

Office of the State Chief Information Officer

# Review of the California Court Case Management System



# CCMS Review

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# CCMS Review

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# CCMS Review

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## Executive Summary

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California's court system is the largest in the nation. The sheer magnitude of its size as well as the functional complexity of its operations makes the California Court Case Management System (CCMS) one of largest Information Technology (IT) projects the state has ever initiated. Pursuant to a request by the Legislature and questions raised by members of the Legislature at a legislative hearing on October 28, 2009, the Office of the State Chief Information Officer (OCIO) conducted a review of the Court Case Management System (CCMS). Through this review, the OCIO considered the objectives, activities and costs of the CCMS in the context of defining overall project success. Based upon our review and analysis, the OCIO makes the following observations and recommendations:

### *Governance*

- The governance plan for CCMS should be augmented to ensure the commitment of the county superior courts to adopt and use the system. The governance plan should also assess the business value of partial deployment of the system if total deployment is not feasible.
- The benefits of the CCMS to the court system as a whole ("the enterprise") should take priority over the unique needs of individual courts. The decision-making process for standardizing common practices and tools must be collaborative and inclusive, yet start from a position of achieving maximum benefits to the greatest number of courts.
- As county superior courts are the end users and customers of the CCMS, it is critical that their true needs and concerns are considered and addressed in a timely fashion while not compromising the enterprise needs of the Judicial Branch.

### *Deployment Strategy*

- The Administrative Office of the Courts (AOC) and the CCMS project team should fully define, baseline, and document the extent to which the system will be deployed, and the timeline and resource requirements for the entire deployment phase. This plan should identify required staff resources as well as the cost of system interfaces and data conversion.
- The AOC should not accept or deploy the V4 system beyond the first county superior court in the pilot phase of the system deployment until it is fully operational and utilizing live data.

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- The CCMS project team should ensure that all system testing activities and procedures are adhered to and completed in the live environment prior to the start of the vendor warranty period.

### *Project Management*

- The AOC should enhance the project and contract management resources dedicated to the CCMS project to ensure the state's interests are being met by the vendor responsible for developing and implementing the system.
- The AOC and the CCMS project team should develop a detailed plan for how, and by whom, the system will be supported during the maintenance and operation period.
- The AOC should adopt a common methodology and tool set for project management across the Judicial Branch.

### *Cost Management*

- Through existing governance mechanisms, the Judicial Branch should determine a cost cap for the project based on the value of the system to the enterprise as well as the value of the system to individual courts.
- Within the common project management methodology recommended above, the cost management plan and tools should define when projects start and stop, which project costs will be captured to what extent, and easily allows transparency to the projects complete one-time costs (build), and annual operational costs (maintain).

### *Technology Management and Review*

- The ability to share and leverage data across the court system and with justice partners will produce significant benefits to the state. To this end, the system application should be deployed to the maximum number of courts and all courts should utilize a common database. Achieving this end state requires that the AOC and CCMS project management work with internal and external partners on system adoption and use of the 121 standard interfaces developed within the V4 project scope.
- The number of permutations of the CCMS application and database should be limited to achieve the maximum benefits from the system. To the extent possible, the CCMS V4 should be hosted at a centralized site for all courts unless it is demonstrated that this model cannot meet the product service level agreements.

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- The AOC should develop a well governed process for coordinating changes and version control for application maintenance in both the product application stack and the developed CCMS application solution.

Despite the challenges to date, the OCIO believes the CCMS project can be successfully implemented if the recommendations discussed above are implemented.

## Background

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California’s court system is the largest in the nation with over 500 court locations, 19,000 employees, and serving over 37 million people with over 9 million cases.<sup>1</sup> The sheer magnitude of its size as well as the functional complexity of its operations makes the California Court Case Management System (CCMS) one of largest Information Technology (IT) projects the state has ever initiated. The complexity of the project is heightened by a number of factors, including:

- The number of physical locations where the system will be used;
- The number of system users that must be served and trained;
- The number of system stakeholders who must be engaged, managed, and governed;
- The culture shift of recent centralization efforts including transition of 220 local courts operating independently to 58 superior courts statewide.
- The level of process change inherent in the system; and
- The relative newness of technology to court operations.

The size and magnitude of the CCMS project is comparable to some of the largest IT projects in the Executive Branch, such as:

Project Name	Total Project Cost	Criticality Level
Financial Information System for California (FI\$Cal)	\$1,620,052,518	3-High
CCSAS-Child Support Enforcement (CSE)	\$1,552,411,070	3-High
Court Case Management System (CCMS)	\$1,335,815,769	3-High

*See Attachment A for the full complexity assessment.*

While there is not uniform agreement as to the scope of CCMS, and what historical case management technology efforts the project includes, for the purposes of this report the Office of the State Chief Information Officer (OCIO) has defined the project as beginning in 2002 following direction from Governor Davis to create the system and the receipt of \$21 million in funding to start the project. This scope includes three system products known as V2, V3, and V4.

In an effort to consolidate case management systems within the courts and increase the ability to share data statewide among the Administrative Office of the Courts (AOC), local superior courts, and state and local justice partners (e.g., the Department of Justice, the Department of Social Services, and local law enforcement agencies) the CCMS project was initiated in early

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<sup>1</sup> [http://www.courtinfo.ca.gov/reference/documents/factsheets/Calif\\_Judicial\\_Branch.pdf](http://www.courtinfo.ca.gov/reference/documents/factsheets/Calif_Judicial_Branch.pdf)



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2002. The CCMS is a custom software development project that was developed in iterative phases, with the intent being that lessons learned from each phase would assist in the planning of the next phase.

*CCMS V2* - The first phase product was scoped to include case management activities for traffic and criminal functions within the courts. The development of the V2 product was challenged and was ultimately only implemented in Fresno County in July of 2006.

*CCMS V3* - The second phase product was scoped to include case management activities for civil, probate, small claims, and mental health functions within the courts. The V3 product is currently deployed in six counties, including: Los Angeles; Orange; Sacramento; San Diego; San Joaquin; and Ventura. These installations represent approximately 25 percent of the state's court caseload. Three of the installations (Los Angeles, Orange, and San Diego) host their own instances of both the application and the database. The rest of the counties use a shared system hosted at the California Courts Technology Center (CCTC), the AOC's data center.

*CCMS V4* - The third phase product was scoped to include:

- All of the functionality of V2 and V3;
- Family law and juvenile justice case management;
- A public/partner portal;
- A set of standard justice partner data exchanges;
- Integration with document management systems;
- Court interpreter scheduling;
- Court reporter scheduling, and;
- E-Filing

The V4 product is currently in the integration testing phase. The AOC contracted with Deloitte Consulting for the development of V3 and V4 and most V3 deployment activities.

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## CCMS Implementations to Date

Phase		Fresno	Los Angeles	Orange	San Diego	Sacramento	San Joaquin	Ventura	Remaining 51 Counties
V2	Traffic	✓							--
V2	Criminal Functions	✓							--
V3	Civil			✓	✓	✓	✓	✓	--
V3	Probate			✓	✓	✓	✓	✓	--
V3	Small Claims		✓	✓	✓		✓	✓	--
V3	Mental Health Cases			✓			✓	✓	--
V4 <sup>2</sup>	Family Law								--
V4 <sup>1</sup>	Juvenile Justice								--

<sup>2</sup> V4 includes all V2 and V3 functionality

# Current Status of the CCMS Project

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The project is formally scheduled for only the development of the V4 product. The project is in the execution phase of project management lifecycle and the integration testing phase of the System Development Life Cycle. The January 2010 project schedule and reporting depicted the project to be on schedule to meet the completion date of September 2010. However, the project team reported in late February that it expects to deviate from the September completion date due to issues discovered during the integration testing. The deviation is expected to be approximately six months to complete the V4 product build, delaying the product completion to April 2011. This includes the product build, testing, and product acceptance, but not deployment of V4. High level deployment planning for V4 currently calls for a three county pilot including San Diego, Ventura, and San Luis Obispo counties.

Actual expenditures are reported by fiscal year with the most recent data available through 2008-9. Expenditures through 2008-9 are reported at \$386 million which includes one-time development and ongoing operation costs of deployed versions (V2 and V3) as well as development costs for V4. Total costs are currently estimated to be \$1.3 billion for one-time development inclusive of V2, V3, and V4, and \$79 million for annual maintenance and operation.

## Scope of the Review

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This review was conducted pursuant to a request by the Legislature and questions raised at a legislative hearing on October 28, 2009. This review focuses primarily on the Court Case Management System (CCMS) V4 software product currently in development. The OCIO considered initial objectives and activities and costs to date in the context of defining overall project success. The OCIO did not attempt to review, analyze, or validate all of the project activities since its inception in detail. A review of the installed V3 product was conducted to determine the probability of future success of the V4 product. The scope of the OCIO's review included the following broad questions:

1. What is the business value to having the system?
2. Will the system work?
3. Will the project be successful?
4. Is oversight being performed on the project?
5. Is the project costing more than it should?
6. When will the project be done?

This review was also conducted consistent with SBX4 13, Chapter 22, Statutes of 2009 which stipulates that the OCIO review and make recommendations for any Administrative Office of the Courts (AOC) project over \$5 million.

While there are many contributors to project success, including the definition of success itself, the OCIO selected the high level focus areas below as being particularly relevant to the concerns about CCMS and to the current phase of the project. These areas also provide the best insight into the likelihood of success in a way that is commensurate with the scope and depth of this review.

- **Governance:** The extent to which the project has the appropriate stake holder buy-in and/or authority to implement the technology and ensure its use.
- **Software Development Management:** The extent to which software development activities are adhering to industry best practices.
- **Project Management:** The extent to which the project is being managed according to industry best practices.
- **Cost Management:** The extent to which costs are being controlled and managed.
- **Technology Review:** The extent to which the system is appropriately designed and sized to meet the programmatic needs of the courts.
- **Deployment Strategy:** The extent to which deployment and implementation activities are appropriately planned to facilitate success and lessen risk.

# Methodology for the Review

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This review followed the same processes the OCIO uses to conduct project oversight and escalate project issues within the Executive Branch. These processes align to the Executive Branch's Oversight Framework, the California Project Management Methodology (CA-PMM) and adhere to industry standards and best practices.

For each of the focus areas analyzed in this review, the following activities were performed.

1. Do the project artifacts/plans exist? This is performed by a review of the project documentation.
2. Is there evidence/validation that the plans are adequate and used operationally and effectively? This is performed by document review and interviews with project staff.
3. What are the significant risks/issues the project is experiencing and what are the recommendations to address them? This is performed by document review, staff and external stakeholder interviews, and demonstrations of the system.

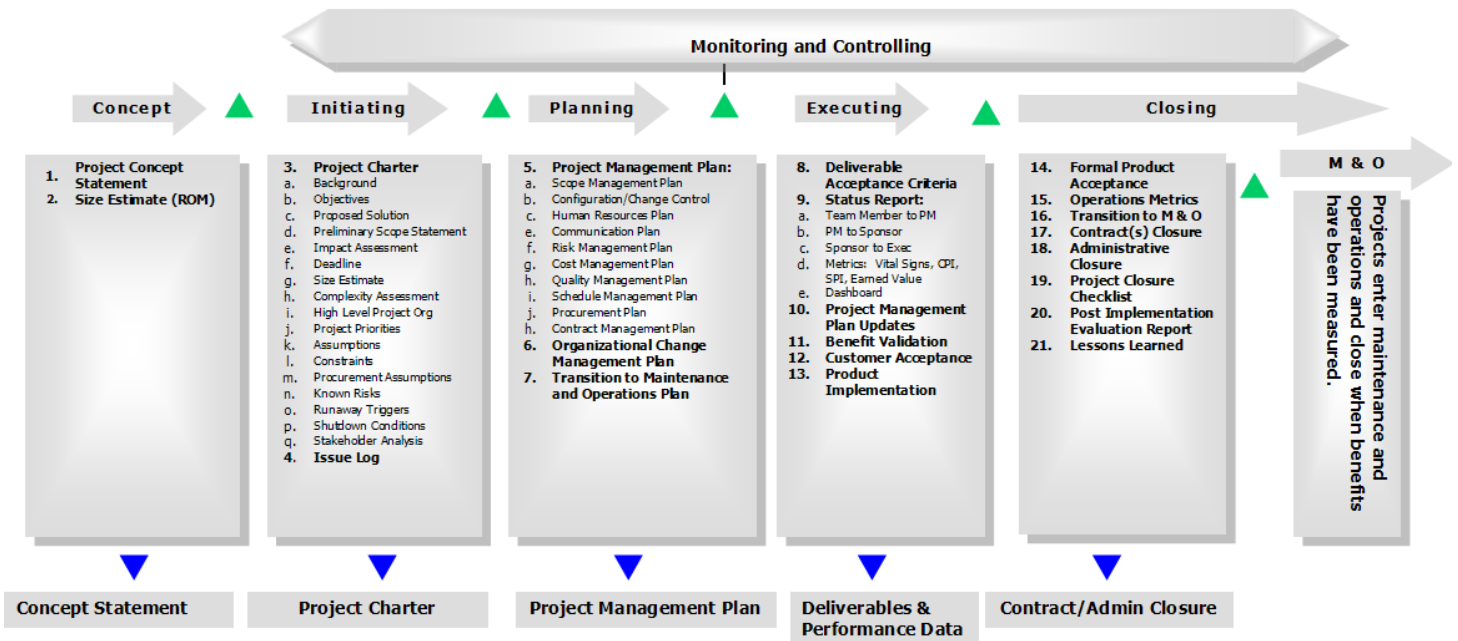
The OCIO performed document review within the vendor's project library, the AOC's project library, and reviewed documents and reports from individual courts, the AOC, the Legislature, and the Legislative Analysts' Office. Interviews were conducted with judges, technology executives, managers, and clerical staff from within the courts and the AOC, and with the development vendor, and the oversight vendor.

## Review Framework

The OCIO aligned the detailed findings and recommendations of the CCMS with the California Project Management Methodology utilized by the state’s Executive Branch agencies in the development of IT systems. While the Executive Branch has very specific activities and approvals required throughout the IT Project Management lifecycle, the CA-PMM is aligned with best practices for project management. The five stages of the IT project life cycle and sections of this review are as follows:

1. Concept;
2. Project Initiation;
3. Planning;
4. Execution; and
5. Closing.

### California Project Management Methodology – IT Project Lifecycle



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## Project Concept

The purpose of the Concept Stage in project management is to communicate high-level information about an idea for an IT project. At this stage, IT projects are assessed at a high level for their potential value, their alignment with organizational strategy, and whether they overlap with other existing or proposed projects. The major output of this stage is a Concept Statement. Usually written by the customer, this statement captures the intent of the project giving the Project Manager, customer, and all stakeholders a starting point for initiating a project.

The Executive Branch utilizes a 5 year IT capital planning process in which all envisioned IT projects within agencies and departments are assessed and submitted for approval annually. Agencies are first responsible for prioritization of need, capacity to perform, alignment with state direction, identifying overlap with existing efforts or opportunities for collaboration, and approval of departmental concepts within the Agency portfolio. The OCIO then performs the process for the entire Executive Branch's portfolio. The concepts are approved, denied, or conditionally approved such as being directed to leverage existing resources and/or knowledge and/or working collaboratively with other departments seeking to solve the same problem. The Executive Branch is able to see overlap and opportunities for collaboration because of the breadth of the portfolio.

The AOC has a project concept initiation process similar to the process discussed above.

## Recommendations

- Consistent with SBX4 13 (Statutes of 2009), the AOC should submit IT project concepts with an estimated cost of \$5 million or more to the OCIO using the OCIO's existing process. While these concepts will not require approval from the OCIO, the OCIO will review and analyze these concepts. This process will allow the Judicial Branch to leverage IT efforts already underway in Executive Branch agencies as well as benefit from a broader pool of experience and expertise.

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## Project Initiation

The purpose of the Initiating Stage is to “authorize and define the scope of a new project” (PMBOK®). It defines the project’s business case including the purpose and project business objectives and further refines estimates of the scope, schedule, and costs. The result sets the benchmark for investment vs. value at the point in time. In the Executive Branch, the vehicle for studying, reporting findings, and requesting approval to proceed is the Feasibility Study Report.

At initiation, the AOC did not perform a formal business case for the project which would include an assessment of the existing (baseline) business, related costs, and how that would compare to the new business with the CCMS in place. A CCMS business case was formally documented, but it was not completed until well after the project was initiated (December 2007) and did not fully assess the complete baseline costs of the business. The business case developed by Gartner (see Attachment B) estimated potential ROI savings of moving to paperless environments in all counties at \$157 million annually, which in part includes:

- Electronic Filing - \$78 million per year
- Electronic Calendars - \$23 million per year
- Self Service Case Inquiries - \$11 million per year
- Self Service Payments - \$22 million per year

According to the AOC, the annual cost to maintain the V4 system is estimated to be \$79 million per year. If all estimated savings and cost avoidances were realized, this would result in a \$78 million net positive (exclusive of build costs) return on investment per year based just on ongoing maintenance. Without more complete information, the OCIO is unable to take a position on the absolute value of the project. However, the anticipated value of the CCMS should be derived from the following areas:

- The value of having a court case management system to replace failing systems in individual courts.
- The value of having a ready automated system for courts that currently use completely manual processes.
- The value of automating some manual processes within a court thereby reducing time to input data, time to retrieve data, and paper storage costs.
- The value of allowing e-filing (self-service) to the public.
- The value of sharing data across courts.
- The value of sharing data between justice partners (DOJ, CHP, Local LEAs, DSS, DCSS, CDCR)
- Cost avoidance due to the consolidation of over 70 different instances of different systems.

From a systematic perspective, because some of the baseline costs for the items above were not studied in detail, the intangible nature of some project benefits, and because the AOC does



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not have a standardized cost and expenditure model; a set monetary value (expense cap) for the system is impossible to determine.

The AOC also estimated the one-time cost of replacing existing systems in a piecemeal fashion at between \$622 million to \$1billion. While the OCIO is unable to validate these cost avoidance projections, our experience leads us to believe that the development and deployment of a single case management solution will be less costly than the development and deployment of multiple solutions from a total cost of ownership perspective.

The table below illustrates CCMS project benefits in the seven major areas in terms of one-time and operational expense and intangible service improvements, based on available information.

<b>Item</b>	<b>Estimated/Perceived Value</b>	<b>Source</b>
Value of Replacing Existing Systems	\$622 - \$1,008 million one-time cost avoidance	AOC Study
Value of having a ready automated system for completely manual courts.	Monetary value Included in above. Also gives an opportunity to small courts that may not be able to afford automated systems	OCIO Analysis
Automating Manual Processes within courts	\$157 million annual cost savings	Gartner CCMS Business Case
Value of self-service (e-filing) to the public and partners	Informally defined but considered high value for constituents using the court system.	OCIO Analysis
Value of sharing data across courts	Informally defined	N/A
Value of sharing data across justice partners.	Informally defined	N/A
Consolidating Statewide Infrastructure/Processes	Informally defined but generally considered good business practice	OCIO Analysis

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## Project Planning

The purpose of the Planning Stage is to “define and mature the project scope, develop the project management plan, and identify and schedule the project activities that occur within the project” (PMBOK®). The various plans from this process group may be simple for a low-risk project, or more elaborate for a high-risk project. Stakeholders should be involved in the planning process, leveraging their skills and knowledge, and setting the stage for open communication.

The AOC has been challenged in managing the scope, schedule and cost of the CCMS project partially due to incomplete information about business requirements and processes during the initiation stage, the complexity of the project, and external factors impacting the project. While the existing schedule, scope and cost is sufficient for the development phase of the project, the plan for CCMS V4 does not include information about the schedule or resource requirements for system implementation in sufficient detail. The current plan is high level and assumes a staggered three court early adopter period to be followed by waves of other courts.

In addition, the definition of the business value achieved to date from CCMS is unclear. While some value has been realized through the V2 and V3 installations in terms of replacing existing systems, and reducing data entry and paper storage and retrieval costs, the Judicial Branch has yet to realize the value of sharing data across courts or with justice partners, nor have there been any reductions in IT infrastructure and operational costs due to system consolidation.

In general, the project appears to be using industry best practices for software development and project management for the scope of building the CCMS V4 product. The expected plans and documents reside in the vendor library and appear to be updated regularly. However, the diligence in formal project management appears to be driven by the systems integration vendor rather than the state CCMS project team. Additionally, the AOC does not have formal project management practices and tools in place, such as standard methods or tools for estimating, tracking, and reporting on project costs. This makes determining the precise level of expenditure difficult and reported numbers subject to interpretation.

