Figure 5.0.3 – Courts and Justice Implementation Staff

Over 180 personnel dedicated to  
client implementations



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## 6.0 Product Life Cycle Plan

*Documented product life cycle plan for the application(s) proposed. Product life cycle must span at least four (4) years beyond 2015 and must include one (1) or more years prior to 2015.*

Tyler understands the State Bar's request and need for a proven off-the-shelf case management solution. All Odyssey clients are installed with the same line of code based on the current release cycle, plus client-specific custom business rules, jobs, and reports that are necessary for their operations. We attempt to keep very few versions of the product in the field in order to cut down on software maintenance costs to the clients.

### Future Vision and Strategy

As a solutions provider, Tyler is focused on providing long-term value to its clients through continual investment both in new product functionality and in ongoing product evolution. Our goal is to position our clients such that they will never again face a new relicensing event. Rather, through an ongoing maintenance relationship, Tyler will provide an "Evergreen" product that continually incorporates new features, new technologies, and new platforms. This evergreen product management philosophy is part of Tyler's corporate culture and our 30+ year history serving local government.

Tyler's Evergreen perpetual licensing strategy ensures that clients can safeguard their investments by benefiting from new features, evolving core technology, and continued compliance with legislative requirements for as long as the client stays on a maintenance plan. This philosophy is illustrated in Figure 6.0.1 with the functional and technical evolution of the Odyssey Suite.

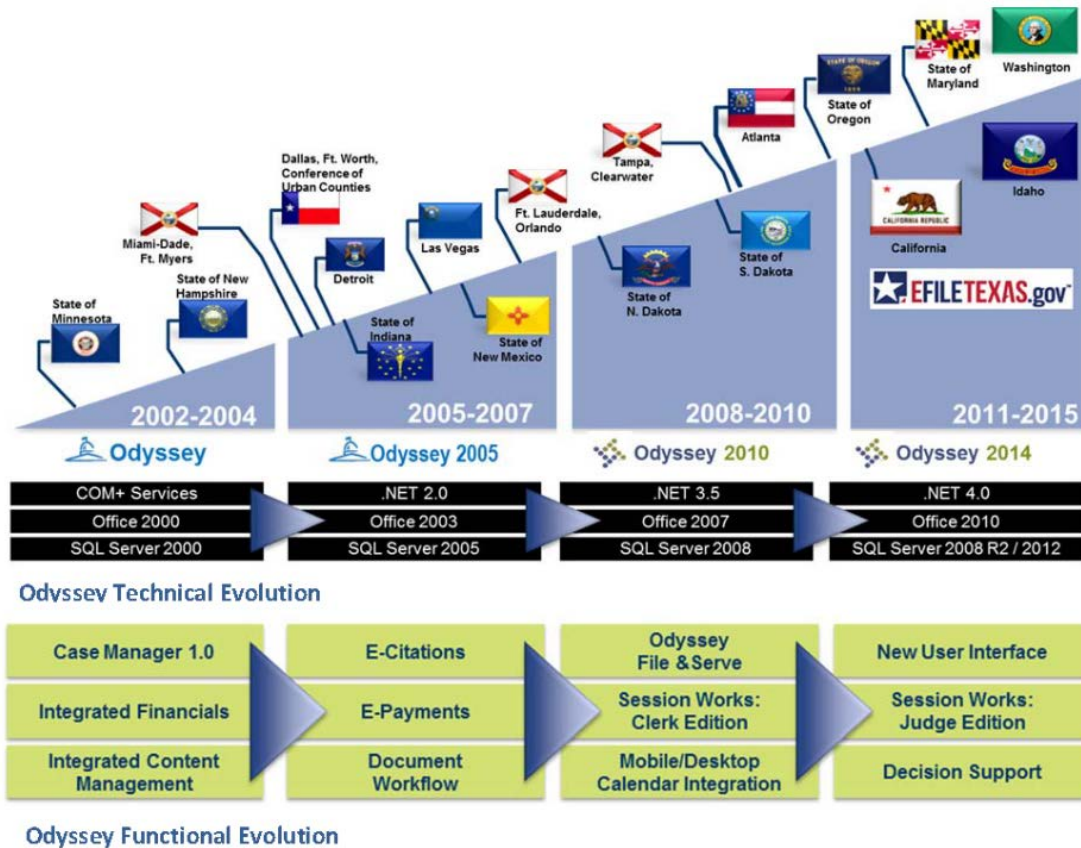
At Tyler, a successful go-live is just the beginning. Tyler's Odyssey product suite gives you not only a solution with end-to-end services and support, but also a reliable partner for the long term. This starts immediately and continues through project implementation and all the years you use Odyssey.

A key to the value of support services is continued access to the most current technology. Our large staff of engineers continuously and exhaustively evaluates new technologies and integrates the best of them into Odyssey. Tyler assumes the risk and the expense of new technology evaluation so you can focus your IT resources on other projects. We deliver new technology through ongoing product updates and enhancements.

Since every software product has an expected lifecycle, our goal is to protect and extend your initial investment in Odyssey by enabling you to move to future generations of Odyssey without making another significant investment in license fees. Your initial investment in Odyssey will continue to pay off for decades to come.

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Figure 6.0.1 – Odyssey Evolution



Tyler's Product Management team is constantly communicating with our clients and watching industry trends in order to provide the broadest and deepest set of product features for our clients. We attend industry trade shows, participate in online client discussions in the Tyler Community web portal, host onsite Client Steering Committees, and participate heavily in Tyler Client User Conferences around the country. All of these channels of communication provide us with the insight to develop both a near term, as well as future product roadmap that we can articulate clearly to our clients on an annual basis.

In addition to focus groups developed to address specialized subjects, Tyler organizes and hosts User Group conferences yearly where users have the opportunity to confer with other Odyssey users. Presentations showcasing new/improved product functionality are scheduled and round table discussions are held. The benefits of attending include:

- First look at future technology that will be included in the product
- Product training classes are offered covering current technology and "Best Practice" scenarios
- Opportunity to provide feedback on desired product modifications
- Opportunity to network and learn from other Odyssey users
- Meet Tyler's staff in person

Our most recent event called Connect 2015 was held in Atlanta, GA, May 3-6. Attended by over 2,500 Tyler customers, this event provided an opportunity for us to interact with our clients and offered a forum for customers to learn how to get the most out of our software. We offered over 800 classes and product demonstrations from basic refresher courses to more extensive overviews, product demonstrations, and workshops.

We have learned through our extensive experience within the software development industry that no client ultimately wants to find themselves on a version of a software product that only they have installed or to find themselves on a version of a product that has been customized in such a way as to cut them off from an upgrade path. Tyler is committed to a long-term relationship with each and every client. Maintaining an upgrade path, with no additional licensing event, is a key tenet in that relationship.

### Future Direction

One of the primary tenets for the Odyssey solution is that all aspects work together as seamlessly as possible, even where it has not been attempted in the past. Tyler is constantly looking for those integration points to resolve in both the near and long-term product roadmaps. Tyler wants to ensure that all areas of the solution work the way they should; instead of the way they always have.

Another principal tenet is that Tyler provides an evergreen model for the software. What that means to the customer is that Tyler is committed to evolving the foundational elements as technologies advance, without an additional software licensing event. This is no small feat, but is part of how Tyler protects our customer's investments with us and is a key part of our strategy. With that in mind we look for enabling technologies that can help us change out the "plumbing", evolve the user interface and enable completely new features/modules without disturbing the core.

Tyler's consistent reinvestment in Odyssey enables us to offer the "future" of case management technology today. Tyler's "evergreen" product strategy means that the customer never needs to relicense the same product in order to receive the newest release with the latest features.

In discussions with customers' executives around the country, we have heard for the last several years that their operations need to do more with less people and they are running out of physical space in their operating locations. Tyler responded by adjusting our Odyssey roadmap to ensure that we were focusing on features that would bolster efficiency as well as self-service. Features, so that those that wanted to, could conduct business online. Though online transactions are a mainstay in our economy, only recently are we starting to see the widespread desire to apply the same concepts in the public sector and specifically the courts, attorneys, and justice agencies. Building on self-service features and a solid ecommerce presence, we believe that our customers will next look towards how they can push even more services outside the physical walls of their buildings – such as creating a "virtual courthouse".

As one would expect, the farther out into the future you go, the less "set in stone" the product roadmap is. For example, tablet computers have been around for about a decade. Mobile data access has been around about the same. However, it has really been just the last four to five

years where those two technologies merged and have become embedded in our technical culture, both personal and business. Tyler was able to adjust our roadmap and has begun to implement safe and practical solutions as identified in several places on the roadmap for mobile solutions. It is difficult to predict what may be available to us technologically in the next four to five years that does not exist today. Tyler will adjust the roadmap if necessary, in order to be ready to identify a safe path for our clients to take advantage of those new advances.

The following are areas that Tyler anticipates enhancing over the next few years:

- enhanced use of electronic and digital signatures
- expanded electronic filing to third party prosecutor systems for criminal case filing
- enhanced public access services using HTML 5
- move towards full 64-bit architecture

We would be happy to discuss these, and other planned enhancements with you in more detail. It is important to note that our development track and timing is always subject to change and any future plans are generalized and are not commitments to actually undertake such development.

### Life Cycle History

For the last few years the Odyssey roadmap was focused around three major themes, which are briefly summarized below. Most, but not all, major development over the past five years can be tied back to one of these themes.

Theme	Summary Description
<b>Efficiency of Court/Clerk Operations</b>	Any feature or function that could provide more work with same or less people.
<b>Paper On Demand</b>	We and our clients identified years ago that a paper-bound process is less efficient, both in terms of business process and also in physical storage costs. Any feature or function that could move customers to less paper.
<b>Attorney/Citizen Self-Service</b>	Online services in a common user authentication and ecommerce structure.

Below are major features that were on the roadmap for the Odyssey 2012 through 2014 and provides a glimpse of some features that were established over the past few years.

ODYSSEY 2012	
EFFICIENCIES	
<b>eNoticing</b>	The ability for attorneys to register for email court notifications, in addition to or instead of paper. Attorneys then receive an email with a unique URL to the information/document to retrieve at their convenience. Court staff has easy access to a full audit trail of when the email was sent, received and opened.
<b>Schedule related cases</b>	The ability for specific related case reason codes (e.g. co-defendants, consolidated for trial, etc.) to prompt the user to also schedule the related cases when they schedule any one of the cases.
<b>myOdyssey workspace</b>	A user workspace, like a dashboard, has been added to show information that is most important to the user. The activity tiles found in the workspace maintain settings for the individual user in their profile. The extensible architecture used for the workspace allows for the continuous addition of new activity tiles and the creation of activity tiles by the customer's IT staff. Users quickly get more detailed information with a single click and can even directly take action on an item.
PAPER ON DEMAND	
<b>Document retention/destruction</b>	The ability to find cases that are ripe for destruction based on local retention rules. Users can then work from a master queue to proof and mark cases ready for destruction. A nightly job with time-sensitive parameters can then permanently destroy the documents and optionally secure the case data.
<b>Document security enhancements</b>	Restructured existing document security to allow for more flexible customizations via document security roles.
<b>Full support for PDF</b>	A new set of libraries that facilitate the creation, translation and manipulation of PDF documents have been added to the Odyssey infrastructure. These industry-leading document manipulation tools allow the application to perform the same operations on PDF documents that have been supported for TIF images in the past. During the workflow process, Odyssey will seamlessly decide which viewer to display so that the user has as similar a look/feel as possible whether working with TIF or PDF.



<b>Electronic signatures for TIF/PDF via signature pad</b>	eSignatures has been expanded to include the ability to support applying an existing signature from your user-id or the capture of a signature from a signature pad onto an existing TIF or PDF.
<b>Clerk annotations for documents in SessionWorks Judge Edition</b>	The ability for a user in Odyssey to add a note that will “pop up” for the judge using SessionWorks on the bench, much like an electronic sticky note.
<b>NEW PRODUCT FEATURES</b>	
<b>Exhibit tracking updates</b>	Enhanced the configurability of the evidence room layout tracking. Added bar coding for labeling of exhibits. Added the ability to perform data entry actions on a batch of exhibits (e.g. status updates, location moves, bar code label printing, etc.). Added new search features and new reports.
<b>Protection orders</b>	Restructured the data entry screens and added data elements to be compliant with National Crime Information Center (NCIC) interfaces as well as the National Center for State Courts (NCSC) Project Passport cover sheet for protection orders. Allowed for a customizable client-specific set of data elements in addition to the core data. Provided new reporting.
<b>SUPPORT OF THE ODYSSEY COMMUNITY OF CLIENTS</b>	
<b>Tyler Community</b>	Tyler launched an interactive social networking site for all Tyler customers so they can post questions, find answers and network with their peers about their Tyler products.
<b>Tyler Online Training</b>	The ability for clients to participate in Odyssey online self-study courses, instructor-led webinars and archived on-demand webinars in order to support the ongoing education of existing staff as well as the “on boarding” of new staff.

## ODYSSEY 2013

### EFFICIENCIES

<b>Windows Workflow Foundation</b>	The addition of Windows Workflow to the Odyssey technology stack allows for greater flexibility in the definition of process flows, including the ability to extend the application to satisfy specific customer requirements without changing core functionality for the existing customer base. The workflow designer presents a graphical view of the business process along with the definition of configuration parameters for each activity in the process. The workflow designer accurately reflects the
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	actual business process to be executed by the application, giving a client visual feedback for each business process executed in their environment.
<b>Task management</b>	Either manually entered or automatically triggered from a workflow activity, tasks can be created and assigned to work queues. Tasks are surfaced via a myOdyssey workspace activity tile and in many instances the work can be launched directly rather than having to navigate to another record.
<b>Copy data from one case to another</b>	The ability to select a set of parties, docket entries, charges, etc. from one case and copy them to one or more target cases.
<b>Auto schedule hearing from a docket entry</b>	The ability to auto schedule a hearing based on a docket entry.
<b>Maintain interpreter certifications</b>	Extended the ability to assign multiple interpreters across multi-day hearings. Added the ability to track qualification and certification details. Updated existing reports to include selection criteria for qualification and certification.
<b>Interactive address validation with 3rd party service</b>	Provided standard web services to interface with 3 <sup>rd</sup> party address validation services. Users entering an address in Odyssey can select an option to validate the address, choose from a list if necessary and mark that address as validated/unvalidated. Note that this feature requires the licensing of a 3 <sup>rd</sup> party address validation service.
<b>Add recurrence to calendar resource unavailability</b>	The ability to set a recurrence of unavailability time on a calendar (i.e. regularly scheduled/anticipated holidays or meetings) during which time no scheduling should occur.
<b>Expand sort options for court sessions</b>	Added additional sort and sub-sort orders to the calendars to account for more complex sorting rules in criminal sessions.
<b>SessionWorks Clerk Edition support for civil cases</b>	An extension to the existing Odyssey courtroom data entry product, SessionWorks Clerk Edition, to support data entry and generating minutes for high volume civil courts.
<b>PAPER ON DEMAND</b>	
<b>Searchable documents from SessionWorks Judge Edition</b>	The ability to search within a document or across all documents in a case when viewing the electronic case record via Judge Edition.

<b>Electronic signatures in Word via signature pad</b>	eSignatures has been expanded to include the ability to support applying a signature from a signature pad into the Word merged form.
<b>Support mailroom printing</b>	Instead of printing locally via standard Windows desktop printing, the ability to route a print job (e.g. form, report, etc.) to a print server that is responsible for sending the jobs to the appropriate printers.
<b>ATTORNEY/CITIZEN SELF-SERVICE</b>	
<b>Odyssey portal</b>	<p>Case lookup (public cases only)</p> <p>Document lookup and purchase (public documents only)</p> <p>Calendar lookup (court approved sessions only)</p> <p>Attorney self-schedule (court approved sessions only)</p> <p>Mobile applications for all four features listed above</p>
<b>Expanded activities in myOdyssey workspace</b>	Addition of new workspace activities that include easy access to recent print jobs, my favorite reports, a configurable process checklist and incoming messages and RSS feeds from Tyler Community.
<b>TECHNICAL</b>	
<b>Active reports upgrade</b>	Upgraded the version of Active Reports, which is the underlying software in which many of the Odyssey core reports are written.

<b>ODYSSEY 2014</b>	
<b>EFFICIENCIES</b>	
<b>Continued expansion of myOdyssey workspace activities</b>	Addition of new workspace activities that include a visual representation of a family unit in Odyssey and a graphical representation of the timeline that a case has taken through Differentiated Case Management (DCM).
<b>Officer check-in at the courthouse</b>	A web-hosted application for an officer or someone on behalf of the officer to make comments regarding their arrival times at the courthouse, the ability for the officer to check-in at the courthouse, with the possibility of an auto-check-in based on location services on their mobile phone and the ability for court staff to view when the officer has checked in at the courthouse

	therefore surmising when they will get to their actual courtroom.
<b>Outbound IVR/SMS campaigns (i.e. hearing reminders)</b>	The ability to create an outbound reminder campaign that can either place phone calls or send text messages to parties/participants to remind them of their upcoming court dates.
<b>Interface from SessionWorks Clerk Edition to digital courtroom recording systems</b>	Common web services to provide the ability to launch a digital recording system from the Odyssey in-courtroom product SessionWorks Clerk Edition. This would provide key tags into the recording so that a user could later launch directly into a specific location in the recording from the hearing record in Odyssey.
<b>SessionWorks Judge Edition “my cases” list</b>	The ability for a judge to mark a set of cases as always available from the Judge Edition module so they can have easy/immediate access to the electronic case file even on non-court days.
<b>SessionWorks Judge Edition party rap sheet</b>	An easy to read summary of a defendant’s record including data from all of Odyssey (e.g. other cases, warrants, bonds, financial obligations, etc.) made visible from the Judge Edition module.
<b>PAPER ON DEMAND</b>	
<b>Scan to PDF</b>	The ability to capture a scanned image directly as a PDF.
<b>OCR TIF to PDF and provide searchable documents within Odyssey</b>	Provide a method to OCR a TIF or imaged PDF document either in batch or dynamically on demand, so that the text within that document is searchable.
<b>Judicial order generation from the bench</b>	Ability to rapidly merge a template order and quickly allow the judicial officer to enter text, either free form or from pre-defined recallable entries.
<b>Judicial order electronic signatures</b>	The ability to electronically sign the orders that were generated with the above feature, either one at a time or all within a queue.
<b>Judicial order generation from the bench</b>	Ability to rapidly merge a template order and quickly allow the judicial officer to enter text, either free form or from pre-defined recallable entries.
<b>Judicial order electronic signatures</b>	The ability to electronically sign the orders that were generated with the above feature, either one at a time or all within a queue.

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<b>Processing proposed orders</b>	The ability for parties to submit orders to the judiciary in multiple approved formats (i.e. Word, PDF, etc.) and for the judicial officer to reject or annotate/approve/sign the order.
<b>ATTORNEY/CITIZEN SELF-SERVICE</b>	
<b>Odyssey Portal</b>	Self-Represented litigant assistance via the use of a court-configurable questionnaire to assist in the compilation of filing documents.
<b>MOBILE</b>	
<b>Mobile/remote judicial briefcase</b>	The ability for the judicial officer to access their electronic case files remotely and/or via a mobile application, including the ability to add bookmarks and take notes that will synchronize back to the source documents.
<b>NEW PRODUCT OFFERING</b>	
<b>Appellate case management</b>	Building on the Odyssey Case Manager foundation which includes configurable time standards, workflow and embedded content management, the ability to enter and track appellate cases, including panel and opinion management.

## 7.0 Project Techniques, Approaches, and Methods

*A general description of the techniques, approaches and methods to be used in completing the project, including a documented strategy and an established organization to support implementation of the proposed application(s) for its clients (resourced internally or externally) and a documented strategy and an established organization to provide ongoing support of the proposed application(s). Bidders must submit System Functional and Technical Requirements (Attachments B through I electronically in native .xlsx format per instructions below.*

For the scope of the State Bar’s project, Tyler has proposed a Project Work Schedule, provided in Section 8 of our proposal response. Our included proposed approach is tailored for the specific needs, scope, and size of the State Bar, and is based on the hundreds of other successful CMS implementations Tyler has conducted across the country. Accordingly, the project techniques, approach, and methods in this section is based on our proposed approach for the State Bar.

### Training Approach

Tyler employs a dedicated team of experienced trainers who are ready to help your user community successfully make the transition to their new case management system solution. The on-site training program offers the following benefits:

- A highly collaborative planning process that takes into account each client’s unique needs
- Flexibility in training approaches ranging from full-service, instructor-led training to train-the-trainer programs that leverage client resources and nontraditional remote training options. For this project, Tyler proposes on-site training supplemented by our Tyler University (Tyler U) online learning management system.
- An iterative approach that involves the user prior to, during, and after the actual go-live

Tyler recommends that training/implementation teams be formed and consist of both Tyler and State Bar resources. The joint training/implementation team will be responsible for developing the training plan, building training materials that incorporate State Bar procedures and expected process changes, coordinating training schedules, and performing the training. Tyler can undertake all of these efforts without client resources, but the quality of the training program will be significantly enhanced if the process is highly collaborative. Additionally, joint training development between Tyler and the State Bar facilitates the knowledge transfer to State Bar Training Staff members (lending to Train-the-Trainer concepts).

The training team is focused on three primary tasks: (1) the development of a training plan, (2) the development of training materials specific to the client’s operations, and (3) the execution of training itself.

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Training plans, training materials, and the training itself must address process changes and must address the needs of specific job positions. Users must understand “how” to use the system. More importantly, they must understand “when” and “why” to use capabilities of the new system.

Odyssey provides the capability to link this client-specific online help to specific contexts within the application. Pressing the “F1” key in the application will launch context-sensitive, vendor-provided application help. Pressing “Alt+F1” will alternatively launch client-specific context-sensitive help.

#### **Train-the-trainer/Traditional Full-Service Approach**

Tyler utilizes several different training approaches that leverage Tyler and client resources to varying degrees. In most large Odyssey implementations, we recommend the train-the-trainer approach, in which Tyler performs direct end-user training while the client’s resources assist.

The client gradually assumes more and more training responsibility, while Tyler’s role lessens over time. The goal of most large clients is to build a team of local resources that can deploy Odyssey with only limited support from Tyler. Jointly, we achieve that goal.

For this project, based on the RFP requirements and taking into consideration the potential for limited State Bar resources, Tyler has assumed responsibility for training by offering our traditional Full-Service Approach. However, we look forward to a discussion with the State Bar regarding the role it wishes for client resources to play during the rollout. A higher degree of involvement from the client will benefit the State Bar by decreasing dependence on Tyler assistance following implementation.

#### **Tailored Training Approach**

Users should receive training specific to their job requirements. For each office, the training/implementation teams will identify specific position categories (e.g., administrator, attorney, executive, etc.) and develop a job-specific training checklist for each position. The training should be process-oriented (rather than function-oriented) so that participants can apply the training to real-world needs. Users should not be subjected to “generic” training plans that include material they will not use in their position.

The client will participate in the training plan development by providing staffing data, scheduling end-users for training, and providing management input during training as needed to address changes in business practices.

#### **Elements of Training Program**

##### **Training Plan**

Tyler develops, in collaboration with the State Bar, various training modules (e.g., case initiation, scheduling, fees, docketing). Those modules are then grouped together into training courses applicable to judges, court administrators, prosecutors, clerks, cashiers, and so forth.

Additionally, variations of the training modules might be implemented for users' specialized in particular case types. The training modules include all aspects of end-user functions.

#### *Hands-on Classroom Training*

Tyler will encourage hands-on exercises using real data and scenarios, providing a translation between how the participant previously performed a process and how they will perform the process using Odyssey. Additionally, we strongly suggest that training, where feasible, be conducted away from users' day-to-day responsibilities in a quiet training facility. The maximum number of training recipients will be constrained by the training facilities available (assuming, preferably, that each recipient will have access to his or her own workstation). In any case, a single training session should not exceed 12–16 users per trainer.

#### *Super Users*

The training team should identify “super users” in each office or location who can receive up-front and in-depth training. These users will be designated during installation as first points of contact for “how to” issues that arise. These users can also be a valuable input into the preparation of a training plan and training materials.

#### *Staged Training*

Training should not, ideally, be conducted in one segment. Rather, some pre-installation training should be conducted to prepare users for “go-live.” This could occur directly before training or a gap between training and go-live could be added for end users to practice on the system. Additional on-the-job assistance should be provided during the transition. Follow-up training should be provided after the transition to respond to questions that users did not know to ask. This follow-up training is also an opportunity to provide advanced training on features that users did not require during the transition period. At a minimum, it is suggested that training for each position (other than simple inquiry users) should be divided into two segments—one pre-installation and one after installation.

#### *Remote Training*

In the remote training approach, Tyler uses tools such as video conference equipment and GoToMeeting software to minimize client site visits. Our approach to onsite training will be focused on the client's business process and not all Odyssey functionality. This allows the State Bar to save money and reach go-live faster. In this approach, we increase go-live support so that over-the-shoulder training takes place while the client is live. We recommend this approach for clients with a strict project budget.

#### *End Users Training*

During end-user training, sessions will be scheduled to include system administration to the application administrators. This training will give the administrators the knowledge needed to maintain the system code tables and will also cover release processes. Tyler will also cover transition and communication plans for our support teams. This will ensure your technical staff has all the appropriate information needed to continue administering the solution once we have a production system.



#### Technical Training Approach

With any investment into an enterprise system, there is a need to maintain and administer the solution. Tyler recommends the following approach for knowledge transfer from our knowledgeable Deployment Staff to the State Bar Technical Staff.

Technical training begins during some of the first discussions about the infrastructure needed to support the installation of Odyssey. This will be our first opportunity to hold a detailed discussion over hardware and network infrastructure and maintenance considerations that are specific to the solutions you have purchased. Tyler technical resources will explain in detail what is needed and how the pieces fit together. Together, we will create a hardware plan. Once the hardware and infrastructure is in place and we have conducted the site installation, we can then conduct a basic training class over site installation covering all the different pieces and how they work together. We will cover some basic procedures for startup and shutdown as well as discuss recommendations for backup strategies within pre and post go live time frames.

Some of the key topics we will cover center around SQL backups, SQL maintenance plans, system recovery, SQL recovery, the various application and job server components, imaging storage, document repository recovery, replication setup, and teardown. As we get closer to turning on the production system, we will have additional time to train technical staff on routine maintenance of the application, integration, and job servers. This will include troubleshooting, best practices, and tips from our technical teams. As part of the technical training approach, Tyler will provide documentation that covers the topics discussed.

#### Post Implementation Training

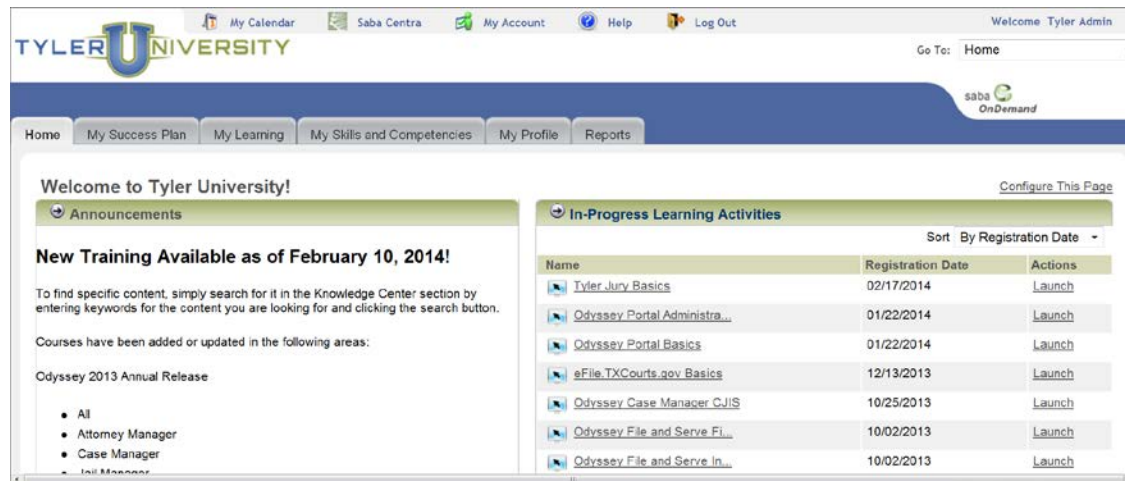
For your ongoing training needs, Tyler offers several training options for new users and follow-up training for existing users. Tyler University, Tyler's Learning Management System, provides clients with a number of training options including:

- Online self-study courses
- Instructor led live webinars
- Archived on-demand webinars

Through Tyler University, clients have access to on-demand training 24 hours a day, 7 days a week. Tyler University gives clients the flexibility to train new employees, provide refresher training for users wanting additional instruction in a particular area, and even cross train existing employees, at their discretion. The training curriculums for both new and existing users can be customized based on the business needs of the client.



Figure 7.0.1 – Tyler's Learning Management System



Tyler also provides annual release training through live webinars. Each year as Tyler rolls out new updates and enhancements to the software, customers can participate in free training courses to acquire a better understanding of the new features and functionality. In the event that the client is unable to attend these live webinars, the content is recorded and stored in Tyler University for on-demand viewing, at their convenience.

Tyler provides on-site, instructor led follow up training for existing customers. This training will cover the material that the client is currently familiar with and is using at a high level as well as best practices from within the application.

Tyler recommends taking advantage of the free training offered through Tyler U for both new and existing users. Tyler also recommends that the training curriculum for each user be based on knowledge level and performance of the individual to empower each user in their areas of deficiencies.

## Configuration Approach

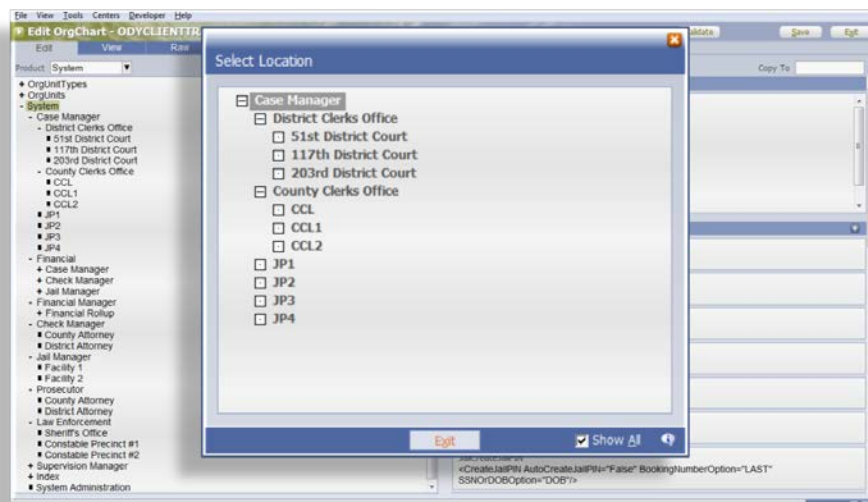
Odyssey has the flexibility to be configured at various levels within an organization, department, or sub-department or location. This enables the State Bar to define State Bar-level behavior for certain codes or features, while allowing local variation for specific locations (Los Angeles or San Francisco) or specific departments (OCTC or Court). The ability to configure different areas is controlled by security rights and roles, allowing State Bar administration personnel domain over certain functions, while granting local control on others.

Configuration in the Odyssey application is highly flexible. If it were not, Tyler's customers could not be running the same code line of Odyssey releases in more than a dozen different states and hundreds of counties. But for a very few tables that are under the covers, all the code tables that users interact with are defined and maintained by the State Bar. That means that each customer can have codes, descriptions and associated configuration that are meaningful to their specific business.

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Configuration is also controlled by the use of an “organizational chart”. Odyssey is designed specifically for a statewide court environment and manages configurations using a multilevel organizational chart that provides both the flexibility to set State Bar standards where appropriate and local exceptions where necessary. Odyssey’s organizational chart as depicted in Figure 7.0.2 is a hierarchical representation of the client’s organizational structure and is the starting point of system configuration. It provides context for the assignments of rights and roles, data ownership, and for the definition of user codes and code behaviors. This organizational chart is one of the architectural features of the application that allow multiple departments (e.g. OCTC, Court, Probation Department) to use the same application. A docket code might be common in all divisions, but the behavior and effect of that code may vary depending upon where in the organization the code is used. The organizational chart provides the framework for such variable and configurable behavior and for setting common practices.

Figure 7.0.2 – Odyssey’s Organizational Chart



During an implementation, Tyler holds extensive on-site configuration workshops to train customer staff on how to configure the various code tables in the application that drive how Odyssey functions. Due to the highly customizable nature of the application, Tyler breaks down and compartmentalizes the code tables into different workshops, such as code table configuration workshops and security workshops, to simplify the process and make the time spent on configuration as efficient as possible. It is recommended that State Bar-wide configuration workshops take place prior to the individual department configuration workshops to take advantage of the hierarchical structure of Odyssey.

During these State Bar-wide configuration workshops, Tyler will work in conjunction with the State Bar to define and configure codes that will be used as the baseline configuration. In these workshops, Tyler recommends that several representatives from the State Bar’s two locations (Los Angeles and San Francisco) participate in the effort since the configuration that takes place during these activities will impact both locations. These State Bar-wide configuration workshops will take place early in the implementation process and each additional implementation will have their own configuration workshops, prior to their implementation. In the individual

configuration workshops, departments will have an opportunity to define their local configuration and customize the application to suit their unique business processes, while having the luxury of starting from the shared State Bar-wide configuration baseline.

The configuration workshops typically take place after the Business Process Reviews have concluded so that Tyler resources can understand each location and department's current processes. After the Business Process Review concludes for each, Tyler will work with the State Bar participating department resources to re-engineer these business processes to make them as efficient as possible within the Odyssey application.

The configuration workshops vary in duration depending on the size of the implementation and the number of participants involved. Most workshops typically last from 1 to 2 weeks. Additional configuration may be needed after the workshop concludes in order to finalize the configuration based on the State Bar's business needs.

To assist with the configuration effort, Tyler offers various documentation tools. These base configuration documentation tools include guidelines and checklists to help manage the configuration process efficiently and effectively. These documents are customized to meet each department's business needs to help simplify the configuration process. In addition to leveraging these tools to help in the initial configuration process, these tools can also be used as guidelines for future configuration tasks as they arise.

The goal of these configuration workshops is not only to configure the application to meet each department's business needs, but to empower State Bar administrators and power users with the knowledge necessary to configure and maintain the application in the future without Tyler assistance. By making the configuration effort a collaborative activity, these goals can be achieved successfully.

Together with Tyler's best practices approach for configuration and customization, Tyler believes that the State Bar will find Odyssey's code structure is highly configurable and can be easily adapted to meet the State Bar's needs so that future maintenance and enhancement of the resulting system requires minimal assistance from Tyler.

### Business Process Reengineering Approach

Tyler will assist the State Bar with re-engineering of business processes to make them as effective as possible in the future Odyssey environment. Tyler will conduct Business Process Reviews to gain an understanding of current processes and systems used. The Business Process Review activity is conducted by on-location visits to observe and analyze the current processes and efficiencies in each location. The information observed and collected is used to drive the Fit Assessment activity.

After the Business Process Review, Tyler will conduct instructor-led, end user training for the State Bar designated project leads and Subject Matter Experts (SMEs). This training is to help the SMEs understand the various components of the Odyssey application from a data entry standpoint so that they can contribute to the Fit Assessment activity. The knowledge acquired

during this training will help facilitate the Fit Assessment activity and assist with the business process re-engineering activity.

During the Fit Assessment activity, Tyler will work with the State Bar to determine any gaps between the current systems and the Odyssey CMS. If gaps are identified, they are identified and marked as possible development projects. During the Fit Assessment, the State Bar project participants will go through various scenarios and demonstrate how the current processes can be driven using the Odyssey application. This extremely collaborative process will be the first opportunity where Business Processes can be re-engineered to be more efficient. If there are specific scenarios that the State Bar would like to see, Tyler resources will demonstrate them using the Odyssey application. Business process changes, as well as potential development projects, are documented during this exercise. After the activity, Tyler will format the information in a digestible format and present it back to ensure that each point was examined and documented.

After the Fit Assessment activity has concluded, Tyler will deliver instructor-led configuration training to the State Bar. This training takes place just prior to the code configuration workshop. Its purpose is to demonstrate how the various code tables are configured in the application and to provide a better understanding of the code structure and dependencies within the application. By utilizing the knowledge acquired during this activity and combining it with the knowledge acquired in the end user training, the State Bar representatives can work harmoniously with Tyler to re-define all business processes necessary. This activity can vary in duration, depending on the number of business processes that need to be redefined. The redefined business processes may be accompanied by a configuration and testing in a Test environment to check validity and integrity.

Tyler feels that the business process re-engineering effort can be enhanced by providing multiple opportunities for process changes and ensuring that the State Bar has a strong working knowledge of the Odyssey to assist with this activity. This approach will enable the State Bar to continually improve their processes without further long-term assistance from Tyler.

## **Testing Methodology**

At Tyler, quality efforts are focused on testing from the beginning, completing various activities at all phases of the Software Development Life Cycle. Software engineers keep quality in mind while writing code through unit and spot tests. The QA Team verifies code meets design, integrates well with existing functionality, and is delivered stable for use within a production environment upon delivery. Quality is considered at every stage of development at Tyler.

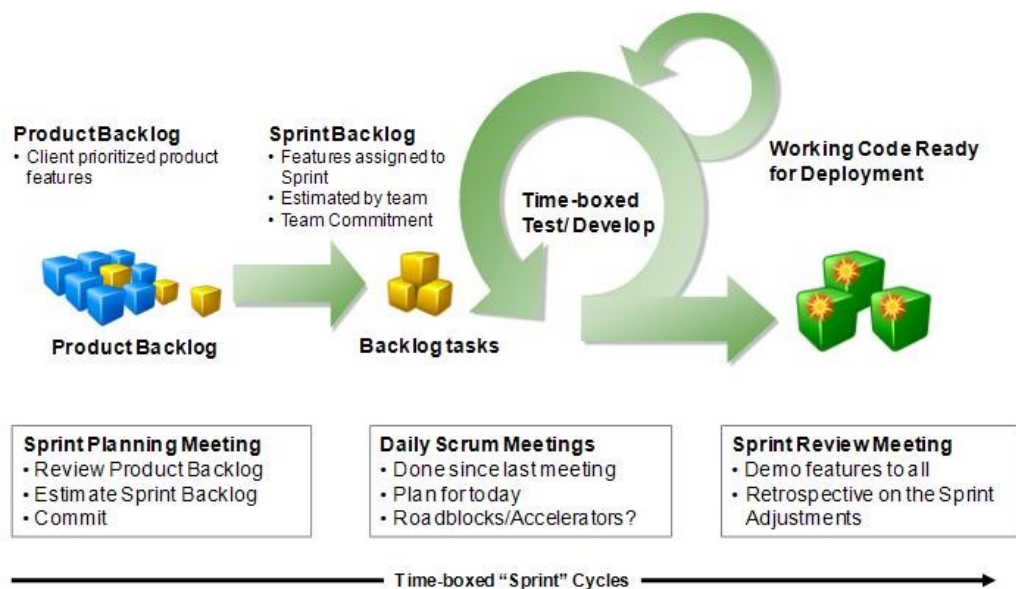
## **Development and Test Methodology**

Tyler uses an Agile development method known as SCRUM (see Figure 7.0.3), which facilitates iterative refinement and testing of new functionality. Using the Agile process, Tyler's development team delivers functionality in 2–4 week "sprints" rather than in one final deliverable at the end of development. Each development team has a dedicated QA analyst which works solely on test deliverables for that respective development team.

Agile allows the atmosphere and culture to be more collaborative (more face to face interaction), and allows the QA analyst to be involved from the initial design phase of every development team project. Within this team structure, there is added emphasis on cross functional roles, team requirements gathering, and team test case design. Agile testing puts the quality emphasis on the team, rather than any specific individual.

Quality-minded coding and a detailed test effort makes the project management team more aware of gaps in requirements, technology used, or defects in specific functions. Daily stand-up meetings and constant team interaction enable quick modification and adjustment while also facilitating issue resolution well in advance of delivery.

Figure 7.0.3 – Tyler Development Approach



### Design Process

When a change request is received from a client, a business analyst (BA) takes that information and reviews it with a QA analyst and SE (software engineer) with experience and knowledge of the associated area. The BA will translate client needs into a client requirements specification. The preliminary design documents are reviewed by QA analysts and SE's for technical issues as well as issues that could affect integration with existing code. The BA develops final specification documents that are again reviewed by the same team before delivery to the client. If the client requires changes prior to approval, they are reviewed again by the development team. After the team review is complete, the business analyst finalizes the design and the project goes through the scheduling process to determine an appropriate release for delivery.

### Testing/Strategies

Within each Tyler development team, the QA Analyst develops manual test scripts. Tyler promotes customer test-driven development which consists of driving projects with tests scripts that exercise the requirements and business rules. These tests include functional, regression, system, end-to-end, performance, security, and usability testing. The test scripts executed serve as a reporting structure to internal managers and clients (if requested) for test coverage.



Analysts conduct formal technical reviews to evaluate test strategy and test cases. These tests go through a rigorous cycle of being reviewed within their respective development team and stakeholders per change request. After code has been pushed to an interim Odyssey environment, the QA Analyst will start executing test scripts.

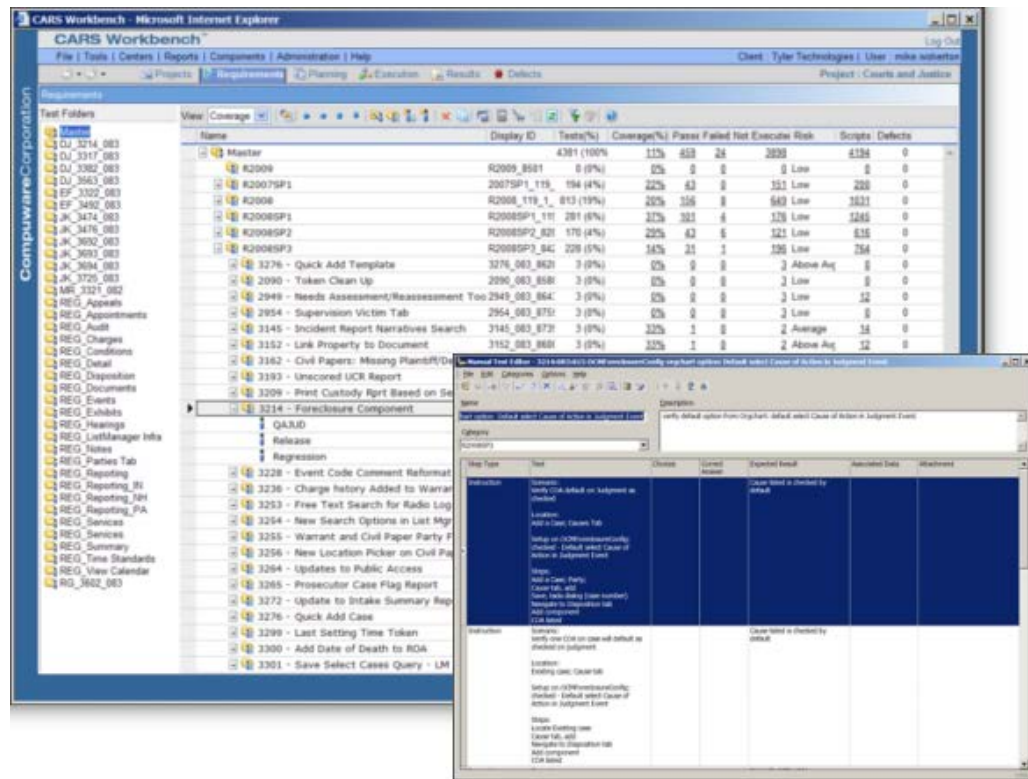
Test scripts are generally ranked by level of risk. All risk level scripts are executed after the first migration of new code, defects are reported to development teams, and fixes are migrated as needed. Once the analyst has determined that all tests have been executed at all risk levels, they will mark the project as “complete” for the integration phase.

There are subsequent execution “runs” of test cases as projects and the Odyssey yearly release nears completion. During the final three months of a release cycle (regression test phase of all code), the code is locked down by development in what is called “code freeze.” This means no further new code can be migrated/changed unless approved by the QA Manager. The tester will execute the high risk tests, and if all tests pass with no defects, they can mark the project “pass.” This does not necessarily mean the project is ready to deploy as changes can still occur. Code can change over the course of regression cycle in the form of defect fixes, so until code is technically “locked” from any changes, new projects cannot be stamped as ready to deploy. Projects are only ready to deploy after a successful execution, with no failures of high risk test scripts.

### *Tools*

The QA team utilizes several different tools including QA Director, JIRA, Pivotal Tracker, and SOAP UI. The QA Director, as shown in Figure 7.0.4, serves as a test case repository. This tool allows QA to link test cases to functional product areas thereby promoting traceability. The tool enables the delegation of test cases to specific resources and tracks progress of the executed test cases. Additionally, the repository contains the regression test case library which is a compilation of all the baseline functional areas of the product. The regression test library grows as the application moves forward since analysts add test cases for new functional areas of the product.

Figure 7.0.4 – QA Director, Test Script Management Tool



## JIRA

JIRA is the issue tracking tool used to provide a clear centralized overview of issues and their status. Any issue that is found is reported within JIRA and follows a workflow process. JIRA helps facilitate prioritization of software issues and enhancements and increases visibility of the development process. JIRA helps each development team successfully measure individual project status. Additionally, software metrics help the development team assess the overall quality of the software release.

## Pivotal Tracker

Pivotal Tracker is a web-based tool which stores all test backlog items and reports all current activities being worked. Pivotal Tracker helps to break down the delivery of complex features into smaller, more manageable items. Pivotal additionally offers a simple, yet powerful project delivery forecast.

## SOAP UI

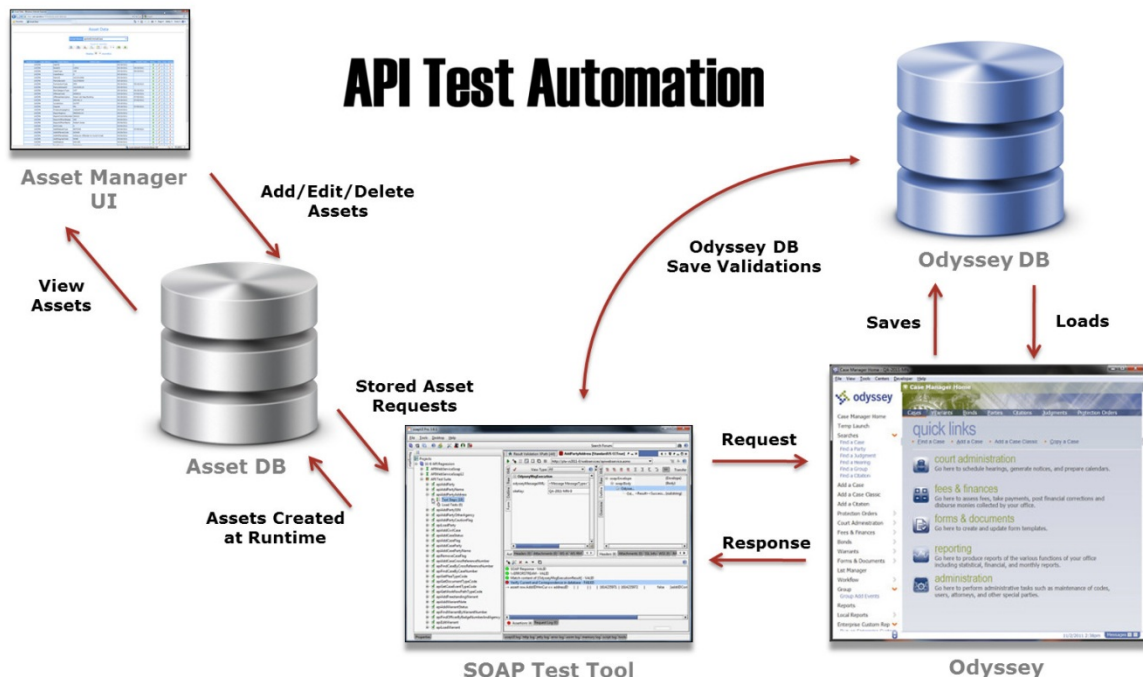
SOAP UI (in association with a test asset database) is used as the execution platform for automated test routines. Automated testing increases the velocity and accuracy of testing, which in turn results in greater test coverage. Automated testing increases rapid validation of software changes, as changes are migrated into staging environments. As the demand has increased for faster code deployments, test automation has become a necessity over just a basic increase in test coverage. Automated tests are highly critical in maintaining stability in an ever changing assembly of code. Tests are written using the Odyssey API (application programming



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interface) Toolkit and exercise everything from basic case saves to complicated financial transactions. In essence, a large portion of application functionality is tested, in addition to specific API's that a client may be using for integration into other systems, as shown in Figure 7.0.5. Another benefit of defined, repeatable, and consistent automation tests is that it can serve as a performance measurement after each subsequent test execution.

**Figure 7.0.5 - Test Automation Process**



### Testing Subsequent Releases – Revisions and Patching

A client may choose to receive deployments of Odyssey code that fall outside of a yearly release cycle. There are two forms of non-yearly software deployments: Odyssey Patch and Odyssey Revision. Patches typically involve the deployment of new projects that are required for a client go live. Revisions only contain fixes to software issues, thereby reducing risk of large product changes when deployments are needed quickly. No matter what form of deployment a client may receive, coverage of the application is obtained by testing every defect fix pushed to the Odyssey product in addition to test cases on new projects. Revisions are thoroughly tested by regression testing defects fixed, while patches are tested by primarily focusing on new project changes and defect fixes that may be included. Either way, clients can rest assured that the QA team makes every effort to verify stability and function of each software deployment, whether it be yearly release, patch, or software revision.

### User Acceptance Testing

The Odyssey QA Team generally works through a large set of user scenarios before releasing to the client(s) that have requested changes. While Tyler generally encourages clients to execute use case scenarios, the QA team makes every effort to do the same. Business analysts define user scenarios within specification documents that are constructed prior to development. The QA Analyst is then responsible for not only checking the “quality” of new code, but additionally

responsible for testing the “fit” of new functionality to what the user needs are. Additionally, client account representatives are encouraged to retrieve business scenarios from clients. Business scenarios are then transferred to the QA department for execution prior to delivery. This ensures defect free code and customer satisfaction that code meets business need.

### *Performance Testing*

Odyssey is a very complex system that has consistently performed across large client installations. The proof is in the client base, with clients such as the State of Minnesota with over 3000+ users accessing Odyssey on a daily basis, in addition to outbound streams via iXML that are post-processed after data commits within the application. Internally, QA stage environments are setup with the lowest common denominator in terms of server and client configuration. Every effort is made to test in a “like scenario” to that of the Odyssey client base. Additionally, the Odyssey development team often optimizes slower portions of the application by writing specific code to fine tune such areas. Larger cases with case events that exceed 10,000 have been optimized for faster load times within Odyssey proper, and additionally within the Public Access (Portal) system. The QA team in conjunction with deployment executes web service layer messages, in batch, in order to stress and compare a new release to a prior release. Measurements are compared in order to ensure a new release does not under perform compared to a prior release. Most Odyssey clients are happy to report that speed and performance are a “non-issue.”

### *Continuous Delivery*

In addition to traditional quality assurance efforts, Tyler has implemented a continuous delivery solution which automates software distribution from source code to deployment and testing. This process runs multiple times a day across each code stream that is currently supported or in development. A high-level overview of the steps involved is provided below.

1. Pull the current copy of source code from source control
2. Build the compiled elements of the solution
3. Package the software for delivery
4. Deploy the software to multiple test environments
5. Execute a suite of automated tests against the environments
6. Report results to the development team

The end result is that before Tyler's software is released to the field, it has been built, deployed, and run through a series of automated tests hundreds of times. This allows for rapid, repeatable delivery of software that minimizes risk to Tyler's customers.

### **Testing Methodology Summary**

The Odyssey QA Team makes every effort to test the full Odyssey functionality, ensuring every client that receives a release or patch can use the product immediately. The QA Team is

constantly striving for quality improvement, stronger releases, and increased client satisfaction. Quality does not start with one individual, one team, or the client alone. Quality is an iterative company and client focus. Acceptance of responsibility across all project teams ensures day to day business processes can be completed without interruption or frustration, leading to the assurance that the product meets the agreed acceptance criteria and ultimately client satisfaction.

## Implementation Approach

Tyler's strategy for implementing Odyssey in multi-location environments is focused on the effective and efficient delivery of the Odyssey product suite. The strategy has been developed over the past decade, and is based on our experience in statewide implementations and many large complex installations in California and other states.

Three foundational elements form the basis for the project management strategy:

1. Maintain collaborative governance to ensure alignment with the project objectives and vision. This practice involves multiple levels of the client, project stakeholders, and the Tyler organization.
2. Utilize repeatable, standard methods and tools for implementing all aspects of the project.
3. Ensure high levels of delivery performance through regular project monitoring and tracking, coupled with the assimilation of lessons learned from other Tyler statewide implementations as well as preceding phases and tasks of the project.

Table 7.0.6 below illustrates the approach, methods, and tools used to implement our project management strategy.

**Table 7.0.6 – Project Management Strategy**

Strategy	Approach	Tactics
<b>Maintain collaborative governance</b>	<ul style="list-style-type: none"> <li>• Statement of Work to define project approach</li> <li>• Project Management Plan, to include communication approach</li> <li>• Regular Steering Committee communication in coordination with the State Bar IT</li> <li>• Involvement of Tyler management</li> </ul>	<u>Methods</u> <ul style="list-style-type: none"> <li>• Weekly status meetings</li> <li>• Monthly Steering Committee meetings</li> <li>• Enterprise reviews</li> <li>• Project area status meetings</li> <li>• Readiness reviews</li> </ul> <u>Tools</u> <ul style="list-style-type: none"> <li>• Project Management Plan</li> <li>• Project status reports</li> <li>• Change Management</li> <li>• Issue log</li> </ul>
<b>Utilize standard methods and tools</b>	<ul style="list-style-type: none"> <li>• Tyler PMO used for standard methods and tools</li> <li>• Collaborate with State Bar IT</li> </ul>	

	for project deliverables <ul style="list-style-type: none"> <li>• Project schedule near-term drill down</li> </ul>	<ul style="list-style-type: none"> <li>• Risk register</li> <li>• Project schedule</li> <li>• Deliverables schedule</li> </ul>
<b>Ensure delivery performance through planning, tracking and lessons learned</b>	<ul style="list-style-type: none"> <li>• Weekly and monthly status reporting</li> <li>• Regular reviews of risks, issues, deliverable schedule</li> <li>• Periodic readiness assessments to involve Tyler management</li> <li>• Coordination and communication of planning and tracking activities with the State Bar IT</li> </ul>	<ul style="list-style-type: none"> <li>• Requirements traceability matrix</li> <li>• Readiness assessment</li> <li>• Project SharePoint site for communication and document repository</li> </ul>

### Collaborative Governance

Governance is critical to effective management of the project. Properly maintained, collaborative governance ensures that the project team remains in alignment with the objectives of the project sponsors. Maintaining alignment keeps the project team focused on the right activities, the activities that will advance the implementation of the new case management solution. Tyler will partner with the State Bar to establish and maintain clear project communications with the Steering Committee and other constituents.

Governance is established at the start of the project, with the Statement of Work and creation of the Project Management Plan (PMP). The PMP will define the project organization, including the roles and responsibilities of Tyler and State Bar across all the major project areas. The PMP will also define the approach for communication with the project constituents.

Working with the State Bar, Tyler will update the Steering Committee monthly on the project status, covering all the major areas. The update will also include a review of the current risks, issues and challenges. Some of these items will be informational, some will require a decision, and others may require support or action by a Steering Committee.

Governance focuses on “effectiveness”, or ensuring that the project team is aligned with the project vision and working on the right objectives. The next area, focuses on accomplishing the project objectives efficiently, utilizing standard methods and tools.

### Standard Methods and Tools

Tyler’s experience with multiple successful statewide and large organization rollouts uniquely positions us to leverage our experiences for the State Bar. Tyler will draw on tools and methods that have been used successfully on other Odyssey implementations. These are proven tools and methods, not a “textbook” solution that is unproven in the field. These tools and methods help to improve reliability of the results and lessen rework. Key aspects of this foundational strategic element include:

- **Best Practice Repository:** Standard project management tools are pulled from the Tyler PMO best practice repository. The Tyler Project Manager will adapt these as necessary to accommodate additional information that may be needed by the State Bar, and other contract documents that may be developed. Tyler does believe in jointly weighing with the client the benefit of gathering information versus the ongoing maintenance and tracking of the data elements.
- **Project Management Plan:** A key early planning activity is the creation of the Project Management Plan. Tyler will collaborate with the State Bar's Project Manager, and project constituents in the creation of this foundational plan.
- **Shared Project Site:** A project SharePoint site will be established specifically for the implementation. This site will be used as a repository for project documentation, to include the Project Management Plan, the Risk Register, the Issues List, and project deliverables. Tyler will work with the State Bar's Project Manager to establish the proper alerts, communication protocols, and escalation paths.
- **Readiness Assessments:** Readiness Assessments will be conducted at key project milestones, to review our readiness for an implementation go-live event. The Readiness Assessment is prepared by the Tyler Project Manager and reviews all project areas, identifying follow-up action items or mitigation activities. The Readiness Assessment is conducted first with Tyler project team. The Assessment grades each project area as a "go", "no-go", or "in progress". Any areas "in progress" or "no-go", have identified the action items to necessary to move the area to a "go".

The draft Project Management Plan will be submitted to the State Bar during the first weeks of the project initiation. Tyler will create the Project Management Plan, but expects the refinement of the plan to be an iterative process with the State Bar, that will provide a solid basis for the management of the implementation.

### Delivery Performance

Delivery performance is ensured through regular planning of upcoming activities, and tracking of progress in all the project dimensions. The methods and tools are consistent with the Project Management Institute (PMI) standards, but are implemented based on our real world experience in working with statewide and other complex CMS implementations. All Tyler's delivery activities will be conducted in concert with and under the direction of the State Bar's Project Manager.

Consistent with the approach identified in the RFP, Tyler finds that planning and tracking tools are imperative to monitoring project activities, along with establishing a regular cadence for monitoring and tracking progress against the project plan. Key aspects of this foundational strategic element include:

- On a weekly basis, the Tyler project team can track the attainment of deliverables according to the project schedule and deliverable schedule. The project and deliverable schedule will be reviewed weekly for upcoming major deliverables. Potential risks identified in these schedules will be tracked in the Risk Register (snapshot from actual

Tyler client is shown in Figure 7.0.7 below). Where a risk item develops into an issue, it will be tracked on the Issue List for resolution.

Figure 7.0.7 – Risk Register Example

Monthly Risk Report											
6.2.5.1											
New Actions Settings											
Risk Title	Risk Description	Impact Rating	Prob Rating	Risk Score	Score Change	Submitted By	Assigned To	Impact Description	Mitigation Plan	Contingency Plan	Trigger
Example: Absence of a Critical Tyler Resource	There is a potential risk that, for whatever reason, a critical Tyler resource could be made unavailable to the implementation with no new resource assigned.	5	1	5		Wheeler, Kristin	Wheeler, Kristin	Example: The impact of losing a critical resource to the project would be significant. The duties and tasks assigned to the individual could no longer be completed or could no longer be completed on time which could cause the project to slip.	Example: Tyler maintains and assigns backup resources to for all projects. These resources are kept familiar with the status of the project so that they may take over in the event that a resource is lost.	Example: Were a critical resource to be removed from the project the assigned back up resource will step in to take over all duties. In the interim, if there is one, the remaining Tyler resources will divide any tasks left uncovered.	

Risk issues are entered and tracked in Sharepoint

- The Tyler Project Manager will perform a weekly review of the project risks and corresponding mitigation activities, as documented in the Risk Register. The Risk Register will be regularly reviewed with the court's Project Manager. The Tyler Project Manager will propose mitigation approaches to the State Bar, but ultimately it will be the State Bar's decision to decide the level of risk, potential for occurrence, and mitigation approach.
- The Tyler Project Manager will perform a weekly review of the project issues list. The Tyler Project Manager will oversee the maintenance of the Issue List. The Issue List will track the current status, next steps, person responsible, and other pertinent information.
- The Tyler Project Manager will participate in the monthly Steering Committee meeting as noted above in the Collaborative Governance subsection, and will also be participating in weekly status meetings that will cover all major project areas.
- Tyler will produce a monthly status report. The monthly status report production and delivery serves as another regular checkpoint to monitor progress, as well as adherence to the overall project objectives. The monthly status report also provides the supporting information for the presentation to the Steering Committee. The monthly status report will include:
  - ✓ An updated project work plan, project schedule, staff plan and budget.
  - ✓ A report of project status and performance against all plans. This section includes accomplishments achieved in the current period. Schedule variances between actual and planned activities will also be reviewed.

- ✓ A review of activities planned for the upcoming month.
- ✓ A review of the Issue List status, progress, and open issues.
- ✓ A review of the Risk Register, to include the risk status, mitigation efforts and progress.
- The monthly Steering Committee update will be more summary in nature, as opposed to the written monthly status report. The Steering Committee updates in each area will focus on elements of particular concern to the Committee, or needing Committee action, input, or support.

### Implementation Work Plan

In addition the general techniques, approaches and methods described in the aforementioned sections, Tyler has included a full proposed implementation approach in the following section (Section 8.0 Project Work Schedule). The implementation approach is based on hundreds of proven successful Odyssey implementations and designed specifically for a successful CMS implementation for State Bar.

### System Functional and Technical Requirements

Tyler has completed RFP Attachments B through I accordingly and has included the completed attachments on the following pages and in native Microsoft Excel format for the electronic submission per the RFP instructions.



ID	Requirement Text	Response Code	Comments
DG-001	Provide the ability to generate forms, notices, and fillable forms, populate forms with database information, and view created forms prior to printing or docketing.	Can be Demonstrated	
DG-001.01	Provide USER with the ability to produce DOCUMENTS containing information from the database.	Can be Demonstrated	
DG-002	Enable users to print forms, notices, and orders, and key in events in the courtroom or in the office.	Can be Demonstrated	
DG-002.01	Provide USER with the ability to produce DOCUMENTS containing information from the database in the courtroom or in the office.	Can be Demonstrated	
DG-003	Allow USER to designate or override computer selection of recipients of documents.	Can be Demonstrated	
DG-003.01	Provide USER with the ability to override default selection of DOCUMENTS [notices, forms, other outgoing] recipients.	Can be Demonstrated	
DG-003.02	Provide USER with the ability to manually designate selection of DOCUMENTS [notices, forms, other outgoing] recipients.	Can be Demonstrated	
DG-004	Suppress inclusion of user-designated confidential and redacted information in documents (e.g., mask out confidential addresses for notices sent to specific persons).	Can be Demonstrated	Confidential information would not be included in forms and reports.
DG-004.01	Provide USER with the ability to assign an indicator to any field (e.g. address) to denote confidentiality.	Can be Demonstrated	An indicator can be assigned to many fields but not all fields.
DG-005	Provide ability to override document entries made using the templates and standard text.	Can be Demonstrated	
DG-005.01	Provide USER with the ability to produce DOCUMENT from template.	Can be Demonstrated	
DG-005.02	Provide USER with the ability to override template formatting in DOCUMENT.	Can be Demonstrated	
DG-006	Generate documents (e.g., notices) triggered by a specific event (e.g., hearing scheduled).	Can be Demonstrated	
DG-006.01	Provide USER with the ability to produce DOCUMENTS [notices, forms, other outgoing] .	Can be Demonstrated	
DG-007	Generate miscellaneous documents (e.g., for re-scheduled and canceled events, other types of forms).	Can be Demonstrated	
DG-007.01	Provide USER with the ability to produce DOCUMENT.	Can be Demonstrated	
DG-008	Generate special notices (e.g., judge assignment, OCTC staff assignment, courtroom change, counsel change, schedule change, other courtesy notices) when requested.	Can be Demonstrated	
DG-008.01	Provide USER with the ability to produce DOCUMENT.	Can be Demonstrated	
DG-009	In cases with multiple active parties, provide the ability to generate single notice for participant who represents multiple parties.	Can be Demonstrated	
DG-009.01	Provide USER with the ability to produce a single DOCUMENT for each unique PARTY.	Can be Demonstrated	
DG-010	In cases with multiple active parties, show names and primary (e.g., as designated by party or counsel) addresses of all other active parties and counsels on notice to specific active party and show names and primary addresses of all active parties on file copy of notice.	Can be Demonstrated	



ID	Requirement Text	Response Code	Comments
DG-010.01	Provide USER with the ability to produce DOCUMENT for each unique PARTY/ ADDRESS.	Can be Demonstrated	
DG-010.02	Provide USER with the ability to produce DOCUMENT [file copy] containing selected PARTY/ADDRESS.	Can be Demonstrated	
DG-011	Print documents individually or in batches.	Can be Demonstrated	
DG-011.01	Provide USER with the ability to produce single DOCUMENT.	Can be Demonstrated	
DG-011.02	Provide USER with the ability to produce multiple Documents in batches.	Can be Demonstrated	
DG-011.03	Provide USER with the ability to select printer for DOCUMENT printing.	Can be Demonstrated	
DG-011.04	Provide USER with the ability to specify number of DOCUMENT copies to be printed.	Can be Demonstrated	
DG-011.05	Provide USER with the ability to use pre-printed forms such as certified mailers or multi-part forms in a sealed packet with NCR copies.	Can be Demonstrated	Tyler is not able to validate "NCR copies" compliance or use dot-matrix printers.
DG-011.06	Provide USER with the ability to sort DOCUMENTS printed in BATCH mode by Zip Code to save postage.	Can be Demonstrated	This requires a 3rd party integration that is not included within the scope of this proposal.
DG-011.07	Provide USER with the ability to override default printer settings for DOCUMENTS.	Can be Demonstrated	
DG-012	Provide the ability to distribute documents electronically (e.g., documents to be served to process server; notices and other documents to litigants and counsel; notices, warrants, and other documents to be entered in docket).	Can be Demonstrated	
DG-012.01	Provide USER with the ability to export DOCUMENTS.	Can be Demonstrated	
DG-012.02	Interface E-filing (to State Bar Court)	Can be Demonstrated	
DG-013	Track document service, return of service, proof or certificate of service, re-service if necessary, and any other events.	Can be Demonstrated	
DG-013.01	Provide USER with the ability to assign return of service date, re-service date to SERVICE.	Can be Demonstrated	
DG-013.02	Provide USER with the ability to search for SERVICE.	Can be Demonstrated	
DG-014	Perform document generation, printout, and distribution sub functions for group of cases as if group was a single case.	Can be Demonstrated	
DG-014.01	Provide USER with the ability to produce multiple DOCUMENTS for groups of CASES as if a single CASE.	Can be Demonstrated	
DG-014.02	Provide admin USER with the ability to define rules for determining 'case groups' for the purpose of producing multiple DOCUMENTS for groups of CASES as if a single CASE.	Can be Demonstrated	
DG-014.03	Provide USER with the ability to select DOCUMENTS to be included in the 'case group.'	Can be Demonstrated	
DG-015	In conjunction with Docketing and Related Recordkeeping Function, allow users to create and maintain files of output templates and standard text, including entire paragraphs, and use files to (1) create official court documents by inserting text into templates (e.g., civil warrants with text and images of court seals and signatures), (2) insert text into charging documents (e.g. Notice of Disciplinary Charges), and (3) create other documents consisting of only text (e.g., some types of notices).	Can be Demonstrated	
DG-015.01	Provide USER with the ability to produce Documents by inserting text into templates.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
DG-015.02	Provide USER with the ability to produce Documents containing only boilerplate text.	Can be Demonstrated	
DG-015.03	Provide USER with the ability to produce Documents containing inserting graphical (e.g. seals and signatures) elements.	Can be Demonstrated	
DG-016	Maintain only files of standard text and use to create entire documents or to insert text into template forms; relate each group of text to document(s) and court event(s) for which they are used.	Can be Demonstrated	
DG-016.01	Provide USER with the ability to produce Documents by inserting text into templates.	Can be Demonstrated	
DG-016.02	Provide USER with the ability to produce Documents containing only boilerplate text.	Can be Demonstrated	
DG-017	Generate one notice for a case with multiple future court events to all participants.	Can be Demonstrated	
DG-017.01	Provide USER with the ability to produce one DOCUMENT containing multiple SCHEDULED EVENTS.	Can be Demonstrated	
DG-017.02	Provide USER with the ability to produce DOCUMENT with multiple SCHEDULED EVENTS to multiple related PARTIES.	Can be Demonstrated	
DG-018	Provide ability to enter, store, and retrieve postal and electronic mail address (and other information pertaining to), for all persons who should receive specific documents, from various locations in system and database as if, from user perspective, they were in same record.	Can be Demonstrated	
DG-018.01	Use the address information from the member record in the Member Database as the default address.	Can be Demonstrated	
DG-018.02	Provide the ability to specify a case specific address for each PARTY in a CASE.	Can be Demonstrated	
DG-018.03	Provide USER with the ability to assign postal and electronic mail address to PARTY.	Can be Demonstrated	
DG-019	Record pertinent information regarding all documents sent or served, and track document issuance and follow-up activities including type of process, recipient, method of service, date of service, return of service, proof or certificate of service, failed service, re-service, any judicial proceedings, and status information.	Can be Demonstrated	
DG-019.01	AUTOMATICALLY maintain history of DOCUMENTS generated.	Can be Demonstrated	
DG-019.02	Provide USER with the ability to search for DOCUMENTS.	Can be Demonstrated	
DG-019.03	Provide USER with the ability to create and store documents that have an unofficial status(i.e. not considered part of the official court record) (e.g. proposed orders)	Can be Demonstrated	
DG-020	Create orders resulting from out-of-the-courtroom events to be signed by judge in informal setting.	Can be Demonstrated	
DG-020.01	Provide USER with the ability to produce DOCUMENTS away from the courtroom and to control whether those documents are considered part of the official court record	Can be Demonstrated	
DG-020.02	Provide USER (e.g., law clerk) with the ability to produce a DOCUMENT (e.g., an order) and save document for later review and signing by a judge.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
DG-020.03	Provide USER with the ability to edit DOCUMENT, assign signature and assign document an official status	Can be Demonstrated	
DG-020.04	Provide USER with the ability to assign signature to DOCUMENT while generating the DOCUMENT or after generating the DOCUMENT.	Can be Demonstrated	
DG-021	Insert proper address in documents based on document date compared with address histories.	Alternative Proposed	Tyler proposes using the correspondence address for all mailings.
DG-021.01	AUTOMATICALLY populate DOCUMENT with address information.	Alternative Proposed	
DG-022	Create notices when counsel, party, or participant changed for case with future scheduled event.	Can be Demonstrated	
DG-023	Create notices when counsel, party, or participant address changed for case with future scheduled event.	Can be Demonstrated	
DG-023.01	Provide USER with the ability to generate DOCUMENTS when a PARTY is added or PARTY Address changed after DOCUMENTS [Notices, etc. for a future event] have been printed.	Can be Demonstrated	
DG-024	Create file containing customized templates for specific person (e.g., judge) consistent with court rules.	Can be Demonstrated	
DG-024.01	Provide USER with the ability to access file containing customized templates to be used by a specific person (i.e. Judge) , with appropriate security.	Can be Demonstrated	
DG-025	Support integration with electronic mail for electronic noticing (Microsoft Exchange)	Alternative Proposed	Tyler proposes the State Bar utilize our integrated Tyler Notify solution.
DG-025.01	INTERFACE with Microsoft Exchange for Electronic Notifications	Alternative Proposed	
DG-026	Generate mailing labels.	Can be Demonstrated	
DG-026.01	Provide USER with the ability to produce DOCUMENT[labels].	Can be Demonstrated	
DG-027	Ability to print, display and reprint selected notices from a list of notices.	Can be Demonstrated	
DG-027.01	Provide USER with the ability to search DOCUMENT[notices].	Can be Demonstrated	
DG-027.02	Provide USER with the ability to select one to many DOCUMENTS[notices] for printing.	Can be Demonstrated	
DG-028	Create register of action with information regarding all documents sent or served.	Can be Demonstrated	
DG-028.01	Provide USER with the ability to produce report for REGISTER OF ACTIONS.	Can be Demonstrated	
DG-029	Ability to integrate with user defined word processing package (i.e., Word) to generate documents.	Can be Demonstrated	
DG-029.01	Provide USER with the ability to produce DOCUMENTS that can be opened in word processing software.	Can be Demonstrated	
DG-029.02	INTERFACE with Microsoft Office.	Can be Demonstrated	
DG-030	Ability to print date and time in any conventional format (e.g., the default format could be mm/dd/yyyy but could be printed as January 1, 2004).	Can be Demonstrated	
DG-030.01	Provide USER with the ability to choose Date format printing in DOCUMENTS.	Can be Demonstrated	
DG-031	Generate documents, calendars, correspondence in large font.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
DG-032	Provide ability for drafting a proposed Supreme Court order based on data recorded in the CMS about the respondent, any stipulation, Hearing Court decision, and Review Court Opinion.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
DM-001	Provide integrated ECMS functionality or Interoperate with the ECMS to allow search, retrieval, view, and printing of electronic documents and images (e.g., the user should not know or care if the document is imaged or created by the court in Microsoft Word or Excel; all documents relating to a case should show as title of the document and be available for viewing or download on demand).	Can be Demonstrated	
DM-001.01	Provide ADMIN USER with the ability to define fields for querying DOCUMENTS.	Can be Demonstrated	
DM-001.02	Provide USER with the ability to search DOCUMENTS images.	Can be Demonstrated	
DM-001.03	Provide USER with the ability to select DOCUMENTS for viewing.	Can be Demonstrated	
DM-001.04	Provide ADMIN USER with the ability to define rules for constructing a document title.	Can be Demonstrated	
DM-002	Provide ability to apply electronic signature (e.g., judge's signature, CA's signature and filed stamp) to a document for all static court documents (e.g., judicial orders) if allowed or required by statute or court rule.	Can be Demonstrated	
DM-002.01	Provide ADMIN USER with the ability to define fields that are displayed for document search, retrieval and view and printing.	Can be Demonstrated	
DM-002.02	Provide ADMIN USER with the ability to define codes for electronic signatures for different court personnel.	Can be Demonstrated	
DM-002.03	Provide ADMIN USER with the ability to define codes to associate DOCUMENTS with electronic signatures.	Can be Demonstrated	
DM-002.04	Provide USER with the ability to produce DOCUMENTS containing electronic signatures.	Can be Demonstrated	
DM-002.05	Provide ADMIN USER with the ability to define rule for electronic signatures for different court personnel.	Can be Demonstrated	
DM-003	Provide ability to create a digital certificate (i.e. electronic document authentication or certification) for all static court documents (e.g., judicial orders) if allowed or required by statute or court rule.	Alternative Proposed	Tyler proposes the use of the electronic signature feature that is native to Odyssey.
DM-003.01	Provide ADMIN USER with the ability to define fields that are displayed in the DIGITAL CERTIFICATE.	Alternative Proposed	
DM-003.02	Provide USER with the ability to produce DOCUMENTS containing a DIGITAL CERTIFICATE.	Alternative Proposed	
DM-003.03	Provide ADMIN USER with the ability to define codes for creating DIGITAL Certificate.	Alternative Proposed	
DM-003.04	Provide ADMIN USER with the ability to define fields for querying DIGITAL CERTIFICATE.	Alternative Proposed	
DM-003.05	Provide ADMIN USER with the ability to define business rules for creating DIGITAL Certificate.	Alternative Proposed	
DM-004	Provide integrated ECMS functionality or Interoperate with the ECMS to store and maintain electronic documents or content (e.g. video, audio, graphical)	Can be Demonstrated	Tyler proposes the use of the electronic content management system that is native to Odyssey.
DM-004.01	Provide ADMIN USER with the ability to define codes for DOCUMENT/DIGITAL CONTENT (e.g. video, audio, graphical) types.	Can be Demonstrated	
DM-004.02	Provide ADMIN USER with the ability to define fields for indexing the stored documents and images.	Can be Demonstrated	
DM-004.03	Provide ADMIN USER with the ability to define fields for querying DOCUMENTS/DIGITAL CONTENT records.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
DM-004.04	Provide ADMIN USER with the ability to define fields that are displayed for DOCUMENT/DIGITAL CONTENT search results.	Can be Demonstrated	
DM-004.05	Provide USER with the ability to search DOCUMENT/DIGITAL CONTENT indices.	Can be Demonstrated	
DM-005	Provide integrated ECMS functionality or Interoperate with the ECMS to enable users to secure documents if they should not be viewable to users outside the court in which the case is being heard.	Can be Demonstrated	Tyler proposes the use of the electronic content management system that is native to Odyssey.
DM-005.01	Provide ADMIN USER with the ability to define codes for DOCUMENT security types.	Can be Demonstrated	
DM-005.02	Provide ADMIN USER with the ability to define rule for displaying DOCUMENTs [secured].	Can be Demonstrated	
DM-005.03	Provide USER with the ability to assign one to many document security type to DOCUMENT when the document is secure.	Can be Demonstrated	
DM-006	Provide integrated ECMS functionality or Interoperate with the ECMS to allow USER the ability to scan documents into the ECMS library and associate scanned documents and images with cases.	Can be Demonstrated	
DM-006.01	Provide USER the ability to scan documents directly into the ECMS and associate them with existing cases.	Can be Demonstrated	
DM-006.02	Provide ADMIN USER the ability to define Index parameters for scanned documents by type and other criteria.	Can be Demonstrated	
DM-007	Provide capability to use same document management system for imaging if imaging is included in overall case processing.	Can be Demonstrated	
DM-007.01	Provide USER with the ability to assign DOCUMENT images as part of the case management system.	Can be Demonstrated	
DM-008	Provide integrated ECMS functionality or Interoperate with the ECMS to support maintenance of electronic or imaged documents (e.g., to produce documents that include parts of several electronic or imaged documents).	Can be Demonstrated	Tyler proposes the use of the electronic content management system that is native to Odyssey.
DM-008.01	Provide USER with the ability to search for DOCUMENT images as part of ECMS functionality.	Can be Demonstrated	
DM-008.02	Provide USER with the ability to sort for DOCUMENT images as part of ECMS functionality.	Can be Demonstrated	
DM-009	Provide integrated ECMS functionality or interoperate with the ECMS, to support input, output, storage (including indexing or an equivalent capability), and search and retrieval of electronic and imaged documents.	Can be Demonstrated	Tyler proposes the use of the electronic content management system that is native to Odyssey.
DM-009.01	Provide USER with the ability to search for DOCUMENT images (text based images) as part of ECMS functionality.	Can be Demonstrated	
DM-009.02	Provide USER with the ability to sort DOCUMENT images as part of ECMS functionality.	Can be Demonstrated	
DM-010	Provide integrated ECMS functionality or Interoperate with the ECMS to provide equivalent security for contents of the ECMS as it exists elsewhere in the court case management system.	Can be Demonstrated	Tyler proposes the use of the electronic content management system that is native to Odyssey.
DM-010.01	Provide ADMIN USER with the ability to define rules for access to electronic content.	Can be Demonstrated	
DM-010.02	Provide ADMIN USER with the ability to setup document security by types of documents stored.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
DM-011	Provide integrated ECMS functionality or Interoperate with the ECMS to provide ability to save, store, and output any document produced by the system without requiring the data to be reprocessed.	Can be Demonstrated	Tyler proposes the use of the electronic content management system that is native to Odyssey.
DM-011.01	Provide USER with the ability to search for past DOCUMENTs without recreating them.	Can be Demonstrated	
DM-012	Display any printed output, print any screen display, and print any document individually or in a group, immediately or at a scheduled time.	Can be Demonstrated	
DM-012.01	Provide USER with the ability to print DOCUMENT individually or in batches.	Can be Demonstrated	
DM-012.02	Provide USER with the ability to print DOCUMENT immediately or at a scheduled time.	Can be Demonstrated	
DM-013	Provide integrated ECMS functionality or Interoperate with the ECMS to support input, output, storage (including indexing or an equivalent capability), and search and retrieval of individual and multiple electronic and imaged documents based on user-defined criteria (e.g., by case number or date range).	Can be Demonstrated	
DM-013.01	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to search for DOCUMENT images by case number, date range, party, and other criteria.	Can be Demonstrated	Documents are associated with events or entries in the CMS. Therefore, searches are for the event which provides access to the attached document.
DM-013.02	Provide integrated ECMS functionality or Interoperate with the ECMS to provide ADMIN USER with the ability to define fields for querying DOCUMENT images.	Can be Demonstrated	
DM-014	Provide integrated ECMS functionality or Interoperate with the ECMS to support retrieval of specific document directly from other parts of system (e.g., docket) without intermediate steps (e.g., without scrolling through document list to select given document).	Can be Demonstrated	Documents are associated with events or entries in the CMS. Therefore, retrieval of the document is from the associated the event or directly from the documents tab.
DM-014.01	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to select SPECIFIC DOCUMENTS with minimal steps.	Can be Demonstrated	
DM-014.02	Provide integrated ECMS functionality or Interoperate with the ECMS to provide ADMIN USER with the ability to define field(s) for querying for SPECIFIC DOCUMENTS.	Can be Demonstrated	
DM-015	Tag order as being vacated (status), with ability to change back if order is reinstated.	Can be Demonstrated	
DM-015.01	Provide ADMIN USER with the ability to define codes for DOCUMENTS [order] status.	Can be Demonstrated	
DM-015.02	Provide USER with the ability to assign DOCUMENT [order] status.	Can be Demonstrated	
DM-016	Provide integrated ECMS functionality or Interoperate with the ECMS to allow USER to search the content of the documents in the ECMS library.	Can be Demonstrated	For all documents received and/or generated within the CMS, odyssey provides the ability to perform optical character recognition (OCR) when converting the document to a pdf document. There are two ways a document can be OCR'd within odyssey: on demand or on add. The on demand method is performed manually by a user. They would locate the document within Odyssey's integrated ECMS and send it to be OCR'd. The on add method is performed automatically once a particular type of document is added to the case within Odyssey. If the document is stored using OCR then the user can search the contents of the document.

ID	Requirement Text	Response Code	Comments
DM-016.01	Provide USER the ability to search document content for all documents stored in the ECMS library.	Can be Demonstrated	Refer to comment above (DM-016)
DM-016.02	AUTOMATICALLY index scanned images and apply Optical Character Recognition to allow content to be indexed on all scanned images.	Can be Demonstrated	
DM-016.03	Provide ability to convert scanned documents into searchable PDF documents when scanned into the ECMS library.	Can be Demonstrated	



## Appendix E

## System Integration

ID	Requirement Text	Response Code	Comments
AI-001	Provide the ability to obtain up to the minute member data for use in the CMS, including member name, status, address, e-mail, phone, fax, address for service upon case initiation.	Can be Demonstrated	Odyssey provides a different approach to the problem of unification that eliminates complexity of maintaining interfaces. By providing the State Bar with a solution based on a unified database, key data elements are inherently mapped between the different parts of the business and are not subject to being misaligned.
AI-002	The CMS must obtain and apply changes made to member records in the Member Database.	Alternative Proposed	Tyler is proposing Odyssey which is a unified solution. Should the State Bar choose to continue to maintain Member Database application the API toolkit will be provided.
AI-003	Provide the ability to call the Membership Database Application to search and retrieve member data, including supplemental records and disciplinary outcomes.	Alternative Proposed	Tyler is proposing Odyssey which is a unified solution. Should the State Bar choose to continue to maintain Member Database application the API toolkit will be provided.
AI-004	Provide the ability to call the State Bar Court CMS to search and retrieve selected case information.	Can be Demonstrated	
AI-004.01	Provide the ability for ADMIN USER to specify what selected case data to make available to other internal departments for display.	Can be Demonstrated	
AI-005	Provide the ability for an ADMIN USER to define what events, what data about those events, and the format of that data to be automatically interfaced to update the supplemental records of the Membership Database.	Alternative Proposed	Tyler is proposing Odyssey which is a unified solution. Should the State Bar choose to continue to maintain Member Database application the API toolkit will be provided.
AI-005.01	Provide the ability of the ADMIN USER to specify which court case events are to update supplemental records in the Membership Database.	Alternative Proposed	
AI-005.02	Provide the ability of the ADMIN USER to specify which data elements about the event are to be extracted to create the interface transaction.	Alternative Proposed	
AI-005.03	Provide the ability of the ADMIN USER to specify how the selected data will be formatted and combined to create the interface transaction sent to the Membership Database application.	Alternative Proposed	
AI-006	Provide the ability to call the Office of Chief Trial Counsel CMS to search and retrieve selected case information.	Can be Demonstrated	
AI-007	Provide the ability to call the Office of Probation CMS to search and retrieve selected case information.	Can be Demonstrated	
AI-008	Provide the ability to imbed links to other external systems.	Can be Demonstrated	This feature is only available in the Portal.
AI-009	Provide the ability to interface with the bar's integration software, IBM's IIB, from the court CMS.	Can be Demonstrated	Tyler has included the API Toolkit to share data with third party applications should the State Bar choose to establish their own integrations.
AI-009.01	Provide the ability to transmit records of Hearing Department dispositions to other State Bar applications.	Can be Demonstrated	
AI-009.02	Provide the ability to transmit aggregated accounting transactions to the Oracle JDE ERP application.	Can be Demonstrated	
AI-009.03	Provide the ability to transmit records of Review Department dispositions to other State Bar applications.	Can be Demonstrated	
AI-009.04	Provide the ability to transmit closing dispositions and sanction information to other State Bar applications.	Can be Demonstrated	
AI-009.05	Provide the ability to transmit court event information to other State Bar applications.	Can be Demonstrated	
AI-009.06	Provide the ability to transmit case initiation information to other State Bar Applications based upon business rules.	Can be Demonstrated	

## Appendix E

## System Integration

ID	Requirement Text	Response Code	Comments
AI-009.07	Provide the ability to transmit case consolidation/severing information to other State Bar Applications.	Can be Demonstrated	
AI-009.08	Provide the ability to transmit detail accounting transactions to the Revenue Results applications.	Can be Demonstrated	
AI-009.09	Provide the ability to transmit filed dates for lodged cases to other State Bar applications.	Can be Demonstrated	
AI-009.10	Provide the ability to transmit stage and status.	Can be Demonstrated	
AI-010	Provide the ability to interface with the bar's integration software, IBM's IIB, from the membership system.	Alternative Proposed	Though Tyler has included the API toolkit to enable integration, Tyler proposes Odyssey as a unified solution for use by OCTC and the State Bar eliminating
AI-010.01	Provide the ability to transmit new member data to other State Bar applications.	Alternative Proposed	
AI-010.02	Provide the ability to transmit changed member data such as status, address, phone number, email etc.	Alternative Proposed	
AI-011	Provide the ability to call the Payment Processor to provide online payments for case related fees.	Can be Demonstrated	Tyler proposes that all merchant card processing, including payments through electronic filing, online payments, and over the counter transactions will be
AI-012	Provide the ability to consume payment transaction data from the Payment Processor.	Can be Demonstrated	Tyler proposes that all merchant card processing, including payments through electronic filing, online payments, and over the counter transactions will be
AI-013	Provide the ability to consume court recording meta-data from For the Record (FTR).	Alternative Proposed	Tyler has included the API Toolkit to share data with third party applications. Additionally, Tyler acquired an equity stake in Record Holdings (FTR) in 2015.
AI-014	Provide the ability for the court CMS to be called by the State Bar portal and provide inquiry access.	Alternative Proposed	Though Tyler has included the API toolkit to enable integration, Tyler proposes Odyssey as a unified solution for use by OCTC and the State Bar eliminating
AI-014.01	Provide the ability for the State Bar Portal to initiate an inquiry in the court calendar.	Alternative Proposed	
AI-014.02	Provide the ability for the State Bar Portal to initiate an inquiry in the court docket.	Alternative Proposed	
AI-015	Employ the State Bar's implementation of Active Directory to validate the identity of users with a single sign-on.	Can be Demonstrated	
AI-016	Integrate court CMS with the ECF 4.01 e-filing implemented for the court.	Can be Demonstrated	
AI-017	Provide the ability for the membership Web site to access designated entries on the case docket.	Can be Demonstrated	
AI-017.01	Provide access to designated docket entries.	Can be Demonstrated	
AI-017.02	Provide integrated ECMS functionality or interoperate with the ECMS to access appropriate documents related to publicly available docket entries.	Can be Demonstrated	Comment is for AI-018. (Cell is protected and does not allow the entry of a comment) Odyssey has a full built in calendaring tool for scheduling hearings,
AI-018	Provide ability to support adding calendar events from within the Case Management System into Microsoft Outlook.	Alternative Proposed	
AI-019	Provide USER the ability to access Lexis/Nexis from the application.	Not Proposed	
AI-020	Provide USER the ability to access WestLaw from the application.	Not Proposed	
AI-021	Provide USER a reviewable complete history of all interface transactions .	Can be Demonstrated	
AI-022	Provide ability to interface with the IVR system (Cisco Unified IP IVR) to receive basic data entered by the caller, such as Member ID and perform member search based on received information	Not Proposed	
AI-023	Provide ability to interface with standard email SMTP gateway to receive and send system generated emails	Alternative Proposed	

ID	Requirement Text	Response Code	Comments
AI-024	Provide ability to interface with outside agencies or other third party vendors such as off-site storage vendors or other state licensing agencies.	Can be Demonstrated	
AI-025	Provide the ability to interface with the bar's integration software, IBM's IIB, from the OCTC CMS to the i6180/90 application.	Alternative Proposed	Though Tyler has included the API toolkit to enable integration, Tyler proposes Odyssey as a unified solution for use by the State Bar across multiple departments, eliminating the need for integration.