## Recommendations

- The Administrative Office of the Courts (AOC) and the CCMS project team should fully define, baseline, and document the extent to which the system will be deployed, and the timeline and resource requirements for the entire deployment phase. This plan should identify required staff resources as well as the cost of system interfaces and data conversion.
- The AOC should enhance the project and contract management resources dedicated to the CCMS project to ensure the state’s interests are being met by the vendor responsible for developing and implementing the system.

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- The AOC should adopt a common methodology and tool set for project management across the Judicial Branch. Within the common project management methodology, the AOC should ensure that the cost management plan and tools define when projects start and stop, which project costs will be captured to what extent, and easily allows transparency to the projects complete one-time costs (build), and annual operational costs (maintain).

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## Project Execution

The purpose of the Executing Stage is to “complete the work defined in the project management plan to accomplish the project’s objectives defined in the project scope statement” (PMBOK®).

The project has strong sponsorship and backing at the highest level of the Judicial Branch. The CCMS’ project sponsor, Chief Justice Ronald M. George, is fully supportive of the project. While the Judicial Council has legal authority over strategic direction, policy, and funding for the state’s courts, it is the OCIO’s experience that, regardless of authority, buy-in for IT projects across multi-jurisdictional boundaries is extremely difficult and requires well defined processes, policies and procedures. While some courts have volunteered to be part of the CCMS project, there is not a comprehensive plan that ensures county superior courts will implement and use the system. If identified courts do not agree to implement the system and/or if court employees do not effectively utilize the system, the value of the system as a tool for data sharing and management will be limited.

Since 2007, the AOC has utilized a contractor to perform Independent Verification and Validation (IV&V) and Oversight functions on the project. However, the scope of the oversight activities performed the IV&V vendor is limited to the development of the CCMS V4 product. The monthly IV&V report uses a checklist similar to that used by the Executive Branch for IV&V activities (the February 2010 IV&V and Oversight report is included as Attachment C).

The V4 product application stack (software suite) is an architecturally sound product solution given the size and complexity of CCMS. However, due to the number of products and complexity of integrating these products, the OCIO identified the need for a well governed process for coordinating changes and version control for application maintenance in both the product application stack and the CCMS application solution.

The current V3 environment has four primary points of distribution for system (application and database) implementation. Allowing some courts to host their own application and database increases system complexity and negatively impacts system performance. The distributed nature of the V3 architecture is also more costly to operate and maintain than a more centralized approach. In addition, best practices for system implementation dictate that system distribution, both at the application and database layer, be centralized in order to ensure the efficient management and system performance.

The OCIO has concerns over the ability and time required to address problems that are being discovered in the integration testing phase. Testing has revealed significant defects and other issues, including problems with the system testing process. The CCMS project team now expects delays to correct these issues. The risk list and the IV&V report a goal to clean up the testing scripts and the AOC asserts that they will not move into Product Acceptance Testing (PAT) until the integration issues are resolved. While there is a defined software development lifecycle (SDLC) for the CCMS project in place for requirements elicitation, product testing, and

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product acceptance, there are indications that lead us to conclude that proper due diligence may not have always been performed within some of these processes. This undermines the SDLC processes, negatively impacts product quality, and is likely a contributing factor to the testing issues the CCMS project has experienced recently.

The OCIO also found documented instances of slow responses for data and image retrieval by end users in at least one county superior court (Sacramento). The image retrieval issues were not reported in superior courts outside of Sacramento and may be a result of the Document Management System (DMS) in use in Sacramento and the way it integrates to the CCMS. An independent, in-depth analysis of the data and image latency problems was performed by a third party in August of 2009 that was largely inconclusive as to their root cause but clearly, they exist.

The Sacramento Superior Court also raised concerns about what they termed V3 functional defects and also the inability to generate desired reports because they do not have access to their database. Some of these functional issues will be corrected in V4 and it is unclear if the other issues are true defects from the accepted functional design for V3, or if they were not included in the accepted design for V3. The OCIO can state that some of the functional issues demonstrated to us were unacceptable for an operational system.

The full benefit of the CCMS cannot be realized without electronic image files. For those counties that do not have imaged files and a DMS in place, the rollout of V4 will be more expensive and difficult. The AOC currently does not know how many courts fit this description.

While risk management is performed at an adequate level with risks being identified and assessed, some risks that require mitigation are placed in an “accepted” status. Most notably, the vendor and the AOC both agree the risk of not planning for more resources may significantly impact the project quality and schedule but the risk remains un-mitigated. If the AOC does not provide the resources, it contradicts the contention that the project’s most inflexible constraint is schedule.

### **Recommendations:**

- The governance plan for CCMS should be augmented to ensure the commitment of the county superior courts to adopt and use the system. To ensure efficient resource allocation, the governance plan should assess the business value of partial deployment of the system if total deployment is not feasible.
- The benefits of the CCMS to the court system as a whole (“the enterprise”) should take priority over the unique needs of individual courts. The decision-making process for standardizing common practices and tools must be collaborative and inclusive, yet start from a position of achieving maximum benefits to the greatest number of courts.

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- As county superior courts are the end users and customers of the CCMS, it is critical that their true needs and concerns are considered and addressed in a timely fashion while not compromising the enterprise needs of the Judicial Branch.
- The AOC and the CCMS project team should develop a well documented Concept of Operations and implement a Change Control Management solution that addresses quality and testing issues that is commensurate to the complexity of the CCMS product application stack.
- The AOC should deploy CCMS V4 from a central data center.
- The AOC should expand the scope of the Independent Verification and Validation (IV&V) and Oversight vendor's responsibility to include review of planning and management of post CCMS V4 development activities. All oversight reports should be publicly available.
- Exit criteria for integration testing and entrance criteria for PAT should be developed, approved, and strictly adhered to. The OCIO supports the project team's decision to reevaluate the quality of the test scripts with both the AOC and the development vendor working together in the same room.
- Future releases of CCMS include performance and stress testing during User Acceptance Testing (UAT) in the production county environments prior to acceptance of the system. This test shall include all network and system integration to third party applications that are considered common interfaces to the CCMS solution.
- Courts using the CCTC should be given database access and the ability to build query reports just as counties that self-host have database access.
- Sacramento should be given priority status for the rollout of the V4 product once it is proven to be tested, accepted, and stable in the pilot group user acceptance test. In the interim, we recommend that the AOC work with Sacramento to determine Sacramento's critical functional issues and that those be given appropriate consideration and high priority for V3 functional requirement defects/enhancements product releases prior to V4 implementation.
- The AOC should determine which courts have DMS and factor the finding into the overall deployment plan, weighing the risk of taking on the added business change vs. the overall benefit of that court being included in the defined rollout.
- The AOC should develop a mitigation plan to address the staffing risk and determine how to staff the project for success, possibly by using court staff from beyond the six initial participants in CCMS.

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## Project Closure

The purpose of the Closing Process Group is to “formally terminate all activities of a project, transfer the complete project to others or close a cancelled project” (PMBOK®). It includes finalizing all activities across all process groups, and transfers the completed or cancelled project as appropriate. It also establishes the procedures to coordinate activities needed to verify and document the project deliverables, to formalize acceptance of those deliverables by the Sponsor and/or customer, and to document the reasons for terminating a project.

The planned V4 system acceptance is not based on an operational installation of the product using live data. The AOC planned and contracted for system development only, with implementation contingent on a subsequent contract. This was done in an effort to lower costs through competitive bidding of the implementation phase. However, software that is custom developed can perform differently in a test environment than in actual operation in the court setting.

The project planning does not include a formal plan for transitioning the system into maintenance and operation.

## Recommendations

- The AOC should not accept or deploy the V4 system beyond the first county superior court in the pilot phase of the system deployment until it is fully operational and utilizing live data.
- The CCMS project team should ensure that all system testing activities and procedures are adhered to and completed in the live environment prior to the start of the vendor warranty period.
- Success of the pilot installation should include testing of the original goals of the court processes, and justice partner and public access to data within the system.
- Final testing criteria should include data and image response time Service Level Agreements (SLAs) and the SLA should be understood by and agreed to by the courts. Metrics against these SLAs should be available to the courts and published on a regular basis.
- All testing should be complete and the system fully accepted before the vendor warranty period begins.
- Prior to the pilot implementation the AOC should develop a plan for transition of the system during the maintenance and operations period.

# Conclusions

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The CCMS project has been challenged to date with scope, schedule and cost definition and control due to incomplete information, early lack of adherence to project management processes during the initiation stage, and the size and complexity of the effort. Despite these setbacks and future risks, the OCIO believes the project is at a point where there is more reason to move forward than to stop the project.

While not completely measurable, the OCIO believes in the value of CCMS as an enterprise solution based upon our experience and other intangible factors. Although, there is a major setback that was discovered in integration testing, the project team has made the correct decision to step back and reevaluate the system quality and retesting before moving forward. The development vendor contract is fixed priced and this delay will not result in increased vendor costs.

The V3 product appears to be functional and meeting the business needs in most instances and each version of the product improves upon the last. The team has learned valuable lessons from their efforts to date that will help facilitate success of the V4 implementation.

To be successful going forward, the CCMS project needs to:

- Strengthen the governance structure to ensure the adoption and use of the system by all courts that are targeted for deployment.
- Formally assess and define success in terms of cost, schedule, and scope for the entire completion of the project.
- Produce a viable V4 software product that meets the common business needs of the courts, the first phase gate test of which will be the initial court deployment in a live, operational environment.
- Develop a detailed deployment plan that includes a structured process for coordinating changes and version control for application maintenance in both the product application stack and the developed CCMS application solution.
- Develop a detailed plan for how and by whom the system will be supported in during the maintenance and operations period.

These vital signs must be consistently tracked to monitor the health of the project.



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## Attachment A - Complexity Assessment

### CCMS Business Complexity

Low Complexity		Business Attribute		High Complexity		Rating
0	1	2	3			
Static		<b>Business rules</b>		Changing		2
Static		<b>Current Business Systems</b>		Changing		3.5
Known and Followed		<b>Decision Making Process</b>		Not Known		3.5
Low		<b>Financial Risk to State</b>		High		4
Local		<b>Geography</b>		State Wide		4
Clear and Stable		<b>High Level Requirements</b>		Vague		3
Few & Routine		<b>Interaction with Other Departments and Entities</b>		Many and New		4
None		<b>Impact to Business Process</b>		High		4
Few & Straight Forward		<b>Issues</b>		Multiple & Contentious		4
High		<b>Level of Authority</b>		Low		3.5
Clear		<b>Objectives</b>		Vague		3
Established		<b>Policies</b>		Non-existent		3
Minimal		<b>Politics</b>		High		4
Familiar		<b>Target Users</b>		Unfamiliar		3.5
Experienced		<b>Project Manager's Experience</b>		Inexperienced		3.5
Experienced		<b>Team</b>		Inexperienced		3.5
Loose		<b>Time Scale</b>		Tight		3.5
Low		<b>Visibility</b>		High		4
Total:						63.5
Complexity:						3.5

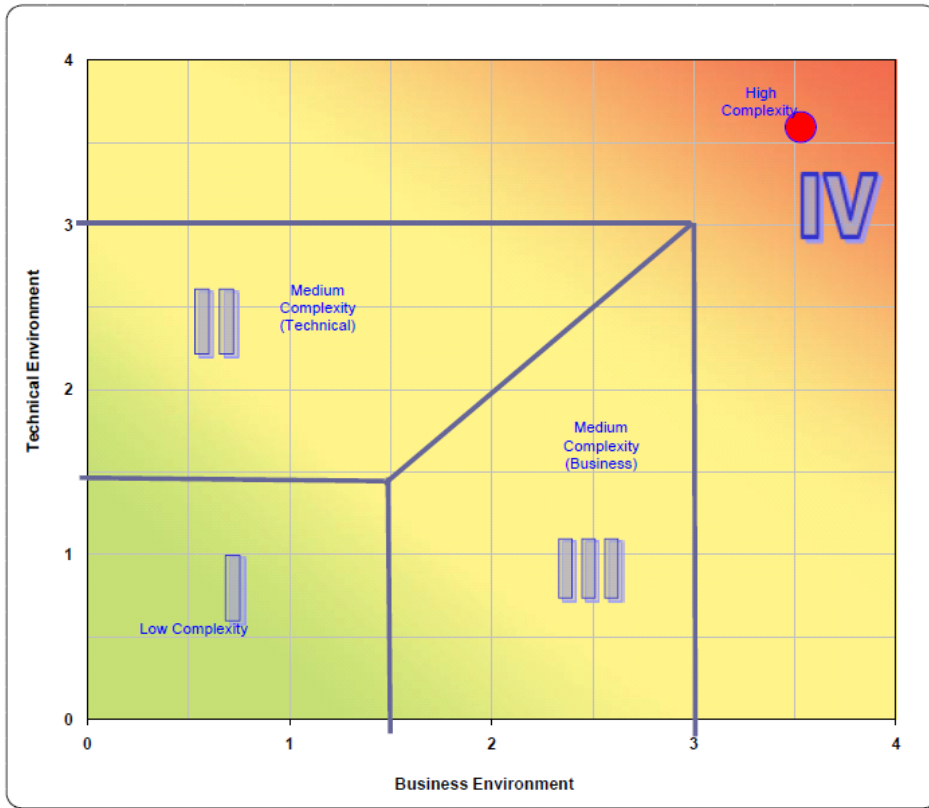
# CCMS Review

## CCMS Technical Complexity

Low Complexity		Technical Attribute	High Complexity	Rating
0	1	2	3	
Local		Communications	State wide	4
Established		Delivery Mechanism	New	4
Local		Geography	State wide	4
Proven		Hardware	New	4
Stand-alone		Level Of Integration	Tightly Integrated	3.5
Proven/Stable		Networks (L/W)	New	3
In place		New Technology Architecture	Not in place	4
9-5, Mon-Fri		Operations	24-hour, 7-day	3
Expert		PM Technical Experience	Novice	3
Established and in use		Scope Management Process	None	3
Light		Security	Tight	4
Proven		Software	New	4
Established and In Use		Standards And Methods	None	3.5
Experienced		Team	Inexperienced	3.5
High		Tolerance To Fault	Low	3
Low		Transaction Volume	High	4
			Total:	57.5
			Complexity:	3.6

# CCMS Review

CCMS Complexity Diagram



Scores	Business Complexity	3.5
	Technical Complexity	3.6

# CCMS Review

## Attachment B - Gartner Business Case



- ■ ■ ■ **Judicial Council of California  
Administrative Office of the Courts**



## JUDICIAL COUNCIL OF CALIFORNIA

### California Court Case Management System (CCMS) Business Case

31 December 2007  
Engagement: 221758030

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## 1.0 Executive Summary

The California Court Case Management System (CCMS) Project is an essential component of the Judicial Branch's strategic plan for technology for the courts. The intent of the CCMS Project is to transform the trial courts from a paper-based process, where interactions with the courts occur primarily through the mail or over the counter and response time is measured in days, to an electronic environment, where interactions occur via Internet or automated voice-response with improved servicing timeframes (see Table 1). CCMS will be used by 90% of court staff and Judicial Officers and will transform the way all cases are received, adjudicated, communicated and dispositioned. CCMS will significantly improve the quality of justice rendered in California's trial courts by providing attorneys, judges and litigants with visibility and access to case information across all California courts.

**Table 1. Key Impact of the CCMS Project**

Dimension	Today	CCMS
Case/Motion Filing	<ul style="list-style-type: none"> <li>■ Most filings occur on paper.</li> </ul>	<ul style="list-style-type: none"> <li>■ Institutional filers (District Attorney, Child Welfare Services, Child Support Services etc.) transmit directly from their computer systems.</li> <li>■ Attorneys can file via Internet or third-party service providers (e.g., Lexis Nexis).</li> <li>■ Individual litigants can file via Internet or third-party service providers.</li> </ul>
Accessing Case Records	<ul style="list-style-type: none"> <li>■ Case records stored in paper files at local courthouse.</li> <li>■ Those requiring access must visit the courthouse where the case file is stored during business hours.</li> </ul>	<ul style="list-style-type: none"> <li>■ Case records stored electronically.</li> <li>■ Records for any type of case for any California court can be accessed 24x7 from any location accessible through the internet<sup>1</sup></li> </ul>
Servicing Time Frames	<ul style="list-style-type: none"> <li>■ Documents commute at the speed of mail or couriers.</li> <li>■ Response time measured in days.</li> </ul>	<ul style="list-style-type: none"> <li>■ Transactions move electronically.</li> <li>■ Response time measured in seconds.</li> <li>■ Judges receive information faster.</li> <li>■ Public receives service sooner.</li> </ul>
Quality of Justice	<ul style="list-style-type: none"> <li>■ Cases adjudicated based on ability of attorneys, litigants and court staff to gather relevant information from hundreds of separate paper-case repositories.</li> <li>■ Court orders can conflict if all information is not brought forward.</li> </ul>	<ul style="list-style-type: none"> <li>■ Attorneys, litigants, justice partners, judicial officers and court staff can search across all case types for all California courts at the push of a button</li> <li>■ Better information drives more-informed decisions and reduces the risk of conflicting orders.</li> </ul>

CCMS will dramatically improve efficiency at the courts and provide efficiencies for the public and organizations that interact with the courts. Moving from paper documents to electronic processes will provide estimated savings of \$157 million per year across all courts. This includes savings from electronic filing (\$78 million per year<sup>2</sup>), electronic calendars (\$23 million

<sup>1</sup> Subject to legal and security restrictions on the case types and information that can be accessed.

<sup>2</sup> This includes savings from electronic filings (computer-to-computer), Internet filing and kiosks.

per year), self-service case inquiries (\$11 million per year) and self-service payments (\$22 million per year). State agencies that interact with the courts including the Department of Justice (DOJ), the Department of Social Services (DSS), Department of Child Support Services (DCSS), California Highway Patrol (CHP) and others will be able to work with a single entity to establish electronic interchanges for all high-volume transactions. This will enable them to improve efficiency, eliminate redundant data entry, avoid entry errors and reduce system costs. Attorneys and the public will have more options for conducting business with the courts which will improve service timeframes.

CCMS establishes a new standard for court case management systems. Traditionally, case management systems have focused on basic case file tracking and scheduling, permitting courts to manage events within an individual court usually focusing on a single type of case. More recently, commercial vendors have added some statistical reporting and limited Internet capabilities to provide additional access to a particular court. Today, some California courts have established case indexes to provide visibility to case records across case types (Criminal, Civil, Family, etc.) and some courts have reduced the reliance on paper for selected case types (e.g., electronic traffic citations).

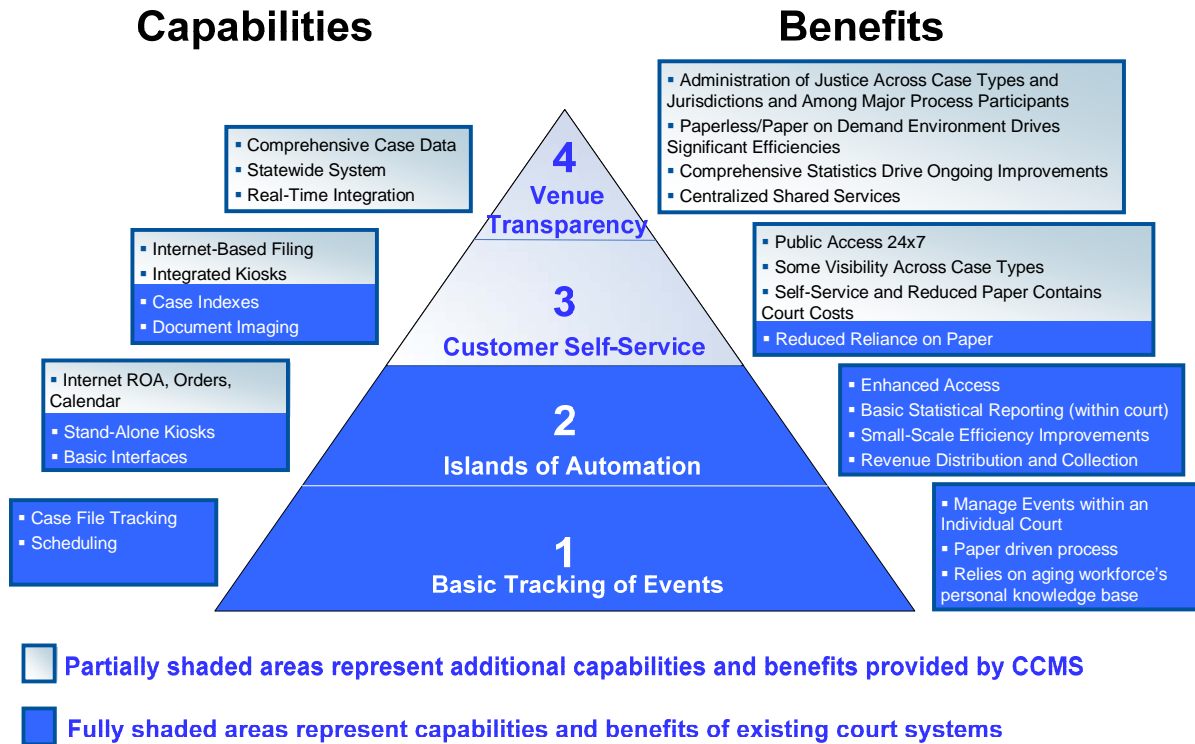
CCMS moves beyond the vision of focused efficiency improvements for selected case types and aspires to deliver improved efficiency for all cases, and improved quality of justice by providing “venue transparency” across all case types at all courts (see Figure 1). By providing visibility and access to comprehensive case data on a State-wide basis with real-time integration to law enforcement agencies, district attorneys and other justice partners, CCMS facilitates enhanced administration of justice across all case types and jurisdictions. Likewise, comprehensive statistics on individual cases across all case types and jurisdictions provide the opportunity for continuous ongoing improvements to court operations and enables the Judicial Branch to offer shared services for case inquiries, payments, and other transactions. In so doing, CCMS completely transforms the way the courts work and the way attorneys, institutions and individual litigants interact with the courts. This transformation will bring the service levels provided by the California court system into alignment with the service quality that has been achieved in the private sector and other areas of government<sup>3</sup>.

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<sup>3</sup> While courts provide good service within supported service channels today, system limitations have prevented most courts from accepting filings, motions or other transactions outside of business hours or supporting multiple channels including Internet and telephone voice response.



**Figure 1. Comparison of CCMS to Existing Court Systems**



## 2.0 Business Program Background

The AOC is the administrative entity of the Judicial Council, which has policymaking authority for the Judicial Branch. The AOC is based in San Francisco and maintains three regional offices and an Office of Governmental Affairs. Under the direction of the Judicial Council, the AOC serves the courts for the benefit of all Californians by advancing excellence, leadership and service in the administration of justice. The AOC also serves as a major source of input for the Judicial Council's strategic planning efforts.

The California court system—the largest in the nation, with over 2,100 judicial officers, 21,000 court employees, 9 million filings per year—serves more than 36 million people. The State Constitution vests the judicial power of California in the Supreme Court, Courts of Appeal, and Superior Courts. The Constitution also provides for the formation and functions of the Judicial Council, the policymaking body for the State courts and other agencies.

Before June 1998, California's trial courts consisted of Superior and Municipal courts, each with its own jurisdiction and number of judges fixed by the Legislature. In June 1998, California voters approved Proposition 220, a constitutional amendment that permitted the judges in each county to merge their Superior and Municipal courts into a "unified," or single, Superior court. As of February 2001, all of California's 58 courts voted to unify their trial courts.

All cases in the California courts begin in one of the 58 trial courts which reside in each of the State's 58 counties. With facilities in more than 450 locations, these courts hear both civil and criminal cases, as well as traffic, family, probate and juvenile cases. The equivalent of more than 2,100 judicial positions address the full range of cases heard each year by the superior courts, as reflected in the number of case filings and dispositions reported.

The Lockyer-Isenberg Trial Court Funding Act of 1997 and subsequent legislation required uniformity and accountability among all the trial courts in the judicial branch. When the State assumed responsibility for the trial courts, the State's 58 counties were operating over 200 varieties of case management systems. Many trial courts were unable to fully address their case management systems needs. The then Governor Wilson, as well as his successors, indicated that they would not be in a position support the continued funding of 58 court case management systems and associated infrastructures..

In 2001, a court by court assessment was performed by the AOC to understand the viability of the case management systems used by the courts. A number of courts were facing critical needs because of outdated systems, deficient technical support, inability to meet legislative and reporting requirements, and significant maintenance costs. The analysis from this study also concluded that most of the existing case management applications in use by the Courts were severely deficient and many did not provide even the basic functionality that would be required to meet the needs of the Courts going forward.

To address the immediate needs, the AOC embarked on a program to certify existing case management systems and subsequently selected viable interim case management systems that would be supported by the Branch until a longer term solution could be identified.

Also, during this time, San Diego, Los Angeles, Ventura and Orange County Superior Courts were considering the replacement of their existing case management systems, and confirmed that available vendor products did not meet their requirements. In early 2002 the Judicial Council decided to proceed with a common solution and the CCMS project was initiated.

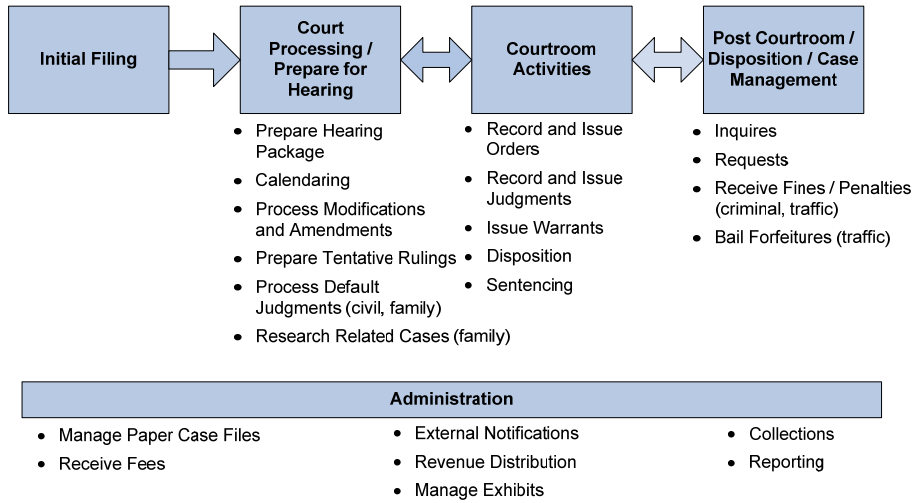
### 3.0 Impact of the Project

The CCMS Project will implement processes and systems that will fundamentally impact core court operations across all case types at all California courts and will significantly alter the way cases are filed and processed. The CCMS Project will also change the manner in which courts interact with all stakeholders—moving from a paper/mail paradigm where interactions occur on paper during normal business office hours, to one where information can be submitted electronically 24 hours per day, 7 days per week<sup>4</sup>. Massive paper files that are expensive to move, copy and protect will be replaced by electronic records that move at the push of a button and will survive disaster scenarios that may damage or destroy individual court facilities. The major court processes that will be impacted by the new system are shown in Figure 2.

---

<sup>4</sup> Although CCMS will enable the 24 x 7 submission of information, the processing of that information will occur during normal court business hours.

**Figure 2. Court Processes Impacted by CCMS**



## 4.0 Customers and Users

Users of the system include staff such as the court clerks’ office, judges and business office staff at all 58 trial courts. External stakeholders including attorneys, litigants, defendants and Federal, State and local agencies will use the self-service capabilities. The estimated number of internal users at each location is shown in Table 2.

**Table 2. Estimated Number of Users**

Court	Number of Users
Los Angeles	5,642
Orange	1,799
San Diego	1,759
San Bernardino	1,026
Riverside	990
Alameda	924
Santa Clara	901
Sacramento	842
San Francisco	579
Fresno	510
Kern	483
Contra Costa	422
San Mateo	382
Ventura	383
San Joaquin	321
Santa Barbara	285
Tulare	257
Solano	251
Stanislaus	233

Court	Number of Users
Monterey	220
Remaining 38 Courts	3,049
<b>Total</b>	<b>21,257</b>

## 5.0 Business Opportunity or Problem

### 5.1 Business Opportunities

The primary business opportunities enabled by CCMS (Table 3) represent key improvements that can be realized through the proposed investment in systems and technology infrastructure.

**Table 3. Primary Business Opportunities**

The Primary Business Opportunities Addressed by This Project:	
1.	Receive Filings Electronically
2.	Internet Case Filing
3.	Self-Service Kiosks for Case Filing
4.	Self-Service Capability for Payments
5.	Electronic Calendars
6.	Self-Service Case Inquiries
7.	Self-Service Background Checks
8.	Electronic Data Exchange
9.	Electronic Notifications
10.	Produce Minute Orders Immediately
11.	Coordinate unified Family Court cases
12.	Coordinate Court Appearances
13.	Reduce Unnecessary Delays for Self-Represented Litigants
14.	Improved Efficiency for Assigned Judges
15.	Avoid Redundant System Costs
16.	Reduce Disaster Recovery Risks
17.	Improved Statistics to Enable Operational and Policy Decisions
18.	Improved Collections
19.	Enable Shared Services

Each opportunity is described below.

#### ***Opportunity #1: Receive Filings Electronically***

Today an estimated 87% of the 9 million initial case filings processed each year are received on paper. Paper files, with their inherent physical limitations, are a major cause of inefficiencies and cost:

- Paper filings slow the filing process. The filings must be mailed or delivered to the court and must then be entered into the case management system before they can be acted upon.

- Paper files inhibit access as they can only be in one place at a time and can only be viewed or processed by one person at a time. Copies of case filings can be made; however, there is no assurance that the copy contains the latest case information or status.
- Paper file folders must be manually routed around the court as the case moves through the process which is time consuming and slows overall case processing.
- Since files move around the courts and eventually to courthouse storage areas or off-site storage areas, the location of every case file must be tracked and monitored.
- Paper files are vulnerable to fires, flood or earthquakes, which can destroy the files outright or render them inaccessible.
- Paper case files tie the operations of the court to a specific location, preventing the courts from achieving economies of scale through the use of shared services.

The technology for eliminating the paper filings exists today and is experiencing increasing user acceptance. Many cases are received from institutional filers (e.g., law enforcement agency, district attorney, social service agencies) that have the ability to provide electronic filings. Handheld devices are starting to emerge for traffic cases, which offer the potential to completely eliminate the traditional paper citation. In addition, external vendors now offer services that enable case filers to enter their filings electronically 24x7<sup>5</sup>. Some courts have gone completely paperless for certain case types, demonstrating the viability of eliminating the traditional paper case file.

Implementing CCMS will accelerate case processing and reduce errors and cost by creating the ability to receive initial case filings and amendments electronically for all case types. The impact of doing this is as follows:

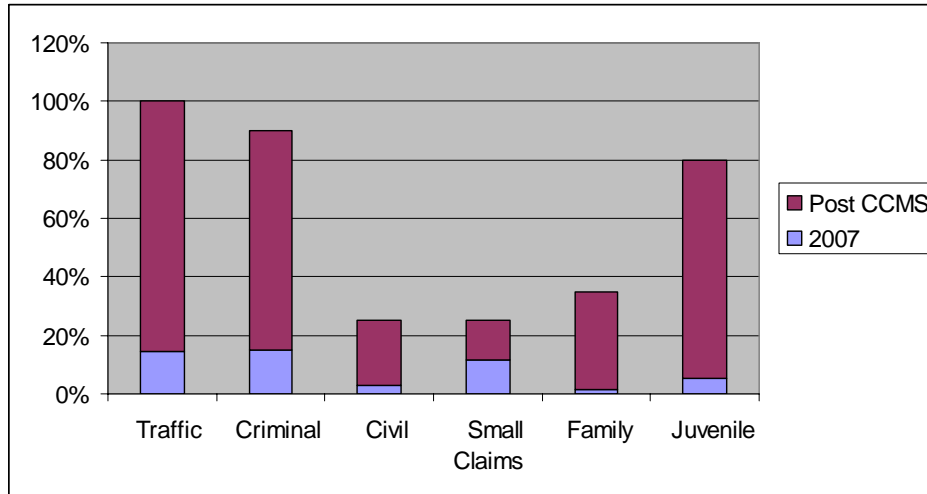
- Reduced data entry costs.
- Lower filing and storage costs by eliminating the need to archive, store and destroy paper case files.
- Avoid cost of correcting data entry errors and searching for misplaced files.
- Provide the opportunity to improve the efficiency of downstream processes (e.g., self-service inquiries).
- Faster case disposition as a result of receiving the filing faster.
- Reduced processing times through electronic handling of cases throughout the processing lifecycle.
- Improved public safety for criminal cases due to more-timely information back to field officers.
- Multiple people can access a case simultaneously.
- Earlier receipt of payment for traffic cases as a result of immediate posting of the transactions.

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<sup>5</sup> Although these service providers enable filers to submit 24 x 7, the cases are processed during normal court business hours.

The estimated increase in system-to-system electronic filings with CCMS is shown in Table 4. The savings across all courts and case types is estimated as \$68 million annually including \$22 million in reduced entry costs and \$46 million in reduced storage costs.<sup>6</sup>

**Table 4. Estimated Increase in Electronic (System-to-System) Filings**



### **Opportunity #2: Internet Case Filing**

Internet case filing is particularly useful for small claims cases, where a considerable percentage of the volume is from self-represented litigants. There are also many self-represented litigants in family cases, who would benefit from Internet case filing, and much of the volume in civil cases comes from individual law firms or attorneys who are also anticipated users of Internet case filing capabilities.

The Internet case filing capabilities of CCMS would improve service quality and reduce cost by creating the ability for self-represented litigants and attorneys to file electronically. This would reduce data entry costs (including error correction), reduce storage cost and provide multiple quality improvements, including 24x7 filing submission and faster case disposition.

The savings from Internet case filing is estimated at \$8.3 million per year. Of this, \$4.2 million would be from reduced entry costs another \$4.1 million would be provided by reduced storage costs<sup>7</sup>.

<sup>6</sup> Savings were estimated by surveying selected courts to determine the labor and storage costs associated with case filings and the percentage of paper filings received today for each case type. The percentage increase in electronic filing was then applied to this cost to determine the savings. The total savings, excluding storage, includes \$11 million for traffic cases, \$8.4 million for criminal cases, \$1.1 million for civil cases, \$877 thousand for family cases, \$693 thousand for juvenile cases and \$225 thousand for small claims cases. These figures represent savings for electronic filings through partner application data exchange only—not Internet filings or kiosks.

<sup>7</sup> Estimate assumes that, in the future, 35% of civil cases, 75% of small claims cases and 35% of family cases would be received via the Internet. The estimated savings, excluding storage, is \$1.8 million for civil cases, \$1.3 million for small claims cases and \$.9 million for family cases. These figures represent savings for Internet filings only—not electronic filings or kiosks.

### **Opportunity #3: Self-Service Kiosks for Case Filing**

A significant number of filings processed today are from self-represented litigants filling out paper forms. These forms are complicated and require a great deal of guidance from trained experts.

CCMS enables the use of self-service kiosks for case filing that will reduce data entry costs and improve service quality by providing filers with user-friendly workflow-guided software for filings. Costs will be reduced, as will the time filers need to spend standing in line.

The savings from implementing self-service kiosks is estimated at \$1.6 million per year. This includes \$773,000 in reduced entry costs and \$800,000 in reduced storage costs<sup>8</sup>.

### **Opportunity #4: Self-Service Capability for Payments**

Today, some courts receive payments via Internet or interactive voice response (IVR) capabilities, but 90% of payments are received manually (e.g., checks, credit card payments received over phone, payments over the counter) and must be manually entered into the system<sup>9</sup>. In many cases, even routine payments such as bail forfeitures require the clerk to pull the hard copy of the file, make an update in the case system, and potentially also in the financial system.

By providing a self-service capability for payments that includes the ability to submit payments via Internet or IVR, CCMS will improve service quality and reduce cost by reducing the number of payment transactions that must be manually processed by the courts. This will increase service quality by enabling payments to be electronically submitted 24x7... It will also provide significant cost savings to the courts by reducing data entry.

Savings associated with implementing self-service capabilities for payments is estimated at \$22 million annually. This includes less labor costs entering payments, as well as reductions in other associated costs including opening mail, reconciling deposits, handling checks returned for insufficient funds (NSF), etc.<sup>10</sup>

### **Opportunity #5: Electronic Calendars**

In most courts, calendars are printed and distributed to judicial officers, district attorneys, justice partners, social service agencies and other stakeholders. In some instances, appointments are manually entered in law enforcement agency systems as a means of coordinating the court schedule. Paper calendars degrade efficiency and impact the quality of the judicial process because they make it difficult to ensure that all parties to a particular case have access to the current calendar. Juvenile dependency cases in particular experience unnecessary continuances due to the inability of all parties to gain timely access to the calendar.

CCMS will enable the courts to reduce the cost and improve the quality of the scheduling process by providing online calendars. This includes reducing paper printing costs and

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<sup>8</sup> Estimate assumes that kiosks would be used for 10% of civil filings and 10% of family filings. Excluding storage, the savings are estimated at \$512,000 for civil cases and \$261,000 for small claims cases. These figures represent savings for kiosks only—not electronic filings or Internet filings.

<sup>9</sup> Estimate of the number of payments processed manually based on a survey of selected courts.

<sup>10</sup> Estimate assumes that the courts, in aggregate, receive 16 million payments annually and 75% of these payments will be entered via Internet/IVR in the future. The 75% adoption rate would be an improvement of 62% over existing capabilities. With an estimated cost per payment of \$2.24, the total savings is  $15,952,100 \times 62\% \times \$2.24 = \$22,154,276$ .

eliminating \$22 million in labor costs by eliminating the need for printing and distributing of calendars.<sup>11</sup> Electronic calendars would also provide improved access for people who interact with the courts and, in many cases, eliminate the need for manual distribution of calendars.

Electronic calendars will also facilitate closer coordination between the courts and staff at Department of Social Services (DSS), Department of Child Support Services (DCSS) and law enforcement agencies. These agencies have staff that attend court hearings and are impacted when hearings are rescheduled or canceled. Having closer visibility to up-to-date calendar information will help these agencies schedule their staff more efficiently and avoid unnecessary trips to court. It will also help law enforcement agencies avoid unnecessary overtime costs when officers are directed to appear, but don't receive advance notice that the case has been postponed.

### ***Opportunity #6: Self-Service Case Inquiries***

Currently, case information is stored in paper files in nearly all instances. For this reason, people who need to research case information must generally travel to the court during business hours to view or copy cases. Many law firms and justice partners send couriers or staff to the court for this purpose. Courts also receive thousands of telephone calls requesting copies of case information or requesting specific information about a particular case.

The paper files also make it difficult and expensive for court personnel to provide requested case information. Many current case files are physically in transit within the courthouse and must be located to provide the requested information. Problems associated with misplaced files impact customer service because it delays access to information. Difficulties obtaining case information make it hard for affected parties to monitor case updates. Manual processes also make it difficult to protect the confidentiality of particular cases and documents.

By enabling case information to be migrated from paper to electronic files and making it available online to authorized people, CCMS will reduce costs and significantly improve the quality of court services. From a cost standpoint, it will reduce the number of transactions that the courts must process manually and will reduce the cost of responding to each inquiry. The savings from this is estimated at \$11 million annually.<sup>12</sup> Self-service case inquiries will also have a dramatic effect on service quality, as they will permit 24x7 access, facilitate simultaneous access to a single file (e.g., researcher, staff attorney, judicial officer) and will reduce the need for entities needing case information to send staff or couriers to the local court, and will enable the courts to improve protection of confidential information.

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<sup>11</sup> The labor cost savings were estimated by estimating the number of staff who were dedicated to calendar functions at two sample courts, and extrapolating the figures to the remaining courts based on case volume. At the sample courts, the number of filings per staff member supporting calendar production and distribution averaged 21,079. With an assumed cost of \$70,000 inclusive of benefits, office space, etc., and assuming that 75% of this work could be eliminated if electronic calendars were implemented, the total savings was  $(9,215,885 \div 21,079) \times 0.75 \times \$70,000 = \$22,953,364$ .

<sup>12</sup> The cost savings was estimated by surveying nine courts to determine how many people were dedicated to fulfilling requests to view or copy files, and extrapolating the results to all courts based on the number of filings. The sample courts, on average, had 44,909 cases per staff member dedicated to this function. Assuming total cost of \$70,000 per staff member, 10% additional non-labor costs (telephone, paper, etc.) and that 70% of this work could be eliminated with self-service case inquiries, the total cost was estimated to be:  $(9,215,885 \div 44,909) \times 70,000 \times (1+0.1) \times 0.70 = \$11,060,950$ .



### **Opportunity #7: Self-Service Background Checks**

Criminal and Juvenile courts receive a large number of requests from the California Department of Justice (DOJ) and the Department of Homeland Security (DHS) for court case disposition information to complete background checks. The process for retrieving information can be very cumbersome, since some case information is confidential and cases may be stored with outside service providers and/or stored on microfiche. The manual process that exists today also makes it hard to protect confidential case documents and information.