## Appendix E

## Reporting &amp; Searches

ID	Requirement Text	Response Code	Comments
RPT-001	Provide the ability for the ADMIN USER to define custom reports that can be reused by all USERS.	Can be Demonstrated	
RPT-002	Provide the ability for the ADMIN USER to define ad hoc queries that can be reused by all USERS.	Can be Demonstrated	
RPT-003	Provide the ability to generate graphical representations of statistical data presented in reports.	Can be Demonstrated	Report data can be export to external graphing tools.
RPT-004	Provide USER the ability to define report formats, e.g., paper orientation, font selection, text formatting, etc.	Can be Demonstrated	The creation of user-defined templates (i.e., notices, forms, subpoenas) within Odyssey are supported through the use of Microsoft Word and its inherent formatting capabilities.
RPT-005	Provide the ability to support the on-screen WYSIWYG preview of any report to be printed, complete and in the format to be printed.	Can be Demonstrated	
RPT-006	Provide the ability to configure a user-friendly method, i.e., involving simple commands without programming, of accessing and reporting information to quickly handle unanticipated requests, e.g., Query By Example (QBE).	Can be Demonstrated	
RPT-007	Provide ability to query data and produce summarized statistics for the agency wide Annual Discipline Report as defined by statute.	Can be Demonstrated	Odyssey contains the data elements to produce the desired reports through existing or ECR reports.
RPT-007.01	Provide the ability for a summarized report of the defined data as of the end of the current year and the previous three years.	Can be Demonstrated	
RPT-007.02	Provide the ability to report on cases initiated, disposed of and remaining balances.	Can be Demonstrated	
RPT-007.03	Provide the ability to report by case initiation type.	Can be Demonstrated	
RPT-007.04	Provide the ability to report how cases were closed such as with discipline, no action, etc.	Can be Demonstrated	
RPT-007.05	Provide the ability to report pendency including age of case.	Can be Demonstrated	
RPT-007.06	Provide the ability to report average and median ages of closed cases.	Can be Demonstrated	
RPT-008	Provide annual report statistics by case type and within disciplinary and regulatory categories including ability to drill down to details.	Can be Demonstrated	Report can be created using enterprise custom reports.
RPT-009	Provide reports for State Bar Court performance against standards.	Can be Demonstrated	Odyssey can generate reports which can aid human interpretation against performance standards. NCSC Courttools is not included in the scope of this
RPT-009.01	Provide a report of case load clearance against standard.	Can be Demonstrated	
RPT-009.02	Provide a report of "on time" case processing.	Can be Demonstrated	
RPT-009.03	Provide a report of case backlog.	Can be Demonstrated	
RPT-009.04	Provide a report of commencement of trials.	Can be Demonstrated	
RPT-009.05	Provide a report of timeliness of submissions (trial level).	Can be Demonstrated	
RPT-009.06	Provide a report of commencement of oral arguments.	Can be Demonstrated	
RPT-009.07	Provide a report of timeliness of submissions (appellate level).	Can be Demonstrated	
RPT-010	Provide reports for Court Hearing Department operations.	Can be Demonstrated	
RPT-010.01	Provide reports of the amount of bench time served by each judge.	Can be Demonstrated	Not Available
RPT-010.02	Provide reports of the number of cases filed.	Can be Demonstrated	
RPT-010.03	Provide reports of the hearing Alternative Discipline Program pendency in evaluation.	Can be Demonstrated	
RPT-010.04	Provide reports of case filings by case type (comparing case type correlations to trial filings).	Can be Demonstrated	
RPT-010.05	Provide monthly statistical summary reports of cases filed, disposed, settled, pending.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
RPT-010.06	Provide monthly statistical summary reports of cases trends.	Can be Demonstrated	
RPT-011	Provide reports for Court Review Department (Appellate Department) operations.	Can be Demonstrated	Via Enterprise Custom Reports.
RPT-011.01	Provide reports of the number of cases filed.	Can be Demonstrated	
RPT-011.02	Provide reports of the number of cases and matters pending.	Can be Demonstrated	
RPT-011.03	Provide reports of the status and completion of opinions.	Can be Demonstrated	
RPT-012	Provide Court Case Management Reports.	Can be Demonstrated	Via Enterprise Custom Reports.
RPT-012.01	Provide reports of motions outstanding by judge.	Can be Demonstrated	
RPT-012.02	Provide reports of trial pending matters.	Can be Demonstrated	
RPT-012.03	Provide reports of submitted cases.	Can be Demonstrated	
RPT-012.04	Provide reports of ticklers.	Can be Demonstrated	
RPT-013	Provide reports of Probation Department performance against standards.	Can be Demonstrated	Via Enterprise Custom Reports.
RPT-013.01	Provide a report of the number of cases opened.	Can be Demonstrated	
RPT-013.02	Provide a report of "on time" case opening.	Can be Demonstrated	
RPT-013.03	Provide a report of cases monitored.	Can be Demonstrated	
RPT-013.04	Provide a report of referred to Chief Trial Counsel.	Can be Demonstrated	
RPT-013.05	Provide a report of the percentage of cases audited.	Can be Demonstrated	
RPT-013.06	Provide a report of cases closed.	Can be Demonstrated	
RPT-013.07	Provide a report of revocations filed.	Can be Demonstrated	
RPT-013.08	Provide a report of motions filed by respondents.	Can be Demonstrated	
RPT-014	Provide monthly statistical reports for Probation operations.	Can be Demonstrated	Via Enterprise Custom Reports.
RPT-014.01	Provide a report of the number of open files by case type.	Can be Demonstrated	
RPT-014.02	Provide a report of the number of files opened year to date (YTD) by case type.	Can be Demonstrated	
RPT-014.03	Provide a report of the number of files opened in a given month by case type.	Can be Demonstrated	
RPT-014.04	Provide a report of the number of files closed year to date (YTD) by case type.	Can be Demonstrated	
RPT-014.05	Provide a report of the number of files closed in a given month by case type.	Can be Demonstrated	
RPT-014.06	Provide a report of the number of revocation proceedings filed in a given month and YTD.	Can be Demonstrated	
RPT-014.07	Provide a report of the number of Motions for Modification & MPRE filed in a given month and YTD.	Can be Demonstrated	
RPT-014.08	Provide a report of the number of Referrals to Chief Trial Counsel in a given month and YTD.	Can be Demonstrated	
RPT-015	Provide for the generation of monthly progress reports for Probation Department.	Can be Demonstrated	Via Enterprise Custom Reports.
RPT-015.01	Provide a report of the number of ADP reports lodged with the court (this month, YTD).	Can be Demonstrated	
RPT-015.02	Provide a report of the percentage of cases referred (within 30, 60, 90 days and over 90 days).	Can be Demonstrated	
RPT-015.03	Provide a report of the percentage of cases opened within three weeks of assignment.	Can be Demonstrated	
RPT-016	Provide for the generation of case management reports for Probation Department.	Can be Demonstrated	Via Enterprise Custom Reports.

ID	Requirement Text	Response Code	Comments
RPT-016.01	Provide a report of cases with End Date Still Open as of report date.	Can be Demonstrated	
RPT-016.02	Provide a report of cases with Non-Compliance by Due Date.	Can be Demonstrated	
RPT-016.03	Provide a report of cases with random lab testing due.	Can be Demonstrated	
RPT-016.04	Provide a report of cases with monthly/quarterly AA/NA reports due.	Can be Demonstrated	
RPT-016.05	Provide a report of cases with monthly lab reports due.	Can be Demonstrated	
RPT-016.06	Provide a report of cases with quarterly LAP reports due.	Can be Demonstrated	
RPT-016.07	Provide a report of cases with quarterly MH reports due.	Can be Demonstrated	
RPT-016.08	Provide a report of cases with ES/CTA/MCLE due.	Can be Demonstrated	
RPT-016.09	Provide a report of referrals by case type.	Can be Demonstrated	
RPT-016.10	Provide a report of Open Probation Files.	Can be Demonstrated	
RPT-016.11	Provide a report of Closed Probation Files.	Can be Demonstrated	
RPT-016.12	Provide a report of cases with Quarterly Reports due.	Can be Demonstrated	
RPT-016.13	Provide a report of Monitor Assignments.	Can be Demonstrated	
RPT-016.14	Provide a report of cases with 9.20 due date.	Can be Demonstrated	
RPT-016.15	Provide a report of cases with MPRE due.	Can be Demonstrated	
RPT-016.16	Provide a report of cases with restitution due.	Can be Demonstrated	
RPT-016.17	Provide a report of Until Conditions (STD 1.4/REST/Rule 205, etc.) due.	Can be Demonstrated	
<b>RPT-017</b>	<b>Provide for the generation of OCTC case management reports.</b>	<b>Can be Demonstrated</b>	<b>Via Enterprise Custom Reports.</b>
RPT-017.01	Provide a report of Allegations Management.	Can be Demonstrated	
RPT-017.02	Provide a report of Case Aging by Stage.	Can be Demonstrated	
RPT-017.03	Provide a report of Case Aging by Supervisor.	Can be Demonstrated	
RPT-017.04	Provide a report of Case Backlog.	Can be Demonstrated	
RPT-017.05	Provide a report of Disciplinary Conditions and Orders.	Can be Demonstrated	
RPT-017.06	Provide a report of ENF Attorney Active Case Load.	Can be Demonstrated	
RPT-017.07	Provide a report of Final Sanction.	Can be Demonstrated	
RPT-017.08	Provide a report of NDC and Stipulations.	Can be Demonstrated	
RPT-017.09	Provide a report of Repeater Respondent.	Can be Demonstrated	
<b>RPT-018</b>	<b>Provide for the generation of OCTC Monthly case management reports.</b>	<b>Can be Demonstrated</b>	<b>Via Enterprise Custom Reports.</b>
RPT-018.01	Provide a report of Monthly Open Case Special Status by Case.	Can be Demonstrated	
RPT-018.02	Provide a report of Monthly Open Case Special Status by Special Status.	Can be Demonstrated	
RPT-018.03	Provide a report of Monthly Open Person Special Status Report by Special Status.	Can be Demonstrated	
RPT-018.04	Provide a report of Monthly Open Person Special Status Report by Case.	Can be Demonstrated	
RPT-018.05	Provide a report of Monthly Case Closed.	Can be Demonstrated	
RPT-018.06	Provide a report of Monthly Case Movement.	Can be Demonstrated	
RPT-018.07	Provide a report of Monthly Open Case Inventory.	Can be Demonstrated	
<b>RPT-019</b>	<b>Provide for the generation of OCTC Weekly case management reports.</b>	<b>Can be Demonstrated</b>	<b>Via Enterprise Custom Reports.</b>
RPT-019.01	Provide a report of Weekly Intake Unit Unread Inventory.	Can be Demonstrated	
RPT-019.02	Provide a report of Weekly Intake Worker Summary and Dispositions.	Can be Demonstrated	
RPT-019.03	Provide a report of Weekly Investigator Disposed Case Summary.	Can be Demonstrated	
RPT-019.04	Provide a report of Weekly Investigator Open Case Summary.	Can be Demonstrated	
RPT-019.05	Provide a report of Weekly Pre-Filing Summary.	Can be Demonstrated	
RPT-019.06	Provide a report of Weekly Translation Inventory.	Can be Demonstrated	



ID	Requirement Text	Response Code	Comments
RPT-019.07	Provide a report of Weekly Appeals Team Interlocutory Summary and Disposition.	Can be Demonstrated	
RPT-019.08	Provide a report of Weekly Appeals Team Plenary Inventory.	Can be Demonstrated	
RPT-019.09	Provide a report of Weekly Appeals Team Plenary Summary.	Can be Demonstrated	
RPT-019.10	Provide a report of Weekly Audit and Review Unit Inventory and Aging.	Can be Demonstrated	
RPT-019.11	Provide a report of Weekly Audit and Review Unit Movement by Stage.	Can be Demonstrated	
RPT-019.12	Provide a report of Weekly Audit and Review Unit Summary & Dispositions.	Can be Demonstrated	
RPT-019.13	Provide a report of Weekly Caseload by Initiation Type.	Can be Demonstrated	
RPT-019.14	Provide a report of Weekly Intake Priority Code Inventory.	Can be Demonstrated	
RPT-019.15	Provide a report of Weekly Intake Reads Summary and Dispositions.	Can be Demonstrated	
RPT-019.16	Provide a report of Weekly Intake Unit Inventory Report.	Can be Demonstrated	
RPT-019.17	Provide a report of Weekly Appeals Team Interlocutory Inventory.	Can be Demonstrated	
RPT-020	Provide for the generation of Member CLE Compliance reports for Membership Department.	Requires Customization	Tyler included customization allowance for optional Membership.
RPT-020.01	Provide report of CLE Compliance Good Cause.	Requires Customization	
RPT-020.02	Provide report of CLE Compliance Detail.	Requires Customization	
RPT-020.03	Provide report of CLE Compliance Summary.	Requires Customization	
RPT-020.04	Provide report of CLE Compliance Duplicate Cards.	Requires Customization	
RPT-020.05	Provide report of CLE Compliance Letters.	Requires Customization	
RPT-020.06	Provide report of CLE Compliance Non-Compliance Board List.	Requires Customization	
RPT-020.07	Provide report of CLE Compliance Pending Report.	Requires Customization	
RPT-020.08	Provide report of CLE Compliance Action.	Requires Customization	
RPT-020.09	Provide report of CLE Compliance Entitled.	Requires Customization	
RPT-020.10	Provide report of CLE Compliance Pending Member Credit.	Requires Customization	
RPT-020.11	Provide report of CLE Certified Mail.	Requires Customization	
RPT-020.12	Provide report of CLE Compliance Certified Mail.	Requires Customization	
RPT-020.13	Provide report of CLE Re-Entry Payment Listing.	Requires Customization	
RPT-020.14	Provide report of CLE Priority Contact.	Requires Customization	
RPT-020.15	Provide report of CLE Priority Contact List.	Requires Customization	
RPT-020.16	Provide report of CLE Non-Compliant Email Blast.	Requires Customization	
RPT-021	Provide for the generation of Law Corporation Reporting reports for Membership Department.	Alternative Proposed	Tyler proposes to provide reporting workshops to the State Bar resources to enable the ability to develop their own ad hoc reports.
RPT-021.01	Provide report of LLC and Corporation Detail.	Alternative Proposed	
RPT-021.02	Provide report of LLC and Corporation Address Change.	Alternative Proposed	
RPT-021.03	Provide report of LLC and Corporation Tickler.	Alternative Proposed	
RPT-021.04	Provide report of LLC and Corporation Chron (Account Notes).	Alternative Proposed	
RPT-021.05	Provide report of LLC and Corporation Payment Statistics.	Alternative Proposed	
RPT-021.06	Provide report of LLC and Corporation Payment History.	Alternative Proposed	
RPT-021.07	Provide report of LLC and Corporation Statistics.	Alternative Proposed	
RPT-021.08	Provide report of Specialist/Shareholder Partnership Status Change.	Alternative Proposed	
RPT-021.09	Provide report of LLC and Corporation Suspension of Unpaid Members.	Alternative Proposed	
RPT-021.10	Provide report of LLC and Corporation Mail Merge Correspondence.	Alternative Proposed	

ID	Requirement Text	Response Code	Comments
RPT-022	Provide for the generation of Limited Liability Partnership reports for Membership Department.	Alternative Proposed	Tyler proposes to provide reporting workshops to the State Bar resources to enable the ability to develop their own ad hoc reports.
RPT-022.01	Provide report of Limited Liability Partnerships Detail.	Alternative Proposed	
RPT-022.02	Provide report of Limited Liability Partnerships Address Change.	Alternative Proposed	
RPT-022.03	Provide report of Limited Liability Partnerships Tickler.	Alternative Proposed	
RPT-022.04	Provide report of Limited Liability Partnerships Chron (Account Notes).	Alternative Proposed	
RPT-022.05	Provide report of Limited Liability Partnerships Payment Statistics.	Alternative Proposed	
RPT-022.06	Provide report of Limited Liability Partnerships Payment History.	Alternative Proposed	
RPT-022.07	Provide report of Specialist/Shareholder Partnership Status Change.	Alternative Proposed	
RPT-022.08	Provide report of Limited Liability Partnerships Suspension of Unpaid Members.	Alternative Proposed	
RPT-022.09	Provide report of Limited Liability Partnerships Termination of Unpaid Members.	Alternative Proposed	
RPT-023	Provide for the generation of Membership Records reports.	Alternative Proposed	Same comment as response to RPT-022
RPT-023.01	Provide report of Corresponding Code Count by Date.	Alternative Proposed	
RPT-023.02	Provide report of Status Change History Listing.	Alternative Proposed	
RPT-023.03	Provide report of Status Change Count by Date.	Alternative Proposed	
RPT-023.04	Provide report of District/County Listing.	Alternative Proposed	
RPT-023.05	Provide report of Membership Exception.	Alternative Proposed	
RPT-023.06	Provide report of Transfer of Estate Documents.	Alternative Proposed	
RPT-023.07	Provide report of Supporting Records Begin Date.	Alternative Proposed	
RPT-023.08	Provide report of Supporting Records End/Projected.	Alternative Proposed	
RPT-023.09	Provide report of Status Change Listing.	Alternative Proposed	
RPT-023.10	Provide report of Address Change Listing.	Alternative Proposed	
RPT-023.11	Provide report of New Admitees.	Alternative Proposed	
RPT-023.12	Provide report of Member Chron (Account Notes).	Alternative Proposed	
RPT-023.13	Provide report of Friday Letters.	Alternative Proposed	
RPT-023.14	Provide report of Bar Card Address Change List.	Alternative Proposed	
RPT-023.15	Provide report of Member Block Address Change List.	Alternative Proposed	
RPT-023.16	Provide report of Automated Deceased Search.	Alternative Proposed	
RPT-023.17	Provide report of Supreme Court Name Change Letter.	Alternative Proposed	
RPT-023.18	Provide report of Voluntary Resignation CFG Documents.	Alternative Proposed	
RPT-023.19	Provide report of Waiver Letters.	Alternative Proposed	
RPT-024	Provide Case Management Reports.	Can be Demonstrated	Via Enterprise Custom Reports.
RPT-024.01	Provide reports of cases pending by judge, CA, Attorney, Investigator Complaint Analyst, Probation Deputy, unit, or other assigned resource.	Can be Demonstrated	
RPT-024.02	Provide reports of caseload, workload, inventory by judge, CA, Attorney, Investigator Complaint Analyst, Probation Deputy, unit, or other assigned resource.	Can be Demonstrated	
RPT-024.03	Provide tickler and activity reports.	Can be Demonstrated	
RPT-025	Provide the ability to configure a phonetic search routine that is modifiable to support required search routines.	Can be Demonstrated	A Phonetic search routine exists, but it is not modifiable.



## Appendix E

## Reporting &amp; Searches

ID	Requirement Text	Response Code	Comments
RPT-026	Provide searching capabilities for records based on phonetic matches for selected fields, i.e., entry of 'Smith' also returns search result for 'Smythe', 'Smithe', etc.	Can be Demonstrated	
RPT-027	Provide ability to 'drill through' to details from any summary report or search result.	Alternative Proposed	This feature is available for limited number of reports and search results.
RPT-028	Provide ability to support data export in a variety of common file formats, such as, CSV, tab-delimited text, SQL, XLS, DOC, which the State Bar can manipulate for reporting.	Can be Demonstrated	
RPT-029	Provide the ability to define and save searches for future use.	Can be Demonstrated	
RPT-030	Provide the ability to search for and display all cases for a PARTY.	Can be Demonstrated	
RPT-030.01	Provide USER with the ability to perform global search for all case participants by name.	Can be Demonstrated	
RPT-030.02	In the event that multiple records match the search criteria, provide USER a pick list of records to select from.	Can be Demonstrated	
RPT-030.03	Retain the pick list and provide USER the ability to return to this list and select a different record to view.	Can be Demonstrated	
RPT-031	Allow case searches by counsel (include court date, courtroom, case number, judge in search criteria).	Can be Demonstrated	
RPT-032	Enable a search of cases by various combinations of a person's or PARTY's name (e.g., full name, last name only, part of first or last name, aliases, maiden names, etc.), case number, Member number, and allegation.	Can be Demonstrated	Tyler assumes an allegation is a specific Case Type in Odyssey.
RPT-033	Provide ability to allow users to define the columns that will appear in the case search results.	Not Proposed	
RPT-034	Allow users to search at minimum by cases, Respondents, Complaining Witnesses, Respondent's Counsel.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
SA-001	Provide ability to setup and maintain user accounts.	Can be Demonstrated	
SA-001.01	Provide ADMIN USER the ability to create new user accounts, in accordance with the State Bar's policy.	Can be Demonstrated	
SA-001.02	Provide ADMIN USER the ability to assign user passwords.	Can be Demonstrated	
SA-001.03	Provide ADMIN USER the ability to lock and unlock user accounts (suspend).	Can be Demonstrated	
SA-001.04	Provide ADMIN USER the ability to deactivate user accounts when user access is no longer needed.	Can be Demonstrated	
SA-002	Provide ability to define and maintain security access for active users.	Can be Demonstrated	
SA-002.01	Provide ADMIN USER the ability to assign user security.	Can be Demonstrated	
SA-002.00	Provide ADMIN USER the ability to define security groups.	Can be Demonstrated	
SA-002.01	Provide ADMIN USER the ability to establish default security groups for users based on user roles.	Can be Demonstrated	
SA-002.02	Provide ADMIN USER the ability to define system navigation based on user security group.	Can be Demonstrated	
SA-002.03	Provide ADMIN USER the ability to assign multiple security groups to one user.	Can be Demonstrated	
SA-002.04	Provide ADMIN USER the ability to assign work queues based on security group access.	Can be Demonstrated	
SA-003	Provide ability to define and maintain workflows for different types of cases and activities.	Can be Demonstrated	
SA-003.01	Provide ADMIN USER the ability to setup workflows based on specified business routes for approvals.	Can be Demonstrated	
SA-003.02	Provide ADMIN USER the ability to maintain workflows as needed.	Can be Demonstrated	
SA-003.03	AUTOMATICALLY notify USERS in the workflow route of assignment.	Can be Demonstrated	
SA-003.04	AUTOMATICALLY notify next assigned USERS when previous task is completed.	Can be Demonstrated	
SA-003.05	Provide ADMIN USER the ability to run queries on workflow tasks by status (pending, in-progress, etc..).	Can be Demonstrated	
SA-003.06	AUTOMATICALLY notify USERS when workflow task is coming due.	Can be Demonstrated	
SA-003.07	Provide ADMIN USER the ability to define workflow actions, when tasks are not completed (e.g. forward to next assignor, notify supervisor, etc...).	Can be Demonstrated	
SA-003.08	Provide ADMIN USER the ability to re-assign tasks within a workflow.	Can be Demonstrated	
SA-004	Provide ability to define and maintain notifications and ticklers.	Can be Demonstrated	
SA-004.01	Provide ADMIN USER the ability to define and maintain notifications.	Can be Demonstrated	
SA-004.02	Provide ADMIN USER the ability to define and maintain ticklers.	Can be Demonstrated	
SA-004.03	Provide USER the ability to setup notifications on various tasks and aspects of the case (e.g. events, tasks due, documents filed, etc...).	Can be Demonstrated	
SA-004.04	Provide ability to setup reminders for tasks before they are due (e.g. 2 days before task is due, etc...).	Can be Demonstrated	
SA-005	Provide ability to define and maintain forms and data fields.	Can be Demonstrated	
SA-005.01	Provide ADMIN USER the ability to define new data fields and assign them to existing forms.	Can be Demonstrated	
SA-005.02	Provide ADMIN USER the ability to add new data types on existing forms (e.g. add new date field on existing form).	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
SA-05.03	Provide ADMIN USER the ability to create and maintain new forms (e.g. new case initiation form).	Can be Demonstrated	
SA-006	Provide ability to define and maintain lookup lists.	Can be Demonstrated	
SA-006.01	Provide ADMIN USER the ability to create new lookup lists.	Can be Demonstrated	
SA-006.02	Provide ADMIN USER the ability to add, update, inactivate and delete lookup list values.	Can be Demonstrated	
SA-006.03	Provide ADMIN USER the ability to secure lookup lists by security groups.	Can be Demonstrated	
SA-006.04	Provide ADMIN USER the ability to default lookup list value based on case type and other criteria.	Can be Demonstrated	
SA-007	Provide ability to define new business rules.	Can be Demonstrated	
SA-007.01	Provide ADMIN USER the ability to define new business rules.	Can be Demonstrated	
SA-007.02	Provide ADMIN USER the ability to maintain existing business rules.	Can be Demonstrated	
SA-007.03	Provide ADMIN USER the ability to assign business rules based on user security group.	Can be Demonstrated	
SA-007.04	Provide ADMIN USER the ability to setup triggers for business rules that are based on other business rules, or events (such as filing of a document, completion of a task, etc...).	Can be Demonstrated	
SA-008	Provide ability to define and maintain document templates.	Can be Demonstrated	
SA-008.01	Provide ADMIN USER the ability to create document templates that users can generate from the system.	Can be Demonstrated	
SA-008.02	Provide ADMIN USER the ability to assign document templates to security groups.	Can be Demonstrated	
SA-008.03	Provide ADMIN USER the ability to maintain document templates.	Can be Demonstrated	
SA-008.04	Provide ADMIN USER the ability to grant or revoke access to document templates by user role.	Can be Demonstrated	
SA-009	Provide ability to define and maintain data security.	Can be Demonstrated	
SA-009.01	Provide ADMIN USER the ability to secure data on the application level (e.g. lock fields from editing, hide fields on screen, etc...).	Can be Demonstrated	
SA-009.02	AUTOMATICALLY secure data in the dashboard based on security group (i.e. user accessing the dashboard should not be able to see any data that they are not privileged to see in the system).	Can be Demonstrated	
SA-009.03	AUTOMATICALLY secure data in the reports based on security group (i.e. user running the report should not be able to see any data that they are not privileged to see in the system).	Can be Demonstrated	
SA-009.04	AUTOMATICALLY secure data in the ad-hoc reports based on security groups (i.e. user running the ad-hoc report should not be able to see any data that they are not privileged to see in the system).	Can be Demonstrated	
SA-010	Provide ability to define, configure, and deploy user dashboards.	Can be Demonstrated	
SA-010.01	Provide ADMIN USER the ability to configure user dashboards by user role.	Can be Demonstrated	
SA-010.02	Provide ADMIN USER the ability to configure user dashboards by security group.	Can be Demonstrated	
SA-010.03	Provide ADMIN USER the ability to assign dashboards to specific USERS or security groups.	Can be Demonstrated	
SA-0011	Provide ability to create and maintain canned and ad-hoc reports	Can be Demonstrated	Ad-hoc reports are available through Enterprise Custom reporting.

ID	Requirement Text	Response Code	Comments
SA-0011.01	Provide ADMIN USER the ability to create and deploy canned reports.	Can be Demonstrated	
SA-0011.02	Provide ADMIN USER the ability to assign report security.	Can be Demonstrated	
SA-011.03	Provide ADMIN USER the ability create new ad-hoc reports and assign them to users (should be able to assign these ad-hoc reports to multiple users that can run them).	Can be Demonstrated	
SA-011.04	Provide ADMIN USER the ability to create filters for canned reports.	Can be Demonstrated	
SA-012	Provide ability for ADMIN USER to maintain a list of staff, their respective supervisors, and characteristics such as teams.	Can be Demonstrated	

## Appendix E

## User Interface

ID	Requirement Text	Response Code	Comments
UI-001	Provide configurable prompts to help users (e.g., locally-defined list of codes and translations that apply to data entry situation that currently confronts user, updates required in cases related to case being updated).	Requires Configuration	Certain codes can be configured with additional data entry fields that can be optional or required in the user interface. For example, the case event code can be configured with party fields so that the user can record the filing party, or judge field so that the user can record the judge that signed the order.
UI-001.01	Provide USER with data entry features that offer options based on context and allow USER to make one or many selections with ease.	Requires Configuration	
UI-001.02	Provide USER with data entry feature that offers valid options preconfigured by an administrator.	Requires Configuration	
UI-001.03	Provide USER with data entry feature to navigate and select on nested levels of code hierarchies, providing only valid options at each level.	Requires Configuration	
UI-001.04	Provide the use of "pick lists" where data values may be chosen from a discrete list.	Requires Configuration	
UI-001.05	Provide USER with the ability to search lookup tables based on context.	Requires Configuration	
UI-002	Allow supervisor at appropriate level to turn alerts on and off.	Can be Demonstrated	The ability to turn alerts on and off is controlled through security rights.
UI-002.01	Provide ADMIN USER with the ability to configure access levels for alerts by user role.	Can be Demonstrated	
UI-003	Permit system-wide date and time default format; System accepts date and time in any conventional format (e.g., military time) and converts to default format, with prompts for invalid or exceptional dates (past dates or dates far into the future).	Can be Demonstrated	
UI-003.01	Allow system to convert user-entered date and time to default date and time format.	Can be Demonstrated	
UI-004	Prompt date and time default values when entering date and time.	Can be Demonstrated	
UI-004.01	Allow system to prompt for acceptable date and time format when unrecognized format is entered by USER.	Can be Demonstrated	
UI-005	Allow ADMIN USER to define frequency of prompts at user level; user can set additional alerts and remarks which can be printed on calendars and displayed on courtroom display screens.	Alternative Proposed	Alerts and prompts can be tracked on the case through time standards, case events, or case flags. Odyssey reports can be scheduled to run at different frequencies and the report output can be manually retrieved or automatically emailed to a user or group of users.
UI-005.01	Allow USER with appropriate permissions to print/display special alerts and free-form remarks on calendars and court dockets.	Alternative Proposed	
UI-006	Provide drop down selections (allowing for both statewide and locally defined selections), as well as type ahead and keyboard functions, as opposed to typing information in fields, when docketing courtroom outcomes.	Can be Demonstrated	
UI-006.01	Provide USER with the ability to assign codes to MINUTE ENTRY text fields.	Can be Demonstrated	
UI-007	Give users real-time access to system (e.g., for judge to examine legal issues).	Can be Demonstrated	
UI-007.01	Provide USER with the ability to directly access CMS from the courtroom.	Can be Demonstrated	
UI-008	Provide the USER the ability to quickly return to search results after clicking on a detail record.	Can be Demonstrated	
UI-008.01	Provide a "Return to Search Results" functionality that allows USER to retain and navigate back to search results.	Can be Demonstrated	
UI-009	Real-time update of data returned to all, both data entry and display users.	Can be Demonstrated	

## Appendix E

## User Interface

ID	Requirement Text	Response Code	Comments
UI-009.01	Provide USER with ability to access data entered in the courtroom in real-time.	Can be Demonstrated	
UI-010	Allow USERS to easily and concurrently operate and transition between multiple windows accessing other components of the application.	Can be Demonstrated	
UI-010.01	Provide USER the ability to navigate to other areas of the system where they have case related tasks and activities.	Can be Demonstrated	
UI-011	Provide ability to have a configurable User Landing page which the User will land upon authentication into the system.	Can be Demonstrated	
UI-011.01	Provide ADMIN USER to assign default landing page by USER or GROUP of USERS based on roles or job functions.	Can be Demonstrated	
UI-011.02	AUTOMATICALLY, upon authenticating USER, system should default USER to their assigned landing page.	Can be Demonstrated	
UI-011.03	Provide USER the ability to view and navigate through their recent cases, tasks, events, assignments and other activities.	Can be Demonstrated	User can navigate through events via reports.
UI-011.04	Provide the ability to have a calendaring function that will integrate with Outlook calendar.	Can be Demonstrated	
UI-011.05	Provide USER the ability to navigate to other areas of the system directly from the Dashboard.	Can be Demonstrated	
UI-011.06	Provide the ability to support access to screens without navigation through multiple menu options.	Can be Demonstrated	
UI-012	Provide the ability to support multi-tasking, including background printing.	Can be Demonstrated	
UI-013	The Solution supports the addition of explanations to user-defined codes and table entries.	Can be Demonstrated	
UI-013.01	Provide ability to do automatic validation capability for user-specified input fields using format checks, e.g., phone #.	Can be Demonstrated	
UI-013.02	Provide the ability to configure automatic validation capability for user-specified input fields using validation tables.	Can be Demonstrated	
UI-013.03	Provide the ability to configure automatic validation capability for user-specified input fields using logical relationship tests across multiple data fields.	Can be Demonstrated	This can be supported by custom business rules. Should CALBAR require Tyler's
UI-013.04	Provide the ability to configure automatic validation capability for user-specified input fields using mandatory fields.	Can be Demonstrated	
UI-013.05	Provide the ability to configure automatic validation capability for user-specified input fields using range checks.	Can be Demonstrated	
UI-013.06	Provide the ability to configure data entry using auto-fill and type ahead features (i.e., automatic entry of data based on matching entry choice to initial entry of a few characters).	Can be Demonstrated	Fields are populated through the use of user-configurable codes.
UI-014	Provide a USER configurable dashboard that can include caseload, matter, and motion statistics by individual judge and groups of judges, or case age statistics by investigator or attorney, and other criteria.	Not Proposed	Not Available
UI-014.01	Provide ADMIN USER with the ability to configure USER dashboards that contain specific case data and statistics by user role (Judge, Court Administrator, Trial Counsel, Investigator, etc...).	Not Proposed	

## Appendix E

## User Interface

ID	Requirement Text	Response Code	Comments
UI-014.02	Provide ADMIN USER with the ability to assign specific configured dashboards to a USER or a group of USERS.	Not Proposed	
UI-014.03	Provide ADMIN USER with the ability to secure the dashboard by USER or a group of USERS.	Not Proposed	
UI-015	Provide ability to have a configurable "assignment queue" which will provide the ability for supervisors / managers to see and access the items assigned to their team members.	Can be Demonstrated	
UI-015.01	Provide ADMIN USER with the ability to configure assignment queues based on the types of assignments.	Can be Demonstrated	
UI-015.02	Provide ADMIN USER with the ability to assign assignment queues to one or multiple users based on their role and the type of assignment.	Can be Demonstrated	
UI-015.03	Provide USER with the ability to have multiple assignments queues based on the type of assignment.	Can be Demonstrated	
UI-015.04	Provide ADMIN USER with the ability to configure access to assignment queues by role (supervisors, managers, approvers, etc...).	Can be Demonstrated	
UI-015.05	Provide ADMIN USER with the ability to setup approval routes for each assignment queue.	Can be Demonstrated	
UI-016	Provide ability to have a configurable "assignment queue" which will provide the ability for users to see their assignments.	Can be Demonstrated	
UI-016.01	Provide USER with the ability to have multiple assignments queues based on the type of assignment.	Can be Demonstrated	
UI-016.02	Provide USER with the ability to manage their own assignments within their assignment queue.	Can be Demonstrated	
UI-016.03	Provide USER with the ability to re-assign an assignment based on their role and security access.	Can be Demonstrated	
UI-017	Provide ability to configure a formatted calendar image of scheduled events by day, week, month and year. This calendar view will allow user to view and schedule events related to cases.	Can be Demonstrated	
UI-017.01	Provide USER with the ability to schedule case related calendar events using a predefined list of event types.	Can be Demonstrated	
UI-017.02	Provide ADMIN USER with the ability to define and maintain event types.	Can be Demonstrated	
UI-017.03	Provide ADMIN USER with the ability to secure certain event types to specific user roles (hearings, courts, etc...).	Can be Demonstrated	
UI-018	Provide ability to add data to one or more cases in an association or consolidation simultaneously.	Can be Demonstrated	
UI-019	Provide ability to copy data from one case to another.	Can be Demonstrated	
UI-020	Provide mobile application access to appropriate functionality such as calendar events.	Can be Demonstrated	
UI-021	Public facing web components should scale to mobile devices for easy viewing and navigation.	Can be Demonstrated	



ID	Requirement Text	Response Code	Comments
COM-001	Provide ability to designate a case as a Major Case. A case is considered "major" when a case is initiated against a public official for example.	Alternative Proposed	While there is not a distinct Priority field, the existing Category or Case Flag data elements could be configured with such data.
COM-001.01	Provide ADMIN USER the ability to define major case reasons such as Media Interest, Supreme Court Referral, CTC Designated, CJP Referral, etc.	Alternative Proposed	
COM-001.02	Provide USER the ability to add a Major Case Submission at any point during Inquiry, Investigation or Litigation	Alternative Proposed	
COM-001.03	Provide ability to configure system to route Major Case through a pre-defined approval route	Alternative Proposed	
COM-001.04	Provide USER the ability to add Major Case Reasons when requesting Major Case designation.	Alternative Proposed	
COM-002	Provide ability to suspend a case. A case is suspended due to the existence of an external factor such as disbarment in another matter.	Can be Demonstrated	Tyler assumes the assignment of an attorney is a manual process. Should this require automation, a modification is required.
COM-002.01	Provide ADMIN USER the ability to define suspension reasons.	Can be Demonstrated	
COM-002.02	Provide ability to allow USER to request suspension at any point during Inquiry, Investigation or Litigation.	Can be Demonstrated	
COM-002.03	Provide USER the ability to add suspension reasons such as involuntary enrollment, and other pending litigations	Can be Demonstrated	
COM-002.04	Provide manager/supervisor USER to approve or reject suspension request	Can be Demonstrated	
COM-002.05	AUTOMATICALLY generate reminder for 90 day intervals to assigned staff to review case	Can be Demonstrated	
COM-002.06	Provide USER the ability to request a reason change	Can be Demonstrated	
COM-002.07	Provide USER the ability to request a status change	Can be Demonstrated	
COM-003	Provide the ability to associate cases, identifying the related cases and the nature of the relationship between them (e.g., provide the ability to associate an Inquiry case with another respondent(s), multiple investigations for a single subpoena, or multiple cases on a charging document.)	Can be Demonstrated	
COM-003.01	Provide ADMIN USER the ability to define association types.	Can be Demonstrated	
COM-003.02	Provide USER with the ability to associate different case types and/or different respondents	Can be Demonstrated	
COM-003.03	Provide USER with the ability to remove cases from an association.	Can be Demonstrated	
COM-003.04	Provide USER with the ability to associate a document to individual cases in an association.	Can be Demonstrated	
COM-003.05	Provide USER with the ability to associate a document to all cases in the association.	Can be Demonstrated	
COM-003.06	Provide USER with the ability to include a case in any number of associations.	Can be Demonstrated	
COM-003.07	AUTOMATICALLY create an inquiry association when the case is initiated with more than one Respondent.	Can be Demonstrated	Odyssey does not automatically create the association.
COM-003.08	Provide USER with the ability to designate a lead case within each association.	Can be Demonstrated	Lead cases can be identified for certain types of associations.



## Appendix E

## Common Requirements

ID	Requirement Text	Response Code	Comments
COM-004	Provide ability to initiate a translation based on the language selected for any participant in the case.	Not Proposed	Odyssey contains ability to track authorized interpreters, including their availability as a resource to court settings and calendars. The intent of the requirement can be demonstrated. However, the specifics in this section contain
COM-004.01	Provide ADMIN USER the ability to define translation types, languages, and translators.	Not Proposed	
COM-004.02	Provide USER the ability to select language other than English when adding a participant.	Not Proposed	
COM-004.03	AUTOMATICALLY route case for assignment for a Translator.	Not Proposed	
COM-004.04	Provide USER the ability to assign a translator to a case from a pre-defined list of Translators.	Not Proposed	
COM-004.05	Provide USER the ability to indicate the type of translation (e.g. Document, Oral, Media, etc.)	Not Proposed	
COM-004.06	Provide USER the ability to track the translation period (duration).	Not Proposed	
COM-005	Provide USER the ability to capture time spent on a case including recording activities from a pre-defined list.	Can be Demonstrated	This can be captured in Attorney Manager in the Time Tracking tab.
COM-006	Provide the ability to add information to a case at any point during the case lifecycle (Quick Add)	Can be Demonstrated	
COM-006.01	Provide ADMIN USER the ability to setup shortcuts to quickly add information to an ongoing case, such as notes, events, documents, etc...	Can be Demonstrated	
COM-006.02	Provide ADMIN USER the ability to define predefined lists such as event, action item and case note types	Can be Demonstrated	
COM-007	Provide the ability to add reminders on a case.	Can be Demonstrated	Reminders and ticklers can be added through the use of Time Standards.
COM-007.01	Provide USER the ability to add reminders on a case, and include a description of the reminder.	Can be Demonstrated	
COM-007.02	Provide USER the ability to set reminder deadlines.	Can be Demonstrated	
COM-007.03	Provide ADMIN USER the ability to define reminder types.	Can be Demonstrated	
COM-007.04	AUTOMATICALLY notify USER when reminder deadline is approaching.	Can be Demonstrated	
COM-008	Provide USER the ability to add case events such as depositions and Superior Court events.	Can be Demonstrated	
COM-008.01	Provide USER the ability to enter event information to include date, time, location, and event types and outcomes to be selected from a pre-defined list.	Can be Demonstrated	
COM-008.02	Provide ADMIN USER the ability to define event outcome, by event type.	Can be Demonstrated	
COM-008.03	Provide ability to contextually display event outcomes based on event type.	Can be Demonstrated	
COM-008.04	AUTOMATICALLY include scheduled events on USER's Outlook calendar.	Can be Demonstrated	
COM-009	Provide USER the ability to add a case note including note type, and date.	Can be Demonstrated	
COM-010	Provide USER the ability to add a person to the case including person type and demographic information as described in case initiation.	Can be Demonstrated	
COM-011	Provide USER the ability to add or remove an assignment to a case including date added or removed.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
COM-012	Provide ability to create a configurable Case Header upon the initiation of a case.	Can be Demonstrated	
COM-012.01	Provide ability to include key information that identifies the case, such as the Case Number, Case Name, Complaining Witness, Status, etc....	Can be Demonstrated	
COM-012.02	Provide ability to include a combination of static and dynamic fields, where the data changes based on the activities that are occurring on the case.	Can be Demonstrated	
COM-013	Provide ability to prioritize the case or capture information about a case from pre-defined lists.	Can be Demonstrated	Odyssey is a controlled by user-defined codes. Tyler assumes the information to capture is currently available within Odyssey.
COM-013.01	Provide ADMIN USER the ability to define issues or categories of information about a case such as practice area or law firm size.	Can be Demonstrated	
COM-013.02	Provide USER the ability to add a case priority code.	Can be Demonstrated	
COM-013.03	Provide USER the ability to add the practice area for the attorney at the time of the case. (e.g. Criminal , Loan Modification, Tax etc.)	Can be Demonstrated	
COM-013.04	Provide USER the ability to designate law firm size at the time of the case.	Can be Demonstrated	This would be captured as a comment.
COM-014	Provide ability to capture information about a person from pre-defined lists.	Can be Demonstrated	
COM-014.01	Provide the ADMIN USER the ability to define categories of information about a person such as their role in the case.	Can be Demonstrated	
COM-014.02	Provide USER the ability to describe information of note about the Complaining Witness. (e.g. Elderly over 62 years, Infirm etc.)	Can be Demonstrated	
COM-014.03	Provide USER the ability to define the Respondent's role in the case. (e.g. City Attorney, Public Defender etc.)	Can be Demonstrated	
COM-014.04	Provide USER the ability to describe information of note about the Respondent. (e.g. Medical, Substance etc.)	Can be Demonstrated	
COM-015	Provide the ability to create and track work requests for specified tasks with pre-defined workflows.	Requires Configuration	Configuration is limited to pre-defined workflow concepts.
COM-016	Provide the ability to configure work requests by type such as subpoenas, paralegal assistance, or general work requests.	Alternative Proposed	Configuration is limited to pre-defined workflow concepts.
COM-016.01	Provide the ability to configure work requests by sub-types such as trust financial records, insurance records, court file, translation, etc.	Alternative Proposed	
COM-016.02	Provide USER with ability to accept a work request when a work request is assigned to work request queue.	Alternative Proposed	
COM-016.03	Provide USER with ability to re-assign a work request.	Alternative Proposed	
COM-016.04	Provide USER with ability to enter work request specific data and pre-configured fields. Fields may include free form data entry fields, check boxes, or drop down boxes, such as Bank Name, Court Name, Address, Account No., Due Date, Response Deadline, etc.	Alternative Proposed	
COM-016.05	Provide USER with ability to select from pre-defined values from existing database entries for the select fields, such as Bank Name, Service Type, Work Request Status, Language, etc. If value is not in the list, user has the ability to manually enter a new value.	Alternative Proposed	

ID	Requirement Text	Response Code	Comments
COM-016.06	AUTOMATICALLY populate data based on pre-define rules for selected entries, such as Bank Address	Alternative Proposed	
COM-016.07	Provide USER with ability to define multiple date ranges when requesting records (Subpoena)	Alternative Proposed	
COM-017	Provide ability to route completed work requests to a pre-defined USER or a group of USERS for task execution	Can be Demonstrated	Completed tasks can be routed to a pre-defined user or group of users.
COM-018	Provide ability to clone or generate a new work request from the one that is already completed. The user should be able to change all fields on the cloned record	Not Proposed	Not a feature of Odyssey
COM-019	Provide ability to track the work request until completion	Can be Demonstrated	Tasks can be tracked through Time Standards and WorkFlow
COM-020	Provide the ability to track the progress and completion of subpoena requests.	Can be Demonstrated	
COM-020.01	Provide the ability to retain the work request details within the related job tracking request, such as Bank Name, Court Name, Address, Account No., Due Date, Response Deadline, etc.	Can be Demonstrated	
COM-020.02	Provide USER with ability to enter job tracking specific data and pre-configured fields. Fields may include free form data entry fields, check boxes, or drop down boxes, such as Job Tracking Status, Requested By, Processed By, Date Served, etc.	Can be Demonstrated	
COM-021	Provide the ability to create and track work requests for specified tasks with pre-defined workflows.	Not Proposed	Odyssey provides the ability to perform the intent of this requirement. However, the subcomponents are prescriptive in "how" it is accomplished.
COM-021.01	Provide the ability to configure work requests by type such as subpoenas, paralegal assistance, or general work requests.	Not Proposed	
COM-021.02	Provide the ability to configure work requests by sub-types such as trust financial records, insurance records, court file, translation, etc.	Not Proposed	
COM-021.03	Provide USER with ability to accept a work request when a work request is assigned to work request queue.	Not Proposed	
COM-021.04	Provide USER with ability to re-assign a work request.	Not Proposed	
COM-021.05	Provide USER with ability to enter work request specific data and pre-configured fields. Fields may include free form data entry fields, check boxes, or drop down boxes, such as Bank Name, Court Name, Address, Account No., Due Date, Response Deadline, etc.	Not Proposed	
COM-021.06	Provide USER with ability to select from pre-defined values from existing database entries for the select fields, such as Bank Name, Service Type, Work Request Status, Language, etc. If value is not in the list, user has the ability to manually enter a new value.	Not Proposed	
COM-021.07	AUTOMATICALLY populate data based on pre-define rules for selected entries, such as Bank Address	Not Proposed	
COM-021.08	Provide USER with ability to define multiple date ranges when requesting records (Subpoena)	Not Proposed	
COM-022	Provide ability to route completed work requests to a pre-defined USER or a group of USERS for task execution	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
COM-023	Provide ability to clone or generate a new work request from the one that is already completed. The user should be able to change all fields on the cloned record	Not Proposed	This is not a feature of Odyssey.
COM-024	Provide ability to view common data.	Can be Demonstrated	
COM-024.01	Provide USER ability to view Respondent's open cases	Can be Demonstrated	
COM-024.02	Provide USER ability to view Respondent's closed cases	Can be Demonstrated	
COM-024.03	Provide USER ability to view case assignment history	Can be Demonstrated	
COM-024.04	Provide USER ability to view all people associated with the case	Can be Demonstrated	
COM-024.05	Provide USER ability to view case status and stage change history	Can be Demonstrated	
COM-025	Provide ability to assign one or more staff to a case.	Can be Demonstrated	

## Appendix E

## Case Initiation

ID	Requirement Text	Response Code	Comments
CI-001	Provide the ability to have USER-defined case initiation types. Initiation types to include Complainant, State Bar Initiated (SBI), Reportable Action, Conviction Monitoring, Probation, Assumption of Practice, Inactive Enrollment, and State Bar Court Initiated.	Can be Demonstrated	
CI-001.01	Provide the ability to associate case types to initiation types.	Can be Demonstrated	
CI-002	Provide the ability to define basic case information that must be entered in order to initiate a case, by case initiation type.	Can be Demonstrated	
CI-002.01	Provide ADMIN USER with the ability to locally define rules for required fields for case initiation per case initiation type. Case types are categorized by initiation types such as Complainant, Reportable Action, Conviction Monitoring and State Bar Initiated.	Can be Demonstrated	
CI-002.02	Provide ADMIN USER with the ability to define fields and provide validation rules for entering case initiation information	Can be Demonstrated	
CI-002.03	Provide USER with the ability to initiate the case including case number, case type, other case characteristics (e.g., case sub-types, processing code, priority code,), location, status, and case open date.	Can be Demonstrated	
CI-003	Upon completing the initiation form, create a unique case number in the format of YY-AA-99999 where: YY is the 2 digit year, AA is a one to two letter alphabetic code for the case type; and 99999 is a sequentially assigned number. Provide the ability for the State Bar Court system to adopt the OCTC case number.	Can be Demonstrated	
CI-003.01	AUTOMATICALLY interface with the SBC Case System to accept cases initiated by the State bar Court.	Can be Demonstrated	Odyssey provides seamless flow of information between the SBC and the State bar Court. However, user intervention is still required to file a case.
CI-003.02	System to provide the USER with the ability to adopt the State Bar Court case number when accepting the case.	Can be Demonstrated	
CI-004	Enter information for parties and participants as individuals (e.g., Ann Smith) or organizations (e.g., investigative service) with primary contact person if organization.	Can be Demonstrated	If the party record is a business, then the primary contacts could be associated as additional names of associates.
CI-004.01	Provide ADMIN USER with the ability to define party type code.	Can be Demonstrated	
CI-004.02	Provide USER with the ability of a drill down option thru party type Category Type when selecting party type code.	Can be Demonstrated	
CI-004.03	Provide ADMIN USER with the ability to assign a party type code to a single PARTY CODE Category type.	Can be Demonstrated	
CI-004.04	Provide ADMIN USER with the ability to define ADDRESS TYPE CODE.	Can be Demonstrated	
CI-004.05	Provide ADMIN USER with the ability to assign a party type code to multiple case type.	Can be Demonstrated	
CI-004.06	Provide USER with the ability to assign a PERSON to a case.	Can be Demonstrated	
CI-004.07	Provide USER with the ability to assign an Organization to a case.	Can be Demonstrated	
CI-004.08	Provide USER with the ability to assign many Contacts to an Organization.	Can be Demonstrated	
CI-004.09	Provide USER with the ability to assign many PARTY Code Types to a (Person to case) Relationship.	Can be Demonstrated	

## Appendix E

## Case Initiation

ID	Requirement Text	Response Code	Comments
CI-004.10	Provide USER with the ability to assign many PARTY Code Types to a (Organization to case) Relationship.	Can be Demonstrated	
CI-004.11	Provide USER with the ability to have choices of party type codes that will validate against the case Category type of the case.	Can be Demonstrated	
CI-004.12	Provide USER with the ability to directly enter party type code.	Can be Demonstrated	
CI-004.13	AUTOMATICALLY validate party type code against the case Category type of the case.	Can be Demonstrated	Party and Participant codes can be configured with Case Type codes.
CI-004.14	Provide USER with the ability to assign first-name, middle-name, last-name, name-prefix, name-suffix and additional family or middle names to a Person.	Can be Demonstrated	Additional family and middle names can be added as searchable aliases.
CI-004.15	Provide USER with the ability to assign an organization name to an Organization.	Can be Demonstrated	
CI-004.16	Provide USER with the ability to assign a resident agent or service party to an Organization	Can be Demonstrated	
CI-004.17	Provide ADMIN USER with the ability to define ADDRESS TYPE CODE.	Can be Demonstrated	Odyssey supports current known, correspondence, confidential and undeliverable address types.
CI-004.18	Provide USER with the ability to assign many addresses to an Organization or Person.	Can be Demonstrated	
CI-004.19	Provide USER with the ability to assign an address type to an Address.	Can be Demonstrated	
CI-004.20	Provide USER with the ability to assign international address information to an Address.	Can be Demonstrated	
CI-004.21	Provide USER with the ability to assign an end date to a (PARTY to Address) Relationship.	Can be Demonstrated	Party and participants can be assigned an end date on the case as well as through relationships with one another. Addresses can have an end date.
CI-004.22	Provide USER with the ability to assign an unlimited number of Persons and Organizations to a case.	Can be Demonstrated	
CI-005	Provide the ability to select language preference and follow translation process - (defined elsewhere)	Can be Demonstrated	
CI-006	Provide ADMIN USER with the ability to define case processing timelines by case type and other case characteristics.	Can be Demonstrated	
CI-006.01	Provide ADMIN USER with the ability to define case processing timelines (eg case backlog)	Can be Demonstrated	
CI-006.02	Provide ADMIN USER with the ability to define rules for alerts within those timelines..	Can be Demonstrated	Time Standards can be adjusted on a per case basis. Alerts of outstanding time standards display on the case summary and a user can review reports.
CI-007	Provide the ability to enter Bar Number and retrieve PARTY information from the Member Database.	Can be Demonstrated	
CI-007.01	USER should not have the ability to change the Respondent's information	Can be Demonstrated	The user can be denied rights to change Respondent's information.
CI-007.02	Provide USER with the ability to automatically copy member demographic information to the case file	Can be Demonstrated	
CI-008	Provide the ability to manually input non-attorney respondents and their information	Can be Demonstrated	

## Appendix E

## Case Initiation

ID	Requirement Text	Response Code	Comments
CI-009	Create and maintain locally defined index that (1) contains basic index information (e.g., each PARTY name, Bar Number, role in case, and whether party has counsel; case type; location; case number and other identifiers; date opened; and cross reference to other parties in case [e.g., Complaining Witness] (2) permits database look-up by a choice of key fields (e.g., party name, party role, case opened date range) and, if record found; (3) permits retrieval and display of index information; and (4) permits easy interfaces with other parts of case processing system as noted below.	Can be Demonstrated	
CI-009.01	Provide ADMIN USER with the ability to define fields for searching the case and PARTY records.	Can be Demonstrated	Not available. Extensive search criteria available.
CI-009.02	Provide ADMIN USER with the ability to define fields that are displayed in the case and PARTY Index search result screen.	Can be Demonstrated	Not available. Search Results screen is not configurable.
CI-009.03	Provide ADMIN USER with the ability to define rules for screen navigation based on field values in a selected row.	Can be Demonstrated	Not available.
CI-009.04	Provide USER with the ability to search the case and PARTY Index with specified fields.	Can be Demonstrated	
CI-009.05	Provide USER with the ability to manually navigate directly from the search result screen to any functional screen based on field value context of a selected row.	Can be Demonstrated	User can navigate to various records by clicking on a party name vs. a case or warrant number.
CI-009.06	Provide USER with the ability to manually navigate directly from a search result row to a pre-configured screen.	Can be Demonstrated	
CI-009.07	Provide USER with the ability to sort on any column in the case and PARTY search result screen.	Can be Demonstrated	Not available.
CI-010	Handle look-up and retrieval sub-functions by identifying a specific party name, bar number, party role, location, case status, case or party identifier, case opened date range—if necessary, after eliminating other cases or parties that satisfy original look-up—and then obtaining index information by selecting from list of matching cases or parties or by using key fields noted above (e.g., USER requests list of parties named Smith, system returns list of Smiths, USER selects desired Smith from list by clicking on proper line or entering proper keys (sometimes after several tries that yield another Smith), system returns index information on cases involving that Smith).	Alternative Proposed	Users can look up cases by several search criteria for case information, party information, and attorney information. Once the search results are returned, the user is able to refine the search criteria to filter the results further.
CI-010.01	Provide USER with the ability to search on case and PARTY Index by narrowing a previous search ( ex. USER is able to select specific rows (usually after a sort). System then AUTOMATICALLY repopulates the search fields with new range values from selected.	Alternative Proposed	See CI-010
CI-011	Enter source for initiation (e.g., Complaining Witness, Judge, Prosecutor, Informant etc.).	Can be Demonstrated	
CI-011.01	Provide ADMIN USER with the ability to locally define case sources	Can be Demonstrated	
CI-011.02	Provide the ADMIN USER with the ability to locally define case sources by case types.	Can be Demonstrated	
CI-012	Include index information in index record or make this information easily accessible (e.g., in a manner that requires no additional USER actions).	Can be Demonstrated	
CI-012.01	AUTOMATICALLY maintain index records.	Can be Demonstrated	Docketable Events automatically add to the Case summary.



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## Case Initiation

ID	Requirement Text	Response Code	Comments
CI-013	Extract, print, or otherwise produce (e.g., PDF) with appropriate security restrictions index information arranged according to various components of index (e.g., PARTY, case number, case status).	Can be Demonstrated	
CI-013.01	Provide USER with the ability to request output of case/PARTY index.	Can be Demonstrated	
CI-013.02	Provide USER with the ability to set preferences on sort criteria on case and PARTY Index output.	Can be Demonstrated	Sort options not available outside of Case Summary Configuration
CI-013.03	Provide USER with the ability to set preferences on fields to be included in case and PARTY Index output.	Can be Demonstrated	Case Events can be made non-docketable, but Party Data report configuration is not available.
CI-014	Assign cases to appropriate assignment queue or staff such as investigator, attorney.	Can be Demonstrated	
CI-014.01	AUTOMATICALLY assign cases to an assignment queue based upon business rules	Can be Demonstrated	
CI-014.01	Provide USER with the ability to assign staff such as investigator or attorney.	Can be Demonstrated	
CI-015	Allow USER to designate the nature of the relationship between cases (e.g. co-respondents or multiple cases against same respondent ).	Can be Demonstrated	
CI-015.01	Provide ADMIN USER with the ability to define CODES for PARTIES.	Can be Demonstrated	
CI-015.02	Provide ADMIN USER with the ability to define relationships between PARTIES on a case.	Can be Demonstrated	
CI-015.03	Provide ADMIN USER with the ability to Maintain relationships between PARTY and case. Allow the same PARTY to be associated with many cases.	Can be Demonstrated	
CI-015.04	Provide ADMIN USER with the ability to specify what these roles are or make them USER defined per case type per party type.	Can be Demonstrated	
CI-016	Inform USER when situations exist for persons in new case that USER should be aware of (e.g., pending cases or member status) and identify situation to extent information is in the system.	Can be Demonstrated	
CI-016.01	Provide ADMIN USER with the ability to define rules regarding which types of cases/charges are reported to USER upon case initiation.	Can be Demonstrated	Can be accomplished through party flags.
CI-016.02	Provide ADMIN USER with the ability to define rules regarding which types of cases are subject to USER alerts upon initiate.	Can be Demonstrated	
CI-016.03	Provide ADMIN USER with the ability to define rules regarding minimum search criteria for PARTY search, e.g. name and D.O.B.	Can be Demonstrated	
CI-016.04	AUTOMATICALLY perform a search of database for existing cases involving PARTY(ies) to case in accordance with locally defined rules.	Can be Demonstrated	
CI-016.05	Alert USER when existing case(s) exist for identified PARTY.	Can be Demonstrated	
CI-016.06	Provide USER with the ability to search database for cases involving PARTY(ies) to case from within case initiation module.	Can be Demonstrated	Drill into party record from the search results upon party add.
CI-016.07	Provide USER with the ability to choose which PARTY(ies) to case to run search.	Can be Demonstrated	
CI-016.08	Provide USER with the ability to ignore any automatic alerts regarding existing cases for identical PARTY(ies) to case being initiated.	Can be Demonstrated	Can add as new party even if an identical party exists. No warning/alert for identical case for same party.



## Appendix E

## Case Initiation

ID	Requirement Text	Response Code	Comments
CI-017	AUTOMATICALLY conduct respondent conflict checking when initiating a case	Can be Demonstrated	
CI-017.01	Provide the ability for ADMIN USER to define or upload a list of respondents that will create a conflict of interest (e.g., a complaint against an attorney bar employee)	Can be Demonstrated	Conflicts can be defined between a judge and an attorney. This requirement is conditional based on a past hearing type. This requirement could be met through customization.
CI-017.02	Provide the ability for ADMIN USER to define types of conflicts.	Can be Demonstrated	
CI-017.03	AUTOMATICALLY apply rules using those conditions to identify conflicts of interest requiring CTC recusal.	Can be Demonstrated	
CI-018	Provide the ability to define validation criteria for specific fields, events, and work flow processes at the local level.	Requires Configuration	Most fields have validation built in, and additional data entry fields can be defined on several codes including the case event type code.
CI-018.01	Provide ADMIN USER with the ability to locally define validation criteria.	Requires Configuration	
CI-018.02	Provide ADMIN USER with the ability to locally define work flow processes.	Requires Configuration	
CI-019	Provide the ability to have USER-defined types of cases.	Can be Demonstrated	
CI-019.01	Provide ADMIN USER with the ability to locally define codes for case types (nature of action).	Can be Demonstrated	
CI-019.02	Provide USER with the ability to select case type code(s) upon case initiation.	Can be Demonstrated	
CI-020	Provide the ability to produce text and bar code labels, RFID tags, or future technology for attachment to case folders, for documents to be served, and for subsequent manual filings.	Can be Demonstrated	
CI-020.01	Provide for bar-coding, etc. for case folders.	Can be Demonstrated	
CI-020.02	Print bar code on case folders, notices, summons, etc. or other system-generated documents.	Can be Demonstrated	
CI-020.03	Print bar code on any cover sheets associated with manual filings.	Can be Demonstrated	
CI-020.04	Associate/insert bar code on scanned document images.	Can be Demonstrated	
CI-021	Allow a USER to stop, exit or place the case on hold once the case initiation work flow has begun. This process must consider the case flow clock performance statistics are not distorted.	Can be Demonstrated	
CI-021.01	Provide ADMIN USER with the ability to globally define rules for starting/stopping/suspending the case initiation while maintaining the proper case flow measurements.	Can be Demonstrated	
CI-021.02	Provide USER with the ability to assign start, suspend, stop events to case during case initiation	Can be Demonstrated	
CI-022	CMS must be accessible and accommodate all customers with ADA.	Can be Demonstrated	Odyssey does not rely solely on color to distinguish information in the user interface and does not contain blinking icons by default. Odyssey is accessible.
CI-022.01	Provide all USERS with disabilities access to the system alternate translations based on disability.	Can be Demonstrated	
CI-023	Provide ability to submit a complaint form and associated attachments online.	Alternative Proposed	Tyler proposes the use of Odyssey's Portal and File & Serve (eFiling solution) to provide the features of this requirement.
CI-023.01	Provide web interface to allow the online submission of the Complaint Form.	Alternative Proposed	
CI-023.02	Provide ability to include multiple attachments with the Complaint Form.	Alternative Proposed	

ID	Requirement Text	Response Code	Comments
CI-023.03	AUTOMATICALLY validate member information from the Member Database before submitting online Complaint Form.	Alternative Proposed	
CI-023.04	AUTOMATICALLY route all online submissions to an Online Submissions Inbox for review and processing.	Alternative Proposed	
CI-023.05	Provide ability to accept or reject online submissions, and notify submitter accordingly.	Alternative Proposed	
CI-023.06	Provide ability for submitter to check status of their submission(s).	Alternative Proposed	

## Appendix E

## Inquiry

ID	Requirement Text	Response Code	Comments
INQ-001	Provide an Inquiry landing page and sub pages based on Case Initiation Type.	Can be Demonstrated	
INQ-001.01	AUTOMATICALLY route case to configured Inquiry landing page depending on Case Initiation Type once case is initiated.	Can be Demonstrated	
INQ-001.02	AUTOMATICALLY route case to appropriate stage depending on Case Initiation Type once case is initiated.	Can be Demonstrated	
INQ-002	Provide the ability to define assignment queues.	Can be Demonstrated	
INQ-002.01	Provide ADMIN USER the ability to route cases to USERS based upon their role.	Can be Demonstrated	
INQ-002.02	AUTOMATICALLY route Complainant and SBI cases to a reader queue	Can be Demonstrated	
INQ-002.03	Provide USER the ability to further route cases for assignment after being read.	Can be Demonstrated	
INQ-002.04	AUTOMATICALLY route Reportable Action, Conviction Monitoring, and Probation cases to assignment queues based upon specified business rules.	Can be Demonstrated	
INQ-003	Provide the ability to define approval routes.	Can be Demonstrated	
INQ-003.01	Provide ADMIN USER the ability to define approval routes and approvers based upon role.	Can be Demonstrated	
INQ-003.02	Provide ADMIN USER the ability to update list of approvers based on assignees	Can be Demonstrated	
INQ-003.03	Provide USER the ability to request approval.	Can be Demonstrated	
INQ-003.04	Provide USER the ability to approve or deny the request.	Can be Demonstrated	
INQ-003.05	Provide INTAKE ATTORNEY ability to route case to appropriate working team if further investigation is warranted.	Can be Demonstrated	
INQ-004	Provide the ability to define Allegation of Misconduct codes.	Can be Demonstrated	
INQ-004.01	Provide ADMIN USER ability to define and maintain allegation code list with information to include Business & Professions Section code number and description.	Can be Demonstrated	
INQ-004.02	Provide ADMIN USER ability to categorize allegation codes.	Can be Demonstrated	
INQ-005	Provide ADMIN USER with the ability to define a list of crime codes.	Can be Demonstrated	
INQ-006	Provide ADMIN USER with the ability to define a list of courts, including contact information.	Can be Demonstrated	
INQ-007	Provide ADMIN USER with the ability to define a list of financial institutions, including contact information.	Can be Demonstrated	
INQ-008	Provide ADMIN USER with the ability to define a list of insurance companies, including contact information.	Can be Demonstrated	Tyler assumes this pertains to the bond process. Within Odyssey insurance companies can defined in that capacity. If this requirement is in regards to
INQ-009	The system must be able to AUTOMATICALLY contextually present case information based upon a Reportable Action type.	Can be Demonstrated	
INQ-009.01	Provide ADMIN USER with the ability to define case information for each Reportable Action type	Can be Demonstrated	
INQ-010	Provide USER the ability to enter Inquiry case information	Can be Demonstrated	

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## Inquiry

ID	Requirement Text	Response Code	Comments
INQ-010.01	Provide USER the ability to enter an Inquiry Summary including date of the summary, and the name of the staff.	Can be Demonstrated	
INQ-010.03	Provide USER the ability to add a case note.	Can be Demonstrated	
INQ-010.04	Provide USER the ability to enter allegations of misconduct, and when the misconduct occurred.	Can be Demonstrated	
INQ-011	Provide the ability to enter case information for Complainant and SBI cases.	Can be Demonstrated	
INQ-011.01	Provide ADMIN USER with the ability to define fields and provide validation rules for entering complainant and SBI information	Can be Demonstrated	
INQ-011.02	Provide USER ability to enter complaining witnesses.	Can be Demonstrated	
INQ-011.03	Provide INTAKE ATTORNEY ability to enter a Legal Analysis whether to close or move the case to the Investigation stage.	Can be Demonstrated	
INQ-011.04	Provide INTAKE ATTORNEY ability to designate case priority (e.g. Worker or Closer)	Can be Demonstrated	
INQ-012	Provide the ability to enter case information for Reportable Action cases.	Alternative Proposed	Though Tyler believes Odyssey can fulfil the intent of this requirement, the
INQ-012.01	Provide ADMIN USER with the ability to define fields and provide validation rules for entering Reportable Action information based upon Reportable Action type	Alternative Proposed	
INQ-012.02	Provide USER the ability to enter bank account information such as account number and account name.	Alternative Proposed	
INQ-012.03	Provide USER the ability to enter multiple checks per account and information such as check amount, and the action the bank took on the check.	Alternative Proposed	
INQ-012.04	Provide USER ability to enter insurance claim information such as claim number, claim amount, claimant and any case the claim is referring to.	Alternative Proposed	
INQ-012.05	Provide USER ability to enter court case information such as case number, judgment/sanction information and case reason (e.g.. breach of fiduciary duty).	Alternative Proposed	
INQ-012.06	Provide USER ability to enter the employment of a former member including the former member's bar number, and dates of employment.	Alternative Proposed	
INQ-012.07	Provide USER ability to enter another attorney disciplinary jurisdiction's information.	Alternative Proposed	
INQ-012.08	Provide USER ability to enter another licensing agency information. (e.g.. State Board of Realtors).	Alternative Proposed	
INQ-012.09	Provide USER ability to enter a reporting entity (e.g.. Financial Institution)	Alternative Proposed	
INQ-012.10	Provide INTAKE ATTORNEY ability to enter a Legal Analysis whether to close or move the Reportable Action case to the Investigation stage.	Alternative Proposed	
INQ-013	Provide the ability to enter case information for Conviction Monitoring cases.	Can be Demonstrated	
INQ-013.01	Provide ADMIN USER with the ability to define fields and provide validation rules for entering Conviction Monitoring information	Can be Demonstrated	

## Appendix E

## Inquiry

ID	Requirement Text	Response Code	Comments
INQ-013.02	Provide USER ability to add court case information including case number, status and status date (e.g.. case filed, conviction final) and final status of case (e.g.. Convicted or dismissed).	Can be Demonstrated	
INQ-013.03	Provide USER ability to add charges including count, charge ID, description, and status	Can be Demonstrated	
INQ-013.04	Provide USER ability to clone counts if party has been charged with multiple counts.	Can be Demonstrated	
INQ-013.05	Provide INTAKE ATTORNEY ability to enter a Legal Analysis whether to close or move the case forward by transmitting case to the State Bar Court.	Can be Demonstrated	
INQ-014	Provide the ability to enter case information for Probation Referral cases.		Can be Demonstrated (C51 is protected from Vendor input)
INQ-014.01	Provide INTAKE ATTORNEY ability to enter a Legal Analysis whether to close or move the Pre-Filing stage.	0	Can be Demonstrated (C52 is protected from Vendor input)
INQ-015	Provide the ability to enter case information for Assumption of Practice cases.		Can be Demonstrated (C53 is protected from Vendor input) Tyler assumes the characteristics of this case type are no different than the others.
INQ-015.01	Provide USER with ability to enter the reason for assuming the practice (e.g.. Death of respondent, non-attorney practicing law)	0	Can be Demonstrated (C54 is protected from Vendor input)
INQ-015.02	Provide INTAKE ATTORNEY ability to enter a Legal Analysis whether to close or move the case to the Investigation stage	0	Can be Demonstrated (C55 is protected from Vendor input)

## Appendix E

## Investigation

ID	Requirement Text	Response Code	Comments
INV-001	Provide USER the ability to assign INVESTIGATOR and ATTORNEY to the case from predefined user list	Can be Demonstrated	
INV-002	Provide INVESTIGATOR the ability to include a summary of their initial assessment of the case.	Can be Demonstrated	
INV-003	Provide the ability to maintain Allegation of Misconduct	Can be Demonstrated	
INV-003.01	Provide INVESTIGATOR the ability to add allegations from a pre-defined list.	Can be Demonstrated	
INV-003.02	Allow INVESTIGATOR to close an allegation with a closing code from a pre-defined list.	Can be Demonstrated	
INV-003.03	Provide INVESTIGATOR the ability to add a misconduct occurrence date to an allegation.	Can be Demonstrated	
INV-003.04	AUTOMATICALLY calculate the rule of limitations expiration date from the misconduct occurrence date.	Can be Demonstrated	
INV-003.05	Provide INVESTIGATOR the ability to add one or more tolling periods to an allegation.	Can be Demonstrated	
INV-003.06	Provide INVESTIGATOR the ability to select the tolling reason from a pre-defined list.	Can be Demonstrated	
INV-003.07	AUTOMATICALLY re-calculate the rule of limitations expiration date based upon the tolling periods.	Can be Demonstrated	
INV-004	Provide the ability to add charging language to the allegation.	Can be Demonstrated	
INV-004.01	Provide ADMIN USER ability to maintain templates of charging language.	Can be Demonstrated	
INV-004.02	AUTOMATICALLY insert the charging language from the template into the allegation on the case	Can be Demonstrated	
INV-004.03	Provide INVESTIGATOR the ability to insert specific case related information into the charging language.	Can be Demonstrated	
INV-005	Provide the ability to add elements to the allegation.	Can be Demonstrated	
INV-005.01	Provide ADMIN USER the ability to maintain a list of elements relevant to the allegation.	Can be Demonstrated	
INV-005.02	Provide INVESTIGATOR the ability to select elements from the pre-defined list.	Can be Demonstrated	
INV-006	Provide the ability to add facts to elements.	Can be Demonstrated	
INV-006.01	Provide ADMIN USER the ability to maintain a list of potential documents to obtain relevant to the element.	Can be Demonstrated	
INV-006.02	Provide INVESTIGATOR the ability to select facts from the pre-defined list.	Can be Demonstrated	
INV-007	Provide the ability to manage witnesses.	Can be Demonstrated	
INV-007.01	Provide INVESTIGATOR the ability to associate witnesses to a case.	Can be Demonstrated	
INV-007.02	Provide INVESTIGATOR the ability to designate whether a witness is relevant or not.	Can be Demonstrated	
INV-007.03	Provide INVESTIGATOR the ability to associate a fact with a witness.	Can be Demonstrated	

## Appendix E

## Investigation

ID	Requirement Text	Response Code	Comments
INV-007.04	Provide INVESTIGATOR the ability to associate a document with a witness.	Can be Demonstrated	
INV-008	Provide the ability add investigation action items.	Can be Demonstrated	
INV-008.01	Provide ADMIN USER the ability to define common investigation action items. (e.g. subpoena records, interview Complainant)	Can be Demonstrated	
INV-008.02	Provide INVESTIGATOR the ability to select appropriate action items from a pre-defined list.	Can be Demonstrated	
INV-008.03	Provide INVESTIGATOR the ability to update the status of an action item such as completed, waived or cancelled.	Can be Demonstrated	
INV-008.04	AUTOMATICALLY update action items based on pre-defined rules.	Can be Demonstrated	
INV-009	Provide the ability to create investigation exhibits.	Can be Demonstrated	
INV-009.01	Provide INVESTIGATOR the ability to create an exhibit list including the exhibit number and description.	Can be Demonstrated	
INV-009.02	Provide INVESTIGATOR the ability to link a document to each exhibit on the list.	Can be Demonstrated	
INV-009.03	Provide INVESTIGATOR the ability to associate an exhibit with one or more facts.	Can be Demonstrated	
INV-009.04	Provide INVESTIGATOR the ability to associate an exhibit with a witness.	Can be Demonstrated	
INV-009.05	Provide INVESTIGATOR the ability to associate an exhibit with one or more allegations.	Can be Demonstrated	
INV-010	Provide ability to create an Investigation Plan including a summary, allegations, witnesses etc.	Can be Demonstrated	
INV-010.01	Provide ADMIN USER the ability to setup and define an Investigation Plan template.	Can be Demonstrated	
INV-011	Provide the ability to route Investigation Plan for approval.	Can be Demonstrated	
INV-011.01	Provide ADMIN USER the ability to setup an approval route for Investigation Plan.	Can be Demonstrated	
INV-011.02	Provide INVESTIGATOR the ability to request approval of the plan.	Can be Demonstrated	
INV-011.03	Provide ATTORNEY the ability to approve or deny plan.	Can be Demonstrated	
INV-011.04	Provide ATTORNEY the ability to add instructions or comments to the plan.	Can be Demonstrated	
INV-012	Provide ability to create an Investigation Report including case recommendations and supporting facts.	Can be Demonstrated	
INV-013	Provide the ability to route Investigation Report for approval.	Can be Demonstrated	
INV-013.01	Provide ADMIN USER the ability to setup an approval route for Investigation Report.	Can be Demonstrated	
INV-013.02	Provide INVESTIGATOR the ability to request approval of the report.	Can be Demonstrated	
INV-013.03	Provide ATTORNEY the ability to approve or deny the report.	Can be Demonstrated	
INV-013.04	AUTOMATICALLY route the case to pre-filing litigation upon approval of the report.	Can be Demonstrated	
INV-014	Provide the ability to create an Investigation Closing recommendation.	Can be Demonstrated	

## Appendix E

## Investigation

ID	Requirement Text	Response Code	Comments
INV-014.01	Provide INVESTIGATOR the ability to request approval of the recommendation (closing memo)	Can be Demonstrated	
INV-014.02	Provide ATTORNEY the ability to approve or deny the recommendation (closing memo)	Can be Demonstrated	
INV-014.03	AUTOMATICALLY route the case to close out upon approval of the closing recommendation.	Can be Demonstrated	
INV-015	Provide the ability to conduct informal audits of investigations.	Can be Demonstrated	
INV-015.01	Provide a checklist form for the selected case including the checklist item and a comment, date of the audit.	Can be Demonstrated	
INV-015.02	Provide USER the ability to complete the audit form.	Can be Demonstrated	
INV-016	Provide the ability to conduct a monthly investigation audit.	Alternative Proposed	Time Standards can be utilized to identify the cases requiring audit. List Manager could then be used to generate the audit form. Subsequent data entry.
INV-016.01	AUTOMATICALLY select cases for the audit based upon business rules.	Alternative Proposed	
INV-016.02	Provide ADMIN USER the ability to define the monthly audit parameters.	Alternative Proposed	
INV-016.03	Provide a checklist form for the selected case including the checklist item and a comment, date of the audit, recommended corrective actions.	Alternative Proposed	
INV-016.04	AUTOMATICALLY add corrective actions to the investigation action items list.	Alternative Proposed	Not Automatic
INV-017	Provide the ability for an Assumption case to add Superior Court Case information including court name, number and case name.	Alternative Proposed	This information can be captured in Odyssey but an integration to capture the information is not included in the scope of this project.
INV-018	Provide the ability to create an Operation Plan for an Assumption case	Can be Demonstrated	
INV-018.01	Provide INVESTIGATOR the ability to request approval of the Operation Plan.	Can be Demonstrated	
INV-018.02	Provide USER the ability to approve or deny the Operation Plan.	Can be Demonstrated	
INV-019	Provide ability to define and setup ticklers and reminders for investigations.	Can be Demonstrated	
INV-019.01	Provide ADMIN USER the ability to define reminders based on events, and other investigation criteria.	Can be Demonstrated	
INV-019.02	Provide USER the ability to setup ticklers based on events and other investigation criteria.	Can be Demonstrated	
INV-019.03	AUTOMATICALLY notify USER of approaching deadlines.	Can be Demonstrated	



## Appendix E

## Litigation

ID	Requirement Text	Response Code	Comments
LIT-001	Provide ATTORNEY the ability to include a litigation summary of the case.	Can be Demonstrated	
LIT-002	Provide the ability to maintain Allegation of Misconduct.	Can be Demonstrated	
LIT-002.01	Provide ATTORNEY the ability to add allegations from a pre-defined list.	Can be Demonstrated	
LIT-002.02	Allow ATTORNEY to close an allegation with a closing code from a pre-defined list..	Can be Demonstrated	
LIT-002.03	Allow ATTORNEY the ability to maintain tolling information.	Can be Demonstrated	
LIT-002.04	AUTOMATICALLY indicate which allegations were filed in State Bar Court when initiating document is filed.	Can be Demonstrated	
LIT-003	Provide ATTORNEY the ability to add to or change the existing charging language.	Can be Demonstrated	
LIT-004	Provide ATTORNEY the ability to add or update witnesses.	Can be Demonstrated	
LIT-005	Provide ATTORNEY the ability to add exhibits including exhibit number, description etc.	Can be Demonstrated	
LIT-005.01	Provide ATTORNEY the ability to enter an exhibit sequence number to organize the exhibits on the case in the order needed.	Can be Demonstrated	
LIT-005.02	Provide ATTORNEY the ability to enter the bate stamp number on the document.	Can be Demonstrated	
LIT-005.03	Provide ATTORNEY the ability to enter a status such as Admitted, Denied, Judicially Noticed, etc.	Can be Demonstrated	
LIT-005.04	Provide ATTORNEY the ability to associate a document with an exhibit.	Can be Demonstrated	
LIT-006	Provide the ability to add litigation events including date, time, location etc.	Can be Demonstrated	
LIT-006.01	Provide ATTORNEY the ability to update the disposition of an event from a list of pre-defined codes such as held, continued, etc...	Can be Demonstrated	
LIT-007	Provide the ability to add a recommended sanction and conditions.	Can be Demonstrated	
LIT-007.01	Provide ATTORNEY the ability to add a high level sanction from a list of pre-defined values such as such as disbarment, suspension etc.	Can be Demonstrated	
LIT-007.02	Provide ATTORNEY the ability to add sanction conditions from a list of pre-defined values such as Ethics School, restitution of monies stolen, etc.	Can be Demonstrated	
LIT-007.03	Provide the ability to record sanctions as the case progresses through the State Bar Court.	Can be Demonstrated	
LIT-007.04	Provide ADMIN USER the ability to maintain list of high level sanctions.	Can be Demonstrated	
LIT-007.05	Provide ADMIN USER the ability to maintain list of conditions.	Can be Demonstrated	
LIT-008	Provide the ability to add aggravating circumstances.	Can be Demonstrated	
LIT-008.01	Provide ATTORNEY ability to add aggravating circumstances such as multiple acts, pattern of misconduct, misrepresentation, etc.	Can be Demonstrated	
LIT-009	Provide the ability to add mitigating circumstances.	Can be Demonstrated	
LIT-009.01	Provide ATTORNEY ability to add mitigating circumstances such as no prior discipline, good faith, remorse, etc.	Can be Demonstrated	
LIT-010	Provide ATTORNEY the ability to add supporting evidence for cases that based upon the case type will not have allegations.	Can be Demonstrated	
LIT-010.01	Provide ATTORNEY the ability to add supporting evidence including type, description, etc.	Can be Demonstrated	
LIT-011	Provide the ability to add Trial issues.	Can be Demonstrated	

## Appendix E

## Litigation

ID	Requirement Text	Response Code	Comments
LIT-012	Provide ability to create a Charging Memo and including factual summary, allegations, witnesses, aggravating and mitigating circumstances etc.	Can be Demonstrated	
LIT-012.01	Provide ADMIN USER the ability to setup and define a charging memo template.	Can be Demonstrated	
LIT-012.02	Provide ATTORNEY the ability to update the charging memo.	Can be Demonstrated	
LIT-013	Provide ability to create a Notice of Disciplinary Charges (NDC) including counts, charging language, etc.	Can be Demonstrated	
LIT-013.01	Provide ADMIN USER the ability to setup and define a Notice of Disciplinary Charges template.	Can be Demonstrated	
LIT-013.02	Provide ATTORNEY the ability to update the NDC.	Can be Demonstrated	
LIT-014	Provide the ability to route Charging Memo and Notice of Disciplinary Charges for approval.	Can be Demonstrated	
LIT-014.01	Provide ADMIN USER the ability to setup an approval routes for Charging Memo and NDC.	Can be Demonstrated	
LIT-014.02	Provide ATTORNEY the ability to request approval of the Charging Memo and NDC.	Can be Demonstrated	
LIT-014.03	Provide USER the ability to approve or deny the Charging Memo and NDC.	Can be Demonstrated	
LIT-015	Provide the ability to complete a State Bar Court approved Stipulation form.	Can be Demonstrated	
LIT-016	Provide the ability to route Stipulation for approval.	Can be Demonstrated	
LIT-016.01	Provide ADMIN USER the ability to setup an approval route for Stipulations	Can be Demonstrated	
LIT-016.02	Provide ATTORNEY the ability to request approval of the Stipulation.	Can be Demonstrated	
LIT-016.03	Provide USER the ability to approve or deny Stipulation.	Can be Demonstrated	
LIT-016.04	Provide ATTORNEY the ability to update the Stipulation.	Can be Demonstrated	
LIT-017	Provide the ability to set appropriate ticklers based on the entry of events in pre-defined case processing template such as notice of intent and ENEC time periods.	Can be Demonstrated	
LIT-017.01	Provide ADMIN USER the ability to define the tickler time periods	Can be Demonstrated	
LIT-017.02	Provide ATTORNEY the ability to indicate when a pre-defined event has taken place.	Can be Demonstrated	
LIT-017.03	AUTOMATICALLY setup ticklers when a related pre-defined event has occurred.	Can be Demonstrated	
LIT-018	Provide the ability to track discovery activities	Can be Demonstrated	
LIT-018.01	Provide ADMIN USER the ability to define discovery codes such as initiating party, type, service type etc.	Can be Demonstrated	
LIT-018.02	Provide ATTORNEY the ability to add discovery activities	Can be Demonstrated	
LIT-019	Provide the ability to lodge filings in the State Bar Court	Alternative Proposed	Odyssey can provide the intent of this requirement. However, requirement 59 appears very prescriptive in nature by replicating the current system. Tyler proposes the use of Odyssey which will use different business processes.
LIT-019.01	Provide ADMIN USER the ability to define the elements to be used in the filing.	Alternative Proposed	
LIT-019.02	Provide ATTORNEY the ability to indicate when a filing is ready for lodging.	Alternative Proposed	

## Appendix E

## Litigation

ID	Requirement Text	Response Code	Comments
LIT-019.03	Provide ATTORNEY the ability to attach the filing to the electronic filing record.	Alternative Proposed	
LIT-019.04	AUTOMATICALLY lodge the document with the State Bar Court.	Alternative Proposed	
LIT-019.05	AUTOMATICALLY record when the State Bar Court has filed the document.	Alternative Proposed	
LIT-019.06	AUTOMATICALLY move the case to Post-filing stage when the initiating document has been filed.	Alternative Proposed	
LIT-020	Provide the ability to create a Pre-filing Closing recommendation.	Alternative Proposed	
LIT-020.01	Provide ATTORNEY the ability to request approval of the recommendation (closing memo)	Alternative Proposed	
LIT-020.02	Provide USER the ability to approve or deny the recommendation (closing memo)	Alternative Proposed	
LIT-020.03	AUTOMATICALLY route the case to close out upon approval of the closing recommendation.	Alternative Proposed	
LIT-021	Provide the ability to record activities completed in the Superior Court for the Assumption case types.	Can be Demonstrated	
LIT-021.01	Provide ADMIN USER the ability to define Superior Court activities including approval to seize files, accounts etc.	Can be Demonstrated	
LIT-021.02	Provide ATTORNEY ability to record Superior Court activities.	Can be Demonstrated	
LIT-022	Provide the ability to indicate that frozen bank accounts have been seized.	Can be Demonstrated	
LIT-022.01	Provide the ability to capture frozen bank account information such as bank name, account name and number, balance, etc.	Can be Demonstrated	
LIT-022.02	Provide ATTORNEY the ability to record the amount of funds that have been disbursed.	Can be Demonstrated	
LIT-022.03	AUTOMATICALLY calculate the balance of a frozen account.	Can be Demonstrated	Not proposed
LIT-023	Provide the ability to record whether a receiver has been assigned to the case with frozen accounts.	Can be Demonstrated	
LIT-023.01	Provide ATTORNEY the ability to record the receiver name and contact information.	Can be Demonstrated	
LIT-024	Provide the ability to record one or more interlocutory appeals.	Can be Demonstrated	
LIT-024.01	Provide ADMIN USER the ability to define appeal codes such as moving party, filing status, petition status, response status, etc.	Can be Demonstrated	
LIT-024.02	Provide ATTORNEY the ability to record information about an interlocutory appeal such as filed, served, status dates, issue appealed, etc.	Can be Demonstrated	
LIT-024.03	Provide ATTORNEY the ability to record disposition of an appeal.	Can be Demonstrated	
LIT-025	Provide the ability to have more than one interlocutory appeal active at the same time.	Can be Demonstrated	
LIT-025.01	Provide the ability to distinguish one interlocutory appeal from another.	Can be Demonstrated	
LIT-026	Provide the ability to request approval to initiate an appeal.	Can be Demonstrated	Tyler assumes approval is granted through the signature of a document. If it is a feature such as a "voting button" it is not proposed in the scope of this project.
LIT-026.01	Provide ADMIN USER the ability to set up an approval route for appeal approval.	Can be Demonstrated	
LIT-026.02	Provide ATTORNEY the ability to request approval to initiate an appeal.	Can be Demonstrated	
LIT-026.03	Provide USER the ability to approve or deny approval request.	Can be Demonstrated	

## Appendix E

## Litigation

ID	Requirement Text	Response Code	Comments
LIT-026.04	AUTOMATICALLY route request to the appeal assignment queue if approved.	Can be Demonstrated	
LIT-027	Provide the ability to assign an appeal attorney.	Alternative Proposed	A specific category for appeal attorney is not available
LIT-027.01	Provide USER the ability to assign an appeal attorney from a pre-defined list.	Alternative Proposed	
LIT-028	Provide the ability to record plenary appeals.	Can be Demonstrated	
LIT-028.01	Provide ADMIN USER the ability to define plenary type such as full, summary, etc.	Can be Demonstrated	
LIT-028.02	Provide ATTORNEY the ability to record information about a plenary appeal such as transcript service date, transcript payment plan, cross appeal filed date, etc.	Can be Demonstrated	
LIT-029	Provide the ability to generate a brief schedule.	Alternative Proposed	Odyssey provides the ability to capture time standards within the application. However a template to create full Word generated forms are not included in the
LIT-029.01	Provide ADMIN USER the ability to define schedule dates, time required between dates including the time allowed for service.	Alternative Proposed	
LIT-029.02	Provide ADMIN USER the ability to define different brief scheduled depending upon the type of brief such as full or summary.	Alternative Proposed	Odyssey provides the ability to capture Time standards within the application. However a template to create full Word generated forms are not included in the scope of this project.
LIT-029.03	Provide ATTORNEY the ability to enter the initiating event date.	Alternative Proposed	
LIT-029.04	AUTOMATICALLY generate a brief schedule based upon the definition.	Alternative Proposed	
LIT-029.05	Provide ATTORNEY the ability to enter the actual date for each step in the schedule.	Alternative Proposed	
LIT-029.06	AUTOMATICALLY recalculate the schedule based upon the actual dates entered.	Alternative Proposed	

## Appendix E

## Closeout

ID	Requirement Text	Response Code	Comments
CL-001	Provide ability to indicate the disposition of a case and the reasons for the disposition.	Can be Demonstrated	
CL-001.01	Provide ADMIN USER the ability to define codes for closing dispositions and reasons.	Can be Demonstrated	
CL-001.02	Provide USER ability to select the appropriate closing disposition and reason codes.	Can be Demonstrated	
CL-001.03	System to have the ability to contextually relate reasons to dispositions.	Can be Demonstrated	
CL-002	Close case (e.g., update closing codes, allegations for that case) based upon defined business rules, including the ability to close cases in batch.	Can be Demonstrated	Cases can be closed in batch via List Manager
CL-002.01	Provide USER the ability to identify closing codes for the case and allegations.	Can be Demonstrated	
CL-002.02	AUTOMATICALLY present a list of cases ripe for closing for the same Respondent.	Can be Demonstrated	
CL-002.03	AUTOMATICALLY present a list of cases ripe for closing for all cases in an association.	Can be Demonstrated	
CL-003	Identify activities and conditions that can prevent case from being closed and alerts when those conditions are not satisfied (e.g. outstanding or open allegations, issues, etc.).	Can be Demonstrated	
CL-003.01	Provide ADMIN USER with the ability to define a rule for allowing or disallowing a CASE closure.	Can be Demonstrated	
CL-004	Provide ability to indicate the disposition of allegations on a case.	Can be Demonstrated	
CL-004.01	Provide ADMIN USER the ability to define codes for closing allegations.	Can be Demonstrated	
CL-004.02	Provide USER the ability to indicate appropriate closing code.	Can be Demonstrated	
CL-005	Provide a facility for re-opening previously closed cases, tracking date and reason for reopening, with proper authorization.	Can be Demonstrated	
CL-005.01	Provide USER the ability to reopen a case.	Can be Demonstrated	
CL-005.02	Provide ADMIN USER the ability to define reason codes for reopening.	Can be Demonstrated	
CL-005.03	Provide USER with the ability to assign reopen date, reopen reason.	Can be Demonstrated	
CL-006	Provide ability to create and display a closing checklist with items appropriate to the stage in which the case was closed	Not Proposed	This is not a feature of Odyssey
CL-006.01	AUTOMATICALLY display checklist items that were completed in a previous stage of the case.	Not Proposed	
CL-006.02	Provide ADMIN USER the ability to update closing checklist as needed.	Not Proposed	
CL-006.03	Provide USER with the ability to manually complete the closing checklist and indicate completion of checklist.	Not Proposed	
CL-006.04	AUTOMATICALLY provide notification of closeout stage completion to file retention staff.	Not Proposed	
CL-007	Provide the ability to resolve issues at case closure.	Alternative Proposed	There are multiple ways in Odyssey to capture the disposition of a case closure.
CL-007.01	Provide USER the ability to resolve issues with reasons such as N/A or filled.	Alternative Proposed	
CL-008	Provide ability to automatically indicate at what stage a case was closed.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
CL-009	At case closure, provide ability to automatically update the case with high level sanction information through the interface with State Bar Court.	Alternative Proposed	Though Tyler has included the API toolkit to enable integration, Tyler proposes Odyssey as a unified solution for use by OCTC and the State Bar eliminating the
CL-010	At case closure, provide ability to add more details to the high-level sanctions – so while the high-level is read-only, OCTC users may add greater details about the sanction (eg. specific period of actual suspension).	Alternative Proposed	Though Tyler has included the API toolkit to enable integration, Tyler proposes Odyssey as a unified solution for use by OCTC and the State Bar eliminating the need for integration.