By providing agencies with a self-service capability to access case information to complete these background checks, CCMS will reduce cost and improve the quality of service to agencies. Costs will be lower because the number of transactions that must be processed by court staff will be reduced and potentially eliminated. Self-service access will also improve quality by providing faster response times, increased hours of access, improve information security (due to system-driven rules) and improve logging of requests and records accessed. The total savings to the courts is estimated at \$1.4 million annually.<sup>13</sup>

### **Opportunity #8: Electronic Data Exchange**

Court cases must be closely coordinated with law enforcement agencies, district attorneys and State agencies including the DOJ, DSS and DCSS. The degree of coordination requires that data be exchanged between the computer systems used by the respective parties. Information that must be exchanged includes:

- Sending abstracts, dispositions, and case information to justice partners, probation and the Department of Motor Vehicles (DMV).
- Receiving conviction and driver history information from DMV.
- Sending jail paperwork to sheriffs and the California Department of Corrections and Rehabilitation (CDCR).

Even though these exchanges are fairly standardized and the transaction volumes are significant, some of the exchanges have yet to be established. The ramifications of this are increased costs to the courts and some potential impacts to public safety due to slower communications.

By supporting electronic interfaces to justice partners and State agencies, CCMS will improve timeliness, reduce cost and improve justice coordination. It will also allow the recipient organizations to reduce data entry costs and data entry errors. At the DOJ alone, it is estimated that establishing interfaces for adjudication information across all courts would free up 30 staff members to work on other functions. Moreover, State agencies are anticipating the implementation of CCMS and have even factored the efficiencies CCMS will bring into their business plans<sup>14</sup>. For the courts, the cost savings is estimated at \$1.6 million annually and

<sup>13</sup> Cost savings estimate based on a survey of selected courts regarding the number of requests received and processing time for each request, as well as an estimates from the DOJ regarding the annual request volume. The total volume of requests across all courts was estimated to be 257,793 and the total cost per request was estimated as \$5.73 including labor and non-labor cost. The estimate assumes 90% of these requests could be eliminated if a self-service capability were established.

<sup>14</sup> As an example, DCSS is implementing a statewide system and expects to complete this implementation in 2008. Under the current arrangement, this system would need to be integrated with individual courts. If the Judicial Branch is unable to establish a statewide application, this increase integration costs incurred at DCSS.

includes reduced costs for data entry, mailing and printing.<sup>15</sup> Implementing additional electronic data exchanges would also provide several quality improvements. Electronic exchanges would improve timeliness and reduce errors, which would promote improved public safety.

**Opportunity #9: Electronic Notifications**

Courts send numerous notifications to the various parties associated with a case. Currently the vast majority of these notifications are conveyed using paper. However, many of these notifications are fairly standardized and the recipients work with the courts frequently making electronic notices (i.e., e-mail) very feasible. Examples of the standard notifications and recipients are shown in Table 5.

**Table 5. Standard Notifications and Recipients**

Notifications	Recipients
<ul style="list-style-type: none"> <li>■ Notices to Appear</li> <li>■ School Delinquency Notices</li> <li>■ Compliance Requests</li> <li>■ Probation Terms</li> </ul>	<ul style="list-style-type: none"> <li>■ District Attorneys</li> <li>■ Law Enforcement Agencies</li> <li>■ Probation</li> <li>■ Attorneys</li> <li>■ Self-Represented Litigants</li> <li>■ School Districts</li> <li>■ Alcohol and Drug Rehabilitation Providers</li> </ul>

Implementing CCMS will enable the courts to send standard notices to frequent court users electronically. This will reduce cost and improve the timeliness of notifications. The reduced cost will result from decreased time preparing mailings and avoiding postage cost. Electronic notifications will also provide faster notification and reduce the volume of returned mail. Electronic notices will also improve coordination between the various parties involved in a case.

**Opportunity #10: Produce Minute Orders Immediately**

In many criminal cases, it can take several days until the defendant receives minute orders from the court. These minute orders sometimes include numerous terms of probation. The inability to provide immediate documentation impedes compliance with judicial orders when defendants or, in juvenile delinquency cases, their parents, fail to completely understand the minute order.

CCMS will enable minute orders to be recorded directly in the court room and produced immediately<sup>16</sup>. Producing minute orders immediately will improve compliance with judicial orders by providing clear instructions immediately enabling the recipient to review the minute order to identify errors or obtain clarifications where necessary.

<sup>15</sup> Cost estimate based on savings that could be achieved through automation of abstract and disposition transactions (although there are several other transactions that could also be automated). Selected courts were surveyed to determine the extent of automation today, and this figure was used to estimate the potential for improvement. The number of additional transactions that would be automated is estimated at 347,946 and the total cost per transaction was estimated to be \$4.49. The total savings was estimated as 347,946 x \$4.49 = \$1,562,277.

<sup>16</sup> Some courts have this capability today. CCMS will extend this capability to all courts.

### ***Opportunity #11: Unified Family Court***

Today, different cases involving the same family may be heard in different courts that may not know that the family is involved in multiple cases. This can lead to numerous problems including conflicting orders based on incomplete information<sup>17</sup>. As court rules evolve, some of these cases could potentially be coordinated if the related cases and family members can be identified at the time of filing.

By providing a data model that links individuals to family units and links one family unit to another, and by providing a State-wide repository of case information, CCMS will support the ability of the courts to relate family cases and family members. This will reduce the number of hearings, potentially reduce the number of times that children must testify, and reduce the risk of conflicting orders.

### ***Opportunity #12: Coordinate Court Appearances***

Most courts have multiple case management systems that only contain information for specific case types and do not communicate with each other. These systems do not have capabilities for coordinating calendars or identifying upcoming activity across case types. This is particularly difficult in juvenile dependency cases where there are numerous parties (e.g. parents, juvenile, social service agency) and multiple hearings and schedules which often overlap causing unnecessary continuances and delays. However, the opportunity is not limited to juvenile cases and other case types could also be coordinated to improve case flow.

CCMS will provide the ability to schedule across all case types to coordinate court appearances. This will enable the courts to reduce the number of trips to court for litigants and other participants and avoid continuances that arise when required parties fail to appear. Taken together, these will improve the court experience for affected families and promote faster resolution of juvenile dependency cases.

### ***Opportunity #13: Reduce Unnecessary Delays for Self-Represented Litigants***

Many cases involve self-represented litigants<sup>18</sup>. These cases are oftentimes delayed because litigants do not understand how to navigate the system, do not know what to do, or falsely assume that something will be done for them.

By providing better case tracking capabilities and notifications, CCMS will enable the courts to reduce average case duration for self-represented cases. This will reduce the number of incomplete cases and improve satisfaction with courts. It will also enable the Branch and the courts to identify trends and eliminate the underlying causes of unnecessary delays for self-represented litigants.

### ***Opportunity #14: Improved Efficiency for Assigned Judges***

The high caseload in some jurisdictions could create the need for judges to be assigned from another jurisdiction to alleviate the backlog. Today the unique systems and processes at each court make the assigned judges almost completely dependent on the local court clerk to provide

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<sup>17</sup> There have even been instances where different parties were named as the father of the same child. There have been other instances where custody was awarded without knowledge of recent criminal complaints or convictions against the parent awarded custody.

<sup>18</sup> Case types that have a significant percentage of self-represented litigants include small claims and family cases.

research and information on upcoming cases. Difficulties reviewing the calendar, reviewing case information, researching issues and issuing orders impede the judge in carryout his or her work. This decreases the effectiveness of the assigned judge in reducing local backlogs.

By providing a common application across all case types and jurisdictions, CCMS will enable assigned judges to be much more efficient in the preparation of assigned cases. The assigned judge will be able to review the calendar, research information on particular cases and issue orders in a familiar environment. This will significantly improve the productivity of assigned judges and increase their staffing flexibility, which will improve the ability of the branch to address case backlogs.

### ***Opportunity #15: Reduce System Costs***

With 58 courts and separate systems by case type, the California courts have 70+ case management systems in place today. Each of the systems must be maintained to provide improved services to court users (e.g., customer self-service) and keep pace with regulatory changes. Keeping pace with these changes causes the State to incur redundant development costs. These systems must also be individually integrated with State agencies. Maintaining these interfaces for each court causes significant unnecessary development and support cost. It also makes it difficult for State agencies to interact with the courts and inhibits automation, since the technology departments at the State agencies must work with 58 courts rather than the Judicial Branch as a whole.

CCMS will provide the courts with a single application that can be used across all case types. This approach will enable the Judicial Branch to avoid building the same functionality dozens of times or building and maintaining hundreds of similar interfaces to State agencies. The total costs avoided are estimated at \$20 million annually, representing redundant costs that the courts would incur to maintain existing capabilities.<sup>19</sup>

### ***Opportunity #16: Reduce Disaster Recovery Risks***

At present, nearly all case files are physical paper files that are stored at the courts. These files could be damaged or destroyed as a result of a major disaster such as a fire or flood, or could be destroyed or be rendered inaccessible by an earthquake (i.e., damaged building). The current situation also inhibits the establishment of recovery capabilities for systems, as the courts must maintain individual system recovery capabilities for each of their systems and must test these capabilities periodically to ensure they are functioning correctly.

Deploying CCMS will significantly reduce disaster recovery risk by providing electronic copies of case files and a verifiable recovery capability. Unlike the current paper files, the electronic case files can be copied and stored off site. In the event of a disaster that renders one or more locations inoperable, processing can be moved to another location until capabilities are restored at the affected site. This would enable the courts to avoid the loss of case records and also allow continuation of the court operations at an alternate location.

The move to a common application will also improve the ability of the Branch to establish a verifiable system recovery capability. With a single application it will be far easier for the Branch

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<sup>19</sup> This is the estimated cost to maintain existing capabilities and keep pace with regulatory changes. It does not include the cost of implementing customer self-service, paperless case files or other advanced capabilities included in CCMS. The estimate assumes that, every five years, the courts will need to, at a minimum, deploy new releases to 14 small systems, 10 medium-size systems and four larger systems at a cost of \$100,000, \$4 million and \$15 million, respectively.

to provision the recovery systems and ensure that the capability is periodically tested to confirm that it works as anticipated.

### ***Opportunity #17: Improved Statistics to Enable Operational and Policy Decisions***

With only partial automation and numerous systems, aggregate reporting across the Branch is very limited. A significant portion of case information is only stored on paper, making it extremely difficult to provide case statistics. The AOC does provide some case volume reporting across the Branch, but this is very time-consuming to develop and the scope of the reporting is thus fairly limited. This lack of information inhibits policy decisions around staffing levels, service levels and other areas. It also prevents the courts from monitoring operational performance and identifying emerging process issues or backlogs. Today, presiding judges have very little statistical information to diagnose problems that impact case flow.

CCMS will capture more data on individual cases, will capture data across all courts and will store this information in a more standardized way, facilitating Branch-wide reporting. Examples of areas where improved reporting will be available include:

- Case volume.
- Types of orders.
- Case duration.
- Court costs.
- Fee waivers.
- Collection performance.

Improved reporting will enable the Branch to make more-informed policy decisions that will enable the courts to identify additional opportunities to improve efficiency, improve the quality of court services and share best practices across courts. Improved reporting will also help courts measure baseline performance, quantify the value of potential opportunities and track the progress of court improvement initiatives. Improved reporting will also help the courts make more informed operational decisions. This will enable the courts to improve business processes, measure compliance with deadlines, identify backlogs and diagnose operational problems. Faster identification of backlogs or impending deadlines will also improve coordination with partner agencies whose staff work closely with the courts to ensure that required deadlines are met. The use of a statewide system with improved tracking capabilities will also provide better assurance that probation is notified when required restitution payments has not yet been paid to the victim.

### ***Opportunity #18: Improved Collections***

Trial courts, working in collaboration with their respective counties, collect fees, fines, forfeitures, penalties, and assessments arising from criminal and traffic cases. These collections are subsequently distributed according to statutes and guidelines established by the State Controller. Currently, a variety of models are used to support collection efforts, including the use of government agencies and external collection agencies for portions of the collections activity.

CCMS will improve collections by providing a better capability for tracking amounts due and information about the person or entity responsible for the debt. CCMS will have specific collection capabilities including, notices, letters, payment history and calendaring. CCMS will also improve collaborative efforts with agencies by facilitating automated communication about

cases, amounts due and collections. Together, these capabilities will improve collections and accountability by providing improved tracking of the collection process.

**Opportunity #19: Enable Shared Services**

Each of the trial courts provides a full range of administrative services including accepting telephone payments and responding to telephone inquiries. These activities are common to all courts across the state. Since there is no centralized statewide access to court case information today, each court must provide staff in every location where these administrative services are provided. Some Courts have achieved efficiencies by consolidating these activities in a central court location.

CCMS offers the opportunity to further consolidate some of these administrative services by enabling statewide shared services for telephone payments, telephone inquiries and potentially other common functions such as phone scheduling of court dates. This would provide better service to court participants and greater efficiency across the Branch.

**5.2 Business Problems**

While the previous discussion addressed opportunities for new ways of doing business, this section focuses on how CCMS can assist in addressing issues impacting existing business operations. The primary business problems that would be addressed are listed in Table 6 below.

**Table 6. Primary Business Problems**

The Primary Business Problems Addressed by This Project	
1.	Difficulty Identifying and Accessing Related Cases
2.	Some Internal Court Processes Are Manual
3.	Cumbersome Warrant Issuance and Recall Process
4.	Inconsistent Compliance with Timelines for Recording Criminal Protective Orders
5.	Inconsistent Compliance With Federal Timelines for Cases Involving Removal of Children
6.	Inconsistent Compliance With DCSS Integration Requirements
7.	Inadequate Financial Controls for Trust Funds
8.	Records Management Is Cumbersome and Expensive
9.	When to Disposition Exhibits
10.	Insufficiently Robust Revenue Distribution Systems
11.	Difficulty Responding to Requests for Court Statistics

Each problem is addressed individually below with substantiating information to convey the scope, magnitude and criticality of the problem.

**Problem #1: Difficulty Identifying and Accessing Related Cases**

In the current environment, where information is stored in numerous computer systems, court participants and court staff must often research multiple databases or archives of paper information to prepare for a hearing. In some instances, this may lead to continuances to provide additional time for the required research or this may lead to oversights. For family cases this is particularly difficult, as different matters involving the same family may be heard in different courts that may not always know that the family is involved in multiple cases. Paper case records and separate computer systems inhibit case research since they do not provide

common search paths across multiple case types or geographies, and in some instances, do not even provide multiple access paths for conducting a single search. The inability to successfully identify related cases can sometimes lead to conflicting orders.

CCMS will provide a State-wide repository of case information that will streamline case preparation and reduce the potential for conflicting orders. This integrated repository will reduce time spent researching case information when preparing for an arraignment or hearing. It will also reduce continuances and unnecessary hearings. Simplifying the research process will improve administration of justice by reducing errors caused by search omissions. Reducing search omissions and providing more-comprehensive information to judges will reduce the risk of conflicting orders and improve compliance with existing orders. It will increase the quality of exit orders in family cases by providing judges with a more accurate view of related cases and up-to-date information on criminal complaints in other California jurisdictions<sup>20</sup>. CCMS will improve the ability of the courts to protect confidential files and documents as system security controls can replace manual diligence. For juvenile dependency cases, better search capabilities will also speed the placement of the child into a safe setting and improve the ability of the court to make appropriate custody placement decisions<sup>21</sup>.

### ***Problem #2: Some Internal Court Processes Are Manual***

In many courts, the current process for conveying motions to the judge or preparing for hearings involves pulling paper files, reviewing the case, completing manual checklists and forwarding a paper packet to the judge. After (or sometimes during) the trial, the clerk records the orders, obtains the judge's signature and mails paperwork to all affected parties. Manual tickler systems are commonly used to ensure follow-up.

This manual process makes it difficult for judges to operate efficiently because they are frequently waiting for information on the day's cases to be assembled. If attorneys file motions or briefs the day before a hearing the judge may not have time to fully review this information prior to the first hearing of the day. The judge must respond to this by either reviewing the information during the hearing, which delays the hearing, or ordering a continuance to permit the information to be reviewed prior to the hearing.

CCMS will enable courts to eliminate paper and automate and expedite the work process. This includes:

- Electronic filings.
- Automated screenings and electronic checklists.
- Electronic orders with signatures.
- Automated ticklers.

These improvements will reduce or eliminate paper filing and storage costs and facilitate faster review by court clerks prior to submitting motions and other items to the judge. Accelerating the work process will also improve the ability of judges to manage their time because they will be able to receive information earlier providing more time to review information prior to the actual

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<sup>20</sup> An example of this is during arraignment for a criminal case when the judge must be aware of any existing family cases and must ensure that bail conditions are not established that conflict with juvenile dependency orders.

<sup>21</sup> Delays in obtaining required information can lead to continuances that can delay placement of the child into a safe setting. Likewise, failure to understand all applicable information about a parent or custodian or the juvenile's siblings can lead to sub-optimal custody decisions.

hearing. The move to electronic court processes will also reduce errors by applying automated edits to filings, submissions and orders.

### ***Problem #3: Cumbersome Warrant Issuance and Recall Process***

Warrants can be requested by the DA, probation or law enforcement agencies or can originate directly from the court. Once approved by the court, the warrant is communicated to the law enforcement agency that is responsible for communicating the information to the DOJ. The DOJ provides a State-wide repository of warrant information that is accessed by law enforcement agencies using the California Law Enforcement Telecommunication System (CLETS). The current approach is problematic because the communication between the courts and law enforcement agencies varies and is often manual and error-prone.

CCMS will provide a streamlined warrant issuance and recall capability for the courts. This will include the ability to process a warrant or a warrant recall entirely from the case management system with full integration to justice partners. These capabilities will improve public safety by providing better assurance that warrants are properly communicated and available in real time. It will also reduce the risks of false arrests that may result from communication errors. CCMS will also save costs by eliminating redundant data entry and reducing errors.

### ***Problem #4: Inconsistent Compliance Timelines for Recording Criminal Protective Orders***

Once issued, restraining orders must be recorded in a State-wide database maintained by the DOJ. It is the responsibility of the court to ensure that criminal protective orders (CPOs) are recorded in the database within one business day, either by entering the information directly or designating a law enforcement agency to do so. Currently, not all courts or law enforcement agencies are in compliance with requirements for consistently reporting CPOs to the DOJ within one business day.

CCMS will enable achievement of full compliance with DOJ requirements for CPOs. This will improve public safety, reduce the risk of wrongful detentions and arrests, and eliminate the need for law enforcement agencies to enter CPOs into the DOJ system.

### ***Problem #5: Inconsistent Compliance With Federal Timelines for Cases Involving Removal of Children***

Today, original petitions for cases involving removal of children<sup>22</sup> are received from DSS or local human services agencies and probation on paper, as are subsequent amendments and modifications. The courts also communicate orders and findings back to DSS and probation on paper. The large number of children under the jurisdiction of the court, coupled with the need for each child to have multiple hearings per year and the labor-intensive nature of the work effort, drives a large workload for the courts that existing staffs are challenged to accommodate. As a result, the courts are frequently in jeopardy of missing filing deadlines, causing the State to incur penalties for non-compliance with federal guidelines. Missed deadlines also delay children from being placed in a permanent and safe setting.

CCMS will provide for automated filings between the courts and DSS and local agencies, which will permit the courts to ensure compliance with federal timelines in all instances. This will provide a number of benefits:

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<sup>22</sup> This includes child dependency as well as 602 delinquent wards and foster care.



- Receiving filings electronically will eliminate the need for data entry and photocopying, reduce the work of court clerks and accelerate processing of the filing.
- Eliminating duplicate data entry will reduce errors and reduce effort and avoid the time consumed detecting and correcting errors.
- Faster processing and fewer errors will reduce the number of continuances that occur when the paper reports are not received on time. Fewer continuances will reduce the length of time a child is in the system.
- Exporting information to DSS electronically will provide efficiencies at DSS by eliminating the need to enter this information manually and to correct entry errors.

### ***Problem #6: Inconsistent Compliance With DCSS Integration Requirements***

Federal requirements mandate that initial filings from the DCSS must be received electronically. The State has incurred federal penalties in the past for not having the required integration in place.

CCMS will provide the federally mandated interfaces with DCSS and probation, enabling the State to avoid penalties for non-compliance. Implementing the electronic interfaces to DCSS and probation will also reduce errors, including wage-garnishment errors.

### ***Problem #7: Inadequate Financial Controls for Trust Funds***

All courts receive funds that are held in trust for individual civil and criminal cases. Today, the specific infrastructure for monitoring these trust transactions varies considerably from court to court. In some courts, these transactions can be recorded in the case management system; in other courts they cannot. Few courts have the ability to accurately track trust fund balances at the case level.

CCMS will improve financial controls for trust funds by implementing the capability to accurately track trust fund balances at the case level. This will enable the courts to reconcile these balances to the financial statements. Implementing CCMS in conjunction with planned improvements to administrative systems<sup>23</sup> will enable all trust accounts State-wide to be reconciled and maintained in a manner consistent with the Rules of Court, Generally Accepted Accounting Principles (GAAP) and the Government Accounting Standards Board (GASB).

### ***Problem #8: Records Management Is Cumbersome and Expensive***

Today, most case records are stored on paper at the local courthouse and transferred to off-site storage after the case ends. At end-of-life, the case files are either microfilmed or destroyed. With more than nine million new filings each year, the sheer volume of paper stored requires vast amounts of physical space, and the case files themselves are stored in hundreds of locations across the State.<sup>24</sup> Simply moving records from on-site storage to off-site storage

<sup>23</sup> The courts are currently in the process of implementing SAP to provide a single financial system for the Branch (Phoenix Financials). Improvements in both systems are required to courts to implement a three-way match of case balances (CCMS) to general ledger (SAP) to bank statements. Without CCMS, the courts can only implement a two-way match of financial statements to bank statements.

<sup>24</sup> In most jurisdictions, records are stored by case type, with criminal, traffic, civil and family cases records stored in separate locations. In larger jurisdictions, some case types are further segregated by geography. For these reasons, a single jurisdiction (1 of 58 in California) may store case records in more than a dozen locations.

consumes considerable time and effort and identifying and locating records that must be destroyed at particular intervals is extremely difficult.

By moving from paper records to electronic records, CCMS will enable the courts to significantly reduce the cost of, and improve the quality of, records management. This will free up space at the courthouses and will eliminate labor costs associated with managing paper records.

***Problem #9: Difficult to Track When to Disposition Exhibits***

The trial courts are responsible for storing physical exhibits. These exhibits must be stored and, at the appropriate time, the trial court is responsible for destroying or otherwise dispositioning each exhibit. Currently, this effort is hampered by lack of information on which exhibits can be destroyed or dispositioned. Lacking this information, the exhibits are maintained beyond the required time frames, consuming space that could be used for other purposes.

By providing the ability to track when exhibits can be dispositioned, CCMS will reduce the space that must be devoted to this purpose. This will enable the courts to reuse this space for other purposes and reduce the amount of space that will be required in the future.

***Problem #10: Insufficiently Robust Revenue Distribution Systems***

Revenue for fines and fees for criminal and traffic cases is distributed to cities, counties, State agencies and the courts. The rules for distributing the revenue are complex and vary by location, law enforcement agency and sometimes even the violation itself. These rules can change each year, and the changes to the distribution formulas have budget implications, so some changes are implemented as emergency statutes. The current systems for distributing revenue are unable to keep pace with the changes in the rules. As a result, revenue is sometimes distributed incorrectly and must be subsequently corrected.

Providing a flexible system that can be rapidly adapted to changing revenue distribution rules will improve the accuracy of revenue distribution. This will reduce the need to correct prior distributions, reduce the effort required to add the changes to the system (including testing) and improve the accuracy of revenue distributions.

***Problem #11: Difficulty Responding to Requests for Court Statistics***

The Branch and the courts continuously receive requests from the legislature, the public, newspapers and federal agencies requesting various types of court statistics. Typical requests include:

- Types of judicial orders for particular sub-sections of the population.
- Compliance to federal requirements.
- Case type statistics.
- Sentencing statistics.
- Court performance statistics.
- Recidivism statistics.
- Case duration statistics.

Today it is very difficult for the courts individually, or the Branch as a whole, to respond to these requests because:

- Most information is stored in paper case files and is not encoded in the computer system at all.
- Even when information is stored in computer systems, it is usually encoded differently in each of the dozens of different case management applications used across the State.<sup>25</sup>
- Even when a single software application is used at multiple courts, the system is configured differently for each court and the specific code for a particular statistic can vary by court.

For these reasons, any type of request to capture information across the Branch entails a vast manual effort to extract data from numerous systems (depending on the nature of the request), normalize the data to eliminate differences between coding standards, and provide the requested reporting. In many instances, the obstacles are so formidable that the Branch must resort to sending out surveys and questionnaires to enable the courts to provide estimates for the statistic in question.

By providing a State-wide repository of court information, CCMS will greatly improve the ability of the Branch and individual courts to respond to requests for statistical information. CCMS will also reduce the cost of responding to these requests and enable the Branch and the individual courts to accelerate the response time frames from months to hours.

## 6.0 Business Objectives

The preceding sections outlined the business opportunities and problems that will be impacted by CCMS. This section describes the specific business objectives that will be realized upon the full implementation of CCMS:

1. Accelerate case disposition, reduce errors and cost by creating ability to receive 95% of initial case filings and amendments electronically (system-to-system), via the Internet or via self-service kiosks.
2. Improve service quality and reduce cost by implementing self-service payment capability that enables courts to receive 75% of payments via the self-service channels such as the internet or kiosks.
3. Reduce cost and improve quality of calendaring and scheduling process by implementing online calendars.
4. Reduce cost and improve quality of service counter/research window by making case information available online that enable the courts to service 70% of case inquiries via self-service channel.
5. Reduce cost and improve quality of background check process by providing self-service capability for DOJ and the Department of Homeland Security that enables courts to service 90% of these requests via the self-service channel.
6. Improve timeliness, reduce cost and improve justice coordination by establishing electronic interfaces to State agencies and justice partners.
7. Increase timeliness and reduce cost by implementing capability to send standard notices to frequent court users, which enables courts to transmit 30% of notices electronically.

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<sup>25</sup> This refers to the variety of vendors and applications used across the courts—not the total number of installations, which is significantly higher.

8. Improve quality of court process by serving minute orders immediately.
9. Reduce number of hearings by unifying family cases.
10. Improve quality of court experience for family court users by coordinating trips to court.
11. Reduce average case duration for self-represented family cases by providing information on recent case activity.
12. Reduce case backlogs by improving the efficiency of assigned judges through the use of a common application across all jurisdictions and case types.
13. Reduce the cost of system development, integration, deployment and maintenance by deploying a single case management application for all courts.
14. Reduce disaster recovery risks by providing electronic case files and a single, verifiable recovery capability.
15. Reduce cost and improve service levels by providing enhanced information to support operational and policy decisions.
16. Improve funding for cities, counties and the State by decreasing the amount of collections outstanding.
17. Provide opportunity to implement shared services in the future by providing a single system capability that can be used at all courts.
18. Streamline case preparation and reduce the number of conflicting orders by providing a State-wide repository of case information.
19. Reduce cost and improve the quality of internal court processes by eliminating paper and automating the work process.
20. Reduce cost and improve service quality and improve public safety by deploying a streamlined warrant issuance and recall capability.
21. Achieve full compliance with criminal protective order reporting requirements.
22. Improve compliance with deadlines for out of home placement cases by automating communications between the courts and DSS.
23. Reduce cost and non-compliance risk by implementing federally mandated interfaces with DCSS...
24. Improve financial controls for trust funds by implementing the capability to accurately track trust fund balances at the case level and to reconcile these balances to the financial statements.
25. Reduce cost by eliminating manual case files in lieu of electronic files.
26. Reduce storage space for exhibits by implementing the ability to track when exhibits can be dispositioned.
27. Improve accuracy of revenue distribution by implementing a flexible system that can be rapidly adapted to changing revenue distribution rules.
28. Improve ability to respond to external requests for statistical information by providing State-wide repository of case information.

## 7.0 Business Functional Requirements

In order for CCMS to be deployed to the courts the solution must provide equivalent functionality to that which exists today. This “general functionality” must be provided to ensure that there is no loss of capability as a result of implementing the common solution. To support the business improvement objectives noted above, the solution must also provide “specific capabilities” attendant to each business objective. For that reason, the functionality of CCMS falls into two major categories:

- **General Functionality**—Areas of functionality that the solution must provide to replace existing court systems. This represents business processes that must be supported, or the level of automation that is already in place at one or more courts. In order for CCMS to be deployed at the courts the solution must provide these requirements to ensure that there is no loss of capability as a result of implementing the common solution. CCMS must provide general support in each of these areas.
- **Specific Capabilities**—This includes areas of functionality that are necessary to support the defined business objectives (see Table 8). CCMS must provide these specific capabilities for particular business objectives to be realized.

The required functionality of CCMS is shown in Table 7.

**Table 7. Functional Capabilities of CCMS Solution**

General Functionality	Specific Capabilities
Case Initiation/Update	<ul style="list-style-type: none"> <li>■ Automated interface between institutional filers and the courts (e.g., law enforcement agencies, district attorneys, probation).</li> <li>■ Ability to receive original petition and subsequent amendments and modifications from DSS electronically.</li> <li>■ Ability to receive initial filing from DCSS (or local agency using DCSS system).</li> <li>■ Ability to accept e-filing from external service provider.</li> <li>■ Ability to submit initial filing and subsequent amendments via the Internet.</li> <li>■ Ability to import filings from kiosk or Internet into case management system.</li> <li>■ User-friendly workflow-guided software for filings received via Internet or kiosk.</li> <li>■ Ability to receive motions via electronic interfaces, Internet or external service providers.</li> <li>■ Edits to ensure completeness and integrity of information submitted.</li> <li>■ Electronic signature capability.</li> <li>■ Ability to store associated case documents electronically.</li> <li>■ Access to electronic image when paper is the document of record.</li> <li>■ Reporting of error rates in original transmissions.</li> <li>■ Automatic identification of related cases for new filings.</li> <li>■ Automatic updates to exiting cases with information on related cases.</li> </ul>

General Functionality	Specific Capabilities
Case Management	<ul style="list-style-type: none"> <li>■ Ability to identify in the file what is needed to bring the case to resolution (e.g., dissolution paperwork with no subsequent action).</li> <li>■ Ability to sort and rank cases based on due dates and date since last event.</li> <li>■ Ability to track cases against timelines and reporting requirements.</li> </ul>
Calendaring/Scheduling	<ul style="list-style-type: none"> <li>■ Internet-accessible court calendar.</li> <li>■ Capability to integrate or export calendars to external systems.</li> <li>■ Ability to exchange calendar information with justice partners.</li> <li>■ Ability to schedule across all family case types.</li> <li>■ Ability to optimize schedule to minimize the number of trips to court for litigants and other case participants.</li> </ul>
Hearings/Courtroom Events	<ul style="list-style-type: none"> <li>■ Workflow to route documents to judge for consideration.</li> <li>■ Ability to transmit standard notifications (e.g., Notice to Appear, School Notices, Felony Notices) electronically to district attorneys, law enforcement agencies, attorneys, alcohol and drug rehabilitation programs and self-represented litigants.</li> <li>■ Ability to capture e-mail addresses of notification subscribers.</li> <li>■ Ability to manage changes in e-mail addresses and returns from notification subscribers.</li> <li>■ Ability to capture minute orders and judgments during court appearance.</li> <li>■ Ability to print out hard copies of minute orders immediately at conclusion of hearing.</li> <li>■ Ability to record or scan issuance and lifting of criminal protective order.</li> <li>■ Ability to export criminal protective order information to DOJ electronically.</li> <li>■ Receive conviction and driver history information electronically from DMV.</li> </ul>
Tentative Rulings	<ul style="list-style-type: none"> <li>■ No specific requirements. Only general functionality is needed.</li> </ul>
Probate Notes	<ul style="list-style-type: none"> <li>■ No specific requirements. Only general functionality is needed.</li> </ul>
Issuances	<ul style="list-style-type: none"> <li>■ No specific requirements. Only general functionality is needed.</li> </ul>
Warrants	<ul style="list-style-type: none"> <li>■ Ability to process a warrant or a warrant recall entirely from the case management system.</li> <li>■ Integration to justice partner systems for all warrant types.</li> </ul>
Disposition	<ul style="list-style-type: none"> <li>■ Send abstracts and dispositions to DMV electronically.</li> <li>■ Send jail paperwork to sheriff and CDCR.</li> <li>■ Ability to export orders and findings back to DSS and/or probation.</li> <li>■ Ability to export orders and modifications back to DCSS and probation.</li> </ul>
Appeals	<ul style="list-style-type: none"> <li>■ No specific requirements. Only general functionality is needed.</li> </ul>
Records	<ul style="list-style-type: none"> <li>■ Capture complete case files electronically, including images of related documents.</li> <li>■ Ability to designate confidential data elements.</li> <li>■ Ability to designate confidential documents.</li> <li>■ Ability to archive and destroy cases according to pre-defined business rules.</li> </ul>

General Functionality	Specific Capabilities
Case Inquiries	<ul style="list-style-type: none"> <li>■ Integrated repository case information that includes all State-wide cases.</li> <li>■ Ability to search across all case types across all California courts.</li> <li>■ Internet inquiry capability with associated security and confidentiality protections.</li> <li>■ Ability to verify identity and authenticate persons requesting confidential case information.</li> <li>■ Ability to support background check transaction including security, access logs and accessibility for external partners (e.g., DHS).</li> </ul>
Exhibits	<ul style="list-style-type: none"> <li>■ Ability to store information on exhibits.</li> <li>■ Ability to identify when exhibits can be dispositioned.</li> </ul>
Judicial Officer Functionality	<ul style="list-style-type: none"> <li>■ No specific requirements. Only general functionality is needed.</li> </ul>
Cashiering	<ul style="list-style-type: none"> <li>■ Internet-based payment capability.</li> <li>■ Interactive Voice Response (IVR) payment capability.</li> </ul>
Accounting (Business Office and Reports)	<ul style="list-style-type: none"> <li>■ Ability to track trust transactions at the case level.</li> <li>■ Integration with financial system for trust transactions.</li> <li>■ Ability to configure business rules that enable the revenue distribution to be configured by time, location, law enforcement agency and violation.</li> </ul>
Collections	<ul style="list-style-type: none"> <li>■ Ability to track amounts due and information about the person or entity responsible for the debt.</li> <li>■ Collection capabilities including letter-writing, diary, correspondence, etc.</li> </ul>
Resource Assignment	<ul style="list-style-type: none"> <li>■ No specific requirements. Only general functionality is needed.</li> </ul>
Person/Entity Management	<ul style="list-style-type: none"> <li>■ No specific requirements. Only general functionality is needed.</li> </ul>
Queries and Reports	<ul style="list-style-type: none"> <li>■ State-wide repository of detailed case information.</li> <li>■ Ad hoc reporting capability.</li> <li>■ Ability to store and report information on case volume, types of orders, case duration, fee waivers, collection performance and court costs (e.g., cost per courtroom hour).</li> </ul>
Administration	<ul style="list-style-type: none"> <li>■ No specific requirements. Only general functionality is needed.</li> </ul>

## Infrastructure Requirements

CCMS will require hosting and disaster recovery capabilities. The system has significant requirements for integration and has a specialized integration infrastructure for this purpose.<sup>26</sup> The system is also dependent on related initiatives that upgrade court desktop infrastructure and establish a robust wide-area network with connectivity from the data center to all courts.

<sup>26</sup> CCMS will be hosted in a shared services environment for 55 courts. Los Angeles, Orange and San Diego counties will host CCMS in their respective data centers and will provide their own disaster recovery and infrastructure support.

## Traceability Matrix

The following traceability matrix documents the relationship between business problems or opportunities, business objectives and specific system capabilities. This matrix does not include all functional requirements, but rather representative requirements.

**Table 8. CCMS Traceability Matrix**

Business Need (Opportunity or Problem)	Business Objective	Specific Capabilities
<b>Opportunities</b>		
Receive Filings Electronically	<ul style="list-style-type: none"> <li>■ Accelerate case disposition, reduce errors and cost by creating ability to receive 94% of initial case filings and amendments electronically (system-to-system), via the Internet or via self-service kiosks.</li> </ul>	<ul style="list-style-type: none"> <li>■ Automated interface between high-volume case originators and court.                             <ul style="list-style-type: none"> <li>□ Law enforcement for traffic cases.</li> <li>□ Prosecutor for criminal complaints.</li> <li>□ DA and Probation and for Juvenile Delinquency petitions.</li> <li>□ County Counsel for Juvenile Dependency petitions.</li> </ul> </li> <li>■ Ability to accept e-filing from external service provider.</li> <li>■ Capture initial filing and amendments electronically.</li> <li>■ Edits to ensure completeness and integrity of information submitted.</li> <li>■ Electronic signature capability.</li> <li>■ Ability to store associated case documents electronically.</li> <li>■ Access to electronic image when paper is the document of record.</li> <li>■ Reporting of error rates in original filing.</li> </ul>
Internet Case Filing	<ul style="list-style-type: none"> <li>■ Included in above.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to originate initial filing and subsequent amendments via the Internet.</li> <li>■ Ability to receive and store associated case documents.</li> <li>■ Edits to ensure completeness and integrity of information submitted.</li> <li>■ Electronic signature capability.</li> </ul>
Self-Service Kiosks for Case Filing	<ul style="list-style-type: none"> <li>■ Included in above.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to originate initial filing and subsequent amendments via kiosk.</li> <li>■ User-friendly workflow-guided software for filings.</li> <li>■ Ability to import filings from kiosk or Internet into case management system.</li> </ul>



<b>Business Need (Opportunity or Problem)</b>	<b>Business Objective</b>	<b>Specific Capabilities</b>
Self-Service Capability for Payments	<ul style="list-style-type: none"> <li>■ Improve service quality and reduce cost by implementing self-service payment capability that enables courts to receive 75% of payments via self-service channel.</li> </ul>	<ul style="list-style-type: none"> <li>■ Internet-based payment capability.</li> <li>■ IVR-based payment capability.</li> <li>■ Ability to capture financial information within the case management system.</li> </ul>
Electronic Calendars	<ul style="list-style-type: none"> <li>■ Reduce cost and improve quality of calendaring and scheduling process by implementing online calendars.</li> </ul>	<ul style="list-style-type: none"> <li>■ Internet-accessible court calendar.</li> <li>■ Capability to integrate or export calendars to external systems.</li> </ul>
Self-Service Case Inquiries	<ul style="list-style-type: none"> <li>■ Reduce cost and improve quality of service counter/research window by making case information available online that enable the courts to service 70% of case inquiries via self-service channel.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to electronically store complete case information including case data and document images.</li> <li>■ Internet access with associated security and confidentiality protections.</li> <li>■ Ability to verify identity for confidential cases.</li> </ul>
Self-Service Background Checks	<ul style="list-style-type: none"> <li>■ Reduce cost and improve quality of background check process by providing self-service capability for DOJ and the Department of Homeland Security that enables courts to service 90% of these requests via the self-service channel.</li> </ul>	<ul style="list-style-type: none"> <li>■ Capture complete case files electronically including images of related documents.</li> <li>■ Ability to designate confidential data elements.</li> <li>■ Ability to designate confidential documents.</li> <li>■ Ability to support background check transaction including security, access logs and capability for preventing access to confidential data and documents.</li> <li>■ Accessible by external partners.</li> </ul>
Electronic Data Exchange	<ul style="list-style-type: none"> <li>■ Improve timeliness, reduce cost and improve justice coordination by establishing electronic interfaces to State agencies and justice partners.</li> </ul>	<ul style="list-style-type: none"> <li>■ Electronic interfaces to State agencies and justice partners including:                             <ul style="list-style-type: none"> <li>□ Receive conviction and driver history information from DMV.</li> <li>□ Send abstracts and dispositions and case information to justice partners.</li> <li>□ Send abstracts and dispositions to DMV.</li> <li>□ Send jail paperwork to sheriff and CDCR.</li> <li>□ Exchange calendar information with justice partners.</li> </ul> </li> </ul>