## Appendix E

## File Retention

ID	Requirement Text	Response Code	Comments
FR-001	Provide ability to submit request to send files for retention or request files from retention	Alternative Proposed	Tyler proposes the use of Odyssey case tracking abilities.
FR-001.01	Provide ADMIN USER with ability to define pre-defined lists such as file storage locations, file status, etc.	Alternative Proposed	
FR-001.02	Provide ADMIN USER with the ability to define different file request screens by request type.	Alternative Proposed	
FR-001.03	Provide USER with ability to generate a request to submit a file to retention and enter data in pre-configured fields, free form data entry fields, check boxes, or drop down boxes, request date, etc.	Alternative Proposed	
FR-001.04	Provide USER with ability to select multiple cases for a Respondent in a single request.	Alternative Proposed	
FR-001.05	AUTOMATICALLY route retention request to a retention work queue.	Alternative Proposed	
FR-001.06	AUTOMATICALLY route request to the retention work queue when case closing tasks are completed.	Alternative Proposed	
FR-001.07	Provide USER with ability to track progress of the retention request	Alternative Proposed	
FR-001.08	Provide USER with ability to view status of files at the case level.	Alternative Proposed	
FR-001.09	Provide USER with ability to view the information on all active file retention requests.	Alternative Proposed	
FR-001.10	Provide USER the ability to view all file requests for a particular case.	Alternative Proposed	
FR-002	Provide File Management functionality to allow the manage the storage of boxes and their contents (physical case files).	Can be Demonstrated	
FR-002.01	Provide ADMIN USER with ability to define lists such as box storage locations, file status, box numbers, storage vendor code(s) etc.	Can be Demonstrated	
FR-002.02	Provide USER with ability to view information on all box/file inventory, add boxes or box contents	Can be Demonstrated	
FR-002.03	Provide USER with ability to search boxes and files using a wide range of available data elements	Can be Demonstrated	
FR-002.04	Provide USER with ability to save and export the search results in multiple formats	Can be Demonstrated	
FR-002.05	Provide USER with ability to enter box related information such as box number, date prepared, prepared by, case file number, memo/instructions and offsite storage box identification.	Can be Demonstrated	
FR-002.06	Provide USER with ability to record multiple cases in a box.	Can be Demonstrated	
FR-002.07	Provide USER with ability to record one case in multiple boxes.	Can be Demonstrated	
FR-003	Provide ability to define type of retention such as audit or archive.	Alternative Proposed	Time Standards can provide ticklers for audit and archiving dates.
FR-003.01	Provide USER the ability to identify boxes that are part of an audit.	Alternative Proposed	
FR-003.02	Provide USER the ability to identify boxes for archiving.	Alternative Proposed	
FR-003.03	Provide USER the ability to track the auditor that is receiving the audit boxes.	Alternative Proposed	
FR-003.04	Provide USER the ability to run searches and ad-hoc reports on files and boxes.	Alternative Proposed	
FR-004	Provide ability to secure boxes and files by user role and security groups.	Alternative Proposed	A user can choose to update the document security group of a group of

ID	Requirement Text	Response Code	Comments
FR-004.01	Provide ADMIN USER the ability to define box and file security by user role and security group.	Alternative Proposed	



## Appendix E

## Cost Tracking

ID	Requirement Text	Response Code	Comments
CST-001	Provide ability to request approval to incur case related expenses.	Not Proposed	Odyssey provides numerous features to process, track and report case related e
CST-001.01	Provide ADMIN USER the ability to define expense types, approval thresholds, recoverable and taxable types.	Not Proposed	
CST-001.02	Provide USER with ability to enter the expense details such as request date, amount, expense type etc.	Not Proposed	
CST-001.03	Provide USER the ability to attach documentation to the request.	Not Proposed	
CST-001.04	AUTOMATICALLY route the expense for approval to the first approver.	Not Proposed	
CST-001.05	AUTOMATICALLY route the expense to the next approver based upon amount thresholds.	Not Proposed	
CST-001.06	Provide USER the ability to indicate whether an expense is recoverable, taxable.	Not Proposed	
CST-001.07	Provide USER the ability to indicate the actual expense.	Not Proposed	
CST-001.08	Provide USER with ability to update the expense detail and flag for re-approval if the amount of the expense has changed	Not Proposed	
CST-001.09	AUTOMATICALLY re-route the expense for approval.	Not Proposed	
CST-002	Provide ability to prepare a Cost Certificate Worksheet in order to prepare and submit a Cost Certificate to court.	Not Proposed	Odyssey provides numerous features to process, track and report case related e
CST-002.01	Provide ADMIN USER the ability to define cost years, levels and level charges and cost formulas.	Not Proposed	
CST-002.02	Provide ADMIN USER the ability to update cost years, levels and level charges, and cost formulas.	Not Proposed	
CST-002.03	Provide USER the ability to enter cost year and level based upon initiation type.	Not Proposed	
CST-002.04	Provide USER ability to indicate the number of completed investigations.	Not Proposed	
CST-002.05	Provide USER the ability to indicate a consolidated charge level (cases consolidated by the State Bar Court).	Not Proposed	
CST-002.06	Provide USER the ability to determine which recoverable expenses to include in the worksheet.	Not Proposed	
CST-002.07	Provide USER the ability to indicate which cases are included in the worksheet.	Not Proposed	
CST-002.08	AUTOMATICALLY calculate costs based on the pre-defined formulas, expense categories and recoverable expenses.	Not Proposed	
CST-003	Provide ability to display and print Cost Certificates, including expense categories sub-totals and certificate total	Not Proposed	Odyssey provides numerous features to process, track and report case related e
CST-003.01	Provide ADMIN USER the ability to define and setup Cost Certificate template.	Not Proposed	
CST-003.02	Provide USER the ability to generate cost certificate directly from the system.	Not Proposed	
CST-004	Provide ability to define and establish cost approval routes.	Not Proposed	Odyssey provides numerous features to process, track and report case related e
CST-004.01	Provide ADMIN USER the ability to define and establish cost approval routes based on cost threshold and other criteria.	Not Proposed	
CST-004.02	Provide ADMIN USER the ability to re-route a cost approval.	Not Proposed	

## Appendix E

## Cost Tracking

ID	Requirement Text	Response Code	Comments
CST-004.03	Provide ADMIN USER the ability to cancel a cost approval.	Not Proposed	

## Appendix E

## Audit Review

ID	Requirement Text	Response Code	Comments
AR-001	Provide the ability to maintain a case in closed status to determine if the case should be reopened (second look).	Can be Demonstrated	Tyler assumes the assignment of an attorney is a manual process. Should this process require automation, a modification is required.
AR-001.01	Provide USER the ability to indicate whether a second look request has been received including date received.	Can be Demonstrated	
AR-001.02	Provide USER the ability to initiate a second look once a request has been received.	Can be Demonstrated	
AR-002	Provide ability to route second look cases for assignment based on pre-defined business rules.	Requires Configuration	
AR-002.01	Provide ADMIN USER the ability to setup automatic case assignment route.	Requires Configuration	
AR-002.02	Provide USER the ability to assign case.	Requires Configuration	
AR-003	Provide ability to make recommendations on second look cases.	Not Proposed	The information tracked in Odyssey can assist the user in making decisions. However, the ultimate recommendation is derived from the user.
AR-003.01	Provide ADMIN USER the ability to set up an approval route	Not Proposed	
AR-003.02	Provide USER the ability to make recommendations to keep cases closed after second look review.	Not Proposed	
AR-003.03	Provide USER the ability to indicate that they have communicated with complainant as to why the case will remain closed (e.g. send Walker letter notifying complainant they can petition the Supreme Court).	Not Proposed	
AR-004	Provide the ability to recommend case is re-opened.	Not Proposed	The information tracked in Odyssey can assist the user in making decisions. However, the ultimate recommendation is derived from the user.
AR-004.01	Provide ATTORNEY the ability to indicate reason for re-opening such as new evidence, good cause, management discretion etc.	Not Proposed	
AR-004.02	AUTOMATICALLY route case for approval to re-open.	Not Proposed	
AR-004.03	Provide USER the ability to approve or deny the re-opening.	Not Proposed	
AR-004.04	AUTOMATICALLY re-open case if approved.	Not Proposed	
AR-004.05	AUTOMATICALLY route case for assignment	Not Proposed	
AR-005	Provide the ability to capture whether the Supreme Court has acted upon a petition from a complainant as a result of a Walker letter.	Can be Demonstrated	
AR-006	Provide the ability to conduct semi-annual audits of closed cases based upon business rules.	Can be Demonstrated	
AR-006.01	Provide ADMIN USER the ability to randomly select cases in accordance with protocol.	Can be Demonstrated	
AR-006.02	AUTOMATICALLY select cases for the audit based upon the defined parameters.	Can be Demonstrated	
AR-007	Provide the ability for the auditor to complete a checklist for each case.	Can be Demonstrated	
AR-007.01	Provide ADMIN USER the ability to configure audit checklists by the stage in which the case was closed.	Can be Demonstrated	
AR-007.02	AUTOMATICALLY include appropriate checklist with each audit.	Can be Demonstrated	Individual reports may require user intervention.
AR-007.03	Provide USER the ability to complete audit checklists.	Can be Demonstrated	
AR-008	Provide the ability to analyze the completed checklists for statistical purposes.	Can be Demonstrated	<b>Via reports for user review</b>

## Appendix E

## E-Filing

ID	Requirement Text	Response Code	Comments
<b>ECF 4.0 General</b>			
EFI-001	Provide E-File components that implement the ECF 4.01 core specification (ECF 4.01 compliant).	Can be Demonstrated	
<b>ECF Filing Assembly</b>			
EFI-002	Provide the E-File USER with the ability to send electronic document(s) and a filing message to the court.	Can be Demonstrated	
EFI-003	Provide E-Filer USER with the ability to assign electronic Document to one or many cases.	Can be Demonstrated	
EFI-004	Provide the E-File USER with the ability to electronically serve other existing parties on the case who are registered to receive service electronically.	Can be Demonstrated	
EFI-005	Provide the E-File USER with the ability to electronically serve other existing parties on the case when other existing parties have other vendor implementations of the Legal Service component.	Requires Configuration	<p>The Odyssey File &amp; Serve product provides centralized electronic service notification for any filings in the eFiling environment.</p> <p>Centralized electronic service eliminates complexities and standardizes service delivery for everyone in the eFiling community.</p> <p>Odyssey File &amp; Serve eService features allow the Filer to add Service Contacts at both the Case level and the Filing level for their Cases and Filings, as well as those associated with their Firm.</p>
EFI-006	Provide the E-File USER with the ability to receive and process return responses from the court.	Can be Demonstrated	<p>The Filer has the ability within Odyssey File &amp; Serve My Account to opt in and out of several filing related notifications including Filing Rejected by the Court. The Court may configure their File &amp; Serve Review Tool to have one or more standard rejection reasons which are selectable by the Reviewer and also opt to include rejection reason notes. This information is sent back to the Filer, enabling them to act upon various rejection criteria and resubmit the filing accordingly.</p> <p>Furthermore, registered, authenticated Odyssey Portal users will be able to set a case level alerts for a selected case type and case event. Case Alerts will notify the user if there is court activity one or more of the Filer's cases, such as a judgment being rendered by the court.</p>
EFI-007	Provide the E-File USER with the ability to electronically pay court fees and other financial obligations with a third party on-line service.	Can be Demonstrated	
EFI-008	Automatically validate information including, but not limited to, case number, filing parties, case types, document types, and other elements in accordance with court codes.	Can be Demonstrated	All codes get pulled over from the CMS
EFI-009	Automatically provide error messages and correction options if the filing is not in accordance with court policies, codes, and requirements.	Requires Configuration	OFS can be configured to prompt the user for certain information such as a Petitioner or a respondent. If the E-File user fails to enter one of the required fields they will not be allowed to continue with the filing until the information is provided.
EFI-010	Provides E-File USER the ability to file a motion requesting that information in the case file be shielded.	Can be Demonstrated	

## Appendix E

## E-Filing

ID	Requirement Text	Response Code	Comments
EFI-011	Automatically deliver certificate of service electronically, indicating which participants were served electronically and which participants were served manually.	Can be Demonstrated	Odyssey File & Serve records only electronic service for Service Contacts associated with case party in the Case Management System. File & Serve allows the Filer to add Service Contacts at both the Case level and the Filing level. The Filer may opt to serve one or more service contacts electronically via File & Serve or identify the service contact as served in a traditional manner. Traditional methods of service displayed and available for Filer selection in File & Serve may be configured by the client and typically include email (not eService), Mail and Hand Delivery. The management of traditional service performance is outside the scope of File & Serve.
EFI-012	Provide E-File USER to set default values, i.e. court department, type of case, party, etc.	Can be Demonstrated	
<b>ECF Legal Service</b>			
EFI-013	Provide E-Filer with the ability to receive electronic service from other parties in a case.	Can be Demonstrated	
<b>ECF Filing Review</b>			
EFI-014	Automatically receive electronic filings from multiple e-filing service provider implementations.	Alternative Proposed	A model with multiple EFSPs is a different business model and has additional activities and costs that would need to be discussed as part of the overall solution direction. This is typically a copied RFP requirement that has no intrinsic business value. Our recommendation would be to have a single EFSP. It is a better business practice, with a lower cost to implement and maintain.
EFI-015	Provide ADMIN USER the ability to electronically maintain court policies and rules for E-Filing.	Can be Demonstrated	
EFI-016	Provide ADMIN USER with the ability to define codes for electronic filings types based on filing metadata, case type, and other case characteristics.	Can be Demonstrated	
EFI-017	Provide ADMIN USER with the ability to define rule for establishing different filing review queues based on filing metadata, case type, and other case characteristics.	Can be Demonstrated	
EFI-018	Provide ADMIN USER the ability to define rules for accepting or rejecting an electronic filing automatically.	Can be Demonstrated	
EFI-019	Provide USER with the ability to review electronic payment information submitted with the filing.	Can be Demonstrated	
EFI-020	Automatically accept or reject an electronic filing based on rules.	Can be Demonstrated	
EFI-021	Provide USER the ability to view electronic filing metadata.	Can be Demonstrated	
EFI-022	Provide USER the ability to view the electronic documents.	Can be Demonstrated	
EFI-023	Provide USER the ability to accept or reject an electronic filing.	Can be Demonstrated	
EFI-024	Provide USER the ability view all electronic filings that were automatically accepted or rejected.	Can be Demonstrated	

## Appendix E

## E-Filing

ID	Requirement Text	Response Code	Comments
EFI-025	Provide ADMIN USER the ability to define additional data entry fields for the file review process.	Can be Demonstrated	<p>All Odyssey File &amp; Serve data entry fields completed by the Filer during the electronic filing process are viewable via the File &amp; Serve Review Tool. There are several data entry fields in File &amp; Serve that may be configured to be displayed or hidden, including fields such as Lower Court/Agency, Lower Court/Agency Case Number, Short Title, Filing Reference Number, Courtesy Copies, Preliminary Copies, Document Description and Document Security.</p> <p>The Odyssey File &amp; Serve Review Tool Reviewer actions available such as the ability to Accept, Reject, Forward a filing to another Review Queue and the ability to Edit Filer Entered Data, can be configured based on client, Reviewer role and rights permissions.</p>
EFI-026	Provide USER the ability to assign review information and comments to any preconfigured fields.	Can be Demonstrated	<p>The Odyssey File &amp; Serve Review Tool Reviewer actions available such as the ability to Accept, Reject, Forward a filing to another Review Queue, Return to Filer and the ability to Edit Filer Entered Data, can be configured based on client, Reviewer role and rights permissions.</p> <p>The client may configure their File &amp; Serve Review Tool to have one or more standard rejection reasons which are selectable by the Reviewer. The client may also opt to include a comment field along with the on Review Tool actions, such as Rejection Reason comments, Return to Filer comments, etc.</p>
EFI-027	Automatically send a return message to an E-file USER confirming the court's receipt of an electronic filing.	Can be Demonstrated	
EFI-028	Automatically construct electronic return messages from preconfigured fields.	Can be Demonstrated	<p>The Filer has the ability within Odyssey File &amp; Serve My Account to opt in and out of several filing related notifications including Filing Rejected by the Court.</p> <p>The Court may configure their File &amp; Serve Review Tool to have one or more standard rejection reasons which are selectable by the Reviewer and also opt to include rejection reason notes. This information is sent back to the Filer, enabling them to act upon various rejection criteria and resubmit the filing accordingly.</p>
EFI-029	Automatically notify an E-file USER electronically when there is an error accepting document[s] and the reason[s] why.	Can be Demonstrated	
EFI-030	Provide ADMIN USER the ability to define codes for rejection reasons.	Can be Demonstrated	<p>The Court may configure their File &amp; Serve Review Tool to have one or more standard rejection reasons which are selectable by the Reviewer and also opt to include rejection reason notes. This information is sent back to the Filer, enabling them to act upon various rejection criteria and resubmit the filing accordingly.</p>
EFI-031	Provide ADMIN USER to the ability to define rules to determine what electronic documents should initiate a new case.	Can be Demonstrated	
EFI-032	Provide E-Filer USER the ability to check on the status of a filing.	Can be Demonstrated	
EFI-033	Provide E-Filer USER the ability to query on the court rules and requirements for electronic filing.	Can be Demonstrated	
EFI-034	Automatically send to the ECF Court Record component that the e-filing has been reviewed and accepted.	Can be Demonstrated	

## Appendix E

## E-Filing

ID	Requirement Text	Response Code	Comments
EFI-035	Automatically receive from the ECF Court Record component that the filing has been entered into the court record.	Can be Demonstrated	
EFI-036	Automatically notify an E-file USER electronically when the filing has been accepted and entered into the court record.	Can be Demonstrated	
EFI-037	Include capability to place visible file stamp on filed document.	Can be Demonstrated	
EFI-038	Provide the ability to can accept various file and media types and provides a method for handling other electronic materials involved in a case, including, e.g., transcript, exhibits, and multimedia presentations.	Can be Demonstrated	
EFI-039	Provide integrated ECMS functionality or interoperate with the ECMS to automatically verify the integrity of any electronic document received and stored by the court.	Can be Demonstrated	
EFI-040	Automatically provide an audit log of transactions as appropriate to the court's needs.	Can be Demonstrated	
EFI-041	Provide ADMIN USER with the ability to control USER privileges to create, modify, delete, print, or read electronic records.	Can be Demonstrated	
EFI-042	Automatically comply with statutes and rules for authentication of electronic documents.	Can be Demonstrated	
EFI-043	Automatically provides authentication of filer identity in accordance with court policies.	Can be Demonstrated	
EFI-044	Provide USER the ability to change the confidentiality status for documents or the case during the life of the case. This status must be reflected in the ECMS in a complete and timely manner.	Can be Demonstrated	
EFI-045	Provide ADMIN USER the ability to define rules for automatically setting a document as confidential.	Can be Demonstrated	
EFI-046	Automatically set confidentiality at the time of electronic document filing in accordance with statutes and rules or court orders.	Can be Demonstrated	
EFI-047	Automatically accommodates payments in accordance with statutes and rules, including ability to report on documents rejected for failure to pay.	Can be Demonstrated	
EFI-048	Provide USER with alerts on filings or document entries as appropriate (or entry in a work queue) when action on a filing is required.	Can be Demonstrated	
EFI-049	Provide USER the ability to turn filing off for a specific USER or require review for specific party.	Can be Demonstrated	<p>The Court or Firm Admin has the ability with Odyssey File &amp; Serve to deactivate a user associated with their Court or their Firm.</p> <p>All filings submitted electronically via Odyssey File &amp; Serve are routed to the File &amp; Serve Review Tool for review and decisioning by the court staff. The client may configure a business rules within File &amp; Serve which determines which case and filing types are routed to the various Review Tool queues, to be considered by various court staff and judiciary members. The level of scrutiny applied during the filing review process is based upon the review queue routing rules configured and the courts business practices.</p>
<b>ECF Court Record</b>			
EFI-050	Provide ADMIN USER the ability to define rules to determine what electronic documents create what docket entry.	Can be Demonstrated	Filer selects the docket entry when filing the document
EFI-051	Automatically receive electronic documents from the Filing Assembly and index into the ECMS.	Can be Demonstrated	

## Appendix E

## E-Filing

ID	Requirement Text	Response Code	Comments
EFI-052	Automatically index redacted versions of electronic documents in the ECMS.	Can be Demonstrated	Redaction is managed in the ECMS within Odyssey
EFI-053	Automatically initiate a Case and assign Case field data with message data received from the Filing Review component.	Can be Demonstrated	
EFI-054	Automatically assign Case data to an existing Case with message data received from the Filing Review component.	Can be Demonstrated	
EFI-055	Automatically notify the Filing Assembly component that an electronic document has been recorded into the official records.	Can be Demonstrated	
EFI-056	Provide E-Filer USER with the ability to query party notification preference from the Member Records database.	Can be Demonstrated	Odyssey File & Serve allows the Filer to flag Service Contacts as available for utilization in eFiling and electronic service. Furthermore they may also flag Service Contacts to be available to the broader eFiling and eService community. Recommended best practices utilized in other jurisdictions are by providing an email address, the Service Contact is consenting to be served electronically.
EFI-057	Provide E-Filer USER the ability to query for names and addresses of parties in a case who must be served.	Can be Demonstrated	Odyssey File & Serve allows the Filer to view all party demographic information entered by the Filer via File & Serve for their Filings and Filings associated with their Firm.  If the Filer can see the case, they can view the Service Contacts associated with that case.
EFI-058	Provide E-Filer USER the ability to query court for data and documents held within the system and return the appropriate response.	Can be Demonstrated	The Odyssey Portal allows registered, authenticated users to search for Case Data via Case Number, Party or Attorney Name, and View the Case Register of Actions and any associated, electronically available Case Documents. Access to Case Information and Case Documents is constrained based on user security groups.
EFI-060	Automatically creates and docket in the court's case management system a certificate of service for the document served.	Can be Demonstrated	Odyssey File & Serve records only electronic service for Service Contacts associated with case party in the Case Management System.
EFI-061	Provide integrated ECMS functionality or Interoperate with the ECMS to automatically provide for archiving of data and documents in accordance with approved retention, archiving and destruction policies.	Can be Demonstrated	
<b>Related E-Filing Services</b>			
EFI-064	Provide USER the ability to deliver case documents for entry and retrieval into the court's ECMS and Case Management System with "one-click" methods that do not require duplicative work on the part of court clerks for record entry into or retrieval from the case management system or ECMS.	Can be Demonstrated	
EFI-065	Provide USER with the ability to assign annotations that are not part of the court record, with appropriate confidentiality and access controls (including restrictions on who can talk to whom).	Can be Demonstrated	Any annotations that are added to the document will be on the document in the CMS.



## Appendix E

## E-Filing

ID	Requirement Text	Response Code	Comments
EFI-069	Allow filer to opt in/out of e-mail types, such as case is continued, dismissed, service, judgments, and other events.	Can be Demonstrated	<p>The Filer has the ability within Odyssey File &amp; Serve My Account to opt in and out of several filing related notifications including Filing Submission Failure, Filing Submitted Successfully, Filing Accepted by the Court, Filing Rejected by the Court, Service Undeliverable. The Filer may also add and remove service contact at both the case and the filing level, in order to determine which contacts will receive electronic service.</p> <p>Furthermore, registered, authenticated Odyssey Portal users will be able to set a case level alerts for a selected case type and case event which notify the user if there is activity on one or more of the Filer's cases. An aggregated view of "My Case Alerts" will be displayed on the Portal user's dashboard upon login.</p>
EFI-070	Provide EFILE USER with the ability to request that a document be withdrawn electronically before it is committed to the record.	Can be Demonstrated	<p>Filers also have the ability to cancel a draft or submitted filing and associated documents, prior to being reviewed by the Court. Once the filing has been "touched" by the Court, and the filing status flips to "Under Review" the Filer no longer has the ability to cancel the electronic filing because court business procedures have are now active.</p>

ID	Requirement Text	Response Code	Comments
CII-001	Enter in docket or register of actions case initiation information including date and time of initial filing, information on initial filing and basic case information (e.g., case number and other identifiers, case type, other case characteristics, court, case status, parties, counsel, judge, last and next events, and other docket-related events) (see also Docketing and Related Recordkeeping Function).	Can be Demonstrated	
CII-001.01	Provide ADMIN USER with the ability to define work flow for entering case initiation information in docket.	Can be Demonstrated	
CII-001.02	Provide ADMIN USER with the ability to define fields and Provide validation rules for entering case initiation information in docket.	Can be Demonstrated	Case Type codes can be configured to display or require certain fields during case initiation.
CII-001.03	Provide USER with the ability to initiate the case including case number, case type, other case characteristics (e.g., Department, condition, status date, type of review, stage, processing code, priority code), court, location, status, title (based on the rules setup by ADMIN USER) and Date and time of filing.	Can be Demonstrated	
CII-002	Provide the ability to define basic case information that must be entered in order to initiate a case, by case type.	Requires Configuration	
CII-002.01	Provide ADMIN USER with the ability to locally define rules for required fields for case initiation per case type.	Requires Configuration	
CII-003	Provide the ability to adopt the case number of the Chief Trial Counsel (the filing party) or assign a court generated case number in the format of YY-AA-99999 where: YY is the 2 digit year, AA is a one to two letter alphabetic code for the case type; and 99999 is a sequentially assigned number.	Can be Demonstrated	
CII-004	Assign appropriate security to records, particularly those with data about confidential matters or confidential events.	Can be Demonstrated	
CII-004.01	Provide ADMIN USER with the ability to define security access rules for any field or combination of fields in system.	Can be Demonstrated	The ability to define any field or combination of fields with security rules is not supported. However, through Odyssey security an administrative user can define security around certain cases, documents, and party information such as social security numbers or addresses.
CII-004.02	Provide ADMIN USER with the ability to define security access rules for any person/organization entity in system.	Can be Demonstrated	
CII-004.03	Provide ADMIN USER with the ability to define security access rules for any case in the system.	Can be Demonstrated	
CII-004.04	Provide ADMIN USER with the ability to define security access rules for any Event object in the system.	Can be Demonstrated	The document image associated with the docket entry can be secured.
CII-004.05	Provide ADMIN USER with the ability to define security access rules for any Address to Entity relationship in the system.	Can be Demonstrated	
CII-004.06	Provide integrated ECMS functionality or interoperate with the ECMS to provide ADMIN USER with the ability to define security access rules for any Document Image in the system.	Can be Demonstrated	Tyler recommends the use of the electronic content management system native to Odyssey.
CII-005	Enter information in docket or register of actions for parties and participants as individuals (e.g., Ann Smith) or organizations (e.g., investigative service) with primary contact person if organization.	Can be Demonstrated	
CII-005.01	Provide ADMIN USER with the ability to define party type code.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
CII-005.02	Provide USER with the ability of a drill down option thru party type Category Type when selecting party type code.	Can be Demonstrated	
CII-005.03	Provide ADMIN USER with the ability to assign a party type code to a single PARTY CODE Category type.	Can be Demonstrated	
CII-005.04	Provide ADMIN USER with the ability to define ADDRESS TYPE CODE.	Can be Demonstrated	Odyssey supports current known, correspondence, confidential, and undeliverable address type.
CII-005.05	Provide ADMIN USER with the ability to assign a party type code to multiple case type.	Can be Demonstrated	
CII-005.06	Provide USER with the ability to assign a PERSON to a case.	Can be Demonstrated	
CII-005.07	Provide USER with the ability to assign an Organization to a case.	Can be Demonstrated	
CII-005.08	Provide USER with the ability to assign many Primary Contacts to an Organization.	Can be Demonstrated	If the party record is a business, then primary contacts could be associated as additional names or associations.
CII-005.09	Provide USER with the ability to assign many PARTY Code Types to a (Person to case) Relationship.	Can be Demonstrated	
CII-005.10	Provide USER with the ability to assign many PARTY Code Types to a (Organization to case) Relationship.	Can be Demonstrated	
CII-005.11	Provide USER with the ability to have choices of party type codes that will validate against the case Category type of the case.	Can be Demonstrated	
CII-005.12	Provide USER with the ability to directly enter party type code.	Can be Demonstrated	
CII-005.13	AUTOMATICALLY validate party type code against the case Category type of the case.	Can be Demonstrated	Party and participant codes can be configured with Case Type codes.
CII-005.14	Provide USER with the ability to assign first-name, middle-name, last-name, name-prefix, name-suffix and additional family or middle names to a Person.	Can be Demonstrated	Additional family and middle names can be added as searchable aliases.
CII-005.15	Provide USER with the ability to assign an organization name to an Organization.	Can be Demonstrated	
CII-005.16	Provide USER with the ability to assign a resident agent or service party to an Organization	Can be Demonstrated	
CII-005.17	Provide ADMIN USER with the ability to define ADDRESS TYPE CODE.	Can be Demonstrated	Odyssey supports current known, correspondence, confidential, and undeliverable address type.
CII-005.18	Provide USER with the ability to assign many addresses to an Organization or Person.	Can be Demonstrated	
CII-005.19	Provide USER with the ability to assign an address type to an Address.	Can be Demonstrated	Odyssey supports current known, correspondence, confidential, and undeliverable address type.
CII-005.20	Provide USER with the ability to assign international address information to an Address.	Can be Demonstrated	
CII-005.21	Provide USER with the ability to assign an end date to a (PARTY to Address) Relationship.	Can be Demonstrated	Party and participants can be assigned an end date on the case as well as through relationships with one another. Addresses can have an end date.
CII-005.22	Provide USER with the ability to assign an unlimited number of Persons and Organizations to a case.	Can be Demonstrated	
CII-006	Provide ability to establish relationships between parties and relationship between party and case (counsel/client, respondent, witness, victim, etc.).	Can be Demonstrated	
CII-006.01	Provide ADMIN USER with the ability to define CODES for PARTIES.	Can be Demonstrated	
CII-006.02	Provide ADMIN USER with the ability to define relationships between PARTIES on a case.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
CII-006.03	Provide ADMIN USER with the ability to Maintain relationships between PARTY and case. Allow the same PARTY to be associated with many cases.	Can be Demonstrated	
CII-006.04	Provide ADMIN USER with the ability to specify what these roles are or make them USER defined per case type per party type.	Can be Demonstrated	
CII-006.05	Provide USER with the ability to assign a PARTY to one or more cases.	Can be Demonstrated	
CII-006.06	Provide USER the ability to assign a case to one or more Parties.	Can be Demonstrated	
CII-007	Provide ADMIN USER with the ability to define case processing timelines by case type and other case characteristics.	Can be Demonstrated	
CII-007.01	Provide ADMIN USER with the ability to define case processing templates.	Can be Demonstrated	
CII-007.02	Provide ADMIN USER with the ability to define rules for alerts within those templates.	Can be Demonstrated	Time Standards can be adjusted on a per case basis. Alerts of outstanding time standards display on the case summary and a user can review reports.
CII-008	Provide the ability to enter Bar Number and retrieve PARTY information from the Member Database.	Can be Demonstrated	
CII-009	Create and maintain locally defined index that (1) contains basic index information (e.g., each PARTY name, Bar Number, role in case, and whether party has counsel; case type; court type and location; case number and other identifiers; date filed; and cross reference to other parties in case [e.g., other party named in case title or style]); (2) permits database look-up by a choice of key fields (e.g., party name, party role, case filed date range) and, if record found; (3) permits retrieval and display of index information; and (4) permits easy interfaces with other parts of case processing system as noted below.	Can be Demonstrated	
CII-009.01	Provide ADMIN USER with the ability to define fields for searching the case and PARTY records.	Can be Demonstrated	Not available. Extensive search criteria available.
CII-009.02	Provide ADMIN USER with the ability to define fields that are displayed in the case and PARTY Index search result screen.	Can be Demonstrated	Not available. Extensive search criteria available.
CII-009.03	Provide ADMIN USER with the ability to define rules for screen navigation based on field values in a selected row.	Can be Demonstrated	Not available.
CII-009.04	Provide USER with the ability to search the case and PARTY Index with specified fields.	Can be Demonstrated	
CII-009.05	Provide USER with the ability to manually navigate directly from the search result screen to any functional screen based on field value context of a selected row.	Can be Demonstrated	User can navigate to various records by clicking on a party name vs. a case or warrant number.
CII-009.06	Provide USER with the ability to manually navigate directly from a search result row to a pre-configured screen.	Can be Demonstrated	
CII-009.07	Provide USER with the ability to sort on any column in the case and PARTY search result screen.	Can be Demonstrated	Not available.

ID	Requirement Text	Response Code	Comments
CII-010	Handle look-up and retrieval sub-functions by identifying a specific party name, bar number, party role, court type or location, case or party identifier, case filed date range—if necessary, after eliminating other cases or parties that satisfy original look-up—and then obtaining index information by selecting from list of matching cases or parties or by using key fields noted above (e.g., USER requests list of parties named Smith, system returns list of Smiths, USER selects desired Smith from list by clicking on proper line or entering proper keys (sometimes after several tries that yield another Smith), system returns index information on cases involving that Smith).	Alternative Proposed	Users can look up cases by several search criteria for case information, party information, and attorney information. Once the search results are returned, the use is able to refine the search criteria to filter the results further.
CII-010.01	Provide USER with the ability to search on case and PARTY Index by narrowing a previous search ( ex. USER is able to select specific rows (usually after a sort). System then AUTOMATICALLY repopulates the search fields with new range values from selected.	Alternative Proposed	See CII-010
CII-011	Allow USERS to easily and concurrently operate and transition between multiple windows accessing other components of the application.	Can be Demonstrated	
CII-012	Generate locally defined case title or style (e.g., the application should create a default title that is the respondent's full name). Allow for override of automated case title or style.	Can be Demonstrated	
CII-012.01	Provide ADMIN USER with the ability to locally define rules for formatting the case title.	Can be Demonstrated	
CII-012.02	Provide USER with the ability to assign case title to a case by overriding the automatic default for case title format.	Can be Demonstrated	
CII-012.03	provide ADMIN USER with the ability to locally define rules for formatting the case style.	Can be Demonstrated	
CII-013	Enter reason for initiation (e.g., new filing, transferred from another jurisdiction, reopened or remanded case, counter or cross claims, de novo appeal according to local procedures).	Can be Demonstrated	
CII-013.01	Provide ADMIN USER with the ability to locally define case initiation reasons.	Can be Demonstrated	
CII-013.02	Provide the ADMIN USER with the ability to locally define types for case initiation rejection reasons.	Can be Demonstrated	
CII-014	Upon completion of case initiation and using templates created by the ADMIN USER, automatically generate notices (e.g., Notice of Assignment, Notice of Initial Status Conference), Declaration of Service, and any other documents required by the judge, the case type or the venue.	Can be Demonstrated	
CII-015	Display in case history the time standards for, and age of, a given case. Age must be calculated per business rules for initiation, suspension, and disposition.	Can be Demonstrated	
CII-015.01	AUTOMATICALLY display the case age based on the time standards, and the business rules for initiation, suspension, and disposition.	Can be Demonstrated	
CII-016	Provide the ability to consolidate cases, identifying the related cases and the nature of the relationship between them (e.g., provide the ability to associate an O case to a related T case type and classify the relationship).	Can be Demonstrated	
CII-017	Establish relationships (including type of relationship) between cases and case categories and court types, locations, and departments.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
CII-017.01	Provide ADMIN USER with the ability to define COURT TYPE CODES (e.g., Hearing, Review).	Can be Demonstrated	
CII-017.03	Provide ADMIN USER with the ability to define Court LOCATION CODES (e.g., San Francisco, Los Angeles).	Can be Demonstrated	
CII-017.05	Provide ADMIN USER with the ability to assign USERS to one or more Court LOCATION CODE.	Can be Demonstrated	
CII-017.07	Provide USER with the ability to assign a CASE TYPE a default COURT LOCATION CODE.	Can be Demonstrated	
CII-018	If counsel is included in index, allow multiple names and bar identifiers and relationship to law firm.	Can be Demonstrated	
CII-018.01	Provide ADMIN USER with the ability to define rules to identify multiple counsel names and bar identifiers only if counsels included on index.	Can be Demonstrated	
CII-018.02	Provide the ADMIN with the ability to define relationship between counsel and law firm.	Can be Demonstrated	Law Firm can be entered as an Employer
CII-019	Include index information in index record or make this information easily accessible (e.g., in a manner that requires no additional USER actions).	Can be Demonstrated	
CII-019.01	AUTOMATICALLY maintain index records.	Can be Demonstrated	Docketable Events automatically added to Case Summary
CII-020	Permit index to be updated based on occurrence of specific case events (e.g., motions filed, dispositions decided).	Can be Demonstrated	
CII-021	Extract, print, or otherwise produce (e.g., PDF) with appropriate security restrictions index information arranged according to various components of index (e.g., PARTY, case number, case status).	Can be Demonstrated	
CII-021.01	Provide USER with the ability to request output of case/PARTY index.	Can be Demonstrated	
CII-021.02	Provide USER with the ability to set preferences on sort criteria on case and PARTY Index output.	Can be Demonstrated	Sort options not available outside of Case Summary Configuration
CII-021.03	Provide USER with the ability to set preferences on fields to be included in case and PARTY Index output.	Can be Demonstrated	Case Events can be made non-docketable, but Party Data Report configuration is not available.
CII-022	Retrieve basic index information on all cases associated with specific participant.	Can be Demonstrated	
CII-022.01	Provide ADMIN USER with the ability to define rules for Specific participant on all cases.	Can be Demonstrated	Party specific rules for Case Summary are not available.
CII-023	Capture or allow entry of other unique identifiers as needed (e.g., witness, interpreter) and establish relationships with participants.	Can be Demonstrated	
CII-023.01	Provide ADMIN USER with the ability to define Agency Group Type codes.	Can be Demonstrated	
CII-023.02	Provide USER with the ability to assign a Person to an Agency Group Type.	Can be Demonstrated	
CII-023.03	Provide USER with the ability to assign an end date to an (Entity to Agency Group) Relationship.	Can be Demonstrated	
CII-023.04	Provide ADMIN USER with the ability to define PARTY relationships types.	Can be Demonstrated	
CII-023.05	Provide ADMIN USER with the ability to assign valid PARTY Relationship types for party type pairs.	Can be Demonstrated	
CII-023.06	Provide USER with the ability to assign many (Person to Person) Relationships between the same 2 Persons on the same case.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
CII-023.07	Provide USER with the ability to assign an end date to a (PARTY to PARTY) Relationship on a case.	Can be Demonstrated	
CII-024	Assign cases to court type, judge, location, department, and courtroom AND/OR other appropriate entities based on established relationships (see Scheduling Function).	Can be Demonstrated	Courtroom can be used for case assignment if it's on the organization chart.
CII-024.01	AUTOMATICALLY and provide USER with the ability to assign cases to a judge, courtroom, department or location based on established case data and relationships.	Can be Demonstrated	
CII-025	Allow USER to designate the nature of the relationship between cases (e.g. co-respondents or multiple cases against same respondent ).	Can be Demonstrated	
CII-025.01	Provide ADMIN USER with the ability to define CODES for PARTIES.	Can be Demonstrated	
CII-025.02	Provide ADMIN USER with the ability to define relationships between PARTIES on a case.	Can be Demonstrated	
CII-025.03	Provide ADMIN USER with the ability to Maintain relationships between PARTY and case. Allow the same PARTY to be associated with many cases.	Can be Demonstrated	
CII-025.04	Provide ADMIN USER with the ability to specify what these roles are or make them USER defined per case type per party type.	Can be Demonstrated	
CII-026	Inform USER when situations exist for persons in new case that USER should be aware of (e.g., pending cases or member status) and identify situation to extent information is in the system.	Can be Demonstrated	
CII-026.01	Provide ADMIN USER with the ability to define rules regarding which types of cases/charges are reported to USER upon case initiation.	Can be Demonstrated	Can be accomplished through party flags.
CII-026.02	Provide ADMIN USER with the ability to define rules regarding which types of cases are subject to USER alerts upon initiate.	Can be Demonstrated	
CII-026.03	Provide ADMIN USER with the ability to define rules regarding minimum search criteria for PARTY search, e.g. name and D.O.B.	Can be Demonstrated	
CII-026.04	AUTOMATICALLY perform a search of database for existing cases involving PARTY(ies) to case in accordance with locally defined rules.	Can be Demonstrated	
CII-026.05	Alert USER when existing case(s) exist for identified PARTY.	Can be Demonstrated	
CII-026.06	Provide USER with the ability to search database for cases involving PARTY(ies) to case from within case initiation module.	Can be Demonstrated	Drill into party record from the search results upon party add.
CII-026.07	Provide USER with the ability to choose which PARTY(ies) to case to run search.	Can be Demonstrated	
CII-026.09	Provide USER with the ability to ignore any automatic alerts regarding existing cases for identical PARTY(ies) to case being initiated.	Can be Demonstrated	Can add as new party even if an identical party exists. No warning/alert for identical case for the same party.
CII-027	Assign judge to case on case initiation or per local business rules (e.g., manual, random, rotational assignment).	Can be Demonstrated	
CII-027.01	Provide ADMIN USER with the ability to globally define types of Judge assignment.	Can be Demonstrated	
CII-027.02	Provide USER with the ability to assign a Judge or multiple Judges (see en banc review) to a case or group of cases.	Can be Demonstrated	Assigning more than one Judge is not available. En Banc can be listed as Judicial officer type.
CII-027.03	Provide ADMIN USER with the ability to define local business rules regarding manual or automatic assignment of judges, e.g. random assignment, rotation, etc.	Can be Demonstrated	



ID	Requirement Text	Response Code	Comments
CII-027.04	Provide USER with the ability to select judge assignment in accordance with locally defined rules.	Can be Demonstrated	
CII-027.05	Provide USER with the ability to override automated judge assignment.	Can be Demonstrated	
CII-028	AUTOMATICALLY conduct conflict checking when assigning a judge to a case.	Can be Demonstrated	
CII-028.01	Provide the ability for ADMIN USER to define conditions recorded in the CMS database that create a conflict of interest (e.g., a hearing judge who conducted an ENE hearing for a respondent may not rule on a later case for that respondent).	Can be Demonstrated	Conflicts can be defined between a judge and an attorney. This requirement is conditional based on a past hearing type. This requirement could be met through Customization.
CII-028.02	AUTOMATICALLY apply rules using those conditions to identify conflicts of interest requiring judicial recusal.	Can be Demonstrated	
CII-029	Provide the ability to define validation criteria for specific fields, events, and work flow processes at the local level.	Requires Configuration	Most fields have validation built in, and additional data entry fields can be defined on several codes including the case event type code.
CII-029.01	Provide ADMIN USER with the ability to locally define validation criteria.	Requires Configuration	
CII-029.02	Provide ADMIN USER with the ability to locally define work flow processes.	Requires Configuration	
CII-030	Provide the ability to have USER-defined types of cases.	Can be Demonstrated	
CII-030.01	Provide ADMIN USER with the ability to locally define codes for case types (nature of action).	Can be Demonstrated	
CII-030.02	Provide USER with the ability to select case type code(s) upon case initiation.	Can be Demonstrated	
CII-031	Initiate case with minimal information to be updated later (i.e., allows cases initiated with case number assignment only) and then flag these incomplete cases and track them.	Can be Demonstrated	Use a case flag to indicate the case is incomplete.
CII-031.01	Provide ADMIN USER with the ability to define rules regarding required fields when initiating a case.	Can be Demonstrated	
CII-031.02	Provide USER with the ability to assign limited or incomplete information on case initiation without undoing the process.	Can be Demonstrated	
CII-031.03	Provide ADMIN USER to define REPORT of incomplete case initiations.	Can be Demonstrated	
CII-032	Provide the ability to produce text and bar code labels, RFID tags, or future technology for attachment to case folders, for documents to be served, and for subsequent manual filings.	Can be Demonstrated	
CII-032.01	Provide for bar-coding, etc. for case folders.	Can be Demonstrated	
CII-032.02	Print bar code on case folders, notices, summons, etc. or other system-generated documents.	Can be Demonstrated	
CII-032.03	Print bar code on any cover sheets associated with manual filings.	Can be Demonstrated	
CII-032.04	Associate/insert bar code on scanned document images.	Can be Demonstrated	
CII-033	Allow a USER to stop, exit or place the case on hold once the case initiation work flow has begun. This process must consider the case flow clock performance statistics are not distorted.	Can be Demonstrated	
CII-033.01	Provide ADMIN USER with the ability to globally define rules for starting/stopping/suspending the case initiation while maintaining the proper case flow measurements.	Can be Demonstrated	The ability to suspend a case for Differentiated Case Management will be available in the 2014 Odyssey release.
CII-033.02	Provide USER with the ability to assign start, suspend, stop events to case during case initiation	Can be Demonstrated	



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CII-034	The system must support shielding done either by request or by motion or order (e.g., filing under seal).	Can be Demonstrated	
CII-034.01	Provide ADMIN USER with the ability to define RULES regarding shielding of certain information.	Can be Demonstrated	
CII-034.02	Provide USER with the ability to shield information pursuant to court rule.	Can be Demonstrated	
CII-034.03	AUTOMATICALLY prevent public access to shielded information.	Can be Demonstrated	
CII-035	CMS must allow for rule changes in relationship to public access and changes on services to parties.	Can be Demonstrated	
CII-035.01	Provide ADMIN USER with the ability to globally define rules regarding public access/confidentiality of case records by case type, e.g. confidential/sealed at case initiation.	Can be Demonstrated	
CII-035.02	Provide ADMIN USER with the ability to define rules regarding service on parties, e.g. time for filing response, etc. based upon changes in court rules.	Can be Demonstrated	
CII-036	CMS must be accessible and accommodate all customers with ADA.	Can be Demonstrated	Odyssey does not rely solely on color to distinguish information in the user interface and does not contain blinking icons by default. Odyssey is accessible.
CII-036.01	Provide all USERS with disabilities access to the system alternate translations based on disability.	Can be Demonstrated	
CII-037	Service and manner of notification in all case types must be modifiable depending on the case type or party type.	Can be Demonstrated	
CII-037.01	Provide ADMIN USER with the ability to define rules regarding service on parties, e.g. time for filing response, etc. based upon case type.	Can be Demonstrated	
CII-037.02	Provide ADMIN USER with the ability to define rules regarding method of service based upon case type.	Can be Demonstrated	
CII-038	The system should enable for there to be a case information form that may be or may not be required to be filed with each case.	Can be Demonstrated	
CII-038.01	Provide ADMIN USER with the ability to define rules for requiring the filing of a case Information form for case filings and response.	Can be Demonstrated	
CII-039	The system should provide the ability to view and print a work flow map for any case.	Can be Demonstrated	Forms and Time Standards could be utilized to create a workflow map for the case.
CII-039.01	Provide USER the ability to view and print work flow maps for any case or specific business process.	Can be Demonstrated	
CII-040	The system should enable a USER to refuse acceptance of a case based on court rule.	Requires Configuration	Customization is necessary to define the rules where the new filing should be refused.
CII-040.01	Provide ADMIN USER with the ability to define a rule to allow a clerk to refuse to accept and file a paper presented for filing.	Requires Configuration	
CII-041	The system must enable configuration of which case status periods allow certain events to be excluded from the case flow clock performance statistics so they are not distorted (e.g., when cases are abated or inactive).	Can be Demonstrated	

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DRK-001	Allow easy entry of multiple filings that apply to single case or related cases (e.g., consecutive entry of multiple pleadings for single case).	Can be Demonstrated	
DRK-001.01	Provide USER with the ability to assign many FILINGS to a single CASE.	Can be Demonstrated	
DRK-002	Enter information once and apply to multiple cases or persons upon confirmation by user (e.g., single entry for several parties with same counsel or address; copy docket entry to related cases; single entry when PARTIES have different roles in different cases such as party who is petitioner in one case and respondent in another case), including checks to ensure changes are not applied to wrong cases or people.	Can be Demonstrated	
DRK-002.01	Provide USER with the ability to assign a single FILING to multiple CASES.	Can be Demonstrated	
DRK-002.02	Provide ADMIN USER with the ability to define rule for ensuring correct CASES are updated when updating multiple CASES at once.	Can be Demonstrated	Not available to be defined by an administrative user.
DRK-002.03	Provide USER with the ability to confirm the automatic assignment of information to related CASES.	Can be Demonstrated	
DRK-002.04	Provide USER with the ability to assign with ease new associations between existing CASES, PERSONS and EVENTS.	Can be Demonstrated	
DRK-002.05	AUTOMATICALLY assign new information on a CASE to another related CASE.	Can be Demonstrated	
DRK-003	Track and display or produce reports on relationship of specific cases and parties to one or more service providers and other participants.	Requires Configuration	
DRK-003.01	Provide USER with the ability to display the relationship between CASES and PARTIES to one or more SERVICE PROVIDERS.	Requires Configuration	
DRK-003.02	Provide ADMIN USER with the ability to define types of SERVICE PROVIDERS.	Requires Configuration	
DRK-003.03	Provide ADMIN USER with the ability to define types of referrals (e.g. court ordered or petition)	Requires Configuration	
DRK-003.04	Provide ADMIN USER with the ability to define types of referral reasons.	Requires Configuration	
DRK-003.05	Provide ADMIN USER with the ability to globally define type associations between SERVICE PROVIDERS and COURT TYPE, CASE CATEGORIES and CASE TYPES.	Requires Configuration	
DRK-003.06	Provide ADMIN USER with the ability to locally define type associations between SERVICE PROVIDERS and COURT TYPE, CASE CATEGORIES and CASE TYPES.	Requires Configuration	
DRK-003.07	Provide USER with the ability to assign referral information such as: requestor, mediator, type of referral, reason for referral, date of referral, subsequent report dates, non compliance information, funds involved to a CASE.	Requires Configuration	
DRK-003.08	Provide USER with the ability to assign a relationship between a SERVICE PROVIDER and a PARTY.	Requires Configuration	
DRK-004	Provide capability to print or display template forms/notices with and without entered data, including partial printing of documents or batch jobs.	Can be Demonstrated	
DRK-004.01	Provide USER with the ability to display form/notices templates containing CASE data.	Can be Demonstrated	
DRK-004.02	Provide USER with the ability to display form/notices templates without CASE data.	Can be Demonstrated	
DRK-004.03	Provide USER with the ability to display partial documents.	Can be Demonstrated	

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DRK-005	Maintain case information originally entered during case initiation in docket or register of actions including information on initial filing and basic case information, as well as information that supplements these initial entries.	Can be Demonstrated	
DRK-005.01	Provide USER with the ability to assign additional CASE information after completion of case initiation.	Can be Demonstrated	
DRK-006	Maintain information originally entered during case initiation for parties and participants as individuals (e.g., Ann Smith) or organizations (e.g., Acme Asbestos Company) with primary contact person if organization.	Can be Demonstrated	
DRK-006.01	Provide USER with the ability to assign additional CASE PARTICIPANT information after case initiation.	Can be Demonstrated	
DRK-006.02	Provide USER with the ability to assign organizations as a CASE PARTICIPANT.	Can be Demonstrated	
DRK-006.03	Provide USER with the ability to assign multiple contact persons for organizations.	Can be Demonstrated	
DRK-007	Create docket entry and update case information based on occurrence of specific events (defined by case type, court, event) that can be completely or partially transferred from another function such as hearing scheduled (e.g., motion granted or denied), hearing results (e.g., summary judgment), dispositions (e.g., disposition date, type of disposition, information on judgment), and requests for enforcement of judgment.	Can be Demonstrated	
DRK-007.01	Provide USER with the ability to assign a docket entry to the case.	Can be Demonstrated	
DRK-007.02	Provide ADMIN USER with the ability to define specific events based on court type, case category, case type, case sub categories.	Can be Demonstrated	
DRK-007.03	Provide USER with the ability to assign docket entries to a case based on event information completely or partially transferred from another function.	Can be Demonstrated	
DRK-007.04	Provide ADMIN USER with the ability to define types of events that create docket entries	Can be Demonstrated	
DRK-007.05	Provide ADMIN USER with the ability to define type associations between docket entries and events	Can be Demonstrated	
DRK-007.06	Provide ADMIN USER with the ability to locally define rules for configuring docket entry content.	Can be Demonstrated	
DRK-008	Create docket entry based on electronic documents distributed by other functions (e.g., notices, orders).	Requires Configuration	
DRK-008.01	Provide ADMIN USER with the ability to define type of electronic documents and associated docket entry types.	Requires Configuration	
DRK-008.02	Provide ADMIN USER with the ability to define type associations between electronic documents and docket entries.	Requires Configuration	
DRK-008.03	Provide USER with the ability to assign docket entry to the case based on type of electronic document.	Requires Configuration	
DRK-008.04	AUTOMATICALLY assign a docket entry after generation of electronic document.	Requires Configuration	
DRK-008.05	AUTOMATICALLY assign a TYPE to a docket entry based on the type of electronic document triggering the generation of the docket entry.	Requires Configuration	
DRK-008.06	Provide USER with the ability to track referrals to non-court agencies.	Requires Configuration	
DRK-008.07	Maintain record of all referrals made to non-court agencies.	Requires Configuration	

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DRK-008.08	Provide USER with the ability to assign deadlines to agency referrals.	Requires Configuration	
DRK-008.09	Provide ADMIN USER the ability to restrict the view of docket entries based on docket entry type.	Requires Configuration	
DRK-009	Permit user to identify and retrieve electronic documents from the ECMS by identifying them on each detailed list of docket events (e.g., with icon or link adjacent to event such as motion for dismissal filed indicating that motion filed electronically) and easy display or print the electronic document (e.g., motion that was filed) as well as simple return to document list.	Can be Demonstrated	Tyler recommends the use of the electronic content management system native to Odyssey.
DRK-009.01	Provide USER with the ability to search case docket entries.	Can be Demonstrated	
DRK-009.02	Provide USER with the ability to sort case docket entries.	Can be Demonstrated	
DRK-009.03	Provide USER with the ability to display case docket entries along with an indicator for electronic documents.	Can be Demonstrated	
DRK-009.04	Provide USER with the ability to display the content of manually selected electronic documents from a list.	Can be Demonstrated	
DRK-009.05	Provide ADMIN USER with the ability to define display fields representing the list of electronic documents.	Can be Demonstrated	Not available.
DRK-009.06	Provide USER with the ability to view the case docket entry list.	Can be Demonstrated	
DRK-010	Allow single event to create multiple docket entries (e.g., event is hearing; docket entries are counsel withdrawal and hearing results).	Can be Demonstrated	
DRK-010.01	Provide USER with the ability to assign multiple docket entries arising from a single event.	Can be Demonstrated	
DRK-010.02	Provide ADMIN USER with the ability to define rules determining the docket entries that should be created from a single event.	Can be Demonstrated	Not available.
DRK-011	Enter, maintain, and display or print information on special case processing requirements or orders, with proper security (e.g., sealed case or document, sealed addresses, sealed parties, etc.), including confidential record checks. When accessing a case, alert the judicial officer that confidential information exists.	Can be Demonstrated	
DRK-011.01	Provide ADMIN USER with the ability to globally define rules for secured CASE information.	Can be Demonstrated	
DRK-011.02	Provide USER with alerts when accessing a CASE containing secured data.	Can be Demonstrated	
DRK-011.03	Provide USER with the ability to assign security indicators to a CASE, PERSON or EVENT.	Can be Demonstrated	
DRK-012	Maintain case information as official court record in accordance with state statutes and court rules.	Can be Demonstrated	
DRK-012.01	Provide ADMIN USER with the ability to define rules for determining what data is to be included in the official Court Record.	Can be Demonstrated	
DRK-013	Maintain individual information on multiple parties, participants, and counsel in a case such as personal information, status including dismissals, current addresses, address histories, voice and facsimile telephone numbers, e-mail addresses, interpreter requirements, role, etc.	Can be Demonstrated	
DRK-013.01	Provide USER with the ability to assign: party bankruptcy status, party dismissal status, address, address history, voice and facsimile numbers, e-mail addresses, interpreter requirements, party type, military service status.	Can be Demonstrated	Party flags for party bankruptcy and dismissal status if not linked to current case.
DRK-013.02	Provide ADMIN USER with the ability to define type of party statuses (e.g. bankruptcy, military, dismissed).	Can be Demonstrated	

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DRK-013.03	Provide ADMIN USER with the ability to define type or interpreter languages.	Can be Demonstrated	
DRK-014	Enter, change, or withdraw counsel for specific cases (or groups of cases) or parties (or groups of parties) with dates when active and inactive, including the ability to remove counsel appearances in batch, either user controlled/initiated or automatic.	Can be Demonstrated	
DRK-014.01	Provide USER with the ability to assign counsel start date for specific cases (or groups of cases) or parties (or groups of parties).	Can be Demonstrated	
DRK-014.02	Provide USER with the ability to maintain history of counsel appearances.	Can be Demonstrated	
DRK-014.03	Provide USER with the ability to assign counsel's end date for specific cases (or groups of cases) or parties (or groups of parties).	Can be Demonstrated	
DRK-014.04	Provide ADMIN USER with the ability to define a rule to assign counsel end dates.	Can be Demonstrated	
DRK-014.05	Provide USER with the ability to manually assign counsel end dates.	Can be Demonstrated	
DRK-014.06	Provide ADMIN USER with the ability to globally define rules for AUTOMATICALLY assigning counsel end dates.	Can be Demonstrated	Not available.
DRK-017	Permit, with proper authorization (e.g., supervisor approval), deletion of specific docket entries and all related data (e.g., deletion of pleading and fee information causes related docket and accounting information to be deleted).	Alternative Proposed	Users with proper authorization can delete docket events within the application. Financials would need to be voided in a separate transaction.
DRK-017.01	Provide USER with the ability to assign an indicator to any record that indicates that the record was entered as error.	Alternative Proposed	Not available.
DRK-017.02	Provide ADMIN USER with the ability to define rule for displaying records that have been marked as error.	Alternative Proposed	Not available.
DRK-018	Apply a specific change to multiple dockets, parts of dockets, or groups of cases as if they were a single docket or case (e.g., change of Judge Smith's courtroom causes all records containing old courtroom number to be changed to new courtroom number, transfer group of cases to new judge when former judge retires or conflict arises, transfer group of cases to another division).	Requires Configuration	
DRK-018.01	Provide USER with the ability to select one or more CASES and apply a specific change to all CASES selected.	Requires Configuration	
DRK-018.02	Provide USER with the ability to select one or docket entries on one or more CASES and apply a specific change to all docket entries selected.	Requires Configuration	
DRK-018.03	Provide ADMIN USER with the ability to define a rule on what changes to what actions is allowed in interactive batch mode.	Requires Configuration	
DRK-018.04	Provide ADMIN USER with the ability to define field(s) for querying CASES or Docket Entries eligible for change.	Requires Configuration	
DRK-018.05	Provide ADMIN USER with the ability to define field(s) that are displayed in the search results.	Requires Configuration	
DRK-019	Link and display information on docket entries for events related to current docket entry (e.g., "life cycle" of a motion--when defendant files motion that opposes previously filed motion of plaintiff, defendant's motion would be linked to original plaintiff's motion filed, and new motion filed would be linked to all pending motions in case with information displayed on who filed motions, factors involved, and pending decisions).	Can be Demonstrated	
DRK-019.01	Provide ADMIN USER with the ability to define rules regarding relationships between documents based on document type (e.g. complaint, answer, request).	Can be Demonstrated	

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DRK-019.02	Provide USER with the ability to “drill down” to obtain the details of all data relationships to the case.	Can be Demonstrated	
DRK-019.03	Provide ADMIN USER with the ability to define codes to associate decision with document.	Can be Demonstrated	
DRK-019.04	Provide USER with the ability to assign filing parties to document(s).	Can be Demonstrated	
DRK-019.05	Provide USER with the ability to assign relationship between document(s).	Can be Demonstrated	
DRK-019.06	Provide USER with the ability to assign decision to document.	Can be Demonstrated	
DRK-019.07	Provide USER with the ability to sort for DOCUMENTS by type, decision, filing PARTY.	Can be Demonstrated	
DRK-019.08	Provide ADMIN USER with the ability to define field(s) for querying all docket entries.	Can be Demonstrated	
DRK-019.09	Provide ADMIN USER with the ability to define fields that are displayed in the docket entry results.	Can be Demonstrated	Not available.
DRK-019.10	Provide USER with the ability to view with ease all relationships associated with a selected docket entry.	Can be Demonstrated	
DRK-019.11	Provide USER with the ability to search for all docket entries.	Can be Demonstrated	
DRK-021	Create, maintain, and produce (according to user-specified criteria such as selected workstation[s] or selected case[s]) audit trail identifying persons who made docket and other entries (including updates) and when they made entries (highlighting when filing occurred if filing and entry dates are different).	Can be Demonstrated	
DRK-021.01	Provide ADMIN USER with the ability to locally define rule(s) defining action to be taken when entry and filing dates are disparate.	Can be Demonstrated	
DRK-021.02	Provide ADMIN USER with the ability to locally define REPORT for object(s) (e.g. documents, scheduled events, parties, etc.) with information such as entry date, filing date, party-to-object, etc.	Can be Demonstrated	
DRK-021.03	Provide ADMIN USER with the ability to locally define fields that are displayed on the report.	Can be Demonstrated	
DRK-021.04	Provide USER with the ability to produce report for object(s) (e.g. documents, scheduled events, parties, etc.).	Can be Demonstrated	
DRK-021.05	AUTOMATICALLY assign system USER, create/update date and time to every record.	Can be Demonstrated	
DRK-022	Print or display all, part, or summaries of docket(s) (e.g., events in register of actions, all parties, summaries of judgment information, case age) for specific case or group of cases and for life of case or specific date range in chronological, reverse chronological, or docket sequential number order.	Can be Demonstrated	
DRK-022.01	Provide USER with the ability to print the displayed view(s).	Can be Demonstrated	
DRK-022.02	Provide USER with the ability to select one or many CASES and produce selected views.	Can be Demonstrated	
DRK-022.03	Provide ADMIN USER with the ability to define views of CASE information.	Can be Demonstrated	
DRK-022.04	Provide ADMIN USER with the ability to define fields for querying on different CASE views.	Can be Demonstrated	
DRK-022.05	Provide ADMIN USER with the ability to define fields that are displayed in the different CASE views.	Can be Demonstrated	
DRK-022.06	Provide USER with the ability to select with ease one or more views to display.	Can be Demonstrated	



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DRK-024	Maintain file of input templates available to users to create input documents and, as necessary, associated cover sheets (for use when pleadings are filed electronically) and relate each template to court event(s) (e.g., to correlate templates with events and to allow details of specific electronically filed complaint to be inserted into boilerplate text of complaint form for hard copy printout).	Can be Demonstrated	
DRK-024.01	Provide ADMIN USER with the ability to define DOCUMENT templates.	Can be Demonstrated	
DRK-025	Maintain and print or display history of changes in judge assignment including those by recusal and showing present and former judges, dates of assignment, and reasons for change.	Can be Demonstrated	
DRK-025.01	Provide ADMIN USER with the ability to codes for types of Judge Assignment.	Can be Demonstrated	
DRK-025.02	Provide ADMIN USER with the ability to define codes for Judge Assignment removal to case.	Can be Demonstrated	
DRK-025.03	Provide USER with the ability to assign a Judge removal code to Judge Assignment.	Can be Demonstrated	
DRK-025.04	Provide ADMIN USER with the ability to define REPORT for Judge Assignment history.	Can be Demonstrated	Not available.
DRK-025.05	Provide USER with the ability to produce report for Judge Assignment to CASE.	Can be Demonstrated	Not available.
DRK-025.06	Provide USER with the ability to sort on Judge, type of Judge Assignment, Assignment Date, Removal Reason, Removal Date.	Can be Demonstrated	Not available.
DRK-025.07	Provide USER with the ability to assign JUDGE ASSIGNMENT to CASE.	Can be Demonstrated	
DRK-026	Maintain and print or display history of counsel changes for specific case or party, including dates active/inactive and reason(s) for removal.	Can be Demonstrated	
DRK-026.01	Provide ADMIN USER with the ability to globally define codes reasons for counsel removal (e.g. case closed/inactivated, striking/substitution of appearance).	Can be Demonstrated	
DRK-026.02	Provide ADMIN USER with the ability to define REPORT on counsel/PARTY data.	Can be Demonstrated	
DRK-026.03	Provide USER with the ability to produce REPORT for counsel/PARTY data.	Can be Demonstrated	
DRK-027	Enter and maintain information (e.g., document title and identifier, defendant and participant, fees collected) and dates on filings and other completed events not previously in system (e.g., participant added or deleted, plea entered, motion filed, or hearing date set).	Can be Demonstrated	
DRK-027.01	Provide USER with the ability to assign past dates to events.	Can be Demonstrated	
DRK-027.02	AUTOMATICALLY maintain system date (data entry date) for events added to system.	Can be Demonstrated	
DRK-028	Maintain information on multiple case participants (e.g., status including dismissals, consolidations, bifurcations, previously-closed cases that have been reopened).	Can be Demonstrated	
DRK-028.01	Provide USER with the ability to view detailed disposition history for one to many CASE PARTICIPANTS.	Can be Demonstrated	
DRK-028.02	Provide USER with the ability to search for other cases associated with a CASE PARTICIPANT (party name) from within the CASE.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
DRK-029	Maintain multiple current and historical addresses, with beginning and ending dates, for each judge, all counsel, all case participants including plaintiffs/defendants and witness.	Can be Demonstrated	
DRK-029.01	Provide ADMIN USER with the ability to globally define codes for address type.	Can be Demonstrated	
DRK-029.02	Provide ADMIN USER with the ability to globally define central repository for counsel data.	Can be Demonstrated	
DRK-029.03	Provide USER with the ability to assign address types, start and end dates for PARTY address.	Can be Demonstrated	
DRK-029.04	AUTOMATICALLY maintain complete history of all address information for every type of entity.	Can be Demonstrated	
DRK-030	Coordinate with Case Initiation and Indexing Function to enter and track all charges, issues and requested relief (initial and modified) filed by any case participant at case initiation and subsequently and to link charges to proper respondent and incident.	Can be Demonstrated	
DRK-030.01	AUTOMATICALLY maintain complete history of CHARGES/ISSUES/RELIEF.	Can be Demonstrated	
DRK-030.02	Provide USER with the ability to link charges to defendant and a specific incident	Can be Demonstrated	
DRK-030.03	Provide USER with the ability to assign issues/requested relief to a case.	Can be Demonstrated	
DRK-033	Perform locally defined edit and data validation checks such as content of each individual data field (e.g., proper format for a date) and relationship of data field to other data (e.g., attempt to schedule hearing for cases with open warrants and other served documents).	Can be Demonstrated	
DRK-033.01	Provide ADMIN USER with the ability to define rules for data validations on all fields.	Can be Demonstrated	Data validation is user definable on some fields, not all fields.
DRK-042	Allow or disallow different types of filings or events for each unique case type.	Can be Demonstrated	
DRK-042.01	Provide ADMIN USER with the ability to define codes to associate document types with case type.	Can be Demonstrated	
DRK-043	Allow newly-entered events to be inserted as appropriate in docket (e.g., before later entries in chronological event list).	Can be Demonstrated	
DRK-043.01	Provide USER with the ability to assign date to event.	Can be Demonstrated	
DRK-043.02	Provide USER with the ability to sort display on date field.	Can be Demonstrated	
DRK-043.03	Provide USER the ability to assign a docket entry to a CASE.	Can be Demonstrated	
DRK-044	Allow user to define, modify, and maintain all relationships noted in Case Initiation and Indexing and Docketing and Related Record Keeping.	Can be Demonstrated	
DRK-044.01	Provide ADMIN USER with the ability to define codes to associate PARTYTOCASE with events (e.g. filing party, party type, etc.).	Can be Demonstrated	
DRK-044.02	Provide USER with the ability to assign PARTIES to events.	Can be Demonstrated	
DRK-045	Restore any relationship noted above if erroneously modified or deleted. (see Security Function)	Can be Demonstrated	
DRK-045.01	Provide USER with the ability to assign PARTIES to certain events.	Can be Demonstrated	



ID	Requirement Text	Response Code	Comments
DRK-046	Provide ADMIN USER the ability to define a prompted work flow for the entry of docket information based on case type and event.	Can be Demonstrated	
DRK-047	Continue case and person information security and data integrity begun in case initiation, such as increased security to social data on case participants and their families (e.g., medical, family, SSN, relationships, defendants, victims, etc.).	Can be Demonstrated	
DRK-047.01	Provide ADMIN USER with the ability to globally define codes to identify sealed, secret or confidential CASE information.	Can be Demonstrated	
DRK-047.02	Provide USER with the ability to assign codes to CASE information to indicate confidentiality.	Can be Demonstrated	
DRK-050	Provide audit trail for all activity contained in each case.	Can be Demonstrated	
DRK-050.01	Maintain history of all case-related activity (events), including User login, User create and User update dates.	Can be Demonstrated	
DRK-050.02	Provide ADMIN USER with the ability to define REPORT showing User create and update information for all events, including User login and	Can be Demonstrated	Not available.
DRK-050.03	Provide USER with the ability to produce/view REPORT of case events with User create and User update information, (e.g. User login, User dates).	Can be Demonstrated	Not available.
DRK-051	Ability to relate actions based on a docketed event according to locally defined business rules.	Can be Demonstrated	
DRK-051.01	Provide ADMIN USER with the ability to locally define work flow process by event, case type according to local business rules.	Can be Demonstrated	
DRK-051.02	Provide ADMIN USER with the ability to locally define rules for work flow based on event, case type, etc. according to local practice.	Can be Demonstrated	
DRK-052	Allow the user management team to enter and maintain codes for data tables (e.g., charge codes and descriptions), including history of codes and charge tables.	Can be Demonstrated	
DRK-052.01	Provide ADMIN USER with the ability to globally define codes for statutes, including allegation/charge codes, descriptions, effective date, rescission date, charging language, etc.	Can be Demonstrated	
DRK-052.02	AUTOMATICALLY maintain history of changes to codes, descriptions, effective date, rescission date, etc.	Can be Demonstrated	
DRK-056	Ability to change erroneously assigned case numbers with a safeguard to prevent inadvertent changes to or deletion of cases.	Can be Demonstrated	
DRK-056.01	Provide ADMIN USER with the ability to define rules regarding deletion/retention of previously assigned case ids.	Can be Demonstrated	
DRK-056.02	Provide ADMIN USER with the ability to DELETE case ids erroneously assigned.	Can be Demonstrated	
DRK-057	Allow edits to case information for errors made during the case initiation and notice processes.	Can be Demonstrated	
DRK-057.01	Provide ADMIN USER with the ability to define rules regarding what CASE information can be edited and/or deleted.	Can be Demonstrated	
DRK-057.02	Provide USER with the ability to assign (edit) previously entered information or to mark previously entered information as having been	Can be Demonstrated	
DRK-058	Provide the ability to consolidate cases (manage multiple cases as one, although cases themselves remain separate).	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
DRK-058.01	Provide ADMIN USER with the ability to globally define types of case consolidation.	Can be Demonstrated	
DRK-058.02	Provide ADMIN USER with the ability to locally define work flow process based on type of case consolidation	Can be Demonstrated	
DRK-058.03	Provide USER with the ability to assign consolidation type to a group of CASES.	Can be Demonstrated	
DRK-060	Track time periods and/or allowances for notices and motions.	Can be Demonstrated	
DRK-060.01	Provide ADMIN USER with the ability to define codes for TICKLES.	Can be Demonstrated	
DRK-060.02	Provide ADMIN USER with the ability to define work flow process upon expiration of TICKLE.	Can be Demonstrated	
DRK-060.03	Provide ADMIN USER with the ability to define REPORTS showing information regarding whether or not certain deadlines have been met.	Can be Demonstrated	
DRK-060.04	Provide USER with the ability to assign tickle codes to designated events.	Can be Demonstrated	
DRK-060.05	Provide USER with the ability to override (delay) tickle expiration date.	Can be Demonstrated	
DRK-060.06	Provide USER with the ability to search for TICKLES by User-defined criteria such as case type, case id, tickle code, tickle expiration, etc.	Can be Demonstrated	
DRK-060.07	Provide ADMIN USER with the ability to define field(s) for querying on TICKLE information.	Can be Demonstrated	
DRK-060.08	Provide ADMIN USER with the ability to define field(s) that are displayed in the search results.	Can be Demonstrated	Not available.
DRK-060.09	Provide USER with the ability to search with ease for TICKLE information.	Can be Demonstrated	
DRK-060.10	Provide ADMIN USER the ability to define the time frame for a TICKLE based on a combination of conditions including but not limited to the case type, the event (e.g., service of notice), and service location of the PARTY.	Can be Demonstrated	Partially available. Can update the tickler, but not with the details of the service location.
DRK-075	Capture dates correctly by deciphering the difference between effective date and entered date and allow for docketing of retroactive filings.	Can be Demonstrated	
DRK-075.01	AUTOMATICALLY capture system date & time upon entry of event record.	Can be Demonstrated	
DRK-075.02	Provide USER with the ability to assign filing date independent of date of data entry.	Can be Demonstrated	
DRK-081	Provide the JUDGE and CA the ability to enter confidential notes into a docket entry, keeps these notes secure, and access them as needed.	Alternative Proposed	Tyler proposes to use the existing notes features available within the application.
DRK-081.01	Provide ADMIN USER with the ability to define confidential status of events by event type.	Alternative Proposed	Not available.
DRK-081.02	Provide USER with the ability to assign confidential status to event.	Alternative Proposed	Not available.
DRK-081.03	Provide USER with the ability to view confidential information based on security settings.	Alternative Proposed	
DRK-081.04	Provide USER with the ability to assign confidential comments to case	Alternative Proposed	
DRK-093	Provide a mechanism for searching for cases with a specific condition(s) that require CA or judge action.	Can be Demonstrated	
DRK-093.01	Provide ADMIN USER with the ability to define report or query criteria.	Can be Demonstrated	
DRK-093.02	Provide USER with the ability to produce report.	Can be Demonstrated	
DRK-094	Allow for editing of the disposition once it is made with appropriate audit trail of changes.	Can be Demonstrated	
DRK-094.01	Provide ADMIN USER with the ability to define rules for disposition updates.	Can be Demonstrated	
DRK-094.02	Provide USER with the ability to assign updated values to disposition within locally defined rules as defined by ADMIN USER.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
DRK-094.03	AUTOMATICALLY maintain history of disposition/case status.	Can be Demonstrated	
DRK-110	Provide the ability for case participants to be tracked as either represented by counsel or pro se.	Can be Demonstrated	
DRK-110.01	AUTOMATICALLY designate PARTY as pro se upon any filing by the PARTY when no attorney appearance is entered.	Can be Demonstrated	
DRK-110.02	Provide USER with the ability to assign pro se status to PARTY.	Can be Demonstrated	
DRK-112	Track relationship between the docket entry and associated template form.	Can be Demonstrated	
DRK-112.01	AUTOMATICALLY associate DOCUMENT to DOCUMENT template that was used to create it.	Can be Demonstrated	
DRK-113	Provide for a docket entry sequence number to be automatically assigned and displayed or user entered and displayed.	Not Proposed	Not available.
DRK-113.01	AUTOMATICALLY assign sequence number to docket entries.	Not Proposed	
DRK-113.02	Provide USER with the ability to assign sequence number for docket entries when filing is made previous to existing docket entries, e.g. if entries # 4 and 5 exist, allow USER to enter #4.1, etc.	Not Proposed	
DRK-114	Establish cross references between consolidated cases for docketing, scheduling, notice generation, and other functions.	Can be Demonstrated	
DRK-114.01	Provide ADMIN USER with the ability to define codes for CASE GROUP TYPES.	Can be Demonstrated	
DRK-114.02	Provide USER with the ability to assign one or more CASES to one or more CASE GROUP TYPES [consolidated group type].	Can be Demonstrated	
DRK-114.03	Provide ADMIN USER with the ability to define a rule for how replicating functions (docketing, scheduling, noticing) based on a CASE GROUP TYPES.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
EDP-001	Maintain and print or display audit trail of each case file location with information for file tracking, in addition to length of time file checked out.	Can be Demonstrated	
EDP-001.01	Provide USER with the ability assign an indicator to CASE indicating that a paper file exist.	Can be Demonstrated	
EDP-001.02	Provide USER with the ability to assign a unique identifier to each CASE FILE FOLDER volume.	Can be Demonstrated	
EDP-001.03	Provide USER with the ability to assign volume number, location, date checked in, date checked out to each CASE FILE FOLDER.	Can be Demonstrated	
EDP-001.04	Provide USER with the ability to search CASE FILE FOLDER records.	Can be Demonstrated	
EDP-001.05	Provide ADMIN USER with the ability to define codes for CASE FILE FOLDER locations.	Can be Demonstrated	
EDP-001.06	Provide ADMIN USER with the ability to define fields to display for CASE FILE FOLDER.	Can be Demonstrated	
EDP-002	Print or display list of filings while manual file checked out so that documents can be added to file when it is returned.	Alternative Proposed	Tyler recommends that the court move away from physical case files.
EDP-002.01	Provide ADMIN USER with the ability to define an indicator to FILING when the manual file is checked out.	Alternative Proposed	
EDP-002.02	Provide USER with the ability to assign indicator to FILING when manual file is checked out.	Alternative Proposed	
EDP-003	Track location and status of exhibits and other property through each borrower (including those external to courts) until returned to CA's office relative to location, borrower identifier and other information, identifier and total number of similar exhibits or property (e.g., pay stub one of five), date removed, reason needed, date returned or transferred, and other data.	Can be Demonstrated	
EDP-003.01	Provide ADMIN USER with the ability to define codes for borrower, location, type of EXHIBITS.	Can be Demonstrated	
EDP-003.02	Provide USER with the ability to assign borrower, location, type, date removed, reason removed, date returned, date transferred, description to EXHIBITS.	Can be Demonstrated	
EDP-004	Record return, release, or destruction of exhibits and other property, including person who received the property.	Can be Demonstrated	
EDP-004.01	Provide USER with the ability to assign return date, release date, destruction date, person released to for EXHIBITS.	Can be Demonstrated	
EDP-005	Track and print or display court orders pertaining to each exhibit or property, including the ability to print a single order for multiple exhibits or property items.	Can be Demonstrated	
EDP-005.01	Provide USER with the ability to produce DOCUMENT[Exhibits orders] for one or many EXHIBITS.	Can be Demonstrated	
EDP-006	Generate labels for manual case files, including bar codes.	Can be Demonstrated	
EDP-006.01	Provide USER with the ability to produce a case label including bar codes.	Can be Demonstrated	
EDP-006.02	Provide ADMIN USER with the ability to define fields that should be displayed as bar codes.	Can be Demonstrated	Not applicable. Bar codes are intended to represent numbers.