<b>Business Need (Opportunity or Problem)</b>	<b>Business Objective</b>	<b>Specific Capabilities</b>
Electronic Notifications	<ul style="list-style-type: none"> <li>■ Increase timeliness and reduce cost by implementing capability to send standard notices to frequent court users, which enables courts to transmit 30% of notices electronically.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to transmit standard notifications (e.g., Notice to Appear, School Delinquency Notices, electronically to district attorneys, law enforcement agencies, attorneys and self-represented litigants.</li> <li>■ Ability to capture e-mail addresses of notification subscribers.</li> <li>■ Ability to manage changes in e-mail addresses and returns for notification subscribers.</li> </ul>
Produce Minute Orders Immediately	<ul style="list-style-type: none"> <li>■ Improve quality of court process by serving minute orders immediately.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to capture minute orders and judgments during court appearance.</li> <li>■ Ability to print out hard copies immediately at conclusion of hearing.</li> </ul>
Unified Family Court	<ul style="list-style-type: none"> <li>■ Reduce number of hearings by unifying family cases.</li> </ul>	<ul style="list-style-type: none"> <li>■ Automatic identification of related cases for new filings.</li> <li>■ Automatic updates to exiting cases with information on related cases.</li> </ul>
Coordinate Court Appearances	<ul style="list-style-type: none"> <li>■ Improve the quality of the court experience for family court users by coordinating trips to court.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to schedule across all family case types.</li> <li>■ Ability to optimize schedule to minimize the number of trips to court for litigants.</li> </ul>
Reduce Unnecessary Delays for Self-Represented Litigants	<ul style="list-style-type: none"> <li>■ Reduce average case duration for self-represented family cases by providing information on recent case activity.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to identify in the file what is needed to bring the case to resolution (e.g., dissolution paperwork with no subsequent action).</li> </ul>
Improved Efficiency for Assigned Judges	<ul style="list-style-type: none"> <li>■ Reduce case backlogs by improving the efficiency of assigned judges through the use of a common application across all jurisdictions and case types.</li> </ul>	<ul style="list-style-type: none"> <li>■ Single application that can be used at all courts for all case types.</li> </ul>
Avoid Redundant System Costs	<ul style="list-style-type: none"> <li>■ Reduce cost of system development, integration, deployment and maintenance by deploying a single case management application for all courts.</li> </ul>	<ul style="list-style-type: none"> <li>■ Single application that can be used at all courts.</li> <li>■ Single set of interfaces to State agencies.</li> </ul>
Reduce Disaster Recovery Risks	<ul style="list-style-type: none"> <li>■ Reduce disaster recovery risks by providing electronic case files and a single, verifiable recovery capability.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to store case information and supporting documents electronically.</li> <li>■ Verifiable recovery capability.</li> </ul>

<b>Business Need (Opportunity or Problem)</b>	<b>Business Objective</b>	<b>Specific Capabilities</b>
Improved Statistics to Enable Operational and Policy Decisions	<ul style="list-style-type: none"> <li>■ Reduce cost and improve service levels by providing enhanced information to support operational and policy decisions.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to store and report information on case volume, types of orders, case duration, fee waivers, collection performance and court costs (e.g., cost per courtroom hour).</li> </ul>
Improved Collections	<ul style="list-style-type: none"> <li>■ Improve funding for cities, counties and the State by decreasing the amount of collections outstanding.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to track amounts due and information about the person or entity responsible for the debt.</li> <li>■ Collection capabilities including letter-writing, diary, correspondence, etc.</li> </ul>
Enable Shared Services	<ul style="list-style-type: none"> <li>■ Provide opportunity to implement shared services in the future by providing a single system capability that can be used at all courts.</li> </ul>	<ul style="list-style-type: none"> <li>■ A single application can be used at all courts.</li> </ul>
<b>Problems</b>		
Difficulty Identifying and Accessing Related Cases	<ul style="list-style-type: none"> <li>■ Streamline case preparation and reduce the number of conflicting orders by providing a State-wide repository of case information.</li> </ul>	<ul style="list-style-type: none"> <li>■ Integrated repository case information that includes all State-wide cases.</li> <li>■ Ability to search across all case types across all California courts.</li> <li>■ Automatic identification of related cases for new filings.</li> <li>■ Automatic updates to exiting cases with information on related cases.</li> </ul>
Some Internal Court Processes Are Manual	<ul style="list-style-type: none"> <li>■ Reduce cost and improve the quality of internal court processes by eliminating paper and automating the work process.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to store electronic case file.</li> <li>■ Ability to receive motions via Internet or external service providers.</li> <li>■ Workflow to route documents to judge for consideration.</li> <li>■ E-signatures capability.</li> <li>■ Ability to convey order to filing party electronically.</li> </ul>
Cumbersome Warrant Issuance and Recall Process	<ul style="list-style-type: none"> <li>■ Reduce cost and improve service quality and improve public safety by deploying a streamlined warrant issuance and recall capability.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to process a warrant or a warrant recall entirely from the case management system.</li> <li>■ Integration to justice partner systems for all warrant types.</li> </ul>
Inconsistent Compliance with Timelines for Recording Criminal Protective Orders	<ul style="list-style-type: none"> <li>■ Achieve full compliance with CPO reporting requirements.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to record or scan issuance and lifting of CPOs in case management system.</li> <li>■ Ability to export CPO information to DOJ electronically.</li> </ul>

<b>Business Need (Opportunity or Problem)</b>	<b>Business Objective</b>	<b>Specific Capabilities</b>
Inconsistent Compliance With Federal Timelines for Cases Involving Removal of Children	<ul style="list-style-type: none"> <li>■ Improve compliance with deadlines for out of home placement cases by automating communications between the courts and DSS.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to receive original petition and subsequent amendments and modifications electronically.</li> <li>■ Ability to export orders and findings back to DSS and/or probation.</li> <li>■ Ability to track cases against timelines and reporting.</li> </ul>
Inconsistent Compliance With DCSS Integration Requirements	<ul style="list-style-type: none"> <li>■ Reduce cost and risk of non-compliance by implementing federally mandated interfaces with DCSS and probation.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to receive Initial filing from DCSS (or local agency using DCSS system) and probation.</li> <li>■ Ability to export orders and modifications back to DCSS and probation.</li> </ul>
Inadequate Financial Controls for Trust Funds	<ul style="list-style-type: none"> <li>■ Improve financial controls for trust funds by implementing the capability to accurately track trust fund balances at the case level and reconcile these balances to the financial statements.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to track trust transactions at the case level.</li> <li>■ Integration for financial system.</li> </ul>
Records Management Is Cumbersome and Expensive	<ul style="list-style-type: none"> <li>■ Reduce cost by eliminating manual case files in lieu of electronic files.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to store case information including related documents.</li> <li>■ Ability to archive and destroy cases according to pre-defined business rules.</li> </ul>
Difficult to Track When to Disposition Exhibits	<ul style="list-style-type: none"> <li>■ Reduce storage space for exhibits by implementing ability to track when exhibits can be dispositioned.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to store information on exhibits.</li> <li>■ Ability to identify when exhibits can be dispositioned.</li> </ul>
Insufficiently Robust Revenue Distribution Systems	<ul style="list-style-type: none"> <li>■ Improve accuracy of revenue distribution by implementing flexible system that can be rapidly adapted to changing revenue distribution rules.</li> </ul>	<ul style="list-style-type: none"> <li>■ Ability to configure business rules that enable the revenue distribution to be configured by time, location, law enforcement agency and violation.</li> </ul>
Difficulty Responding to Requests for Court Statistics	<ul style="list-style-type: none"> <li>■ Improve ability to respond to external requests for statistical information by providing State-wide repository of court information.</li> </ul>	<ul style="list-style-type: none"> <li>■ State-wide repository of detailed case information.</li> <li>■ Ad hoc reporting capability.</li> </ul>

# CCMS Review

## **Attachment C - Independent Verification, Validation and Oversight Report**

# **The Judicial Council of California, Administrative Office of the Courts**

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Independent Project Oversight (IPO) and  
Independent Verification and Validation (IV&V)  
For the CCMS-V4 Development Project

**Status Report as of February 28, 2010**



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## Executive Summary

Realizing the importance of independent oversight for high criticality technology projects, the Judicial Council of California, Administrative Office of the Courts (AOC) hired our firm, Sjoberg Evashenk Consulting, Inc. (SEC) to provide Independent Project Oversight (IPO) and Independent Verification and Validation (IV&V) services for the California Case Management System (CCMS)-V4 product currently in development. Working under the oversight of the AOC Internal Audit Services and on behalf of the CCMS Executive Sponsor in the Regional Program Office (RPO), our objectives are to monitor the activities, deliverables, milestones, deadlines, and design of the CCMS-V4 project and communicate status, progress, issues, and challenges to the success of the project as designed. Our monthly IPO/IV&V reports are intended to capture and assess current project activities to determine whether process and procedures employed to build and manage the CCMS-V4 application as planned are followed and adhere to industry standards, as well as that potential risk/issues are known by decision makers at a specific point in time; thus, the monthly items reported are in-flux, continually evolving, and will change over the course of the project.

### Period Highlights:

With the Design and Build phases complete, the CCMS-V4 Project Team activities this month have focused on testing. Integration Testing, PAT planning, and the overall project schedule completion dates are in-flux due to a four-to-six week functional assessment and re-planning effort being conducted by four members of Deloitte's Senior Management Team. The team is comparing the functionality in the Final Functional Design (FFD) to the actual code to determine where gaps might exist. Consequently, the October 8, 2010 completion date is no longer valid. Once the re-planning effort has been completed, a new date will be announced. As of the date this report was written, the AOC and Deloitte were in discussions regarding the re-planning effort for the project. We expect that our findings will be different next month with the finalization of the re-planning effort.

The CCMS-V4 Quality Assurance (QA) Report #8, version 1, was delivered to the AOC on February 26, 2010 for review. Since the QA Report has just been delivered and is undergoing its initial review by the AOC, the IPO/IV&V Team will not formally comment on it in this Monthly IPO/IV&V Status Report. However, the IPO/IV&V Team will review the initial QA Report and provide informal feedback to the AOC on our observations. Once the AOC provides its feedback to Deloitte and the QA Report is revised and accepted by the AOC, the IPO/IV&V Team will formally comment on the revised QA Report.

From the IPO/IV&V Team's analysis of the Integration Test Reports published in eRoom dated 1 February 2010 and 18 February 2010 (the date of the last report published), the reports reflect a drop in the total number of open defects in the 17-day period of 1,493 defects, or approximately 88 defects per calendar day. Yet, the 18 February 2010 report identifies 3,601 open defects—at this rate, it will take 41 calendar days to close all of the reported open defects, assuming no additional defects reported. However, with the current test script clean-up being performed and then the retesting effort, it is unlikely that no new defects will be reported.



## **Detailed Observations, Impact, and Recommendations**

The Southern California Regional Program Office (RPO) staff, AOC staff, individual court staff, and Deloitte Consulting continue to practice solid project management and systems-engineering practices in the identification and resolution of issues, risks, items for management attention, and modification and change requests.

The continued diligence employed by the RPO staff, AOC staff, Court staff, and Deloitte Consulting in addressing issues and following established project management processes has been consistent. As part of our efforts, we offer the following observations and areas of concern.

### **Project Oversight Focus Areas**

#### **Communication Management:**

There do not appear to be any current communication concerns noted by the CCMS-V4 Project Team or the IPO/IV&V Team.

#### **Schedule Management:**

The IPO/IV&V Team does not anticipate the schedule becoming any less aggressive for the duration of the project. Four Deloitte Senior Management staff have recently joined the project to partner with Kevin Kelly, Jon Guarena, Ron Dostal, and Bruce Scheffel in an assessment and re-planning effort. The team is currently comparing the Final Functional Design (FFD) to the actual code to determine where gaps exist. Both the AOC and Deloitte agree that a re-planning effort is warranted and that it makes sense to create a true plan rather than adjust the end date of the contract periodically. Consequently, the October 8, 2010 completion date is no longer valid. Once the re-planning effort has been completed, a new date will be announced.

#### **Scope Management:**

Scope management items raised by the CCMS-V4 Project Team are being actively managed through eRoom.

#### **Risk Management:**

During the month of February, one new risk was identified (Risk 39- Large Number of Integration Testing Defects) by the CCMS-V4 Project Team. As of February 28, 2010, the risks identified below by the CCMS-V4 Project Team remain active.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
27	SME Testing Staffing Plan	The AOC/Court testing resources are not adequate to execute testing. This is an accepted risk and will continue to be monitored on a weekly basis. At this time, no mitigation actions are required.	03-29-10
35	CCMS-V3 Resources	There is an ongoing effort to combine V3 and V4 project schedules to evaluate staffing needs. This is an accepted risk and will continue to be monitored on a weekly basis. At this time, no mitigation actions are required.	10-08-10
37	Justice Partner Readiness	Reference Implementation constraint schemas have been published. This is an accepted risk and will continue to be monitored on a weekly basis. At this time, no mitigation actions are required.	03-29-10
38	System Response Time Matrix	An alternative strategy for resolving the disagreements surrounding this deliverable is now being introduced. AOC/Court review is needed to gain further information regarding the desired response times for the many transactions detailed in the plan.	03-29-10
39	Large Number of Integration Testing Defects	A test script cleanup effort is underway in order to reduce the number of defects and to improve overall product quality. Deloitte is working with the AOC to re-plan the effort, finalize the schedule, and update contract documentation.	03-12-10

The following risk was closed during February 2010.

Issue Number	Issue Title	Resolution
34	CCMS-V4 & ISB TIBCO Versions	No significant issues have arisen regarding the differing version of TIBCO. Consequently, the PM group closed this risk.

**Issue Management:**

As of February 28, 2010, there were no open issues being tracked by the CCMS-V4 Project Team.

**Resource Management:**

All parties continue to be concerned that the CCMS-V4 Project requires more resources to complete the product Development and Testing phases. The AOC and the courts have accepted this risk and are monitoring it on a weekly basis.

**Cost Management:**

For February, there were no new IPO/IV&V issues with respect to Cost Management that have not already been discussed in previous reports.

**Technical Focus Areas**

**Quality Management:**

The CCMS-V4 Quality Assurance Report #8, version 1, was delivered to the AOC on February 26, 2010 for review. Since the QA Report has just been delivered and is undergoing its initial review by the AOC, the IPO/IV&V Team will not formally comment on it in this Monthly IPO/IV&V Status Report. Concurrently with the AOC, the IPO/IV&V Team will also be reviewing the initial QA Report and provide informal feedback to the AOC on our observations. Once the AOC provides its feedback to Deloitte and the QA Report is revised and accepted by the AOC, the IPO/IV&V Team will then formally comment on our findings with respect to the AOC accepted version of the QA Report.

In the quality management section of our January 2010 Monthly IPO/IV&V Status Report, we noted that the Deloitte QA Observations identified in QA Report #7 were reported as closed in the Monthly CCMS-V4 Development Services Status Report 31; the specific Deloitte Observations were QI01 and QI02. However, as we also reported in that January 2010 Monthly IPO/IV&V Status Report, there was no identification or description of what actions were taken to allow the Observations to be closed. Thus, this remains an open issue for the IPO/IV&V Team and we will be working with the AOC Team to understand the actions taken for each Observation and the process of documenting and closing Observations.

- *The following are IPO/IV&V Team observations based on graphs in the Deloitte QA Report #7. QA Report #8 was delivered in late February 2010 for initial AOC review and our observations will be updated when the final report is delivered and accepted by the AOC. However, at this point, the RPO has rejected QA Report #8 and is awaiting a revised deliverable.*
- **Deloitte's System Test Metrics Graphs:**  
**IPO/IV&V Team Observation:** The System Test metrics for Portals/SWRDW are for managers who need to understand the amount of work that needs to be done. However, the Test Script Pass Rate metric converging to 50% should give some concern because of the high percentage of failures being reported.

**IPO/IV&V Team Observation:** For the System Test metrics for the Core product, it appears that Track 2 may have some problems based on the number of open defects (around 575) when the average for the other tracks is around the 150 level. However, the Track 2 Test Script Pass Rate is similar to the other tracks averaging approximately 76%. Thus, a 76% pass rate with about 575 defects should be investigated because of the high number of reported defects. While Track 2 may be significantly larger than the other tracks, the high volume of defects for the track should be investigated.

- **Deloitte’s Integration Test Metrics Graphs:**

**IPO/IV&V Team Observation:** For the Integration Test metrics for Core Cycle 1, the area with the largest number of open defects was FMI, with approximately 850 defects—next, were the Juvenile and Fiscal areas with approximately 600 open defects each. However, the Integration Test script pass rates for all areas were around 90%. In Cycle 2, Juvenile led with about 160 open defects with Probate and FMI reporting approximately 140 and 135 defects respectively. It’s interesting to note that in Cycle 2, the test script pass rate dropped to about 75%. This may indicate a change in the test script execution process between Cycle 1 to Cycle 2 to still have a lower number of open defects while the pass rate dropped. There is a potential that previously successfully executed tests scripts were not regression tested during Cycle 2 but that is currently unknown.

*The following comments made by Deloitte in their QA Report #7 are unclear and should be investigated by AOC. QA Report #8 was delivered in late February 2010 for initial AOC review and our observations will be updated when the final report is delivered and accepted by the AOC. However, at this point, the RPO has rejected QA Report #8 and is awaiting a revised deliverable.*

- **CMMI Status Report - Measurement and Analysis:**

1. “The Metrics Plan must be updated to more accurately list the metrics collected on the project. The project will revise the plan to identify and delete metrics that are no longer used.”
2. “For every metric detailed in the Metrics Plan, a threshold value must be defined. The current version of the Metrics Plan does not contain several of these thresholds. The project will identify and populate all missing thresholds.”

**IPO/IV&V Team Observation:** All metrics should be associated with a threshold that should then trigger some event if the threshold is breached. Thus, the IPO/IV&V Team believes both the threshold and the event should be defined.

- **CMMI Status Report – Quality Assurance:**

1. “Because Milestone and deliverable based audits are no longer used on the project, the project team will remove those two audits from the QA Plan.”

**IPO/IV&V Team Observation:** Deliverable and milestone based QA Audits are a fundamental aspect of Quality Assurance and Control. If the Audits are truly not needed and quality is assured in some other way, then the other audits should be removed to avoid duplication. However, removing audits just because they are not currently being performed is unacceptable to the IPO/IV&V Team and could materialize as a long-term risk to the project.

- **CMMI Status Report – Technical Solution:**

1. “The Code Review Checklists for CCMS-V4-PRJ03, DWRPT-042, CCMS-V4-EFL22 contain open defects although these checklists were listed as completed. The project will review these checklists and close all open defects.”

**IPO/IV&V Team Observation:** The point of code reviews is to identify issues or potential problems with the code or the code documentation. Without tracking the code review issues to closure, the IPO/IV&V Team believes the value of code reviews is significantly diminished. At this point in time items remain open and the AOC has stated that they will not move from Integration Testing to PAT until the code review findings are resolved.

- **CMMI Status Report – Verification:**

**IPO/IV&V Team Observation:** A positive CMMI note is that Deloitte matched one of the identified concerns under the CMMI Verification section that states “Some of the deliverables are reviewed at high rate of # pages per hour. The project will revise the deliverable review process to allow for more thorough reviews.” Obviously without thorough review of the deliverables, the project exposes itself to a great deal of risk, and potential fault, which will have been agreed to by the project team.

**Quality Architecture:**

There are no open issues with Architecture for the month of February and the Architecture Team with Deloitte, AOC, ISD, and other Court members continues to do a good job of identifying and defining the architecture as well as architectural tradeoffs, raising issues for resolution, and generally creating a solid CCMS-V4 architecture.

**Configuration Management:**

There are no open issues with Configuration Management. Configuration Management for documentation is being well controlled through eRoom and JCC Web Sites that have built-in controls for Configuration Management.

**System Engineering Standards and Practices:**

Since Deloitte Consulting appears to be following currently accepted systems engineering standards and practices, even as defined in IEEE Standard 1220, there are no system engineering standards and practices concerns at this point in time.

**Requirements Identification and Traceability:**

There are no new issues with Requirements Identification and Traceability that have not already been discussed in previous reports.

**Detailed Design Review:**

There are no open issues with the Detailed Design Review that have not already been discussed in previous reports.

**System Development Quality and Progress:**

The completeness of the Architecture Team decisions cannot be verified by the IPO/IV&V Team due to the absence of an Architectural Decision Tradeoff Matrix which would document the options, tradeoffs, decisions, and underlying rationale for the approach taken.

**Testing Practices and Progress:**

The IPO/IV&V Team continues to highlight a potential issue with respect to Court resources necessary to complete PAT. Specifically, there is a major deficiency between the staffing level proposed by Deloitte and what the Courts can provide. The AOC and the courts have accepted this risk and will continue to monitor this risk weekly. As such, the IPO/IV&V Team will monitor and assess the PAT resource efforts as a plan is devised by Deloitte and the AOC.

In a January 7, 2010 email from the AOC to Deloitte, the AOC expressed concern with the script execution problems and defects, the Deloitte testers missing defects, the script defects/Day 0 problems, and the general stability of the system. In this email, the RPO stated that they “would not move from Integration Testing to PAT while the test results from our Court/AOC testers contradict the Deloitte test results.” Since both Deloitte and the SMEs developed, wrote, and reviewed the scripts, this high of an error rate is unusual and may partially indicate that the scripts were not reviewed as thoroughly as needed (especially given the large volume of scripts that had to be reviewed).