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## Exhibits &amp; Property Mgmt

ID	Requirement Text	Response Code	Comments
EDP-007	Generate indicators (e.g., color coded labels or reference cards) with information on checked-out manual files to replace those files in cabinet.	Can be Demonstrated	
EDP-007.01	Provide ADMIN USER with the ability to produce DOCUMENT[case reference cards] when a file has been removed.	Can be Demonstrated	
EDP-007.01	Provide USER with the ability to assign paper file "check out" details: location, borrower, date removed, reason needed, date returned, date transferred and other data	Can be Demonstrated	
EDP-007.02	Provide USER the ability to track a case file checked out until it is check back in.	Can be Demonstrated	
EDP-008	Track manual case files from time checked out through each borrower until returned to the CA relative to location, borrower, date removed, reason file needed, date returned or transferred, and other data.	Can be Demonstrated	
EDP-009	Maintain location (e.g. storage facility, location in facility, reel number, and location on reel) for manual and electronic archived files.	Can be Demonstrated	
EDP-009.01	Provide USER with the ability to assign location to CASE FILE FOLDER.	Can be Demonstrated	
EDP-009.02	Provide ADMIN USER with the ability to define codes for CASE FILE FOLDER locations.	Can be Demonstrated	
EDP-010	Maintain last location of manual and electronic destroyed files.	Can be Demonstrated	
EDP-010.01	Provide USER with the ability to assign location to CASE FILE FOLDER.	Can be Demonstrated	
EDP-010.02	Provide ADMIN USER with the ability to define codes for CASE FILE FOLDER locations.	Can be Demonstrated	
EDP-011	Identify cases to be retained permanently.	Can be Demonstrated	
EDP-011.01	Provide USER with the ability to assign an indicator to CASE to flag that it must be permanently retained.	Can be Demonstrated	
EDP-012	Process files according to local and state rules for becoming archived, destroyed, or transferred to storage facility.	Can be Demonstrated	
EDP-012.01	Provide ADMIN USER with the ability to define rule for CASE destruction, archival and transfer to storage.	Can be Demonstrated	
EDP-013	Generate and maintain or print reports showing archived and destroyed or transferred cases.	Can be Demonstrated	
EDP-013.01	Provide USER with the ability to produce report of CASE.	Can be Demonstrated	
EDP-013.02	Provide ADMIN USER with the ability to define fields to display for CASE.	Can be Demonstrated	
EDP-014	Perform utility functions (e.g., copy information such as docket entries and parties) from one case to another.	Can be Demonstrated	Case copy is available. Case content copy is not available.
EDP-014.01	Provide ADMIN USER with the ability to define rule for /PARTY/FILINGS copying from one CASE to one or many CASEs.	Can be Demonstrated	
EDP-015	Provide capability to toggle between views of several different documents.	Can be Demonstrated	Via Windows.
EDP-015.01	Provide USER with the ability to view one or many DOCUMENTS at one time or to allow for toggling between them.	Can be Demonstrated	

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ID	Requirement Text	Response Code	Comments
EDP-016	Record receipt of exhibits (including party submitting, exhibit description, exhibit status such as submitted into evidence), generate tag for exhibits, relate to specific case.	Can be Demonstrated	
EDP-016.01	Provide USER with the ability to assign receipt date to EXHIBITS.	Can be Demonstrated	
EDP-016.02	Provide ADMIN USER with the ability to define reports for EXHIBITS.	Can be Demonstrated	
EDP-016.03	Provide USER with the ability to generate DOCUMENT [exhibit tag, receipt].	Can be Demonstrated	
EDP-017	Generate exhibit numbers or other identifiers.	Can be Demonstrated	
EDP-017.01	Provide USER with the ability to assign unique identifier to EXHIBITS.	Can be Demonstrated	
EDP-018	Note in CMS and generate automated notices (1) to reclaim exhibit when court's usage completed and (2) to inform owner that exhibit has been destroyed.	Can be Demonstrated	Case Notice
EDP-018.01	Provide USER with the ability to produce DOCUMENT[notices] for EXHIBITS when court cases is complete and when EXHIBIT has been destroyed.	Can be Demonstrated	
EDP-019	Print or display lists of exhibits according to case, party, and other parameters.	Can be Demonstrated	
EDP-019.01	Provide ADMIN USER with the ability to define fields to display for EXHIBITS.	Can be Demonstrated	
EDP-019.02	Provide USER with the ability to search EXHIBITS.	Can be Demonstrated	
EDP-019.03	Provide USER with the ability to sort for EXHIBITS by CASE, PARTY and other parameters.	Can be Demonstrated	
EDP-020	Generate indicators (e.g. color coded labels) to indicate restricted-access files (e.g. psychological evaluations) on hard-copy files.	Can be Demonstrated	
EDP-020.01	Provide ADMIN USER with the ability to define codes for CASE access restrictions.	Can be Demonstrated	
EDP-020.02	Provide USER with the ability to assign access restrictions to CASE.	Can be Demonstrated	
EDP-021	Provide ability to track multi-volume files.	Can be Demonstrated	
EDP-021.01	Provide USER with the ability to assign location to CASE FILE FOLDER volumes individually.	Can be Demonstrated	
EDP-022	Provide alert capability for hard-copy files reported lost (e.g. alert to screen of terminal accessing associated electronic file).	Alternative Proposed	Tyler proposes transitioning the court from a physical case file to an electronic case file.
EDP-022.01	AUTOMATICALLY alert USER when CASE FILE FOLDER is lost.	Alternative Proposed	
EDP-023	Retain information from inactive, archived, destroyed, or purged cases or a respondent as needed for related cases and a respondent that may remain active and to retain summary information based on local rules (e.g. indexes) on active or inactive files.	Alternative Proposed	Related case information is always maintained until that case is destroyed.
EDP-023.01	Provide ADMIN USER with the ability to define rule concerning data elements that should still display for cases that are archived, destroyed or purged.	Alternative Proposed	
EDP-024	Update records of cases and a respondent related to cases transferred to inactive, archived, destroyed, or purged status.	Requires Configuration	
EDP-024.01	AUTOMATICALLY update the CASE docket when cases are made inactive, archived, destroyed or purged.	Requires Configuration	

ID	Requirement Text	Response Code	Comments
EDP-025	Allow for consolidation and severance of files containing information on same respondent or case participant. Permit the party to maintain their same unique identifier even after the merge.	Can be Demonstrated	
EDP-025.01	Provide USER with the ability to assign one case number to multiple cases in order to merge or unmerge them for future updates.	Can be Demonstrated	
EDP-025.02	Provide USER with the ability to select the unique identifiers after merge.	Can be Demonstrated	
EDP-026	Provide the ability to display an alert when consolidation and severance of files will affect multiple records.	Requires Customization	Not available.
EDP-026.01	AUTOMATICALLY prompt USER regarding records that will be affected by merging and unmerging of CASE/PARTY records.	Requires Customization	
EDP-027	Provide ability to reference and track all exhibits when associated with multiple cases.	Can be Demonstrated	
EDP-027.01	Provide USER with the ability to assign one of more EXHIBITS to one or more CASES or GROUPS of CASES.	Can be Demonstrated	
EDP-028	Permit override of system-supplied data on archival, destruction, and transfer dates with supervisor approval.	Requires Configuration	
EDP-028.01	Provide USER with the ability to override EXHIBIT and CASE archival, destruction and transfer dates.	Requires Configuration	
EDP-029	Identify summary information (e.g., indices, key elements of case history) to be retained in active or semi-active files and documents.	Alternative Proposed	If information needs to be retained, Tyler would recommend not destroying the case.
EDP-029.01	Provide ADMIN USER with the ability to define rule concerning data elements that should still display for cases that are made inactive.	Alternative Proposed	
EDP-030	Provide integrated ECMS functionality or Interoperate with the ECMS to permit access to inactive and archived files and documents for information and to restore to active status.	Alternative Proposed	Tyler proposes the use of the electronic content management system that is native to Odyssey.
EDP-030.01	Provide integrated ECMS functionality or Interoperate with the ECMS to provide ADMIN USER with the ability to define rules for access to inactive CASES/DOCUMENTS.	Alternative Proposed	
EDP-030.02	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to assign Case Archival Status to CASE.	Alternative Proposed	
EDP-031	Maintain and output index of manual paper documents as part of a table of contents or case history.	Can be Demonstrated	
EDP-031.01	Provide USER with the ability to produce Report of DOCUMENTS[manual and electronic].	Can be Demonstrated	
EDP-032	Provide the ability to record if and when an exhibit is admitted, identified, withdrawn, not offered, denied, and judicially noticed.	Can be Demonstrated	
EDP-032.01	Provide USER with the ability to assign an indicator to EXHIBIT when it is admitted into evidence.	Can be Demonstrated	
EDP-033	Identify location (e.g. storage facility, location in facility) for paper files (e.g., details about case storage box, including box number, data and box code; re-evaluate case information and set a new box date).	Can be Demonstrated	



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## Exhibits &amp; Property Mgmt

ID	Requirement Text	Response Code	Comments
EDP-033.01	Provide ADMIN USER with the ability to define codes for location of CASE FILE FOLDER.	Can be Demonstrated	
EDP-033.02	Provide USER with the ability to assign case storage box number, box code to CASE FILE FOLDER.	Can be Demonstrated	
EDP-034	View and print list of cases which are to be moved to off-site storage based on user defined parameters.	Can be Demonstrated	
EDP-034.01	Provide ADMIN USER with the ability to define codes for location of CASE FILE FOLDER.	Can be Demonstrated	
EDP-034.02	Provide USER with the ability to produce report of CASES that should be moved to off-site storage.	Can be Demonstrated	
EDP-035	Create a docket entry when a case is archived.	Requires Configuration	
EDP-035.01	AUTOMATICALLY update the CASE docket when cases are made inactive, archived, destroyed or purged.	Requires Configuration	
EDP-036	Provide the ability for PARTIES to submit and update exhibit list electronically.	Can be Demonstrated	Via electronic filing
EDP-037	Provide the ability for PARTIES to submit and withdraw exhibits electronically.	Can be Demonstrated	Withdrawal of exhibits not available.
EDP-038	Provide the ability to AUTOMATICALLY retain exhibits and exhibit lists in electronic format.	Can be Demonstrated	
EDP-039	Provide the ability to review exhibits and exhibit lists on-line.	Not Proposed	This is not a feature of Odyssey
EDP-040	AUTOMATICALLY ensure that the exhibits listed are accounted for.	Not Proposed	This is not a feature of Odyssey
EDP-041	Provide the ability for PARTIES to submit and withdraw briefs electronically.	Can be Demonstrated	Briefs can be submitted electronically, however withdrawal of those is not available.
EDP-042	Provide the ability for judges to admit, identify, or deny exhibits electronically.	Can be Demonstrated	



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## Calendar

ID	Requirement Text	Response Code	Comments
CAL-001	Suppress inclusion of user-designated confidential information in calendars (e.g., oral arguments calendar).	Can be Demonstrated	Flexible calendars.
CAL-001.01	Provide ADMIN USER with the ability to define rules for display of fields.	Can be Demonstrated	
CAL-001.02	Provide USER with the ability to assign an indicator to fields when those fields contain confidential data.	Can be Demonstrated	
CAL-002	Create, generate, and maintain calendars based on scheduling information and incorporate calendar addenda according to pre defined scheduling rules, accept electronic import file for the calendar configuration information (rotations, assignments out in time) for each type of hearing (e.g., status conference, pretrial hearing, trial) or mixed hearings for specific periods (e.g., daily, weekly, monthly) and according to various criteria (e.g., judge, date, time, case type, case category, other elements of calendar profiles).	Alternative Proposed	Odyssey includes calendaring functionality that allows an administrator the ability to set up court sessions for various resources and times. The court sessions can be defined for specific hearing types and capacity limits. Users scheduling into the court session must have the right to schedule a hearing that is not defined for the court session or to overbook a session.
CAL-002.01	Provide ADMIN USER with the ability to define rules for creating calendar addenda.	Alternative Proposed	See CAL-002
CAL-002.02	Provide ADMIN USER with the ability to define rules for calendar configuration by HEARING type.	Alternative Proposed	See CAL-002
CAL-002.03	Provide ADMIN USER with the ability to define rules for calendar configuration by date range.	Alternative Proposed	See CAL-002
CAL-002.04	Provide ADMIN USER with the ability to define rules for calendar configuration by other criteria.	Alternative Proposed	See CAL-002
CAL-002.05	Provide USER with the ability to assign data to calendar fields.	Alternative Proposed	See CAL-002
CAL-002.06	AUTOMATICALLY accept calendar information and apply to calendar fields.	Alternative Proposed	See CAL-002
CAL-003	Transfer easily and quickly between scheduling, calendaring, and other parts of the system when creating calendars (e.g., to view information on other cases, parties, participants).	Requires Configuration	
CAL-003.01	Provide USER with the ability to navigate to screens for scheduling, calendaring, and other parts of the system.	Requires Configuration	
CAL-004	Create and maintain judge's and CA's notes (i.e., judges' notes and comments for use with calendar) for that individual's viewing only in accordance with court rules and statutes.	Can be Demonstrated	
CAL-004.01	Provide USER with the ability to assign data to a field within a DOCUMENT.	Can be Demonstrated	
CAL-004.02	Provide USER with the ability to assign data to a field within a CASE.	Can be Demonstrated	
CAL-004.03	Provide ADMIN USER with the ability to define fields that are associated with a DOCUMENT.	Can be Demonstrated	
CAL-004.04	Provide ADMIN USER with the ability to define fields that are associated with a CASE.	Can be Demonstrated	
CAL-004.05	Provide ADMIN USER with the ability to define rules for display of fields.	Can be Demonstrated	
CAL-005	Provide the ability to distribute calendars electronically.	Can be Demonstrated	
CAL-005.01	Provide USER with the ability to send calendar information to another USER.	Can be Demonstrated	
CAL-005.02	Provide ADMIN USER with the ability to define work flow for distribution of calendar information, including any links to documents in the ECMS.	Can be Demonstrated	State Bar ECMS interface not proposed.
CAL-005.03	AUTOMATICALLY distribute calendars based on work flow rules.	Can be Demonstrated	

## Appendix E

## Calendar

ID	Requirement Text	Response Code	Comments
CAL-006	Generate and display or print summary of upcoming hearings for a judge or in a courtroom over a specific period (e.g., a week), including past hearings.	Can be Demonstrated	
CAL-006.01	Provide USER with the ability to search calendar information.	Can be Demonstrated	
CAL-006.02	Provide USER with the ability to print calendar information.	Can be Demonstrated	
CAL-006.03	Provide ADMIN USER with the ability to define "summary" calendar content.	Can be Demonstrated	
CAL-006.04	Provide USER with the ability to generate reports from calendar information.	Can be Demonstrated	
CAL-007	Display or print summary calendar information (e.g., for use in courtroom and could contain case number, hearing type, case title, hearing date and time, and other essential information from calendar) and provide interface to other parts of system to access other types of information (e.g., on parties).	Can be Demonstrated	
CAL-007.01	Provide USER with the ability to search calendar information.	Can be Demonstrated	
CAL-007.02	Provide USER with the ability to navigate to other parts of system by clicking on data (e.g., party names, case numbers, etc.) in the calendar interface.	Can be Demonstrated	
CAL-008	Provide flexibility with respect to calendar content and format (e.g., judges notes integrated into calendar).	Can be Demonstrated	
CAL-008.01	Provide USER with the ability to configure data displayed on calendars.	Can be Demonstrated	
CAL-008.02	Provide ADMIN USER with the ability to configure standard calendar formats for distinct USER TYPES.	Can be Demonstrated	
CAL-009	Produce calendars individually (e.g., for a judge or courtroom) or batch according to various criteria including date, judge, or courtroom.	Can be Demonstrated	
CAL-009.01	Provide USER with the ability to search calendar information.	Can be Demonstrated	Find a Hearing.
CAL-009.02	Provide USER with the ability to generate reports from calendar information.	Can be Demonstrated	
CAL-009.03	Provide USER with the ability to print calendar information.	Can be Demonstrated	
CAL-009.04	Provide USER with the ability to sort and filter calendar information returned from a search.	Can be Demonstrated	
CAL-010	Generate and output, with calendar, summary of user-designated past and future scheduled events, docket events, or related cases and persons.	Can be Demonstrated	
CAL-010.01	Provide USER with the ability to search CASE EVENT information.	Can be Demonstrated	
CAL-010.02	Provide USER with the ability to retrieve calendar information from data returned from a CASE EVENT search.	Can be Demonstrated	
CAL-010.03	Provide USER with the ability to generate reports from calendar and EVENT information.	Can be Demonstrated	
CAL-010.04	Provide USER with the ability to print calendar information.	Can be Demonstrated	
CAL-010.05	Provide USER with the ability to sort and filter calendar information returned from a search.	Can be Demonstrated	
CAL-011	Track and output calendar modifications (e.g., judge, or other persons, or courtroom reassignments, cases taken off calendar) over specific period.	Can be Demonstrated	Cases that are taken off the calendar through either canceling or rescheduling the hearing are tracked on the calendar. Court Session resource modifications, such as judge or courtroom location are not tracked.
CAL-011.01	AUTOMATICALLY log calendar transactions.	Can be Demonstrated	
CAL-011.02	Provide USER with the ability to search and report on calendar transactions.	Can be Demonstrated	

## Appendix E

## Calendaring

ID	Requirement Text	Response Code	Comments
CAL-011.03	Provide USER with the ability to sort and filter calendar information returned from a search.	Can be Demonstrated	
CAL-012	Provide ability to move blocks of cases or user-selected cases between calendars.	Can be Demonstrated	
CAL-012.01	Provide ADMIN USER with the ability to define rules for assigning data to a GROUP OF CASES.	Can be Demonstrated	
CAL-012.02	Provide USER with the ability to assign CASES to a PERMANENT OR TEMPORARY GROUP.	Can be Demonstrated	
CAL-012.03	Provide USER with the ability to assign data to a GROUP OF CASES with a single process.	Can be Demonstrated	
CAL-013	Create user-defined partial calendar.	Can be Demonstrated	
CAL-013.01	Provide USER with the ability to define distinct calendar types.	Can be Demonstrated	
CAL-013.02	Provide USER with the ability to configure data displayed on calendars.	Can be Demonstrated	
CAL-014	Record and output nature of proceeding for each case on calendar (e.g., pretrial hearing).	Can be Demonstrated	
CAL-014.01	Provide USER to assign proceeding type to CASE EVENT.	Can be Demonstrated	
CAL-014.02	Provide USER with the ability to search calendar information.	Can be Demonstrated	
CAL-014.03	Provide USER with the ability to generate reports from calendar information.	Can be Demonstrated	
CAL-014.04	Provide USER with the ability to print calendar information.	Can be Demonstrated	
CAL-014.05	Provide USER with the ability to sort and filter calendar information returned from a search.	Can be Demonstrated	
CAL-015	Ability for courtroom management of an electronic calendar and courtroom document management.	Can be Demonstrated	
CAL-015.01	Provide USER with the ability to assign data to the calendar from the COURTROOM.	Can be Demonstrated	
CAL-015.02	Provide USER with the ability to assign DOCUMENTS to the calendar from the COURTROOM.	Can be Demonstrated	
CAL-015.03	Provide ADMIN USER with the ability to define rules for data that may be assigned by USER in the COURTROOM.	Can be Demonstrated	
CAL-015.04	Provide ADMIN USER with the ability to define rules for DOCUMENTS that may be assigned by USER in the COURTROOM.	Can be Demonstrated	
CAL-016	Ability to display case participant check in information on judge's bench calendar.	Requires Customization	Development is needed to provide the ability for a clerk to update the check in status for case party and participants for a hearing event. The court session screens and hearing screens will need to be updated to display the check in status so that it is easily visible to users and the judge.
CAL-016.01	Provide USER with the ability to assign a status of "checked in" or "not checked in" to a CASE PARTICIPANT.	Requires Customization	See CAL-016
CAL-016.02	Provide ADMIN USER with the ability to define default check in status.	Requires Customization	See CAL-016
CAL-016.03	Provide USER with the ability to view check-in status of CASE PARTICIPANTS from the bench.	Requires Customization	See CAL-016
CAL-016.04	Provide USER with the ability to assign CASE PARTICIPANT check-in status to calendar.	Requires Customization	See CAL-016
CAL-017	No limit on when or how often a calendar may be viewed, produced and printed.	Can be Demonstrated	

## Appendix E

## Calendar

ID	Requirement Text	Response Code	Comments
CAL-017.01	Provide ADMIN USER with the ability to define rules for access to calendar data.	Can be Demonstrated	
CAL-018	Allow user to review daily, weekly and monthly schedules for departments and judicial officers.	Can be Demonstrated	
CAL-018.01	Provide USER with the ability to define search parameters when retrieving calendar data.	Can be Demonstrated	
CAL-018.02	Provide ADMIN USER with the ability to define multiple standard calendar views for different user types.	Can be Demonstrated	
CAL-019	Allow for configuring the trials per day on a docket.	Can be Demonstrated	
CAL-019.01	Provide ADMIN USER with the ability to define rules for EVENT assignment.	Can be Demonstrated	
CAL-019.02	Provide USER with the ability to assign events to a DOCKET.	Can be Demonstrated	
CAL-019.03	Provide ADMIN USER with the ability to define the objects to which SCHEDULED EVENTS may be assigned.	Can be Demonstrated	
CAL-020	Provide ability to publish the daily court calendar by video monitor.	Requires Configuration	
CAL-020.01	Provide ability to display daily court calendar by Court Room	Requires Configuration	
CAL-020.02	Provide ability to display the master daily Court Room Calendar	Requires Configuration	
CAL-021	Provide ability to allow for output to electronic calendar boards posted in court lobbies	Requires Configuration	

## Appendix E

## Scheduling

ID	Requirement Text	Response Code	Comments
SCH-001	Resolve scheduling conflicts (including ability to define what constitutes a conflict).	Can be Demonstrated	
SCH-001.01	Provide ADMIN USER with the ability to define rules to determine conflicts in calendars.	Can be Demonstrated	
SCH-001.02	Provide ADMIN USER with the ability to define rules to resolve conflicts in calendars.	Can be Demonstrated	
SCH-001.03	Provide USER with the ability to select case participants for SE, invoking rules to resolve conflicts in case participant calendars.	Can be Demonstrated	
SCH-001.04	Provide USER with the ability to override rules regarding conflicts.	Can be Demonstrated	
SCH-002	Relate each scheduled event to actual filing or prior event, if applicable.	Can be Demonstrated	
SCH-002.01	Provide USER with the ability to assign SCHEDULED EVENTS to DOCUMENTS.	Can be Demonstrated	
SCH-002.02	Provide USER with the ability to assign SCHEDULED EVENTS to other prior SCHEDULED EVENTS.	Can be Demonstrated	
SCH-003	Assist USER in manual schedule overrides or changes for specific cases and event(s) (e.g., by allowing USER to enter event type, start date, and duration; by displaying allowable completion dates, open time slots, and time periods allotted to various case processing stages; and by adjusting open time slots to reflect manual schedule entries, changing events from judge to master or vice versa).	Can be Demonstrated	
SCH-003.01	Provide USER with the ability to assign a SCHEDULED EVENT to a CASE.	Can be Demonstrated	
SCH-003.02	Provide USER with the ability to search open slot(s) with the following criteria: event Type, start Date, and duration.	Can be Demonstrated	
SCH-003.03	Provide USER with the ability to view openings based on the following: allowable completion dates, open time slots, and time periods allotted to case processing stages.	Can be Demonstrated	
SCH-003.04	Provide USER with the ability to assign a master or judge to the SCHEDULED EVENT.	Can be Demonstrated	
SCH-003.05	Automatically adjust open time slots after a manual scheduling entry.	Can be Demonstrated	
SCH-006	Generate alert when displaying cases or their contents that are not public record (e.g., confidential cases).	Can be Demonstrated	Confidential cases are clearly displayed confidential.
SCH-006.01	Provide ADMIN USER with the ability to define security levels for CASES.	Can be Demonstrated	
SCH-006.02	Provide USER with the ability to assign a security level to a CASE.	Can be Demonstrated	
SCH-006.03	Provide ADMIN USER with the ability to define a rule to permit or restrict display of CASES depending on security level.	Can be Demonstrated	
SCH-006.04	Provide USER with alert when a selected CASE has security restrictions.	Can be Demonstrated	
SCH-007	Schedule events and groups of events (e.g., after case filed, set deadlines for service of summons, return of service, filing of answer or response).	Can be Demonstrated	
SCH-007.01	Provide ADMIN USER with the ability to define rules to prompt for or create SCHEDULED EVENTS based on actions in cases.	Can be Demonstrated	
SCH-007.02	Provide USER with the ability to assign SCHEDULED EVENTS to one or more cases based on certain actions in cases.	Can be Demonstrated	
SCH-008	Initiate schedule of future events based on user input or occurrence of prior events.	Can be Demonstrated	This can be done with Time Standards.

## Appendix E

## Scheduling

ID	Requirement Text	Response Code	Comments
SCH-008.01	Provide ADMIN USER with the ability to define rules to prompt for or create SCHEDULED EVENTS based on actions in cases.	Can be Demonstrated	
SCH-008.02	Provide USER with the ability to assign SCHEDULED EVENTS to one or more cases based on certain actions in cases.	Can be Demonstrated	
SCH-009	Allow multiple cases or related incidents and events to have same scheduled date and time (e.g., multiple complaints regarding same problem to be heard together).	Can be Demonstrated	
SCH-009.01	Provide USER with the ability to relate CASES to be set on same court docket.	Can be Demonstrated	
SCH-009.02	Provide USER with the ability to schedule related CASES on same court docket.	Can be Demonstrated	
SCH-010	Schedule maximum or unlimited number of cases for specific time interval by event (e.g., hearing) type with the ability for authorized USERS to override.	Can be Demonstrated	
SCH-010.01	Provide ADMIN USER with the ability to define rules for SCHEDULED EVENT load and balance formulas.	Can be Demonstrated	
SCH-010.02	Provide USER with the ability to override SCHEDULED EVENT load and balance formulas.	Can be Demonstrated	
SCH-057	Allow USER management team to define hearing load and balance formulas based on locally defined business rules.	Can be Demonstrated	
SCH-057.01	Provide ADMIN USER with the ability to define rules for SCHEDULED EVENT load and balance formulas	Can be Demonstrated	
SCH-011	Apply specific change (e.g., reschedule all cases to be heard by judge who is unavailable due to illness) to multiple schedules for group of cases as if group was a single case.	Can be Demonstrated	
SCH-011.01	Provide USER with the ability to select multiple CASES to reschedule in batch.	Can be Demonstrated	
SCH-012	Identify and display scheduling conflicts.	Can be Demonstrated	
SCH-012.01	Automatically identify scheduling conflicts.	Can be Demonstrated	
SCH-012.02	Provide USER with the ability to view scheduling conflicts.	Can be Demonstrated	
SCH-013	When multiple schedules change, modify records of all related parties, participants, calendars, docket entries, and other data and functions including displaying scheduling conflicts, suggesting resolutions, allowing USER overrides, and rescheduling only with USER approval and while maintaining log of changes.	Can be Demonstrated	
SCH-013.01	Automatically after schedule changes modify related Party, Calendar, Docket and Other records.	Can be Demonstrated	
SCH-013.02	Provide USER with the ability to view scheduling conflicts.	Can be Demonstrated	Not available.
SCH-013.03	Automatically suggest conflict resolutions.	Can be Demonstrated	Not available.
SCH-013.04	Provide ADMIN USER with the ability to define rules for resolving scheduling conflicts.	Can be Demonstrated	
SCH-013.05	Provide USER with the ability to override the default rescheduling.	Can be Demonstrated	
SCH-059	Ability to view all cases for a chosen court within a date range.	Can be Demonstrated	
SCH-059.01	Provide USER with the ability to list CASES with SCHEDULED EVENTS for user-defined date or date range.	Can be Demonstrated	



## Appendix E

## Scheduling

ID	Requirement Text	Response Code	Comments
SCH-021	Generate report or display that lists all events due on specific date or date range sorted by date, event, or other criteria.	Can be Demonstrated	
SCH-021.01	Provide ADMIN USER with the ability to define fields for querying the SCHEDULED EVENT records (e.g. for SCHEDULED EVENT to be set).	Can be Demonstrated	
SCH-021.02	Provide ADMIN USER with the ability to define fields that are displayed in SCHEDULED EVENT search results.	Can be Demonstrated	Not available. ECR option.
SCH-021.03	Provide USER with the ability to search SCHEDULED EVENT based on date or date range with multi-field sort capabilities.	Can be Demonstrated	
SCH-014	Maintain waiting list of cases to be scheduled for specific date, date range, judge, courtroom, and other entities.	Alternative Proposed	Tyler does not believe that this situation would be necessary in the future Odyssey Environment.
SCH-014.01	Provide USER with the ability assign a case to a waiting list based on a specific date, date range, judge, courtroom or other criteria.	Alternative Proposed	
SCH-014.02	Provide ADMIN USER with the ability to define a query for the waiting list based on a specified date, date range, judge, courtroom or other criteria.	Alternative Proposed	
SCH-014.03	Provide USER with the ability to search the waiting list.	Alternative Proposed	
SCH-015	When creating schedules, consider (1) availability of judges, attorneys, parties, participants, and court facilities; (2) weekends, holidays, and other days generally unavailable for court activities (e.g., training, retreats, judicial conferences) and days when specific individuals are unavailable;(3) scheduling conflicts to extent information is in system (i.e., witness schedules will not be in system), (4) pre-defined timeline that already exists on the case.; (5) consider judge's existing designated open case load, but allow manual scheduling at USER discretion in spite of conflicts.	Can be Demonstrated	
SCH-015.01	Automatically consider Judge availability when scheduling.	Can be Demonstrated	
SCH-015.02	Automatically consider attorney availability when scheduling.	Can be Demonstrated	
SCH-015.03	Automatically consider party and participant availability when scheduling.	Can be Demonstrated	Not available.
SCH-015.04	Automatically consider court facility availability when scheduling.	Can be Demonstrated	
SCH-015.05	Automatically consider weekends, holidays and other unavailable days when scheduling.	Can be Demonstrated	
SCH-015.07	Automatically consider all conflicts when scheduling.	Can be Demonstrated	
SCH-015.08	Automatically consider pre-defined timeline when scheduling.	Can be Demonstrated	
SCH-015.09	Provide USER with the ability to override conflicts and schedule Case.	Can be Demonstrated	
SCH-016	Maintain availability information on judges, parties, participants (e.g., interpreters, out-of-state witnesses), court facilities, and other scheduling factors.	Can be Demonstrated	
SCH-016.01	Provide ADMIN USER with the ability to define central repository for judge availability.	Can be Demonstrated	
SCH-016.02	Provide ADMIN USER with the ability to define central repository for attorney availability.	Can be Demonstrated	
SCH-016.03	Provide ADMIN USER with the ability to define central repository for party and participant availability.	Can be Demonstrated	Not available.
SCH-016.04	Provide ADMIN USER with the ability to define central repository for court facility availability.	Can be Demonstrated	
SCH-016.05	Provide ADMIN USER with the ability to define central repository for law officer availability.	Can be Demonstrated	As long as Law Officer is added as a Resource

## Appendix E

## Scheduling

ID	Requirement Text	Response Code	Comments
SCH-017	Relate individual judges and groups of judges to courtrooms, locations, departments, department staff (e.g., reporter, bailiff; judge also may be considered staff), and case management tracks over permissible assignment time frames (e.g., in court with rotating judge assignments, a specific judge hears small claims cases in a particular courtroom during a given month, allowing "overlap" of resources across judges, courtrooms, locations, and departments), and allow user override.	Can be Demonstrated	
SCH-017.01	Provide ADMIN USER with the ability to relate judge(s) to courtrooms or locations.	Can be Demonstrated	
SCH-017.02	Provide ADMIN USER with the ability to relate judge(s) to departments or department staff.	Can be Demonstrated	Not department staff.
SCH-017.03	Provide ADMIN USER with the ability to relate judge(s) to case management tracks over permissible assignment time frames.	Can be Demonstrated	Using Judge assignment and calendaring
SCH-017.04	Provide USER with the ability to override the default judge assignment.	Can be Demonstrated	
SCH-018	Assign specific case categories or specific event types to specific departments according to user-defined case/department relationships (e.g., business cases assigned to business courts).	Can be Demonstrated	
SCH-018.01	Provide ADMIN USER with the ability to relate case categories to specific departments.	Can be Demonstrated	
SCH-018.02	Provide ADMIN USER with the ability to relate event types to specific departments.	Can be Demonstrated	
SCH-020	Assign related cases, as designated by USER, to same judge and group together on schedule (e.g., multiple complaints regarding same problem or person).	Can be Demonstrated	
SCH-020.01	Provide USER with the ability to relate CASES to be set on same court docket.	Can be Demonstrated	
SCH-020.02	Provide USER with the ability to schedule related CASES on same court docket.	Can be Demonstrated	
SCH-022	Automatically prompt user to schedule predefined related cases (i.e., consolidated cases).	Can be Demonstrated	
SCH-022.01	Automatically prompt USER to schedule related CASES.	Can be Demonstrated	
SCH-022.02	Provide USER with the ability to relate CASES to be scheduled together.	Can be Demonstrated	
SCH-022.03	Provide USER with the ability to assign SCHEDULED EVENT to groups of CASES at one time.	Can be Demonstrated	
SCH-022.04	Provide ADMIN USER with the ability to define rules for relating CASES for scheduling purposes.	Can be Demonstrated	
SCH-023	Generate alert when approaching maximum number of events or duration normally permitted on schedule (e.g., based on case type, case category), with ability to override maximums.	Can be Demonstrated	
SCH-023.01	Provide ADMIN USER with the ability to define rules for maximum number of events on a schedule.	Can be Demonstrated	
SCH-023.02	Provide Admin USER with the ability to define rules for duration of events on a schedule.	Can be Demonstrated	
SCH-023.03	Automatically alert USER when schedule is approaching the maximum number of events or permitted duration.	Can be Demonstrated	Not available.



## Appendix E

## Scheduling

ID	Requirement Text	Response Code	Comments
SCH-023.04	Provide USER with the ability to override scheduling rules.	Can be Demonstrated	
SCH-024	Maintain and display information on scheduled events (e.g., next scheduled event, all scheduled events, interface with docket to view past events).	Can be Demonstrated	
SCH-024.01	Provide admin USER with the ability to define fields(s) for querying Schedule Events.	Can be Demonstrated	
SCH-024.02	Provide ADMIN USER with the ability to define fields(s) that are displayed in the SCHEDULED EVENT results.	Can be Demonstrated	
SCH-024.03	Provide USER with the ability to search on SCHEDULED EVENTS within a single CASE and across multiple cases.	Can be Demonstrated	
SCH-025	Enter completed events noted on CA's calendar into docket.	Can be Demonstrated	
SCH-025.01	Allow ADMIN USER to define rules on automatic creation of CASE docket entries from data entered in courtroom.	Can be Demonstrated	
SCH-025.02	Allow USER to record CASE activity (e.g., SCHEDULED EVENT outcomes, charge/issue/relief disposition, party information) while in courtroom.	Can be Demonstrated	
SCH-029	During manual scheduling and rescheduling display other future events and related cases for that case.	Can be Demonstrated	
SCH-029.01	Provide USER with the ability to view future SCHEDULED EVENTS for CASE and related CASES during scheduling of CASE.	Can be Demonstrated	
SCH-030	Permit USERS to designate CASES with special scheduling needs (e.g., interpreter, disabilities).	Can be Demonstrated	
SCH-030.01	Provide ADMIN USER with the ability to define Special Scheduling Needs codes.	Can be Demonstrated	Not available.
SCH-030.02	Provide USER with the ability to assign special Scheduling needs to a case.	Can be Demonstrated	Not available.
SCH-036	Track appearance of parties, status, courtroom, and staff at a hearing as needed based on court rules.	Can be Demonstrated	
SCH-036.01	Provide USER with the ability to assign attendance of case participants and court resources to a SCHEDULED EVENT.	Can be Demonstrated	
SCH-038	Produce (including ability to reproduce, redisplay, or reprint) schedules for various individuals (all case participants) events, hearing types, dates, and facilities upon USER request (e.g., judges calendar by day).	Can be Demonstrated	Schedules are available by court resource (Judge, Interpreter, Courtroom)
SCH-038.01	Provide ADMIN USER with the ability to define fields for querying the SCHEDULED EVENT records by specific fields including types of events, dates, court participants and court resources.	Can be Demonstrated	
SCH-038.02	Provide ADMIN USER with the ability to define fields that are displayed in SCHEDULED EVENT search results.	Can be Demonstrated	
SCH-038.03	Provide USER with the ability to search SCHEDULED EVENT records.	Can be Demonstrated	
SCH-039.01	Provide ADMIN USER with the ability to define fields(s) for querying all SCHEDULED EVENTS on a CASE.	Can be Demonstrated	
SCH-042	Generate alert when attempting operation with outstanding prerequisite events (e.g., case closed but adjudication date and result left blank, waiting for a settlement conference to be held prior to a status conference is held, etc.).	Can be Demonstrated	

## Appendix E

## Scheduling

ID	Requirement Text	Response Code	Comments
SCH-042.01	Provide ADMIN USER with the ability to define rules that set prerequisites for all events.	Can be Demonstrated	
SCH-042.02	Automatically alert USER when attempting operation with outstanding prerequisite events.	Can be Demonstrated	
SCH-042.03	Automatically prompt USER with the appropriate next action.	Can be Demonstrated	
SCH-043	Generate alert when event scheduled or submitted for closed case.	Can be Demonstrated	
SCH-043.01	Automatically alert USER when attempting to schedule event on a closed CASE.	Can be Demonstrated	
SCH-044	Allow admin user to define initiation of automated scheduling processes based upon court defined business rules.	Requires Configuration	
SCH-044.01	Provide ADMIN USER to define rules for automatic scheduling of CASES based on locally defined business rules.	Requires Configuration	
SCH-044.02	Provide automatic scheduling of CASES.	Requires Configuration	
SCH-045	Allow for in-courtroom scheduling of the next case event and generation of the appropriate notices (i.e. status order, arraignment or judgment information, etc.).	Can be Demonstrated	
SCH-045.01	Provide USER with the ability to assign SCHEDULED EVENTS to a CASE while in courtroom.	Can be Demonstrated	
SCH-045.02	Provide USER with the ability to produce notices for same while in courtroom.	Can be Demonstrated	
SCH-045.03	Provide USER with the ability to produce other court documents while in courtroom.	Can be Demonstrated	
SCH-046	Ability to selectively group multiple cases for scheduling, condition monitoring, and obligation fulfillment purposes.	Can be Demonstrated	Cases can be scheduled and rescheduled in batch.
SCH-046.01	Provide ADMIN USER with the ability to define fields(s) for querying against CASES and SCHEDULED EVENTS for condition monitoring and obligation fulfillment purposes.	Can be Demonstrated	
SCH-046.02	Provide ADMIN USER with the ability to define fields(s) that are displayed in the CASES and SCHEDULED EVENTS results.	Can be Demonstrated	
SCH-046.03	Provide USER with the ability to search on CASES/SCHEDULED EVENTS.	Can be Demonstrated	
SCH-046.04	Provide USER with the ability to select one or many results to invoke preconfigured actions.	Can be Demonstrated	
SCH-047	Ability to electronically notify (e.g., e-mail or e-service) automated scheduled court dates to the court participants, as well as the cancellation or modification of those court dates.	Can be Demonstrated	
SCH-047.01	Allow USER to assign indicator to case participant to receive electronic instead of hard-copy SCHEDULED EVENT notices.	Can be Demonstrated	
SCH-047.02	Allow system to generate electronic SCHEDULED EVENT notifications (scheduling, cancellation, modifications) to case participants.	Can be Demonstrated	
SCH-051	Display alert to a user not authorized to see a portion of or a field within a record (e.g. viewing a confidential meeting or appointment).	Can be Demonstrated	This situation is not possible within Odyssey. If a user doesn't have the right to view something, it isn't presented as an option to them.
SCH-051.01	Provide ADMIN USER with the ability to define security on record and field levels.	Can be Demonstrated	

## Appendix E

## Scheduling

ID	Requirement Text	Response Code	Comments
SCH-051.02	Provide USER with the ability to assign a security level to records and fields.	Can be Demonstrated	
SCH-051.03	Provide ADMIN USER with the ability to define a rule to permit or restrict display of record or field depending on security level.	Can be Demonstrated	
SCH-051.04	Provide USER with alert when a selected record and field has security restrictions.	Can be Demonstrated	
SCH-056	Permit USER management team to employ "if, then" and "if, then, unless" business rule conditional statements in event generation.	Can be Demonstrated	This can be demonstrated, but depending on the length of "If then" scenarios a custom business rule may be necessary.
SCH-056.01	Provide ADMIN USER with the ability to define conditional work flow processes to establish SCHEDULED EVENTS.	Can be Demonstrated	
SCH-058	Allow override of predefined hearing load and balance formulas.	Can be Demonstrated	
SCH-058.01	Provide USER with the ability to override SCHEDULED EVENT load and balance formulas	Can be Demonstrated	
SCH-060	Ability to easily view the calendar of different courtrooms by day, by week or by month.	Can be Demonstrated	
SCH-060.01	Provide USER with the ability to view courtroom schedules by day, week or month.	Can be Demonstrated	
SCH-062	Ability to track and display or print calendar modifications (e.g., judge, or other persons, or courtroom reassignments, cases taken off calendar) over specific period.	Can be Demonstrated	
SCH-062.01	System log of modifications to SCHEDULED EVENT schedules.	Can be Demonstrated	
SCH-062.02	Allow ADMIN USER to define reports/displays of modifications to SCHEDULED EVENT schedules.	Can be Demonstrated	Not available.
SCH-063	Ability to add or delete time slots on a schedule	Can be Demonstrated	
SCH-063.01	Provide USER the ability to add or delete time slots in any schedule.	Can be Demonstrated	
SCH-064	Ability to undo assignments or re-assignments and/or reset to original with automated notice generation for rescheduled cases	Can be Demonstrated	
SCH-064.01	System log of modifications to SCHEDULED EVENT schedules.	Can be Demonstrated	
SCH-064.02	Provide USER with ability to roll-back modifications to system schedules, even after confirmation of changes.	Can be Demonstrated	Not available.
SCH-064.03	Provide automated notice generation after change in schedules.	Can be Demonstrated	
SCH-067	Ability to schedule one or more cases to a specified scheduled court date by entering a specified court date and then entering the case and attorney.	Can be Demonstrated	
SCH-067.01	Provide USER with the ability to assign many SCHEDULED EVENTS to many CASES by selecting a date and then CASE and attorney.	Can be Demonstrated	
SCH-068	Automatically print, store and docket court documents based on court events.	Can be Demonstrated	
SCH-068.01	Provide ADMIN USER with the ability to define work flow and business rules to be invoked based on CASE activity in courtroom.	Can be Demonstrated	
SCH-068.02	Automated generation and storage in the ECMS of documents based on CASE activity in courtroom.	Can be Demonstrated	
SCH-068.03	Automated docket entries for documents created based on CASE activity in courtroom.	Can be Demonstrated	
SCH-068.04	Ability for USER to override automated work flow or business rules based on CASE activity in courtroom.	Can be Demonstrated	

## Appendix E

## Scheduling

ID	Requirement Text	Response Code	Comments
SCH-074	Provide automatic scheduling and sending of notices to all or select case participants when postponement decisions are made by the CA or the judge.	Can be Demonstrated	If postponement includes a new hearing date.
SCH-074.01	Provide ADMIN USER with the ability to define rules for automatic generation of SCHEDULED EVENT notices and other court documents.	Can be Demonstrated	
SCH-074.02	Provide automated generation of SCHEDULED EVENT notices and other court documents.	Can be Demonstrated	
SCH-074.03	Provide USER with the ability to indicate one or more recipients of SCHEDULED EVENT notices and other court documents.	Can be Demonstrated	
SCH-077	Provide the ability to automatically schedule case in user's court or another court according to appropriate security and business rules from destination court (e.g., certain case types only heard on certain days of week, etc.), with ability for user to override automated scheduling.	Can be Demonstrated	This will be determined based on how the court sets up its calendar.
SCH-077.01	Provide ADMIN USER with the ability to define scheduling rules which allow, with appropriate permissions, for scheduling in another district or location.	Can be Demonstrated	
SCH-077.02	Provide USER with appropriate permissions ability to schedule events in another district or location.	Can be Demonstrated	
SCH-078	Ability to differentiate between event type scheduled originally by the court and event type actually concluded as separate elements.	Can be Demonstrated	
SCH-078.01	Provide USER with the ability to assign event type to a pending SCHEDULED EVENT.	Can be Demonstrated	
SCH-078.02	Provide USER with the ability to assign another event type to the same SCHEDULED EVENT that was concluded.	Can be Demonstrated	
SCH-078.03	Provide USER with the ability to view the original result type and result type that changed when concluded.	Can be Demonstrated	
SCH-101	Provide the ability to schedule matters for panel review (weekly conference) in the Review Department.	Can be Demonstrated	
SCH-101a	Provide the ability to add, change, and delete the matters included in the weekly conference for the Review Department.	Can be Demonstrated	
SCH-101b	Provide the ability to designate a matter included in the weekly conference for the Review Department as confidential and restrict it from view for certain classes of USERS.	Can be Demonstrated	
SCH-102	Provide the ability to schedule oral arguments according to time standards.	Can be Demonstrated	
SCH-103	Provide the ability to efficiently schedule review department judges en banc for conferences, oral arguments, and other events.	Can be Demonstrated	
SCH-104	Integrate with CA and Judges calendars in Outlook.	Can be Demonstrated	
SCH-104.01	Consider CA and Judge appointments and commitments that are not part of the court calendar.	Can be Demonstrated	
SCH-104.02	Update the CA and Judge's personal Outlook calendar with court calendar items to which they are scheduled.	Can be Demonstrated	
SCH-105	When logging the transactions making changes scheduled events, record the action taken, who performed that action, and the reason given for taking that action.	Can be Demonstrated	
SCH-106	Differentiate between calendar days, business days, court days, weeks, and months when calculating SCHEDULED EVENT and TICKLES based on time standards.	Can be Demonstrated	Odyssey has work days and calendar days. Court days are determined by what is on the court calendar.

## Appendix E

## Scheduling

ID	Requirement Text	Response Code	Comments
SCH-107	Provide ADMIN USER the ability to specify for each scheduling function whether to present the USER the previous business day or the following business day if the calculated date falls on a non-business day.	Can be Demonstrated	Situation would never occur because when scheduling, Odyssey would only return possible court dates, not calendar dates.
SCH-108	Provide the CA the ability to flag a scheduled event for which they have received an indication that the event is unlikely to occur (e.g., a trial that is unlikely to proceed because a settlement conference is underway).	Can be Demonstrated	Accomplished with a case flag.
SCH-109	Provide the ability for the CA to efficiently block/unblock the scheduling of events for a JUDGE, CA, USER, or court resource for periods of time ranging from quarter hour to a year.	Can be Demonstrated	
SCH-110	Provide the ability to hold Early Neutral Evaluation Conference (Settlement), prior to a case being initiated or filed with the court.	Can be Demonstrated	

## Appendix E

## Case Management

ID	Requirement Text	Response Code	Comments
CMN-001	Allow the user to change the court location to which the case is assigned, maintaining history of assignment.	Can be Demonstrated	
CMN-001.01	Provide USER with the ability to assign a different court location to an existing CASE.	Can be Demonstrated	
CMN-001.02	Automatically maintain history of Court Location changes to an existing CASE.	Can be Demonstrated	
CMN-002	Support the entry of an unlimited number of staff viewable notes regarding a case, which can be viewed by other staff with appropriate security.	Can be Demonstrated	
CMN-002.01	Provide USER with the ability to assign an unlimited number of notes to a CASE.	Can be Demonstrated	
CMN-002.02	Provide USERS with the ability to view notes regarding a CASE that are produced by other USERS, with appropriate security.	Can be Demonstrated	
CMN-003	Provide user with an option to view/update full history of a case in one record (e.g. Case moved from Hearing to Review Department ) or to limit search of records from one particular court/case type/ party type, date etc.	Can be Demonstrated	View of case record can be filtered
CMN-003.01	Provide USER with the ability to display or update the full history of a CASE on one page.	Can be Demonstrated	
CMN-003.02	Provide USER with the ability to limit search of records to one court, case type, party type, date or other delimiter.	Can be Demonstrated	
CMN-003.03	Provide ADMIN USER with the ability to set search delimiters.	Can be Demonstrated	
CMN-004	Provide tickler capability based on schedules, standards, and statutory requirements: identify events coming due or overdue, periods about to expire or expired, events of which USER should be aware based on locally defined needs; prompt or notify USERS; and initiate proper functions.	Can be Demonstrated	
CMN-004.01	Provide USER with prompt when events are coming due or over due.	Can be Demonstrated	
CMN-004.02	Provide USER with prompt when periods are about to expire or have expired.	Can be Demonstrated	
CMN-004.03	Provide ADMIN USER with the ability to define rules for managing ticklers on event due dates.	Can be Demonstrated	
CMN-004.04	Provide ADMIN USER with the ability to define rules for managing ticklers on designated periods.	Can be Demonstrated	
CMN-004.05	Provide USER with the ability to execute other functions when prompted.	Can be Demonstrated	Not available.
CMN-004.06	Provide ADMIN USER with the ability to define work flow based on status of periods and event types.	Can be Demonstrated	Not available.
CMN-004.07	Provide ADMIN USER with the ability to define work flow based on status of due dates and event types.	Can be Demonstrated	Not available.
CMN-005	Tickler listing should be viewable electronically in the form of a list.	Can be Demonstrated	
CMN-005.01	Provide ADMIN USER with the ability to define fields for querying Events [Ticklers].	Can be Demonstrated	
CMN-005.02	Provide ADMIN USER with the ability to define fields that are displayed in Event [Ticklers] search results.	Can be Demonstrated	
CMN-005.03	Provide ADMIN USER with the ability to define a rule to perform actions on selected Event [ticklers] meeting a certain criteria.	Can be Demonstrated	

## Appendix E

## Case Management

ID	Requirement Text	Response Code	Comments
CMN-005.04	Provide USER with the ability to select one or many Event [ticklers] to invoke a rule.	Can be Demonstrated	
CMN-006	Assign and reassign individual and groups of judges using one or more of the following methods: randomly, according to predefined rules (e.g., by case category, by case status, by hearing type, by judge rotation policies, by judge caseload balancing policies), according to existence of specific conditions (e.g., conflict of interest), according to dates and times specific judges available to hear specific matters (e.g., motions on Wednesday afternoon).	Can be Demonstrated	
CMN-006.01	Provide ADMIN USER with the ability to define rules for random judge assignment.	Can be Demonstrated	
CMN-006.02	Provide ADMIN USER with the ability to define rules for judge assignment based on rotation policy(s).	Can be Demonstrated	
CMN-006.03	Provide ADMIN USER with the ability to define rules for judge assignment based on caseload policies.	Can be Demonstrated	
CMN-006.04	Provide ADMIN USER with the ability to define rules for judge assignment based on other specific conditions.	Can be Demonstrated	
CMN-006.05	Provide ADMIN USER with the ability to define rules for judge assignment according to dates and times specific judges available to hear specific matters.	Can be Demonstrated	
CMN-007	Track conformance to time standards including modifications, overrides, and suspension of time counting under certain conditions; and generate alerts for nonconformance.	Can be Demonstrated	
CMN-007.01	Provide ADMIN USER with the ability to define rules for conformance to time standards	Can be Demonstrated	
CMN-007.02	Automatically track conformance to time standards based on rules including modifications, overrides, and suspensions.	Can be Demonstrated	
CMN-007.03	Provide ADMIN USER with the ability to define fields(s) for querying time standard conformance.	Can be Demonstrated	
CMN-007.04	Provide ADMIN USER with the ability to define fields(s) that are displayed in the Time Standard conformance data results.	Can be Demonstrated	
CMN-007.05	Provide USER with the ability to search on time standard conformance data	Can be Demonstrated	
CMN-008	Include case age with any display of case status or adherence to schedules (e.g., tracking conformance to time standards).	Can be Demonstrated	
CMN-008.01	Provide USER with the ability to view case age whenever case status or adherence to schedule data is displayed.	Can be Demonstrated	
CMN-009	Allow users to define structure, content, and intrusiveness of ticklers, alerts, and prompts.	Can be Demonstrated	Content of Ticklers is possible, intrusiveness level is consistent across the application.
CMN-009.01	Provide ADMIN USER with the ability to individually configure the structure, content, and intrusiveness of ticklers, alerts, and prompts.	Can be Demonstrated	
CMN-009.02	Provide ADMIN USER with the ability to define mandatory ticklers or alerts based on timelines and work flows.	Can be Demonstrated	
CMN-009.03	Provide USER the ability to ticklers for case events or deadlines.	Can be Demonstrated	



ID	Requirement Text	Response Code	Comments
CMN-009.04	Provide USER the ability to manage individually configure the structure, content, and intrusiveness of mandatory and other ticklers, alerts, and prompts.	Can be Demonstrated	
CMN-010	Provide system-defined visual or audio reinforcement (e.g., flashing text, colors on screen, or computer icon) to ensure USER sees message.	Can be Demonstrated	
CMN-010.01	Provide ADMIN USER with the ability to define default visual and/or audio properties to highlight certain alerts/messages.	Can be Demonstrated	
CMN-011	Display lists of all events due on specific date or date range (sorted by date, event, or other USER defined criteria) that allows USERS to navigate through the application to complete required activities (e.g., court minutes due).	Can be Demonstrated	
CMN-011.01	Provide ADMIN USER with the ability to define fields(s) for querying SCHEDULED EVENTS	Can be Demonstrated	Not available.
CMN-011.02	Provide ADMIN USER with the ability to define fields(s) that are displayed in the SCHEDULED EVENT results.	Can be Demonstrated	Not available.
CMN-011.03	Provide USER with the ability to search on SCHEDULED EVENT Results.	Can be Demonstrated	
CMN-011.04	Provide USER with the ability to select one or many SCHEDULED EVENTS to invoke actions	Can be Demonstrated	
CMN-012	Generate alert when displaying pending cases for which there is no scheduled next event, or generate report for cases with no scheduled next event.	Can be Demonstrated	
CMN-012.01	Provide ADMIN USER with the ability to define fields(s) for querying pending CASES for which there is no SCHEDULED EVENT.	Can be Demonstrated	Not available.
CMN-012.02	Provide ADMIN USER with the ability to define fields(s) that are displayed in the Pending CASES with no SCHEDULED EVENT.	Can be Demonstrated	Not available.
CMN-012.03	Provide USER with the ability to search for CASES with no pending events.	Can be Demonstrated	
CMN-012.04	Provide USER with an alert anytime when a pending CASE is displayed and it has no scheduled next event	Can be Demonstrated	Not available.
CMN-013	Allow user management team to define the number of days between triggers for time standards as needed and automatically generate events, alerts and document production.	Can be Demonstrated	
CMN-013.01	Provide ADMIN USER with the ability to define scheduling rules based on case flow standards.	Can be Demonstrated	
CMN-013.02	Provide ADMIN USER with the ability to define work flow which results in automatic scheduling of events, display of alerts/messages, and creation of documents.	Can be Demonstrated	
CMN-014	Allow for motions and appeals to be filed and ruled upon at any point in the process.	Can be Demonstrated	
CMN-014.01	Provide ADMIN USER with the ability to define work flow and business rules for filing of motions and appeals.	Can be Demonstrated	
CMN-014.02	Provide USER with the ability to assign Motions and Appeals to the CASE at any point in process.	Can be Demonstrated	



ID	Requirement Text	Response Code	Comments
CMN-015	Accommodate the many types of filings (motions, pleadings pretrial statements, disposition documents) and subject matter. Some motions, particularly those involving motions, stipulations, exhibits, pretrial statements, scheduling and other matters that may follow slightly different processes even within the same court	Can be Demonstrated	
CMN-015.01	Provide ADMIN USER with the ability to define motion codes.	Can be Demonstrated	
CMN-015.02	Provide ADMIN USER with the ability to define work flow and business rules for filing of motions based on statutes, Rules, DCM and local court processes for case type, category and subcategory.	Can be Demonstrated	
CMN-015.03	Provide USER with the ability to override predefined work flow and business rules.	Can be Demonstrated	
CMN-016	Allow for an emergency track for motions that may bypass one or more process steps and are required to be ruled upon within a user-defined time frame.	Can be Demonstrated	
CMN-016.01	Provide ADMIN USER with the ability to define work flow and business rules for filing of motions based on statutes, court rules, and local court processes for case type, category and subcategory.	Can be Demonstrated	
CMN-016.02	Provide USER with the ability to override predefined work flow and business rules.	Can be Demonstrated	
CMN-017	Assign and reassign other resources (e.g., assigned counsel, interpreters) using one or more of the following methods: randomly, according to predefined rules (e.g., by case category, by case status, by hearing type, by rotation policies, by caseload balancing policies), according to existence of specific conditions (e.g., conflict of interest), according to dates and times specific resources are available.	Can be Demonstrated	As long as this is a court resource (judge, attorney, courtroom) then this is possible.
CMN-017.01	Provide ADMIN USER with the ability to define rules for random assignment.	Can be Demonstrated	
CMN-017.02	Provide ADMIN USER with the ability to define rules for assignment based on rotation policy(s).	Can be Demonstrated	
CMN-017.03	Provide ADMIN USER with the ability to define rules for assignment based on caseload policies.	Can be Demonstrated	
CMN-017.04	Provide ADMIN USER with the ability to define rules for assignment based on other specific conditions.	Can be Demonstrated	
CMN-017.05	Provide ADMIN USER with the ability to define rules for assignment according to dates and times specific resources are available.	Can be Demonstrated	
CMN-018	Provide the ability to manually set ticklers for future action	Can be Demonstrated	
CMN-019	AUTOMATICALLY set appropriate ticklers based on the entry of events in predefined case processing template based on time standards.	Can be Demonstrated	
CMN-020	Provide the ADMIN USER the ability to define processing workflows to step a user through standard processes (e.g., default checklists)	Can be Demonstrated	
CMN-020.01	Provide ADMIN USER ability to define the steps to be performed.	Can be Demonstrated	
CMN-020.02	Provide ADMIN USER ability to define the system resources (e.g., screen) to be presented to complete each step.	Can be Demonstrated	
CMN-020.03	Provide ADMIN USER ability to define the ticklers to be set.	Can be Demonstrated	
CMN-020.04	Provide ADMIN USER ability to define the events and other recordkeeping entries to be made.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
CMN-021	Enable automatic ticklers to be set for specific filings	Can be Demonstrated	
CMN-021.01	Provide ADMIN USER with the ability to define codes for ticklers.	Can be Demonstrated	
CMN-021.02	Provide ADMIN USER with the ability to define rules for tickler expiration dates for specific filings.	Can be Demonstrated	
CMN-021.03	Provide ADMIN USER with the ability to associate ticklers to events.	Can be Demonstrated	
CMN-021.04	Provide USER with the ability to assign tickler codes to designated events.	Can be Demonstrated	
CMN-022	Permit index to be updated based on occurrence of specific case events (e.g., motions filed, dispositions decided).	Can be Demonstrated	
CMN-022.01	Provide ADMIN USER with the ability to define rules that specify what event types or records are tracked in the index.	Can be Demonstrated	
CMN-022.02	AUTOMATICALLY maintain Event index information.	Can be Demonstrated	
CMN-023	The system should provide notices to all parties as requested at milestones in case	Can be Demonstrated	
CMN-023.01	Provide ADMIN USER with the ability to locally define tracks for case management (e.g., deadlines for status conference, exhibit submission, pretrial hearings, etc.).	Can be Demonstrated	
CMN-023.02	Provide ADMIN USER with the ability to associate tracks for selected case types.	Can be Demonstrated	
CMN-023.03	Provide USER with the ability to assign tracks to one to many cases.	Can be Demonstrated	
CMN-023.04	Provide USER with the ability to override track milestones for one to many cases.	Can be Demonstrated	
CMN-023.05	Provide USER with the ability to update track milestones.	Can be Demonstrated	
CMN-023.06	Provide USER with the ability to modify track assignment for one to many cases.	Can be Demonstrated	
CMN-023.07	Provide a mechanism for reporting compliance with track milestones for one to many cases (statistical reporting).	Can be Demonstrated	
CMN-023.08	Provide USER with the ability to remove one to many cases from previously assigned track.	Can be Demonstrated	
CMN-023.09	AUTOMATICALLY generate notices to parties for all scheduled event milestones.	Can be Demonstrated	
CMN-024	Alert users of upcoming and passed deadlines.	Can be Demonstrated	
CMN-024.01	AUTOMATICALLY alert USER when certain ticklers have reached date of expiration.	Can be Demonstrated	
CMN-025	Allow each court location to designate site specific deadlines (by case type, case status ).	Can be Demonstrated	
CMN-025.01	Provide ADMIN USER with the ability to locally define work flow process upon expiration of ticklers.	Can be Demonstrated	
CMN-026	Provide the ability to create a separate mechanism for tracking cases or specific case information (suspension events) for case flow study purposes, such as with the uncertainty when external services are involved and having an impact on the case age calculations of these cases.	Can be Demonstrated	
CMN-026.01	Provide ADMIN USER with the ability to design a rule to define case start/stop/suspend events.	Can be Demonstrated	

## Appendix E

## Case Management

ID	Requirement Text	Response Code	Comments
CMN-026.02	Provide USER with the ability to assign suspension events to CASE.	Can be Demonstrated	
CMN-027	Track time standards, time periods in connection with event processing, scheduling, deadlines, ticklers, etc.	Can be Demonstrated	
CMN-027.01	Provide ADMIN USER with the ability to define codes for ticklers.	Can be Demonstrated	
CMN-027.02	Provide ADMIN USER with the ability to define work flow process upon expiration of tickler.	Can be Demonstrated	
CMN-027.03	Provide ADMIN USER with the ability to define REPORTS showing information regarding whether or not certain deadlines have been met.	Can be Demonstrated	
CMN-027.04	Provide USER with the ability to assign tickler codes to designated events.	Can be Demonstrated	
CMN-027.05	Provide USER with the ability to override (delay) tickler expiration date.	Can be Demonstrated	
CMN-027.06	Provide USER with the ability to search for ticklers by User-defined criteria such as case type, case ID, tickler code, tickler expiration, etc.	Can be Demonstrated	
CMN-028	The case management system should handle issues where additional task(s) must be performed prior to court event. Timeframes need to be allotted and ticklers/notifications set for each task.	Can be Demonstrated	
CMN-028.01	Provide ADMIN USER with the ability to define rules regarding setting of scheduled events, notifications to USER, etc. when conditions precedent to the setting of a scheduled event exist.	Can be Demonstrated	
CMN-029	Allow for USER management team defined automated notifications (e.g., e-mail) based upon business rules governing case tracks.	Can be Demonstrated	
CMN-029.01	Provide ADMIN USER with the ability to define rule for generating notifications (e.g. e-mail).	Can be Demonstrated	
CMN-029.02	Interface Notifications	Can be Demonstrated	Requires State Bar's integration broker.
CMN-029.03	Provide ADMIN USER with the ability to define codes to trigger notification based on business rules for case tracking	Can be Demonstrated	
CMN-030	Track inactive cases and groups of cases, identify those inactive for excessive periods (e.g., abated case with no activity for 3 years), prompt USER regarding appropriate action (e.g., schedule hearing, extend dates).	Can be Demonstrated	Can be accomplished via reporting.
CMN-030.01	Provide ADMIN USER with the ability to define rules for determining rules for marking a CASE as having no activity.	Can be Demonstrated	
CMN-030.02	Provide ADMIN USER with the ability define rules for determining next action based on the state of a CASE marked as having no activity.	Can be Demonstrated	
CMN-030.03	Provide ADMIN USER with the ability to define fields(s) for querying CASES with no activity.	Can be Demonstrated	
CMN-030.04	Provide ADMIN USER with the ability to define fields(s) that are displayed in the CASES with no activity.	Can be Demonstrated	Not available.
CMN-031	Provide the ability to process no-show cases based on pre-defined business rules (e.g., default judgments, suspension) but allow user to override.	Can be Demonstrated	
CMN-031.01	Allow ADMIN USER to define work flow for CASES meeting no-show criteria.	Can be Demonstrated	
CMN-031.02	Allow USER to select one or more CASES from court docket to process based on business rules for instances such as failure to appear.	Can be Demonstrated	

## Appendix E

## Case Management

ID	Requirement Text	Response Code	Comments
CMN-031.03	Allow USER to override automated processing for business rules involving no-show CASES	Can be Demonstrated	
CMN-031.04	Provide ADMIN USER with the ability to define rules involving no-show CASES	Can be Demonstrated	
CMN-032	Provide the ADMIN USER the ability to define work flow processes with events, actions, system resources (e.g., screens), and ticklers to support Effectuations.	Requires Configuration	
CMN-033	Hold the scheduling of CASES on calendars where effective service and/or other pre-requisites have not been recorded.	Can be Demonstrated	
CMN-033.01	Provide ADMIN USER with the ability to define fields(s) for querying CASES where effective service and/or other prerequisites has not been recorded for SCHEDULED EVENTS.	Can be Demonstrated	
CMN-033.02	Provide ADMIN USER with the ability to define fields(s) that are displayed in the results for unrecorded service and/or prerequisites for SCHEDULED EVENTS.	Can be Demonstrated	
CMN-033.03	Provide USER with the ability to search on CASES/SCHEDULED EVENTS with unrecorded service and/or other prerequisites.	Can be Demonstrated	
CMN-034	Allow for multiple issues or processes in a case to be open (e.g., a request for interlocutory review), without requiring the one of them to be closed.	Can be Demonstrated	
CMN-034.01	Provide ADMIN USER with the ability to define rules regarding which issues/processes can remain open simultaneously.	Can be Demonstrated	
CMN-035	Allow for Appellate Case Management functionality.	Can be Demonstrated	
CMN-035.01	Allow USER to select pre-defined work flows for: - Plenary Reviews - Summary Reviews - Interlocutory Reviews - Conviction Transmittals - Resignations	Can be Demonstrated	
CMN-035.02	Provide ability to employ Case management functionality (e.g. calendaring, scheduling, document management, document generation, etc.)	Can be Demonstrated	

## Appendix E

## Event Management

ID	Requirement Text	Response Code	Comments
EVE-001	Maintain hypothetical analysis and notes separate from the official court record (non public view).	Can be Demonstrated	
EVE-001.01	Provide USER with the ability to assign private notes to CASE that are not part of the official court record.	Can be Demonstrated	
EVE-001.02	Provide ADMIN USER with the ability to define rule for accessing private notes on CASE.	Can be Demonstrated	
EVE-002	Create and print court orders and supporting documents resulting from hearings and other judicial events on-line in courtroom.	Can be Demonstrated	
EVE-002.01	Provide USER with the ability to produce DOCUMENT [orders, other] for SCHEDULED EVENT while on-line in courtroom.	Can be Demonstrated	
EVE-002.02	Provide ADMIN USER with the ability to create DOCUMENT templates.	Can be Demonstrated	
EVE-003	Schedule subsequent events on-line in courtroom and generate appropriate notices, maintaining audit trail of previous event including judge's name, and other case participant.	Can be Demonstrated	
EVE-003.01	Provide USER with the ability to assign one to many SCHEDULED EVENTS to CASES while on-line in courtroom.	Can be Demonstrated	
EVE-003.02	Provide USER with the ability to assign JUDGE, PARTY to SCHEDULED EVENT.	Can be Demonstrated	
EVE-003.03	AUTOMATICALLY maintain history of SCHEDULED EVENT.	Can be Demonstrated	
EVE-003.04	Provide USER with the ability to produce DOCUMENT [notices, other] while on-line in the courtroom.	Can be Demonstrated	
EVE-004	Provide the ability to track who requested change to hearing schedule (judge, counsel etc.).	Can be Demonstrated	
EVE-004.01	Provide USER with the ability to assign "requested by" to SCHEDULED EVENT when a request for change is granted.	Can be Demonstrated	
EVE-005	Employ output templates, standard text, and user-supplied text as described in Document Generation and Processing Function to generate documents (e.g., standard information in minute orders such as judge, court staff, attorneys and parties present evidence, witnesses, motions, bench times, judge specific conditions).	Can be Demonstrated	
EVE-005.01	Provide ADMIN USER with the ability to define DOCUMENT templates for Court minutes.	Can be Demonstrated	
EVE-005.02	Provide USER with the ability to produce DOCUMENT [orders, other] for SCHEDULED EVENT while on-line in courtroom.	Can be Demonstrated	
EVE-006	Suppress inclusion of user-designated confidential information in documents produced during hearing.	Can be Demonstrated	
EVE-006.01	Provide USER with the ability to define rule for displaying confidential information in DOCUMENTS [all].	Can be Demonstrated	
EVE-006.02	Provide ADMIN USER with the ability to define rule for identifying and redacting confidential information in DOCUMENTS.	Can be Demonstrated	
EVE-006.03	Provide USER with the ability to assign an indicator to any field to denote confidentiality.	Can be Demonstrated	
EVE-007	Provide user with the ability to assign minutes to scheduled event.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
EVE-008	Allow for automated and/or manual generation of worksheet, calendar, or some other document suitable for on-line, rapid, in-court minute entry.	Not Proposed	Tyler has a Sessionworks Clerk Edition product that includes the ability to set templates for data entry as well as actions for comment data entry scenarios. The Clerk Edition product is not included in this proposal.
EVE-008.01	Provide ADMIN USER with the ability to define DOCUMENT templates for Court minutes.	Not Proposed	See EVE-008.
EVE-008.02	Provide USER with the ability to produce DOCUMENT [worksheet] to assist in rapid in-court minute entry.	Not Proposed	See EVE-008.
EVE-008.03	Provide USER with the ability to assign data to complete the court's MINUTE ENTRY.	Not Proposed	See EVE-008.
EVE-008.04	Provide ADMIN USER with the ability to define fields of MINUTE ENTRY so that they can be configured to match worksheets or oral decisions.	Not Proposed	See EVE-008.
EVE-008.05	Provide USER with the ability to review MINUTE ENTRY before updating the CASE.	Not Proposed	See EVE-008.
EVE-009	Provide screens based on a user-defined format for real-time, in-court entry of minutes or entry of minutes after judicial proceedings.	Not Proposed	Tyler has a Sessionworks Clerk Edition product that includes the ability to configure screens for data entry. The Clerk Edition product is not included in this proposal.
EVE-009.01	Provide ADMIN USER with the ability to define data entry screens with fields that are displayed for MINUTE ENTRY by department, court location, case category, and case type.	Not Proposed	See EVE-009.
EVE-010	Generate and display or print worksheet, calendar, or some other document suitable for manually recording minutes.	Can be Demonstrated	
EVE-010.01	Provide USER with the ability to produce DOCUMENT [worksheet] to assist in manual in-court minute entry.	Can be Demonstrated	
EVE-011	Enter, store, and display or print minutes recorded on calendar or worksheet.	Can be Demonstrated	
EVE-011.01	Provide USER with the ability to edit, save, display or print minutes recorded on a calendar or worksheet.	Can be Demonstrated	
EVE-012	Provide edits and prompts with on-line minute entry capability.	Can be Demonstrated	
EVE-012.01	Provide ADMIN USER with the ability to define work flow for capturing on-line minute entry.	Can be Demonstrated	
EVE-013	Enter, store, and document minute orders, including informal minute orders when there is no corresponding calendared event (e.g., ex parte matters), according to local court rules.	Can be Demonstrated	
EVE-013.01	Provide USER with the ability to assign minutes to CASE even when there is no Scheduled Event.	Can be Demonstrated	
EVE-014	Distribute court orders resulting from hearings and other judicial events electronically to outside parties and internally to be entered in docket. And provide the ability to certify the dockets with electronic signature or other methods.	Can be Demonstrated	
EVE-014.02	Provide USER with the ability to assign electronic signatures to DOCUMENTS.	Can be Demonstrated	
EVE-014.03	Provide USER with the ability to assign a certification to DOCUMENTS.	Can be Demonstrated	
EVE-015	Enter information in court orders and judgments resulting from hearings and other judicial events as events in docket (if not entered automatically).	Can be Demonstrated	
EVE-015.01	Provide USER with the ability to assign DOCUMENTS and SCHEDULED EVENTS to CASE.	Can be Demonstrated	

## Appendix E

## Event Management

ID	Requirement Text	Response Code	Comments
EVE-016	Distribute court orders resulting from hearings and other judicial events based upon party's preference (e.g., mail, facsimile, e-mail) if multiple distribution methods are available.	Can be Demonstrated	Documents can be printed and mailed or manually faxed to a party. Documents can also be emailed to a party.
EVE-016.01	Provide USER with the ability to assign one to many contact preferences to PARTY.	Can be Demonstrated	
EVE-016.02	AUTOMATICALLY distribute document according to contact preference for PARTY.	Can be Demonstrated	
EVE-017	Provide for minute entry suitable for multiple-case and multiple-respondent	Can be Demonstrated	Case Manager includes a Copy Minutes feature that allows a user to copy the minutes from one case to other cases within the court session.
EVE-017.01	Provide USER with the ability to assign MINUTE ENTRY to one or many CASES.	Can be Demonstrated	
EVE-018	Use events captured in minutes to interface with other functions and update records throughout system (case consolidation, address changes, etc.) in accordance with state statutes, rules, or procedures.	Can be Demonstrated	Task Management.
EVE-018.01	Provide ADMIN USER with the ability to define work flow surrounding further activity based on MINUTE ENTRY.	Can be Demonstrated	
EVE-019	Produce minutes recorded on calendar or worksheet; provide the ability to copy specified features of the case decision for similar cases of same respondent (e.g., comments, attendees, adjournments, extensions, plea, or motion).	Can be Demonstrated	Copy Minutes feature in Case Manager.
EVE-019.01	Provide USER with the ability to assign MINUTE ENTRY to one or many cases.	Can be Demonstrated	
EVE-019.02	Provide USER with the ability to assign comments, attendees, adjournments, extensions, pleas and motions to MINUTE ENTRY.	Can be Demonstrated	
EVE-020	Ability to complete data entry on specific data elements to account for what has occurred during court proceeding and allow for free form text in a remarks field including the ability to indicate whether comments are private (either private for court use or private for judge's use) or public and update records throughout system in accordance with state and local statutes, rules, or procedures.	Can be Demonstrated	
EVE-020.01	Provide USER with the ability to assign free form text remarks to MINUTE ENTRY.	Can be Demonstrated	
EVE-020.02	Provide ADMIN USER with the ability to define rule for MINUTE ENTRY security allowing for public, court only, or judge's only security.	Can be Demonstrated	The ability to record minutes through the Minutes dialog is controlled through a right. In addition, judges can enter secure notes for the hearing.
EVE-021	Provide the ability to process no-show (e.g., default judgments or uncontested cases) judgments based on pre-defined business rules. Cases could be processed individually and in batch.	Can be Demonstrated	
EVE-021.01	Provide ADMIN USER with the ability to define rule for applying MINUTE ENTRY to one or many cases individually or in batch.	Can be Demonstrated	
EVE-022	Accept secured digitized signatures on the completed form for a specific case at a specific hearing.	Requires Configuration	The ability to electronically sign judgment forms or hearing forms requires development.
EVE-022.01	Provide USER with the ability to assign digitized signatures to DOCUMENTS.	Requires Configuration	See EVE-022.
EVE-023	Provide visibility to calendars in the courtroom to ensure dates discussed are feasible.	Can be Demonstrated	
EVE-023.01	Provide USER with the ability to search SCHEDULED EVENT in open court during proceedings.	Can be Demonstrated	



## Appendix E

## Event Management

ID	Requirement Text	Response Code	Comments
EVE-024	Provide a verification process to ensure orders are correct.	Can be Demonstrated	Forms can be viewed electronically after they are merged.
EVE-024.01	Provide USER with the ability to review DOCUMENT [orders] before updating the CASE.	Can be Demonstrated	
EVE-025	Provide integrated ECMS functionality or Interoperate with the ECMS to provide the ability to scan hand written notes and attach to the case file or a specific document, event, or participant in a case.	Can be Demonstrated	Tyler recommends the use of electronic content management system native to Odyssey.
EVE-025.01	Provide USER with the ability to assign scanned images to CASE, EVENT, PARTY.	Can be Demonstrated	
EVE-025.02	Provide USER the ability to automatically store scanned images in the ECMS.	Can be Demonstrated	
EVE-026	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to view one or many DOCUMENTS by one or many USERS at the same time.	Can be Demonstrated	Tyler recommends the use of electronic content management system native to Odyssey.
EVE-027	Provide USER with the ability to view one or many CASES by one or many USERS at the same time.	Can be Demonstrated	
EVE-028	Provide integrated ECMS functionality or Interoperate with the ECMS to either store digital recordings of the court record or link to the stored digital recordings of the court record (FTR).	Can be Demonstrated	Tyler recommends the use of electronic content management system native to Odyssey.
EVE-028.01	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to assign digital recordings to CASE.	Can be Demonstrated	
EVE-028.02	Provide USER the ability to automatically store FTR recordings in the ECMS.	Can be Demonstrated	
EVE-029	Provide integrated ECMS functionality or Interoperate with the ECMS to either store video files of the court record or link to the stored video recordings of the court record (FTR).	Can be Demonstrated	Tyler recommends the use of electronic content management system native to Odyssey.
EVE-029.01	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to assign digital video files to CASE.	Can be Demonstrated	
EVE-029.02	Provide USER the ability to automatically store video recordings in the ECMS.	Can be Demonstrated	
EVE-030	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to search, view DOCUMENTS from one or many CASE(s) at one time even if the case is not on the docket.	Can be Demonstrated	Judge Edition includes a feature that allows multiple cases to be paperclipped together which allows a judge to view documents from multiple cases together.
EVE-031	Allow for judicial officers and other court personnel to be assigned cases (e.g. chambers work) for review. Case should be presented in electronic queues.	Can be Demonstrated	Task Management.
EVE-031.01	Provide USER with the ability to assign court personnel to CASE for review.	Can be Demonstrated	
EVE-031.02	Provide USER with the ability to search CASES in electronic queues by the assigned court personnel, date assigned, case type, case number or other case elements	Can be Demonstrated	
EVE-031.03	Provide ADMIN USER with the ability to define fields for displaying CASES that are assigned to court personnel for review.	Can be Demonstrated	
EVE-032	Allow for a report of cases held under review pending some external action.	Can be Demonstrated	
EVE-032.01	Provide USER with the ability to assign an indicator to CASE for flagging a case as pending for an action by an external entity.	Can be Demonstrated	



## Appendix E

## Event Management

ID	Requirement Text	Response Code	Comments
EVE-032.02	Provide ADMIN USER with the ability to define rule for assigning indicator to cases flagged as pending for an action by an external entity. .	Can be Demonstrated	
EVE-032.03	Provide USER with the ability to search and produce report of cases pending for an action by an external entity. .	Can be Demonstrated	
EVE-033	Allow for reference to physical evidence by maintaining (location, owner, and other details)	Can be Demonstrated	
EVE-033.01	Provide USER with the ability to assign location, owner, other details to EXHIBITS [physical evidence].	Can be Demonstrated	
EVE-033.02	Provide USER with the ability to assign EXHIBITS to one or many CHARGES/CASES.	Can be Demonstrated	
EVE-034	Allow for searching with a single case for a specific motion/filing party/date, events, and other keywords.	Can be Demonstrated	The event tab includes the ability to search for specific motions within a case.
EVE-034.01	Provide USER with the ability to search CASES by MOTIONS, PARTY, SCHEDULED EVENT, ACCOUNTING [transactions], and other case components.	Can be Demonstrated	
EVE-034.02	Provide ADMIN USER with the ability to define fields for searching CASES by MOTIONS, PARTY, SCHEDULED EVENT, ACCOUNTING [transactions] and other case components.	Can be Demonstrated	
EVE-035	Allow for each document to be identified by a unique reference number .	Can be Demonstrated	Documents associated to a case event can be associated to an instrument number.
EVE-035.01	Provide USER with the ability assign unique identifier to MOTIONS on CASE.	Can be Demonstrated	
EVE-036	Track hearing results, hearing duration and participants, and scheduled and actual occurrence of hearing.	Can be Demonstrated	
EVE-036.01	Provide USER with the ability to assign hearing information to a associated PARTY. Capture check-in date and time, begin and end date for hearing, bench time, when individual party called into hearing, whether party actually appeared at the hearing.	Can be Demonstrated	
EVE-036.02	Provide USER with the ability to assign a PERSON to a HEARING.	Can be Demonstrated	
EVE-036.03	AUTOMATICALLY use information captured in court proceedings to input to the Management and Statistical Reports Function (hearing results, hearing duration, parties, scheduled and actual occurrence of hearing).	Can be Demonstrated	
EVE-036.04	Provide ADMIN USER the ability to define codes for Scheduled Event Results.	Can be Demonstrated	
EVE-036.05	Provide USER with the ability to assign Result Code to Scheduled Hearing (continuances and cancellations).	Can be Demonstrated	
EVE-036.06	AUTOMATICALLY maintain full history of SCHEDULED EVENTS with related results, scheduled event outcomes and referral services outcomes.	Can be Demonstrated	

## Appendix E

## Adjudication

ID	Requirement Text	Response Code	Comments
ADJ-001	Create one or multiple minute orders for multiple respondents and hearings and/or reviews on a given day.	Can be Demonstrated	
ADJ-001.01	Provide USER with ability to create one or more orders for multiple persons and hearings on a given day.	Can be Demonstrated	
ADJ-002	Create and print court orders and supporting documents resulting from hearings and other judicial events individually or in a group, immediately or at a scheduled time.	Can be Demonstrated	
ADJ-002.01	Provide USER with the ability to create and print supporting court documents resulting from hearings and other judicial events.	Can be Demonstrated	
ADJ-002.02	Provide USER with the ability to create and print supporting court documents individually or in groups.	Can be Demonstrated	
ADJ-002.03	Provide USER with the ability to create and print supporting court documents immediately or at a scheduled time.	Can be Demonstrated	
ADJ-003	Create multiple judgments (i.e., both multiple judgments for given person and multiple recipients for given judgment) in cases involving multiple respondents/participants and allegations/charges/relief.	Can be Demonstrated	
ADJ-003.01	Provide USER with the ability to assign many JUDGMENTS to a PARTY.	Can be Demonstrated	
ADJ-003.02	Provide USER with the ability to assign many PARTIES to a single JUDGMENT.	Can be Demonstrated	
ADJ-004	Permit electronic referral of case information to external entities (e.g., California Supreme Court) or agencies (e.g., American Bar Association).	Can be Demonstrated	Web access can be available to external entities or agencies.
ADJ-004.01	AUTOMATICALLY export JUDGMENT information to subscribers.	Can be Demonstrated	
ADJ-004.02	Provide ADMIN USER with the ability to define codes for REFERRAL SERVICES (i.e. Mental Health Treatment).	Can be Demonstrated	
ADJ-004.03	Provide ADMIN USER with the ability to define codes for REFERRAL SERVICES OUTCOME (i.e. completed successfully/unsuccessfully, withdrew).	Can be Demonstrated	The referral services and outcome information are typically stored in sentence components for a client.
ADJ-004.04	Provide USER with the ability to assign one or more REFERRAL SERVICES to a hearing.	Can be Demonstrated	
ADJ-004.05	Provide USER with the ability to assign one or more REFERRAL SERVICES OUTCOME to a REFERRAL SERVICE.	Can be Demonstrated	
ADJ-005	Use information captured in court proceedings to update records on CASES, PARTIES, MOTIONS, Scheduling (for rescheduling of hearing), Document Generation and Processing (for notice creation), Calendaring (to place on future calendar when scheduled), accounting (for monetary judgment data), and other functions; bifurcations (i.e., severed cases) working with Case Initiation and Indexing (to initiate new case) and Docketing and Related Record keeping (for docket updates) functions; and rulings taken under advisement on submitted matters).	Can be Demonstrated	Information on the case can be updated through the Courtroom Minutes dialog or by accessing the case record and party records.
ADJ-005.01	AUTOMATICALLY use information captured in court proceedings to input to the Case Initiation and Indexing function (initiate new Case) when there are bifurcations (severed or split cases).	Can be Demonstrated	Not available.
ADJ-005.02	AUTOMATICALLY use information captured in court proceedings to update related Party information.	Can be Demonstrated	

## Appendix E

## Adjudication

ID	Requirement Text	Response Code	Comments
ADJ-005.03	AUTOMATICALLY use information captured in court proceedings to update records on allegations, charges and relief.	Can be Demonstrated	
ADJ-005.04	AUTOMATICALLY use information captured in court proceedings to input to Scheduling function (rescheduling of hearing).	Can be Demonstrated	
ADJ-005.05	AUTOMATICALLY use information captured in court proceedings to input to Document Generation and Processing function (notice creation).	Can be Demonstrated	
ADJ-005.06	AUTOMATICALLY use information captured in court proceedings to input to the Calendaring function (scheduling future calendar).	Can be Demonstrated	
ADJ-005.07	AUTOMATICALLY use information captured in court proceedings to input to Accounting function (monetary judgment data).	Can be Demonstrated	Financial assessments can be applied through the Courtroom Minutes screen. Monetary details can be tracked in a judgment component.
ADJ-005.08	AUTOMATICALLY use information captured in court proceedings to update records other information on CASES.	Can be Demonstrated	
ADJ-005.09	AUTOMATICALLY use information captured in court proceedings to input to Docketing and Related Record Keeping function (information on judgments, counsel withdrawals, adjournments).	Can be Demonstrated	
ADJ-006	Provide Judges access other State Bar applications and databases, including Member Records, member resignation status page, etc.	Alternative Proposed	Judges can access the external applications and databases outside of the case management system.
ADJ-007	Provide the ability to maintain and refer to a listing of instances which a respondent has been convicted of a criminal offense.	Can be Demonstrated	The party record will display all cases associated with the party, however only cases within the case management system will be included.
ADJ-007.01	Provide ADMIN USER the ability to define classification codes for these offenses.	Can be Demonstrated	
ADJ-007.02	Provide the ability to record the National Crime Information Center (NCIC) code for these offenses.	Can be Demonstrated	
ADJ-007.03	Provide USER the ability to record the respondent's name, the respondent's member number, the violation, jurisdiction, felony / misdemeanor, description, keyword, Conference, classification, year, and comments	Can be Demonstrated	
ADJ-008	Provide the ability to track the status of MOTIONS to ensure that they are ruled upon in a timely manner.	Can be Demonstrated	
ADJ-008.01	Provide USER with the ability to search MOTIONS on CASES based on a pre-determined review date.	Can be Demonstrated	
ADJ-008.02	Provide USER with the ability to assign review date to MOTIONS.	Can be Demonstrated	
ADJ-008.03	Provide USER with the ability to assign review judge to MOTIONS.	Can be Demonstrated	
ADJ-008.04	Provide USER with the ability to sort MOTIONS based on review date, review judge.	Can be Demonstrated	
ADJ-008.05	Provide USER with the ability to produce notifications to JUDGES when motions require review.	Can be Demonstrated	

## Appendix E

## Disposition

ID	Requirement Text	Response Code	Comments
DIS-001	Record disposition type (i.e., type of judgment) including those involving entire cases and individual parties.	Can be Demonstrated	
DIS-001.01	Provide USER with the ability to assign DISPOSITION to a CASE.	Can be Demonstrated	
DIS-001.03	Provide USER with the ability to assign DISPOSITION to a PARTY.	Can be Demonstrated	
DIS-001.04	Provide USER with the ability to assign DISPOSITION to ISSUE/RELIEF.	Can be Demonstrated	
DIS-001.05	Provide USER with the ability to assign DISPOSITION to Other.	Can be Demonstrated	
DIS-001.06	Provide ADMIN USER with the ability to define DISPOSITION for a CASE.	Can be Demonstrated	
DIS-001.07	Provide ADMIN USER with the ability to define DISPOSITION for a PARTY.	Can be Demonstrated	
DIS-001.08	Provide ADMIN USER with the ability to define DISPOSITION for ISSUES/RELIEF.	Can be Demonstrated	
DIS-001.09	Provide ADMIN USER with the ability to define DISPOSITION for Other.	Can be Demonstrated	
DIS-002	Process information (e.g., update docket and other records, if not updated automatically) and produce documents for dispositions by trial, default, dismissal, withdrawal, settlement, transfer out to another jurisdiction, or consolidation.	Can be Demonstrated	
DIS-002.01	Provide ADMIN USER with the ability to define work flow based on different dispositions.	Can be Demonstrated	Task Management.
DIS-003	Process information and produce documents on post-judgment activities.	Can be Demonstrated	
DIS-003.01	Provide ADMIN USER with the ability to define work flow based on "post-judgment" (e.g. activities occurring after a judgment is ordered) activities.	Can be Demonstrated	
DIS-004	Distribute disposition and post-judgment documents electronically external to court and internally to be entered in docket.	Can be Demonstrated	
DIS-004.01	AUTOMATICALLY assign DOCUMENTS [disposition and post judgment] to the docket.	Can be Demonstrated	
DIS-004.02	AUTOMATICALLY export disposition and post judgment documents.	Can be Demonstrated	
DIS-005	Create, print, and maintain separate disposition indices that show original and subsequent judgments by case and party.	Requires Configuration	Custom development is required for a Judgment search based on the judgment component.
DIS-005.01	Provide ADMIN USER with the ability to define REPORTS for JUDGMENTS.	Requires Configuration	See DIS-005.
DIS-006	Document the counsel present for each event in a case (at each milestone).	Can be Demonstrated	
DIS-006.01	Provide USER with the ability to assign counsel present to each SCHEDULED EVENT.	Can be Demonstrated	
DIS-007	Provide the ability to record disposition determined by the Hearing Department, the Review Department, and the Supreme Court.	Can be Demonstrated	Disposition events can be used to record the final disposition or an amended disposition. Case events can be used to record recommended dispositions, if needed.
DIS-008	Provide the ability to record multiple dispositions determined by the Hearing Department, the Review Department, and the Supreme Court.	Can be Demonstrated	
DIS-009	Enter, maintain, process, and store information pertaining to temporary actions (e.g., an interim suspension or other such action) and record such events.	Can be Demonstrated	
DIS-010	Provide the ability to apply a single stipulation to multiple cases.	Can be Demonstrated	List Manager action to apply Stipulation event to list of cases.
DIS-011	Associate monetary and non-monetary restitution with specific case participant(s).	Can be Demonstrated	
DIS-011.01	Provide USER with the ability to associate RESTITUTION [monetary and non-monetary] with the receiving PARTY(s) (i.e. victim, etc.).	Can be Demonstrated	
DIS-011.02	Provide ADMIN USER to define codes for restitution types.	Can be Demonstrated	

## Appendix E

## Disposition

ID	Requirement Text	Response Code	Comments
DIS-011.03	Provide User with the ability to assign RESTITUTION [monetary and non-monetary] with the PARTY(s) ordered to pay restitution.	Can be Demonstrated	
DIS-011.04	Provide User with the ability to assign the amount of restitution each PARTY is required to pay.	Can be Demonstrated	
DIS-012	Record hearing outcomes for each respondent/participant including information on parties, cases, related cases, and cross petitions.	Can be Demonstrated	
DIS-012.01	Provide ADMIN USER with the ability to define codes for SCHEDULED EVENT OUTCOMES.	Can be Demonstrated	Result or case event.
DIS-012.02	Provide ADMIN USER with the ability to define codes for Hearing types SCHEDULED EVENT types (i.e. hearing, conference, trial).	Can be Demonstrated	Hearing type.
DIS-012.03	Provide ADMIN USER with the ability to define codes Allegations.	Can be Demonstrated	Causes of action.
DIS-012.04	Provide ADMIN USER with the ability to define codes Offense.	Can be Demonstrated	Offenses.
DIS-012.05	Provide ADMIN USER with the ability to define codes Relief.	Can be Demonstrated	Causes or action and remedy.
DIS-012.06	Provide ADMIN USER with the ability to relate Allegation/Offense/Relief codes to SCHEDULED EVENT Outcome codes.	Can be Demonstrated	The hearing can be associated to specific offenses or causes of action through the supplemental hearing information.
DIS-012.07	Provide ADMIN USER with the ability to relate Hearing Codes to SCHEDULED EVENT Outcome Codes.	Can be Demonstrated	
DIS-012.08	Provide USER with the ability to assign many SCHEDULED EVENT OUTCOMES to each allegation/offense/relief pertaining.	Can be Demonstrated	Case events.
DIS-012.09	Provide USER with the ability to assign many PERSONS or family groups to each allegation/offense/relief pertaining.	Can be Demonstrated	Case event with a party field to select specific party.
DIS-012.10	Provide USER with the ability to assign many SCHEDULED EVENT OUTCOMES to a HEARING.	Can be Demonstrated	Case events.