The lack of a thorough review may have been due to the tight schedule, the design still being finalized while the scripts were being reviewed, non-availability of Court resources, or various other reasons. While the Integration Test Scripts developed by Deloitte were submitted to the AOC for final review and were accepted prior to the start of Integration Testing, the IPO/IV&V Team still finds more than 1,000 scripts on the JCC site that have a “ready for review” status. At this point, we are uncertain whether those scripts are still awaiting review, or whether they have been reviewed and just not moved from the “ready for review” folder. Many test scripts have been uploaded to Deloitte’s eRoom site over the last few weeks, and the IPO/IV&V Team will follow-up on this area to seek clarification.

To this end, the AOC and Deloitte are jointly working through the Test Script clean-up effort. With approximately 20,000 test scripts (including Data Warehouse and Efiling), the anticipated date for completion of the Test Script clean-up effort is March 12, 2010. As for Release 1.1, the Test Script clean-up effort kicked off 2-1-10 and will take approximately 7 weeks. The IPO/IV&V Team will monitor the status of the Test Script clean-up efforts. Additional data collected after the scripts are cleaned will provide more information that can be assessed by the IPO/IV&V Team on the completeness of testing and the “quality” of the application. In addition, the re-planning effort will change the focus of the IPO/IV&V Team’s review to a review of the Re-Plan which should change the testing efforts for the project and should significantly change next month.

From the IPO/IV&V Team’s analysis of the Integration Test Reports published in eRoom dated 1 February 2010 and 18 February 2010 (which is the date of the last report published), the reports reflect a drop in the total number of open defects in the 17-day period of 1,493 defects. However, the 18 February 2010 report identifies 3,601 open defects—at this rate of approximately 88 closed defects per calendar day, it will take 41 calendar days to close all of the reported open defects, assuming no additional defects reported.

Additionally, out of the total number of defects reported in the 18 February 2010 report, 3,601, there are 1,519 available for retest and 2,024 that are not available for retest; 58 defects are in PM Review. Further, the ratio of the number of defects ready for retest to the total number of open defects in the 18 February 2010 report is 0.42, which is greater than that reported in the 1 February 2010 report which had a ratio of 0.39. This is an indication that the defects are getting resolved for retest, but at a relatively slow rate; at this rate, it will take 74 calendar days to have retests available for all of the defects not available for retest, assuming no more defects are reported. Therefore, while the number of open defects being closed is at a rate of 88 defects per calendar day, the ability to correct the defects and have them available for retest will likely slow down the defect closure rate.

## **Appendix A: Matrix of Areas of Concern (Open)**

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The matrix below provides a current listing of all open areas of concern, our recommendations, and the action taken by the CCMS-V4 Project Team. As items are resolved, they will be moved to Appendix B. Key statistics are summarized below:

- **No new areas of concern were identified this month that are not already being covered in the Project Issues and Risks. The IPO/IV&V Team strongly believes that this project will continue to be a high risk project due to the constraints imposed by the budget, schedule, and resources.**



## Appendix B: Matrix of Areas of Concern (Closed)

The matrix below provides a listing of all closed areas of concern, our recommendations, and the action taken to resolve the issues by the CCMS-V4 Project Team. Key statistics are summarized below:

- **No areas of concern were closed this month.**

Item Number	Area of Concern	Recommendation	Action Taken
Jul07.1	Aggressive schedule	The schedule should be reviewed to ensure that ample time has been allocated to each phase of the project.	<p>09-2007 - No action taken that SEC is aware of.</p> <p>10-2007 – At this point in the project it is difficult to determine if there is ample time allocated to each phase of the project. This item will remain in a watch status (e.g., once Test Planning activities have begun, it will be easier to determine if enough time is allocated to testing activities).</p> <p>11-2007 to 04-2008 – Although 12 weeks were added to the schedule, there is still concern that there is insufficient time allocated to testing. This item will remain in watch status until the Test Plan deliverable has been reviewed by SEC.</p> <p>05-2008 – There is still concern that there is insufficient time allocated to testing. This item will remain in watch status until the Test Plan deliverable has been reviewed by SEC.</p> <p>06-2008 – There is still concern that there is insufficient time allocated to testing. This item will remain in watch status until the Test Plan deliverable has been reviewed by SEC.</p> <p>07-2008 – There is concern that there is not enough time to complete the review of the FFD. In addition, there is concern that there is insufficient time allocated to testing and that test planning has not been fully engaged. This item will remain in watch status.</p>

Item Number	Area of Concern	Recommendation	Action Taken
			<p>08-2008 – 27 additional days were added to the schedule for review of the FFD. It is unknown at this point whether the additional days are sufficient to allow a thorough review and better ensure the highest quality product possible. Moreover, because test planning is slow to start, SEC still has concerns about the time allocated to the testing phase. This item will remain in watch status.</p> <p>09-2008 – It continues to be unknown at this point whether the review timeframe will be sufficient to allow a thorough review. This item will remain in watch status.</p> <p>10-2008 – It continues to be unknown at this point whether the review timeframe will be sufficient to allow a thorough review. This item will remain in watch status.</p> <p>11-2008 – It continues to be unknown at this point whether the review timeframe will be sufficient to allow a thorough review. This item will remain in watch status.</p> <p>12-2008 – It is unclear how the extended review timeframe will impact the overall schedule. This item will remain in watch status.</p> <p>1-2009 – The Core application, Portals, and Statewide Data Warehouse portions of the FFD will be completed by March 30, 2009. The Data Exchanges portion is expected to be completed by April 15, 2009. This item will remain in watch status.</p> <p>2-2009 – All portions of the FFD are on track for completion by March 30, 2009 and April 15, 2009, respectively. This item will remain in watch status.</p> <p>3-2009 – The Portals and Statewide Data Warehouse will be accepted by March 31, 2009. The Core application will be completed by March 31, 2009. Data Exchanges will not be completed until the end of April. This item will remain in watch status.</p>

Item Number	Area of Concern	Recommendation	Action Taken
			<p>4-2009 – The FFD was signed off May 1, 2009. The Data Exchanges are expected to be completed by May 22, 2009.</p> <p>5-2009 – The Data Exchanges are expected to be completed by June 5, 2009.</p> <p>6-2009 – While the IPO/IV&amp;V Team believes the schedule is aggressive and will remain aggressive for the duration of the project adding to project risk, the RPO and AOC have extended the schedule through contract amendments. At this point, the RPO and AOC have accepted the project risk as neither the schedule nor the budget can be changed.</p>
Aug07.1	JAD Schedule	<p>There does not appear to be a comprehensive schedule of JADs so that participants can plan time accordingly. Thus, Deloitte Consulting should prepare a detailed schedule that sets realistic timeframes needed to JAD each functional area and ensure the schedule is agreed to by all relevant parties.</p>	<p>09-2007 – The schedule should be completed in October 2007.</p> <p>10-2007 – A revised schedule was completed in October 2007. While the schedule provides more details than previous versions, it still does not address the detailed planning that must be conducted to ensure coverage of all functional areas and the workflows associated with each.</p> <p>11-2007 to 04-2008 – JAD scheduling has improved to the point that this is no longer an area of concern. Consequently, this item has been closed. Over the past few months, Deloitte Consulting has been diligent in setting and adhering to its JAD schedule. As the project enter the final design stage, participants appear able to plan time accordingly to ensure they are available to participate in tracks as needed and share their subject matter expertise. Meetings were also held to hear concerns that more time was needed to review developing requirements—resulting in more time added to the overall project development schedule.</p>

Item Number	Area of Concern	Recommendation	Action Taken
Sep07.1	Requirements Gathering	Ensure that a detailed JAD schedule includes a plan for how the workflow inter-relationships will be addressed.	<p>10-2007 – While the workflows and interrelationships have not yet been addressed, the AOC has instituted cross-track meetings as part of the JAD process to identify overlapping issues and better ensure consistency across the tracks where requirements are being gathered.</p> <p>11-2007 to 04-2008– The cross-track meetings have proven to be an essential, needed part of the JAD process to identify overlapping issues and better ensure consistency across the tracks where requirements were being gathered. However, to SEC’s knowledge, the workflows and interrelationships have not yet been addressed.</p> <p>05-2008– To SEC’s knowledge, the workflows and interrelationships have not yet been addressed.</p> <p>06-2008 – The AOC has implemented a requirement review process that will be conducted both vertically (within a given subject area) and horizontally (within a business process that crosses subject areas. This step should help address some of our concerns. However, since the final design is nearing completion, there is little value in fully mitigating this concern.</p>

Item Number	Area of Concern	Recommendation	Action Taken
Oct07.1	Project Oversight Activities	Assign person in role of day to day project management responsible for ensuring that issues are resolved timely, do not impact downstream work efforts, and are not in conflict with other project activities, legal provisions, or branch policy.	<p>11-2007 to 04-2008– It was explained that Bob Steiner, the AOC Project Manager, performs these activities and that a Project Management Consultant familiar with V2 and V3, Sean Yingling, will be assigned to assist the Development Project Manager (Bob). This item will remain in watch status over the next month to ensure the activities are being performed.</p> <p>05-2008– SEC will continue to monitor this item until a Responsibility Matrix indicating the project management component responsibilities that are designated to Sean and Bob is developed. The matrix will ensure that no workload gaps exist.</p> <p>06-2008– To date, a Responsibility Matrix has not been provided to SEC for review.</p> <p>07-2008– SEC will work with Bob Steiner and Sean Yingling to better understand the project management responsibilities.</p> <p>08-2008– Bob and Sean have established a seamless working relationship. Bob has ultimate responsibility for all project management activities. Sean’s focus rests with coordinating the FFD review, reporting to the Steering Committee, and following up on issues with the V4 Court Project Managers.</p>
Oct07.2	JAD Session Documentation	Utilize new template or other mechanism to document detailed JAD Session minutes including areas of discussion, results or actions taken, agreements reached, and issues raised as well as distribute timely for approval.	<p>11-2007 to 04-2008 – Starting in mid-April, the JAD tracks created a new template to ensure consistency across JADs for documenting decisions reached and meeting outcomes. However, since it appears that the new template is only used in isolated instances, this item will remain in watch status over the next month.</p> <p>05-2008 – It is not clear whether an AOC CCMS member will be appointed to monitor and summarize decisions made in the JAD sessions and elevate those of potential interest to the Steering Committee, especially those that may require higher level buy-in.</p> <p>06-2008 – Since the final design is nearing completion, there is little value in mitigating this concern.</p>

Item Number	Area of Concern	Recommendation	Action Taken
Oct07.3	Governance Structure and Escalation Process	Clarify and establish the complete governance structure to eliminate confusion related to issue escalation process and decision-making.	<p>11-2007 to 04-2008 – The CCMS Governance Model was distributed to committee members. This item will remain in watch status over the next month to ensure its use.</p> <p>05-2008 – The CCMS Governance Model appears to be in use and effective in allowing participation in project decisions regarding project scope, cost, and schedule.</p>
Apr08.1	Unclear Requirements	<p>Review the requirements to determine the types of clarifications needed for understanding in order to avoid confusion during downstream activities such as coding and preparing for testing.</p> <p>As of our 09-2008 review of the FFD, we have suggested the following additional recommendations:</p> <ol style="list-style-type: none"> <li>1. Identify and evaluate subjective text in FFD (such as may or could) and clarify within the context of use;</li> <li>2. Perform a traceability exercise to link use cases to business rules—again to reduce need for individual interpretation;</li> <li>3. Review business rule part of each section to ensure complete and clear rules have been incorporated into the use case.</li> <li>4. Evaluate pre and post-conditions to ensure they are correct and complete.</li> </ol>	<p>04-2008 – New this month.</p> <p>05-2008 – It is not clear whether action has been taken on this issue.</p> <p>06-2008 – The AOC has implemented a requirement review process that will be conducted both vertically (within a given subject area) and horizontally (within a business process that crosses subject areas). This item will remain in watch status over the next month to review this process.</p> <p>07-2008 – This item remain in watch status until a better understanding can be achieved and SEC evaluates the review process.</p> <p>08-2008 – SEC will assess this item during their review of the FFD deliverable.</p> <p>09-2008 – SEC has begun to assess this item and will continue to evaluate progress during the AOC/Court review of the FFD deliverable.</p> <p>10-2008 – It is not clear whether action has been taken on this issue. This item will remain in watch status.</p> <p>11-2008 – It is not clear whether action has been taken on this issue. This item will remain in watch status.</p> <p>12-2008 – It is not clear whether action has been taken on this issue. This item will remain in watch status.</p> <p>1-2009 – The RPO Management Team is currently developing plans to mitigate the risk, and identify the impact on the current planned testing effort (more resources or extended duration), as well as the impacts</p>

Item Number	Area of Concern	Recommendation	Action Taken
			<p>to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain in watch status.</p> <p>2-2009 – The RPO Management Team continues to mitigate the risk, and identify the impact on the current planned testing effort (more resources or extended duration), as well as the impacts to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain in watch status.</p> <p>3-2009 – The RPO Management Team continues to discuss the risk, and identify the impact on the current planned testing effort (more resources or extended duration), as well as the impacts to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain in watch status.</p> <p>4-2009 – An updated resource schedule is being developed that will forecast resource needs between now and the beginning integration testing. This item will remain in watch status.</p> <p>5-2009 – An estimate of the number of Court SMEs needed for testing has been provided. However, more SMEs with Family and Juvenile expertise will be needed. This item will remain in watch status.</p> <p>6-2009 – The IPO/IV&amp;V Team has continued to express their concern that the ambiguity surrounding the interpretation of final requirements presents a risk to the construction and testing phases of the project. Data is being captured by the AOC Software Quality Assurance Team during early testing that should assist in defining the extent of the problem and any future concerns will be raised as part of the testing assessment.</p>

Item Number	Area of Concern	Recommendation	Action Taken
Dec08.1	Standardization and Configuration	It is not clear what impact the Standardization and Configuration requirements will have on the FFD and on long-term maintenance of the application. Once all Standardization and Configuration requirements have been defined, the requirements should be traced back into the FFD and reviewed again.	<p>12-2008 – New this month.</p> <p>1-2009 – In the month of January, a Court Executive Management work group was established to address the concerns surrounding the standardization and configuration requirements.</p> <p>2-2009 – The RPO Management Team reported that the Standards and Configuration Management Group will determine whether configurable items are statewide standards or local configurations and that these decisions will not impact the FFD.</p>
Dec08.2	Single Point of Contact for ISD	A single point of contact should be established for AOC that can track and manage daily progress on ISD-related activities	<p>12-2008 – New this month.</p> <p>1-2009 – It is not clear where the roles and responsibilities are documented and whether David Corral, selected as the single point of contact, has the authority to make decisions on behalf of ISD. Virginia Sanders-Hinds will work with IPO/IV&amp;V to better understand the ISD roles and responsibilities within the project.</p> <p>2-2009 – It was clarified that Virginia Sanders-Hinds is the single point of contact with the authority to make decisions on behalf of ISD.</p>
Mar09.1	Justice Partners (Interfaces) Plan	Determine the state and progress of the common “State” interfaces which are currently being reviewed by the Justice Partners and assess the progress for project schedule impact.	<p>4-2009 – The “State” interfaces are being addressed with the Justice Partners. ISD has stated that the schedule impact will be evaluated once the Data Exchanges deliverable has been signed off and the actual interfaces have been finalized and agreed to. This item will remain in watch status.</p> <p>5-2009 – The “State” interfaces are being addressed with the Justice Partners at both the State and local levels. ISD has stated that the schedule impact will be evaluated once the Data Exchanges deliverable has been signed off (now anticipated for 6-5-09) and the actual interfaces have been finalized and agreed to. This item will remain in watch status.</p>



Item Number	Area of Concern	Recommendation	Action Taken
			<p>6-2009 – The “Statewide” interfaces are being addressed with the Justice Partners.                      – A plan has been defined for day-one critical exchanges and each Justice Partner will be given a Microsoft Project Plan to follow. The AOC will continue to work closely with each Justice Partner to anticipate any potential challenges. However, it is not clear if and when the Justice Partners will participate in PAT. This item will remain in watch status.</p> <p>7-2009 - The CCMS-V4 Project Team has clarified that the Statewide Justice Partners will participate in PAT. This item will be closed out.</p>
Mar09.2	Document Management Plan	Determine the state and progress of the agnostic “generic” interface to support any existing document management solution and assess the progress for project schedule impact.	<p>4-2009 – The “generic” interface is currently under development. This item will remain in watch status. The RPO Management Team has stated that the requirements for document management were gathered during design and have been signed off. The AOC is in the process of standardizing the document management interface for all courts but is unsure whether this effort will be complete prior to Go Live for CCMS-V4. This item will remain in watch status.</p> <p>5-2009 – The “generic” interface is currently under development. This item will remain in watch status.</p> <p>6-2009 – The “generic” interface is currently under development and will have a solution that supports the courts at Go Live. Currently, the early adopter court uses FileNet and is scheduled to test this interface during PAT. For each of the remaining Courts, the agnostic “generic” document management interface will be finalized, if needed, during the deployment effort. This item will remain in watch status.</p> <p>7-2009 – The CCMS-V4 Project Team has clarified that the Lead Courts which use FileNet are scheduled to test this interface during PAT. This item will be closed out.</p>

## **Appendix C: Project Oversight Review Checklist**

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To assist us in determining whether the CCMS-V4 project is on track to be completed within the estimated schedule and cost, the Project Oversight Review Checklist is used to identify and quantify any issues and risks affecting these project components.

The checklist format provides a quick reference for the assessment of the project management practices and processes in place over the CCMS-V4 project and will assess the adequacy or deficiency of the area. Further, the checklist may provide comments on the specific items reviewed, interviews conducted, and general practices observed for requirements presented under the five categories identified below. These requirements are consistent with industry standards and accepted best practices such as the Project Management Institute (PMI)'s Project Management Body of Knowledge (PMBOK) and the Institute of Electrical and Electronic Engineers (IEEE) standards. Use of these checklists will assist us in commenting on the effectiveness of the project activities.

- Planning and Tracking
- Procurement
- Risk Management
- Communication
- System Engineering

*No updates were made to the Project Oversight Review Checklist this month.*

## Project Oversight Review Checklist

Practices and Products	Practice in Use	Practice Not in Use *	Notes:
<b>Planning and Tracking</b>			
Have the business case, project goals, objectives, expected outcomes, key stakeholders, and sponsor(s) identified and documented?	X		The business case has been finalized. The project goals, objectives, and expected outcomes are documented in the Deloitte Consulting Statement of Work. The key stakeholders and sponsors are identified and documented in the Project Management Plan for CCMS-V4.
Has a detailed project plan with all activities (tasks), milestones, dates, and estimated hours by task loaded into project management (PM) software? Are the lowest level tasks of a short duration with measurable outcomes?	X		The project plan that has been approved is loaded into Microsoft Project. Deloitte Consulting will update the schedule with construction and testing details after the requirements are complete.
Is completion of planned tasks recorded within the PM software?	X		Completion of milestones are tracked within Microsoft Project.
Are actual hours expended by task recorded at least monthly within PM software?		X	Actual hours for Deloitte Consulting staff are tracked weekly within Playbook Navigator, but are not shared with the AOC as this is a fixed price development contract. The AOC has historically not tracked this information.
Are estimated hours to complete by task recorded at least monthly within PM software?		X	Estimated hours to complete for Deloitte Consulting staff are tracked weekly but are not shared with the AOC as this is a fixed-price development contract. Any deviations occurring to planned dates are discussed at an internal weekly meeting between AOC and Deloitte Consulting.
Is there a formal staffing plan, including a current organization chart, written roles and responsibilities, plans for staff acquisition, schedule for arrival and departure of specific staff, and staff training plans?	X		There is a formal staffing plan for Deloitte Leads that is shared with the AOC. Deloitte Consulting tracks internal project staffing with respect to acquisition, schedule for arrival and departure of specific staff, and staff training plans. The AOC does not currently have a CCMS-V4 Staffing Plan; staff are allocated at the CCMS level and not at the specific project level.
Have project cost estimates, with supporting data for each cost category, been maintained?	X		While development costs are tracked internally by Deloitte Consulting, they are not shared with the AOC since this is a fixed-price development contract. The AOC tracks the project budget, monies encumbered, and monies expended to date in an Access database.
Are software size estimates developed and tracked?	X		Deloitte Consulting has included estimates for Final Design, Final Construction, Testing, and Conversion.
Are two or more estimation approaches used to refine estimates?	X		A Bottom Up estimate is performed by the Deloitte Consulting Project Manager and a Top Down estimate is performed by the Lead.
Are independent reviews of estimates conducted?	X		There are multiple internal reviewers consisting of Deloitte Consulting, AOC, and Court staff.
Are actual costs recorded and regularly compared to budgeted costs?	X		Development costs are tracked internally by Deloitte Consulting and not shared with the AOC since this is a fixed-price development contract. Currently, AOC costs are tracked at the overall CCMS level. At this point, a daily (or on-demand) Access database report can be printed showing project budget, monies encumbered, monies expended to date, and monies forecasted to be spent.