## Appendix E

## Case Close

ID	Requirement Text	Response Code	Comments
CCL-001	Receive information from Disposition Function and record reason for closure including summary alert or flag to notify if case has been closed.	Can be Demonstrated	
CCL-001.01	Provide ADMIN USER with the ability to define codes for Case Closure Reasons.	Can be Demonstrated	
CCL-001.02	Provide ADMIN USER with the ability to define rule to alert user when accessing a closed case.	Can be Demonstrated	
CCL-001.03	Provide USER with the ability to assign indicator to CASE to identify cases that are closed but have pending actions.	Can be Demonstrated	
CCL-001.04	Provide ADMIN USER with the ability to define rule for determining whether a case can be closed.	Can be Demonstrated	
CCL-002	Close case (e.g., update docket; generate required forms, notices, reports for that case) based upon defined business rules, including the ability to close cases in batch.	Can be Demonstrated	
CCL-002.1	Provide ADMIN USER with the ability to define work flow for closing cases.	Can be Demonstrated	
CCL-003	Allow ability to file and docket documents (motions, reports, etc.) to the case without re-opening the case.	Can be Demonstrated	
CCL-003.01	Provide ADMIN USER with the ability to define a rule for allowing update in CASES that have been deemed closed.	Can be Demonstrated	
CCL-004	Generate overall case closure reports (e.g., cases closed over specific period with reason closed and other information).	Can be Demonstrated	
CCL-004.01	Provide admin user with the ability to define reports for CASES based on case closure.	Can be Demonstrated	
CCL-005	Identify activities and conditions that can prevent case from being closed and alerts when case close is accepted when those conditions are not satisfied (e.g. outstanding or open allegations outstanding motions, etc.).	Can be Demonstrated	
CCL-005.01	Provide ADMIN USER with the ability to define a rule for allowing or disallowing a CASE closure.	Can be Demonstrated	Limited to: Open Balance, Outstanding Bond, Active Offense, Future Hearing.
CCL-006	Provide a facility for re-opening previously closed cases, tracking date and reason for reopening, with proper authorization.	Can be Demonstrated	
CCL-006.01	Provide USER with the ability to assign a Case Reporting Status [Reopen] to CASE.	Can be Demonstrated	
CCL-006.02	Provide ADMIN USER with the ability to define codes for Case Reporting Statuses.	Can be Demonstrated	
CCL-006.03	Provide USER with the ability to assign reopen date, reopen reason and previous status to Case Reporting Status.	Can be Demonstrated	
CCL-006.04	Automatically maintain history of Case Reporting Statuses.	Can be Demonstrated	
CCL-007	Record ultimate resolution for each closed case including information on related cases and petitions; and cross-reference to judge's order for closure.	Can be Demonstrated	
CCL-007.01	Provide USER with the ability to assign relief to CASE.	Can be Demonstrated	
CCL-007.02	Provide USER with the ability to assign petitions to CASES.	Can be Demonstrated	
CCL-007.03	Provide USER with the ability to assign one to many PARTYs to one to many PARTYs in order to form a family relationship.	Can be Demonstrated	
CCL-007.04	Provide USER with the ability to assign many CASES to many CASES in order to create CASE GROUP [related].	Can be Demonstrated	

## Appendix E

## Case Close

ID	Requirement Text	Response Code	Comments
CCL-007.05	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to assign DOCUMENT [order] to DISPOSITION.	Can be Demonstrated	
CCL-007.06	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to assign DOCUMENT to PARTY.	Can be Demonstrated	
CCL-007.07	Provide integrated ECMS functionality or Interoperate with the ECMS to provide ADMIN USER with the ability to define codes to associate DOCUMENTS to DOCUMENTS.	Can be Demonstrated	
CCL-007.08	Provide integrated ECMS functionality or Interoperate with the ECMS to provide USER with the ability to assign DOCUMENT [order] to DOCUMENT [order].	Can be Demonstrated	
CCL-008	Allow user to manually close case (e.g., change status to closed; update docket; generate required forms, notices, reports for that case) according to locally-defined business rules.	Requires Configuration	
CCL-008.01	Provide USER with the ability to assign a Case Reporting Status [Closed, Reopen].	Requires Configuration	
CCL-008.02	Provide ADMIN USER with the ability to define rule for determining the Case Reporting Status.	Requires Configuration	
CCL-009	Alert users when closing cases if there is a hearing date that needs to be vacated.	Can be Demonstrated	
CCL-009.01	Provide ADMIN USER with the ability to define rule for disallowing case closing if a SCHEDULED EVENT is still outstanding.	Can be Demonstrated	
CCL-009.02	Provide ADMIN USER to define a rule to warn user of action that must be taken in order to close a case.	Can be Demonstrated	
CCL-009.03	AUTOMATICALLY vacate all SCHEDULED EVENTS for a CASE that is being closed, including SCHEDULED EVENTS for consolidate cases.	Can be Demonstrated	
CCL-009.04	Automatically alert user when CASE has an open SCHEDULED EVENT.	Can be Demonstrated	



## Appendix E

## Accounting

ID	Requirement Text	Response Code	Comments
ACC-001	Comply with generally accepted accounting principles (GAAP) for governmental entities.	Can be Demonstrated	
ACC-002	Interfaces that allow for the collection and receipting of fees by non-court persons or companies, must prohibit the deletion or modification of financial or other case data within the security matrix.	Can be Demonstrated	
ACC-002.01	Provide ADMIN USER with the ability to define rule to prohibit Interfaces for accounting by external agencies from deleting or modifying financial or Case data.	Can be Demonstrated	
ACC-003	Allow for automatic reconciliation of daily receipts and bank accounts, and still enable multiple USERS to access the system.	Can be Demonstrated	
ACC-003.01	Provide USER with the ability to assign reconciliation to End-Of-Day (EOD) functions (e.g., Daily Receipts, Bank Deposits).	Can be Demonstrated	
ACC-003.02	AUTOMATICALLY provide USERS access to system while Accounting Reconciliation is in process.	Can be Demonstrated	
ACC-004	Print system wide daily cash receipts journal.	Can be Demonstrated	
ACC-004.01	Provide ADMIN USER with the ability to define report for Cash Receipts ( e.g., System wide or by Cash register).	Can be Demonstrated	
ACC-004.02	Provide USER with the ability to produce report for Cash Receipts.	Can be Demonstrated	
ACC-005	Calculate and record bank deposits.	Can be Demonstrated	
ACC-005.01	AUTOMATICALLY calculate BANK DEPOSIT.	Can be Demonstrated	
ACC-005.02	AUTOMATICALLY assign BANK DEPOSIT.	Can be Demonstrated	
ACC-006	List bank deposits in various groupings (e.g., totals for cash, check, credit card) showing account in which funds to be deposited.	Can be Demonstrated	Deposit analysis report.
ACC-006.01	AUTOMATICALLY produce report for BANK DEPOSIT [Cash, Check, Credit Card etc.] details.	Can be Demonstrated	
ACC-006.02	Provide USER with the ability to produce report for BANK DEPOSIT [Cash, Check, Credit Card etc.] details.	Can be Demonstrated	
ACC-007	Print bank deposit slips for specific banks and periods.	Can be Demonstrated	
ACC-007.01	AUTOMATICALLY produce document [BANK DEPOSIT].	Can be Demonstrated	
ACC-007.02	Provide USER with the ability to produce document for [BANK DEPOSIT].	Can be Demonstrated	
ACC-008	Produce list of items that remain open for accounts that carry balance forward from one period to next period.	Can be Demonstrated	
ACC-008.01	Provide USER with the ability to produce report for OPEN ACCOUNTS.	Can be Demonstrated	
ACC-009	Total and reconcile receipts over specific period for multiple cashiers to calculate bank deposits.	Can be Demonstrated	
ACC-009.01	AUTOMATICALLY total/reconcile RECEIPTS for one/many CASHIERS.	Can be Demonstrated	
ACC-009.02	Provide USER with the ability to assign total/reconcile RECEIPTS for one/many CASHIERS.	Can be Demonstrated	
ACC-010	Maintain financial parts of case files and docket (e.g., payments received, liabilities with linkage to accounts receivable in finance). (see also Docketing and Related Recordkeeping Function)	Can be Demonstrated	
ACC-010.01	AUTOMATICALLY maintain history of ACCOUNTING transactions for CASE RECORDS and DOCKET.	Can be Demonstrated	



## Appendix E

## Accounting

ID	Requirement Text	Response Code	Comments
ACC-010.02	Provide USER with the ability to assign ACCOUNTING transactions for CASE RECORDS and DOCKET and link to Financial Accounting (Accounts RECEIVABLE).	Can be Demonstrated	
ACC-010.03	Provide USER with the ability to produce report for ACCOUNTING Transactions for CASE RECORDS and DOCKET.	Can be Demonstrated	
ACC-011	Apply correcting entries without changing or deleting previously recorded transactions, record and store adjusting financial entries (e.g., bad checks), and modify amounts due with proper authorization.	Can be Demonstrated	
ACC-011.01	AUTOMATICALLY assign adjustment transaction without changing original transaction.	Can be Demonstrated	
ACC-011.02	Provide USER with the ability to assign adjustment transaction without changing original transaction.	Can be Demonstrated	
ACC-011.03	Provide USER with the ability to assign adjustment transaction with proper security.	Can be Demonstrated	
ACC-012	Accrue charges to case based on occurrence of specific events (e.g., transcript prepared) and produce account statements.	Can be Demonstrated	
ACC-012.01	AUTOMATICALLY assign COSTS, FEES on the occurrence of CASE EVENTS.	Can be Demonstrated	
ACC-012.04	Provide USER with the ability to produce report for ACCOUNT [CASE, PARTY].	Can be Demonstrated	
ACC-013	Provide the ability to close an account related to a case.	Can be Demonstrated	
ACC-013.01	Provide ADMIN USER with the ability to define indicator to close CASE or PARTY ACCOUNT.	Can be Demonstrated	
ACC-013.02	Provide USER with the ability to assign indicator to close CASE or PARTY ACCOUNT.	Can be Demonstrated	
ACC-014	Generate and print receipts with proper identifiers (e.g., fee code, court location and address) based on collections with USER option to receive single or multiple copies, noting how many copies were printed.	Can be Demonstrated	
ACC-014.01	Provide ADMIN USER with the ability to define rule to capture relevant data on PAYMENT RECEIPT (e.g., Account Code, PARTY Address, COURT Address etc.).	Can be Demonstrated	
ACC-014.02	Provide ADMIN USER with the ability to define indicator to specify number of copies of DOCUMENT to generate.	Can be Demonstrated	
ACC-014.03	Provide integrated ECMS functionality or Interoperate with the ECMS to provide ADMIN USER with the ability to define indicator to store number of copies generated for a DOCUMENT.	Can be Demonstrated	Tyler recommends the use of the ECMS native to Odyssey.
ACC-015	Generate and distribute electronic receipts for electronic payments. (see also Multifunction Capabilities and Integration)	Can be Demonstrated	An electronic receipt is created for electronic payments.
ACC-015.01	Provide ADMIN USER with the ability to define rule to produce Electronic DOCUMENT [RECEIPT] for PAYMENT (e.g., manual, electronic etc.).	Can be Demonstrated	
ACC-015.02	AUTOMATICALLY produce Electronic DOCUMENT [RECEIPT] for PAYMENT (e.g., manual, electronic etc.).	Can be Demonstrated	
ACC-015.03	Provide USER with the ability to produce Electronic DOCUMENT [RECEIPT] for PAYMENT (e.g., manual, electronic etc.).	Can be Demonstrated	

## Appendix E

## Accounting

ID	Requirement Text	Response Code	Comments
ACC-016	Generate and print receipts with unique, locally defined, sequential receipt numbers.	Can be Demonstrated	
ACC-016.01	Provide ADMIN USER with the ability to define rule to generate unique sequential RECEIPT NUMBER at Enterprise or Jurisdiction or Cash Register level.	Can be Demonstrated	
ACC-016.02	AUTOMATICALLY generate unique sequential RECEIPT NUMBER at Enterprise or Jurisdiction or Cash Register level.	Can be Demonstrated	
ACC-017	Permit receipts to be reprinted with appropriate security (e.g., if printer malfunctions during printout) with same receipt numbers but noted as a duplicate receipt.	Can be Demonstrated	
ACC-017.01	Provide ADMIN USER with the ability to define rule to reprint RECEIPT with appropriate security.	Can be Demonstrated	
ACC-017.02	Provide USER with the ability to produce reprint RECEIPT with appropriate security.	Can be Demonstrated	
ACC-017.03	AUTOMATICALLY reprint RECEIPT with appropriate security.	Can be Demonstrated	
ACC-017.04	AUTOMATICALLY assign any reprinted DOCUMENT [RECEIPT, INVOICE, NOTICE] as a duplicate .	Can be Demonstrated	
ACC-017.05	Provide ADMIN USER with the ability to define rule to assign any reprinted DOCUMENT [RECEIPT, INVOICE, NOTICE] as a duplicate .	Can be Demonstrated	
ACC-017.06	Provide USER with the ability to assign any reprinted DOCUMENT [RECEIPT, INVOICE, NOTICE] as a duplicate .	Can be Demonstrated	
ACC-018	Print system wide daily cash receipts journal and allow reprinting of journal reports.	Can be Demonstrated	
ACC-018.01	AUTOMATICALLY produce report for Daily Cash Receipt Journal.	Can be Demonstrated	Need to request the report.
ACC-018.02	Provide ADMIN USER with the ability to define report for Daily Cash Receipt Journal.	Can be Demonstrated	Option for report data available.
ACC-018.03	Provide USER with the ability to produce report for Daily Cash Receipt Journal.	Can be Demonstrated	
ACC-019	Ability to track overages and shortages by cashier.	Can be Demonstrated	
ACC-019.01	Provide ADMIN USER with the ability to define field for querying OVERAGE and SHORTAGE by Cashier.	Can be Demonstrated	
ACC-019.02	Provide USER with the ability to search for OVERAGE and SHORTAGE by Cashier.	Can be Demonstrated	
ACC-020	Ability to export financial reports to other formats (e.g., excel)	Can be Demonstrated	
ACC-020.01	AUTOMATICALLY provide the capability to export reports to other formats (e.g., excel, PDF).	Can be Demonstrated	
ACC-021	Provide the ability to record the transcript estimate, ordering party, order date, order details (CDs or transcripts; originals or copies) and track actual cost, payment plan terms, payment due dates and amounts, payments received, credits issued.	Can be Demonstrated	
ACC-022	Provide the ability to automatically estimate transcript cost when based on the Hearing Department courtroom recording time in For The Record (FTR).	Can be Demonstrated	Odyssey includes a fee program that allows a user to insert the number of pages or length of hearing to calculate the amount of the transcript.
ACC-022.01	Provide ADMIN USER the ability to define, store, and maintain the automated estimation algorithm.	Can be Demonstrated	

ID	Requirement Text	Response Code	Comments
ACC-022.02	Provide USER the ability to employ the automated estimation algorithm to estimate transcript cost.	Can be Demonstrated	
ACC-023	Provide the ability to record that record that payment for transcripts for a case is to be made directly to the service provider.	Can be Demonstrated	Event comment or case note.
ACC-024	Provide the ability add to the electronic case file scanned images of third-party vendor invoices and checks, linking the images to a data element or a docket entry.	Can be Demonstrated	

## Appendix E

## Effectuation

ID	Requirement Text	Response Code	Comments
EFF-001	Provide the ability for USER to record the status of the effectuation of a case and to set ticklers to support the completion of effectuation.	Can be Demonstrated	Disposition and sentence details
EFF-001.01	Provide ADMIN USER the ability to establish a work flow for the completion of effectuation based on case type.	Can be Demonstrated	
EFF-001.02	Provide USER the ability to record effectuation status manually or as a byproduct of the actions taken on the case.	Can be Demonstrated	
EFF-001.03	Provide ADMIN USER the ability to define codes for the status of the effectuation.	Can be Demonstrated	
EFF-002	Provide the ability to set waiting periods in the effectuation work flow.	Can be Demonstrated	Time Standards
EFF-002.01	Provide ADMIN USER with the ability to define rules establishing a time frame or waiting period before effectuation activities can be conducted.	Can be Demonstrated	
EFF-002.02	AUTOMATICALLY check a defined rules when USER records effectuation activities to a CASE	Can be Demonstrated	
EFF-002.03	Provide USER with the ability to override rules when recording activities.	Can be Demonstrated	
EFF-003	Provide capability for the review of proposed Supreme Court orders by USERS including the Hearing Judge and Hearing Counsel.	Not Proposed	The ability to review proposed orders is not within scope of this proposal. It is possible that Tyler will develop this functionality in a future release, however, no development plans have been made at the time to ensure delivery of this functionality.
EFF-004	Provide capability for submitting proposed Supreme Court orders to the Supreme Court in editable Word and PDF format.	Not Proposed	The ability to submit proposed orders is not within scope of this proposal. It is possible that Tyler will develop this functionality in a future release, however, no development plans have been made at the time to ensure delivery of this functionality.
EFF-004.01	Provide the ability to remove metadata from Word files generated by the Supreme Court.	Not Proposed	See EFF-004.
EFF-005	Provide ability to track the status of the proposed Supreme Court order both internal to the court and while pending with the Supreme Court.	Can be Demonstrated	Event Status.
EFF-006	Provide ability to record a Writ of Review and track its status.	Can be Demonstrated	Event.
EFF-007	Provide the ability to remand a matter to the Hearing or Review courts.	Can be Demonstrated	Scheduling a hearing for the matter with the Hearing or Review court.
EFF-008	Provide the ability to record the effective date of the Supreme Court Order (i.e., close date), conditions and cost of case associated with hearing, review, and effectuations.	Can be Demonstrated	This information can be recorded through the sentence event and sentence conditions.
EFF-009	Provide a means to record identifiers for transcript CDs orders and for the associated journal vouchers.	Can be Demonstrated	Case Events.
EFF-010	Provide the ability to search for transcript CDs orders and for the associated journal vouchers in case records using the previously entered identifiers for those items.	Can be Demonstrated	Case Event review report.
EFF-011	Provide the ability to generate a supreme court transmittal coversheet indicating whether the respondent had previously been disbarred or resigned and whether the respondent has a current case pending transmittal.	Can be Demonstrated	Case Form
EFF-012	Provide USER the ability to link the case to a cost certificate maintained in the ECM, record that costs were assessed, and the terms of payment.	Can be Demonstrated	Case Form.

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## Appendix E

## Probation

ID	Requirement Text	Response	Comments
PRB-001	Provide the ability to define basic case information that must be entered in order to initiate a case, by case type.	Can be Demonstrated	
PRB-001.01	Provide ADMIN USER with the ability to locally define rules for required fields for case initiation per case type.	Can be Demonstrated	
PRB-001.02	AUTOMATICALLY populate Probation Case with conditions from the underlying case.	Can be Demonstrated	Conditions are entered manually in Odyssey Supervision.
PRB-002	Provide the ability to initiate a probation case based on a State Bar Court case.	Can be Demonstrated	
PRB-002.01	Provide ADMIN USER with the ability to define workflow for establishing a probation case.	Can be Demonstrated	
PRB-002.02	Provide ADMIN USER with the ability to define fields and provide validation rules for entering case initiation information.	Can be Demonstrated	
PRB-002.03	Provide ADMIN USER with the ability to define the letters and other documents to be generated with each case event, including but not limited to case initiation.	Can be Demonstrated	
PRB-002.04	Provide USER the ability to employ the data from the court case to establish the probation case.	Can be Demonstrated	
PRB-002.05	Provide USER the ability to locate and link to the court case by court case number or member number.	Can be Demonstrated	
PRB-002.06	Provide the ability to record and update monitoring type and conditions of probation.	Can be Demonstrated	
PRB-002.07	Provide USER the ability to employ court entered data about probation case monitoring type and conditions of probation (i.e., by reference, through an interface, or by other means).	Can be Demonstrated	
PRB-003	Provide the ability to initiate a probation case based on a Trial Counsel case.	Can be Demonstrated	Odyssey Supervision has the ability to create a probation case from a Clerk's case.
PRB-003.01	Provide ADMIN USER with the ability to define workflow for establishing a probation case.	Can be Demonstrated	Event review report or task management.
PRB-003.02	Provide ADMIN USER with the ability to define fields and provide validation rules for entering case initiation information.	Can be Demonstrated	Case type codes configuration
PRB-003.03	Provide ADMIN USER with the ability to define the letters and other documents to be generated with each case event, including but not limited to case initiation.	Can be Demonstrated	Case Forms.
PRB-003.04	Provide USER the ability to employ the data from the Trial Counsel case to establish the probation case.	Can be Demonstrated	Shared party and charge information from clerk's case.
PRB-003.05	Provide USER the ability to locate and link to the Trial Counsel case by Trial Counsel case number or member number.	Can be Demonstrated	Supervision case can be linked and additional cases can be related as needed.
PRB-003.06	Provide the ability to record and update monitoring type and conditions of probation.	Can be Demonstrated	Conditions.
PRB-003.07	Provide USER the ability to employ Trial Counsel entered data about probation case monitoring type and conditions of probation (i.e., by reference, through an interface, or by other means).	Can be Demonstrated	Conditions are entered manually in Supervision.
PRB-004	Provide the ADMIN USER the ability to employ Case Management capabilities for probation cases, including but not limited to defining processing workflows to step a USER through standard processes (e.g., default checklists)	Can be Demonstrated	Task Management for Supervision
PRB-005	Provide the USER the ability to employ Case Management capabilities for probation cases, including but not limited to setting due dates and ticklers for case processing.	Can be Demonstrated	Events with due dates

## Appendix E

## Probation

ID	Requirement Text	Response	Comments
PRB-006	Provide the USER the ability to employ Scheduling capabilities for probation cases, including but not limited to scheduling meetings with respondents and recording the results.	Can be Demonstrated	
PRB-007	Provide the USER the ability to be presented with a list of overdue tasks, reports, ticklers, and other time sensitive items when starting up the Application.	Can be Demonstrated	My Odyssey workspace can be configured to display overdue events or specific user reports.
PRB-007.01	Provide the USER the ability to define the order that these items are presented in.	Can be Demonstrated	
PRB-007.02	Provide the USER the ability to access the time sensitive item directly from this list.	Can be Demonstrated	
PRB-007.03	Provide the ability to AUTOMATICALLY record an event / activity when a tickler, task, or other time sensitive item is addressed completely.	Can be Demonstrated	
PRB-008	Provide the ADMIN USER the ability to define an unlimited number of predefined probation conditions that can be ordered by the State Bar Court or Supreme Court.	Can be Demonstrated	
PRB-009	Provide the USER the ability to record predefined or ad hoc conditions of probation.	Can be Demonstrated	Conditions can be applied through a macro for a set of standard conditions as well as added manually to the case as needed.
PRB-010	Provide USER the ability to record probation monitoring events / activities including but not limited to: notices sent, reminder letters sent, motions filed, responses filed, referrals, reports received, and all other communication.	Can be Demonstrated	
PRB-010.01	Provide the ADMIN USER the ability to define an unlimited number of predefined / standard probation events.	Can be Demonstrated	
PRB-010.02	Provide the USER the ability to record predefined and ad hoc probation events / activities.	Can be Demonstrated	
PRB-010.03	Provide the USER the ability to associate events / activities with predefined probation conditions to aid in tracking compliance.	Can be Demonstrated	
PRB-010.04	Provide the ability to AUTOMATICALLY associate predefined events / activities with predefined probation conditions to aid in tracking	Can be Demonstrated	
PRB-010.05	Provide the ability to record respondent progress toward meeting a condition of probation, including but not limited to: tasks completed, hours of performance, amounts paid.	Can be Demonstrated	
PRB-011	Provide USER the ability to maintain a probation activity log	Can be Demonstrated	
PRB-011.01	Provide the ability to AUTOMATICALLY update the event / activity log based on actions taken by the USER.	Can be Demonstrated	
PRB-012	Provide the USER the ability to record respondent performance against both predefined or ad hoc conditions of probation.	Can be Demonstrated	Conditions must first be added to the case where users can then records performance for each condition.
PRB-013	Provide the USER the ability to prepare revocation filings using document templates and data from the State Bar Court CMS.	Can be Demonstrated	
PRB-013.01	Provide the USER the ability to compile a filing using Word templates and probation case data and event / activity logs.	Can be Demonstrated	
PRB-013.02	Provide the USER the ability to e-file a revocation with the court.	Can be Demonstrated	
PRB-014	Provide USER the ability to maintain information about the term of probation.	Can be Demonstrated	
PRB-014.01	Provide the USER the ability to enter the term of probation as a start date and a period of years/months/days.	Can be Demonstrated	
PRB-014.02	Provide the USER the ability to enter the term of probation as a start date and end date.	Can be Demonstrated	

## Appendix E

## Probation

ID	Requirement Text	Response	Comments
PRB-014.03	Provide the ability to record tolling periods within the term of probation and AUTOMATICALLY recalculate the end of the term of probation.	Can be Demonstrated	
PRB-015	Provide the USER the ability to inquire into related cases and records in the State Bar information systems.	Can be Demonstrated	If the related case record exists within the Odyssey application and the user has access to the case, then the user can inquire into the case record.
PRB-015.01	Provide USER the ability to display court proceedings, hearings and other court matters.	Can be Demonstrated	
PRB-015.02	Provide USER the ability to display OCTC investigations, inquiries and other case matters.	Can be Demonstrated	
PRB-015.03	Provide USER the ability to display member records.	Can be Demonstrated	
PRB-016	Provide the USER the ability to assign external resources (e.g., probation monitors) to a case and establish task lists and ticklers for that resource.	Can be Demonstrated	The external resource can be noted on the case, however, management of external resources is typically managed by the resource software.
PRB-017	Provide the USER the ability to record a variety of key probation case dates, including but not limited to: order filed date; effective date; probation beginning and ending dates; actual beginning and ending dates; assignment date; case opening and closing dates.	Can be Demonstrated	
PRB-018	Provide the USER the ability to prepare motions using document templates and data from the State Bar Court CMS.	Can be Demonstrated	
PRB-018.01	Provide the USER the ability to compile a filing using Word templates and probation case data and event / activity logs.	Can be Demonstrated	
PRB-018.02	Provide the USER the ability to e-file a motion with the court.	Can be Demonstrated	Not available.
PRB-019	Provide USER the ability to generate letters, forms, reports, and other documents.	Can be Demonstrated	
PRB-019.01	Provide ADMIN USER with the ability to define the letters, forms, reports, and other documents to be generated with each case event, including but not limited to case initiation.	Can be Demonstrated	
PRB-019.02	Provide USER the ability to employ templates, populated from the case record, to generated letters, forms, reports, and other documents with any case event, including but not limited to case initiation. (e.g., Letters to respondents, Quarterly Report form)	Can be Demonstrated	
PRB-019.03	Provide the ability to AUTOMATICALLY record an event / activity when a letter, notice or other communication is generated.	Can be Demonstrated	Not available.
PRB-020	Provide the ability to adopt/use the same case number as SBC or OCTC.	Alternative Proposed	Odyssey uses the information from the originating case to create the probation case
PRB-021	Provide the ability to generate multiple matters from the adopted SBC or OCTC Case Number.	Alternative Proposed	Odyssey uses the information from the originating case to create one more probation cases
PRB-022	Provide the USER the ability to employ E-Filing capabilities for probation cases.	Not Proposed	This is currently not a feature for probation cases.
PRB-023	Provide the USER the ability to employ Document Management capabilities for Probation Cases	Can be Demonstrated	
PRB-024	Provide the USER the ability to employ Document Generation capabilities for Probation Cases	Can be Demonstrated	
PRB-025	Provide the USER the ability to employ Case Close Out capabilities for Probation Cases	Can be Demonstrated	



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## Appendix E

## Membership

ID	Requirement Text	Response	Comments
MSS-001	Provide the ability to add and maintain member records for the State Bar.	Can be Demonstrated	
MSS-001.01	Provide USER the ability to create new member record based on Admissions records.	Can be Demonstrated	
MSS-001.02	Provide USER the ability to override Admissions data when creating new member record.	Can be Demonstrated	New member data can be changed in the CMS.
MSS-001.03	Provide USER the ability to add member record information including contact, demographic, law school, additional jurisdictions, attorney transfer of estate documents, etc.	Can be Demonstrated	This information can be added as a docketed item (There is not discrete data element for the data in the CMS).
MSS-001.04	Provide USER the ability to add member record status.	Can be Demonstrated	
MSS-001.05	Provide USER the ability to update member record information based on pre-defined business roles.	Can be Demonstrated	
MSS-001.06	Provide USER the ability to add notes to member records.	Can be Demonstrated	
MSS-001.07	AUTOMATICALLY generate member number when new member is added, based on a pre-defined sequence.	Can be Demonstrated	
MSS-001.08	Provide the ability to define and configure the member number generation	Can be Demonstrated	
MSS-001.09	AUTOMATICALLY assign Minimum Continuing Legal Education (MCLE) group number when the new member record is created.	Can be Demonstrated	
MSS-001.10	AUTOMATICALLY create new member profile page when new member record is created (detailed in a subsequent section).	Can be Demonstrated	
MSS-001.11	Provide ability to generate and send an email to the new member upon creating the record.	Can be Demonstrated	An email confirmation is delivered after the admin case is established.
MSS-001.12	Provide ADMIN USER the ability to turn automatic notifications (including emails) on/off as needed.	Can be Demonstrated	
MSS-001.13	Provide USER the ability to add multiple addresses for member.	Can be Demonstrated	
MSS-001.14	Provide USER the ability to designate addresses by type.	Can be Demonstrated	
MSS-001.15	Provide ADMIN USER the ability to define address types.	Can be Demonstrated	
MSS-001.16	Provide USER the ability to enter foreign addresses for members.	Can be Demonstrated	
MSS-001.17	Provide USER the ability to record multiple telephone numbers for member.	Can be Demonstrated	
MSS-001.18	Provide USER the ability to designate telephone numbers by type.	Can be Demonstrated	
MSS-001.19	Provide ADMIN USER the ability to define telephone number types.	Can be Demonstrated	
MSS-001.20	Provide USER the ability to record foreign telephone numbers for members.	Can be Demonstrated	
MSS-001.21	Provide USER the ability to record multiple email addresses for members.	Can be Demonstrated	
MSS-001.22	Provide USER the ability to designate primary email address.	Can be Demonstrated	
MSS-001.23	Provide USER the ability to designate information as public or private for all members or individual members.	Can be Demonstrated	
MSS-001.24	Provide USER the ability to view member fees.	Can be Demonstrated	The fees and payments are viewable on the Admin Case as financials
MSS-001.25	Provide USER the ability to record notes on member record.	Can be Demonstrated	
MSS-001.26	Provide USER the ability to do mass updates on member records.	Can be Demonstrated	
MSS-001.27	AUTOMATICALLY maintain member record history (e.g. address history, telephone numbers, emails, etc...)	Can be Demonstrated	
MSS-001.28	Provide USER the ability to designate records entered in error (record updated in error, or mistyped, etc...)	Can be Demonstrated	

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## Membership

ID	Requirement Text	Response	Comments
MSS-001.29	Provide USER the ability to send mass email to all new members created at the end of the day.	Can be Demonstrated	
MSS-002	Provide the ability to track and maintain law corporations and limited liability partnerships.	Can be Demonstrated	
MSS-002.01	Provide USER the ability to add law corporations	Can be Demonstrated	LLC, LLP are created as admin cases
MSS-002.02	Provide USER the ability to add limited liability partnerships	Can be Demonstrated	LLC, LLP are created as admin cases
MSS-002.03	Provide USER the ability to maintain law corporation information including receipt, change dates, corporation guarantee amounts, etc.	Can be Demonstrated	Not available today.
MSS-002.04	Provide USER the ability to record partners and officers within law corporations	Can be Demonstrated	LLE members and roles are associated with the LLE admin case
MSS-002.05	Provide USER the ability to record law corporations' shareholders and officers status.	Can be Demonstrated	LLE members and roles are associated with the LLE admin case
MSS-002.06	Provide USER the ability to record partners and authorized partners within limited liability partnerships	Can be Demonstrated	LLE members and roles are associated with the LLE admin case
MSS-002.07	Provide USER the ability to record limited liability partnerships' shareholders and authorized partners status.	Can be Demonstrated	LLE members and roles are associated with the LLE admin case
MSS-002.08	Provide USER the ability to record law corporation name and address information.	Can be Demonstrated	LLE members and roles are associated with the LLE admin case
MSS-002.09	Provide USER the ability to record limited liability partnerships name and address information	Can be Demonstrated	LLE members and roles are associated with the LLE admin case
MSS-002.10	Provide USER the ability to record foreign addresses for law corporations	Can be Demonstrated	
MSS-002.11	Provide USER the ability to record foreign telephone numbers for law corporations	Can be Demonstrated	
MSS-002.12	Provide USER the ability to record foreign addresses for limited liability partnerships	Can be Demonstrated	
MSS-002.13	Provide USER the ability to record foreign telephone numbers for limited liability partnerships	Can be Demonstrated	
MSS-002.14	Provide USER the ability to record law corporation's contact person name.	Can be Demonstrated	LLE members and roles are associated with the LLE admin case
MSS-002.15	Provide USER the ability to record law corporation's contact person telephone number.	Can be Demonstrated	LLE members and roles are associated with the LLE admin case
MSS-002.16	Provide USER the ability to record law corporation's contact person email address.	Can be Demonstrated	LLE members and roles are associated with the LLE admin case
MSS-002.17	Provide USER the ability to calculate and record law corporation annual fees.	Can be Demonstrated	Simple fee calculations are included
MSS-002.18	Provide USER the ability to record law corporation fees payments.	Can be Demonstrated	
MSS-002.19	Provide USER the ability to waive fees as necessary.	Can be Demonstrated	
MSS-002.20	Provide USER the ability to calculate and record limited liability partnerships annual fees (based on number of partners).	Can be Demonstrated	Simple fee calculations are included
MSS-002.21	Provide USER the ability to assess and adjust late fees and penalties as necessary.	Can be Demonstrated	
MSS-002.22	Provide USER the ability to record critical dates for law corporations such as application date, suspend date, reinstate date, revoke date, etc...	Can be Demonstrated	Can be recorded as docketed events on the admin case
MSS-002.23	Provide USER the ability to record critical dates for limited liability partnerships such as application date, renewal report sent date, tickler date, termination date, etc...	Can be Demonstrated	Can be recorded as docketed events on the admin case

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## Membership

ID	Requirement Text	Response	Comments
MSS-003	Provide members with an online portal (Member Page) that allows them to access their member information, and conduct transactions such as updating address, submitting status change request, paying member dues, etc...	Can be Demonstrated	Items marked as "Customization Required" have elements needing further investigation, but were included in the total estimated customization allowance presented in Attachment K – Cost Proposal (Optional Membership tab).
MSS-003.01	Provide MEMBER with access to an online portal to view and update their member address.	Can be Demonstrated	
MSS-003.02	Authenticate MEMBER and NON-MEMBER (Entities) using pre-defined parameters for authentication.	Can be Demonstrated	Utilizes Tyler Authentication and Claims solution
MSS-003.03	<del>AUTOMATICALLY provide login credentials to MEMBERS and NON-MEMBERS (Entities) upon successful account creation.</del>	Can be Demonstrated	Allows self-registration
MSS-003.04	AUTOMATICALLY provide access based on validated credentials.	Can be Demonstrated	Utilizes Tyler Authentication and Claims solution
MSS-003.05	Provide MEMBER with the ability to update their telephone numbers.	Can be Demonstrated	
MSS-003.06	Provide MEMBER with the ability to update their email.	Can be Demonstrated	
MSS-003.07	AUTOMATICALLY verify address information entered for accuracy and completeness before submitting information.	Can be Demonstrated	Not available today since this requires USPS validation (Not included in the scope of the project)
MSS-003.08	<del>AUTOMATICALLY notify member when address information is accepted or rejected.</del>	Can be Demonstrated	Option is to allow self-service of address information
MSS-003.09	Provide MEMBER the ability to order a replacement Bar Card and make appropriate payments.	Can be Demonstrated	
MSS-003.10	Provide MEMBER the ability to print a replacement a Bar Card, based on predefined business rules.	Can be Demonstrated	Document would be PDF from the State Bar electronically delivered to the member.
MSS-003.11	Provide member services USER the ability to review and validate entries made on Member portal before committing changes to the database.	Can be Demonstrated	ALTERNATIVE OPTION : Audit Trail is provided for demographic data
MSS-003.12	Provide member services USER the ability to process a bar card order manually.	Can be Demonstrated	Need clarification in order to demonstrate
MSS-003.13	AUTOMATICALLY send bar card order to vendor once the order is completed and paid.	Can be Demonstrated	(Customization Required) Would require an ECR type of process
MSS-003.14	Provide ADMIN USER the ability to process bar card orders in batches.	Can be Demonstrated	(Customization Required) Would require an ECR type of process
MSS-003.15	Provide ADMIN USER the ability to manually start or stop the bar card batch process.	Can be Demonstrated	(Customization Required) Would require an ECR type of process
MSS-003.16	Provide member services USER the ability to process MEMBER requests.	Can be Demonstrated	Assuming this an application process to create the admin case information
MSS-003.17	Provide member services USER the ability to process payments received.	Can be Demonstrated	Integrated with business process, also standard CMS e-Payments
MSS-003.18	Provide MEMBER the ability the submit a name change request form.	Can be Demonstrated	
MSS-003.19	Provide MEMBER the ability to attach necessary documentation when submitting a name change request.	Can be Demonstrated	
MSS-003.20	AUTOMATICALLY validate that all required information is included when submitting a name change request.	Can be Demonstrated	
MSS-003.21	Provide MEMBER the ability to submit Voluntary Status changes (completing and submitting form).	Can be Demonstrated	
MSS-003.22	AUTOMATICALLY validate that all required information is included when submitting a voluntary status change, including payment when applicable.	Can be Demonstrated	
MSS-003.23	Provide member services USER the ability to review and process voluntary status change requests.	Can be Demonstrated	
MSS-003.24	Provide ADMIN USER the ability to maintain status history records.	Can be Demonstrated	All member activities are docketed on the admin case
MSS-003.25	Provide ADMIN USER the ability to log and update errors.	Can be Demonstrated	
MSS-003.26	Provide ADMIN USER the ability to restrict access to members, based on pre-defined conditions.	Can be Demonstrated	Admin can remove a user.

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## Membership

ID	Requirement Text	Response	Comments
MSS-003.27	Provide USER the ability to block certain information for members such as bar cards, mailings, etc...	Can be Demonstrated	Utilize docketing configuration
MSS-003.28	Provide MEMBER the ability to submit proof of MCLE compliance.	Can be Demonstrated	
MSS-003.29	Provide MEMBER the ability to submit various types of applications, each with its own requirements.	Can be Demonstrated	
MSS-003.30	Provide MEMBER the ability to calculate MCLE requirements.	Can be Demonstrated	
MSS-004	Provide ability to receive updates regarding disciplinary conditions and status changes for members	Can be Demonstrated	
MSS-004.01	Provide the ability to receive member involuntary status updates regarding disciplinary conditions from Membership Billing	Can be Demonstrated	Member, state bar court, probation office, or disciplinary board can docket items on the members admin case
MSS-004.02	Provide the ability to receive member involuntary status regarding disciplinary conditions from Office of Probation.	Can be Demonstrated	Member, state bar court, probation office, or disciplinary board can docket items on the members admin case
MSS-004.03	Provide the ability to receive member involuntary status regarding disciplinary conditions from the State Bar Court.	Can be Demonstrated	Member, state bar court, probation office, or disciplinary board can docket items on the members admin case
MSS-004.04	AUTOMATICALLY route received disciplinary conditions changes and member status changes into a queue for review and processing.	Can be Demonstrated	Submitted action can be routed to work item queues based on filing event codes
MSS-005	Provide law corporations and limited liability partnerships (LLP) with an online portal that allows them to conduct transactions and update information.	Can be Demonstrated	
MSS-005.01	AUTOMATICALLY authenticate law corporation and LLP user once login is accepted.	Can be Demonstrated	
MSS-005.02	AUTOMATICALLY determine if user is law corporation or LLP based on login.	Can be Demonstrated	Each LLE is defined as a specific admin case type (Foreing and Domestic to the State)
MSS-005.03	Provide existing Law Corporations and LLPs the ability to update their profile information online.	Can be Demonstrated	
MSS-005.04	Provide existing Law Corporations and LLPs the ability to make annual payments dues online.	Can be Demonstrated	
MSS-005.05	AUTOMATICALLY calculate and impose late fees when payments are not made by the due date.	Can be Demonstrated	
MSS-005.06	Provide law corporations and LLPs the ability to check the status of their application.	Can be Demonstrated	
MSS-005.07	Provide law corporations and LLPs the ability to initiate an application cancellation.	Can be Demonstrated	
MSS-005.08	Provide LLPs the ability to update their list of partners.	Can be Demonstrated	
MSS-005.09	Provide LLPs the ability to import a list of partners (list can be extensive)	Can be Demonstrated	(Requires Customization - to add data upload)
MSS-005.10	AUTOMATICALLY send address change information to the corresponding member's record when the user confirms the request.	Can be Demonstrated	Alternative proposed to allow self-service change of address
MSS-006	Provide Member Services with an online portal (public facing) that allows users to request information about members, and other transactions such as submitting applications, requesting certificates, etc....	Can be Demonstrated	
MSS-006.01	Provide the ability for law corporations and LLPs to submit an Application for registering as a law corporation online.	Can be Demonstrated	
MSS-006.02	Provide the ability for law corporations and LLPs to attach the necessary documentation required for registering.	Can be Demonstrated	
MSS-006.03	Provide the ability to allow law corporations and LLPs to make payments when submitting an application.	Can be Demonstrated	

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## Membership

ID	Requirement Text	Response	Comments
MSS-006.04	AUTOMATICALLY route law corporations applications to a queue for review along with all submitted artifacts.	Can be Demonstrated	
MSS-006.05	AUTOMATICALLY route LLP applications to a queue for review along with all submitted artifacts.	Can be Demonstrated	
MSS-006.06	Provide ADMIN USER the ability to define and configure all required fields for online applications.	Can be Demonstrated	
MSS-006.07	Provide ADMIN USER the ability to define required artifacts by application type.	Can be Demonstrated	
MSS-006.08	Provide ability for other State Bar departments to request member information and certified records such as Address History, Registration Card, Phone History, Supplemental Records, etc...	Can be Demonstrated	Standard CMS user access by role / ECR reporting, etc.
MSS-006.09	Provide ADMIN USER the ability to define services that can be requested from Member Services portal.	Can be Demonstrated	Standard CMS access rules exist today.
MSS-006.10	Provide ability for members to request certain types of certificates (require member authentication).	Can be Demonstrated	Requires Customization
MSS-006.11	Provide the ability for any USER to request a Certificate of Standing for any member.	Can be Demonstrated	Requires Customization
MSS-006.12	AUTOMATICALLY route Certificate of Standing requests to a queue for review and processing.	Can be Demonstrated	
MSS-006.13	AUTOMATICALLY generate Certificate of Standing once approved, based on member information submitted.	Can be Demonstrated	
MSS-006.14	Provide the ability to search for attorneys using a wide range of criteria (e.g. specialty, city, language, etc...).	Can be Demonstrated	Requires Customization - Odyssey Portal Search for parties.
MSS-007.01	Provide the ability to setup notifications and ticklers.	Requires Customization	Items marked as "Customization Required" have elements needing further investigation, but were included in the total estimated customization allowance presented in Attachment K – Cost Proposal (Optional Membership tab).
MSS-007.01	Provide ADMIN USER the ability to define and setup automatic notifications to USERS.	Requires Customization	
MSS-007.02	Provide ADMIN USER the ability to define and setup automatic notifications to MEMBERS.	Requires Customization	ALTERNATIVE OPTION: Portal messages are available to be managed by admin. Also leverage notification e-mail services
MSS-007.03	Provide USER the ability to setup tickler for events and other tasks due.	Requires Customization	
MSS-007.04	Provide USER the ability to setup their own notifications for events and other tasks due.	Requires Customization	
MSS-007.05	AUTOMATICALLY notify USER when new Member requests have been submitted (via Member Portal)	Requires Customization	
MSS-007.06	AUTOMATICALLY notify USER when new law corporation and LLP requests have been submitted (via Member Portal)	Requires Customization	
MSS-007.07	AUTOMATICALLY notify USER when requests are received via Member Services Internet page.	Requires Customization	
MSS-007.08	AUTOMATICALLY notify USER when information is received via external interfaces such as Admissions, OCTC, etc...	Requires Customization	
MSS-008	Provide the ability to conduct Audits for MCLE compliance.	Not Proposed	This is not a feature of Odyssey
MSS-008.01	Provide USER the ability to select Member record for auditing.	Not Proposed	
MSS-008.02	Provide USER the ability to record Member MCLE Compliance audit data when MEMBER is audited (such as correspondence, dates, notes, etc...)	Not Proposed	



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## Membership

ID	Requirement Text	Response	Comments
MSS-008.03	Provide USER the ability to run queries on member records to ensure MCLE compliance.	Not Proposed	
MSS-009	Provide ability to track member and Multijurisdictional Program registrants (MJP) MCLE compliance.	Not Proposed	This is not a feature of Odyssey
MSS-009.01	Provide ability to generate MCLE Compliance record for member based on predefined criteria such as group and period.	Not Proposed	
MSS-009.02	AUTOMATICALLY generate MCLE compliance record for registrant based on predefined criteria.	Not Proposed	
MSS-009.03	AUTOMATICALLY calculate member/registant MCLE requirements.	Not Proposed	
MSS-009.04	Provide MEMBER/registant the ability to record their MCLE compliance status.	Not Proposed	
MSS-009.05	Provide MEMBER/registant the ability to request modifications to their MCLE Compliance requirements.	Not Proposed	
MSS-009.06	Provide USER the ability to waive MCLE Compliance for a member, or extend the MCLE Compliance period.	Not Proposed	
MSS-009.07	Provide MEMBER/registant the ability to submit request for MCLE credits from non-approved providers.	Not Proposed	
MSS-009.08	AUTOMATICALLY route MEMBER MCLE credit request to a queue for review and approval.	Not Proposed	
MSS-009.09	Provide USER ability to approve or reject MCLE credit requests.	Not Proposed	
MSS-009.10	AUTOMATICALLY notify MEMBER/registant of MCLE credit approval or rejection.	Not Proposed	
MSS-010	Provide ability to make administrative status changes on member records	Requires Customization	Items marked as "Customization Required" have elements needing further investigation, but were included in the total estimated customization allowance presented in Attachment K – Cost Proposal (Optional Membership tab).
MSS-010.01	Provide USER the ability to suspend Member for non-payment.	Requires Customization	
MSS-010.02	Provide USER the ability to flag a member for MCLE non-compliance.	Requires Customization	Yes, as a suspension type
MSS-010.03	AUTOMATICALLY notify member of MCLE non-compliance.	Requires Customization	Need clarification (Requires Customization)
MSS-010.04	AUTOMATICALLY notify member of status.	Requires Customization	Information available on Bar Membership portal.
MSS-010.05	Provide ability to conduct mass updates to statuses based on a pre-defined set of parameters.	Requires Customization	As an ODY Job Function (Requires Customization)
MSS-011	Provide the ability to interface with Member Billing system.	Requires Configuration	
MSS-011.01	AUTOMATICALLY update Member billing records based on payments and adjustments made in Member Billing system.	Requires Configuration	Member billing is the CMS
MSS-011.02	Provide USER the ability to query Member Billing records.	Requires Configuration	Member billing is the CMS
MSS-011.03	AUTOMATICALLY notify Member Billing when payment has been received (Member Billing changes status back to Active)	Requires Configuration	Member can status change after paying annual membership fees.
MSS-012	Provide the ability to interface with other systems at the State Bar that are dependent on member data (See System Integration - Automated Interfaces Requirements)	Can be Demonstrated	Tyler has included the API toolkit to enable integration, Tyler proposes Odyssey as a unified solution for use by the State Bar eliminating the need for potential integration.
MSS-013	Provide a member landing page (replace current landing page) that complies with State Bar's look and feel, with the ability to link to existing functionality on current landing page.	Can be Demonstrated	Collaboration required

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## Membership

ID	Requirement Text	Response	Comments
MSS-014	Provide the ability to interface with MJP system to generate the MCLE compliance record.	Alternative Proposed	Tyler has included the API toolkit to enable integration. However, as reflected in MSS-009, Multijurisdictional Program registrants (MJP) MCLE compliance is not included in the scope of this project.
MSS-015	Provide the ability to maintain a list of special masters	Requires Customization	Items marked as "Customization Required" have elements needing further investigation, but were included in the total estimated customization allowance presented in Attachment K – Cost Proposal (Optional Membership tab). Special Master would be represented as an Event Code on the members admin case
MSS-015.01	Provide MEMBER the ability to apply to be a special master	Requires Customization	
MSS-015.02	Provide USER the ability to record special master information including application received and decision dates, term start and end dates, locations available and any special skills.	Requires Customization	As a field application document attached to the members case.
MSS-015.03	Provide the ability to produce a list of special masters searchable by address and county that can be posted on the State Bar's site.	Requires Customization	Need clarification - Requires Customization (Steps would be run an Odyssey ECR Report and post the results as content item on the web site)
MSS-015.04	Provide USER the ability to batch produce notification to all MEMBERS up for renewal	Requires Customization	Alternative: Leverage e-mail notification services to e-mail mass notification to member population: Notice of annual dues requirements, etc. As well as posting notices on portal landing page.
MSS-016	Provide the ability to match member records with the State Licensing Matching System (SLMS) for delinquent child support payments.	Requires Customization	Items marked as "Customization Required" have elements needing further investigation, but were included in the total estimated customization allowance presented in Attachment K – Cost Proposal (Optional Membership tab).
MSS-016.01	Provide the ability to import the list(s) from the Department of Social Services.	Requires Customization	Odyssey Integrations & ECR capabilities (Requires Customization if Tyler developed the items)
MSS-016.02	Provide the ability to AUTOMATICALLY match members with the list.	Requires Customization	Odyssey Integrations & ECR capabilities (Requires Customization if Tyler developed the items)
MSS-016.03	Provide USER the ability to batch produce letters and notification to MEMBERS who match the list.	Requires Customization	Several potential options: Odyssey Noticing, Service filing to members admin case,
MSS-016.04	Provide USER the ability to change status of MEMBERS who remain delinquent with child support payments.	Requires Customization	
MSS-017	Provide the ability to generate mass correspondence or notifications as needed for members, law corporations, limited liability partnerships, etc.	Alternative Proposed	Alternative: Leverage e-mail notification services to e-mail mass notification to member population: Notice of annual dues requirements, etc.. As well as posting notices on portal landing page.



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ID	Requirement Title	Response Code	Assumptions/Comments
SVC-001	<b>Project Management:</b> Requirements in this category outline specific management and control services associated with the implementation of the System. Meeting these requirements will help ensure that the Vendor conducts proper project planning, execution, and monitoring and controlling of project activities. Required deliverables are described below.	Agrees to Perform	
SVC-001.01	Prepare Project Management Plan: Based on the agreed-upon scope of work and other agreements in contract negotiation, the Vendor, working with State Bar project manager is required to develop a comprehensive and detailed project management plan. The project management plan should reflect best practices in project management applied to the unique needs of the project. The project management plan must include the following elements: <ul style="list-style-type: none"> <li>• Project organization, including structure, roles, responsibilities, and human resource management.</li> <li>• Project work breakdown structure and schedule, fully loaded with dependencies and resource requirements.</li> <li>• Approach to managing scope, budget, and schedule.</li> <li>• Approach to ensuring effective project communication.</li> <li>• Approach for identifying, tracking, and resolving issues and risks, including roles, responsibilities, escalation process, and tools for reporting issues and risks to the State Bar project manager.</li> <li>• Approach to configuration management for reviewing, accepting, and maintaining version control on all project deliverables.</li> </ul> The Vendor is required to submit the draft project management plan to the State Bar IT project manager 10 business days after the finalization of the project contract. Upon review and acceptance, the final project management plan will serve as the basis for controlling all project management activities.	Agrees to Perform	Tyler has included a proposed project approach and corresponding project schedule in section 8 of the main proposal document.
SVC-001.02	Provide Project Management: Under the direction of state bar Sr IT Management and IT Program management The Vendor will be responsible for the ongoing planning, monitoring, controlling, and reporting of project performance across projects within the scope of this engagement. The Vendor shall coordinate its project management efforts and reporting with the efforts of the State Bar. In addition, the Vendor will coordinate its efforts and reporting with the State Bar. All of these efforts are under the direction of the State Bar IT project manager. The Vendor will provide effective project management for all of the contracted services and product delivery. The Vendor shall provide sufficient project management services to: <ul style="list-style-type: none"> <li>• Ensure that all deliverables are produced according to contract schedule.</li> <li>• Respond to reasonable inquiries about project status and risks in a timely manner.</li> <li>• Identify issues, risks, and alternative solutions and notify the State Bar with sufficient time for the State Bar to effectively address these matters.</li> </ul>	Agrees to Perform	

ID	Requirement Title	Response Code	Assumptions/Comments
SVC-001.03	<p>Produce Written Status Report</p> <p>The Vendor will be required to deliver project status reports at a later determined frequency to the State Bar IT project manager and the project sponsor throughout the duration of the project. Project status reports are intended to be relatively brief snapshots of the project's status and should consist of the following information:</p> <ul style="list-style-type: none"> <li>• Updated project work plan, schedule, staff plan, and budget.</li> <li>• Report of project status and performance against all plans.</li> <li>• Progress against the project work plan completed in the reporting period.</li> <li>• Variance in schedule between actual and planned activities.</li> <li>• Planned activities for the subsequent reporting period.</li> <li>• Report of issues and issue resolution efforts and progress.</li> <li>• Report of risks and risk mitigation efforts and progress.</li> </ul>	Agrees to Perform	Project reporting and governance will be jointly determined and agreed upon during the project kickoff. However, Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-001.04	<p>Attend Status Meetings and Steering Committee Meetings</p> <p>In conjunction with status reports, the Vendor will be required to attend status meetings later determined frequency to be held between key project team members. Additionally, The Vendor may be required to provide a brief in-person presentation to the Steering Committee regarding the status of the project.</p>	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-002	<p><b>System Design, Configuration, and Construction:</b></p> <p>Requirements in this category include all activities necessary to develop, assemble, and otherwise prepare the proposed system for implementation. The nature of the proposed system may determine to some degree the activities necessary to complete this phase of work. However, it is anticipated that these activities will include, at a minimum:</p>	Agrees to Perform	
SVC-002.01	<p>Prepare system Design, Configuration, and Construction Plan</p> <p>The Vendor will be required to submit its plan for assembling the proposed components into a single system for deployment to the State Bar. The Vendor's plan should include the Comprehensive Case Management and Membership Services System Design that has been documented and approved for the State Bar of California. The schedule and resources required for system design, configuration, and construction should be reflected in the project management plan. This plan must include, at a minimum:</p> <ul style="list-style-type: none"> <li>• Approach to design, configuration, and configuration/construction.</li> <li>• Design, configuration, and configuration/construction schedule.</li> <li>• Resources required (State Bar Subject Matter Experts (SMEs), State Bar IT, and Vendor) for each step in configuration/construction.</li> </ul>	Agrees to Perform	Tyler will make recommendations to the optimal infrastructure design for the Odyssey solution.
SVC-002.02	<p>Conduct Requirements Gap Analysis</p> <p>The Vendor must (working with a representative group of SMEs selected by the State Bar) conduct and complete business and technical analysis to determine the gaps between the needs of the affected departments and what the Vendor's system provides. This analysis must incorporate the Vendor's response to requirements as presented in the Vendor's proposal (and modified in contract negotiations), as well as the approved system requirements and design. Major gaps that are identified must be accompanied by a plan for resolving each gap through system configuration, additional development, or additional component incorporation. This analysis must result in a detailed inventory of system customizations or other modifications required meeting the needs of the State Bar.</p>	Agrees to Perform	

ID	Requirement Title	Response Code	Assumptions/Comments
SVC-002.03	<p>Track Requirements to Implementation</p> <p>The Vendor must provide a mechanism for tracking adherence to the requirements identified in this RFP as well as additional requirements identified in gap analysis and system design activities. This mechanism must support change management and system testing, including user acceptance testing. The Vendor must populate, maintain, and provide State Bar with access on demand to this tool and the information it maintains.</p>	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-002.04	<p>Design the System</p> <p>The Vendor must provide functional and technical design documentation for the CMS along with the libraries, tools, and facilities to maintain this documentation. This documentation shall include:</p> <ul style="list-style-type: none"> <li>• Use case documentation.</li> <li>• Data dictionary.</li> <li>• Information Exchange Packet documentation.</li> <li>• Network design, inventory, protocols, and configuration.</li> <li>• Security design.</li> <li>• Hardware design, configuration, and inventory.</li> <li>• Application design and inventory.</li> <li>• Change control documentation for all aspects of the design.</li> </ul>	Agrees to Perform	Given that Odyssey, the proposed solution framework, is a Commercially-Off-The-Shelf (COTS-based) application, only applicable documentation that is provided to customers will be provided. Level of documentation will be consistent with other Odyssey customers in California.
SVC-003	<p><b>Perform System Testing:</b></p> <p>Requirements in this category will include activities necessary to assure that system is delivered into production with a minimum number of defects. Requirements will include planning, preparation and testing activities:</p>	Agrees to Perform	
SVC-003.01	<p>The Vendor must provide a detailed test plan for testing every aspect of the system in accordance with agreed upon project delivery methodology. The Vendor must also provide a test environment if Vendor is proposing a hosted solution. The test plan and environments must support the testing of all planned major and minor releases by both the Vendor and State Bar IT teams. Final overall test plan must be approved by State Bar.</p> <p>In addition, test plans and environment structure must describe and support testing of:</p> <ul style="list-style-type: none"> <li>• All functional requirements defined in the requirements traceability deliverable.</li> <li>• All performance requirements.</li> </ul>	Agrees to Perform	

ID	Requirement Title	Response Code	Assumptions/Comments
SVC-003.02	<p>Upon completion of any release, major or minor, the Vendor shall provide a workable version containing the release, for testing by the State Bar. Every release should contain all tested prior releases and should be available for the State Bar to retest as part of the testing cycle. It is expected that the following test cycles will be implemented prior to the completion of this project:</p> <ul style="list-style-type: none"> <li>• Smoke Testing: All high-level or core functionality will be tested. Smoke tests will be run with every deployment to assist in identifying significant defects.</li> <li>• Functional Testing: Detailed functional testing will be conducted to evaluate the compliance of the system or component with specified functional requirements.</li> <li>• Regression Testing: To ensure that the existing functionality is not affected by the new released features, enhancements, or prior defect corrections.</li> <li>• Performance &amp; Stress Testing: To ensure the stability, scalability, and performance of the system and its underlying architecture.</li> <li>• Security Testing: The Vendor is expected to system satisfies the State Bar's security requirements and user access controls.</li> <li>• Automated test tools supporting all prototype, release, and deployment testing.</li> <li>• Automated test scripts, test data, and other testing tools/materials.</li> <li>• Documented test results, to be provided to the State Bar IT project manager.</li> </ul> <p>This deliverable must provide the State Bar with the infrastructure, licenses, and training to efficiently test new releases and deployments of the system and its interaction with other State Bar applications. It is also expected that the Vendor will support all the agreed upon test cycles throughout the implementation process.</p>	Agrees to Perform	<p>Given that Odyssey, the proposed solution framework, is a Commercially-Off-The-Shelf (COTS-based) application, Tyler will work with the State Bar to determine the optimal release version for deployment and the appropriate level of testing prior to Go-Live. The level of testing will be consistent with other Odyssey customers in California.</p>
SVC-003.03	<p>Vendor must support testing activities performed by the State Bar IT and business SME's. Support shall include the following components:</p> <ul style="list-style-type: none"> <li>• Daily defect review meetings conducted jointly with the Vendor testing and development leads and State Bar IT team</li> <li>• Defect resolution</li> <li>• Defect tracking tool, communicating at minimum defect analysis outcomes and resolution timeline commitment. Tool shall have a reporting capability providing a concise view of all defects in all states of resolution. Tool shall be accessible by the State Bar IT team.</li> </ul>	Agrees to Perform	
SVC-003.04	<p>User Acceptance Testing</p> <p>Once the configured system is released to the UAT site, the Vendor will support the State Bar staff in conducting the User Acceptance Testing in accordance with the User Acceptance Test Plan, which will include all developed test cases/scenarios, to verify that the system operates in the manner expected, and that all configurations are suitable for intended business processes.</p>	Agrees to Perform	
SVC-004	<p><b>System Delivery:</b></p> <p>It is required that depending on the delivery approach the Vendor will provide and assist with the implementation of multiple production releases, until full functionality requested in this RFP is fully operational and with agreed upon number of remaining defects. The Vendor shall work closely with the State Bar Project Team to determine the best deployment and system implementation approach for the four departments that are included in this implementation.</p>	Agrees to Perform	

ID	Requirement Title	Response Code	Assumptions/Comments
SVC-004.01	Produce Pilot Release(s) For a Subset of Users These releases shall include and implement facilities and procedures for software promotion from construction through testing and into production (along with rollback facilities and procedures). This deliverable will include all software required for system operation. This shall include both technical and functional configurations. Depending on the delivery approach this deliverable will include one or more releases.	Agrees to Perform	Given the size of the State Bar, Tyler proposes a big-bang implementation approach for locations and case types. This approach offers the State Bar the lowest amount of risk and has proven to be the most cost effective approach for deploying Odyssey.
SVC-004.02	Produce Production Release(s) These releases shall include and implement facilities and procedures for software promotion from construction through testing and into production (along with rollback facilities and procedures). This deliverable will include all software required for system operation. This shall include both technical and functional configurations. Depending on the delivery approach this deliverable will include one or more releases.	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-004.03	Produce Hot Fix Release(s) Within 1 week of each Production Release if any critical or major defects are identified, vendor shall delivery a Hot Fix release(s) to resolve such defects. Vendor shall develop an expedited delivery cycle which will include all activities performed during the Production Release cycle.	Agrees to Perform	Tyler can only agree to the service levels included within Tyler's standard maintenance and support agreements in California.
SVC-004.04	Prepare Plan for Additional Releases It is anticipated that once the final Production Release of the system has been in operation for 3 months, modifications to the system based upon the lessons learned from initial production operations will be identified. In addition, it is anticipated that the Vendor will have updated plans for the evolution and releases of the underlying COTS application. The Vendor shall prepare a plan for the design, development, and testing of what will be the final major release of the production system. In addition, the Vendor will outline the plans for the next two versions of the System.	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-005	<b>System Implementation:</b> Services and deliverables include all of the activities necessary to configure and deploy the system assembled in the previous subsection. Services associated with this phase of work are required to be:	Agrees to Perform	

ID	Requirement Title	Response Code	Assumptions/Comments
SVC-005.01	<p>Prepare Deployment Plan The Vendor shall develop a comprehensive deployment plan that provides details on the schedule, approach, and resources necessary to deploy Production Release(s) of the System . The plan will include:</p> <ul style="list-style-type: none"> <li>• Location(s).</li> <li>• Schedule.</li> <li>• Scope and objectives of all Production Release(s) with effort estimation for each activity</li> <li>• Steps required to roll back the Production Release(s) implementation to pre-implementation operations.</li> <li>• Communication plan</li> <li>• Tasks, human resources, and other resources required for implementation, including: <ul style="list-style-type: none"> <li>o State Bar IT Staff.</li> <li>o State Bar Business Staff</li> <li>o Vendor</li> </ul> </li> </ul> <p>It must effectively factor in lead time for resource ordering, data conversion, and deployment. It must also address parallel processing procedures if appropriate. Final overall Deployment Plan must be approved by State Bar.</p>	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-005.02	<p>Assist Configuration It is anticipated that the system will be configured to meet the needs of the State Bar. The Vendor will train the designated management and technology support staff to make optimal configuration decisions and assist them in implementing and testing system configuration.</p>	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-005.03	<p>Perform Data Conversion It is expected that the Vendor will begin conversion efforts upon contract completion. The Vendor must perform an in-depth analysis of current data structures and values and develop a plan for converting data and procedures for migrating and validating data. It is anticipated that this will include three or more tests of the conversion to ensure that conversion expectations are met. After receiving State Bar approval, the Vendor must convert existing data based on the combined efforts of State Bar IT and business staff and the Vendor.</p>	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-005.04	<p>Assist Testing The Vendor will assist the management and staff in pre-production testing of the configured application and converted data. The Vendor shall work with State Bar and design a structured and repeatable testing protocol that:</p> <ul style="list-style-type: none"> <li>• Supports the implementation schedule.</li> <li>• Employs automated testing tools to minimize the staff required to fully test the implementation of the system.</li> <li>• Enables testing of parallel processes as appropriate.</li> </ul> <p>State Bar staff will lead and perform testing. The Vendor will be responsible for:</p> <ul style="list-style-type: none"> <li>• Implementation of the testing environments, data, and tools required.</li> <li>• Development of the repeatable testing protocols and scripts.</li> <li>• Component and business analysis support.</li> <li>• Troubleshooting.</li> </ul> <p>The Vendor shall resolve all defects discovered in this testing in a timely manner and prior to production operations.</p>	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.

ID	Requirement Title	Response Code	Assumptions/Comments
SVC-005.05	Support Production System Deployment The Vendor will provide on-site support of management and technology support staff for all technical activities in locations specified in the Deployment Plan.	Agrees to Perform	
SVC-006	<b>Training:</b> Implementing a new system will require specific training services for all software and its components. These services will include planning and coordination, development of training materials and tools, and delivery of training to State Bar IT, the management and staff.	Agrees to Perform	
SVC-006.01	Plan for Training The Vendor must provide a training plan that details the approach to training and how training for the users and administrators of the system will be delivered. The plan should detail how training will be tailored to specific roles within the State Bar. Training deliverables must include classroom sessions. All training materials shall be effectively cataloged, reusable, and modifiable by the State Bar.	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-006.02	Provide Predesign Training of Personnel It is anticipated that the project staff and management will need to make well-informed design decisions throughout this engagement. The Vendor will provide training on all software components to the project staff and management upon contract completion. This should include training on the technical and functional features and controls of all of the components that make up the system. This training should identify the design decisions that will be made in preparing the system for implementation.	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-006.03	Provide system User and Administrator Training The Vendor will be required to provide training on all system software components. The training approach should be tailored to the various roles within the State Bar. The training approach should: <ul style="list-style-type: none"> <li>• Account for specific roles, such as various levels of users, business administrator, technical administrator and developer</li> <li>• Focus training to develop the knowledge and skills needed to effectively use and configure (including development) new system components according to the activities of each role.</li> <li>• Assist the State Bar in managing, changing, and improving business processes using the new system.</li> <li>• Employ a train-the-trainer approach at a minimum.</li> <li>• Employ in-application help.</li> <li>• Deliver on-site training at both State Bar sites.</li> <li>• Consider the limitations of training facilities in each site.</li> </ul>	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.
SVC-006.04	Produce Training Documentation The Vendor will be required to provide training and technical documentation for all system software components. Documentation should include, but is not limited to: <ul style="list-style-type: none"> <li>• Step-by-step process instructions.</li> <li>• Standard operating procedures.</li> <li>• General system administration.</li> <li>• Technical configuration.</li> <li>• System maintenance.</li> <li>• Troubleshooting procedures</li> <li>• Technical documentation, including DataBase schema and entity relationship diagram.</li> </ul> All training documentation should be provided in electronic form	Agrees to Perform	Tyler has presented Tyler's best practices and methods in section 7 of the main proposal document, and a full proposed implementation approach in section 8.



ID	Requirement Title	Response Code	Assumptions/Comments
SVC-007	<b>System Support:</b> System support services include all of the activities necessary to maintain, efficiently update, and generally support the system in the event of technical or other issues. At a minimum, the Vendor will be expected to provide the following services:	Proposing Alternative	
SVC-007.01	<p>Version and Patch Release Management The Vendor must provide a plan and structure for managing requests for system modifications and bug fixes. This structure shall be designed to operate under the direction of the State Bar IT project manager. Any issue that requires a system-wide change must be tracked and included in either a patch for critical issues or a future release for functionality expansions or noncritical issues.</p> <p>Given the component-based nature of the system, a critical element of release management will be the methods used to ensure that a version update to a single system component does not "break" the interactions that the component has with other system components by altering data structures or processing models. Releases must be well documented, identifying the nature of the changes made, configuration issues, and changes in business processes. The Vendor must provide a plan and protocol for planning, announcing, developing, testing, and deploying releases to ensure that software updates do not interrupt critical business processes.</p>	Proposing Alternative	Tyler will follow it's proven method for release management.
SVC-007.02	<p>Backup and Recovery Procedures and Tools The Vendor must provide procedures and tools for system and data backup and recovery to support the system availability performance requirements. Backup and recovery practices and procedures must be consistent with State Bar IT standards. They should leverage State Bar IT backup and recovery facilities and procedures.</p>	Proposing Alternative	Tyler will work with the State Bar to determine an optimal infrastructure environment that optimizes Odyssey overall uptime and availability.
SVC-007.03	<p>On-Site Support The Vendor shall provide on-site technical support for activities associated with implementation of the system. This will be provided throughout the course of implementation. This support must be provided for a period of 3 months after the system is in production operation.</p>	Proposing Alternative	Tyler will provide reasonable on-site support based on proven approach and methods that have successfully deployed Odyssey across the Country.
SVC-007.04	<p>Level 1 Help Desk Support (Internal State Bar Help Desk) The Vendor must assist the State Bar in establishing a Level 1 help desk support structure and staff the help desk until such time as the State Bar IT is fully capable of operating the help desk using its own staff. This Level 1 help desk support must meet the State Bar response and problem resolution time requirements for all applications in scope. It will apply to all Vendor-provided hardware, software, infrastructure, and services. It shall provide complete, accurate, and timely information about each request for service in the State Bar IT incident tracking application.</p> <p>The Vendor shall provide documentation and training to State Bar IT help desk staff and management. This should establish full help desk capability (at the level required for long-term system maintenance) within 6 months of the successful completion of the system implementation. The Vendor shall augment State Bar IT help desk staff until the State Bar IT has realized full help desk capability and shall provide additional resources sufficient to meet the additional short-term demand resulting from the implementation of the system.</p>	Proposing Alternative	Tyler will provide the proven levels of Odyssey Help Desk support that is consistent with that of the current Odyssey customers in 25 of the 58 counties in the State of California.

ID	Requirement Title	Response Code	Assumptions/Comments
SVC-007.05	Ongoing Level 2 Support and Problem Resolution The Vendor shall provide Level 2 help desk support that meets response and problem resolution time requirements. It will apply to all Vendor-provided hardware, software, infrastructure, and services. It will be coordinated through up to three designated State Bar IT points of contact. In addition, it shall provide complete, accurate, and timely information about each request for service in the State Bar IT incident tracking application. The Vendor shall provide support by a variety of channels, including telephone, e-mail, and Web application.	Proposing Alternative	Tyler will provide the proven levels of Odyssey Help Desk support that is consistent with that of the current Odyssey customers in 25 of the 58 counties in the State of California.
SVC-008	<b>Problem resolution protocol:</b> Vendor will use criteria listed below to develop a response plan for each Severity level.	Proposing Alternative	
SVC-008.01	For a Severity Level 1 event, the Vendor: <ul style="list-style-type: none"> <li>• Responds to call for service in 30 minutes or less.</li> <li>• Reports recommended resolution and estimated fix date/time for all affected System components in 2 hours or less.</li> <li>• Resolves the deficiency within 24 hours.</li> </ul>	Proposing Alternative	Tyler will provide the proven levels of Odyssey support that is consistent with that of the current Odyssey customers in the State of California.
SVC-008.02	For a Severity Level 2 event, the Vendor: <ul style="list-style-type: none"> <li>• Responds to call for service in 30 minutes or less.</li> <li>• Reports recommended resolution and estimated fix date/time for all affected System components in 2 hours or less.</li> <li>• Resolves the deficiency within 24 hours if the affected System component is on the Vendor site.</li> <li>• Resolves the deficiency within 48 hours if the affected System component is on the State Bar site.</li> </ul>	Proposing Alternative	Tyler will provide the proven levels of Odyssey support that is consistent with that of the current Odyssey customers in the State of California.
SVC-008.03	For a Severity Level 3 event (A business function or System component does not work as required, but a work-around that is acceptable to the State Bar is available.) the Vendor: <ul style="list-style-type: none"> <li>• Responds to call for service in 30 minutes or less.</li> <li>• Reports recommended resolution and estimated fix date/time for all affected System components in 2 hours or less.</li> <li>• Resolves the deficiency within 72 hours if the affected System component is on the Vendor site.</li> <li>• Resolves the deficiency within 96 hours if the affected System component is on the State Bar site.</li> </ul>	Proposing Alternative	Tyler will provide the proven levels of Odyssey support that is consistent with that of the current Odyssey customers in the State of California.
SVC-008.04	For a Severity Level 4 event (A cosmetic deficiency is discovered that is noncritical but effects business function or a System component.) the Vendor: <ul style="list-style-type: none"> <li>• Responds to call for service in 30 minutes or less.</li> <li>• Reports recommended resolution and estimated fix date/time for all affected System components in 4 hours or less.</li> <li>• Resolves the deficiency within 10 business days.</li> </ul>	Proposing Alternative	Tyler will provide the proven levels of Odyssey support that is consistent with that of the current Odyssey customers in the State of California.

ID	Requirement Title	Response Code	Assumptions/Comments
SVC-008.05	<p>Other Software and Hardware Maintenance</p> <p>The Vendor shall provide the following support and maintenance services for the products delivered and/or licensed to the State Bar IT as a part of this engagement:</p> <ul style="list-style-type: none"> <li>• Provision of known error corrections by delivery of available patches via electronic communication and for download via the Internet.</li> <li>• Provision of available minor updates (bundling of several error corrections in one version) for download via the Internet.</li> <li>• Provision of available medium upgrades (version with additional/enhanced functions) for download via the Internet.</li> <li>• Provision of available major upgrades (version with substantially enhanced volume of functions).</li> <li>• Provision of information via electronic communication (e-mail) when new minor/medium/major updates are available.</li> <li>• Extension of hardware manufacturer and third-party software provider warranties.</li> </ul> <p>The granting of rights of use and the delivery of the relevant license files for all minor, medium, and major upgrades shall be limited to the number and type of products provided by the Vendor in this engagement.</p>	Proposing Alternative	<p>Tyler will provide the proven levels of Odyssey support that is consistent with that of the current Odyssey customers in the State of California.</p>

## Appendix E

## Database

ID	Requirement Text	Response Code	Assumptions/Comments
<b>DBA Access</b>			
DB-001	The Applications should provide the ability to access the transactional database directly for query purposes.	Currently Deployed	
DB-002	The Applications should provide the ability to export data from transactional database using system utilities.	Currently Deployed	
DB-003	The Applications should support State Bar allowed user-creation of views to support real-time analysis.	Currently Deployed	
DB-004	The Applications should support a method to easily find and use existing views into the database.	Currently Deployed	
<b>Export</b>			
DB-005	The proposed solution must support data export in a variety of common file formats, such as, CSV, tab-delimited text, SQL, XLS, DOC, which the State Bar can manipulate for reporting.	Currently Deployed	
<b>Documentation</b>			
DB-006	The Applications should provide ready access to an up to date Entity Relationship Diagram (ERD) and Data Dictionary by State Bar technical staff from the initiation of design, forward.	Currently Deployed	Technical documentation is available to State Bar technical staff as a part of the general release cycle.
DB-007	The Applications must provide tools and capability for State Bar management and technical control of schema and other database implementation as new versions of The Applications are released.	Not Proposed	Since Odyssey is released as a COTS solution, Tyler does not provide customers with control over the database schema. However, we offer customer the ability use the Integration Toolkit to extend the application if desired.
<b>DBMS Platform</b>			
DB-008	The transactional database should be a Microsoft SQL database. (Other database platforms will be considered.)	Currently Deployed	
<b>Replication</b>			
DB-009	The Applications must be capable of replicating to a Microsoft SQL database.	Currently Deployed	
DB-010	The replication between the production transactional database and the reporting / public access databases should, at a minimum, be performed on a near real-time basis. (This may be asynchronous).	Currently Deployed	
DB-011	The database implementation should be capable of journaling.	Currently Deployed	
<b>Distribution</b>			
DB-012	The Applications must allow for a distributed database environment supporting distributed production operation with peer fail over of database operations.	Currently Deployed	Odyssey supports a stateless client that allows for failover to an alternate server should any server suffer a failure.
<b>Logging</b>			
DB-013	The proposed solution must provide self-generated audit reports based on log entries.	Currently Deployed	
DB-014	The proposed solution must rotate and archives activity logs.	Currently Deployed	
DB-015	The proposed solution must support export of audit or log data to an external system for archive and analysis (syslog, SIM, etc.).	Currently Deployed	
DB-016	The proposed solution must protect audit log files from unauthorized alteration from system users and/or by the vendor support staff.	Currently Deployed	
<b>Disaster Recovery</b>			

ID	Requirement Text	Response Code	Assumptions/Comments
DB-017	The Database architecture must support the industry best practices protocols for disaster recovery, including employing an out of state, third party service provider.	Currently Deployed	The services of an out of state third part service provider are the responsibility of the State Bar and not included within the scope of this proposal.
<b>Load Balancing</b>			
DB-018	The database implementation should provide load balancing (active/active) across the replicated databases.	Currently Deployed	Odyssey can support the use of Active-active SQL cluster for high availability.

## Appendix E

## Availability

ID	Requirement Text	Response Code	Assumptions/Comments
<b>Application</b>			
AV-001	All components of the application should operate 24 hours a day, 7 days a week.	Alternative Proposed	The application has the ability to be available 24x7 with the exception of any time required to perform a major release upgrade. Minor release upgrades can be rolled across servers while an upgrade that modified the database schema can result in application down time.
AV-002	Downtime due solely to application failure must be less than 0.001% measured annually.	Alternative Proposed	Tyler recommends leveraging existing backup and recovery facilities and procedures.
AV-003	All components of the application should be fully functional within 30 minutes of a failure of a vendor provided DBMS.	Alternative Proposed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to use current capabilities.
<b>Facilities</b>			
AV-004	In the event that a local State Bar facility becomes unavailable (e.g., natural or man-made disaster), all local applications should be fully functional with complete and current data between State Bar sites within 24 hours of the provisioning of those facilities, allowing State Bar employees to resume full operations.	Alternative Proposed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to utilize current capabilities.
AV-005	In the event that the data center facility supporting the Application becomes unavailable (e.g., natural or man-made disaster), all local applications should be fully functional with complete and current data between State Bar sites within 24 hours of the provisioning of those data center facilities, allowing State Bar employees to resume full operations.	Alternative Proposed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to use current capabilities. With Tyler's proposed eRecovery the State Bar can get Odyssey business critical applications up and running within 24 hours along with the following benefits: <ul style="list-style-type: none"> <li>- Gain peace of mind with an automated off-premise data backup and recovery solution</li> <li>- Ensure your data is safe, secure and easily accessible</li> <li>- Protect against unforeseen interruptions to your business operations</li> <li>- Get Odyssey business critical applications up and running within 24 hours</li> <li>- Ensure your processes work as they should with annual disaster recovery testing</li> <li>- Experience a dedicated partnership with Tyler to provide IT support services</li> </ul>
AV-006	The application should be compatible with the industry best practices for disaster recovery, which includes ability to restore systems from backups and the reapplication of update transactions from available journal files.	Alternative Proposed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to utilize current capabilities.
<b>Notification</b>			
AV-007	The proposed solution should notify the State Bar of service outages or degradations through e-mail alerts or RSS feeds that the State Bar can integrate into its internal infrastructure monitoring tools or dashboards.	Alternative Proposed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to utilize current capabilities.
AV-008	The proposed solution should provide State Bar user and administrator viewable reporting related to the uptime and performance state of each of its included services.	Alternative Proposed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to utilize current capabilities.
<b>Hardware</b>			

ID	Requirement Text	Response Code	Assumptions/Comments
AV-009	All components of the application should be fully functional within 30 minutes of a server hardware replacement. (Please note that this requirement does not make the vendor responsible for server hardware performance, unless vendor is proposing a hosted solution. However, the Application's design and hardware component architecture should provide for this recovery of operations.)	Currently Deployed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to utilize current capabilities.
AV-010	In the event of a desktop hardware failure, all components of the application should be fully functional within 15 minutes of hardware replacement, allowing State Bar employee to resume full operations. (Please note that this requirement does not make the vendor responsible for server hardware performance. However, the application design and hardware component architecture should provide for this recovery of operations.)	Currently Deployed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to utilize current capabilities.
<b>Maintenance</b>			
AV-011	Backup should not interrupt Application operations.	Currently Deployed	
AV-012	The maintenance and upgrades should not interrupt the Application's operations for a hosted solution.	Currently Deployed	The installation management system (IMS) included in our proposed solution requires shutdown of servers and locking out of users during upgrade. IMS that control deployment and software inventories for a client has been optimized to reduce this type of down time to a minimum.

## Appendix E

## Interoperability

ID	Requirement Text	Response Code	Assumptions/Comments
<b>Event Based Interfaces</b>			
IN-001	The Application must be able to produce a transaction record as a web service whenever an update is made to the Application's database.	Currently Deployed	Included in Tyler's proposal is the Odyssey Integration Toolkit, which publishes transaction records in XML format to receiving web services, where they can be consumed by the outside agencies.
IN-002	The Application must have facilities to push events and properties to other State Bar Applications.	Currently Deployed	Included in Tyler's proposal is the Odyssey Integration Toolkit, which publishes transaction records in XML format to receiving web services, where they can be consumed by the outside agencies.
IN-003	The Application must have facilities to receive events and properties from other State Bar Applications.	Currently Deployed	Included in Tyler's proposal is the Odyssey Integration Toolkit, which publishes transaction records in XML format to receiving web services, where they can be consumed by the outside agencies.
IN-004	The Application must be able to hold interface transactions in queue if receiving State Bar Applications are unavailable.	Alternative Proposed	Specific to the scope of this project, this requirement is not applicable since Odyssey seamlessly exchanges information between OCTC and the Court. For future integrations outside the scope of this project this capability this capability is handled by the integration broker.
<b>Messaging Protocol</b>			
IN-005	Data Transmission to other State Bar Applications should utilize XML technology as the standard format of data transmission, unless otherwise specified.	Currently Deployed	
IN-006	Any interfaces between the Applications and other State Bar Applications should be implemented using standard messaging protocols.	Currently Deployed	
IN-007	The proposed solution must include a recovery and synchronization process (following the failure of the proposed system) for interfaces with external Applications.	Alternative Proposed	Specific to the scope of this project, this requirement is not applicable since Odyssey seamlessly exchanges information between OCTC and the Court. For future integrations outside the scope of this project this capability this capability is handled by the integration broker.
<b>Produce/Publish</b>			
IN-008	The Application should employ a standardized, "Publish/Subscribe", approach for Web services (i.e., a way for a Web service, or other entity, to disseminate information to a set of other Web services, without having to have prior knowledge of these other Web Services.) Examples include WS-Notification and WS-Base Notification standards 1.3.	Currently Deployed	The Odyssey Integration Toolkit can be configured to publish messages to user-defined set of web services.
<b>Publication</b>			
IN-009	The Applications should be able to provide a generic Notify based Web Service.	Currently Deployed	
IN-010	The Applications should be able to publish notifications to a Web Service.	Currently Deployed	
<b>Request / Response</b>			
IN-011	The Application must be able to produce requests and receive responses in request/response service interaction profile.	Currently Deployed	
IN-012	The Application must be able to receive requests and produce responses in request/response service interaction profile.	Currently Deployed	
<b>Standards</b>			
IN-013	System interoperability should adhere to the WS-I Basic Profile 1.2 or higher standard.	Currently Deployed	Via Tyler's proposed Integration Toolkit.
IN-014	The Application must be able to produce and to consume data files via FTP.	Alternative Proposed	Specific to the scope of this project this requirement is not applicable since Odyssey seamlessly exchanges information between OCTC and the Court. For
<b>Subscription</b>			



ID	Requirement Text	Response Code	Assumptions/Comments
IN-015	Provide for a run time mechanism or Subscription Manager where a requestor such as another State Bar Application can query other Applications and data structures.	Currently Deployed	Via Tyler's proposed Integration Toolkit.
IN-016	Provide for a run time mechanism or Subscription Manager where a requestor Application can subscribe to obtain notifications and related data from the other State Bar Applications and data structures.	Currently Deployed	Via Tyler's proposed Integration Toolkit.
IN-017	Provide for a run time mechanism or Subscription Manager where a requestor such as another Application can manipulate (change filters on) data obtained from the State Bar Applications and data structures.	Currently Deployed	Via Tyler's proposed Integration Toolkit.
<b>Topic Hierarchy</b>			
IN-018	Should provide the topic hierarchy, message schemas and other notification metadata. (ex. XML Topic Namespace documents using the WS-Topics 1.3 or higher standards.)	Alternative Proposed	Tyler proposes that this capability be handled by the integration broker.
<b>eSignature</b>			
IN-019	The Application should be able to integrate with one of the market leader eSignature platforms.	Alternative Proposed	Tyler proposes the use of inherent eSignature capabilities within Odyssey.

ID	Requirement Text	Response Code	Assumptions/Comments
<b>Server</b>			
OP-001	The application should support Windows Server 2012 R2.	Currently Deployed	
OP-002	Windows servers should be managed under VMWare ESX version 5.5 or higher.	Currently Deployed	

ID	Requirement Text	Response Code	Assumptions/Comments
<b>Network</b>			
ENV-001	The Application must efficiently operate using network core with Cisco switches with front-end connectivity between the two State Bar locations (Los Angeles and San Francisco) using Cisco routers.	Currently Deployed	
ENV-002	The Application must efficiently operate using Internet access via Cisco routers.	Currently Deployed	
ENV-003	The Application must efficiently operate using Internet access employing Checkpoint Firewall and F5 Web Application Firewall (WAF).	Currently Deployed	Additional information may be required for configuration
<b>IVR</b>			
ENV-004	The Application must efficiently operate with Cisco Unified Communications Suite (Unity IVR).	Alternative Proposed	Tyler will work with the State Bar to determine compatibility of Cisco Unified Communications Suite (Unity IVR) with Odyssey.
<b>Backup</b>			
ENV-005	The proposed solution must include a built-in data backup capability.	Currently Deployed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to utilize current capabilities.
ENV-006	The proposed solution must include utilities enabling independent State Bar backup of proposed system data as an alternative to vendor backup.	Currently Deployed	Tyler recommends leveraging existing backup and recovery facilities and procedures. However, Tyler offers optional eRecovery Services should the State Bar choose not to utilize current capabilities.
ENV-007	The proposed solution must support backup of user-specified files.	Requires Configuration	
ENV-008	The proposed solution must be available for use (e.g., inquiry and update) during backup without affecting backup integrity.	Currently Deployed	
ENV-009	The proposed solution must support unattended backup including complete audit and verification of creation of a readable and complete backup.	Currently Deployed	
<b>System Environments</b>			
ENV-010	The proposed solution must include separate environments for configuration/development, QA testing, training, staging and production in alignment with approved deployment and production support approaches.	Currently Deployed	
ENV-011	The proposed solution must include automated load testing tools.	Not Proposed	Tools designed specifically for automated load testing are not included in the scope of this project.
ENV-012	The solution must be compatible with McAfee version 8.8 and higher anti-virus software	Currently Deployed	
<b>Office Automation</b>			
ENV-013	The proposed solution must support creating and merging documents using case tracking data and Microsoft Word 2010 and higher.	Currently Deployed	
ENV-014	The proposed solution must be able to integrate with Microsoft Office suite 2010 and higher.	Alternative Proposed	Odyssey uses Word embedded within the application and can send information to excel.

ID	Requirement Text	Response Code	Assumptions/Comments
<b>Component Architecture</b>			
AR-001	All proposed applications should be based on n-tiered architectures.	Currently Deployed	
<b>Component Interaction</b>			
AR-002	The application must be able to manage printing through the Windows operating system.	Currently Deployed	
AR-003	The application must effectively operate in a network environment featuring address translation.	Currently Deployed	
AR-004	The application must effectively operate in an environment featuring load balanced web, application, and database servers.	Currently Deployed	
AR-005	The application should be compatible with the network infrastructure as described in the Environment section of this document	Currently Deployed	
AR-006	The application must effectively operate in conjunction with the State Bar current anti-virus software.	Currently Deployed	There are particular folders and directories that need to be excluded from on-access scanning to minimize the impact on application performance.
<b>Documentation</b>			
AR-007	The application must provide ready access to an up-to-date and accurate description of the enterprise (statewide) application architecture from the initiation of design, forward, including: application (including 3rd party) components, component distribution, component function, licensing, and dependencies on other components.	Alternative Proposed	Documentation is available only for the Odyssey solution.
AR-008	The application should provide ready access to an up to date and accurate description of the application network architecture from the initiation of design, forward.	Currently Deployed	
AR-009	The application should provide ready access to an up-to-date and accurate description of the enterprise (statewide) hardware architecture from the initiation of design efforts, forward.	Currently Deployed	

ID	Requirement Text	Response Code	Assumptions/Comments
<b>Initial Capacity</b>			
PF-001	Initially, the application must be able to maintain data and documents for at least 500,000 cases	Currently Deployed	
PF-002	Initially, the application must be able to maintain data and documents for at least 300,000 members	Currently Deployed	
PF-003	Initially, the application should be capable of accommodating a baseline of 300 concurrent users	Currently Deployed	
<b>Annual / Perpetual Storage Increase</b>			
PF-004	Annually, the application must, scale to maintain data and all documents of record for an additional 15,000 cases.	Currently Deployed	
PF-005	Annually, the application must, scale to maintain data and all documents of record for an additional 10,000 members	Currently Deployed	
<b>Scalability</b>			
PF-006	The application should be capable of accommodating a user base growth of up to 15%	Currently Deployed	
<b>State Bar Wide System Performance</b>			
PF-007	A user must be able to review and process 1 filing in 1 minute. This process includes receipt, review, recording on the docket, and notification of the filing. This benchmark is for a filing of 1 document in a case with a single respondent.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-008	A user should be able to find, select, and submit to print a standardized report in less than 30 seconds.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-009	A user should be able to log into the application and access its functions in 5 seconds or less.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-010	The application must be able to accept 4 filings (4 pages or less) in 1 minute.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-011	The applications should allow a user to initiate a case in less than 1 minute.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-012	Upon inquiry, a user must be able to obtain a candidate result list of high probability matches in 2 seconds.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-013	A user must be able to retrieve the document file for any case in his/her assigned case load in 3 seconds. For this benchmark, this is the time required to open the document after it is selected.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-014	A user must be able to retrieve and display a selected page of an open document in 1 second. For this benchmark, this is the time required to open the page after it is selected.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-015	A user must be able to retrieve the document file for any case of up to 100 pages in 15 seconds. For this benchmark, this is the time required to open the document after it is selected.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-016	A user must be able to retrieve and display adjacent pages of an open document in 1 second.	Currently Deployed	

ID	Requirement Text	Response Code	Assumptions/Comments
<b>State Bar Court System System Performance</b>			
PF-017	A clerk should be able to scan, index, and upload a 4 page court filing in 1 minute.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-018	A judge supported by a single clerk must be able to conduct 12 status conferences per 1 hour session including searching for future calendar dates and scheduling future events.	Currently Deployed	
PF-019	Parties to a case must be able to receive a paper copy or electronic copy of the court decisions and documents from a hearing, immediately after the hearing.	Currently Deployed	
PF-020	During a court session, a judge must be able to retrieve and display a selected page of an open document in 1 second. For this benchmark, this is the time required to open the page after it is selected.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-021	During a court session, a judge must be able to retrieve the document file for a case (scheduled to be heard in that session) in 3 seconds. For this benchmark, this is the time required to open the document after it is selected.	Currently Deployed	Tyler has included a judge-specific solution (Session Works Judge Edition) in our proposal that is specifically designed for fast electronic consumption of case files for Judges in a court session.
PF-022	During a court session, a judge or clerk must be able to identify an available date, time, and location for a new court event within 1 second. For this benchmark, the application must show available time slots for the date specified by the judge (e.g., When the user invokes a search for available time slots for a specific judge and date, the application responds with available time slots within 1 second).	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.
PF-023	During a court session, a judge or clerk must be able to schedule a court event for a selected date, time, and location within 10 seconds. For this benchmark, the clerk or judge must be able to select an available time slot (conformant to time standards by case type), schedule an event, schedule the case parties who must attend this event, and send notifications to these parties.	Currently Deployed	Performance is contingent on the hardware, software, network and business processes implemented by the organization.

ID	Requirement Text	Response Code	Assumptions/Comments
<b>Browser-based</b>			
CL-001	Application functionality must be provided by a browser-based user interface.	Currently Deployed	
CL-002	Browser-enabled interfaces must support Internet Explorer 11 and higher.	Currently Deployed	
CL-003	Public facing portals must support all commonly used browsers, such as Google Chrome, Mozilla Firefox, etc.	Currently Deployed	Odyssey's Portal (public access) solutions support Internet Explorer and several other major browsers including Firefox, Safari, and Chrome since they use HTML5.
<b>Screen Based Redaction</b>			
CL-004	The proposed solution must support redaction of the data that can be presented on a screen (including specified fields or entries) to protect confidential information, such as confidential matters related to the respondent.	Currently Deployed	Manual redaction is supported as a part of our DMS solution. The presentation of the protected fields is controlled through rights and roles.
<b>Accessibility</b>			
CL-005	The proposed solution should comply with current webs accessibility standards and guidelines. <i>See ATTACHMENT I for itemized requirements.</i>	Currently Deployed	Please refer to our response in Attachment I.
CL-006	All users, regardless of disability, should be able to access and use the application. <i>See ATTACHMENT I for itemized requirements.</i>	Currently Deployed	Please refer to our response in Attachment I.

ID	Requirement Text	Response Code	Assumptions/Comments
<b>Authentication (Application Users)</b>			
SEC-001	The applications must provide a single sign on authentication against the State Bar's Active Directory (AD). If this is not possible the systems user directory must be able to synchronize objects with the central directory and the application providers must work with State Bar IT staff.	Currently Deployed	
SEC-002	Application must have single sign on capabilities	Currently Deployed	
<b>Authentication (Portal Users)</b>			
SEC-003	The systems user directory must be able to synchronize objects with the existing central directory and should provide a single sign on to other portal features.	Alternative Proposed	As reflected in Attachment B, utilization of Active Directory and single sign-on is supported for the core Odyssey application. The Portal currently does not take advantage of all the single sign on features but will in a future release of Odyssey.
SEC-004	Authentication should be available even if the system host is unavailable.	Not Proposed	A connection to the host is required to authenticate the user.
SEC-005	The proposed solution must be capable of using SAML assertions for inter-tier authentication.	Alternative Proposed	
<b>Authorization</b>			
SEC-006	The Application should support role based access.	Currently Deployed	



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# Attachment I: Accessibility Standards Compliance Matrix

## Appendix E

Vendor Name: **Tyler Technologies**

In order for individuals with disabilities to have equally effective access to the products must be designed in compliance with accessible design standards. For this reason, the State Bar has chosen to require products that comply with the WCAG 2.0, Level AA accessibility guidelines, chosen because the W3C is a long-standing, international collaborative with extensive expertise in the development of design protocols for the World Wide Web. When completed, the revised Section 508 standards of the Rehabilitation Act will be primarily based upon WCAG 2.0, level AA.

*Vendors interested in selling products to the State Bar must complete the checklist below, based on the WCAG 2.0 Guidelines. Please select compliance in yellow input field from menu and additional information/comments as prompted.*

Content must be **Perceivable, Operable, Understandable, and Robust** for all users:

Content must be Perceivable, Operable, Understandable, and Robust for all users:		Level	Software Supports Guideline?	Exception Detail / Comments	Future Support	
Guidelines for “Perceivable” Content		Perceivable - Information and user interface components must be presentable to users in ways they can perceive, including ability to provide text alternatives for non-text content, provide captions and other alternatives for multimedia, create content that can be presented in different ways, including by assistive technologies, without losing meaning and make it easier for users to see and hear content.				
1.1.1	Text Alternatives: Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language. (Text Alternatives)	A	supports	Odyssey's design does not prohibit the use of third party tools designed to facilitate accessibility requirements.		
1.2.1	An alternative for time-based, pre-recorded audio and/or pre-recorded video is provided that presents equivalent information. (Time-based Media)	A	guideline not applicable			
1.2.2	Synchronized captions are provided in pre-recorded audio, except when a text version of the media is available. (Time-based Media)	A	guideline not applicable			
1.2.3	Synchronized audio descriptions or a media alternative are provided for pre-recorded, time-based video. (Time-based Media)	A	guideline not applicable			
1.2.4	Synchronized captions are provided for all live audio content. (Time-based Media)	AA	guideline not applicable			
1.2.5	Synchronized audio descriptions are provided for all prerecorded video (Time-based Media)	AA	guideline not applicable			
1.3.1	Info and Relationships: Information, structure, and relationships that are conveyed through presentation can be interpreted by technology and communicated to different types of users, or are available in text. (Adaptable)	A	supports			
1.3.2	Meaningful Sequence: When the sequence in which content is presented affects its meaning, a correct reading sequence can be interpreted by technology and communicated to different types of users. (Adaptable)	A	guideline not applicable			
1.3.3	Sensory Characteristics: Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound. (Adaptable)	A	supports			
1.4.1	Use of Color: Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element. (Distinguishable)	A	supports			
1.4.2	Audio Control: If any audio on a Web page plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a <a href="#">mechanism</a> is available to control audio volume independently from the overall system volume level. (Distinguishable)	A	guideline not applicable			
1.4.3	Contrast (Minimum): The visual presentation of text and images of text has a contrast ratio of at least 4.5:1; <a href="#">see guidelines for exceptions</a> ; (Distinguishable)	AA				
1.4.4	Resize text: Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality.	AA	supports			
1.4.5	Images of Text: If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text; <a href="#">see guidelines for exceptions</a> ; (Distinguishable)	AA	guideline not applicable			
Guidelines for “Operable” Content		Operable - User interface components and navigation must be operable, including ability to make all functionality available from a keyboard, give users enough time to read and use content, not use content that causes seizures and help users navigate and find content.				
2.1.1	Keyboard: All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints. (Keyboard Accessible)	A	supports w/exceptions	Odyssey can be navigated and used almost entirely by using the keyboard.		
2.1.2	No Keyboard Trap: If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a <a href="#">keyboard interface</a> , and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away. (Keyboard Accessible)	A	guideline not applicable			
2.2.1	Timing Adjustable: For each time limit that is set by the content, at least one of the following is true--select any/all that apply: (Enough Time)	A				
	Turn off: The user is allowed to turn off the time limit before encountering it; <b>or</b>		guideline not applicable			

## Appendix E

	Adjust: The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; <b>or</b>		guideline not applicable			
	Extend: The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the user is allowed to extend the time limit at least ten times; <b>or</b>		guideline not applicable			
	Real-time Exception: The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; <b>or</b>		guideline not applicable			
	Essential Exception: The time limit is <b>essential</b> and extending it would invalidate the activity; <b>or</b>		guideline not applicable			
	20 Hour Exception: The time limit is longer than 20 hours.		guideline not applicable			
2.2.2	Pause, Stop, Hide: For moving, <b>blinking</b> , scrolling, or auto-updating information, all of the following are true: (Enough Time)	A				
	Moving, blinking, scrolling: For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; <b>and</b>		supports	There are particular icons within the application that do blink by default, however the system can be configured so that these icons do not blink.		
	Auto-updating: For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control the frequency of the update unless the auto-updating is part of an activity where it is essential.		supports	Auto-updating functions within the application occur on startup and not presented with other content.		
2.3.1	Three Flashes or Below Threshold: Web pages do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds. (Seizures)	A	supports	Please see comment in 2.2.2		
2.4.1	Bypass Blocks: A mechanism is available to bypass blocks of content that are repeated on multiple Web pages. (Navigable)	A	guideline not applicable			
2.4.2	Page Titled: <b>Web pages</b> have titles that describe topic or purpose. (Navigable)	A	supports			
2.4.3	Focus Order: If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability. (Navigable)	A	guideline not applicable			
2.4.4	Link Purpose (In Context): The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context, except where the purpose of the link would be ambiguous to users in general. (Navigable)	A	supports			
2.4.5	Multiple Ways: More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the result of, or a step in, a process. (Navigable)	AA	guideline not applicable			
2.4.6	Headings and Labels: Headings and <b>labels</b> describe topic or purpose. (Navigable)	AA	supports			
2.4.7	Focus Visible: Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible. (Navigable)	AA	supports			
<b>Guidelines for “Understandable” Content</b>		<b>Understandable</b> - Information and the operation of user interface must be understandable, including ability to make text readable and understandable, make content appear and operate in predictable ways and help users avoid and correct mistakes.				
3.1.1	Language of Page: The default human language of each Web page can be programmatically determined. (Readable)	A	supports	Odyssey is only available in English.		
3.1.2	Language of Parts: The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text. (Readable – Level AA)	AA	supports			
3.2.1	On Focus: When any component receives focus, it does not initiate a <b>change of context</b> . (Predictable)	A	supports			
3.2.2	On Input: Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component. (Predictable)	A	supports			
3.2.3	Consistent Navigation: Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user. (Predictable)	AA	supports			
3.2.4	Consistent Identification: Components that have the same functionality within a set of Web pages are identified consistently. (Predictable)	AA	supports			
3.3.1	Error Identification: If an <b>input error</b> is automatically detected, the item that is in error is identified and the error is described to the user in text. (Input Assistance)	A	supports			
3.3.2	Labels or Instructions: <b>Labels</b> or instructions are provided when content requires user input. (Input Assistance)	A	supports			
3.3.3	Error Suggestion: If an <b>input error</b> is automatically detected and suggestions for correction are known, then the suggestions are provided to the user, unless it would jeopardize the security or purpose of the content. (Input Assistance)	AA	supports	Upon save attempt Odyssey would inform the user of the error.		

Attachment I: Accessibility Standards Compliance Matrix

Appendix E

3.3.4	Error Prevention (Legal, Financial, Data): For Web pages that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true--select any/all that apply: (Input Assistance)	AA				
	Reversible: Submissions are reversible; <b>or</b>		supports w/exceptions	Not all transactions are reversible within Odyssey. Financial transactions would need		
	Checked: Data entered by the user is checked for <u>input errors</u> and the user is provided an opportunity to correct them; <b>or</b>		supports			
	Confirmed: A <u>mechanism</u> is available for reviewing, confirming, and correcting information before finalizing the submission.		supports			
<b>Guidelines for “Robust” Content</b>		<b>Robust</b> - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies and ability to maximize compatibility with current and future user tools.				
4.1.1	Parsing: In content implemented using markup languages, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features. (Compatible)	A	guideline not applicable			
4.1.2	Name, Role, Value: For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies. (Compatible)	A	guideline not applicable			

REFERENCES

[WCAG 2.0](#)  
[Section 508 Standards](#)  
[Texas Health & Human Services: HHS EIR Accessibility Procedures](#)  
[World Wide Web Consortium](#)

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## 8.0 Project Work Schedule

*A description of the chronology for completing the work, including a time line and deadlines for each task.*

Tyler is fortunate to be able to leverage experiences and best practices learned while deploying case management solutions with other client implementations throughout the nation. The methodology used to create the project timeline and implementation approach has been modeled after these successful deployments so that the State Bar can benefit from this approach.

Tyler has established a draft project work plan for the California State Bar Court CMS implementation that balances time to go-live and overall project risk. We are proud to be able to claim a 100% successful implementation rate as we have never failed to complete a project once a contract has been finalized. This section defines our tools, techniques, and approach outlined in the proposed project timeline.

Tyler believes the keys to implementing a successful case management/case maintenance solution are the cultivation of a strong partnership and a solid deployment plan. Using proven methods for the project deployment mitigates risk and provides predictable results for the State Bar, Tyler and all parties associated with the project.

### Introduction

This implementation approach presents the phases, tasks, and activities that Tyler would execute to implement the Odyssey case management solution for State Bar's departments: Office of Chief Trial Counsel (OCTC), State Bar Court (Court), and the optional Probation Department and Membership Records (MRS).

The primary focus of the project Tyler is proposing is to assist the State Bar with transitioning away from the State Bar's legacy system and to consolidate the departments onto a consolidated system platform. Tyler's Odyssey Case Management System (CMS) solution and implementation approach will yield significant efficiencies for each State Bar office, modernize the underlining technology platform of the systems used, and reduce overall costs and effort needed for maintaining and supporting the system.

A successful Odyssey case management system implementation project is dependent on many factors: setting up a strong governance structure; time, budget and scope management; designing a solution that meets the core business needs of the State Bar; and planning the implementation for success.

The project will implement Odyssey for the State Bar departments using a proven approach that has been successful in hundreds of customers across the nation. The project will consist of seven major phases, with each phase consisting of tasks and deliverables. The major phases are:

- Phase 1: Project Initiation and Planning
- Phase 2: Solution Design and Development

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- Phase 3: Data Conversion
- Phase 4: OCTC Odyssey Deployment
- Phase 5: Court Odyssey Deployment
- Phase 6: (OPTIONAL) Probation and MRS Odyssey Deployment
- Phase 7: Project Conclusion

Summaries of each of the major phases are described below:

**Phase 1: Project Initiation and Planning** involves project initiation, infrastructure planning, and the business process review. This phase feeds many of the subsequent activities in the project: configuration, application refinements, infrastructure, etc. It also facilitates verifying that the sequencing, timing, and scope for the project are correct and sets the common ground of project expectations and objectives.

**Phase 2: Solution Design and Development** is focused on validation that the infrastructure is properly prepared, and placeholder project tasks for addressing any mission critical application and integration developments for the overall solution (as needed). The phase will establish the detailed specifications and development of application refinements identified in Phase 1; development and testing of customizations identified in Phase 1; and establishing the technical infrastructure and application installation processes to meet the State Bar's specific needs; and iterative refinement and testing of business processes and procedures. The phase also involves conducting training on the Odyssey Integration Toolkit via a workshop for those technical resources that the State Bar designates.

**Phase 3: Data Conversion** involves conducting multiple iterations of an automated data conversion. The purpose of this phase is to transition the State Bar's relevant case, party, and membership data from the State Bar legacy systems to Odyssey. This task will save the State Bar time and effort during the go-live and transition process and will enable the State Bar to initiate planning for deprecating legacy systems as deemed necessary.

**Phase 4: OCTC Odyssey Deployment** will complete the deployment of the Odyssey case management solution for the Office of Chief Trial Counsel (OCTC). This phase includes activities for configuration of the application, testing, and cutover efforts (Go-Live activities). The Go-Live activities of this phase would be coordinated with the corresponding Go-Live activities in Phase 5 and Phase 6 (as necessary).

**Phase 5: Court Odyssey Deployment** will complete the deployment of the Odyssey case management solution for the State Bar Court (Court). This phase includes activities for configuration of the application, testing, and cutover efforts (Go-Live activities). The Go-Live activities of this phase would be coordinated with the corresponding Go-Live activities in Phase 4 and Phase 6 (as necessary).

**Phase 6: (OPTIONAL) Probation and MRS Odyssey Deployment** will complete the deployment of the Odyssey case management solution for the State Bar's Probation Department and Membership Records (MRS). This phase will only be completed should the State Bar determine to include the Probation Department and Membership Records in the scope of the project. If included, the phase would include activities for configuration of the application, testing, and

cutover efforts (Go-Live activities). The Go-Live activities of this phase would be coordinated with the corresponding Go-Live activities in Phase 4 and Phase 5.

**Phase 7: Project Conclusion** will include the steps to formally complete and close out the project, including efforts to finalize any remaining documentation and knowledge transfer to the State Bar.

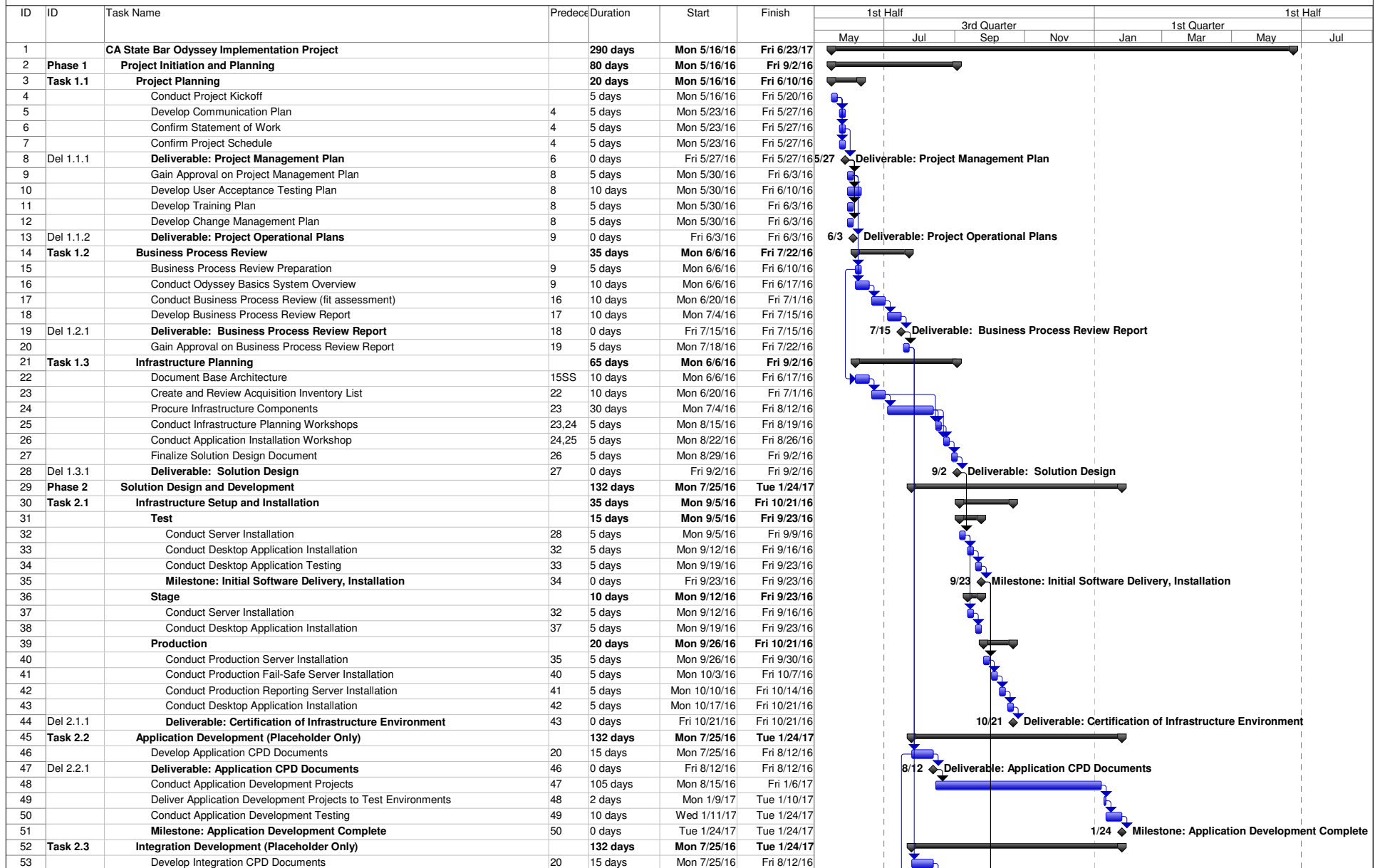
The project schedule (Gantt chart) is presented in Exhibit A after this page. The Exhibit describes the chronology for completing the work proposed in this section, and includes estimated timeline and deadlines for each task. The project schedule and corresponding project work plan would be refined during the project kickoff with the State Bar and maintained throughout the project. The total project duration is scheduled for approximately 12 months from project initiation through the Go-Live event, assuming that only minimal customization is determined to be in scope of the project.



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## Appendix E

The State Bar of California  
Odyssey Case Management System Implementation  
Draft Project Schedule

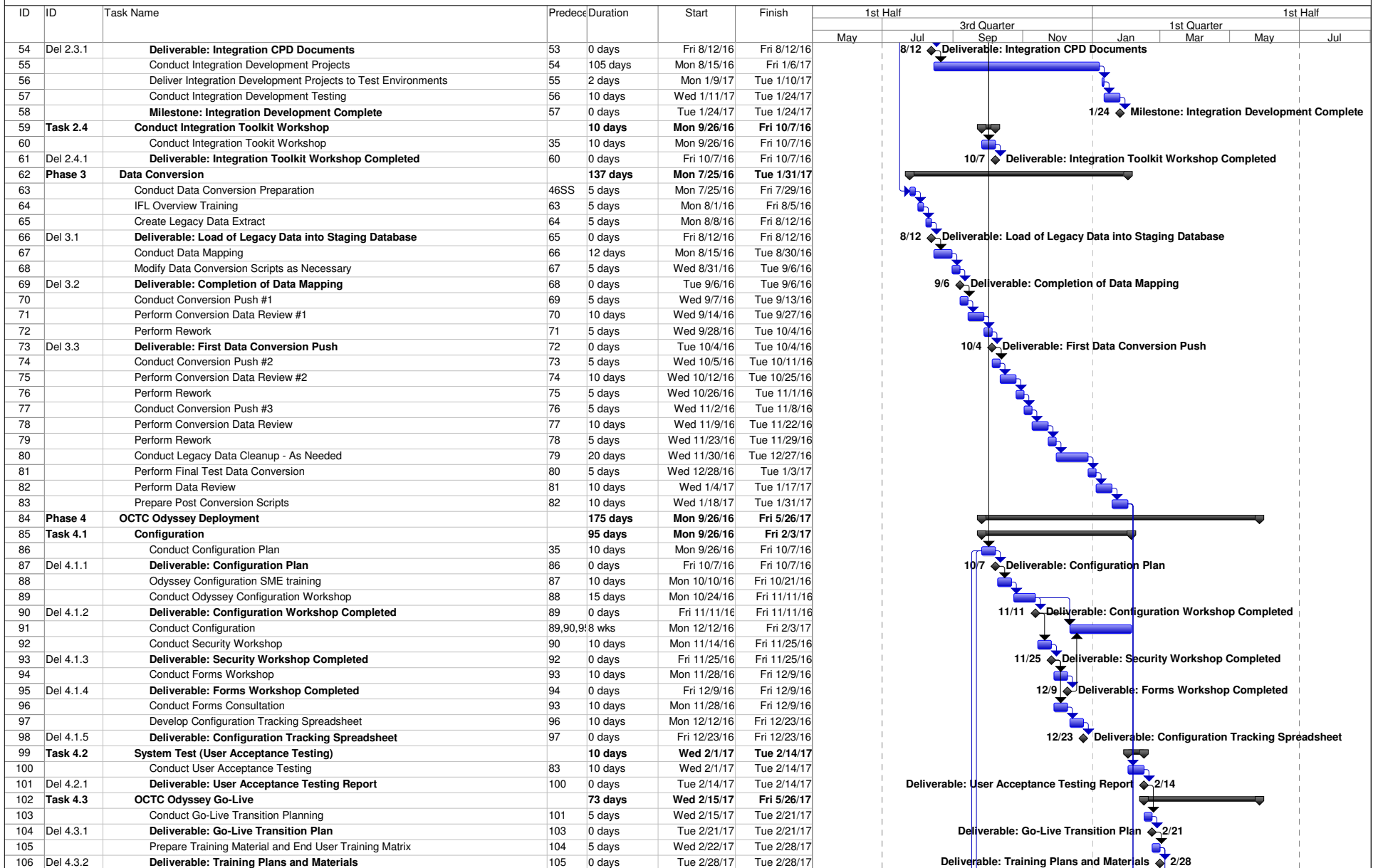


January 29, 2016

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Progress	
Split		External Tasks		Inactive Summary		Manual Summary		Deadline	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

## Appendix E

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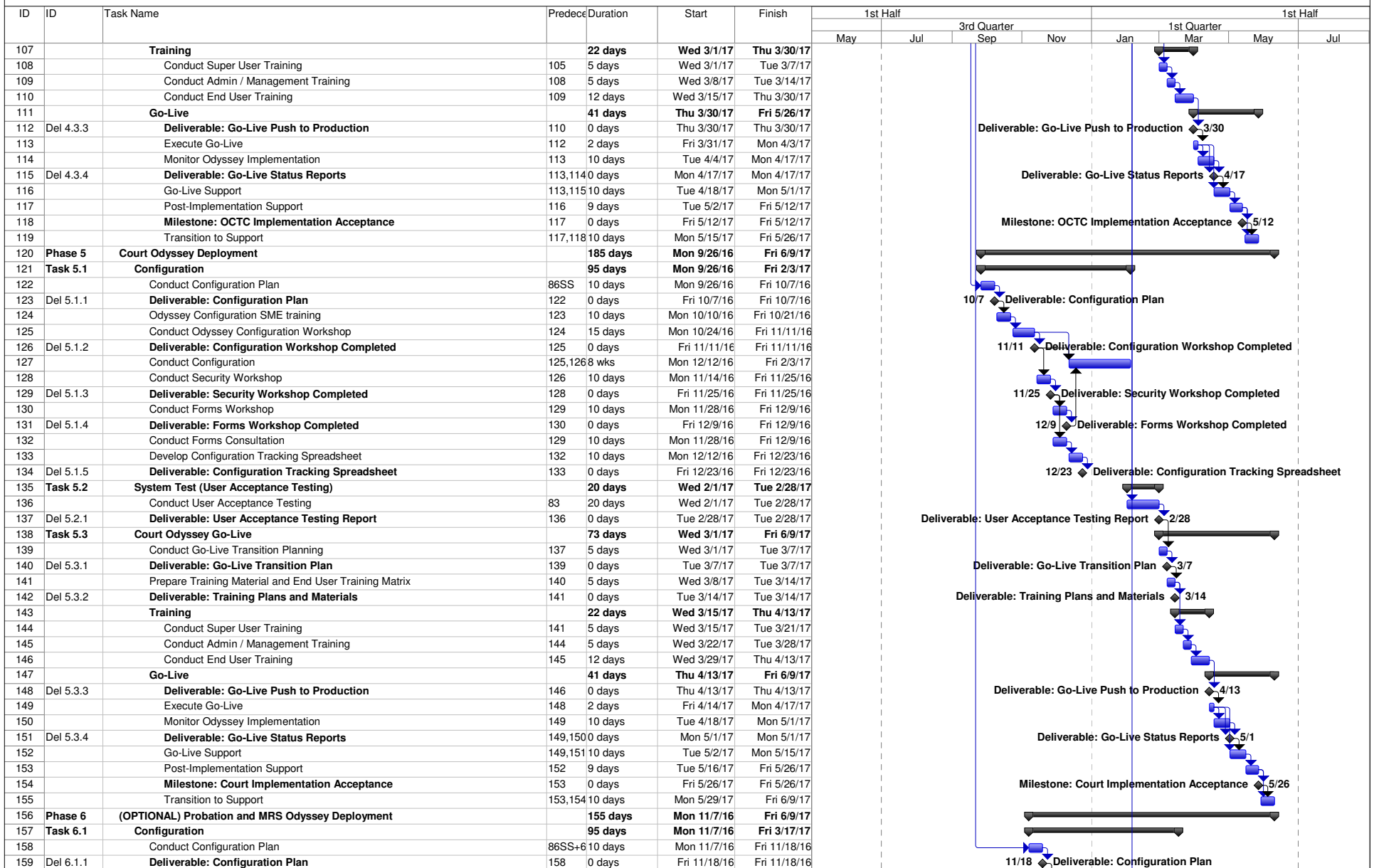


January 29, 2016

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Progress	
Split		External Tasks		Inactive Summary		Manual Summary		Deadline	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

## Appendix E

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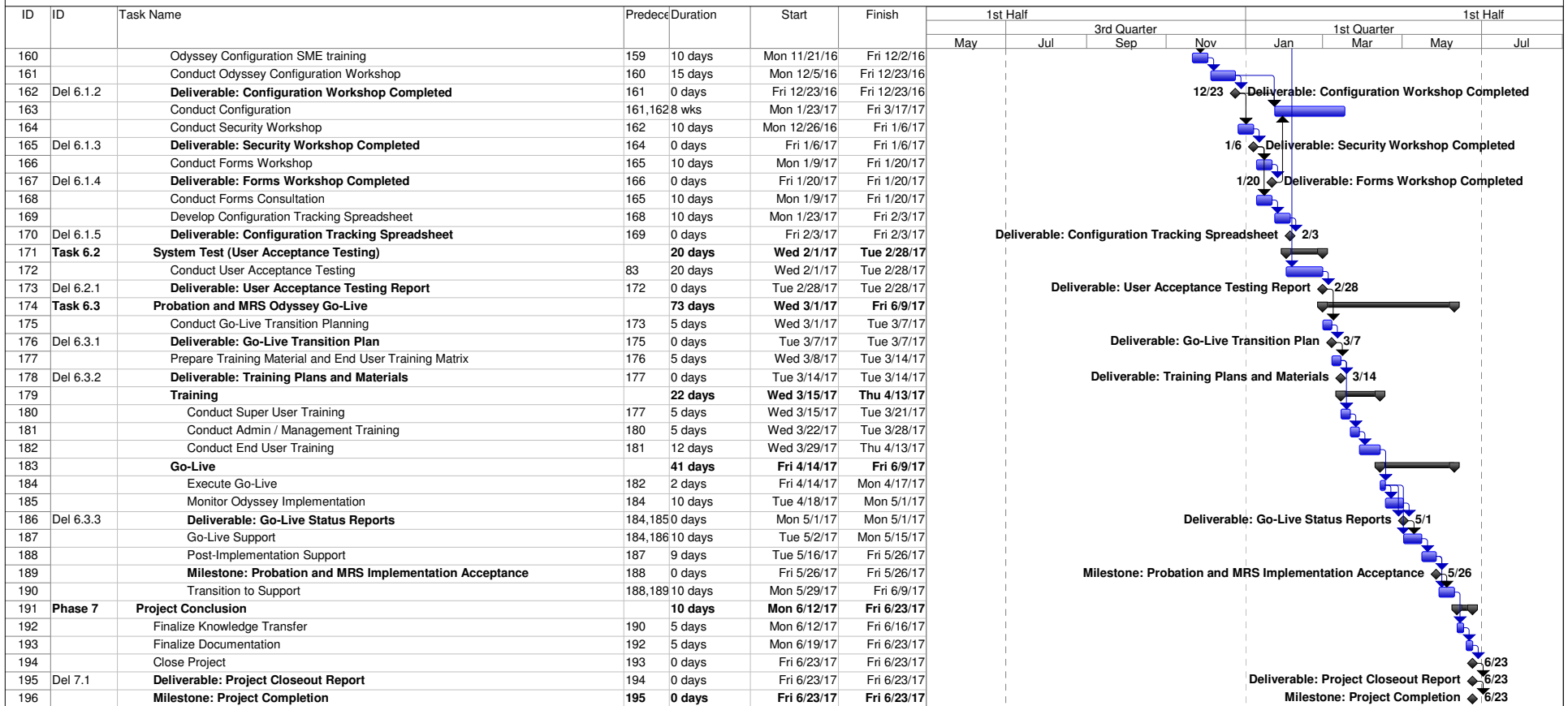


January 29, 2016

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Progress	
Split		External Tasks		Inactive Summary		Manual Summary		Deadline	
Milestone		External Milestone		Manual Task		Start-only			
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## Appendix E

The State Bar of California  
Odyssey Case Management System Implementation  
Draft Project Schedule



January 29, 2016

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Progress	
Split		External Tasks		Inactive Summary		Manual Summary		Deadline	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

## Governance

Tyler's implementation approach has evolved over hundreds of Odyssey implementations, weeding out unnecessary activities, and focused solely on activities that matter to the success of the project. Establishing the correct governance structure is one of the key project activities.

In every Odyssey implementation, governance is extremely important for ensuring that the project is on schedule and on budget. For the State Bar's project, Tyler proposes that there be a designated governance structure that assists with organizing decision-making for group as a whole. The project will involve several groups of participants. These groups are defined in the following table:

Group	Composition
<b>State Bar Executive Team</b>	This group consists of the executive leadership of the State Bar to include, but not be limited to the State Bar COO, State Bar CIO, Court Administrator, and OCTC, MRS, and Probation Department heads.
<b>State Bar Project Manager</b>	This individual will serve as the primary and central point of contact that will work closely with the Tyler Project Manager. This individual will represent the interests of the State Bar participating departments. Further information on the responsibilities of this individual is provided below.
<b>State Bar Project Team</b>	This group consists of the State Bar's project leads, subject matter experts, and other core project staff from each of the participating departments.
<b>State Bar IT Team</b>	This group consists of IT resources of the State Bar such as database administrators, system administrators, network engineers, application managers, and other key relevant technical personnel.
<b>External Stakeholders</b>	This group includes all external parties to the project including other departments within the State Bar that are not in scope of this case management system replacement project.
<b>Project Management Office (PMO)</b>	The PMO is a joint group consisting of the project managers and project leads from both Tyler, and the State Bar.

It should be noted that the final project governance structures and mechanisms will be finalized during Phase 1 of the project.

#### Decision-Making and Deliverable Approvals

As with other Odyssey implementations, the Project will involve many decisions to be made throughout the project. The decisions will vary from strategic-level decisions to smaller, detailed project level decisions. It is critical to the success of the project that State Bar designate specific individuals for making decisions on behalf of their department, or “project leads”.

Additionally, Tyler strongly recommends that the State Bar select a single individual as an acting project manager. This individual will represent the interests of State Bar’s participating departments, and serve as the primary contact to work directly with the Tyler Project Manager. The responsibilities of this individual include, but are not limited to, the following activities:

1. Coordinate the participation of State Bar departments’ representatives in all project activities, such as training, business process review, and workshops.
2. Coordinate the review of project deliverables and collecting feedback from the State Bar.
3. Coordinate approval of project deliverables.
4. Together with Tyler’s Project Manager, work towards keeping the project on schedule and on budget.
5. Communicate project status to the State Bar Executive Team.

The coordination of gaining State Bar feedback and approval on project deliverables will be critical to the success of this project. The State Bar Project Manager will strive to gain deliverable and decision approvals from all authorized State Bar representatives within 5 business days. Given that the designated decision-maker for each of the State Bar departments may not always be available throughout the project’s duration, Tyler further recommends that there be a designated backup proxy authorization for each decision point in the project. Assignment of each proxy will be the responsibility of the leadership from each State Bar department. The proxies will be named individuals that have the authorization to make decisions on behalf of their department.

#### Project Approach

Throughout the project, Tyler will leverage our extensive experience in similar projects, thereby allowing the State Bar to focus on any strategic issues that need to be addressed and strategic decisions that need to be made. The aforementioned project phases involve a series of distinct tasks and deliverables for configuring and deploying the Odyssey solution. The phases and associated tasks that would be performed in this project are detailed below.

##### Phase 1: Project Initiation and Planning

This phase involves Pre-Implementation Planning and the Business Process Review and facilitates verifying that the sequencing, timing, and scope for the project are correct. The specific tasks of this phase are described below.

**Task 1.1 – Project Planning**

Tyler will work with the State Bar to coordinate and plan a formal project kickoff meeting. This meeting signifies the start of the project and should be attended by representatives from each of the State Bar departments. Together during the meeting, the team will review the project organization, project governance, project tracking and reporting tools, implementation lifecycle, and product development lifecycle.

Additionally, Tyler will introduce its implementation methodologies, terminology, and best practices to the State Bar Project Team. This task will also present an opportunity for project managers and project sponsors to discuss the type of metrics and status reporting to be used to measure project progress and manage change. The attendees will leave the kickoff with an understanding of the project activities and their respective roles within each of the activities.

Tyler will work together with the State Bar Project Team to prepare and deliver the most important project planning components required for delivery. The activities will include creation and confirmation of the following project documents:

- User Acceptance Testing Plan
- Training Plan
- Change Management Plan

The purpose of creating these plans early in the project is to establish the basic structure of each of these plans based on previous experience and known best practices. Each of these plans will continue to evolve and grow as the project progresses and additional details of the project emerge.

**Assumptions**

- The project kickoff will be conducted at single, central, location.
- The State Bar Project Team will provide a meeting room sufficient to conduct a project kickoff meeting.

**State Bar Involvement**

- State Bar Executive Team and Project Team will attend the project kickoff.
- State Bar Executive Team and Project Team will provide input and feedback into the Project Management Plan Deliverable.
- State Bar Project Team will provide feedback and input on the Project Operational Plan deliverable.



## Deliverables

Deliverable	Description
<b>1.1.1 Project Management Plan</b>	<p>This deliverable sets the foundation for the project by providing executive-level descriptions of the project vision, scope, methods of communication, and projected schedule. This document will be maintained throughout the duration of the project and kept up-to-date as changes to the project are decided upon. The deliverable's intent is to be a working document used to help manage, track, and assign project tasks and progress. This deliverable includes four components listed below:</p> <ol style="list-style-type: none"> <li>1. <b>Project Charter.</b> This section of the deliverable authorizes the work of the project to begin and gives the Project Management Office the authority to manage the project. This document will include a description of the intent of the project and expected results for the project.</li> <li>2. <b>Communication Plan.</b> This section of the deliverable details the flow of communication within the project. The deliverable includes communication between Tyler and State Bar resources, as well as those who need to be informed and in what situations.</li> <li>3. <b>Statement of Work (SOW).</b> The statement of work will be incorporated into the Project Management Plan.</li> <li>4. <b>Project Schedule.</b> This section of the deliverable refines the proposed project plan, schedule, and organization; includes the identification of specific core and extended project team members from both Tyler and the State Bar.</li> </ol>
<b>1.1.2 Project Operational Plans</b>	<p>The project operational plan is a combination of a number of smaller project operational plans combined together under a single document. The three major components of the project operational plan are defined below:</p> <ol style="list-style-type: none"> <li>1. <b>User Acceptance Testing Plan.</b> This document outlines the approach, plans, and resources necessary to conduct UAT.</li> <li>2. <b>Training Plan.</b> This document outlines the basic training approach, components, and curriculums. Assignment of end users to courses and curriculums will occur as the users are organized into roles and specific training needs are identified.</li> <li>3. <b>Change Management Plan.</b> This plan outlines the</li> </ol>

	approach and activities that the combined project team will execute to proactively manage the level of organizational change.
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### *Task 1.2 – Business Process Review*

Odyssey is a mature, robust application, and is the most widely implemented case management system in the country. Substantial development and industry knowledge has been invested in making Odyssey the premier case management solution in the nation.

In line with our experience, one of the initial tasks of any Odyssey implementations is a Business Process review. The purpose of this task is to perform a high level walk through of the business unit needs of the State Bar and how those needs can be met with Odyssey via configuration and business process improvements.

There are two activities that the State Bar Project Team will be involved with prior to the business process review actually beginning:

- **Conduct Odyssey Basics Overview** – Prior to the business process review, Tyler will conduct an Odyssey Basics overview class for the business process review participants. The Odyssey Basics overview is a high-level training class that provides the participants with a basic understanding of the entire Odyssey solution.
- **Gather and Prepare Use Case Scenarios** – Tyler will ask the State Bar Project Team to gather and prepare use case scenarios that are good representations of the State Bar’s major business process scenarios. Tyler will work with the State Bar Project Team to arrange these scenarios into a schedule for the business process review.

As part of the business process review, the project teams will examine any currently required external system integrations with other State Bar systems. This activity will involve the representative(s) from each State Bar department as appropriate. Tyler will seek to understand key information about each existing integration to make a joint determination on the best method for meeting each of the State Bar’s integration requirements. The result of this activity is basic determination for how each integration point will be satisfied (system interface developed, report generated, inquiry access provided, etc.)

In parallel to the activities listed above, the PMO will work to schedule the business process review sessions. The business process review is a series of sessions with specific functional areas being covered at each session.

During the sessions, Tyler will conduct a walkthrough of the State Bar’s prepared use case scenarios within Odyssey. The State Bar Project Team will jointly review the solution within Odyssey in relation to the State Bar’s business needs. As a product of this review, Tyler will prepare a document noting all recommended process changes, as well as any items that will need the Tyler Development team to address.

The outcome of each identified item could have one of three actions:

1. Implementing a change to the existing business practice to accomplish the same objective, without a modification to the software.
2. Identifying a solution that can be accomplished through Odyssey configuration.
3. Identifying a modification (customization) to Odyssey to satisfy the requirement. Such a modification will have a separate scope and estimate defined and incorporated into the project's SOW.

The business process results will be reviewed with State Bar Executive Team and State Bar Project Team, with actions decided for each of the identified business needs. Results are also prioritized as to when each item needs to be delivered; prior to the initial go-live or after. As a proven approach for success, Tyler encourages all of our clients to only authorize those modifications absolutely necessary for day-one operations (for e.g., modifications to satisfy state law, local State Bar rules, etc.).

#### Assumptions

- The business process review will involve key representatives from all participating State Bar departments.
- The Odyssey basics training will be conducted onsite at a single, centralized, location that can accommodate the State Bar's designated participants.
- For each State Bar department, the business process review will be conducted at a single, centralized, location that can accommodate participants from the relevant State Bar department.
- The State Bar IT Team will provide access to the current system environments for the purpose of conducting the business process review exercise.
- The State Bar Project Team will prepare business scenario documentation for the purposes of conducting the business process review (with direction from Tyler).
- Appropriate SMEs from each of the State Bar other departments not in scope of the CMS replacement project, but involved with any identified integrations, will be available as needed during the integration portion of the business process review exercise.

#### State Bar Involvement

- The State Bar Project Team and State Bar IT Team will participate in the Business Process Review.
- The State Bar Project Team and State Bar IT Team will provide sufficient feedback and review of the Business Process Review Report.
- The State Bar Executive Team will finalize decisions on all identified Odyssey modifications.

#### Deliverables

Deliverable	Description
<b>1.2.1 Business Process Review</b>	Report capturing the results of the Business Process Review. This report will include:

<b>Report</b>	<ul style="list-style-type: none"> <li>• Summary of the business process review results</li> <li>• Prioritized listing of critical items and estimated development (customization) needs</li> <li>• Listing of process redesign and business practice change opportunities</li> </ul>
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**Task 1.3 – Infrastructure Planning**

During this task Tyler will work with the State Bar IT Team to plan for and design the State Bar's Odyssey infrastructure. As part of this activity, Tyler will also provide the State Bar IT Team with all Odyssey specifications and compatibility requirements for desktop hardware and peripheral devices. The State Bar IT Team can leverage these specifications to ensure that its hardware environment is optimized to effectively operate the Odyssey environment.

**Assumptions**

- The State Bar IT Team will communicate any preferences or predispositions that pertain to system architecture, peripheral devices, and/or technical capabilities.
- The State Bar IT Team will provide input and feedback to the Solution Design document.

**State Bar Involvement**

- The State Bar IT Team and External Stakeholders will be designated by the State Bar to contribute in architecture design discussions.
- The State Bar IT Team will be involved in the review and feedback on the Solution Design deliverable.

**Deliverables**

Deliverable	Description
<b>1.3.1 Solution Design</b>	Documents the planned Odyssey Environments (e.g. Production, Testing, Staging), and the necessary underlying infrastructure. This document will serve as the basis of any necessary hardware procurement and provisioning of server and network resources, as well as a guide to initial installation and repeatable processes for managing the environments on a continual basis.

**Phase 2: Solution Design and Development**

This phase is focused on the design and development of the overall solution. This phase will establish the detailed specification and development of application refinements identified in Phase 1; development and testing of integrations identified in Phase 1; establishing the technical infrastructure and application installation processes; configuration of the Odyssey solution to meet the State Bar's specific needs; and iterative refinement and testing of business processes and procedures.

**Task 2.1 – Infrastructure Setup and Installation**

Tyler and the State Bar IT Team will work together to determine and define the optimal Odyssey environment, in accordance with the Solution Design document. Tyler will work side-by-side

## The State Bar of California Case and Records Management System

with the State Bar IT Team to install Odyssey and explain and train the team on the Odyssey installation manager.

### Assumptions

- All necessary required hardware for operating Odyssey will be in place and ready for use.

### State Bar Involvement

- The State Bar IT Team will be heavily involved in determining the optimal infrastructure configurations.

### Deliverables

Deliverable	Description
<b>2.1.1 Certification of Infrastructure Environment</b>	Tyler shall certify that the Odyssey environment constructed is optimized to support the State Bar's user base.

### *Task 2.2 – Application Development (Placeholder Only)*

This task serves as a placeholder should any mission critical customizations be identified in Phase 1. Tyler's proposed project is focused on providing a COTS-based Odyssey solution that is configured to the State Bar's business needs with very limited to no customization. However, should there be necessary customizations identified and approved by the State Bar Executive Team, the necessary project activities will be completed in this task. Any customizations determined to be included, but not contracted in project scope may impact project costs and Go-Live target dates.

Tyler strongly recommends that the State Bar Executive Team only authorize those customizations absolutely necessary for day-one operations (for e.g., customizations to satisfy state law, local State Bar rules, etc.).

The first step in the development process is the preparation of a conceptual process design (CPD). The CPD describes the business problem and how it will be addressed in Odyssey. It "tells the story," in addition to outlining the technical solution. The goal is to ensure that the requirements have been properly translated into a design that solves the business problem. The CPD is reviewed with the State Bar Project Team either through a GoToMeeting (online) session or an on-site review. Modifications are made if necessary to the CPD prior to approval. During the CPD process, the original sizing estimate done during the business process review is evaluated. Finally, the revised CPD and estimate are approved by the State Bar Executive Team.

For certain enhancement requests, Tyler will ask the State Bar Project Team to take part in additional enhancement design/review meetings held throughout the development cycle. Because this process adds overhead to the development cycle, it is ideal for larger enhancements only or enhancements where the Tyler team feels there is a higher than normal risk of missing a requirement. The Tyler project manager will communicate anticipated release and review periods with the State Bar Project Team. Additional activities, including

configuration, testing, and enhancement approval, will be performed as part of Tyler’s standard development release cycle.

In this task, Tyler will complete delivery of all the identified application and integration development work into the State Bar test environment. Prior to delivery into the State Bar environment all integrations and application enhancements will have been fully tested. These application enhancements will be packaged into a standard Odyssey release and as such will have completed Tyler’s full QA and regression testing processes prior to delivery. In order for a software package to be released to a client’s environment it will have been fully regression tested with a set of over 2,000 test scripts. No failures can exist within this regression test set; else the product is halted for release. Additionally, no Severity Level 1 or Severity Level 2 defects can exist for the product to be released.

#### Assumptions

- This task will be performed on an as-needed basis only.

#### State Bar Involvement

- The State Bar Executive Team will provide direction on the necessity of this task.

#### Deliverables

Deliverable	Description
<b>2.2.1 Application CPD Documents</b>	(If determined necessary) Conceptual Process Design Document for each approved application development project. This document tells the user story of the required development, as well as detail fields and functionality intended.

#### *Task 2.3 – Integration Development (Placeholder Only)*

Tyler’s integration approach provides a standards-based integration platform for exchanging data between the State Bar’s Odyssey environment and external systems. Tyler will work closely with the State Bar to identify any potential integrations needed to be included as part of the project. Any integrations determined to be included, but not contracted in project scope may impact project costs and Go-Live target dates.

The State Bar IT Team will lead the overall effort for establishing any identified local integrations. Tyler will provide the tools, training, and oversight for local integration development. Additionally, Tyler will assist the State Bar with identifying and prioritizing those local integrations that need to be established prior to Go-Live or after (post Go-Live).

Tyler strongly recommends that the State Bar Executive Team only authorize those integrations absolutely necessary for day-one operations (for e.g., integrations to satisfy state law, local State Bar rules, etc.). The State Bar IT Team will then establish the decided-upon integrations identified and prioritized and confirmed during the Business Process Review. As unit testing is completed for each of the integrations, those integrations are packaged for deployment and released into the State Bar’s Odyssey testing environment.

## The State Bar of California Case and Records Management System

In this task, Tyler will provide the State Bar IT Team, and designated External Stakeholders, with training on the Odyssey Integration Toolkit. The purpose of providing training on the Integration Toolkit is to provide the State Bar with the knowledge and expertise to maintain and enhance their local integration environment after the initial implementation of Odyssey is complete.

### Assumptions

- The State Bar IT Team will lead any identified local integration development effort; Tyler will provide training to the appropriate State Bar technical personnel on the use of the Odyssey Integration Toolkit. Tyler will then serve in a consulting/advisory role as the State Bar establishes the necessary system interfaces.
- Tyler will work with the State Bar during the Business Process Review to identify any mission critical integrations and reports to be included for Go-Live, and determine the prioritization of projects and the order of completion.
- For all local interfaces, Tyler will work with the State Bar to establish the integration components for facilitating data into, and out-of, Odyssey using the Integration Toolkit.
- In addition to the aforementioned assumption, for complete end-to-end integration, Tyler assumes that any involved external justice partners will be responsible for the translation, transportation, and receiving of published State Bar information into their individual systems.
- The State Bar will provide facilities sufficient for conducting the Integration Toolkit training.
- All Odyssey information will be published using the Odyssey's native XML.
- Appropriate SMEs from any external partner agencies involved with local integrations with the State Bar will be available as needed.
- External Stakeholders are responsible for providing the necessary IT environment for testing interfaces.

### State Bar Involvement

- The State Bar IT Team will lead the local integration development effort.
- The State Bar IT Team will provide timely review of all CPD and/or other design documents.
- The State Bar Project Team will provide test scripts and scenarios to the development team as necessary.
- The State Bar IT Team, and its designees, will be involved in attending and participating in the Integration Toolkit training.

### Deliverables

Deliverable	Description
<b>2.3.1 Integration CPD Documents</b>	(If determined necessary) Conceptual Process Design Document for each integration development project. This document tells the user story of the required development, as well as detail fields and functionality intended.

**Task 2.4 – Conduct Integration Toolkit Workshop**

In this task, Tyler will conduct a training workshop on the Odyssey Integration Toolkit for the State Bar’s designated resources. The Odyssey Integration Toolkit included in Tyler’s solution is a robust set of APIs and XML notification components that allows reliable and maintainable access to the rich set of Odyssey data, while observing configured business rules and relationships. The Toolkit comprises three areas:

- **API look-up services** – Web services that respond to standard information requests to retrieve information from the Odyssey database and return it to the requesting application.
- **API update services** – Web services that update information into the Odyssey database. All API services are schema-verified and transaction-based.
- **XML notification services** – Configurable XML messages that are triggered by application business events, such as case updated, party updated, or hearing scheduled.

The Odyssey Integration Toolkit is an extension of the Odyssey application itself. It builds on the same technologies as the main Odyssey application and evolves alongside the application continually—without destabilizing what has already been accomplished. Careful maintenance of the XML schema formats insulates integration components from ongoing enhancements to the main Odyssey core application.

**Assumptions**

- Tyler will conduct the integration toolkit training workshop at a central location designated by the State Bar.

**State Bar Involvement**

- The State Bar IT Team will designate the appropriate staff to participate in the workshop.

**Deliverables**

Deliverable	Description
<b>2.4.1 Integration Toolkit Workshop</b>	The Integration Toolkit training will be conducted onsite at one of the State Bar’s facilities. Tyler will work with the State Bar Project Manager to schedule the workshop at an appropriate time to accommodate availability of resources.

**Phase 3: Data Conversion**

In this task, Tyler will work with the State Bar’s data experts to conduct multiple iterations of an automated data conversion. The purpose of this task is to transition the State Bar’s relevant data from their legacy systems to Odyssey. This task will save the State Bar time and effort during the go-live and transition process. This task will include a series of activities surrounding the conversion of data or the development of business processes to support the State Bar’s



transition to the new Odyssey environment. Tyler and the State Bar will assemble a high level data conversion team that will be in place throughout the project.

In addition to the infrastructure planning during this task Tyler will also provide a one-day onsite overview of the Intermediate File Layout (IFL) toolset. The purpose of this training is to provide the State Bar IT Team with a basic overview of the IFL toolset and framework for the purposes of determining the data conversion approach and resources.

As part of the State Bar's conversion activities, its business team should evaluate its legacy data to determine what data elements truly need to be brought forward to the new system. Our experience has shown us that in many cases data elements exist which no longer are utilized due to statutory or business process changes, or are otherwise of limited to no use to the State Bar once they have transitioned to Odyssey. Data conversions are a significant undertaking to both Tyler and the State Bar, and care should be taken to focus conversion efforts on data elements and business rules that will be of use to the State Bar moving forward. Tyler has developed a world-class Conversion Toolkit Framework, which has been expanded and enhanced based on hundreds of our successful conversions. The Framework is kept current with Odyssey releases and service packs. It has tools that allow for validation of the data and also to verify that no data has been left behind.

To complete the conversion cycles, the conversion team will work with the business team performing a total data conversion and data validation. The teams will execute several cycles completing the following tasks for each cycle:

- Execute conversion scripts pushing data to configured site
- Review data with State Bar Project Team
- Document data exceptions and business rules to be applied
- Document schema mapping, assumptions, and decisions applied to converted data
- Identify and document source data to be cleaned up prior to the next conversion run
- Update scripts as needed to influence different or additional data behavior

It is very common to find data issues with the conversion in its initial iterations. As the issues are identified, the teams will update scripts and conversion routines as necessary to create the desired output. The teams will repeat this process until the joint teams agree that the conversion routines and the physical data have been validated for production. This iterative process will recur until the data is production-ready. Historically, our conversion teams run three cycles before the teams approve the data conversion for the go-live transition. Once the data has been validated, the team will stage the conversion routines and any procedural instructions for User Acceptance Testing (Mock Go-Live).

#### **Assumptions**

- The scope of this task is limited to the legacy system data and documents of the participating State Bar departments.
- Tyler will be provided with data from the source system(s) in a non-proprietary format (e.g. SQL Server tables, comma separated ASCII files, or some other mutually agreeable form, and on media that is readable by Tyler).

- Tyler will perform a standard conversion from the source system(s) to the Odyssey database using Tyler's existing IFL tool.
- Tyler will work closely with the State Bar representatives to identify business rules before writing the conversion. This step is typically defined as data mapping (mapping legacy data to Odyssey destinations).
- Tyler will perform three data pushes and lock the conversion code after the third iteration.
- The State Bar Project Team leads and/or State Bar Executives will make the necessary decisions on the data conversion strategic approach in a timely manner.

#### State Bar Involvement

- The State Bar's subject matter experts and resources most familiar with the current data will be involved in the data conversion effort.

#### Deliverables

Deliverable	Description
<b>3.1 Load of Legacy Data into Staging Database</b>	Legacy data conversion successfully extracted from the legacy environment by the State Bar IT Team and loaded into the staging database by Tyler.
<b>3.2 Completion of Data Mapping</b>	Mapping of legacy data is complete. The State Bar will complete the mapping of data elements with assistance and guidance from Tyler.
<b>3.3 First Data Conversion Push</b>	First data push from the staging database into the conversion environment is completed.

#### Phase 4: OCTC Odyssey Deployment

This phase will complete the deployment of the Odyssey case management system for the OCTC.

##### Task 4.1 – Configuration

After the initial software is delivered and installed, Tyler will work with the State Bar Project Team to establish the configuration of the Odyssey application that will prepare the system for the next phase of activities.

The configuration team will reuse scenarios prepared and information learned during the business process review as the starting point for the configuration/workflow task. During this task, the State Bar Project Team and the Tyler configuration team will review and document the case processing workflow in Odyssey.

Tyler will prepare the teams for the configuration with a series of workshops. The workshops focus on the areas of configuration, forms, reports, and process review and design. Each workshop has been set up to instruct participants on best practices for performing each of the

## The State Bar of California Case and Records Management System

functions. The purpose of the configuration workshop is to jointly configure the system with the State Bar Project Team.

For the code configuration, forms, reports, and process review workshops, the project managers will be diligent in monitoring and reviewing the output of the session. At the end of the configuration/workflow design milestone, the teams will have successfully configured the Odyssey solution and defined selected critical processes. Additionally, the State Bar Project Team will be confident in its ability to support, maintain, and modify the system configuration over time to meet new business needs.

### Assumptions

- OCTC will have the appropriate representatives participate in configuration workshops.
- The State Bar Project Team will provide sufficient meeting space to conduct all configuration workshops.
- The State Bar IT Team will provide the desktop hardware necessary to conduct the configuration workshop.
- The State Bar Project Team will complete their necessary configuration assignments in a mutually agreed upon timeframe.

### State Bar Involvement

- The State Bar IT Team and Project Team will be heavily involved in all aspects of the configuration process.

### Workshops and Deliverables

Deliverable	Description
<b>4.1.1 Configuration Plan</b>	This deliverable outlines the configuration plan.
<b>4.1.2 Configuration Workshop Completed</b>	Workshops to be delivered on site by Tyler personnel to the State Bar Project Team. Attendance by the State Bar Project Team will be determined based on the subject matter of each configuration workshop.
<b>4.1.3 Security Workshop Completed</b>	Workshop to be delivered on site by Tyler personnel to the State Bar Project Team and State Bar IT Team on security configuration. Attendance by State Bar Project Team and State Bar IT Team personnel will be jointly determined based on the division of responsibilities.
<b>4.1.4 Forms Workshop Completed</b>	Workshop to be delivered on site by Tyler personnel to the State Bar Project Team and State Bar IT Team. Attendance by the State Bar Project Team and State Bar IT Team personnel will be jointly determined based on the division of responsibilities established by the State Bar as well as the subject matter of each workshop.
<b>4.1.5 Configuration</b>	Completed spreadsheet used to track the progress and

<b>Tracking Spreadsheet</b>	completion of all application configuration tasks, activities, and assignments.
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**Task 4.2 – System Test (User Acceptance Testing)**

After any identified application customizations and/or integrations are delivered, configuration is finalized, and procedures are completed; the joint team will conduct a full system test of the completed business solution. This is meant to simulate the actual transition and initial operation of the system in production, and is sometimes referred to as a “mock go-live”.

Using predefined scenarios and business workflow documentation, the business teams will work to test end-to-end processes through the system. Each area of the application is carefully tested; results are collected and reviewed. If issues are found, they are documented and addressed. Mitigation procedures promptly begin to address any items prior to the start of end user training.

The goal for end user acceptance testing is a full end-to-end test cycle. This testing will verify that all aspects of the project (configuration, forms configuration, security configuration, development, data conversion, integration, and procedures) are working seamlessly. Testing cycles should be completed on both existing and new case scenarios, and verify the system is operating at the expected level needed to support an end user go-live. This activity serves several purposes. Collectively the teams have performed a mock go-live. This will give the project management team a solid view of activities and issues that will arise over the actual go-live weekend. Running the predefined scenarios through the new site, the State Bar Project Team are able to validate end-to-end functional processes including any integration packages.

**Assumptions**

- This task will coordinated, and conducted together with, the UAT activities of the other participating State Bar departments.
- The State Bar Project Team will have developed the necessary test scenarios as part of the Business Process Review and Configuration activities.
- All test scripts will have been completed jointly between the State Bar Project Team and Tyler as part of the development of the application development tasks; specifically the development and approval of the CPD documents.
- External Stakeholders will participate as necessary in executing the test scenarios.
- External Stakeholders will provide the environment(s) necessary to conduct acceptance testing (interfaces), as needed.

**State Bar Involvement**

- The State Bar Project Team and State Bar IT Team will be heavily involved in conducting the user acceptance testing task.

**Deliverables**

Deliverable	Description
<b>4.2.1 User Acceptance Testing</b>	Report documenting the completion and approval of user acceptance testing. This includes verification of configuration,

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<b>Report</b>	development, integrations, and updated business process procedures.
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#### *Task 4.3 – OCTC Odyssey Go-Live*

This task will complete the Go-Live project activities for the deployment of the Odyssey case managements system for OCTC. A successful go-live starts with detailed planning of the activities, timeframes, and decision points necessary to ensure predictable results. This reduces the operational risks involved with the State Bar's transition to Odyssey. While each Tyler customer will have unique characteristics, generally the methodology used to conduct go-live activities remains unchanged.

To arrive at this point, the State Bar Project Team and Tyler will have successfully completed each of the following project milestones:

- Configuration Complete
- Any determined Application Development Complete
- Any determined Integration Development Complete
- End-to-end Functionality Validation Complete

Once Sign-off on User Acceptance Testing has been accomplished, training can proceed, and in parallel, the final detailed planning for cutover to the new system and processes will be performed. This typically includes detailed hour-by-hour task lists, completion checklists, and contact information for all key affected personnel, key decision points and contingency plans. During this process, Tyler will plan accordingly to minimize any impact to the State Bar, the State Bar's external partners, and the public during the actual cut-over.

#### **Assumptions**

- Go-live activities will be coordinated, and conducted together with, the go-live activities for the other State Bar departments in scope of this project.
- This task will be coordinated, and conducted together with, the go-live activities of the other participating State Bar departments.
- The State Bar Project Team has signed off that user acceptance testing has completed.
- The State Bar Project Team will provide review and feedback on the Go-Live Transition Plan.

#### **State Bar Involvement**

- The State Bar Project Team will be involved in development, review, and approval of the Go-Live Transition plan.
- Designated and trained State Bar personnel will support Tyler personnel on go-live activities at remote/satellite facility locations in the State Bar.

#### **Deliverables**

Deliverable	Description
<b>4.3.1 Go-Live</b>	The Go-Live Transition Plan details out the exact plan for the go-live event. This includes a detailed task list of activities,

<b>Transition Plan</b>	estimated duration, and task owner. In addition, the go-live transition plan will document all contingency plans should issues or problems be encountered.
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### Training

Using a training plan previously reviewed and approved, the PMO will initiate the training activities. Training materials and the course plan are organized through a series of modules that focus training on the subject matter experts' specific job functions.

Training is administered so as to minimally impact the day-to-day operations of each State Bar department. The schedule and plan are created with the State Bar's supervisors so that the operation of the departments can continue during training.

### Assumptions

- The State Bar Project Team will work with Tyler to jointly develop a training plan that identifies the size, makeup, and subject-area of each of the training classes.
- The State Bar Project Team will provide training facilities and all equipment necessary to execute the agreed upon training plan.
- Tyler will work with the State Bar as much as possible to provide end-user training in a manner that minimizes the impact to daily State Bar departments' operations.

### State Bar Involvement

- Designated and trained State Bar personnel will provide assistance to Tyler trainers in conducting the end-user training.

### Deliverables

Deliverable	Description
<b>4.3.2 Training Plans and Materials</b>	<p>The training plan will detail out which end-user courses will be conducted and which State Bar staff will attend each course. Additional training materials will be developed and delivered as necessary based on the training needs identified. For the training materials, the State Bar can decide to include the following:</p> <ul style="list-style-type: none"> <li>• screen shots</li> <li>• text instructions</li> <li>• quick reference guides</li> <li>• e-learning or just-in-time (on demand) job aids,</li> <li>• Web-based manuals, job aids, etc.</li> <li>• minimal number of screens required to do a task (such as initiate a case)</li> <li>• specific operational processing by functional area</li> <li>• system administration and Help Desk guides including, but not limited to installation, troubleshooting procedures, system update, ad hoc</li> </ul>

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	<ul style="list-style-type: none"> <li>reporting, tuning, and integrating local components</li> <li>other materials as required by the State Bar to ensure they can maintain functionality and daily operations</li> </ul> <p>The exact materials to be produced and used during the training process will be determined by agreement of the joint project teams.</p>
<b>4.3.3 Go-Live Push to Production</b>	The State Bar's legacy data is pushed into the production environments as part of the go-live activities.

### Go-Live

To assist with the actual go-live transition, the PMO will add additional personnel to the project team. In coordination with the State Bar Project Manager, Tyler will engage additional project implementation personnel, integration specialists and/or support personnel to assist during the go-live process. The exact composition of the go-live team will be jointly determined by the PMO based on perceived need and any special conditions that may exist.

The weeks prior to and after the go-live will be planned in detail. This includes activities regarding pending case transition, configuration, environments, operations, financials, calendars, and personnel. The PMO will establish the go-live plan and the method by which its status will be communicated to all involved.

For every system go-live, Tyler strives to maintain business continuity and minimize downtime during regular business hours. One preferred strategy is to start the process on Friday and finish by Monday morning, allowing for maximum use of non-business hours for go-live activities.

Upon completion of Friday's business, the defined strategy for population of pending cases should be implemented. System validation and checkout should be conducted at this time, generally on a Saturday. It is recommended that a reduced workforce be available for data entry in all areas of operations on Sunday, around mid-morning. This allows for maximum focus on procedural, workstation, security, training and system issues, with limited impact to daily operations. Effectively, the system is live on Sunday and available to the State Bar's staff.

### Assumptions

- External Stakeholders will be available to assist in supporting the interfaces associated with the go-live process.
- Tyler will work with the State Bar as much as possible to provide post Go-Live end-user training in a manner that minimizes the impact to daily State Bar operations.

### State Bar Involvement

- The State Bar Project Team will be involved in supporting the go-live process.

### Deliverables

Deliverable	Description
<b>4.3.4 Go-Live Status</b>	Weekly status reports that identify the running log of issues

<b>Reports</b>	and associated resolution plans during the cutover process to the new system. It is anticipated that there will be several weeks of go-live status reports delivered, however the exact number will be jointly determined by the PMO based on need and relevance.
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### Phase 5: Court Odyssey Deployment

This phase will complete the deployment of the Odyssey case management system for the State Bar Court.

#### Task 5.1 – Configuration

After the initial software is delivered and installed, Tyler will work with the State Bar Project Team to establish the configuration of the Odyssey application that will prepare the system for the next phase of activities.

The configuration team will reuse scenarios prepared and information learned during the business process review as the starting point for the configuration/workflow task. During this task, the State Bar Project Team and the Tyler configuration team will review and document the case processing workflow in Odyssey.

Tyler will prepare the teams for the configuration with a series of workshops. The workshops focus on the areas of configuration, forms, reports, and process review and design. Each workshop has been set up to instruct participants on best practices for performing each of the functions. The purpose of the configuration workshop is to jointly configure the system with the State Bar Project Team.

For the code configuration, forms, reports, and process review workshops, the project managers will be diligent in monitoring and reviewing the output of the session. At the end of the configuration/workflow design milestone, the teams will have successfully configured the Odyssey solution and defined selected critical processes. Additionally, the State Bar Project Team will be confident in its ability to support, maintain, and modify the system configuration over time to meet new business needs.

#### Assumptions

- Court will have the appropriate representatives participate in configuration workshops.
- The State Bar Project Team will provide sufficient meeting space to conduct all configuration workshops.
- The State Bar IT Team will provide the desktop hardware necessary to conduct the configuration workshop.
- The State Bar Project Team will complete their necessary configuration assignments in a mutually agreed upon timeframe.

#### State Bar Involvement

- The State Bar IT Team and Project Team will be heavily involved in all aspects of the configuration process.



### Workshops and Deliverables

Deliverable	Description
<b>5.1.1 Configuration Plan</b>	This deliverable outlines the configuration plan.
<b>5.1.2 Configuration Workshop Completed</b>	Workshops to be delivered on site by Tyler personnel to the State Bar Project Team. Attendance by the State Bar Project Team will be determined based on the subject matter of each configuration workshop.
<b>5.1.3 Security Workshop Completed</b>	Workshop to be delivered on site by Tyler personnel to the State Bar Project Team and State Bar IT Team on security configuration. Attendance by State Bar Project Team and State Bar IT Team personnel will be jointly determined based on the division of responsibilities.
<b>5.1.4 Forms Workshop Completed</b>	Workshop to be delivered on site by Tyler personnel to the State Bar Project Team and State Bar IT Team. Attendance by the State Bar Project Team and State Bar IT Team personnel will be jointly determined based on the division of responsibilities established by the State Bar as well as the subject matter of each workshop.
<b>5.1.5 Configuration Tracking Spreadsheet</b>	Completed spreadsheet used to track the progress and completion of all application configuration tasks, activities, and assignments.

### *Task 5.2 – System Test (User Acceptance Testing)*

After any identified application customizations and/or integrations are delivered, configuration is finalized, and procedures are completed; the joint team will conduct a full system test of the completed business solution. This is meant to simulate the actual transition and initial operation of the system in production, and is sometimes referred to as a “mock go-live”.

Using predefined scenarios and business workflow documentation, the business teams will work to test end-to-end processes through the system. Each area of the application is carefully tested; results are collected and reviewed. If issues are found, they are documented and addressed. Mitigation procedures promptly begin to address any items prior to the start of end user training.

The goal for end user acceptance testing is a full end-to-end test cycle. This testing will verify that all aspects of the project (configuration, forms configuration, security configuration, development, data conversion, integration, and procedures) are working seamlessly. Testing cycles should be completed on both existing and new case scenarios, and verify the system is operating at the expected level needed to support an end user go-live. This activity serves several purposes. Collectively the teams have performed a mock go-live. This will give the

project management team a solid view of activities and issues that will arise over the actual go-live weekend. Running the predefined scenarios through the new site, the State Bar Project Team are able to validate end-to-end functional processes including any integration packages.

#### Assumptions

- This task will coordinated, and conducted together with, the UAT activities of the other participating State Bar departments.
- The State Bar Project Team will have developed the necessary test scenarios as part of the Business Process Review and Configuration activities.
- All test scripts will have been completed jointly between the State Bar Project Team and Tyler as part of the development of the application development tasks; specifically the development and approval of the CPD documents.
- External Stakeholders will participate as necessary in executing the test scenarios.
- External Stakeholders will provide the environment(s) necessary to conduct acceptance testing (interfaces), as needed.

#### State Bar Involvement

- The State Bar Project Team and State Bar IT Team will be heavily involved in conducting the user acceptance testing task.

#### Deliverables

Deliverable	Description
<b>5.2.1 User Acceptance Testing Report</b>	Report documenting the completion and approval of user acceptance testing. This includes verification of configuration, development, integrations, and updated business process procedures.

#### Task 5.3 – Court Odyssey Go-Live

This task will complete the Go-Live project activities for the deployment of the Odyssey case managements system for Court. A successful go-live starts with detailed planning of the activities, timeframes, and decision points necessary to ensure predictable results. This reduces the operational risks involved with the State Bar's transition to Odyssey. While each Tyler customer will have unique characteristics, generally the methodology used to conduct go-live activities remains unchanged.

To arrive at this point, the State Bar Project Team and Tyler will have successfully completed each of the following project milestones:

- Configuration Complete
- Any determined Application Development Complete
- Any determined Integration Development Complete
- End-to-end Functionality Validation Complete

Once Sign-off on User Acceptance Testing has been accomplished, training can proceed, and in parallel, the final detailed planning for cutover to the new system and processes will be

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performed. This typically includes detailed hour-by-hour task lists, completion checklists, and contact information for all key affected personnel, key decision points and contingency plans. During this process, Tyler will plan accordingly to minimize any impact to the State Bar, the State Bar's external partners, and the public during the actual cut-over.

### Assumptions

- Go-live activities will be coordinated, and conducted together with, the go-live activities for the other State Bar departments in scope of this project.
- This task will be coordinated, and conducted together with, the go-live activities of the other participating State Bar departments.
- The State Bar Project Team has signed off that user acceptance testing has completed.
- The State Bar Project Team will provide review and feedback on the Go-Live Transition Plan.

### State Bar Involvement

- The State Bar Project Team will be involved in development, review, and approval of the Go-Live Transition plan.
- Designated and trained State Bar personnel will support Tyler personnel on go-live activities at remote/satellite facility locations in the State Bar.

### Deliverables

Deliverable	Description
<b>5.3.1 Go-Live Transition Plan</b>	The Go-Live Transition Plan details out the exact plan for the go-live event. This includes a detailed task list of activities, estimated duration, and task owner. In addition, the go-live transition plan will document all contingency plans should issues or problems be encountered.

### Training

Using a training plan previously reviewed and approved, the PMO will initiate the training activities. Training materials and the course plan are organized through a series of modules that focus training on the subject matter experts' specific job functions.

Training is administered so as to minimally impact the day-to-day operations of each State Bar department. The schedule and plan are created with the State Bar's supervisors so that the operation of the departments can continue during training.

### Assumptions

- The State Bar Project Team will work with Tyler to jointly develop a training plan that identifies the size, makeup, and subject-area of each of the training classes.
- The State Bar Project Team will provide training facilities and all equipment necessary to execute the agreed upon training plan.
- Tyler will work with the State Bar as much as possible to provide end-user training in a manner that minimizes the impact to daily State Bar departments' operations.

**State Bar Involvement**

- Designated and trained State Bar personnel will provide assistance to Tyler trainers in conducting the end-user training.

**Deliverables**

Deliverable	Description
<b>5.3.2 Training Plans and Materials</b>	<p>The training plan will detail out which end-user courses will be conducted and which State Bar staff will attend each course. Additional training materials will be developed and delivered as necessary based on the training needs identified. For the training materials, the State Bar can decide to include the following:</p> <ul style="list-style-type: none"> <li>• screen shots</li> <li>• text instructions</li> <li>• quick reference guides</li> <li>• e-learning or just-in-time (on demand) job aids,</li> <li>• Web-based manuals, job aids, etc.</li> <li>• minimal number of screens required to do a task (such as initiate a case)</li> <li>• specific operational processing by functional area</li> <li>• system administration and Help Desk guides including, but not limited to installation, troubleshooting procedures, system update, ad hoc reporting, tuning, and integrating local components</li> <li>• other materials as required by the State Bar to ensure they can maintain functionality and daily operations</li> </ul> <p>The exact materials to be produced and used during the training process will be determined by agreement of the joint project teams.</p>
<b>5.3.3 Go-Live Push to Production</b>	The State Bar's legacy data is pushed into the production environments as part of the go-live activities.

**Go-Live**

To assist with the actual go-live transition, the PMO will add additional personnel to the project team. In coordination with the State Bar Project Manager, Tyler will engage additional project implementation personnel, integration specialists and/or support personnel to assist during the go-live process. The exact composition of the go-live team will be jointly determined by the PMO based on perceived need and any special conditions that may exist.

The weeks prior to and after the go-live will be planned in detail. This includes activities regarding pending case transition, configuration, environments, operations, financials,

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calendars, and personnel. The PMO will establish the go-live plan and the method by which its status will be communicated to all involved.

For every system go-live, Tyler strives to maintain business continuity and minimize downtime during regular business hours. One preferred strategy is to start the process on Friday and finish by Monday morning, allowing for maximum use of non-business hours for go-live activities.

Upon completion of Friday's business, the defined strategy for population of pending cases should be implemented. System validation and checkout should be conducted at this time, generally on a Saturday. It is recommended that a reduced workforce be available for data entry in all areas of operations on Sunday, around mid-morning. This allows for maximum focus on procedural, workstation, security, training and system issues, with limited impact to daily operations. Effectively, the system is live on Sunday and available to the State Bar's staff.

### Assumptions

- External Stakeholders will be available to assist in supporting the interfaces associated with the go-live process.
- Tyler will work with the State Bar as much as possible to provide post Go-Live end-user training in a manner that minimizes the impact to daily State Bar operations.

### State Bar Involvement

- The State Bar Project Team will be involved in supporting the go-live process.

### Deliverables

Deliverable	Description
<b>5.3.4 Go-Live Status Reports</b>	Weekly status reports that identify the running log of issues and associated resolution plans during the cutover process to the new system. It is anticipated that there will be several weeks of go-live status reports delivered, however the exact number will be jointly determined by the PMO based on need and relevance.

## Phase 6: (OPTIONAL) Probation and MRS Odyssey Deployment

This phase will complete the deployment of the Odyssey case management system for the Probation Department and Membership Records.

### Task 6.1 – Configuration

After the initial software is delivered and installed, Tyler will work with the State Bar Project Team to establish the configuration of the Odyssey application that will prepare the system for the next phase of activities.

The configuration team will reuse scenarios prepared and information learned during the business process review as the starting point for the configuration/workflow task. During this task, the State Bar Project Team and the Tyler configuration team will review and document the case processing workflow in Odyssey.

Tyler will prepare the teams for the configuration with a series of workshops. The workshops focus on the areas of configuration, forms, reports, and process review and design. Each workshop has been set up to instruct participants on best practices for performing each of the functions. The purpose of the configuration workshop is to jointly configure the system with the State Bar Project Team.

For the code configuration, forms, reports, and process review workshops, the project managers will be diligent in monitoring and reviewing the output of the session. At the end of the configuration/workflow design milestone, the teams will have successfully configured the Odyssey solution and defined selected critical processes. Additionally, the State Bar Project Team will be confident in its ability to support, maintain, and modify the system configuration over time to meet new business needs.

#### Assumptions

- Probation Department and Membership Records will have the appropriate representatives participate in configuration workshops.
- The State Bar Project Team will provide sufficient meeting space to conduct all configuration workshops.
- The State Bar IT Team will provide the desktop hardware necessary to conduct the configuration workshop.
- The State Bar Project Team will complete their necessary configuration assignments in a mutually agreed upon timeframe.

#### State Bar Involvement

- The State Bar IT Team and Project Team will be heavily involved in all aspects of the configuration process.

#### Workshops and Deliverables

Deliverable	Description
<b>6.1.1 Configuration Plan</b>	This deliverable outlines the configuration plan.
<b>6.1.2 Configuration Workshop Completed</b>	Workshops to be delivered on site by Tyler personnel to the State Bar Project Team. Attendance by the State Bar Project Team will be determined based on the subject matter of each configuration workshop.
<b>6.1.3 Security Workshop Completed</b>	Workshop to be delivered on site by Tyler personnel to the State Bar Project Team and State Bar IT Team on security configuration. Attendance by State Bar Project Team and State Bar IT Team personnel will be jointly determined based on the division of responsibilities.
<b>6.1.4 Forms Workshop Completed</b>	Workshop to be delivered on site by Tyler personnel to the State Bar Project Team and State Bar IT Team. Attendance by the State Bar Project Team and State Bar IT Team personnel will be

	jointly determined based on the division of responsibilities established by the State Bar as well as the subject matter of each workshop.
<b>6.1.5 Configuration Tracking Spreadsheet</b>	Completed spreadsheet used to track the progress and completion of all application configuration tasks, activities, and assignments.

#### *Task 6.2 – System Test (User Acceptance Testing)*

After any identified application customizations and/or integrations are delivered, configuration is finalized, and procedures are completed; the joint team will conduct a full system test of the completed business solution. This is meant to simulate the actual transition and initial operation of the system in production, and is sometimes referred to as a “mock go-live”.

Using predefined scenarios and business workflow documentation, the business teams will work to test end-to-end processes through the system. Each area of the application is carefully tested; results are collected and reviewed. If issues are found, they are documented and addressed. Mitigation procedures promptly begin to address any items prior to the start of end user training.

The goal for end user acceptance testing is a full end-to-end test cycle. This testing will verify that all aspects of the project (configuration, forms configuration, security configuration, development, data conversion, integration, and procedures) are working seamlessly. Testing cycles should be completed on both existing and new case scenarios, and verify the system is operating at the expected level needed to support an end user go-live. This activity serves several purposes. Collectively the teams have performed a mock go-live. This will give the project management team a solid view of activities and issues that will arise over the actual go-live weekend. Running the predefined scenarios through the new site, the State Bar Project Team are able to validate end-to-end functional processes including any integration packages.

#### **Assumptions**

- This task will coordinated, and conducted together with, the UAT activities of the other participating State Bar departments.
- The State Bar Project Team will have developed the necessary test scenarios as part of the Business Process Review and Configuration activities.
- All test scripts will have been completed jointly between the State Bar Project Team and Tyler as part of the development of the application development tasks; specifically the development and approval of the CPD documents.
- External Stakeholders will participate as necessary in executing the test scenarios.
- External Stakeholders will provide the environment(s) necessary to conduct acceptance testing (interfaces), as needed.

#### **State Bar Involvement**

- The State Bar Project Team and State Bar IT Team will be heavily involved in conducting the user acceptance testing task.

**Deliverables**

Deliverable	Description
<b>6.2.1 User Acceptance Testing Report</b>	Report documenting the completion and approval of user acceptance testing. This includes verification of configuration, development, integrations, and updated business process procedures.

**Task 6.3 – Probation Department and MRS Odyssey Go-Live**

This task will complete the Go-Live project activities for the deployment of the Odyssey case managements system for Probation Department and Membership Records. A successful go-live starts with detailed planning of the activities, timeframes, and decision points necessary to ensure predictable results. This reduces the operational risks involved with the State Bar’s transition to Odyssey. While each Tyler customer will have unique characteristics, generally the methodology used to conduct go-live activities remains unchanged.

To arrive at this point, the State Bar Project Team and Tyler will have successfully completed each of the following project milestones:

- Configuration Complete
- Any determined Application Development Complete
- Any determined Integration Development Complete
- End-to-end Functionality Validation Complete

Once Sign-off on User Acceptance Testing has been accomplished, training can proceed, and in parallel, the final detailed planning for cutover to the new system and processes will be performed. This typically includes detailed hour-by-hour task lists, completion checklists, and contact information for all key affected personnel, key decision points and contingency plans. During this process, Tyler will plan accordingly to minimize any impact to the State Bar, the State Bar’s external partners, and the public during the actual cut-over.

**Assumptions**

- Go-live activities will be coordinated, and conducted together with, the go-live activities for the other State Bar departments in scope of this project.
- This task will be coordinated, and conducted together with, the go-live activities of the other participating State Bar departments.
- The State Bar Project Team has signed off that user acceptance testing has completed.
- The State Bar Project Team will provide review and feedback on the Go-Live Transition Plan.

**State Bar Involvement**

- The State Bar Project Team will be involved in development, review, and approval of the Go-Live Transition plan.
- Designated and trained State Bar personnel will support Tyler personnel on go-live activities at remote/satellite facility locations in the State Bar.



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**Deliverables**

Deliverable	Description
<b>6.3.1 Go-Live Transition Plan</b>	The Go-Live Transition Plan details out the exact plan for the go-live event. This includes a detailed task list of activities, estimated duration, and task owner. In addition, the go-live transition plan will document all contingency plans should issues or problems be encountered.

**Training**

Using a training plan previously reviewed and approved, the PMO will initiate the training activities. Training materials and the course plan are organized through a series of modules that focus training on the subject matter experts' specific job functions.

Training is administered so as to minimally impact the day-to-day operations of each State Bar department. The schedule and plan are created with the State Bar's supervisors so that the operation of the departments can continue during training.

**Assumptions**

- The State Bar Project Team will work with Tyler to jointly develop a training plan that identifies the size, makeup, and subject-area of each of the training classes.
- The State Bar Project Team will provide training facilities and all equipment necessary to execute the agreed upon training plan.
- Tyler will work with the State Bar as much as possible to provide end-user training in a manner that minimizes the impact to daily State Bar departments' operations.

**State Bar Involvement**

- Designated and trained State Bar personnel will provide assistance to Tyler trainers in conducting the end-user training.

**Deliverables**

Deliverable	Description
<b>6.3.2 Training Plans and Materials</b>	<p>The training plan will detail out which end-user courses will be conducted and which State Bar staff will attend each course. Additional training materials will be developed and delivered as necessary based on the training needs identified. For the training materials, the State Bar can decide to include the following:</p> <ul style="list-style-type: none"> <li>• screen shots</li> <li>• text instructions</li> <li>• quick reference guides</li> <li>• e-learning or just-in-time (on demand) job aids,</li> <li>• Web-based manuals, job aids, etc.</li> <li>• minimal number of screens required to do a task</li> </ul>

	<p>(such as initiate a case)</p> <ul style="list-style-type: none"> <li>• specific operational processing by functional area</li> <li>• system administration and Help Desk guides including, but not limited to installation, troubleshooting procedures, system update, ad hoc reporting, tuning, and integrating local components</li> <li>• other materials as required by the State Bar to ensure they can maintain functionality and daily operations</li> </ul> <p>The exact materials to be produced and used during the training process will be determined by agreement of the joint project teams.</p>
<b>6.3.3 Go-Live Push to Production</b>	The State Bar's legacy data is pushed into the production environments as part of the go-live activities.

### Go-Live

To assist with the actual go-live transition, the PMO will add additional personnel to the project team. In coordination with the State Bar Project Manager, Tyler will engage additional project implementation personnel, integration specialists and/or support personnel to assist during the go-live process. The exact composition of the go-live team will be jointly determined by the PMO based on perceived need and any special conditions that may exist.

The weeks prior to and after the go-live will be planned in detail. This includes activities regarding pending case transition, configuration, environments, operations, financials, calendars, and personnel. The PMO will establish the go-live plan and the method by which its status will be communicated to all involved.

For every system go-live, Tyler strives to maintain business continuity and minimize downtime during regular business hours. One preferred strategy is to start the process on Friday and finish by Monday morning, allowing for maximum use of non-business hours for go-live activities.

Upon completion of Friday's business, the defined strategy for population of pending cases should be implemented. System validation and checkout should be conducted at this time, generally on a Saturday. It is recommended that a reduced workforce be available for data entry in all areas of operations on Sunday, around mid-morning. This allows for maximum focus on procedural, workstation, security, training and system issues, with limited impact to daily operations. Effectively, the system is live on Sunday and available to the State Bar's staff.

### Assumptions

- External Stakeholders will be available to assist in supporting the interfaces associated with the go-live process.
- Tyler will work with the State Bar as much as possible to provide post Go-Live end-user training in a manner that minimizes the impact to daily State Bar operations.

### State Bar Involvement

- The State Bar Project Team will be involved in supporting the go-live process.

The State Bar of California  
Case and Records Management System

**Deliverables**

Deliverable	Description
<b>6.3.4 Go-Live Status Reports</b>	Weekly status reports that identify the running log of issues and associated resolution plans during the cutover process to the new system. It is anticipated that there will be several weeks of go-live status reports delivered, however the exact number will be jointly determined by the PMO based on need and relevance.

**Phase 7: Project Conclusion**

This phase represents project completion, and will signal the conclusion of implementation activities. In this final phase, the implementation project will be officially completed and the PMO will work with the State Bar to transition from implementation to operations and maintenance.

**Assumptions**

- All project implementation activities have been completed and approved.
- No material project issues remain.

**State Bar Involvement**

- None.

**Deliverables**

Deliverable	Description
<b>7.1 Project Closeout Report</b>	The project closeout report will be approved by the State Bar Executive Team signaling final approval and completion of the implementation project.

## 9.0 Reseller Certification

*A copy of “Reseller Certification” indicating that the vendor is the developer of the proposed system, or if not, a current, dated, and signed authorization from the developer, including any certification to license the product and offer in-house service, maintenance, technical training assistance, and warranty services.*

Tyler is the sole owner of the Odyssey software solution proposed for the State Bar Case Management System project. This includes all software solution components being proposed for the OCTC, State Bar Court, optional Probation Department, and optional Membership Records.

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## 10.0 Results of a Third-Party Security Audit

*A copy of “Results of a Third-Party Security Audit” conducted on the proposed system using the Open Source Web Application Security Project (“OSWASP”) standard for common application security problems. These results must be provided on the letterhead of the third-party testing entity, and state that the proposed application is free of severe/critical security defects. If not currently available, the vendor must arrange for such an audit to be conducted, at its expense, and provide the above prior to executing an agreement with the State Bar.*

Tyler agrees to arrange for a third-party security audit that meets the stated requirement in the RFP to be conducted, at its expense, and provide the results prior to executing an agreement with the State Bar.

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## 11.0 Cost Proposal

*A detailed cost proposal, including any travel costs and other expenses. Bidders must submit Attachment K: Itemized Cost Proposal electronically in native .xlsx format per instructions below. Portions of the optional components are highlighted in orange and can be left blank if not offered in your current system. If necessary, Vendors' travel expenses will be reimbursed in accordance with the public **Travel and Business-Related Expense Policy**. It is unlawful for any person engaged in business within this state to sell or use any article or product as a "loss leader" as defined in **Section 17030** of the Business and Professions Code. As the State Bar may award a contract based on the initial offer, a bidder should make its initial offer on the most favorable terms available. The State Bar reserves the right, however, to have discussions with those bidders falling within a competitive range, and to request revised pricing offers from them and to make an award or conduct negotiations thereafter.*

Tyler looks forward to the opportunity to conduct cost discussions with the State Bar to collectively determine an optimal project scope and corresponding affordable Odyssey implementation. The costs provided herein are based on actual contract values of existing Tyler customers in California that are similar in user base size to that of the State Bar.

Tyler has provided two separate pricing models for the State Bar to consider:

1. **Enterprise License:** This pricing model involves implementing Odyssey locally within the State Bar's environment. The model allows for unlimited use of the Odyssey software throughout the State Bar for all case types. The software fee involves a one-time licensing fee and an annual Maintenance and Support fee.
2. **Software as a Service (SaaS):** This pricing model involves implementing Odyssey Online, which is Tyler's SaaS solution that is completely hosted by Tyler in our secure data center located in Dallas, TX. Although there is no difference in the CMS user experience under this model, the pricing model is different from the Enterprise model as our customers pay for the use, support, maintenance, and hosting of the Odyssey software on a per user / per month basis. Because the Odyssey solution is hosted by Tyler, there is no need for additional costs to purchase infrastructure hardware or 3<sup>rd</sup> party supporting infrastructure software, nor is there a separate Maintenance and Support fee (already included in SaaS fee). Tyler's SaaS proposal would be for a five year term. The SaaS Fee for the five-year term of the contract is fixed. At the end of that five-year term, should the State Bar wish to renew, Tyler may increase the State Bar's annual use-fee at a rate consistent with the published consumer price index (rate of inflation). The first SaaS fee payment is due upon the commencement of end-user training, approximately one month prior to go-live. The State Bar can add additional users at any time for the same per user / per month rate.

At the end of this section, Tyler has provided two separate versions of the Attachment K - Itemized Cost Proposal, representing the two cost models described above.



## Cost Proposal Assumptions

The following assumptions have been made in preparation of Tyler's cost proposal:

- The cost proposal assumes implementation of Odyssey out-of-the-box, and that the vast majority of functionality would be established through configuration, instead of software modification (customization).
- The State Bar will make available the necessary SME's during the project. These SME's will support the business process review and configuration processes as well as attend any agreed upon scheduled training activities.
- This cost proposal for a local install (enterprise license model) does not include the cost of infrastructure hardware, user PC workstations, or other peripheral devices such as printers, scanners, or handheld devices. The alternative cost proposal for the Software as a Service (SaaS) model that is hosted by Tyler does include the cost of hardware infrastructure necessary to host the Odyssey solution on behalf of the State Bar.
- Under local install (enterprise license model), the Maintenance and Support (M&S) of the software is 21% of the license fee. Annual maintenance and support is due annually in advance. Tyler agrees to wave and the first year's annual payment. Under the SaaS model where Odyssey Online is hosted by Tyler, there is no additional maintenance and support fees (already included in annual SaaS fees).

## Cost Proposal Benefits

Tyler's proposed solution and corresponding costs outlined in this cost proposal includes the following benefits for the State Bar:

- **Inherent Integration:** The primary advantage of the Odyssey solution is the inherent integration available through a centralized case management system platform. Meaning that the OCTC, State Bar Court, and optionally the Probation Department and Membership Records can all be on the same case management system platform. Although each department operates independently, the core case and party data is stored and tracked centrally – enabling accuracy of information, minimal duplicate data entry, and improved overall automation. Viewing of pertinent information is protected by the robust security framework within Odyssey. This setup is not unlike the many Odyssey Integrated Criminal Justice (ICJ) implementations across the country where multiple agencies, such as the court, district attorney, and probation department are all on the same Odyssey platform and each agencies information is guarded by security rights and roles of users of the application.
- **Proven Implementation Approach:** Another key benefit to Tyler's proposal is it reflects an implementation approach that is proven successful over hundreds of customers – including 14 (fourteen) recent Odyssey Go-Live events in California over the past several years. Tyler proposes a low risk, yet cost effective approach for implementing Odyssey successfully across the OCTC and State Bar Court. Additionally, Tyler can easily incorporate the addition of the State Bar Probation Department and Membership Records into the project

implementation, should the State Bar determine to include these two optional components. Tyler has the proven methods and implementation experience to successfully deploy the Odyssey CMS across all four participating State Bar departments.

- **Inherent Document Management:** The Odyssey case management solution inherently includes content management. Thus, State Bar can use Odyssey as a centralized platform for managing all content media including electronic documents, photos, video, sound wave files, etc. Moreover, all the electronic content is managed accordingly and linked to their corresponding electronic case files. No additional costs for purchasing and maintaining software licenses for document management is necessary.
- **Easily Add Optional Components:** Although smaller in user count, Tyler understands that the Probation Department is critical to the State Bar's business and operations. Tyler has designed an implementation approach and cost proposal where the State Bar can easily decide to add the Probation Department to be in scope of the Odyssey CME deployment project. The optional costs presented in Tyler's cost proposal is a fraction of what it would cost if the Probation Department implemented Odyssey under a stand-alone implementation. Incorporating the Probation Department into the project together with the OCTC and State Bar Court Odyssey implementation would yield economies of scale, specifically around the costs for professional services (cost of implementation).
- **Leverage Existing Bar Membership Services Functionality:** Similar to the Probation Department, the optional Membership Records CMS implementation can also realize economies of scale for implementation costs. Although the CMS functionality of Membership Records is unique, Tyler has built some relevant attorney and bar membership functionality for the Odyssey statewide implementation in Rhode Island, specifically for the Rhode Island Supreme Court. An example of relevant functionality includes the ability to electronically manage the process and information associated with attorney registration and the corporate entities formed for the practice of law. Tyler has populated Attachment F Membership Services Requirements Matrix and has included optional costs for this portion of the RFP for the State Bar's consideration.
- **Reduced Maintenance and Support Costs:** Tyler has implemented over 70 multi-department and multi-module Odyssey implementations across the country, including in some of the most complex jurisdictions in the country, such as Texas and Fulton County, GA (Atlanta). Tyler is also currently implementing Odyssey Case Manager, Attorney Manager, and Supervision for the justice agencies in Kern County, CA (Bakersfield). The project includes the Superior Court, District Attorney, Public Defender, and Probation Department. Based on such implementations, Tyler and our customers have found that the one of the largest benefit from migrating to a consolidated CMS environment is lowered overall maintenance and support costs. This outcome is a result of being able to maintain and troubleshoot issues for only one technology environment for case management, party management, and document management business needs. There is no longer a need to maintain and support multiple systems. Furthermore, due to the Evergreen philosophy of Odyssey, our customers no longer have to concern themselves with aging technology, because Odyssey continues to evolve with every new customer, every year. With the

### The State Bar of California Case and Records Management System

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growing customer population in California, the State Bar will benefit tremendously in the future from the state's familiarity and use of Odyssey solutions throughout the State.

Tyler welcomes the opportunity to conduct cost discussions with the State Bar to collectively determine an optimal project scope and corresponding affordability of an Odyssey implementation. We have always been able to make the financials work when a customer has awarded Tyler during the procurement process and designated Odyssey as their future solution.

We look forward to the opportunity of successfully implementing the Odyssey case management solution for the California State Bar and further strengthening the abilities for attorneys in the State to provide justice services to the constituents in the State of California. Tyler is fully vested in California's success and we firmly believe that our proposed solution combines the products, the experience, and the approach to support the State Bar's short term and long term goals.

**Attachment A: Itemized Cost Proposal  
Appendix E**

Vendor Name: **Tyler Technologies**

**SOLUTION TYPE**

**Local Install**

**One-Time Costs**

Initial costs associated with the configuration, installation and implementation of the proposed Trial/Court Case management system.

**ITEMIZED COST**

- 1 Software license/subscription:** Itemize all one-time costs associated with acquiring a license or subscription for the proposed system (short description below w/NTE cost to right).

Odyssey Case Manager	\$ 390,000.00
Odyssey Attorney Manager	\$ 330,000.00
Odyssey SessionWorks Judge Edition	\$ 35,000.00

- 2 Third-Party Infrastructure Licenses:** Itemize all costs associated with underlying software needed to run the proposed application (such as database mgt system, operating system, etc.)

SQL Server (estimated cost only - Tyler will work with the State Bar to determine infrastructure needed. It is likely that the State Bar can leverage existing licenses or can acquire similar goods for significantly reduced costs)	\$ 80,000.00

- 3 Other Third-Party Licenses:** Itemize all one-time costs associated with report writers, statistical packages or other tools required to fully utilize the proposed application software.

Optical Character Recognition (OCR) Level 2 (included for State Bar if purchased with core Odyssey platform)	\$ -
Odyssey Portal (included for State Bar if purchased with core Odyssey platform)	\$ -
SessionSync (included for State Bar if purchased with core Odyssey platform)	\$ -

- 4 Project Management:** Itemize all one-time costs associated with implementation project management services.

Project Management	\$ 332,112.00

- 5 Installation:** Itemize all initial proposed system costs, by software product or expense category (e.g., sales tax, installation, check-out).

Data Conversion	\$ 206,168.00
Deployment	\$ 13,200.00
Go-Live Assistance	\$ 208,800.00

**Original**

primary license	\$ 755,000.00
third-party licenses	\$ 80,000.00
implementation	\$ 1,095,560.00

- 6 Process Improvement:** Identify all one-time costs associated with professional services for process improvement.

Business Process Review	\$ 15,840.00

- 7 Software Configuration:** Itemize all one-time costs for configuration of the proposed software to meet our needs as defined in this RFP.

Setup, Configuration & Consulting	\$ 319,440.00

- 8 Training:** Itemize one-time costs associated with each proposed training class (assume instructor for full-day classes--LA office, 12 students/class, including travel expense).

Initial Training	\$ 99,600.00
Follow-up Training	\$ 6,000.00

- 9 Implementation Expenses:** Itemize all one-time out-of-pocket expenses associated with providing the proposed products & services (e.g., per diem, travel, hotel, meals, copying, telephone).

All-inclusive project expenses	\$ 310,826.00

- 10 Other:** Itemize all other one-time costs associated with the proposed system. If local server install solution, summarize server hardware cost.

Hardware (conservative estimate only).	\$ 300,000.00

**Original**

training	\$ 105,600.00
travel expense	\$ 310,826.00
other	\$ 300,000.00

Attachment A: Itemized Cost Proposal (optional)  
Appendix E

Vendor Name: Tyler Technologies

SOLUTION TYPE

Local Install

One-Time Costs (optional component)

Initial costs associated with the configuration, installation and implementation of the optional Probation Case Management system.

INSTRUCTIONS: Enter brief description of optional component and itemized cost for each section below. Orange cells reserved for optional components/modules and be left blank if no solution offered. You may summarize component and attach additional detail on a separate sheet if necessary. Enter \$0 if service provide at no cost or included in another line.

ITEMIZED COST

ITEMIZED COST

1 **Software license/subscription:** *Itemize all one-time costs associated with acquiring a license or subscription for the proposed system (short description below w/NTE cost to right).*

Odyssey Supervision (for Probation)	\$ 60,000.00

2 **Third-Party Infrastructure Licenses:** *Itemize all costs associated with underlying software needed to run the proposed application (such as database mgt system, operating system, etc.)*

Would be acquired with core Odyssey platform	\$ -

3 **Other Third-Party Licenses:** *Itemize all one-time costs associated with report writers, statistical packages or other tools required to fully utilize the proposed application software.*

Would be acquired with core Odyssey platform	\$ -

4 **Project Management:** *Itemize all one-time costs associated with implementation project management services.*

Project Management	\$ 58,608.00

5 **Installation:** *Itemize all initial proposed system costs, by software product or expense category (e.g., sales tax, installation, check-out).*

Data Conversion	\$ 36,383.00
Deployment	\$ -
Go-Live Assistance	\$ 18,750.00

Original

primary license	\$ 60,000.00
third-party licenses	\$ -
implementation	\$ 194,261.00

6 **Process Improvement:** *Identify all one-time costs associated with professional services for process improvement.*

Business Process Review	\$ 2,640.00

7 **Software Configuration:** *Itemize all one-time costs for configuration of the proposed software to meet our needs as defined in this RFP.*

Setup, Configuration & Consulting	\$ 77,880.00

8 **Training:** *Itemize one-time costs associated with each proposed training class (assume instructor for full-day classes--LA office, 12 students/class, including travel expense.*

Initial Training	\$ 13,200.00
Follow-up Training	\$ 1,200.00

9 **Implementation Expenses:** *Itemize all one-time out-of-pocket expenses associated with providing the proposed products & services (e.g., per diem, travel, hotel, meals, copying, telephone).*

All-inclusive project expenses	\$ 54,852.00

10 **Other:** *Itemize all other one-time costs associated with the proposed system. If local server install solution, summarize server hardware cost.*

Would be acquired with core Odyssey platform	\$ -

Original

training	\$ 14,400.00
travel expense	\$ 54,852.00
other	\$ -

## Appendix E

### Attachment A: Itemized Cost Proposal (optional)

Vendor Name: Tyler Technologies

**SOLUTION TYPE**

Local Install

#### One-Time Costs (optional component)

Initial costs associated with the configuration, installation and implementation of the optional Membership Records system.

#### ITEMIZED COST

#### ITEMIZED COST

- 1 Software license/subscription:** Itemize all one-time costs associated with acquiring a license or subscription for the proposed system (short description below w/NTE cost to right).

Odyssey Bar Membership Services (normally \$60,000, but would be bundled with Odyssey if the State Bar elects to include the Optional Probation).	\$ -

- 2 Third-Party Infrastructure Licenses:** Itemize all costs associated with underlying software needed to run the proposed application (such as database mgt system, operating system, etc.)

Would be acquired with core Odyssey platform	\$ -

- 3 Other Third-Party Licenses:** Itemize all one-time costs associated with report writers, statistical packages or other tools required to fully utilize the proposed application software.

Would be acquired with core Odyssey platform	\$ -

- 4 Project Management:** Itemize all one-time costs associated with implementation project management services.

Included when bundled with Optional Probation	\$ -

- 5 Installation:** Itemize all initial proposed system costs, by software product or expense category (e.g., sales tax, installation, check-out).

Included when bundled with Optional Probation	\$ -

	<b>Original</b>
primary license	\$ -
third-party licenses	\$ -
implementation	\$ 297,000.00

- 6 Process Improvement:** Identify all one-time costs associated with professional services for process improvement.

Included when bundled with Optional Probation	\$ -

- 7 Software Configuration:** Itemize all one-time costs for configuration of the proposed software to meet our needs as defined in this RFP.

Estimated Customization Allowance of 1,800 hours for the State Bar's consideration based on the RFP requirements outlined in Attachment F for Membership Services.	\$ 297,000.00

- 8 Training:** Itemize one-time costs associated with each proposed training class (assume instructor for full-day classes--LA office, 12 students/class, including travel expense).

Included when bundled with Optional Probation	\$ -

- 9 Implementation Expenses:** Itemize all one-time out-of-pocket expenses associated with providing the proposed products & services (e.g., per diem, travel, hotel, meals, copying, telephone).

Included when bundled with Optional Probation	\$ -

- 10 Other:** Itemize all other one-time costs associated with the proposed system. If local server install solution, summarize server hardware cost.

Would be acquired with core Odyssey platform	\$ -

	<b>Original</b>
training	\$ -
travel expense	\$ -
other	\$ -

# Appendix E Attachment A: Itemized Cost Proposal

Vendor Name:

**Tyler Technologies**

Solution Type:

**Local Install**

## Annual Costs

Recurring costs associated with support and maintenance of the proposed system.

Enter brief description of component and yearly cost for each. Orange cells reserved for optional components/modules and be left blank if no solution offered. Enter \$0 if service provide at no cost or included in another line. Overwrite answer for year one if not applicable. Continue to tab 5 below.

Initial Term			Renewal Option	
Year 1	Year 2	Year 3	Year 4	Year 5

- 1 Recurring Software Support:** *Itemize all costs for the proposed application software.*

Odyssey Annual Maintenance and Support Fee

Itemized Cost

<i>included in initial implementation</i>	\$ 158,550.00	\$ 158,550.00	\$ 163,306.50	\$ 168,205.70
<i>included in initial license</i>				

- 2 Recurring Electronic Support:** *Itemize all ongoing cost (e.g., Internet news groups, instant messaging, support webs sites, e-mail).*

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Itemized Cost

<i>included in initial license</i>				
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- 3 Recurring Third-Party Software Support:** *Itemize all ongoing costs required to fully utilize the proposed system (e.g., report writer, statistical package, other tools).*


Itemized Cost

<i>included in initial license</i>				
<i>included in initial license</i>				
<i>included in initial license</i>				

- 4 Other (optional):** *Itemize all other ongoing costs associated with the optional components for Probation and Membership system offered through the identified life cycle.*

Odyssey Supervision Annual Maintenance and Support Fee (Probation)
Odyssey Annual Maintenance and Support Fee (Membership - \$0 when bundled with Probation)

Itemized Cost

<i>included in initial license</i>	\$ 12,600.00	\$ 12,600.00	\$ 12,978.00	\$ 13,367.34
<i>included in initial license</i>	\$ -	\$ -	\$ -	\$ -
<i>included in initial license</i>				

**SUBTOTALS (CMS base systems only)**

\$ 158,550.00 \$ 158,550.00 \$ 163,306.50 \$ 168,205.70

## Appendix E

### Attachment A: Itemized Cost Proposal

Vendor Name:

**Tyler Technologies**

Enter titles, billing rates and home office location(s) below. Project costs from sheets 1, 4 & 5 will total below.  
Optional components will not update summary. Submit in native format per RFP submission requirements.

#### Additional Consulting

Additional consulting services as needed and not included in initial implementation and/or annual recurring maintenance above.

**Solution Type: Local Install**

**Position Classification Group**

**Classification Title Bid** *(your equivalent, if different from above)*

**Home Office** *(location: city, ST)*

**Hourly Bill Rate**

**Project Manager**

**Sr Application Consultant**

**Application Consultant**

**Other (specify)**

**Other (specify)**

Project Manager	Consultant	Data Conversion	Application Development	Trainers / Go-Live Assistance
Plano, TX	Plano, TX	Plano, TX	Plano, TX	Plano, TX
\$ 185.00	\$ 165.00	\$ 165.00	\$ 165.00	\$ 150.00

#### Projected Project Costs

*Summary does not include optional components*

	<b>Initial Term</b>			<b>Renewal Option</b>	
	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Primary (core) software licensing	\$ 755,000				
Third-party software licensing	\$ 80,000				
Initial implementation	\$ 1,095,560				
Initial training	\$ 105,600				
Estimated travel Expense	\$ 310,826				
Other One-time (includes hardware for local install)	\$ 300,000				
Recurring software maintenance		\$ 158,550	\$ 158,550	\$ 163,307	\$ 168,206
Additional consulting blended rate: 80 hrs per yr (included for cost scoring only--actual unknown)		\$ 13,280	\$ 13,280	\$ 13,280	\$ 13,280
<b>Annual Estimates</b>	\$ 2,646,986	\$ 171,830	\$ 171,830	\$ 176,587	\$ 181,486
<b>TOTAL PROJECTED COST:</b>				<b>\$</b>	<b>3,348,718</b>



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## Attachment A: Itemized Cost Proposal

## Appendix E

Vendor Name:

Tyler Technologies

## One-Time Costs

Initial costs associated with the configuration, installation and implementation of the proposed Trial/Court Case management system.

## ITEMIZED COST

- 1 Software license/subscription:** Itemize all one-time costs associated with acquiring a license or subscription for the proposed system (short description below w/NTE cost to right).

Odyssey Case Manager	\$ -
Odyssey Attorney Manager	\$ -
Odyssey SessionWorks Judge Edition	\$ -

- 2 Third-Party Infrastructure Licenses:** Itemize all costs associated with underlying software needed to run the proposed application (such as database mgt system, operating system, etc.)

Any 3rd party software needed to run the Odyssey solution is hosted and provided by Tyler at Tyler's Data Center	\$ -

- 3 Other Third-Party Licenses:** Itemize all one-time costs associated with report writers, statistical packages or other tools required to fully utilize the proposed application software.

Optical Character Recognition (OCR) Level 2 (included for State Bar if purchased with core Odyssey platform)	\$ -
Odyssey Portal (included for State Bar if purchased with core Odyssey platform)	\$ -
SessionSync (included for State Bar if purchased with core Odyssey platform)	\$ -

- 4 Project Management:** Itemize all one-time costs associated with implementation project management services.

Project Management	\$ 332,112.00

- 5 Installation:** Itemize all initial proposed system costs, by software product or expense category (e.g., sales tax, installation, check-out).

Data Conversion	\$ 206,168.00
Deployment	\$ 13,200.00
Go-Live Assistance	\$ 208,800.00

## Original

primary license	\$ -
third-party licenses	\$ -
implementation	\$ 1,095,560.00

## SOLUTION TYPE

Hosted

## ITEMIZED COST

- 6 Process Improvement:** Identify all one-time costs associated with professional services for process improvement.

Business Process Review	\$ 15,840.00

- 7 Software Configuration:** Itemize all one-time costs for configuration of the proposed software to meet our needs as defined in this RFP.

Setup, Configuration & Consulting	\$ 319,440.00

- 8 Training:** Itemize one-time costs associated with each proposed training class (assume instructor for full-day classes--LA office, 12 students/class, including travel expense).

Initial Training	\$ 99,600.00
Follow-up Training	\$ 6,000.00

- 9 Implementation Expenses:** Itemize all one-time out-of-pocket expenses associated with providing the proposed products & services (e.g., per diem, travel, hotel, meals, copying, telephone).

All-inclusive project expenses	\$ 310,826.00

- 10 Other:** Itemize all other one-time costs associated with the proposed system. If local server install solution, summarize server hardware cost.

Hardware is hosted by Tyler in Tyler's Data Center	\$ -

## Original

training	\$ 105,600.00
travel expense	\$ 310,826.00
other	\$ -

Attachment A: Itemized Cost Proposal (optional)  
Appendix E

Vendor Name: Tyler Technologies

SOLUTION TYPE

Hosted

INSTRUCTIONS: Enter brief description of optional component and itemized cost for each section below. Orange cells reserved for optional components/modules and be left blank if no solution offered. You may summarize component and attach additional detail on a separate sheet if necessary. Enter \$0 if service provide at no cost or included in another line.

One-Time Costs (optional component)

Initial costs associated with the configuration, installation and implementation of the optional Probation Case Management system.

ITEMIZED COST

ITEMIZED COST

1 **Software license/subscription:** *Itemize all one-time costs associated with acquiring a license or subscription for the proposed system (short description below w/NTE cost to right).*

Odyssey Supervision (for Probation) included with annual SaaS fee	\$ -

2 **Third-Party Infrastructure Licenses:** *Itemize all costs associated with underlying software needed to run the proposed application (such as database mgt system, operating system, etc.)*

Any 3rd party software needed to run the Odyssey solution is hosted and provided by Tyler at Tyler's Data Center	\$ -

3 **Other Third-Party Licenses:** *Itemize all one-time costs associated with report writers, statistical packages or other tools required to fully utilize the proposed application software.*

Any 3rd party software needed to run the Odyssey solution is hosted and provided by Tyler at Tyler's Data Center	\$ -

4 **Project Management:** *Itemize all one-time costs associated with implementation project management services.*

Project Management	\$ 58,608.00

5 **Installation:** *Itemize all initial proposed system costs, by software product or expense category (e.g., sales tax, installation, check-out).*

Data Conversion	\$ 36,383.00
Deployment	\$ -
Go-Live Assistance	\$ 18,750.00

Original

primary license	\$ -
third-party licenses	\$ -
implementation	\$ 194,261.00

6 **Process Improvement:** *Identify all one-time costs associated with professional services for process improvement.*

Business Process Review	\$ 2,640.00

7 **Software Configuration:** *Itemize all one-time costs for configuration of the proposed software to meet our needs as defined in this RFP.*

Setup, Configuration & Consulting	\$ 77,880.00

8 **Training:** *Itemize one-time costs associated with each proposed training class (assume instructor for full-day classes--LA office, 12 students/class, including travel expense.*

Initial Training	\$ 13,200.00
Follow-up Training	\$ 1,200.00

9 **Implementation Expenses:** *Itemize all one-time out-of-pocket expenses associated with providing the proposed products & services (e.g., per diem, travel, hotel, meals, copying, telephone).*

All-inclusive project expenses	\$ 54,852.00

10 **Other:** *Itemize all other one-time costs associated with the proposed system. If local server install solution, summarize server hardware cost.*

Hardware provided by Tyler hosted solution	\$ -

Original

training	\$ 14,400.00
travel expense	\$ 54,852.00
other	\$ -

## Appendix E

### Attachment A: Itemized Cost Proposal (optional)

Vendor Name: Tyler Technologies

**SOLUTION TYPE**

**Hosted**

#### One-Time Costs (optional component)

Initial costs associated with the configuration, installation and implementation of the optional Membership Records system.

#### ITEMIZED COST

#### ITEMIZED COST

- 1 Software license/subscription:** Itemize all one-time costs associated with acquiring a license or subscription for the proposed system (short description below w/NTE cost to right).

Odyssey Bar Membership Services (normally \$60,000, but would be bundled with Odyssey if the State Bar elects to include the Optional Probation).	\$ -

- 2 Third-Party Infrastructure Licenses:** Itemize all costs associated with underlying software needed to run the proposed application (such as database mgt system, operating system, etc.)

Any 3rd party software needed to run the Odyssey solution is hosted and provided by Tyler at Tyler's Data Center	

- 3 Other Third-Party Licenses:** Itemize all one-time costs associated with report writers, statistical packages or other tools required to fully utilize the proposed application software.

Any 3rd party software needed to run the Odyssey solution is hosted and provided by Tyler at Tyler's Data Center	

- 4 Project Management:** Itemize all one-time costs associated with implementation project management services.

Included when bundled with Optional Probation	\$ -

- 5 Installation:** Itemize all initial proposed system costs, by software product or expense category (e.g., sales tax, installation, check-out).

Included when bundled with Optional Probation	\$ -

	<b>Original</b>
primary license	\$ -
third-party licenses	\$ -
implementation	\$ 297,000.00

INSTRUCTIONS: Enter brief description of optional component and itemized cost for each section below. Orange cells reserved for optional components/modules and be left blank if no solution offered. You may summarize component and attach additional detail on a separate sheet if necessary. Enter \$0 if service provide at no cost or included in another line.

- 6 Process Improvement:** Identify all one-time costs associated with professional services for process improvement.

Included when bundled with Optional Probation	\$ -

- 7 Software Configuration:** Itemize all one-time costs for configuration of the proposed software to meet our needs as defined in this RFP.

Estimated Customization Allowance of 1,800 hours for the State Bar's consideration based on the RFP requirements outlined in Attachment F for Membership Services.	\$ 297,000.00

- 8 Training:** Itemize one-time costs associated with each proposed training class (assume instructor for full-day classes--LA office, 12 students/class, including travel expense).

Included when bundled with Optional Probation	\$ -

- 9 Implementation Expenses:** Itemize all one-time out-of-pocket expenses associated with providing the proposed products & services (e.g., per diem, travel, hotel, meals, copying, telephone).

Included when bundled with Optional Probation	\$ -

- 10 Other:** Itemize all other one-time costs associated with the proposed system. If local server install solution, summarize server hardware cost.

Hardware provided by Tyler hosted solution	\$ -

	<b>Original</b>
training	\$ -
travel expense	\$ -
other	\$ -

## Appendix E Attachment A: Itemized Cost Proposal

Vendor Name:

**Tyler Technologies**

Solution Type:

**Hosted**

### Annual Costs

Recurring costs associated with support and maintenance of the proposed system.

Enter brief description of component and yearly cost for each. Orange cells reserved for optional components/modules and be left blank if no solution offered. Enter \$0 if service provide at no cost or included in another line. Overwrite answer for year one if not applicable. Continue to tab 5 below.

Initial Term			Renewal Option	
Year 1	Year 2	Year 3	Year 4	Year 5

- 1 Recurring Software Support:** *Itemize all costs for the proposed application software.*

Odyssey Online (Tyler's Hosted Solution) for 300 State Bar users @ Tyler's lowest per user / per month rate

Itemized Cost

<i>included in initial implementation</i>	\$ 450,000.00	\$ 450,000.00	\$ 450,000.00	\$ 450,000.00
<i>included in initial license</i>				

- 2 Recurring Electronic Support:** *Itemize all ongoing cost (e.g., Internet news groups, instant messaging, support webs sites, e-mail).*

--

Itemized Cost

<i>included in initial license</i>				
------------------------------------	--	--	--	--

- 3 Recurring Third-Party Software Support:** *Itemize all ongoing costs required to fully utilize the proposed system (e.g., report writer, statistical package, other tools).*


Itemized Cost

<i>included in initial license</i>				
<i>included in initial license</i>				
<i>included in initial license</i>				

- 4 Other (optional):** *Itemize all other ongoing costs associated with the optional components for Probation and Membership system offered through the identified life cycle.*

Probation (included in 300 users SaaS fee above)
Membership (included in 300 users SaaS fee above)

Itemized Cost

<i>included in initial license</i>	\$ -	\$ -	\$ -	\$ -
<i>included in initial license</i>	\$ -	\$ -	\$ -	\$ -
<i>included in initial license</i>				

**SUBTOTALS (CMS base systems only)**

\$ 450,000.00 \$ 450,000.00 \$ 450,000.00 \$ 450,000.00

## Appendix E

### Attachment A: Itemized Cost Proposal

Vendor Name:

**Tyler Technologies**

Enter titles, billing rates and home office location(s) below. Project costs from sheets 1, 4 & 5 will total below.  
Optional components will not update summary. Submit in native format per RFP submission requirements.

#### Additional Consulting

Additional consulting services as needed and not included in initial implementation and/or annual recurring maintenance above.

**Solution Type: Hosted**

**Position Classification Group**

**Classification Title Bid** *(your equivalent, if different from above)*

**Home Office** *(location: city, ST)*

**Hourly Bill Rate**

**Project Manager**

**Sr Application Consultant**

**Application Consultant**

**Other (specify)**

**Other (specify)**

Project Manager	Consultant	Data Conversion	Application Development	Trainers / Go-Live Assistance
Plano, TX	Plano, TX	Plano, TX	Plano, TX	Plano, TX
\$ 185.00	\$ 165.00	\$ 165.00	\$ 165.00	\$ 150.00

#### Projected Project Costs

*Summary does not include optional components*

	<b>Initial Term</b>			<b>Renewal Option</b>	
	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Primary (core) software licensing	\$ -				
Third-party software licensing	\$ -				
Initial implementation	\$ 1,095,560				
Initial training	\$ 105,600				
Estimated travel Expense	\$ 310,826				
Other One-time (includes hardware for local install)	\$ -				
Recurring software maintenance	\$	450,000	\$ 450,000	\$ 450,000	\$ 450,000
Additional consulting blended rate: 80 hrs per yr (included for cost scoring only--actual unknown)	\$	13,280	\$ 13,280	\$ 13,280	\$ 13,280
<b>Annual Estimates</b>	\$ 1,511,986	\$ 463,280	\$ 463,280	\$ 463,280	\$ 463,280
<b>TOTAL PROJECTED COST:</b>				<b>\$</b>	<b>3,365,106</b>

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## 12.0 Response to Contracting Requirements

*A written acknowledgement of the acceptance of the Contracting Requirements set forth in section IV of this RFP. Specific terms may be reserved for future negotiation, but must be clearly identified and reasons given for the reservation.*

Tyler acknowledges the contracting requirements and subject areas set forth in Section IV of the RFP. Tyler's contract negotiation philosophy is to balance the rights and responsibilities of both Tyler and the client, taking into account issues of special importance to each party. The following items are areas we have identified in advance will require additional discussion to reach mutual terms.

Tyler's negotiation philosophy is to balance the rights and responsibilities of both Tyler and the State Bar, taking into account issues of special importance to each. The following exceptions are based on Tyler's standard contract. Tyler reserves the right to negotiate any and all terms to the mutual satisfaction of the parties.

A(5) (Page 6): Tyler will provide information on representative Tyler personnel. We are unable to assign personnel to a project until Tyler is selected and a contract is signed, in an effort to most effectively use resources.

A(8) (Page 6): Tyler's Proposal includes a proposed project plan. Should Tyler be contracted for this project, the Tyler project team will deliver work with the State Bar to update the actual project plan during the project kickoff meeting and/or initiation of the project.

A(11) (Page 7): The State Bar shall be liable for and Tyler will incur travel expenses in accordance with its then-current business policy. Tyler has incorporated estimated travel (and other project) expenses into the cost proposal templates submitted with Tyler's proposal response to this RFP.

E. Award and Execution of Contract (Page 9): Tyler prefers to use the standard Tyler contract as the basis for beginning good faith contract negotiations, as it contains language specific to the software industry, such as license grant and intellectual property infringement. Tyler recognizes that there may be clauses of particular importance to the State Bar that are not included in the Tyler contract. Tyler is amenable to accommodating the State Bar's contract requests by incorporating mutually agreed clauses into the contract.

IV. Contract Requirements (Page 11): Tyler will agree to incorporate the State Bar's RFP by reference into the final contract, so long as Tyler's Proposal is incorporated as well, and the order of priority in the event of any conflict is (1) the Agreement; (2) Tyler's Proposal; and (3) the RFP.

A. Time of Essence (Page 12): Tyler does not agree to "Time being made of the essence", however, Tyler will begin and perform services in accordance with the mutually agreed upon implementation plan schedule.

B(5) (Page 12): Tyler has an Escrow Agreement in place with Iron Mountain. In the event the State Bar desires to enroll as a beneficiary, the Client will pay the annual beneficiary fee. Release of the Tyler source code will be in accordance with such Escrow Agreement.



B(6) Accessibility Standards (Page 12); also applies to K. Compliance with Laws (Page 19): Tyler will discuss the applicability of accessibility standards with the State Bar in good faith. Tyler reserves the right to review and discuss with the State Bar any specific laws and regulations that the State Bar wishes to incorporate into the final contract.

8. Survival of Warranties (Page 13): For as long as the State Bar has a current Maintenance Agreement in place, Tyler warrants that the Tyler software will substantially conform to the functional descriptions of the Tyler software contained in Tyler's Proposal, or their functional equivalent. Future functionality may be updated, modified, or otherwise enhanced through our maintenance and support services, and the governing functional descriptions for such future functionality will be set forth in our then-current documentation.

D. Installation/Configuration/Acceptance Testing (Page 13): Services are billed monthly as incurred; however, Tyler is willing to negotiate in good faith tying a mutually agreed amount of fees to the successful achievement of a mutually agreed milestone.

F. Indemnity Obligations of Vendor (Page 13 et seq): Tyler shall indemnify and hold harmless the State Bar from and against any and all direct claims, losses, liabilities, damages, costs and expenses (including reasonable attorney's fees and costs) for personal injury or property damage arising from Tyler's negligence or willful misconduct; or Tyler's violation of a law applicable to our performance under this Agreement. The State Bar must notify Tyler promptly in writing of the claim and give us sole control over its defense or settlement. The State Bar agrees to provide Tyler with reasonable assistance, cooperation, and information in defending the claim at our expense.

2. Work Product (Page 15): Tyler shall retain ownership of all (i) software products licensed to the State Bar; and (ii) proprietary information contained in all deliverables. Tyler reserves the right to protest the public disclosure of its confidential and proprietary information, consistent with applicable public records laws.

H. Insurance Obligations of Vendor (Page 16 et seq): H(2) The State Bar can be listed as an additional insured on Tyler's Commercial General Liability policy and Auto Liability policy, which automatically adds Client as an additional insured on Tyler's Excess/Umbrella Liability policy. Tyler's carrier has issued a blanket endorsement whereby any customer named as additional insured in the contract is afforded such status under the policy. Tyler's carrier does not issue separate additional insured endorsement specific to a client. Whether or not Tyler's insurance is primary depends on the circumstances of the claim. Because subrogation rights are personal to the insurance carrier and arise by operation of law, Tyler is not in a position to waive subrogation on behalf of the carrier. Whether a right of subrogation exists and is properly pursued by the carrier is dependent upon the nature of claim and ensures that responsible parties for damage or injury are appropriately accountable. H(4) Tyler's insurance company uses an Acord form that does not comply with the State Bar's requested notice provision, and instead states that notice will be provided according to the terms of the policy. Tyler will agree to provide notice of cancellation directly to the State Bar. In no event may the State Bar procure coverage in Tyler's name, on its behalf, or at its expense.

1. Termination (Page 17): The State Bar may terminate the contract for convenience on thirty days' prior written notice. Upon termination, the State bar shall remit payment for all products and services delivered to the State Bar and all expenses incurred by Tyler prior through the effective date of termination. The State Bar will not be entitled to a refund or offset of previously paid license and other fees.

3. Termination in Event of Material Breach (Page 17): The State Bar may terminate the contract for cause in the event Tyler fails to cure a material breach within thirty days of the State Bar's invocation of dispute resolution. The State Bar will make payment to Tyler for all undisputed products, services and expenses delivered or incurred through the effective date of termination. Payment for disputed products, services and expenses, and the State Bar's remedies, will be determined through the mutually agreed dispute resolution process.

4. Appropriation of Funds (Page 18): If the State Bar should not appropriate or otherwise make available funds sufficient to purchase, lease, operate or maintain the products set forth in the contract, or other means of performing the same functions of such products, the State Bar may unilaterally terminate the contract upon thirty days' prior written notice to Tyler. Upon termination, the State Bar shall remit payment for all products and services delivered to the State Bar and all expenses incurred by Tyler prior to Tyler's receipt of the termination notice. The State Bar will not be entitled to a refund or offset of previously paid license and other fees.

J. Confidentiality and Publicity (Page 18): Tyler reserves the right to negotiate mutually agreeable language that protects the confidential information of both parties.

1. No Assignment, Subcontracting, Delegation, or Transfer (Page 19): Neither party may assign the contract without the prior written consent of the other party, except that Tyler may, without the prior written consent of the State Bar, assign the contract in its entirety to the surviving entity of any merger or consolidation or to any purchaser of substantially all of Tyler's assets.

c. Assignment of Personnel (Page 19): In the event Tyler personnel provide services that do not conform to Tyler's services warranty, Tyler will be given an opportunity to correct the deficiency. In the event the deficiency persists, the State Bar may require the removal of personnel in question.

3. Audit (Page 20): The State Bar may audit Tyler's books and records relating directly to the contract once per year on one week advance written notice, and at the State Bar's expense.

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## Appendix

### 2014 Annual Report

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***After years of disciplined preparation,  
our financial performance reached  
new heights in 2014.***

In every economic climate, Tyler Technologies stays true to our business strategy. And in 2014, our resolute focus on our long-term strategic view fueled record results for our company as market activity returned to normal levels. Not only is Tyler Technologies gaining momentum — we're empowering the public sector to do the same.



# TO OUR SHAREHOLDERS

In 2014, Tyler Technologies once again achieved record financial results by every meaningful measure. Our results were exceptional, and we are gratified to recognize that our enduring strategy continues to achieve results and has elevated Tyler to a new level of leadership in the public sector.

Tyler has always focused on the long-term strength of our company, staying true to our strategy through changing economic and market conditions. By continually strengthening our offerings through ongoing investments in product development, we've earned our competitive advantage through hard work. And now, we can say with confidence that Tyler is the clear leader in our key product areas.

## Financial Highlights

The fourth quarter of 2014 marked our 16th consecutive quarter of year-over-year revenue growth — along with our 13th straight quarter of double-digit revenue growth. Revenues for the year were \$493.1 million, up 18.4 percent over 2013.

While software licenses and royalty revenues showed very healthy growth of 20.1 percent, subscriptions continued to be our fastest-growing revenue stream, rising 42.0 percent to \$87.8 million. These revenues include \$32.1 million in transaction-based revenues from e-filing and online payments, as well as \$55.7 million from cloud-based software as a service (SaaS) arrangements.

Both bookings and year-end backlog reached new highs in 2014. In fact, we recorded our highest quarterly bookings in company history during the second quarter as court case management software contracts in California helped drive a 63 percent increase year over year.

Tyler consistently outperformed expectations in 2014, ending the year with GAAP net income of \$58.9 million, or \$1.66 per diluted share, up 50.7 percent from 2013. Non-GAAP net income for the year rose 41.5 percent to \$74.0 million, or \$2.09 per diluted share. Cash flow was very strong, as cash flow from operations for the year increased 86.8 percent to \$123.4 million. We used a portion of our cash flow to repurchase 294,000 shares of common stock during 2014.

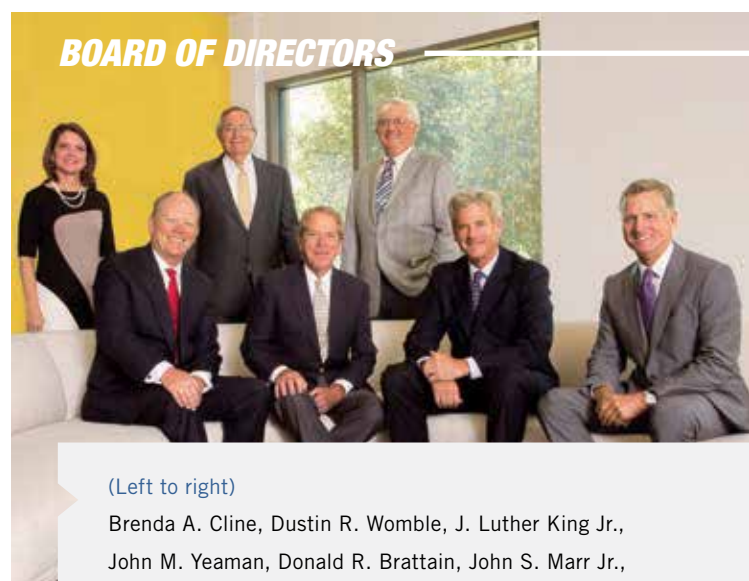
Our balance sheet remains extremely healthy, and we finished the year with cash of \$206.2 million and no debt. We believe that our balance sheet positions us well to take advantage of future opportunities to drive growth and create shareholder value, including investments in product development and strategic acquisitions.

## Outperforming in a Solid Market

Following the challenges of a recession and slow recovery since mid-2012, market activity in the public sector has returned to pre-recession levels. Our marketplace is solid — and Tyler Technologies has been in a competitive position to outpace renewed economic momentum.

Each of our business units exceeded its plan for operating profits in 2014, and each major product group posted double-digit revenue growth. Of these, the Courts & Justice Division managed the fastest-growing product line in 2014, fueled in part by our e-filing agreement with the state of Texas. The eFileTexas.gov™ system began operations in late 2013 and ramped up throughout 2014 with \$17 million in revenues, up from \$3.8 million in 2013.

Our success in the court case management software market in California continued in 2014 as we signed



(Left to right)

Brenda A. Cline, Dustin R. Womble, J. Luther King Jr., John M. Yeaman, Donald R. Brattain, John S. Marr Jr., Glenn A. Carter



## Appendix E

contracts with courts in 16 counties, and have now been selected by 25 out of 28 California courts over the past two years.

Tyler's achievements extended well beyond our courts and justice products. Win rates for other products, including our Munis® and Incode® ERP solutions; EnerGov™ planning, regulatory and maintenance solution; and Versatrans® school transportation solution, climbed to new highs in 2014.

A number of factors are contributing to Tyler's strong competitive position. Our exclusive focus on the public sector is reflected in the features and functionality that our clients select. Our financial strength allows us to consistently invest in product development, and all of our clients benefit from that innovation through our evergreen approach to upgrades. Tyler also has an unparalleled record of executing at a high level on complex implementations, with a team of professionals who possess deep domain expertise in the business of local government. Both current and prospective clients value these attributes, as they expect our relationships with them to last for decades.

### Strategic Investments

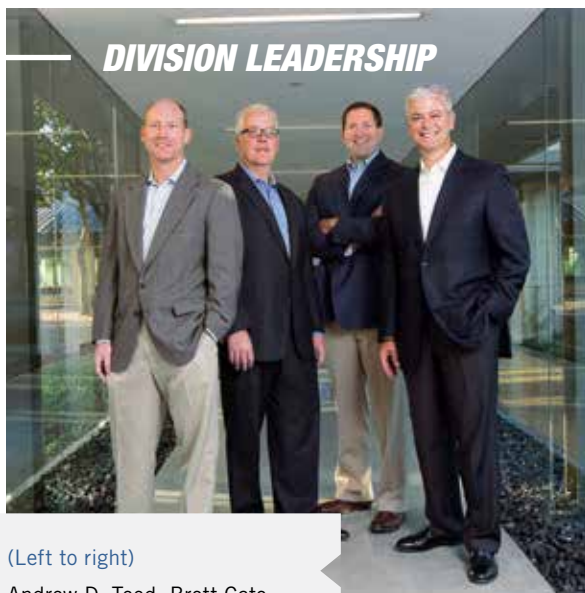
In August, we completed the acquisition of SoftCode, Inc., whose sophisticated civil process automation solutions primarily serve county sheriffs' departments. The acquisition broadens our portfolio of courts and

justice solutions, providing robust functionality that complements our Odyssey® suite of products. With SoftCode's founding partners, management team and staff now a part of our Courts & Justice Division, we expect to significantly expand the product's reach.

After the end of the year, in January 2015, we also acquired a 20 percent equity stake in Record Holdings, an Australian company specializing in digitizing the spoken word in courts throughout the world. Our \$15 million convertible preferred stock investment will help Record Holdings expand its presence in North American courts. We also look forward to building on the international relationships already established by Record Holdings to make our Odyssey court case management solution more readily available beyond the U.S. market. These developments are excellent examples of our opportunistic acquisition strategy. We are constantly seeking strategic acquisition opportunities to broaden our product and service offerings or expand our client base. We are patient and disciplined in our approach to acquisitions as we seek the right combinations of strategic fit and valuation, and we believe Tyler is very well positioned to successfully take advantage of attractive acquisition opportunities in the future.

### Meeting the Challenges of Growth

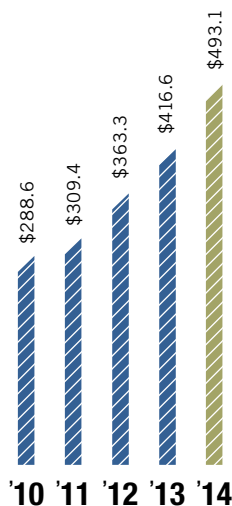
Along with strong bookings and backlog growth comes the challenge of ramping up our implementation capacity, a formidable task that has required



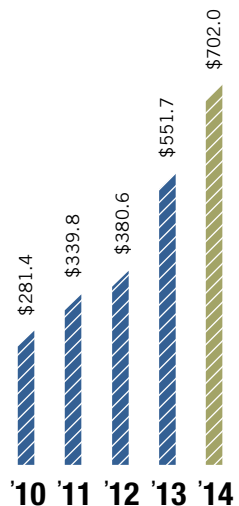
(Left to right)

Andrew D. Teed, Brett Cate,  
Christopher P. Hepburn,  
Bruce Graham

**TOTAL REVENUES**  
in millions



**BACKLOG**  
in millions



## Appendix E

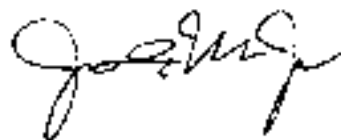
considerable planning and significant staffing increases. Tyler began the year with 2,573 employees, and by year's end we'd grown our employee base to 2,856. With a meaningful number of employees who are relatively new to Tyler, we take care to build our professional services teams around a strong core of experienced subject matter experts, with seasoned veterans leading our projects. As we have expanded our team to meet growing demands, Tyler has experienced some margin pressure as we absorb personnel costs during the onboarding period before new employees begin generating revenues.

To attract and retain the best and brightest employees, Tyler continues to focus on maintaining our reputation as an employer of choice. *The Dallas Morning News* named Tyler as No. 10 on its list of the Top 100 Places to Work in the Dallas/Fort Worth area, and we appeared in the top 10 in the Best Places to Work in Maine program managed by Best Companies Group. In addition, we were named to the *Forbes* list of America's Best Small Companies for the eighth time. We take pride in these honors because they reflect our commitment to both employee and client satisfaction. We go to great lengths to ensure employees are informed and engaged — and as we've grown, so have our career development opportunities. Every employee has an important role in our success, and we're committed to doing our part to continue providing a positive work environment.

### An Enduring Strategy

While a healthy market certainly contributed to our exceptional results in 2014, Tyler's strategy and execution deserve the majority of credit for our performance. Our competitors don't appear to be enjoying the same degree of success as Tyler. Many companies that reduced investments in research and development during the recession are lagging behind in terms of their competitive positions. Some have even exited the market altogether. Conversely, Tyler continued to invest in our business at a high level when market conditions were challenging. As a result, our competitive position is better than ever, and win rates have increased across the board — a trend we expect to continue.

To every shareholder, employee and client of Tyler Technologies, we thank you for your support.



**John S. Marr Jr.**

President and Chief Executive Officer  
March 27, 2015

### CORPORATE OFFICERS



(Left to right)

Robert J. Sansone, Samantha B. Crosby, Matthew B. Bieri,  
Dustin R. Womble, John M. Yeaman, John S. Marr Jr., Brian K. Miller,  
H. Lynn Moore Jr., Terri L. Alford, W. Michael Smith

*For more information about our leadership team,  
please refer to inside back cover.*



# TYLER OVERVIEW

With nearly 2,900 employees and more than 13,000 government and school clients in all 50 states, Canada, the Caribbean, the United Kingdom, and other international jurisdictions, Tyler Technologies is the largest software company in the nation with an exclusive focus on the public sector. We're more than software developers — we're implementation and support partners whose client relationships span decades. From a \$7 million reappraisal solution for the city of Detroit to a fast-track engagement that's bringing electronic court filing to every county in Texas, Tyler's comprehensive services and evergreen philosophy with no additional license fees toward upgrades empower our clients to serve the public with efficiency, accessibility and fiscal responsibility.



## SCHOOL SOLUTIONS

### STUDENT MANAGEMENT

Tyler offers a full suite of student management solutions to help educators and administrators put students first, including student information (grades, attendance and scheduling), data analytics, special education and student transportation. In fact, Tyler's Versatrans® solutions manage transportation for 1 out of every 10 U.S. school districts.

### FINANCIAL

Tyler delivers integrated financial solutions that address the unique budgeting, procurement and payroll needs of education clients. By supporting our clients' most essential business functions, Tyler helps schools maximize their resources in the more than 1,350 school districts we serve.

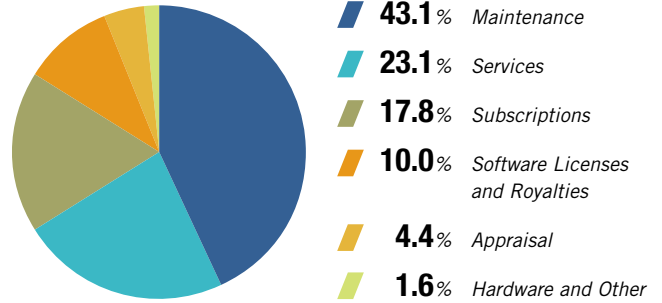
## STATE & LOCAL GOVERNMENT

### ERP / FINANCIAL

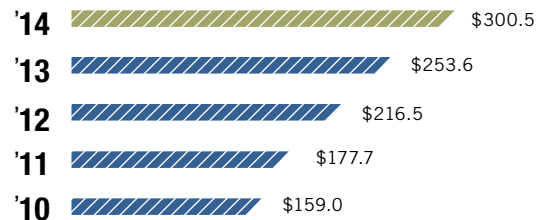
More than 4,500 government entities rely on Tyler's financial solutions for efficient management of their accounting, payroll and human resources functions as they manage \$160 billion in public sector funds annually. Our human capital management solutions process payroll for more than 1 million public sector employees.

### COURTS & JUSTICE

From paperless court case management to e-filing solutions, Tyler's courts and justice products offer a broad range of functionality for courts, prosecutors, law enforcement, corrections and supervision staff. More than 30 percent of the U.S. population lives in jurisdictions that have licensed Tyler's Odyssey® case management or e-filing solutions.

**REVENUE MIX****RECURRING REVENUES**

in millions

**APPRAISAL & TAX**

Tyler has served 1,300 taxing authorities throughout the United States and Canada with computer-assisted mass appraisal (CAMA) solutions, tax billing and collections software, and turnkey reassessment and revaluation services. Tyler's appraisal and tax solutions have facilitated the efficient management of 60 million parcels of property.

**PUBLIC SAFETY**

When it comes to public safety, timeliness and accuracy are paramount. Tyler's public safety solutions facilitate the sharing of mission-critical information and streamline records management for first responders, dispatchers, jails and others. Protecting more than 2 million citizens every day, Tyler solutions equip jurisdictions to take 1.6 million 911/dispatch calls annually.

**PLANNING, REGULATORY & MAINTENANCE**

Tyler's planning, regulatory and maintenance products centralize and connect processes across building departments, code enforcement, public works and other agencies, with 24-hour citizen access and mobile solutions that extend functionality into the field. These solutions serve approximately 25 million citizens in the United States and Canada.

**RECORDS & DOCUMENTS**

Our record and document solutions are instrumental in the management of land and vital records for 24 million citizens across the United States. Using Tyler solutions, our clients currently store and access more than 440 million land and vital records.





## ***BLAZING TRAILS***

In order to maintain our competitive edge, Tyler Technologies is constantly expanding our capabilities and refining our offerings. We continued to invest in product development at a high level when many of our competitors were cutting back — and in 2014, those investments further elevated our position as a market leader. As always, the real-world needs of our clients inspire us to blaze new trails with new products, features and functionality.



## Q&A:

*The public sector market continued a trend of gradually improving conditions that began in 2012. In 2014, we leveraged our position as an industry leader to win a growing share of a healthy market. This question and answer format allows us to provide details and insights on the factors that contributed to an exceptional year.*

### **What market trends and other key factors contributed to Tyler's performance in 2014?**

Over the last two years, the market has returned to pre-recession levels — what we'd characterize as a normal level of activity. During that time, budget environments have generally improved in the public sector, and Tyler's strong competitive position fueled a level of growth that far outpaced the market as a whole in 2014. We achieved 18.2 percent organic growth overall in 2014. Organic software-related revenue growth was 19.4 percent, compared with our compound average growth rate of 12.7 percent organic growth and 14.6 percent total growth since 2002.

### **EXERCISING AGILITY**

Our strategy for growth is rooted in four key initiatives — expanding our geographic reach, broadening our product offerings, winning large-scale accounts, and extending our relationships with existing clients. By approaching these opportunities with speed and agility, Tyler Technologies posted an organic growth rate of 18.2 percent in 2014.

#### **What are your long-term targets for revenue and earnings growth?**

Our targets are to consistently grow revenues in the low- to mid-teens annually, and by doing so, to achieve margin expansion that allows us to grow earnings in the high teens to low 20s annually. We significantly exceeded those targets in 2014, due to a combination of growth in recurring e-filing revenues for courts in Texas, together with very high win rates across our software products.

#### **Why did eFileTexas.gov have such a strong influence on revenues and earnings in 2014?**

As the statewide provider for mandatory electronic filing of civil court documents in Texas, Tyler incurred significant costs related to the 2013 startup of the eFileTexas.gov portal. Recurring revenues from this fixed-price contract ramped up in 2014, growing to \$17 million from \$3.8 million in 2013, contributing about 3 percentage points of our total revenue growth.

#### **How has Tyler's competitive position evolved in recent years, and what are the takeaways with regard to performance?**

Tyler is clearly winning a larger share of business than we have in years past. Bookings for the year reached a new high in 2014, with an increase of approximately 28 percent over the prior year.

When the new business environment was challenging in 2010 and 2011 as a result of the recession, Tyler had the financial strength and cash flow to increase our investment in product development, and we made the decision to modestly sacrifice some short-term earnings during that time period in order to strengthen our long-term competitive position. Our priorities were to fill gaps in the feature sets and functionality of our products, as well as to focus on product enhancements to increase the competitive distance between Tyler and other solution providers.





At the same time, many of our competitors pulled back on development as a cost-saving measure, which caused some to lose competitive ground, and others to lose relevance in the new business market. We believe that this is a major factor in our increasing win rates in the last three years. Importantly, Tyler's strong history of execution — particularly on large projects — continued to further strengthen our competitive position. Our successful performance has been the result of both strategic innovation to meet the needs of our clients and our proven ability to execute complex implementations.

#### **What do your backlog and bookings say about current performance and future visibility?**

Backlog was up 27.2 percent year over year at \$702 million as of December 31, 2014. It's been growing well ahead of our revenue growth rate, with 54 percent of our backlog expected to be recognized in the next 12 months, and the remainder extending for as long as seven years. The growth in backlog gives us

#### **ERP/FINANCIAL**

We expanded our market-leading presence with our Munis® and Incode® ERP product suites in 2014, adding more than 125 new clients. Jurisdictions frequently cited increased efficiencies and full integration as reasons for selecting Tyler ERP products. A master purchasing agreement awarded by Rhode Island enabled that state's school districts and municipalities to license Munis and Infinite Visions directly from Tyler at pre-negotiated prices and terms without going through a bid process.

Contracts included a seven-year, \$11 million multisuite SaaS agreement, including Munis ERP, Incode courts, and EnerGov, with the city of Mobile, Alabama; and an \$8 million contract with Marin County, California, for the Munis ERP solution. Other significant signings included a \$4.1 million Munis contract with Jefferson County, the largest county in Alabama; Munis contracts with the cities of Miami Beach and Altamonte Springs in Florida; and a Munis contract with Oklahoma County, the largest county in that state.

With our Microsoft® Dynamics AX business, royalty revenues were virtually flat at \$3 million, and revenues from our direct channel rose 140 percent to \$5.3 million.



increased visibility into revenues for the next 12 months and beyond, with more than half of that backlog composed of recurring revenues.

Bookings for 2014 grew approximately 28 percent, excluding the effects of the eFileTexas.gov contract. To put this metric into context, we should note that bookings are calculated by the change in backlog plus revenues — and the resulting number can vary quite a bit from quarter to quarter, particularly with respect to the impact of large contracts. We encourage people who are looking at bookings to also look at them on a trailing 12-month basis to smooth out these spikes.

### **How are subscriptions performing in relation to traditional software licenses?**

Subscriptions are our fastest-growing revenue area. These include revenues from cloud-based software as a service (SaaS) arrangements, as well as transaction-based revenues such as e-filing and e-payments. All of our major products are offered both as on-premises solutions and on a subscription basis. In 2014, slightly more than one-fourth of our new clients selected the SaaS model, while the rest selected the traditional on-premises model. We're generally seeing a distinct but gradual long-term shift toward SaaS, and in 2014 the total value of new SaaS contracts increased by nearly 60 percent from 2013. That said, we think it's important to provide solutions in whatever ways our clients need and want them, and we're still actively growing licenses while at the same time building a strong SaaS business. We expect that trend will continue over time, and SaaS will represent an increasing percentage of our new business.

### **Within your subscriptions business, how has your e-filing agreement with the state of Texas evolved?**

We won this important business in 2012 when the state of Texas named Tyler Technologies as the statewide provider for mandatory e-filing of civil courts documents. When the mandate was handed down, some courts were concerned about their ability to meet the very aggressive timetable — but Tyler was prepared for the task and performed very well in the implementation. As of the end of 2014, eFileTexas.gov had more than 90,000 users and was processing approximately 100,000 filings each week.

## **COURTS & JUSTICE**

With our fastest-growing product line in 2014, our Courts & Justice Division began to reap significant financial results from Tyler's e-filing agreement with the state of Texas, with \$17 million in revenues from eFileTexas.gov™. We kept our competitive momentum going with the launch of Odyssey® Guide & File, which provides courts with tools to guide self-represented litigants through the online filing process. The Georgia Council of Magistrate Court Judges became the first Tyler client to roll out this innovative solution. Another significant Georgia win was DeKalb County for Odyssey eFileGA. Other contract highlights included an e-filing pilot program in Massachusetts, an amended Odyssey contract with the state of Maryland to provide transaction-based e-filing, and a \$32 million Odyssey contract in the nation's largest county with the Los Angeles Superior Court. Tyler's Incode® courts product was selected in Biloxi, Mississippi; Killeen, Texas; and Murfreesboro, Tennessee.

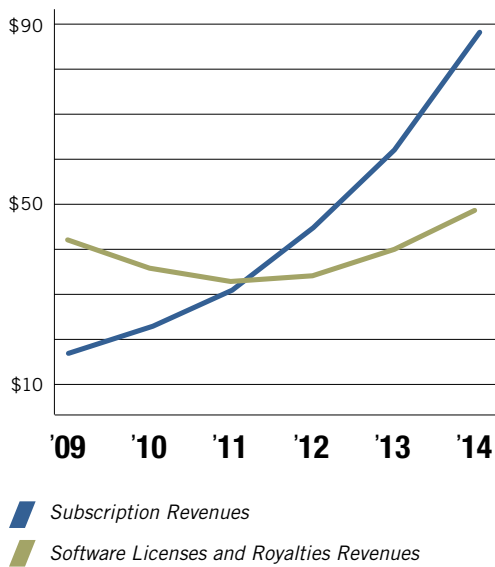
The eFileTexas.gov agreement differs from our other e-filing arrangements in that this is a fixed-price contract that added \$72 million to our backlog in September 2013. We recognized \$17 million of that revenue in 2014 and expect to recognize approximately \$19 million in 2015. We believe the Texas implementation can serve as a model for other courts contemplating e-filing.

### **What other e-filing opportunities are on the horizon?**

We currently are the dominant provider of court case management systems as well as the clear leader in e-filing for courts nationwide, and we expect to continue to expand our footprint with both offerings. E-filing is the fastest-growing part of our subscription business, and it's a low-penetration offering with a high degree of opportunity. As e-filing continues to gain momentum

### TRANSITION TO CLOUD-BASED SERVICES

in millions



### APPRAISAL & TAX

After introducing the iasWorld® Field Mobile solution for Windows 8 in 2013, Tyler successfully completed a pilot program in Greene County, Missouri, in 2014. Field Mobile is a tablet-based tool built on Windows 8 that allows appraisers to collect and update property characteristics in the field, both online and off, integrating directly with our iasWorld solution.

We marked the beginning of a major reappraisal cycle in the state of Indiana, with the signing of 27 counties for our CLT Appraisal Services™ totaling approximately \$13.5 million. Other significant property appraisal agreements were Gwinnett County, Georgia, for \$4.9 million, and a \$7 million agreement for the first full reappraisal in 50 years for Detroit, Michigan. Internationally, we signed agreements for our iasWorld software with the Ministry of Home Affairs in Brunei, and the Ministry of Finance for the Government of The Bahamas. We also expanded geographically with a contract for the first Oregon Orion™ installation in Multnomah County (Portland) and the first iasWorld installation in South Carolina (Lexington County).

through both voluntary and mandatory channels, we expect it will replace paper filing in most courts over the next decade.

As we continue to grow this part of our business, we'll focus on three key areas — implementing e-filing with current Odyssey case management clients, selling e-filing in conjunction with new Odyssey case management contracts, and winning stand-alone e-filing engagements, as we did with the e-filing pilot program we launched in Massachusetts during the year.

### The California courts market was especially active in 2014. How is this business evolving?

The California courts market opened up to us in early 2012 when the state abandoned a 10-year effort to develop a custom statewide case management system. Our position as the clear national leader in courts and justice software helped us win a great deal of business from the pent-up demand in California courts. Of the 28 courts in California that have signed contracts for new case management solutions since 2012, 25 have selected Tyler's Odyssey® court case management solution. Revenues from these contracts will be recognized over a number of quarters — or in some cases, years — providing increased visibility for future revenues. We expect the California market to be a significant contributor over the next three to five years.

### What opportunities do you see in California beyond the initial Odyssey implementations?

Since not all of our initial contracts include all case types, we expect to expand our existing relationships to include additional types where applicable. We also expect that most of the 30 counties in California that have not yet committed to replacing their case management systems will eventually do so. In addition, we're pursuing a broad range of integrated criminal justice system opportunities with California counties beyond case management, adding applications for jails, prosecutors, public defenders and probation.

We further believe that e-filing for California courts represents a major opportunity. We've already signed courts in 17 California counties to transaction-based e-filing contracts, although it may be two to three years before we start to recognize significant revenues from those agreements, and we expect that most of the courts

using Odyssey software will ultimately also choose our e-filing solution. The power of these recurring revenues is attractive, and we estimate that in many jurisdictions the recurring e-filing revenues will be as much as twice the annual software maintenance revenues.

We'll also continue to cultivate new business in other product areas throughout the state. We've had a great deal of success with our Munis, Incode and EnerGov solutions in California. And these expansion opportunities are not unique to California — they're simply powerful examples of our long-term growth strategy.

### **How does product development figure into your overall business strategy?**

At Tyler Technologies, our product development efforts are focused and driven by client needs. We're committed to building best of breed systems that meet the needs of the public sector. If a client or employee identifies a gap or opportunity, we consider that in our product development plans. This powerful strategy has led Tyler to develop e-filing solutions ahead of our competitors, bring case management into the courtroom on a touchscreen device, and put mobile solutions into the hands of public safety officers, city inspectors, property assessors and others.

### **RECORDS & DOCUMENTS**

Tyler Technologies provides a full suite of record and document solutions, including Document Pro™, Eagle™, Tyler Content Manager™ and Tyler Meeting Manager™. Our scalable, affordable solutions enable governments to provide the public with secure electronic access to land records, vital records and other official documents. They also facilitate electronic management of communications and archives, as well as planning, scheduling and document automation for public meetings. Major contract signings in 2014 included Tulsa County, Oklahoma; Erie County, Ohio; and Peoria County, Illinois.







## ***DRIVING EXCELLENCE***

Strong momentum is only as valuable as the expert guidance that defines its course. Tyler Technologies is the nation's largest software provider with an exclusive focus on the public sector, offering an unrivaled depth of expertise in student management; school finance; enterprise resource planning; courts and justice; appraisal and tax; public safety; planning, regulatory and maintenance; and records and documents.

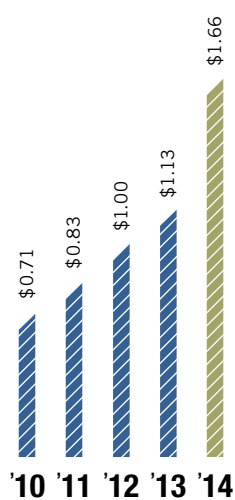
## DELIVERING EFFICIENCY

In everything we do, Tyler Technologies is committed to empowering the people who serve the public. Our solutions help schools and governments operate with efficiency and transparency, while enhancing their ability to provide responsive customer service. Even as technologies and public mandates continue to evolve, Tyler delivers evergreen solutions to keep our clients on track.

**2014 QUARTERLY  
EARNINGS PER SHARE**  
in dollars



**ANNUAL EARNINGS  
PER SHARE**  
in dollars



## PLANNING, REGULATORY & MAINTENANCE

Within our planning, regulatory and maintenance business, Tyler is gaining traction with EnerGov™, which we acquired in 2012. We not only signed a number of stand-alone contracts for our community development and infrastructure software, but we also signed several EnerGov contracts in conjunction with Incode® and Munis® agreements. Contract highlights included a \$5.8 million EnerGov agreement with Kansas City, Missouri, to replace its aging permitting software; a \$2.3 million EnerGov contract with the Los Angeles County Department of Regional Planning; and significant contracts in Riverside County, California, and Charleston, South Carolina.



### **PUBLIC SAFETY**

Tyler Technologies delivers truly integrated public safety solutions, including on-site and mobile solutions designed to improve situational awareness and enhance productivity. From our full-featured Odyssey® solutions to our innovative Tyler Public Safety™ iPad app, Tyler Technologies is helping police forces, sheriffs' departments and other first responders serve the public with speed and accuracy. Among contract highlights for 2014 were agreements with the cities of Brentwood, Tennessee, and Biloxi, Mississippi, for our Tyler Public Safety and Incode® court case management software suites.

### **How do you identify the public sector hot buttons that are shaping your initiatives?**

First and foremost, our development team draws upon the deep domain expertise that Tyler is known for. By design, we're exclusively focused on the public sector, and many of our employees have firsthand experience in schools and governments. This deep industry expertise allows us to effectively pinpoint and anticipate user needs.

We also glean a great deal of our product development insights from Tyler Community — a valuable online resource reserved exclusively for Tyler clients. It provides a 24/7 forum for our public sector clients to share best practices, ask questions about Tyler products, and raise issues or point out needs that aren't being met. Our development team actively monitors the site to answer questions, address concerns, and take note of client suggestions. Additionally, Tyler regularly hosts



user groups and focus groups in which product owners meet with users to learn more about the issues facing our clients — as well as the features and functionality that would make their jobs easier.

### **As win rates continue to rise, so does the pressure to deliver. What steps has Tyler taken to ramp up capacity?**

Increasing our head count has been key in staying on top of implementations. In 2014 alone, Tyler added 283 employees — a move for which we were well prepared, both financially and operationally. We view our onboarding costs as a long-term investment. New hires enter a workplace where they're surrounded by seasoned professionals with firsthand experience in the public sector. At Tyler, employees at every level have tremendous opportunities for professional growth, both within each division and across the company. These are just a few of the reasons why more than 60 percent of Tyler employees who were with the company 10 years ago are still here today — and we're committed to maintaining our position as an employer of choice.

The preceding Q&A is a composite representation of the views of Tyler management with regard to company performance and market perspectives. For further information, visit [tylertech.com](http://tylertech.com) or contact our investor relations team at [info@tylertech.com](mailto:info@tylertech.com).

## **SCHOOL FINANCIAL**

Our financial solutions for K-12 schools empower clients to integrate a broad range of data and functionality into their operations — from financial, budgeting and procurement data to human resources and payroll processes. Contract highlights for the year included Infinite Visions® contracts with the Tucson Unified School District and Gilbert Public Schools in Arizona, as well as a master purchasing agreement with the state of Rhode Island, which satisfies the formal procurement process and lets school districts and municipalities bypass the bidding process to purchase our Munis® and Infinite Visions® products at pre-negotiated rates. Munis contracts included the Houston and Fayette County Boards of Education in Georgia; Mission Consolidated ISD, Texas; and Washington County School District, Maryland.

## **STUDENT MANAGEMENT**

Our student management products provide K-12 schools with reliable solutions for managing student information, data analytics and special education. The products we released in 2013 — the Traversa® transportation management system and Tyler Telematic GPS™ device — continued to gain ground throughout 2014. Among our notable contracts for the year was a Versatrans® student transportation solution for Metropolitan Nashville Public Schools.







## Appendix E

### Stock Market Data

Our common stock is traded on the New York Stock Exchange under the symbol “TYL.” At December 31, 2014, we had approximately 1,611 stockholders of record. A number of our stockholders hold their shares in street name; therefore, there are substantially more than 1,611 beneficial owners of our common stock.

The following table shows, for the calendar periods indicated, the high and low sales price per share of our common stock as reported on the New York Stock Exchange.

	High	Low
<b>2013:</b> First Quarter	\$ 61.60	\$48.86
Second Quarter	70.49	57.00
Third Quarter	88.68	68.60
Fourth Quarter	105.74	83.25
<b>2014:</b> First Quarter	\$107.99	\$81.54
Second Quarter	91.69	74.37
Third Quarter	97.53	84.70
Fourth Quarter	115.37	86.05

We did not pay any cash dividends in 2014 or 2013. We intend to retain earnings for use in the operation and expansion of our business, and, therefore, we do not anticipate declaring a cash dividend in the foreseeable future.

During 2014, we purchased approximately 294,000 shares of our common stock for an aggregate purchase price of \$22.8 million. As of December 31, 2014, we had authorization to repurchase up to 1.4 million additional shares of Tyler common stock. The share repurchase program, which was approved by our board of directors, was announced in October 2002, and was amended at various times from 2003 through 2011. There is no expiration date specified for the authorization and we intend to repurchase stock under the plan from time to time.

## Appendix E

### Selected Financial Data

#### SELECTED FINANCIAL DATA

	For the Years Ended December 31,				
(In thousands, except per share data)	2014	2013	2012	2011	2010
<b>STATEMENT OF OPERATIONS DATA:</b>					
Revenues	\$493,101	\$416,643	\$363,304	\$309,391	\$288,628
Cost and expenses:					
Cost of revenues	259,730	223,440	195,602	167,479	160,311
Selling, general and administrative expenses	108,260	98,289	86,706	75,650	69,480
Research and development expense	25,743	23,269	20,140	16,414	13,971
Amortization of customer and trade name intangibles	4,546	4,517	4,279	3,331	3,225
Operating income	94,822	67,128	56,577	46,517	41,641
Other expenses, net	355	1,309	2,709	2,404	1,742
Income from operations before income taxes	94,467	65,819	53,868	44,113	39,899
Income tax provision	35,527	26,718	20,874	16,556	14,845
Net income	\$ 58,940	\$ 39,101	\$ 32,994	\$ 27,557	\$ 25,054
Net income per diluted share	\$ 1.66	\$ 1.13	\$ 1.00	\$ 0.83	\$ 0.71
Weighted average diluted shares	35,401	34,590	32,916	33,154	35,528
<b>STATEMENT OF CASH FLOWS DATA:</b>					
Cash flows provided by operating activities	\$123,437	\$ 66,090	\$ 58,668	\$ 56,435	\$ 35,350
Cash flows used by investing activities	(11,555)	(25,658)	(34,736)	(28,809)	(8,694)
Cash flows provided (used) by financing activities	15,409	32,038	(18,852)	(28,414)	(34,238)
<b>BALANCE SHEET DATA:</b>					
Total assets	\$573,982	\$444,488	\$338,666	\$295,391	\$264,032
Revolving line of credit	—	—	18,000	60,700	26,500
Shareholders' equity	336,973	246,319	145,299	78,110	106,972

### Management's Discussion and Analysis of Financial Condition and Results of Operations

#### FORWARD-LOOKING STATEMENTS

In addition to historical information, this Annual Report contains forward-looking statements. The forward-looking statements are made in reliance upon safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those reflected in the forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management's opinion only as of the date hereof. We undertake no obligation to revise or publicly release the results of any revisions to these forward-looking statements. Readers should carefully review the risk factors described in documents we file from time to time with the Securities and Exchange Commission.

When used in this Annual Report, the words "believes," "expects," "anticipates," "foresees," "forecasts," "estimates," "plans," "intends," "continues," "may," "will," "should," "projects," "might," "could" or other similar words or phrases are intended to identify forward-looking statements. Similarly, statements that describe our business strategy, outlook, objectives, plans, intentions or goals also are forward-looking statements.

#### OVERVIEW

##### General

We provide integrated information management solutions and services for the public sector, with a focus on local governments. We develop and market a broad line of software products and services to address the information technology ("IT") needs of cities, counties, schools and other local government entities. In addition, we provide professional IT services to our clients, including software and hardware installation, data conversion, training and for certain clients, product modifications, along with continuing maintenance and support for clients using our systems. We also provide subscription-based services such as software as a service ("SaaS"), which utilizes the Tyler private cloud, and electronic document filing solutions ("e-filing"), which simplify the filing and management of court related documents. Revenues for e-filing are derived from transaction fees and in some cases fixed fee arrangements. We also provide property appraisal outsourcing services for taxing jurisdictions.

Our products generally automate five major functional areas: (1) financial management and education, (2) courts and justice, (3) property appraisal and tax, (4) planning, regulatory and maintenance, and (5) land and vital records management. We report our results in two segments. The Enterprise Software Solutions ("ESS") segment provides municipal and county governments and schools with software systems and services to meet their information technology and automation needs for mission-critical "back-office" functions such as financial management; courts and justice processes; planning regulatory and maintenance; and land and vital records management. The Appraisal and Tax Software Solutions and Services ("ATSS") segment provides systems and software that automate the appraisal and assessment of real and personal property as well as property appraisal outsourcing services for local governments and taxing authorities. Property appraisal outsourcing services include: the physical inspection of commercial and residential properties; data collection and processing; computer analysis for property valuation; preparation of tax rolls; community education; and arbitration between taxpayers and the assessing jurisdiction.

Total organic revenues increased 18% in 2014 compared to 2013. On August 29, 2014, we acquired all of the capital stock of SoftCode, Inc. ("SoftCode"), which develops and sells civil solution software typically to county sheriff departments. The purchase price, net of cash acquired of \$71,000, was \$3.5 million in cash, of which \$325,000 was accrued at December 31, 2014, and 16,540 shares of Tyler common stock valued at \$1.5 million.

## Appendix E

### Management's Discussion and Analysis of Financial Condition and Results of Operations

We monitor and analyze several key performance indicators in order to manage our business and evaluate our financial and operating performance. These indicators include the following:

- **Revenues** – We derive our revenues from five primary sources: sale of software licenses and royalties; subscription-based arrangements; software services; maintenance and appraisal services. Subscriptions and maintenance are considered recurring revenue sources and comprised approximately 61% of our revenue in 2014. The number of new SaaS clients and the number of existing clients who convert from our traditional software arrangements to our SaaS model are a significant driver to our business, together with new software license sales and maintenance rate increases. In addition, we also monitor our customer base and churn as we historically have experienced very low customer turnover. During 2014, our customer turnover was approximately 2%.
- **Cost of Revenues and Gross Margins** – Our primary cost component is personnel expenses in connection with providing software implementation, subscription-based services, maintenance and support, and appraisal services to our clients. We can improve gross margins by controlling headcount and related costs and by expanding our revenue base, especially from those products and services that produce incremental revenue with minimal incremental cost, such as software licenses and royalties, subscription-based services, and maintenance and support. Our appraisal projects are cyclical in nature, and we often employ appraisal personnel on a short-term basis to coincide with the life of a project. As of December 31, 2014, our total employee count increased to 2,856 from 2,573 at December 31, 2013.
- **Selling, General and Administrative (“SG&A”) Expenses** – The primary components of SG&A expenses are administrative and sales personnel salaries and commissions, share-based compensation expense, marketing expense, rent and professional fees. Sales commissions typically fluctuate with revenues and share-based compensation expense generally increases when the market price of our stock increases. Other administrative expenses tend to grow at a slower rate than revenues.
- **Liquidity and Cash Flows** – The primary driver of our cash flows is net income. Uses of cash include acquisitions, capital investments in property and equipment and discretionary purchases of treasury stock. Our working capital needs are fairly stable throughout the year with the significant components of cash outflows being payment of personnel expenses offset by cash inflows representing collection of accounts receivable and cash receipts from clients in advance of revenue being earned.
- **Balance Sheet** – Cash, accounts receivable and days sales outstanding and deferred revenue balances are important indicators of our business.

#### New Accounting Pronouncements

On May 28, 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, “Revenue from Contracts with Customers.” This ASU is the result of a convergence project between the FASB and the International Accounting Standards Board. The core principle behind ASU 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods and services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for delivering those goods and services. This model involves a five-step process that includes identifying the contract with the customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction prices to the performance obligations in the contract and recognizing revenue when (or as) the entity satisfies the performance obligations. The guidance in the ASU supersedes existing revenue recognition guidance and is effective for annual reporting periods beginning after December 15, 2016 with early application not permitted. The ASU allows two methods of adoption; a full retrospective approach where three years of financial information are presented in accordance with the new standard, and a modified retrospective approach where the ASU is applied to the most current period presented in the financial statements. We are currently assessing the financial impact of adopting the new standard and the methods of adoption; however, given the scope of the new standard, we are currently unable to provide a reasonable estimate regarding the financial impact or which method of adoption of the new standard we will elect.

## Appendix E

### Management's Discussion and Analysis of Financial Condition and Results of Operations

#### Outlook

We believe activity in the local government market is good and has returned to normal, pre-recession levels. Although we expect to see some pressure on margin expansion in 2015 as we absorb onboarding costs associated with staffing additions in recent quarters, make some strategic incremental product investments, and continue to grow our SaaS and e-filing client bases, our expectation is that 2015 will be another year of very solid revenue and earnings growth.

#### CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our discussion and analysis of financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities at the date of the financial statements, the reported amounts of revenues, cost of revenues and expenses during the reporting period, and related disclosure of contingencies. The Notes to the Financial Statements included as part of this Annual Report describe our significant accounting policies used in the preparation of the financial statements. Significant items subject to such estimates and assumptions include the application of the percentage-of-completion and proportional performance methods of revenue recognition, the carrying amount and estimated useful lives of intangible assets, determination of share-based compensation expense and valuation allowance for receivables. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies require significant judgments and estimates used in the preparation of our financial statements.

**Revenue Recognition.** We recognize revenues in accordance with the provisions of Accounting Standards Codification ("ASC") 605, Revenue Recognition and ASC 985-605, Software Revenue Recognition. Our revenues are derived from sales of software licenses and royalties, subscription-based services, appraisal services, maintenance and support, and services that typically range from installation, training and basic consulting to software modification and customization to meet specific customer needs. For multiple element software arrangements, which do not entail the performance of services that are considered essential to the functionality of the software, we generally record revenue when the delivered products or performed services result in a legally enforceable and non-refundable claim. We maintain allowances for doubtful accounts and sales adjustments, which are provided at the time the revenue is recognized. Because most of our customers are governmental entities, we rarely incur a loss resulting from the inability of a customer to make required payments. In a limited number of cases, we encounter a customer who is dissatisfied with some aspect of the software product or our service, and we may offer a "concession" to such customer. In those limited situations where we grant a concession, we rarely reduce the contract arrangement fee, but alternatively may perform additional services, such as additional training or creating additional custom reports. These amounts have historically been nominal. In connection with our customer contracts and the adequacy of related allowances and measures of progress towards contract completion, our project managers are charged with the responsibility to continually review the status of each customer on a specific contract basis. Also, we review, on at least a quarterly basis, significant past due accounts receivable and the adequacy of related reserves. Events or changes in circumstances that indicate that the carrying amount for the allowances for doubtful accounts and sales adjustments may require revision, include, but are not limited to, deterioration of a customer's financial condition, failure to manage our customer's expectations regarding the scope of the services to be delivered, and defects or errors in new versions or enhancements of our software products.

We use contract accounting, primarily the percentage-of-completion method, as discussed in ASC 605-35, Construction — Type and Certain Production — Type Contracts, for those software arrangements that involve significant production, modification or customization of the software, or where our software services are otherwise considered essential to the functionality of the software. We measure progress-to-completion primarily using labor hours incurred, or value added. In addition, we recognize revenue using the proportional performance method of revenue recognition for our property

## Appendix E

### Management's Discussion and Analysis of Financial Condition and Results of Operations

appraisal projects, some of which can range up to five years. These methods rely on estimates of total expected contract revenue, billings and collections and expected contract costs, as well as measures of progress toward completion. We believe reasonably dependable estimates of revenue and costs and progress applicable to various stages of a contract can be made. At times, we perform additional and/or non-contractual services for little to no incremental fee to satisfy customer expectations. If changes occur in delivery, productivity or other factors used in developing our estimates of expected costs or revenues, we revise our cost and revenue estimates, and any revisions are charged to income in the period in which the facts that give rise to that revision first become known. In connection with these and certain other contracts, we may perform the work prior to when the services are billable and/or payable pursuant to the contract. The termination clauses in most of our contracts provide for the payment for the value of products delivered and services performed in the event of an early termination.

For SaaS arrangements, we evaluate whether the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and whether the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software. If we determine that the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software, we recognize the license, professional services and hosting services revenues pursuant to ASC 985-605, Software Revenue Recognition. For SaaS arrangements that do not meet the criteria for recognition under ASC 985-605, we account for the elements under ASC 605-25, Multiple Element Arrangements using all applicable facts and circumstances, including whether (i) the element has stand-alone value, (ii) there is a general right of return and (iii) the revenue is contingent on delivery of other elements. We allocate the contract value to each element of the arrangement that qualifies for treatment as a separate element based on vendor-specific objective evidence of fair value ("VSOE"), and if VSOE is not available, third-party evidence, and if third-party evidence is unavailable, estimated selling price. For professional services associated with SaaS arrangements that we determine do not have stand-alone value to the customer or are contingent on delivery of other elements, we recognize the services revenue ratably over the remaining contractual period once hosting has gone live and we may begin billing for the hosting services. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

In connection with certain of our contracts, we have recorded retentions receivable or unbilled receivables consisting of costs and estimated profit in excess of billings as of the balance sheet date. Many of the contracts which give rise to unbilled receivables at a given balance sheet date are subject to billings in the subsequent accounting period. We review unbilled receivables and related contract provisions to ensure we are justified in recognizing revenue prior to billing the customer and that we have objective evidence which allows us to recognize such revenue. In addition, we have a sizable amount of deferred revenue, which represents billings in excess of revenue earned. The majority of this liability consists of maintenance billings for which payments are made in advance and the revenue is ratably earned over the maintenance period, generally one year. We also have deferred revenue for those contracts in which we receive a deposit and the conditions in which to record revenue for the service or product has not been met. On a periodic basis, we review by customer the detail components of our deferred revenue to ensure our accounting remains appropriate.

**Intangible Assets and Goodwill.** Our business acquisitions typically result in the creation of goodwill and other intangible asset balances, and these balances affect the amount and timing of future period amortization expense, as well as expense we could possibly incur as a result of an impairment charge. The cost of acquired companies is allocated to identifiable tangible and intangible assets based on estimated fair value, with the excess allocated to goodwill. Accordingly, we have a significant balance of acquisition date intangible assets, including software, customer related intangibles, trade name and goodwill. These intangible assets (other than goodwill) are amortized over their estimated useful lives. We currently have no intangible assets with indefinite lives other than goodwill.

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### Management's Discussion and Analysis of Financial Condition and Results of Operations

When testing goodwill for impairment quantitatively, we first compare the fair value of each reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds its fair value, a second step is performed to measure the amount of potential impairment. In the second step, we compare the implied fair value of reporting unit goodwill with the carrying amount of the reporting unit's goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized. The fair values calculated in our impairment tests are determined using discounted cash flow models involving several assumptions. The assumptions that are used are based upon what we believe a hypothetical marketplace participant would use in estimating fair value. We base our fair value estimates on assumptions we believe to be reasonable but that are unpredictable and inherently uncertain. We evaluate the reasonableness of the fair value calculations of our reporting units by comparing the total of the fair value of all of our reporting units to our total market capitalization.

Our annual goodwill impairment analysis, which we performed quantitatively during the second quarter of 2014, did not result in an impairment charge. During 2014, we did not identify any triggering events that would require an update to our annual impairment review.

All intangible assets (other than goodwill) are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of other intangible assets is measured by comparison of the carrying amount to estimated undiscounted future cash flows. The assessment of recoverability or of the estimated useful life for amortization purposes will be affected if the timing or the amount of estimated future operating cash flows is not achieved. Such indicators may include, among others: a significant decline in expected future cash flows; a sustained, significant decline in stock price and market capitalization; a significant adverse change in legal factors or in the business climate; unanticipated competition; and reductions in growth rates. In addition, products, capabilities, or technologies developed by others may render our software products obsolete or non-competitive. Any adverse change in these factors could have a significant impact on the recoverability of goodwill or other intangible assets.

**Share-Based Compensation.** We have a stock option plan that provides for the grant of stock options to key employees, directors and non-employee consultants. We estimate the fair value of share-based awards on the date of grant using the Black-Scholes option valuation model. Share-based compensation expense includes the estimated effects of forfeitures, which will be adjusted over the requisite service period to the extent actual forfeitures differ, or are expected to differ from such estimates. Changes in estimated forfeitures are recognized in the period of change and will also impact the amount of expense to be recognized in future periods. Forfeiture rate assumptions are derived from historical data. We estimate stock price volatility at the date of grant based on the historical volatility of our common stock. Estimated option life is determined using the weighted-average period the stock options are expected to be outstanding based primarily on the options' vesting terms, remaining contractual life and the employees' expected exercise based on historical patterns. Determining the appropriate fair-value model and calculating the fair value of share-based awards at the grant date requires considerable judgment, including estimating stock price volatility, expected option life and forfeiture rates.



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### Management's Discussion and Analysis of Financial Condition and Results of Operations

#### ANALYSIS OF RESULTS OF OPERATIONS AND OTHER

The following discussion compares the historical results of operations on a basis consistent with GAAP for the years ended December 31, 2014, 2013 and 2012.

Years ended December 31,	Percentage of Total Revenues		
	2014	2013	2012
Revenues:			
Software licenses and royalties	10.0%	9.8%	9.3%
Subscriptions	17.8	14.8	12.3
Software services	23.1	22.4	23.0
Maintenance	43.1	46.0	47.3
Appraisal services	4.4	5.0	6.2
Hardware and other	1.6	2.0	1.9
Total revenues	100.0	100.0	100.0
Operating Expenses:			
Cost of software licenses, royalties and acquired software	0.8	1.1	1.1
Cost of software services, maintenance and subscriptions	47.9	47.9	47.2
Cost of appraisal services	2.9	3.3	4.1
Cost of hardware and other	1.1	1.3	1.4
Selling, general and administrative expenses	22.0	23.6	23.9
Research and development expense	5.2	5.6	5.5
Amortization of customer and trade name intangibles	0.9	1.1	1.2
Operating income	19.2	16.1	15.6
Other expense, net	0.1	0.3	0.8
Income before income taxes	19.1	15.8	14.8
Income tax provision	7.2	6.4	5.7
Net income	11.9%	9.4%	9.1%

#### 2014 Compared to 2013

##### Revenues

##### Software licenses and royalties.

The following table sets forth a comparison of our software licenses and royalties revenue for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
ESS	\$46,047	\$38,774	\$7,273	19%
ATSS	3,018	2,067	951	46
Total software licenses and royalties revenue	\$49,065	\$40,841	\$8,224	20%

Software license and royalties revenue growth was mainly due to a more active marketplace as the result of improvement in local government economic conditions, as well as our increasingly strong competitive position, which we attribute in part to our increased investments in product development over the past few years. An increase in the number of larger contracts, in particular in the courts and justice market, also contributed to the growth in license revenue.

The mix of new contracts between subscription-based and perpetual license arrangements can vary from quarter to quarter, which can negatively impact our software license growth rate if a growing number of clients choose our subscription-based options, rather than purchasing the software under a traditional perpetual software license arrangements. Subscription-based arrangements result in lower revenues in the initial year as compared to perpetual software license arrangements, but generate higher overall subscription-based revenue over the term of the contract. Our new client mix in 2014 was approximately 74% selecting perpetual software license arrangements and

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approximately 26% selecting subscription-based arrangements compared to a client mix in 2013 of approximately 68% selecting perpetual software license arrangements and approximately 32% selecting subscription-based arrangements. 138 new clients entered into subscription-based software arrangements in 2014 compared to 100 new clients in 2013.

#### Subscriptions.

The following table sets forth a comparison of our subscriptions revenue for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
ESS	\$84,322	\$59,070	\$25,252	43%
ATSS	3,526	2,794	732	26
Total subscriptions revenue	\$87,848	\$61,864	\$25,984	42%

Subscription-based services revenue primarily consists of revenue derived from our SaaS arrangements, which utilize the Tyler private cloud. As part of our subscription-based services, we also provide electronic document filing solutions ("e-filing") that simplify the filing and management of court related documents for courts and law offices. E-filing revenue is derived from transaction fees and fixed fee arrangements.

Subscription-based services revenue increased 42% compared to 2013. E-filing services contributed approximately \$13.3 million of the subscriptions revenue increase in 2014. Most of the e-filing revenue increase related to higher revenue from a contract with the Texas Office of Court Administration for our Odyssey File and Serve e-filing system for Texas courts ("eFileTexas.gov") for civil court filings. The state of Texas has mandated all counties use eFileTexas.gov and this contract, which took effect in September 2013, provided a recurring revenue stream that totaled \$17.0 million in 2014 and is expected to total approximately \$19.0 million in 2015. New SaaS clients as well as existing clients who converted to our SaaS model provided the remainder of the subscriptions revenue increase. In 2014, we added 138 new SaaS clients and 59 existing clients elected to convert to our SaaS model.

#### Software services.

The following table sets forth a comparison of our software services revenue for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
ESS	\$104,146	\$85,459	\$18,687	22%
ATSS	9,675	7,808	1,867	24
Total software services revenue	\$113,821	\$93,267	\$20,554	22%

Software services revenue primarily consists of professional services billed in connection with installing our software, converting client data, training client personnel, consulting and custom software development. New clients who purchase our proprietary software licenses generally also contract with us to provide for the related software services. Existing clients also periodically purchase additional training, consulting and minor programming services. Software services grew 22% in 2014 mainly due to much higher revenue from new proprietary software arrangements, slightly higher rates on certain services and additions to our professional services staff which increased our capacity to deliver backlog.

#### Maintenance.

The following table sets forth a comparison of our maintenance revenue for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
ESS	\$195,881	\$175,180	\$20,701	12%
ATSS	16,815	16,540	275	2
Total maintenance revenue	\$212,696	\$191,720	\$20,976	11%

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We provide maintenance and support services for our software products and certain third-party software. Maintenance and support revenue increased mainly due to growth in our installed customer base from new software license sales as well as annual maintenance rate increases.

#### Appraisal services.

The following table sets forth a comparison of our appraisal services revenue for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
ESS	\$ —	\$ —	\$ —	—%
ATSS	21,802	20,825	977	5
Total appraisal services revenue	\$21,802	\$20,825	\$977	5%

The appraisal services business is somewhat cyclical and driven in part by statutory revaluation cycles in various states. Appraisal services revenue benefitted by the mid-year addition of several new revaluation contracts in New York and the current appraisal cycle in Indiana, which began in July. We expect appraisal revenue for 2015 will increase moderately compared to 2014.

#### Cost of Revenues and Gross Margins

The following table sets forth a comparison of the key components of our cost of revenues for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
Software licenses and royalties	\$ 1,900	\$ 2,377	\$ (477)	(20)%
Acquired software	1,858	2,078	(220)	(11)
Software services, maintenance and subscriptions	236,363	199,617	36,746	18
Appraisal services	14,284	13,809	475	3
Hardware and other	5,325	5,559	(234)	(4)
Total cost of revenues	\$259,730	\$223,440	\$36,290	16%

The following table sets forth a comparison of gross margin percentage by revenue type for the years ended December 31:

Gross margin percentage	2014	2013	Change
Software licenses, royalties and acquired software	92.3%	89.1%	3.2%
Software services, maintenance and subscriptions	43.0	42.4	0.6
Appraisal services	34.5	33.7	0.8
Hardware and other	32.3	31.6	0.7
Overall gross margin	47.3%	46.4%	0.9%

**Software licenses, royalties and acquired software.** Costs of software licenses, royalties and acquired software are primarily comprised of third-party software costs and amortization expense for acquired software. We do not have any direct costs associated with royalties. In 2014, our software licenses, royalties and acquired software gross margin percentage increased compared to 2013 mainly due to higher revenues from proprietary software revenues, which have a higher gross margin than third-party software.

**Software services, maintenance and subscription-based services.** Cost of software services, maintenance and subscription-based services primarily consists of personnel costs related to installing our software, converting client data, training client personnel and support activities and various other services such as SaaS arrangements and e-filing. Maintenance and various other services such as SaaS costs typically grow at a slower rate than related revenue due to leverage in the utilization of our support and maintenance staff and economies of scale. The software services, maintenance and subscriptions gross margin percentage increased mainly due to revenue from a contract with the Texas

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Office of Court Administration for eFileTexas.gov to manage e-filing of court documents. This contract began in September 2013, but we incurred initial startup costs in 2013 for which there were very limited related revenues. The addition of revenue from this contract since the prior year accounted for most of the gross margin increase. The gross margin increase was offset somewhat by costs related to accelerated hiring to ensure that we are well-positioned to deliver our current backlog and anticipated new business. Our implementation, development and support staff has increased by 215 employees since 2013. We expect our rate of hiring new implementation, development and support staff in 2015 will be slower than 2014.

**Appraisal services.** Appraisal services revenue is approximately 4% of total revenue. The appraisal services gross margin increased slightly compared to 2013. A high proportion of the costs of appraisal services revenue are variable, as we often hire temporary employees to assist in appraisal projects, whose term of employment generally ends with the projects' completion.

Our blended gross margin for 2014 increased 0.9% from 2013. The gross margin increase was mainly due to a revenue mix that included more software license revenue and subscription revenue and in particular, increased revenue from e-filing in Texas. This improvement in gross margin was offset somewhat by expenses associated with increased hiring of implementation, development and support staff in order to expand our capacity to implement our contract backlog.

#### Selling, General and Administrative Expenses

Selling, general and administrative ("SG&A") expenses consist primarily of salaries, employee benefits, travel, share-based compensation expense, commissions and related overhead costs for administrative and sales and marketing employees, as well as, professional fees, trade show activities, advertising costs and other marketing related costs. The following table sets forth a comparison of our SG&A expenses for the following years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
Selling, general and administrative expenses	\$108,260	\$98,289	\$9,971	10%

SG&A as a percentage of revenue was 22.0% in 2014 compared to 23.6% in 2013. Approximately one-third of the SG&A expense increase is from higher commission expense due to sales growth. Stock compensation expense contributed approximately one-quarter of the increase primarily due to increases in our stock price. The remaining increase consisted of higher bonuses related to operating results, annual wage adjustments and increased travel related expenses.

#### Research and Development Expense

Research and development expense consists primarily of salaries, employee benefits and related overhead costs associated with product development. The following table sets forth a comparison of our research and development expense for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
Research and development expense	\$25,743	\$23,269	\$2,474	11%

Research and development expense consist mainly of costs associated with development of new products and technologies from which we do not currently generate revenue, as well as costs related to the ongoing development efforts for Microsoft Dynamics AX. In 2007, we entered into a Software Development and License Agreement, which provided for a strategic alliance with Microsoft Corporation ("Microsoft") to jointly develop core public sector functionality for Microsoft Dynamics AX to address the accounting needs of public sector organizations worldwide. This agreement and subsequent amendments granted Microsoft intellectual property rights in the software code provided and developed by Tyler into Microsoft Dynamics AX products to be marketed and sold outside of the public sector in exchange for reimbursement payments to partially offset the research and development costs and royalties on direct and indirect public-sector sales worldwide of the solutions co-developed under this arrangement. In addition, Tyler agreed to commit certain resources to the development of the next version of Dynamics AX. Tyler also receives software and maintenance royalties on direct and indirect public-sector sales worldwide of the solutions co-developed under this arrangement.

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In 2014, research and development expense increased 11% compared to 2013 due to annual wage adjustments and efforts to maintain our competitive position. We expect that research and development expense will increase in 2015 at a lower rate than our expected revenue growth.

#### Amortization of Customer and Trade Name Intangibles

Acquisition intangibles are comprised of the excess of the purchase price over the fair value of net tangible assets acquired that is allocated to acquired software and customer and trade name intangibles. The remaining excess purchase price is allocated to goodwill that is not subject to amortization. Amortization expense related to acquired software is included with cost of revenues, while amortization expense of customer and trade name intangibles is recorded as operating expense. The estimated useful lives of both customer and trade name intangibles are five to 25 years. The following table sets forth a comparison of amortization of customer and trade name intangibles for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
Amortization of customer and trade name intangibles	\$4,546	\$4,517	\$29	1%

In 2014, we completed one acquisition that increased amortizable customer and trade name intangibles by approximately \$1.0 million. This amount is being amortized over a weighted average period of 12 years.

Estimated annual amortization expense relating to customer and trade name acquisition intangibles, excluding acquired software for which the amortization expense is recorded as cost of revenues, for the next five years is as follows (in thousands):

2015	\$4,606
2016	4,606
2017	4,606
2018	4,457
2019	3,102

#### Other

The following table sets forth a comparison of other expense, net for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
Other expense, net	\$355	\$1,309	\$(954)	(73)%

Other expense is primarily comprised of interest expense, non-usage and other fees associated with a revolving line of credit agreement that matured in August 2014, offset by interest income associated with invested cash balances. Interest expense declined compared to the prior year because we repaid all borrowings under the revolving credit agreement in early 2013, and had no debt outstanding during 2014.

#### Income Tax Provision

The following table sets forth a comparison of our income tax provision for the years ended December 31:

(\$ in thousands)	2014	2013	Change	
			\$	%
Income tax provision	\$35,527	\$26,718	\$8,809	33%
Effective income tax rate	37.6%	40.6%		

The effective income tax rates were different from the statutory United States federal income tax rate of 35% due to state income taxes, non-deductible share-based compensation expense, the qualified manufacturing activities deduction, disqualifying incentive stock option dispositions and non-deductible meals and entertainment costs. The qualified manufacturing activities deduction increased in 2014 contributing to a lower effective tax rate.

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We experienced significant stock option exercise activity in 2014 and 2013 that generated excess tax benefits of \$19.4 million and \$28.2 million, respectively. Excess tax benefits reduce tax payments but do not significantly reduce the effective tax rate and can result in limitations on other deductions. In 2013, limitations resulting from excess tax benefits eliminated the qualified manufacturing activities deduction, which negatively impacted our effective tax rate.

#### 2013 Compared to 2012

##### Revenues

##### Software licenses and royalties.

The following table sets forth a comparison of our software licenses and royalties revenue for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
ESS	\$38,774	\$32,060	\$6,714	21%
ATSS	2,067	1,868	199	11
Total software licenses and royalties revenue	\$40,841	\$33,928	\$6,913	20%

In 2012, we acquired two companies which provide financial and human capital management software solutions to the K-12 education market and one company that provides enterprise permitting, land management, licensing and regulatory software solutions to government agencies. Excluding the impact of acquisitions, total software licenses and royalties revenue increased 12% compared to 2012. Approximately half of the growth was due to an increase of \$2.3 million in royalties on sales of Microsoft Dynamics AX by other Microsoft partners compared to the prior year. Royalty revenue is dependent upon sales volume from Microsoft partners, as well as the timing of maintenance renewals, and can vary substantially from period to period. Software license revenues also grew 5% mainly due to increased investments in product development over the past few years. However, software license growth was reduced somewhat because of a growing number of clients choosing our subscription-based options, rather than purchasing the software under a traditional perpetual software license arrangement. We had 100 new software clients that entered into subscription-based arrangements in 2013 compared to 76 new clients in 2012.

##### Subscriptions.

The following table sets forth a comparison of our subscriptions revenue for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
ESS	\$59,070	\$43,319	\$15,751	36%
ATSS	2,794	1,299	1,495	115
Total subscriptions revenue	\$61,864	\$44,618	\$17,246	39%

Excluding the impact of acquisitions, subscription-based services revenue increased 37% compared to 2012. New SaaS clients as well as existing clients who converted to our SaaS model provided the majority of the subscription-based revenue increase. In 2013, we added 100 new clients and 63 existing clients elected to convert to our SaaS model. E-filing services also contributed approximately \$5.0 million of the subscription revenue increase. E-filing revenue included \$3.8 million related to a new contract with the Texas Office of Court Administration for our Odyssey File and Serve e-filing system for Texas courts, which was implemented in September 2013.

##### Software services.

The following table sets forth a comparison of our software services revenue for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
ESS	\$85,459	\$76,103	\$9,356	12%
ATSS	7,808	7,305	503	7
Total software services revenue	\$93,267	\$83,408	\$9,859	12%

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Excluding the impact of acquisitions, software services increased 7% compared to 2012. The increase is attributable to growth in software license activity, as well as contract arrangements that included more programming and other services.

#### Maintenance.

The following table sets forth a comparison of our maintenance revenue for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
ESS	\$175,180	\$155,290	\$19,890	13%
ATSS	16,540	16,561	(21)	—
Total maintenance revenue	\$191,720	\$171,851	\$19,869	12%

Excluding the impact of acquisitions, maintenance revenue grew 9% from 2012. This increase was mainly due to growth in our installed customer base from new software license sales, as well as maintenance rate increases.

#### Appraisal services.

The following table sets forth a comparison of our appraisal services revenue for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
ESS	\$ —	\$ —	\$ —	—%
ATSS	20,825	22,543	(1,718)	(8)
Total appraisal services revenue	\$20,825	\$22,543	\$(1,718)	(8)%

Appraisal services revenue declined 8% compared to 2012. The decline is mainly due to the completion in mid-2012, of a large contract in Pennsylvania.

#### Cost of Revenues and Gross Margins

The following table sets forth a comparison of the key components of our cost of revenues for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
Software licenses and royalties	\$ 2,377	\$ 1,983	\$ 394	20%
Acquired software	2,078	1,888	190	10
Software services, maintenance and subscriptions	199,617	171,584	28,033	16
Appraisal services	13,809	14,889	(1,080)	(7)
Hardware and other	5,559	5,258	301	6
Total cost of revenues	\$223,440	\$195,602	\$27,838	14%

The following table sets forth a comparison of gross margin percentage by revenue type for the years ended December 31:

Gross margin percentage	2013	2012	Change
Software licenses, royalties and acquired software	89.1%	88.6%	0.5%
Software services, maintenance and subscriptions	42.4	42.8	(0.4)
Appraisal services	33.7	34.0	(0.3)
Hardware and other	31.6	24.4	7.2
Overall gross margin	46.4%	46.2%	0.2%

**Software licenses, royalties and acquired software.** In 2013, our software license gross margin percentage increased compared to 2012 due to higher revenues from royalties. The margin also benefited from a product mix that included slightly more proprietary software revenues, which have a higher gross margin than third-party software.

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**Software services, maintenance and subscription-based services.** In 2013, the software services, maintenance and subscriptions gross margin decreased compared to the prior year partly because we accelerated hiring in 2013 to ensure that we were well-positioned to deliver our backlog and anticipated new business. In addition, software services, maintenance and subscription-based services cost included initial startup costs related to the eFileTexas.gov contract. This contract began in September 2013, but we incurred initial startup costs in 2013 for which there were very limited related revenue. Excluding the limited revenue and costs incurred in connection with implementing eFileTexas.gov in 2013, our software services, maintenance and subscription services gross margin would have been approximately 42.8%. Our implementation and support staff increased by 202 employees since 2012. Most of these additions occurred mid-to late 2013.

**Appraisal services.** The appraisal services gross margin declined slightly compared to 2012. A high proportion of the costs of appraisal services revenue are variable, as we often hire temporary employees to assist in appraisal projects, whose term of employment generally ends with the projects' completion.

Our blended gross margin for 2013 increased 0.2% from 2012 mainly due to higher royalty revenue and also benefited from a product mix that included slightly higher proprietary software revenues than third-party software. Costs incurred related to our implementation of e-FileTexas.gov with minimal related revenues as well as increased hiring of implementation and support staff in order to expand our capacity to implement our contract backlog offset some of the positive impact of higher royalty and proprietary software revenue.

#### Selling, General and Administrative Expenses

The following table sets forth a comparison of our SG&A expenses for the following years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
Selling, general and administrative expenses	\$98,289	\$86,706	\$11,583	13%

SG&A as a percentage of revenues was 23.6% in 2013 compared to 23.9% in 2012. Excluding costs from acquisitions, almost half of the SG&A expense increase is due to increased stock compensation expense resulting from increases in our stock price and higher payroll taxes associated with increased stock option exercise activity. Commission expense has also increased compared to the prior year periods due to higher sales.

#### Research and Development Expense

The following table sets forth a comparison of our research and development expense for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
Research and development expense	\$23,269	\$20,140	\$3,129	16%

Our research and development expense increased \$3.1 million in 2013 compared to 2012. In 2013, we did not have any research and development expense offsets earned under the terms of our agreement with Microsoft compared to \$1.0 million in research and development expense offsets in 2012.

#### Amortization of Customer and Trade Name Intangibles

The following table sets forth a comparison of amortization of customer and trade name intangibles for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
Amortization of customer and trade name intangibles	\$4,517	\$4,279	\$238	6%



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#### Other

The following table sets forth a comparison of other expense, net for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
Other expense, net	\$1,309	\$2,709	\$ (1,400)	(52)%

Other expense is primarily comprised of interest expense, non-usage and other fees associated with a revolving line of credit agreement. Interest expense was lower in 2013 than 2012 because we maintained higher debt levels in 2012 associated primarily with several acquisitions completed from October 2011 through November 2012.

#### Income Tax Provision

The following table sets forth a comparison of our income tax provision for the years ended December 31:

(\$ in thousands)	2013	2012	Change	
			\$	%
Income tax provision	\$26,718	\$20,874	\$5,844	28%
Effective income tax rate	40.6%	38.8%		

The effective income tax rates were different from the statutory United States federal income tax rate of 35% due to state income taxes, non-deductible share-based compensation expense, the qualified manufacturing activities deduction, disqualifying incentive stock option dispositions and non-deductible meals and entertainment costs. We experienced significant stock option exercise activity in 2013 that generated \$28.2 million excess tax benefits. Excess tax benefits reduce tax payments but do not significantly reduce the effective tax rate and can result in limitations on other deductions. In 2013, limitations resulting from excess tax benefits eliminated the qualified manufacturing activities deduction, which negatively impacted our effective tax rate.

#### FINANCIAL CONDITION AND LIQUIDITY

As of December 31, 2014, we had cash and cash equivalents of \$206.2 million compared to \$78.9 million at December 31, 2013. Cash and cash equivalents consist of cash on deposit with several domestic banks. As of December 31, 2014, we had no outstanding borrowings and an outstanding letter of credit totaling \$2.0 million. We do not believe this letter of credit will be required to be drawn upon. We believe that cash from operating activities, cash on hand and access to the credit markets provides us with sufficient flexibility to meet our long-term financial needs.

The following table sets forth a summary of cash flows for the years ended December 31:

(\$ in thousands)	2014	2013	2012
Cash flows provided (used) by:			
Operating activities	\$123,437	\$ 66,090	\$ 58,668
Investing activities	(11,555)	(25,658)	(34,736)
Financing activities	15,409	32,038	(18,852)
Net increase in cash and cash equivalents	\$127,291	\$ 72,470	\$ 5,080

Net cash provided by operating activities continues to be our primary source of funds to finance operating needs and capital expenditures. Other potential capital resources include cash on hand, public and private issuances of debt or equity securities, and bank borrowings. It is possible that our ability to access the capital and credit markets in the future may be limited by economic conditions or other factors. We currently believe that cash provided by operating activities, cash on hand and access to the credit markets are sufficient to fund our working capital requirements, capital expenditures, income tax obligations, and share repurchases for at least the next twelve months.

In 2014, operating activities provided net cash of \$123.4 million, primarily generated from net income of \$58.9 million, non-cash depreciation and amortization charges of \$14.6 million and non-cash share-based compensation expense of \$14.8 million. Cash from operations also benefited from timing of payments on vendor invoices and income tax

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liabilities. In addition, deferred revenue balances were higher than 2013 mainly due to an increase in annual software maintenance billings as a result of growth in our installed customer base and growth in subscription-based arrangements. These increases in liabilities were offset somewhat by higher accounts receivable balances from annual software maintenance billings and prepaid commissions on large contracts.

In general, changes in the balance of deferred revenue are cyclical and primarily driven by the timing of our maintenance renewal billings. Our renewal dates occur throughout the year but our heaviest renewal cycles occur in the second and fourth quarters.

At December 31, 2014, our days sales outstanding ("DSOs") were 80 days compared to DSOs of 87 days at December 31, 2013. DSOs are calculated based on accounts receivable (excluding long-term receivables, but including unbilled receivables) divided by the quotient of annualized quarterly revenues divided by 360 days.

Investing activities used cash of \$11.6 million in 2014 compared to \$25.7 million in 2013. In 2014, we completed the acquisition of SoftCode, Inc. for a purchase price of \$3.5 million in cash, of which \$325,000 was accrued at December 31, 2014, and 16,540 shares of Tyler common stock valued at \$1.5 million. The remaining use of cash in 2014 was comprised primarily of capital expenditures related to computer equipment, furniture and fixtures in support of internal growth, particularly with respect to growth in our cloud-based offerings. Investing activities in 2013 and 2012 included \$20.3 million and \$2.3 million, respectively, paid in connection with the construction of an office building in Plano, Texas. These expenditures were funded from cash generated from operations and cash on hand.

In 2012, we also purchased four companies for a combined cash purchase price of \$25.7 million and paid \$2.6 million, which was comprised of \$1.7 million in cash and land and a building valued at \$900,000 for an office building in Moraine, Ohio. These expenditures were funded from cash generated from operations, cash on hand and borrowings under a revolving credit line.

Financing activities in 2014 provided cash of \$15.4 million compared to \$32.0 million in 2013. Financing activities in 2014 were comprised of collections of \$18.8 million from stock option exercises and contributions from the employee stock purchase plan and \$19.4 million excess tax benefit from exercises of share-based arrangements. These increases were offset somewhat by purchases of 294,000 shares of our common stock for an aggregate purchase price of \$22.8 million. Financing activities in 2013 were comprised of collections of \$21.8 million from stock option exercises and employee stock purchase plan activity and \$28.2 million excess tax benefit from exercises of share-based arrangements, offset partially by \$18.0 million in net payments on our revolving line of credit. Cash used in financing activities in 2012 was mainly comprised of \$42.7 million in payments on our revolving line of credit offset by collections of \$15.1 million from stock option exercises and contributions from the employee stock purchase plan and \$8.8 million excess tax benefit from exercises of share-based arrangements.

The share repurchase program, which was approved by our board of directors, was announced in October 2002, and was amended at various times from 2003 through 2011. As of December 31, 2014, we had remaining authorization to repurchase up to 1.4 million additional shares of our common stock. Our share repurchase program allows us to repurchase shares at our discretion and market conditions influence the timing of the buybacks and the number of shares repurchased, as well as the volume of employee stock option exercises. Share repurchases are generally funded using our existing cash balances and may occur through open market purchases and transactions structured through investment banking institutions, privately negotiated transactions and/or other mechanisms. There is no expiration date specified for the authorization and we intend to repurchase stock under the plan from time to time.

In 2014, we issued 855,000 shares of common stock and received \$14.7 million in aggregate proceeds upon exercise of stock options. In 2013, we issued 1.4 million shares of common stock and received \$18.3 million in aggregate proceeds upon exercise of stock options. In 2012, we issued 1.2 million shares of common stock and received \$12.4 million in aggregate proceeds upon exercise of stock options. In 2014, 2013 and 2012, we received \$4.1 million, \$3.5 million, and \$2.6 million, respectively, from contributions to the Tyler Technologies, Inc. Employee Stock Purchase Plan.

We did not replace our revolving credit line of \$150.0 million that matured on August 11, 2014.

## Appendix E

### Management's Discussion and Analysis of Financial Condition and Results of Operations

As of December 31, 2014, we had an outstanding \$2.0 million letter of credit, issued by a bank in favor of one of our clients. The letter of credit guarantees our performance under a software contract and expires in 2015. We do not believe this letter of credit will be required to be drawn upon.

We paid income taxes, net of refunds received, of \$10.2 million in 2014, \$9.3 million in 2013, and \$13.1 million in 2012. We experienced significant stock option exercise activity in 2014 that generated \$19.4 million excess tax benefits. Excess tax benefits reduce tax payments but do not significantly reduce the effective tax rate and can result in limitations on other deductions. In 2013 and 2012, excess tax benefits were \$28.2 million and \$8.8 million, respectively.

On February 4, 2015, we announced that our contractual research and development commitment to develop public sector functionality for Microsoft Dynamics AX expires with the release of Dynamics AX 7. We do not anticipate continuing research and development commitment, although we will continue to provide sustained engineering and technical support for the public sector functionality within Dynamics AX. We do not expect the expiration of this development commitment to materially impact operating results in 2015. We anticipate that license and maintenance royalties for all applicable domestic and international sales of Dynamics AX to public sector entities will continue under the terms of the contract.

On January 30, 2015, we made a \$15.0 million investment in convertible preferred stock representing a 20% interest in Record Holdings Pty Limited, a privately held Australian company specializing in digitizing the spoken word in court and legal settings.

Excluding acquisitions, we anticipate that 2015 capital spending will be between \$13.5 million and \$14.5 million. We expect the majority of this capital spending will consist of computer equipment and software for infrastructure replacements and expansion. We currently do not expect to capitalize significant amounts related to software development in 2015, but the actual amount and timing of those costs, and whether they are capitalized or expensed may result in additional capitalized software development. Capital spending is expected to be funded from existing cash balances and cash flows from operations.

From time to time we engage in discussions with potential acquisition candidates. In order to pursue such opportunities, which could require significant commitments of capital, we may be required to incur debt or to issue additional potentially dilutive securities in the future. No assurance can be given as to our future acquisition opportunities and how such opportunities will be financed.

We lease office facilities, as well as transportation, computer and other equipment used in our operations under non-cancelable operating lease agreements expiring at various dates through 2021. Most leases contain renewal options and some contain purchase options.

Summarized in the table below are our obligations to make future payments under our long-term lease obligations at December 31, 2014 (in thousands):

	2015	2016	2017	2018	2019	Thereafter	Total
Lease obligations	\$5,437	\$5,136	\$4,459	\$2,270	\$1,680	\$2,005	\$20,987

As of December 31, 2014, we do not have any off-balance sheet arrangements, guarantees to third-parties or material purchase commitments, except for the operating lease commitments listed above.

#### CAPITALIZATION

At December 31, 2014, our capitalization consisted of no outstanding borrowings and \$337.0 million of shareholders' equity.

#### QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may affect us due to adverse changes in financial market prices and interest rates. We have no outstanding debt at December 31, 2014 and we therefore are not subject to any interest risk.

**CONTROLS AND PROCEDURES**

**Evaluation of Disclosure Controls and Procedures** — We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act) designed to provide reasonable assurance that the information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. These include controls and procedures designed to ensure that this information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosures. Management, with the participation of the chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2014. Based on this evaluation, the chief executive officer and chief financial officer have concluded that our disclosure controls and procedures were effective as of December 31, 2014.

**Management's Report on Internal Control Over Financial Reporting** — Tyler's management is responsible for establishing and maintaining effective internal control over financial reporting as defined in Securities Exchange Act Rule 13a-15(f). Tyler's internal control over financial reporting is designed to provide reasonable assurance to Tyler's management and board of directors regarding the preparation and fair presentation of published financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management assessed the effectiveness of Tyler's internal control over financial reporting as of December 31, 2014. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control — Integrated Framework (2013 framework)*. Based on our assessment, we concluded that, as of December 31, 2014, Tyler's internal control over financial reporting was effective based on those criteria.

Tyler's internal control over financial reporting as of December 31, 2014 has been audited by Ernst & Young LLP, the independent registered public accounting firm who also audited Tyler's financial statements. Ernst & Young's attestation report on Tyler's internal control over financial reporting appears on page 38 hereof.

**Changes in Internal Control Over Financial Reporting** — During the quarter ended December 31, 2014, there were no changes in our internal control over financial reporting, as defined in Securities Exchange Act Rule 13a-15(f), that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## Appendix E

### Report of Independent Registered Public Accounting Firm

#### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Shareholders

Tyler Technologies, Inc.

We have audited Tyler Technologies, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO Criteria). Tyler Technologies, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying "Management's Report on Internal Control Over Financial Reporting." Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

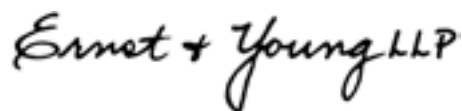
We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Tyler Technologies, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Tyler Technologies, Inc. as of December 31, 2014 and 2013, and the related consolidated statements of comprehensive income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2014 and our report dated February 18, 2015 expressed an unqualified opinion thereon.



Dallas, Texas

February 18, 2015

## Appendix E

### Report of Independent Registered Public Accounting Firm

#### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Shareholders

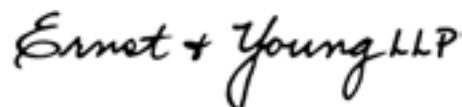
Tyler Technologies, Inc.

We have audited the accompanying consolidated balance sheets of Tyler Technologies, Inc. as of December 31, 2014 and 2013, and the related consolidated statements of comprehensive income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2014. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Tyler Technologies, Inc. at December 31, 2014 and 2013, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Tyler Technologies, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 18, 2015 expressed an unqualified opinion thereon.

The signature of Ernst & Young LLP is written in a cursive, handwritten style in black ink.

Dallas, Texas  
February 18, 2015

## Appendix E

### Consolidated Statements of Comprehensive Income

#### CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31,	2014	2013	2012
In thousands, except per share amounts			
Revenues:			
Software licenses and royalties	\$ 49,065	\$ 40,841	\$ 33,928
Subscriptions	87,848	61,864	44,618
Software services	113,821	93,267	83,408
Maintenance	212,696	191,720	171,851
Appraisal services	21,802	20,825	22,543
Hardware and other	7,869	8,126	6,956
Total revenues	493,101	416,643	363,304
Cost of revenues:			
Software licenses and royalties	1,900	2,377	1,983
Acquired software	1,858	2,078	1,888
Software services, maintenance and subscriptions	236,363	199,617	171,584
Appraisal services	14,284	13,809	14,889
Hardware and other	5,325	5,559	5,258
Total cost of revenues	259,730	223,440	195,602
Gross profit	233,371	193,203	167,702
Selling, general and administrative expenses	108,260	98,289	86,706
Research and development expense	25,743	23,269	20,140
Amortization of customer and trade name intangibles	4,546	4,517	4,279
Operating income	94,822	67,128	56,577
Other expense, net	355	1,309	2,709
Income before income taxes	94,467	65,819	53,868
Income tax provision	35,527	26,718	20,874
Net income	\$ 58,940	\$ 39,101	\$ 32,994
Earnings per common share:			
Basic	\$ 1.79	\$ 1.23	\$ 1.09
Diluted	\$ 1.66	\$ 1.13	\$ 1.00
Unrealized gains on investment securities available-for-sale	\$ —	\$ 341	\$ 134
Income tax benefit related to components of other comprehensive income	—	119	47
Other comprehensive income, net of tax	\$ —	\$ 222	\$ 87
Comprehensive income	\$ 58,940	\$ 39,323	\$ 33,081

See accompanying notes.

**CONSOLIDATED BALANCE SHEETS**

December 31,	2014	2013
In thousands, except par value and share amounts		
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$206,167	\$ 78,876
Accounts receivable (less allowance for losses of \$1,725 in 2014 and \$1,113 in 2013)	112,660	106,570
Prepaid expenses	17,851	13,522
Income tax receivable	19	9,721
Other current assets	339	787
Deferred income taxes	9,674	7,759
Total current assets	346,710	217,235
Accounts receivable, long-term portion	1,761	588
Property and equipment, net	65,910	64,844
Other assets:		
Goodwill	124,142	121,011
Other intangibles, net	34,722	38,986
Sundry and other	737	1,824
	<b>\$573,982</b>	<b>\$ 444,488</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 4,119	\$ 2,533
Accrued liabilities	39,508	32,839
Deferred revenue	189,212	156,738
Total current liabilities	232,839	192,110
Deferred income taxes	4,170	6,059
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, \$10.00 par value; 1,000,000 shares authorized; none issued	—	—
Common stock, \$0.01 par value; 100,000,000 shares authorized; 48,147,969 shares issued in 2014 and 2013	481	481
Additional paid-in capital	201,389	182,176
Accumulated other comprehensive loss, net of tax	(46)	(46)
Retained earnings	261,150	202,210
Treasury stock, at cost; 14,678,782 and 15,309,940 shares in 2014 and 2013, respectively	(126,001)	(138,502)
Total shareholders' equity	336,973	246,319
	<b>\$573,982</b>	<b>\$ 444,488</b>

See accompanying notes.



## Appendix E

### Consolidated Statements of Shareholders' Equity

#### CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

For the years ended December 31, 2014, 2013 and 2012

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)		Retained Earnings	Treasury Stock		Total Shareholders' Equity
	Shares	Amount					Shares	Amount	
In thousands									
Balance at December 31, 2011	48,148	\$481	\$152,859	\$(355)	\$130,115	(18,176)	\$(204,990)	\$ 78,110	
Net income	—	—	—	—	32,994	—	—	32,994	
Unrealized gain on investment securities, net of tax	—	—	—	87	—	—	—	87	
Issuance of shares pursuant to stock compensation plan	—	—	(17,018)	—	—	1,218	29,461	12,443	
Stock compensation	—	—	7,411	—	—	—	—	7,411	
Issuance of shares pursuant to employee stock purchase plan	—	—	639	—	—	81	2,002	2,641	
Federal income tax benefit related to exercise of stock options	—	—	8,798	—	—	—	—	8,798	
Issuance of shares for acquisition	—	—	1,329	—	—	60	1,486	2,815	
Balance at December 31, 2012	48,148	481	154,018	(268)	163,109	(16,817)	(172,041)	145,299	
Net income	—	—	—	—	39,101	—	—	39,101	
Unrealized gain on investment securities, net of tax	—	—	—	222	—	—	—	222	
Issuance of shares pursuant to stock compensation plan	—	—	(13,742)	—	—	1,443	32,031	18,289	
Stock compensation	—	—	11,653	—	—	—	—	11,653	
Issuance of shares pursuant to employee stock purchase plan	—	—	2,034	—	—	64	1,508	3,542	
Federal income tax benefit related to exercise of stock options	—	—	28,213	—	—	—	—	28,213	
Balance at December 31, 2013	48,148	481	182,176	(46)	202,210	(15,310)	(138,502)	246,319	
Net income	—	—	—	—	58,940	—	—	58,940	
Issuance of shares pursuant to stock compensation plan	—	—	(17,449)	—	—	855	32,129	14,680	
Stock compensation	—	—	14,819	—	—	—	—	14,819	
Issuance of shares pursuant to employee stock purchase plan	—	—	2,235	—	—	53	1,909	4,144	
Federal income tax benefit related to exercise of stock options	—	—	19,415	—	—	—	—	19,415	
Treasury stock purchases	—	—	—	—	—	(294)	(22,817)	(22,817)	
Issuance of shares for acquisition	—	—	193	—	—	17	1,280	1,473	
Balance at December 31, 2014	48,148	\$481	\$201,389	\$ (46)	\$261,150	(14,679)	\$(126,001)	\$336,973	

See accompanying notes.

## Appendix E

### Consolidated Statements of Cash Flows

#### CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31,	2014	2013	2012
In thousands			
Cash flows from operating activities:			
Net income	\$ 58,940	\$ 39,101	\$ 32,994
Adjustments to reconcile net income to cash provided by operations:			
Depreciation and amortization	14,605	13,786	12,711
Share-based compensation expense	14,819	11,653	7,411
Provision for losses – accounts receivable	1,897	729	961
Excess tax benefit from exercises of share-based arrangements	(19,402)	(28,207)	(8,764)
Deferred income tax benefit	(3,804)	(1,497)	(215)
Changes in operating assets and liabilities, exclusive of effects of acquired companies:			
Accounts receivable	(8,912)	(7,488)	(6,825)
Income tax receivable	29,117	18,898	7,791
Prepaid expenses and other current assets	(3,696)	(4,154)	110
Accounts payable	1,586	(574)	(369)
Accrued liabilities	6,326	7,655	(530)
Deferred revenue	31,961	16,188	13,393
Net cash provided by operating activities	123,437	66,090	58,668
Cash flows from investing activities:			
Proceeds from sale of investments	808	1,090	75
Cost of acquisitions, net of cash acquired	(3,242)	(181)	(25,680)
Additions to property and equipment	(9,343)	(26,858)	(9,102)
Decrease (increase) in other	222	291	(29)
Net cash used by investing activities	(11,555)	(25,658)	(34,736)
Cash flows from financing activities:			
Purchase of treasury shares	(22,817)	—	—
Contributions from employee stock purchase plan	4,144	3,542	2,641
Proceeds from exercise of stock options	14,680	18,289	12,443
Decrease in net borrowings on revolving line of credit	—	(18,000)	(42,700)
Excess tax benefit from exercises of share-based arrangements	19,402	28,207	8,764
Net cash provided (used) by financing activities	15,409	32,038	(18,852)
Net increase in cash and cash equivalents	127,291	72,470	5,080
Cash and cash equivalents at beginning of period	78,876	6,406	1,326
Cash and cash equivalents at end of period	\$206,167	\$ 78,876	\$ 6,406

See accompanying notes.

### Notes to Consolidated Financial Statements

(Tables in thousands, except per share data)

#### (1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

##### DESCRIPTION OF BUSINESS

We provide integrated software systems and related services for the public sector, with a focus on local governments. We develop and market a broad line of software solutions and services to address the information technology ("IT") needs of cities, counties, schools and other local government entities. In addition, we provide professional IT services, including software and hardware installation, data conversion, training, and for certain customers, product modifications, along with continuing maintenance and support for customers using our systems. We also provide subscription-based services such as software as a service ("SaaS") arrangements, which utilize the Tyler private cloud, and electronic document filing solutions ("e-filing"). In addition, we also provide property appraisal outsourcing services for taxing jurisdictions.

##### PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include our parent company and a subsidiary, which is wholly-owned. All significant intercompany balances and transactions have been eliminated in consolidation.

##### CASH AND CASH EQUIVALENTS

Cash and cash equivalents consist of cash on deposit with several domestic banks. Cash and cash equivalents are stated at cost, which approximates market value.

##### REVENUE RECOGNITION

We earn revenue from software licenses, royalties, subscription-based services, software services, post-contract customer support ("PCS" or "maintenance"), hardware, and appraisal services.

##### Software Arrangements:

For the majority of our software arrangements, we provide services that range from installation, training, and basic consulting to software modification and customization to meet specific customer needs. If the arrangement does not require significant production, modification or customization or where the software services are not considered essential to the functionality of the software, revenue is recognized when all of the following conditions are met:

- i. persuasive evidence of an arrangement exists;
- ii. delivery has occurred;
- iii. our fee is fixed or determinable; and
- iv. collectability is probable.

For multiple element arrangements, each element of the arrangement is analyzed and we allocate a portion of the total arrangement fee to the elements based on the relative fair value of the element using vendor-specific objective evidence of fair value ("VSOE"), regardless of any separate prices stated within the contract for each element. Fair value is considered the price a customer would be required to pay if the element was sold separately based on our historical experience of stand-alone sales of these elements to third-parties. For PCS, we use renewal rates for continued support arrangements to determine fair value. For software services, we use the fair value we charge our customers when those services are sold separately. We monitor our transactions to determine that we maintain and periodically revise VSOE to reflect fair value. In software arrangements in which we have the fair value of all undelivered elements but not of a delivered element, we apply the "residual method," in compliance with ASC 985-605, Software Revenue Recognition. Under the residual method, if the fair value of all undelivered elements is determinable, the fair value of the undelivered elements is deferred and the remaining portion of the arrangement fee is allocated to the delivered element(s) and is recognized as revenue assuming the other revenue recognition criteria are met. In software arrangements in which we do not have VSOE for all undelivered elements, revenue is deferred until fair value is determined or all elements for which we do not have VSOE have been delivered. Alternatively, if sufficient VSOE does not exist and the only undelivered

element is services that do not involve significant modification or customization of the software, the entire fee is recognized over the period during which the services are expected to be performed.

#### Software Licenses and Royalties

We recognize the revenue allocable to software licenses and specified upgrades upon delivery of the software product or upgrade to the customer, unless the fee is not fixed or determinable or collectability is not probable. If the fee is not fixed or determinable, software license revenue is generally recognized as payments become due from the customer. If collectability is not considered probable, revenue is recognized when the fee is collected. Arrangements that include software services, such as training or installation, are evaluated to determine whether those services are essential to the product's functionality.

A majority of our software arrangements involve "off-the-shelf" software. We consider software to be off-the-shelf software if it can be added to an arrangement with minor changes in the underlying code and it can be used by the customer for the customer's purpose upon installation. For off-the-shelf software arrangements, we recognize the software license fee as revenue after delivery has occurred, customer acceptance is reasonably assured, that portion of the fee represents a non-refundable enforceable claim and is probable of collection, and the remaining services such as training are not considered essential to the product's functionality.

For arrangements that involve significant production, modification or customization of the software, or where software services are otherwise considered essential, we recognize revenue using contract accounting and apply the provisions of the Construction — Type and Production — Type Contracts as discussed in ASC 605-35, Multiple Elements Arrangements. We generally use the percentage-of-completion method to recognize revenue from these arrangements. We measure progress-to-completion primarily using labor hours incurred, or value added. The percentage-of-completion method generally results in the recognition of reasonably consistent profit margins over the life of a contract because we have the ability to produce reasonably dependable estimates of contract billings and contract costs. We use the level of profit margin that is most likely to occur on a contract. If the most likely profit margin cannot be precisely determined, the lowest probable level of profit in the range of estimates is used until the results can be estimated more precisely. These arrangements are often implemented over an extended time period and occasionally require us to revise total cost estimates. Amounts recognized in revenue are calculated using the progress-to-completion measurement after giving effect to any changes in our cost estimates. Changes to total estimated contract costs, if any, are recorded in the period they are determined. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent. For arrangements that include new product releases for which it is difficult to estimate final profitability except to assume that no loss will ultimately be incurred, we recognize revenue under the completed contract method. Under the completed contract method, revenue is recognized only when a contract is completed or substantially complete. Historically these amounts have been immaterial.

We recognize royalty revenue when earned under the terms of our third-party royalty arrangements, provided the fees are considered fixed or determinable and realization of payment is probable. Currently, our third-party royalties are variable in nature and such amounts are not considered fixed or determinable until we receive notice of amounts earned. Typically, we receive notice of royalty revenues earned on a quarterly basis in the quarter immediately following the royalty reporting period.

#### Software Services

Some of our software arrangements include services considered essential for the customer to use the software for the customer's purposes. For these software arrangements, both the software license revenue and the services revenue are recognized as the services are performed using the percentage-of-completion contract accounting method. When software services are not considered essential, the fee allocable to the service element is recognized as revenue as we perform the services.

#### Computer Hardware Equipment

Revenue allocable to computer hardware equipment is recognized when we deliver the equipment and collection is probable.

### Notes to Consolidated Financial Statements

#### Post Contract Customer Support

Our customers generally enter into PCS agreements when they purchase our software licenses. PCS includes telephone support, bug fixes, and rights to upgrades on a when-and-if available basis. Our PCS agreements are typically renewable annually. Revenue allocated to PCS is recognized on a straight-line basis over the period the PCS is provided. All significant costs and expenses associated with PCS are expensed as incurred.

#### Subscription-Based Services:

Subscription-based services consist of revenues derived from SaaS arrangements, which utilize the Tyler private cloud, and electronic filing transactions.

For SaaS arrangements, we evaluate whether the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and whether the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software. In cases where the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software, we recognize the license, professional services and hosting services revenues pursuant to ASC 985-605, Software Revenue Recognition.

For SaaS arrangements that do not meet the criteria for recognition under ASC 985-605, we account for the elements under ASC 605-25, Multiple Element Arrangements, using all applicable facts and circumstances, including whether (i) the element has stand-alone value, (ii) there is a general right of return and (iii) the revenue is contingent on delivery of other elements. We allocate contract value to each element of the arrangement that qualifies for treatment as a separate element based on VSOE, and if VSOE is not available, third-party evidence, and if third-party evidence is unavailable, estimated selling price. We recognize hosting services ratably over the term of the arrangement, which range from one to 10 years but are typically for a period of three to six years. For professional services associated with SaaS arrangements that we determine do not have stand-alone value to the customer or are contingent on delivery of other elements, we recognize the services revenue ratably over the remaining contractual period once we have provided the customer access to the software and we may begin billing for hosting services. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

Electronic filing transaction fees primarily pertain to documents filed with the courts by attorneys and other third-parties via our e-filing services and retrieval of filed documents via our access services. The elements for these arrangements are accounted for under ASC 605-25. For each document filed with a court, the filer generally pays a transaction fee and a court filing fee to us and we remit a portion of the transaction fee and the filing fee to the court. We record as revenue the transaction fee, while the portion of the transaction fee remitted to the courts is recorded as cost of sales as we are acting as a principal in the arrangement. Court filing fees collected on behalf of the courts and remitted to the courts are recorded on a net basis and thus do not affect the statement of comprehensive income. In some cases, we are paid on a fixed fee basis and recognize the revenue ratably over the contractual period.

Costs of performing services under subscription-based arrangements are expensed as incurred, except for certain direct and incremental contract origination and set-up costs associated with SaaS arrangements. Such direct and incremental costs are capitalized and amortized ratably over the related SaaS hosting term.

#### Appraisal Services:

For our property appraisal projects, we recognize revenue using the proportional performance method of revenue recognition since many of these projects are implemented over one to three year periods and consist of various unique activities. Under this method of revenue recognition, we identify each activity for the appraisal project, with a typical project generally calling for bonding, office set up, training, routing of map information, data entry, data collection, data verification, informal hearings, appeals and project management. Each activity or act is specifically identified and assigned an estimated cost. Costs which are considered to be associated with indirect activities, such as bonding costs

and office set up, are expensed as incurred. These costs are typically billed as incurred and are recognized as revenue equal to cost. Direct contract fulfillment activities and related supervisory costs such as data collection, data entry and verification are expensed as incurred. The direct costs for these activities are determined and the total contract value is then allocated to each activity based on a consistent profit margin. Each activity is assigned a consistent unit of measure to determine progress towards completion and revenue is recognized for each activity based upon the percentage complete as applied to the estimated revenue for that activity. Progress for the fulfillment activities is typically based on labor hours or an output measure such as the number of parcel counts completed for that activity. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent.

#### Allocation of Revenue in Statements of Comprehensive Income

In our statements of comprehensive income, we allocate revenue to software licenses, software services, maintenance and hardware and other based on the VSOE of fair value for elements in each revenue arrangement and the application of the residual method for arrangements in which we have established VSOE of fair value for all undelivered elements. In arrangements where we are not able to establish VSOE of fair value for all undelivered elements, revenue is first allocated to any undelivered elements for which VSOE of fair value has been established. We then allocate revenue to any undelivered elements for which VSOE of fair value has not been established based upon management's best estimate of fair value of those undelivered elements and apply a residual method to determine the license fee. Management's best estimate of fair value of undelivered elements for which VSOE of fair value has not been established is based upon the VSOE of similar offerings and other objective criteria.

#### Other

The majority of deferred revenue consists of unearned support and maintenance revenue that has been billed based on contractual terms in the underlying arrangement with the remaining balance consisting of payments received in advance of revenue being earned under software licensing, subscription-based services, software and appraisal services and hardware installation. Unbilled revenue is not billable at the balance sheet date but is recoverable over the remaining life of the contract through billings made in accordance with contractual agreements. The termination clauses in our contracts generally provide for the payment for the value of products delivered and services performed in the event of an early termination.

Prepaid expenses and other current assets include direct and incremental costs such as commissions associated with arrangements for which revenue recognition has been deferred. Such costs are expensed at the time the related revenue is recognized.

#### USE OF ESTIMATES

The preparation of our financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include the application of the percentage-of-completion and proportional performance methods of revenue recognition, the carrying amount and estimated useful lives of intangible assets, determination of share-based compensation expense and valuation allowance for receivables. Actual results could differ from estimates.

#### PROPERTY AND EQUIPMENT, NET

Property, equipment and purchased software are recorded at original cost and increased by the cost of any significant improvements after purchase. We expense maintenance and repairs when incurred. Depreciation and amortization is calculated using the straight-line method over the shorter of the asset's estimated useful life or the term of the lease in the case of leasehold improvements. For income tax purposes, we use accelerated depreciation methods as allowed by tax laws.

## Appendix E

### Notes to Consolidated Financial Statements

#### RESEARCH AND DEVELOPMENT COSTS

We expensed research and development costs of \$25.7 million during 2014, \$23.3 million during 2013, and \$20.1 million during 2012. We reduced our research and development expense by approximately \$1.0 million in 2012, which was the amount earned under the terms of a strategic alliance with a development partner.

#### INCOME TAXES

Income taxes are accounted for under the asset and liability method. Deferred taxes arise because of different treatment between financial statement accounting and tax accounting, known as “temporary differences.” We record the tax effect of these temporary differences as “deferred tax assets” (generally items that can be used as a tax deduction or credit in the future periods) and “deferred tax liabilities” (generally items that we received a tax deduction for, which have not yet been recorded in the income statement). The deferred tax assets and liabilities are measured using enacted tax rules and laws that are expected to be in effect when the temporary differences are expected to be recovered or settled. A valuation allowance would be established to reduce deferred tax assets if it is more likely than not that a deferred tax asset will not be realized.

#### SHARE-BASED COMPENSATION

We have a stock option plan that provides for the grant of stock options to key employees, directors and non-employee consultants. Stock options generally vest after three to six years of continuous service from the date of grant and have a contractual term of 10 years. We account for share-based compensation utilizing the fair value recognition pursuant to ASC 718, Stock Compensation. See Note 9 — “Share-Based Compensation” for further information.

#### GOODWILL AND OTHER INTANGIBLE ASSETS

##### Goodwill

Goodwill represents the excess of the purchase price over the fair value of net assets acquired, including identifiable intangible assets, in connection with our business combinations. Upon acquisition, goodwill is assigned to the reporting unit that is expected to benefit from the synergies of the business combination, which is the reporting unit to which the related acquired technology is assigned. A reporting unit is the operating segment, or a business unit one level below that operating segment, for which discrete financial information is prepared and regularly reviewed by executive management. We assess goodwill for impairment annually as of April, or more frequently whenever events or changes in circumstances indicate its carrying value may not be recoverable.

When testing goodwill for impairment quantitatively, we first compare the fair value of each reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds its fair value, a second step is performed to measure the amount of potential impairment. In the second step, we compare the implied fair value of reporting unit goodwill with the carrying amount of the reporting unit's goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized. The fair values calculated in our impairment tests are determined using discounted cash flow models involving several assumptions. The assumptions that are used are based upon what we believe a hypothetical marketplace participant would use in estimating fair value. We evaluate the reasonableness of the fair value calculations of our reporting units by comparing the total of the fair value of all of our reporting units to our total market capitalization.

Our annual goodwill impairment analysis, which we performed quantitatively during the second quarter of 2014, did not result in an impairment charge.

##### Other Intangible Assets

We make judgments about the recoverability of purchased intangible assets other than goodwill whenever events or changes in circumstances indicate that an impairment may exist. Customer base constitutes approximately 80% of our purchased intangible assets other than goodwill. We review our customer turnover each year for indications of impairment. Our customer turnover has historically been very low. If indications of impairment are determined to exist,

we measure the recoverability of assets by a comparison of the carrying amount of the asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of the assets exceeds their estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceeds the fair value of the assets. There have been no significant impairments of intangible assets in any of the periods presented.

#### IMPAIRMENT OF LONG-LIVED ASSETS

We periodically evaluate whether current facts or circumstances indicate that the carrying value of our property and equipment or other long-lived assets to be held and used may not be recoverable. If such circumstances are determined to exist, we measure the recoverability of assets to be held and used by a comparison of the carrying amount of the asset or appropriate grouping of assets and the estimated undiscounted future cash flows expected to be generated by the assets. If the carrying amount of the assets exceeds their estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of would be separately presented in the balance sheet and reported at the lower of the carrying amount or fair value less costs to sell, and are no longer depreciated. The assets and liabilities of a disposed group classified as held for sale would be presented separately in the appropriate asset and liability sections of the balance sheet. There have been no significant impairments of long-lived assets in any of the periods presented.

#### COSTS OF COMPUTER SOFTWARE

We capitalize software development costs upon the establishment of technological feasibility and prior to the availability of the product for general release to customers. Software development costs primarily consist of personnel costs and rent for related office space. We begin to amortize capitalized costs when a product is available for general release to customers. Amortization expense is determined on a product-by-product basis at a rate not less than straight-line basis over the product's remaining estimated economic life, but not to exceed five years. We have not capitalized any internal software development costs in any of the periods presented.

#### FAIR VALUE OF FINANCIAL INSTRUMENTS

Cash and cash equivalents, accounts receivables, accounts payables, short-term obligations and certain other assets at cost approximate fair value because of the short maturity of these instruments.

#### CONCENTRATIONS OF CREDIT RISK AND UNBILLED RECEIVABLES

Financial instruments that potentially subject us to significant concentrations of credit risk consist principally of cash and cash equivalents and accounts receivable from trade customers. Our cash and cash equivalents primarily consists of operating account balances, which are maintained at several major domestic financial institutions and the balances often exceed insured amounts. As of December 31, 2014 we had cash and cash equivalents of \$206.2 million. We perform periodic evaluations of the credit standing of these financial institutions.

Concentrations of credit risk with respect to receivables are limited due to the size and geographical diversity of our customer base. Historically, our credit losses have not been significant. As a result, we do not believe we have any significant concentrations of credit risk as of December 31, 2014.

We maintain allowances for doubtful accounts and sales adjustments, which are provided at the time the revenue is recognized. Since most of our customers are domestic governmental entities, we rarely incur a loss resulting from the inability of a customer to make required payments. Events or changes in circumstances that indicate that the carrying amount for the allowances for doubtful accounts and sales adjustments may require revision, include, but are not limited to, deterioration of a customer's financial condition, failure to manage our customer's expectations regarding the scope of the services to be delivered, and defects or errors in new versions or enhancements of our software products.



## Appendix E

### Notes to Consolidated Financial Statements

The following table summarizes the changes in the allowances for doubtful accounts and sales adjustments:

Years ended December 31,	2014	2013	2012
Balance at beginning of year	\$ 1,113	\$ 1,621	\$ 990
Provisions for losses – accounts receivable	1,897	729	961
Deductions for accounts charged off or credits issued	(1,285)	(1,237)	(330)
Balance at end of year	\$ 1,725	\$ 1,113	\$1,621

The termination clauses in most of our contracts provide for the payment for the value of products delivered or services performed in the event of early termination. Our property appraisal outsourcing service contracts can range up to three years and, in a few cases, as long as five years, in duration. In connection with these contracts, as well as certain software service contracts, we may perform work prior to when the software and services are billable and/or payable pursuant to the contract. We have historically recorded such unbilled receivables (costs and estimated profit in excess of billings) in connection with (1) property appraisal services contracts accounted for using proportional performance accounting in which the revenue is earned based upon activities performed in one accounting period but the billing normally occurs subsequently and may span another accounting period; (2) software services contracts accounted for using the percentage-of-completion method of revenue recognition using labor hours as a measure of progress towards completion in which the services are performed in one accounting period but the billing for the software element of the arrangement may be based upon the specific phase of the implementation; (3) software revenue for which we have objective evidence that the customer-specified objective criteria has been met but the billing has not yet been submitted to the customer; (4) some of our contracts provide for an amount to be withheld from a progress billing (generally between 5% and 20% retention) until final and satisfactory project completion is achieved; and (5) in a limited number of cases, we may grant extended payment terms generally to existing customers with whom we have a long-term relationship and favorable collection history.

In connection with this activity, we have recorded unbilled receivables of \$14.8 million and \$10.8 million at December 31, 2014 and 2013, respectively. We also have recorded retention receivables of \$4.7 million and \$2.6 million at December 31, 2014 and 2013, respectively, and these retentions become payable upon the completion of the contract or completion of our fieldwork and formal hearings. Unbilled receivables and retention receivables expected to be collected in excess of one year have been included with accounts receivable, long-term portion in the accompanying consolidated balance sheets.

#### INDEMNIFICATION

Most of our software license agreements indemnify our customers in the event that the software sold infringes upon the intellectual property rights of a third-party. These agreements typically provide that in such event we will either modify or replace the software so that it becomes non-infringing or procure for the customer the right to use the software. We have recorded no liability associated with these indemnifications, as we are not aware of any pending or threatened infringement actions that are possible losses. We believe the estimated fair value of these intellectual property indemnification clauses is minimal.

We have also agreed to indemnify our officers and board members if they are named or threatened to be named as a party to any proceeding by reason of the fact that they acted in such capacity. We maintain directors' and officers' insurance coverage to protect against any such losses. We have recorded no liability associated with these indemnifications. Because of our insurance coverage, we believe the estimated fair value of these indemnification agreements is minimal.

#### RECLASSIFICATIONS

Certain amounts for previous years have been reclassified to conform to the current year presentation.

**(2) ACQUISITIONS****2014**

On August 29, 2014, we acquired all of the capital stock of SoftCode, Inc. ("SoftCode"), which develops and sells civil process management software, typically to county sheriff departments. The purchase price, net of cash acquired of \$71,000, was \$3.5 million in cash, of which \$325,000 was accrued at December 31, 2014, and 16,540 shares of Tyler common stock valued at \$1.5 million, based on the stock price on the acquisition date. In December 2014, we finalized the purchase price allocation, which resulted in additional goodwill of \$125,000. As a result, we acquired total tangible assets of approximately \$301,000 and assumed liabilities of approximately \$531,000. We have recorded total goodwill of approximately \$3.1 million, all of which is expected to be deductible for tax purposes, and other intangible assets of approximately \$2.1 million. The \$2.1 million of intangible assets is attributable to customer relationships, acquired software and trade name and will be amortized over a weighted average period of approximately eight years. We believe this transaction will broaden our courts and justice software solutions with a tracking and management solution for civil court documents. We believe that likely market participants for this transaction would be software companies with a presence in the courts and justice market. Therefore, the goodwill of \$3.1 million arising from this acquisition is primarily attributable to our ability to integrate SoftCode software solutions with our existing portfolio and maximize the value of the customer base through Tyler's Odyssey software suite that targets the courts and justice market and to a much lesser extent, the assembled workforce of SoftCode. Our balance sheet as of December 31, 2014 reflects the allocation of the purchase price to the assets acquired based on their fair value at the date of acquisition. The fair value of the assets and liabilities acquired are based on valuations using level three, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. The operating results of this acquisition are included in our results of operations from the date of the acquisition.

**2012**

In November 2012, we acquired all of the capital stock of EnerGov Solutions, L.L.C. that develops and sells enterprise permitting, land management, licensing and regulatory software solutions to governmental agencies. The purchase price, net of cash acquired of \$15,000, was \$10.5 million in cash and 60,000 shares of Tyler common stock valued at \$2.8 million, based on the stock price on the acquisition date.

In April 2012, we acquired all of the capital stock of Computer Software Associates, Inc. ("CSA") for a cash purchase price of \$9.4 million, net of cash acquired of \$437,000. CSA is a reseller of Tyler's Infinite Visions school enterprise solution, and sells proprietary CSA tax and recording solutions to county governments, primarily in the Northwest.

In March 2012, we acquired all the capital stock of UniFund, L.L.C. ("Unifund") for a cash purchase price of \$4.6 million, net of cash acquired of \$780,000. UniFund provides enterprise resource planning solutions to schools and local governments, primarily in the Northeast. UniFund is also a reseller of Tyler's Infinite Visions school enterprise solution.

In January 2012, we acquired substantially all of the assets of Akanda Innovation, Inc., a provider of web-based solutions to the public sector, which are integrated, with our property tax software, for a total purchase price of \$2.9 million. The purchase price included certain liabilities we assumed of approximately \$800,000, resulting in net cash paid to the sellers of \$2.1 million, of which \$900,000 was paid prior to December 31, 2011.

**2015**

On January 30, 2015, we made a \$15.0 million investment in convertible preferred stock representing a 20% interest in Record Holdings Pty Limited, a privately held Australian company specializing in digitizing the spoken word in court and legal settings.

## Appendix E

### Notes to Consolidated Financial Statements

#### (3) PROPERTY AND EQUIPMENT, NET

Property and equipment, net consists of the following at December 31:

	Useful Lives (Years)	2014	2013
Land	—	\$ 7,736	\$ 7,800
Building and leasehold improvements	5-39	51,309	50,523
Computer equipment and purchased software	3-5	34,058	27,071
Furniture and fixtures	5	11,812	10,834
Transportation equipment	5	238	241
		105,153	96,469
Accumulated depreciation and amortization		(39,243)	(31,625)
Property and equipment, net		\$ 65,910	\$ 64,844

Depreciation expense was \$7.9 million during 2014, \$6.4 million during 2013, and \$5.6 million during 2012.

We own office buildings in Yarmouth, Maine; Lubbock and Plano, Texas; and Moraine, Ohio. We lease some space in these buildings to third-party tenants. These leases expire between 2015 and 2017 and are expected to provide rental income of approximately \$685,000 during 2015, \$319,000 during 2016, and \$46,000 during 2017. Rental income associated with third-party tenants was \$945,000 in 2014, \$704,000 in 2013, and \$586,000 in 2012, and was included as a reduction of selling, general and administrative expenses.

#### (4) GOODWILL AND OTHER INTANGIBLE ASSETS

Other intangible assets and related accumulated amortization consists of the following at December 31:

	2014	2013
Gross carrying amount of acquisition intangibles:		
Customer related intangibles	\$ 61,325	\$ 60,547
Acquired software	33,103	32,003
Trade name	3,331	3,109
Lease acquired	—	1,387
	97,759	97,046
Accumulated amortization	(63,037)	(58,060)
Total intangibles, net	\$ 34,722	\$ 38,986

Total amortization expense for intangibles was \$6.4 million in 2014, \$6.8 million in 2013, and \$6.5 million during 2012.

The allocation of acquisition intangible assets is summarized in the following table:

	December 31, 2014			December 31, 2013		
	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization
Non-amortizable intangibles:						
Goodwill	\$124,142	—	\$ —	\$121,011	—	\$ —
Amortizable intangibles:						
Customer related intangibles	61,325	15 years	33,194	60,547	15 years	28,864
Acquired software	33,103	5 years	28,441	32,003	5 years	26,584
Trade name	3,331	15 years	1,402	3,109	15 years	1,225
Lease acquired	—	—	—	1,387	5 years	1,387

## Appendix E

### Notes to Consolidated Financial Statements

The changes in the carrying amount of goodwill for the two years ended December 31, 2014 are as follows:

	Enterprise Software Solutions	Appraisal and Tax Software Solutions and Services	Total
Balance as of December 31, 2012 and December 31, 2013	\$114,454	\$6,557	\$121,011
Goodwill acquired during 2014 related to the purchase of SoftCode	3,131	—	3,131
Balance as of December 31, 2014	\$117,585	\$6,557	\$124,142

Estimated annual amortization expense relating to acquisition intangibles, including acquired software for which the amortization expense is recorded as cost of revenues for the next five years is as follows:

2015	\$ 6,430
2016	6,331
2017	5,353
2018	4,677
2019	3,248

#### (5) ACCRUED LIABILITIES

Accrued liabilities consist of the following at December 31:

	2014	2013
Accrued wages, bonuses and commissions	\$30,977	\$25,471
Other accrued liabilities	8,531	7,368
	\$39,508	\$32,839

#### (6) REVOLVING LINE OF CREDIT

Our revolving line of credit matured on August 11, 2014 and we have not entered into any new credit agreements.

As of December 31, 2014, we had an outstanding \$2.0 million letter of credit issued by a bank in favor of one of our clients. The letter of credit guarantees our performance under a software contract and expires in 2015.

#### (7) INCOME TAX

The income tax provision (benefit) on income from operations consists of the following:

Years ended December 31,	2014	2013	2012
Current:			
Federal	\$34,504	\$25,625	\$19,113
State	4,827	2,590	1,976
	39,331	28,215	21,089
Deferred	(3,804)	(1,497)	(215)
	\$35,527	\$26,718	\$20,874

## Appendix E

### Notes to Consolidated Financial Statements

Reconciliation of the U.S. statutory income tax rate to our effective income tax expense rate for operations follows:

Years ended December 31,	2014	2013	2012
Federal income tax expense at statutory rate	\$33,064	\$23,037	\$18,854
State income tax, net of federal income tax benefit	2,867	2,371	1,365
Non-deductible business expenses	1,485	1,110	1,087
Qualified manufacturing activities	(1,720)	—	(717)
Other, net	(169)	200	285
	\$35,527	\$26,718	\$20,874

The tax effects of the major items recorded as deferred tax assets and liabilities as of December 31 are:

	2014	2013
Deferred income tax assets:		
Operating expenses not currently deductible	\$ 9,093	\$ 7,360
Stock option and other employee benefit plans	9,815	7,089
Capital loss and credit carryforward	177	185
Property and equipment	46	149
Total deferred income tax assets	19,131	14,783
Deferred income tax liabilities:		
Intangible assets	(13,424)	(12,910)
Other	(203)	(173)
Total deferred income tax liabilities	(13,627)	(13,083)
Net deferred income tax asset	\$ 5,504	\$ 1,700

In 2014, we utilized approximately \$650,000 of net operating loss carryforwards for federal income tax reporting purposes. The full amount of the net operating loss utilized was attributable to excess tax benefits related to share-based arrangements for which authoritative guidance prohibited the recognition of a deferred tax asset in 2013. In 2014, this tax benefit was accounted for as an increase to shareholders' equity and a reduction in income tax payable. In total, we recognized approximately \$19.4 million and \$28.2 million of excess tax benefits related to share-based arrangements in 2014 and 2013, respectively, as a credit to shareholders' equity and a reduction in income taxes payable.

Although realization is not assured, we believe it is more likely than not that all the deferred tax assets at December 31, 2014 and 2013 will be realized. Accordingly, we believe no valuation allowance is required for the deferred tax assets. However, the amount of the deferred tax asset considered realizable could be adjusted in the future if estimates of reversing taxable temporary differences are revised.

No reserves for uncertain income tax positions have been recorded pursuant to ASC 740-10, Income Taxes.

The Internal Revenue Service ("IRS") is examining our U.S. income tax return for the year 2012. As of February 18, 2015, no significant adjustments have been proposed by the IRS. We are unable to make a reasonable estimate as to when cash settlements, if any, will occur.

We are subject to U.S. federal tax as well as income tax of multiple state and local jurisdictions. We are no longer subject to United States federal income tax examinations for years before 2011. We are no longer subject to state and local income tax examinations by tax authorities for the years before 2010.

We paid income taxes, net of refunds received, of \$10.2 million in 2014, \$9.3 million in 2013, and \$13.1 million in 2012.

## Appendix E

### Notes to Consolidated Financial Statements

#### (8) SHAREHOLDERS' EQUITY

The following table details activity in our common stock:

	Years ended December 31,					
	2014		2013		2012	
	Shares	Amount	Shares	Amount	Shares	Amount
Stock option exercises	855	\$ 14,680	1,443	\$ 18,289	1,218	\$ 12,443
Purchases of common stock	(294)	(22,817)	—	—	—	—
Employee stock plan purchases	53	4,144	64	3,542	81	2,641
Shares issued for acquisition	17	1,473	—	—	60	2,815

As of February 18, 2015, we had authorization from our board of directors to repurchase up to 1.4 million additional shares of our common stock.

#### (9) SHARE-BASED COMPENSATION

##### Share-Based Compensation Plan

We have a stock option plan that provides for the grant of stock options to key employees, directors and non-employee consultants. Stock options generally vest after three to six years of continuous service from the date of grant and have a contractual term of 10 years. Once options become exercisable, the employee can purchase shares of our common stock at the market price on the date we granted the option. We account for share-based compensation utilizing the fair value recognition pursuant to ASC 718, Stock Compensation.

As of December 31, 2014, there were 468,000 shares available for future grants under the plan from the 16.0 million shares previously approved by the stockholders.

##### Determining Fair Value of Stock Compensation

**Valuation and Amortization Method.** We estimate the fair value of share-based awards granted using the Black-Scholes option valuation model. We amortize the fair value of all awards on a straight-line basis over the requisite service periods, which are generally the vesting periods.

**Expected Life.** The expected life of awards granted represents the period of time that they are expected to be outstanding. The expected life represents the weighted-average period the stock options are expected to be outstanding based primarily on the options' vesting terms, remaining contractual life and the employees' expected exercise based on historical patterns.

**Expected Volatility.** Using the Black-Scholes option valuation model, we estimate the volatility of our common stock at the date of grant based on the historical volatility of our common stock.

**Risk-Free Interest Rate.** We base the risk-free interest rate used in the Black-Scholes option valuation model on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent remaining term equal to the expected life of the award.

**Expected Dividend Yield.** We have not paid any cash dividends on our common stock in more than ten years and we do not anticipate paying any cash dividends in the foreseeable future. Consequently, we use an expected dividend yield of zero in the Black-Scholes option valuation model.

**Expected Forfeitures.** We use historical data to estimate pre-vesting option forfeitures. We record share-based compensation only for those awards that are expected to vest.

## Appendix E

### Notes to Consolidated Financial Statements

The following weighted average assumptions were used for options granted:

Years ended December 31,	2014	2013	2012
Expected life (in years)	6.0	6.4	6.7
Expected volatility	30.9%	32.4%	32.6%
Risk-free interest rate	1.8%	1.4%	1.0%
Expected forfeiture rate	3%	3%	3%

The following table summarizes share-based compensation expense related to share-based awards which is recorded in the statements of comprehensive income:

Years ended December 31,	2014	2013	2012
Cost of software services, maintenance and subscriptions	\$ 2,177	\$ 1,509	\$ 1,084
Selling, general and administrative expenses	12,642	10,144	6,327
Total share-based compensation expenses	14,819	11,653	7,411
Tax benefit	(4,237)	(3,363)	(2,040)
Net decrease in net income	\$10,582	\$ 8,290	\$ 5,371

### Stock Option Activity

Options granted, exercised, forfeited and expired are summarized as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2011	6,059	\$15.31		
Granted	930	43.53		
Exercised	(1,218)	10.22		
Forfeited	(60)	28.07		
Outstanding at December 31, 2012	5,711	20.86		
Granted	1,453	67.08		
Exercised	(1,443)	12.68		
Forfeited	(1)	68.17		
Outstanding at December 31, 2013	5,720	34.66		
Granted	675	94.15		
Exercised	(855)	17.17		
Forfeited	(3)	37.44		
Outstanding at December 31, 2014	5,537	44.61	7	\$358,897
Exercisable at December 31, 2014	2,017	24.85	5	\$170,633

We had unvested options to purchase 3.3 million shares with a weighted average grant date exercise price of \$55.61 as of December 31, 2014 and unvested options to purchase 3.5 million shares with a weighted average grant date exercise price of \$44.55 as of December 31, 2013. As of December 31, 2014, we had \$55.3 million of total unrecognized compensation cost related to unvested options, net of expected forfeitures, which is expected to be amortized over a weighted average amortization period of four years.

## Appendix E

### Notes to Consolidated Financial Statements

Other information pertaining to option activity was as follows during the twelve months ended December 31:

	2014	2013	2012
Weighted average grant-date fair value of stock options granted	\$ 31.32	\$ 23.27	\$ 15.24
Total intrinsic value of stock options exercised	69,768	99,393	40,589

#### Employee Stock Purchase Plan

Under our Employee Stock Purchase Plan ("ESPP") participants may contribute up to 15% of their annual compensation to purchase common shares of Tyler. The purchase price of the shares is equal to 85% of the closing price of Tyler shares on the last day of each quarterly offering period. As of December 31, 2014, there were 940,000 shares available for future grants under the ESPP from the 2.0 million shares previously approved by the stockholders.

#### (10) EARNINGS PER SHARE

Basic earnings and diluted earnings per share data were computed as follows:

Years Ended December 31,	2014	2013	2012
Numerator for basic and diluted earnings per share:			
Net income	\$58,940	\$39,101	\$32,994
Denominator:			
Weighted-average basic common shares outstanding	33,011	31,891	30,327
Assumed conversion of dilutive securities:			
Stock options	2,390	2,699	2,589
Denominator for diluted earnings per share – Adjusted weighted-average shares	35,401	34,590	32,916
Earnings per common share:			
Basic	\$ 1.79	\$ 1.23	\$ 1.09
Diluted	\$ 1.66	\$ 1.13	\$ 1.00

Stock options representing the right to purchase common stock of 481,000 shares in 2014, 62,000 shares in 2013, and 463,000 shares in 2012 were not included in the computation of diluted earnings per share because their inclusion would have had an anti-dilutive effect.

#### (11) LEASES

We lease office facilities for use in our operations, as well as transportation, computer and other equipment. We also have an office facility lease agreement with an entity owned by an executive's father and brother. The executive does not have an interest in the entity that leases the property to us and the lease arrangement existed at the time we acquired the business unit that occupies this property. Most of our leases are non-cancelable operating lease agreements and they expire at various dates through 2021. In addition to rent, the leases generally require us to pay taxes, maintenance, insurance and certain other operating expenses.

Rent expense was approximately \$6.7 million in 2014, \$7.5 million in 2013, and \$7.2 million in 2012, which included rent expense associated with related party lease agreements of \$1.7 million in 2014, \$1.7 million in 2013, and \$1.7 million in 2012.



## Appendix E

### Notes to Consolidated Financial Statements

Future minimum lease payments under all non-cancelable leases at December 31, 2014 are as follows:

Years ending December 31,

2015	\$ 5,437
2016	5,136
2017	4,459
2018	2,270
2019	1,680
Thereafter	2,005
	<u>\$20,987</u>

Included in future minimum lease payments are non-cancelable payments due to related parties of \$1.7 million in 2015, \$1.7 million in 2016 and \$1.7 million in 2017.

#### (12) EMPLOYEE BENEFIT PLANS

We provide a defined contribution plan for the majority of our employees meeting minimum service requirements. The employees can contribute up to 30% of their current compensation to the plan subject to certain statutory limitations. We contribute up to a maximum of 3% of an employee's compensation to the plan. We made contributions to the plan and charged operating results \$4.3 million during 2014, \$3.8 million during 2013, and \$3.3 million during 2012.

#### (13) COMMITMENTS AND CONTINGENCIES

Other than routine litigation incidental to our business, there are no material legal proceedings pending to which we are party or to which any of our properties are subject.

#### (14) SEGMENT AND RELATED INFORMATION

We are a major provider of integrated information management solutions and services for the public sector, with a focus on local and state governments.

We provide our software systems and services and appraisal services through four business units, which focus on the following products:

- financial management, education and planning, regulatory and maintenance software solutions;
- financial management, municipal courts, and land and vital records management software solutions;
- courts and justice software solutions; and
- appraisal and tax software solutions and property appraisal services.

In accordance with ASC 280-10, Segment Reporting, the financial management, education and planning, regulatory and maintenance software solutions unit; financial management, municipal courts and land and vital records management software solutions unit; and the courts and justice software solutions unit meet the criteria for aggregation and are presented in one reportable segment, Enterprise Software Solutions ("ESS"). The ESS segment provides municipal and county governments and schools with software systems and services to meet their information technology and automation needs for mission-critical "back-office" functions such as financial management and courts and justice processes. The Appraisal and Tax Software Solutions and Services ("ATSS") segment provides systems and software that

## Appendix E

### Notes to Consolidated Financial Statements

automate the appraisal and assessment of real and personal property as well as property appraisal outsourcing services for local governments and taxing authorities. Property appraisal outsourcing services include: the physical inspection of commercial and residential properties; data collection and processing; computer analysis for property valuation; preparation of tax rolls; community education; and arbitration between taxpayers and the assessing jurisdiction.

We evaluate performance based on several factors, of which the primary financial measure is business segment operating income. We define segment operating income for our business units as income before noncash amortization of intangible assets associated with their acquisition, interest expense and income taxes. Segment operating income includes intercompany transactions. The majority of intercompany transactions relate to contracts involving more than one unit and are valued based on the contractual arrangement. Segment operating income for corporate primarily consists of compensation costs for the executive management team and certain accounting and administrative staff and share-based compensation expense for the entire company. Corporate segment operating income also includes revenues and expenses related to a company-wide user conference. The accounting policies of the reportable segments are the same as those described in Note 1, "Summary of Significant Accounting Policies."

Segment assets include net accounts receivable, prepaid expenses and other current assets and net property and equipment. Corporate assets consist of cash and investments, prepaid insurance, intangibles associated with acquisitions, deferred income taxes and net property and equipment mainly related to unallocated information and technology assets.

ESS segment capital expenditures in 2013 and 2012 included \$19.6 million, and \$3.0 million, respectively for the construction of a new building and purchase of an existing building and land. ATSS segment capital expenditures in 2012 included \$2.6 million for the purchase of a building and land to support long-term growth.

As of the year ended December 31, 2014	Enterprise Software Solutions	Appraisal and Tax Software Solutions and Services	Corporate	Totals
Revenues				
Software licenses and royalties	\$ 46,047	\$ 3,018	\$ —	\$ 49,065
Subscriptions	84,322	3,526	—	87,848
Software services	104,146	9,675	—	113,821
Maintenance	195,881	16,815	—	212,696
Appraisal services	—	21,802	—	21,802
Hardware and other	5,398	11	2,460	7,869
Intercompany	2,812	—	(2,812)	—
Total revenues	\$438,606	\$54,847	\$ (352)	\$493,101
Depreciation and amortization expense	\$ 11,140	\$ 866	\$ 2,599	\$ 14,605
Segment operating income	\$114,993	\$11,603	\$ (25,370)	\$101,226
Capital expenditures	\$ 3,644	\$ 359	\$ 5,446	\$ 9,449
Segment assets	\$170,369	\$16,463	\$387,150	\$573,982

## Appendix E

### Notes to Consolidated Financial Statements

As of the year ended December 31, 2013	Enterprise Software Solutions	Appraisal and Tax Software Solutions and Services	Corporate	Totals
Revenues				
Software licenses and royalties	\$ 38,774	\$ 2,067	\$ —	\$ 40,841
Subscriptions	59,070	2,794	—	61,864
Software services	85,459	7,808	—	93,267
Maintenance	175,180	16,540	—	191,720
Appraisal services	—	20,825	—	20,825
Hardware and other	6,342	—	1,784	8,126
Intercompany	2,899	—	(2,899)	—
Total revenues	\$367,724	\$50,034	\$ (1,115)	\$416,643
Depreciation and amortization expense	\$ 10,569	\$ 1,028	\$ 2,189	\$ 13,786
Segment operating income	\$ 85,045	\$ 9,428	\$ (20,750)	\$ 73,723
Capital expenditures	\$ 22,457	\$ 250	\$ 3,438	\$ 26,145
Segment assets	\$161,923	\$16,244	\$266,321	\$444,488

As of the year ended December 31, 2012	Enterprise Software Solutions	Appraisal and Tax Software Solutions and Services	Corporate	Totals
Revenues				
Software licenses and royalties	\$ 32,060	\$ 1,868	\$ —	\$ 33,928
Subscriptions	43,319	1,299	—	44,618
Software services	76,103	7,305	—	83,408
Maintenance	155,290	16,561	—	171,851
Appraisal services	—	22,543	—	22,543
Hardware and other	5,297	—	1,659	6,956
Intercompany	2,249	—	(2,249)	—
Total revenues	\$314,318	\$49,576	\$ (590)	\$363,304
Depreciation and amortization expense	\$ 9,929	\$ 958	\$ 1,824	\$ 12,711
Segment operating income	\$ 71,135	\$ 8,498	\$ (16,889)	\$ 62,744
Capital expenditures	\$ 5,469	\$ 3,382	\$ 1,865	\$ 10,716
Segment assets	\$134,160	\$18,464	\$186,042	\$338,666

Reconciliation of reportable segment operating income to the Company's consolidated totals:	2014	2013	2012
Total segment operating income	\$101,226	\$73,723	\$62,744
Amortization of acquired software	(1,858)	(2,078)	(1,888)
Amortization of customer and trade name intangibles	(4,546)	(4,517)	(4,279)
Other expense, net	(355)	(1,309)	(2,709)
Income before income taxes	\$ 94,467	\$65,819	\$53,868

## Appendix E

### Notes to Consolidated Financial Statements

#### (15) QUARTERLY FINANCIAL INFORMATION (unaudited)

The following table contains selected financial information from unaudited statements of income for each quarter of 2014 and 2013.

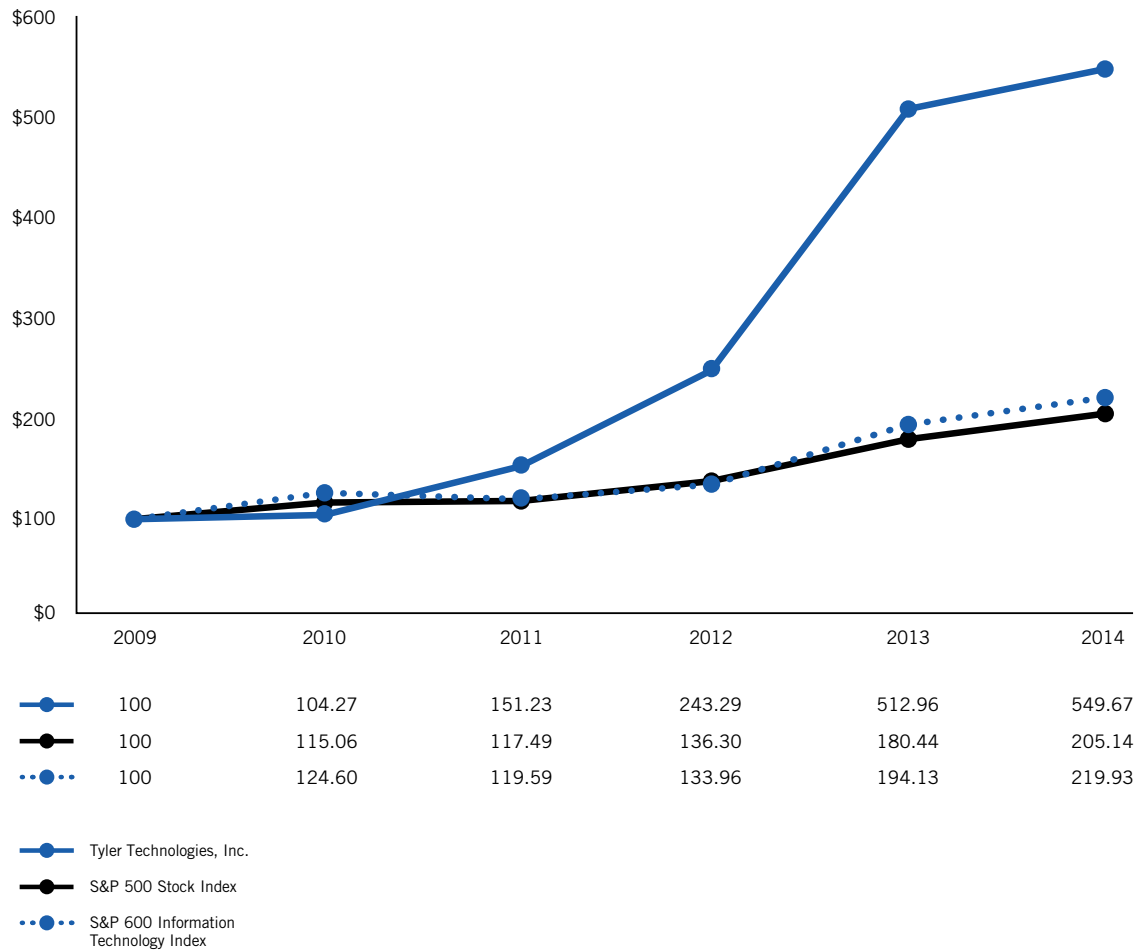
Quarters ended	2014				2013			
	Dec. 31	Sept. 30	June 30	Mar. 31	Dec. 31	Sept. 30	June 30	Mar. 31
Revenues	\$127,440	\$128,664	\$124,371	\$112,626	\$110,735	\$107,021	\$103,088	\$95,799
Gross profit	60,491	61,792	58,558	52,530	52,767	49,549	47,042	43,845
Income before income taxes	24,760	26,698	23,406	19,603	19,062	17,572	15,053	14,132
Net income	15,317	17,000	14,740	11,883	10,512	11,049	9,047	8,493
Earnings per diluted share	0.43	0.48	0.42	0.33	0.30	0.32	0.26	0.25
Shares used in computing diluted earnings per share	35,661	35,284	35,161	35,500	35,348	34,764	34,290	33,948

## Appendix E

### Performance Graph

The following table compares total Shareholder returns for Tyler over the last five years to the Standard and Poor's 500 Stock Index and the Standard and Poor's 600 Information Technology Index assuming a \$100 investment made on December 31, 2009. Each of the three measures of cumulative total return assumes reinvestment of dividends. The stock performance shown on the graph below is not necessarily indicative of future price performance.

#### COMPARISON OF CUMULATIVE FIVE YEAR TOTAL RETURN



# STOCKHOLDER INFORMATION

## Corporate Officers

John M. Yeaman  
Chairman of the Board

John S. Marr Jr.  
President and Chief Executive Officer

Dustin R. Womble  
Executive Vice President

Brian K. Miller  
Executive Vice President  
Chief Financial Officer and Treasurer

H. Lynn Moore Jr.  
Executive Vice President  
General Counsel and Secretary

Matthew B. Bieri  
Vice President  
Chief Information Officer

Samantha B. Crosby  
Vice President  
Chief Marketing Officer

Robert J. Sansone  
Vice President  
Human Resources

W. Michael Smith  
Vice President  
Chief Accounting Officer

Terri L. Alford  
Controller

## Division Leadership

Andrew D. Teed  
President  
Appraisal & Tax and  
ERP & School Divisions

Bruce Graham  
President  
Courts & Justice Division

Christopher P. Hepburn  
Senior Vice President  
ERP & School Division

Brett Cate  
President  
Local Government Division

## Board of Directors

John M. Yeaman<sup>1</sup>  
Chairman of the Board  
Tyler Technologies, Inc.

Donald R. Brattain<sup>2,3,4</sup>  
President  
Brattain and Associates, LLC

Glenn A. Carter<sup>3,4</sup>  
Retired Chief Executive Officer  
DataProse, Inc.

Brenda A. Cline<sup>2,3</sup>  
Executive Vice President  
Kimbell Art Foundation

J. Luther King Jr.<sup>2,4</sup>  
Chief Executive Officer  
Luther King Capital Management

John S. Marr Jr.<sup>1</sup>  
President and Chief Executive Officer  
Tyler Technologies, Inc.

Dustin R. Womble<sup>1</sup>  
Executive Vice President  
Tyler Technologies, Inc.

<sup>1</sup> Executive Committee

<sup>2</sup> Audit Committee

<sup>3</sup> Nominating and Governance Committee

<sup>4</sup> Compensation Committee

## Corporate Headquarters

5101 Tennyson Parkway  
Plano, Texas 75024  
972.713.3700  
www.tylertech.com

## Transfer Agent and Registrar

American Stock Transfer  
& Trust Company  
59 Maiden Lane  
Plaza Level  
New York, New York 10038  
800.937.5449  
718.236.2641 fax  
www.amstock.com

## Independent Registered Public Accounting Firm

Ernst & Young LLP  
Dallas, Texas

## Annual Meeting of Stockholders

Tuesday, May 12, 2015  
9:30 a.m. CDT  
Plano Marriott at Legacy Town Center  
7121 Bishop Road  
Plano, Texas 75024

## Certifications

We submitted an unqualified Annual CEO Certification to the New York Stock Exchange (NYSE) as required by the NYSE Listed Company rules. We also filed with the Securities and Exchange Commission the Chief Executive Officer and Chief Financial Officer certifications required under Section 302 of the Sarbanes-Oxley Act as exhibits to our Annual Report on Form 10-K.

## Investor Information

Our annual report on Form 10-K is available on the company's website at www.tylertech.com.

A copy of the Form 10-K or other information may also be obtained by contacting the Investor Relations Department at corporate headquarters.

## Investor Relations

972.713.3714  
info@tylertech.com

## Common Stock

Listed on the New York Stock Exchange under the symbol "TYL"