\* Either the practice is not in use or there is insufficient information for SEC to verify its use.

Practices and Products	Practice in Use	Practice Not in Use *	Notes:
<b>Planning and Tracking</b>			
Is supporting data maintained for actual costs?	X		Development costs are tracked internally by Deloitte Consulting and not shared with the AOC since this is a fixed-price development contract. Yet, the RPO has invoice level data to support its actual cost data tracked in its Access database.
Is completion status of work plan activities, deliverables, and milestones recorded, compared to schedule and included in a written status reporting process?	X		This information is reported weekly, monthly, and quarterly.
Are key specification documents (e.g. contracts, requirement specifications and/or contract deliverables) and software products under formal configuration control, with items to be controlled and specific staff roles and responsibilities for configuration management identified in a configuration mgmt plan?	X		The CCMS-V4 Configuration Management Plan outlines the process and procedures followed for Configuration Management.
Are issues/problems and their resolution (including assignment of specific staff responsibility for issue resolution and specific deadlines for completion of resolution activities), formally tracked?	X		This information is tracked in eRoom and in the weekly, monthly, and quarterly status reports.
Is user satisfaction assessed at key project milestones?		X	Deloitte Consulting has stated that user satisfaction is assessed at key project milestones in the form of deliverable review. All deliverable comments are logged, reviewed, and categorized to indicate if a response is needed. According to Deloitte Consulting, all defects or other comments that require a response are addressed and tracked through closure. Other validation processes include proof of concepts, UI prototypes, design sessions, design council sessions, and cross track meetings. As such, Deloitte Consulting believes that acceptance of the deliverable is evidence of user satisfaction. While there are no satisfaction surveys used or assessments performed at key project milestones, the AOC agrees that there are several opportunities to talk through and resolve deliverable disagreements on a case by case basis.
Is planning in compliance with formal standards or a system development life-cycle (SDLC) methodology?	X		Planning is in compliance with a formal system development life-cycle (SDLC) methodology.
Is there a formal enterprise architecture in place?		X	The CCMS-V3 architecture will be updated to support CCMS-V4. At this point in time, the AOC does not have an enterprise architecture. However, the AOC Enterprise Architect is actively involved in the project. SEC will be investigating the AOC enterprise architecture further as the project progresses.
Are project closeout activities performed, including a PIER, collection and archiving up-to-date project records and identification of lessons learned?	X		Project Closeout activities are planned to occur and we will evaluate and comment whether the planned activities occurred at the project closeout. In the interim, Lessons Learned sessions are being conducted at various project phases to identify possible process improvements.

\* Either the practice is not in use or there is insufficient information for SEC to verify its use.

Practices and Products	Practice in Use	Practice Not in Use *	Notes:
<b>Procurement</b>			
Are appropriate procurement vehicles selected (e.g. CMAS, MSA, "alternative procurement") and their required processes followed?	X		The AOC has stated that they adhere to Policy Number AOC 7.2.1 (Procurement of Goods and Services) which is overseen by Grant Walker in the Business Services Unit. The initial procurement phase was complete prior to the point that SEC was brought into the project. Thus, we did not review or evaluate the procurement vehicle.
Is a detailed written scope of work for all services included in solicitation documents?	X		The AOC has stated that they adhere to Policy Number AOC 7.2.1 (Procurement of Goods and Services) which is overseen by Grant Walker in the Business Services Unit. The initial procurement phase was complete prior to the point that SEC was brought into the project. Thus, we did not review or evaluate the procurement vehicle.
Are detailed requirement specifications included in solicitation documents?	X		Detailed requirements were included in Exhibit B of the Statement of Work. These will be expanded upon during Detailed Design. Thus, we will review or evaluate those requirements when developed.
Is there material participation of outside expertise (e.g. DGS, Departmental specialists, consultants) in procurement planning and execution?	X		The procurement phase was complete prior to the point that SEC was brought into the project. Thus, we did not review or evaluate the procurement vehicle. For ongoing SOWs, independent third-party vendors are used to review and recommend procurement planning and execution practices.
For large-scale outsourcing, is qualified legal counsel obtained?	X		The procurement phase was complete prior to the point that SEC was brought into the project. Thus, we did not review or evaluate the procurement vehicle. The AOC utilized outside council for the V4 Development Contract.
<b>Risk Management</b>			
Is formal continuous risk management performed, including development of a written risk management plan, identification, analysis, mitigation and escalation of risks in accordance with DOF/TOSU Guidelines, and regular management team review of risks and mitigation progress performed?	X		The Risk Management Plan contains the process and procedures for risk. Risks are tracked within eRoom and are discussed during the weekly and monthly status meetings. In addition, the Deloitte Consulting Project Manager meets with the CCMS Product Director weekly to discuss risks.
Does the management team review risks and mitigation progress at least monthly?	X		The management team reviews risks at weekly and monthly status meetings.
Are externally developed risk identification aids used, such as the SEI "Taxonomy Based Questionnaire?"		X	Additional risk identification aids are internal to Deloitte Consulting and are not shared with the AOC. The AOC is not using any other risk identification aids.
<b>Communication</b>			
Is there a written project communications plan?	X		This information is contained in the CCMS-V4 Communication Management Plan.
Are regular written status reports prepared and provided to the project manager, department CIO (if applicable) and other key stakeholders?	X		Written weekly, monthly, and quarterly status reports are prepared and discussed with the project management team as well as the Steering Committee/Oversight Committee. In addition, there are executive meetings held to brief the Lead Court CIOs.

\* Either the practice is not in use or there is insufficient information for SEC to verify its use.

Practices and Products	Practice in Use	Practice Not in Use *	Notes:
<b>Communication</b>			
Are there written escalation policies for issues and risks?	X		This CCMS-V4 Project Management documentation contains this information.
Is there regular stakeholder involvement in major project decisions, issue resolution and risk mitigation?	X		The Product Management Group has primary responsibility for working through the issues and risks. Additionally, issues and status are shared with lead court information officers, court executive officers at bi-weekly steering committee meetings as well as with selected presiding judges at the quarterly oversight committee meetings. The RPO is also working diligently to seek input and have stakeholders assume an active ownership role in the development process.
<b>System Engineering</b>			
Are users involved throughout the project, especially in requirements specification and testing?	X		AOC and Court staff are planned to be involved from requirements gathering through testing and into implementation.
Do users formally approve/sign-off on written specifications?	X		The requirements will be approved by the AOC and Court staff.
Is a software product used to assist in managing requirements? Is there tracking of requirements traceability through all life-cycle phases?	X		The RPO Management Team has reported that Deloitte Consulting is using Clear Quest and Clear Case to manage defects and Rational Requisite Pro to track requirements.
Do software engineering standards exist and are they followed?	X		This CCMS-V4 development standards documentation has been reviewed by SEC and found to be adequate.
Is a formal system development life-cycle (SDLC) methodology followed?		X	Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed. CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that: <ul style="list-style-type: none"> <li>• Technical processes are defined in writing;</li> <li>• Project roles are clearly defined;</li> <li>• Staff are trained in standard methods and process activities before they are assigned to roles; and</li> <li>• Technical management activities are guided by defined processes.</li> </ul> It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.
Does product defect tracking begin no later than requirements specifications?	X		Product defect tracking occurs during deliverable review. Users submit defects by entering comments in the deliverable. Each defect is tracked to closure within the deliverable. Any corresponding response is attached to the original defect in the body of the deliverable. Before approval of the deliverable, the AOC confirms that all defects have been appropriately addressed.

\* Either the practice is not in use or there is insufficient information for SEC to verify its use.

Practices and Products	Practice in Use	Practice Not in Use *	Notes:
<b>System Engineering</b>			
Are formal code reviews conducted?		X	Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues identified through the JCART execution have to be resolved before the code can be included in the build. Additionally, manual code reviews are conducted by the Architecture Leads (Technical Analysts, Development Leads and the Framework Team). Code review checklists are created and stored in ClearCase. Deloitte should implement a process for ensuring that the coding standards are adhered to as opposed to the AOC assessing the compliance after completion.
Are formal quality assurance procedures followed consistently?	X		The quality assurance documentation was updated to include CCMS-V4. As more QA related data is collected and reported by Deloitte Consulting, the IPO/IV&V Team will be reviewing these reports to assess how data is represented in the reports—such as through metrics—and identify issues with processes if the metrics indicate negative trends.
Do users sign-off on acceptance test results before a new system or changes are put into production?		X	AOC and the Court staff will sign-off on acceptance test results. Acceptance criteria have been established as 0 Severity-1 incidents, 0 Severity-2 incidents, and not more than 50 Severity-3 incidents.
Is the enterprise architecture plan adhered to?		X	The CCMS-V3 architecture will be updated to support CCMS-V4. At this point, the AOC does not have an enterprise architecture. However, the AOC Enterprise Architect is actively involved in the project.
Are formal deliverable inspections performed, beginning with requirements specifications?	X		All deliverables are approved by the AOC and Court staff.
Are IV&V services obtained and used?	X		SEC has been hired to perform IV&V.

\* Either the practice is not in use or there is insufficient information for SEC to verify its use.

## Appendix D: IPO/IV&V Project Scorecard

For February 1, 2010 – February 28, 2010 Time Period

Process Area	SEP 2009	OCT 2009	NOV 2009	DEC 2009	JAN 2010	FEB 2010	REMARKS
Communication Management							Day-to-day communication continues to be strong.
Schedule Management							The schedule remains aggressive.
Scope Management							Project scope is managed and controlled through a variety of avenues.
Risk Management							Risks are reported, discussed, and managed on a weekly basis.
Issue Management							Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management							AOC and Deloitte project resources appear to be insufficient during testing.
Cost Management							ISD costs and RPO costs are maintained in separate databases and there is no effort to combine these in the near future.
Quality Management (Client Functionality)							We are unable to conclude on the quality of the client functionality due to the absence System test defect data related to Deloitte's execution of the System Test scripts.
Quality Architecture							Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management							CM, for documentation, is being well controlled through the eRoom and JCC web sites that have built-in controls for CM.
System Engineering Standards and Practices							Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability							The IPO/IV&V Team has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review							The Technical Design documentation was delivered to the RPO but is an artifact and not a deliverable and therefore, the Detailed Design cannot be assessed.
System Development Quality and Progress							The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress							Testing continues to be a concern.

	Green – On Track
	Yellow – Warning
	Red – Significant Problems
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## **Appendix E: IPO/IV&V Background, Scope, and Methodology**

The California Case Management System (CCMS) is a statewide initiative to bring the courts together to use one application for all case types. CCMS is managed by the Administrative Office of the Courts (AOC) Southern Regional Office (SRO) in Burbank with the participation of the AOC Information Services Division and superior courts in the planning, design, and development sessions. Over the next 2 years, the AOC plans to expand the functionality of the current interim CCMS applications and develop the next phase—CCMS-V4—that will include family law, juvenile dependency, and juvenile delinquency case types as well as incorporate the V2 and V3 products and update the system’s technical architecture and environments. Toward this end, the AOC has executed a contract with Deloitte Consulting to design and develop the V4 component—yet, the success of the V4 Project relies on every party working in harmony toward common goals.

### **Background:**

For all high criticality technology projects such as CCMS-V4, industry best practices strongly encourage independent oversight. Ideally, the independent project oversight process begins during the feasibility study and continues through project closeout. Deficiencies, issues, findings, and recommendations identified by the oversight process should be incorporated into the appropriate project management processes. As the project progresses, the independent review and assessment approach should track the disposition of findings and recommendations in terms of corrective action and implementation of oversight recommendations.

An Independent Project Oversight (IPO) effort is intended to audit system development, acquisition, and maintenance controls to assure a structured project management methodology is adhered to and managed through activities such as project scheduling, risk management, and change management. A primary goal is to provide impartial oversight of the responsibilities and activities of the project office. Similarly, the Independent Verification and Validation (IV&V) provides unbiased oversight of the technical deliverables such as program code, test scripts and results, and network configurations and processes used to create the product. It is intended to evaluate products against system requirements and whether processes used follow the intended life cycle methodology.

However, these efforts are not designed to guarantee success of the CCMS-V4 application nor will the IPO/IV&V efforts ensure the completeness of business requirements designed by the CCMS-V4 team or the ability of the end system functionality of the application built to meet court needs statewide.

## Appendix E: Continued

### Scope and Methodology

In July 2007, the Judicial Council of California, Administrative Office of the Courts (AOC) hired our firm, Sjoberg Evashenk Consulting, Inc. (SEC) to provide Independent Project Oversight (IPO) and Independent Verification and Validation (IV&V) Services over the California Case Management System (CCMS) V4 product currently in development. Working under the oversight of the AOC Internal Audit Services and on behalf of the Regional Administrative Director and CCMS Product Director at the Southern Regional Office (SRO), our objectives are to monitor the services, deliverables, milestones, deadlines, and functionality of the CCMS-V4 project and communicate status, progress, issues, and potential challenges to the success of the project as designed. The IPO/IV&V efforts are designed to give assurance, from an independent and unbiased perspective, that the process and procedures employed to build and manage the CCMS-V4 application as planned are followed and adhere to industry standards as well as that potential risks and issues are known by project decision makers. The IPO/IV&V effort cannot require change, but any identified and reported findings and results should be considered by the project sponsors.

To provide appropriate and independent review, analysis, and oversight on the CCMS-V4 project, SEC will generally provide monitoring efforts from July 2007 through June 30, 2010 relative to the following areas:

- Project management and System Development Life Cycle (SDLC) processes, procedures, and communication
- Adherence to schedule
- Techniques and processes employed for risk management, issue management, and communication strategies
- Requirements gathering as part of JAD Sessions
- Completeness of Functional Design and Technical Design
- Traceability of requirements from one SDLC phase to the next
- Testing techniques and processes employed
- Compliance with project management and technical contract requirements

However, the IPO/IV&V efforts will not review or address the completeness of the business requirements being developed cooperatively by Deloitte Consulting, SRO staff, and court Subject Matter Experts (SMEs) as part of functional design joint application development (JAD) sessions. While business requirements will be reviewed from a technical perspective to assess whether they contain sufficient levels of specificity to ensure proper coding and end-user functionality as planned, SEC cannot ensure that all critical business processes and steps are appropriately captured in the business requirements to meet court needs.

## Appendix E: Continued

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Additionally, our efforts do not address the management surrounding the application developer's budget. Because the AOC awarded Deloitte Consulting a fixed-price contract, a time and material type review and analysis is not warranted in this situation.

Moreover, to provide appropriate and independent review, analysis, and oversight over the CCMS-V4 project, the following parameters need to be met in allowing SEC to perform activities unimpeded:

- Understanding/agreement by all project participants on our independent role and importance of timely information sharing and meeting scheduling;
- Inclusion as a seamless member of the project team;
- Timely knowledge of and inclusion in all project meetings;
- Commitment from all project participants to attend meetings scheduled with the IPOC/IV&V;
- Unfiltered access to all documents, data, deliverables, and personnel deemed relevant by the IPOC/IV&V Team; and
- Full disclosure of project knowledge including items such as project issues, risks, change requests.

If there are challenges in adhering to those parameters, we will escalate our issues and/or concerns to the Internal Audit Services Manager, CCMS Product Director, RAD, CCMS Steering Committee, and CCMS Oversight Committee as necessary or appropriate. Working in conjunction and coordination with the AOC's Internal Audit Services to complete this Statement of Work, we will perform the following tasks:

### IPO Specific Tasks

- Conduct meetings, as needed, with key project staff to obtain first-hand information as to the objectives of the project, identify the key players and their roles, and the interrelationship and communication structure between all parties as well as review documents such as organization charts and governance structure.
- Attend meetings, as needed, key court/AOC and vendor personnel to obtain information on their responsibilities, objectives, communications, and schedules.
- Conduct observations, on-going interviews, and document examinations to monitor meeting timelines, deliverables, and milestones as described in the schedule.
- Review project planning/management deliverables and documentation to comment on compliance with industry best practices and adherence to documented project processes
- Perform initial assessment of Project Management processes and documents (project management plan, communication plan, change management plan, implementation plan, etc).

## Appendix E: Continued

- Participate in certain critical requirements gathering and physical design sessions (JAD sessions) as deemed necessary or at the direction of the Internal Audit Services Manager to provide expertise courtroom operations (family law, criminal, and traffic), finance, distributions, and audit as well as on the V2 and V3 retrofit and validate processes are being followed.
- Provide an Implementation Strategy Review. This review would consist of an analysis of the implementation approach and the action plan for accomplishing implementation.

### IV&V Specific Tasks

- Review Requirement Traceability and Contract at end of Functional Design, Technical Design, and Test Preparation.
- Provide a Functional Design and Requirements Traceability Review. The Functional Design review would consist of an analysis of the Functional Design Specification to assess the readability, consistency, and testability of the design. The Functional Design review will identify issues such as non- testable requirements, vague requirements, requirements that are in conflict or not consistent with each other, etc. The Requirements Traceability review will ensure that all of the contractual requirements have been addressed and are accounted for.
- Provide a Technical (software) Design and Requirements Traceability Review. The Technical Design review would consist of an analysis of the Technical Design Specification to assess the readability, consistency, and testability of the technical design as well as identification of any potential weaknesses in the design. The Technical Design review will identify where the Technical Design may be in conflict with the Functional Design. The Requirements Traceability review will ensure that the design has addressed all of the functional requirements.
- Provide a Test Methodology and Requirements Traceability Review. The Test Methodology review would consist of an analysis of the Test Methodology and a sampling of test scripts which will be traced to the requirements and to the design specification as well as reviewing the data elements necessary for the scripts. The Requirements Traceability Review will ensure that all of the test cases/scripts have been developed to test the design and the functional requirements.
- Review a statistically valid sample of source code (coded based on requirements documented in JAD sessions). Approximately 40 modules will be reviewed which would provide early feedback on compliance to coding standards and comparisons to the design requirements.

## Appendix E: Continued

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- Review a statistically valid sample of test scripts (unit, integration, system, user acceptance, product acceptance) for compliance with requirements from both a technical perspective and from a court operations perspective (testing enough scenarios/scripts covering critical and most frequent business cases both on a positive/ideal flow and on an exception basis).

### IPO/IV&V Combined Tasks

- Assess Systems Development Life Cycle (SDLC) practices to comment on compliance with industry best practices and adherence to documented project processes.
- Review agreed-upon vendor deliverables including, but not limited to Functional Design, Technical Design, Test Methodology, Implementation Strategy, V2 Requirements and V3 Requirements, to comment on compliance with Deliverable Expectations Document (DED).
- Identify and assess any new or ongoing challenges, barriers, risks, or issues.
- Attend meetings, as needed, where deliverables, strategies, timelines, and status are being considered.
- Maintain a log tracking IPO/IV&V issues that delineates any challenges, barriers, risks, issues, defects, milestones changed or missed, and observations warranting discussion and monitoring; monitor the resolution of such issues; document the resolution and closure of each matter.
- Conduct bi-weekly briefings with the RAD and designated Project Manager(s) discussing all previous work and any updates or new developments.
- Compile the results of the IPO/IV&V monitoring efforts in writing. In addition to compliance issues, the report will also contain any other significant findings, conclusions, and recommendations including the identification of risks, lessons learned, best practices, or performance exceeding minimum requirements as well as comment on severity or criticality and impact or consequence of items discussed.
- Ascertain and report on follow-up efforts taken on corrective actions needed and implementation of oversight recommendations.
- Provide reports to the RAD and designated Project Manager(s) on a monthly basis, or more frequent if necessary, based on project stage criticality.

## **Appendix F: SEC Activities - Performed & Planned**

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During February, SEC performed the following activities:

- Monitored QA Metrics;
- Monitored Integration Testing;
- Attended weekly and monthly Project Management Meetings as well as participated in CCMS-V4 IPO/IVV Project Meetings;
- Performed analysis of areas in the Project Oversight Review Checklist Appendix C;
- Identified and tracked potential risks, observations, and issues as well as discussed and prepared monthly IPO/IV&V written status reports.

### **Planned SEC Activities for March 2010**

SEC plans to conduct the following activities over the next month:

- Attend, observe, and participate in a variety of CCMS-V4 meetings including weekly Project Management Meetings, monthly Project Management Meeting, monthly RPO Management Meeting, monthly ISD Meeting, bi-weekly Steering Committee Meetings, weekly Technical Architecture Meetings, CIO Meetings, and monthly IPO/IVV Project Meeting;
- Review technical documents prepared and discussed at weekly meetings as well as other documents distributed as part of weekly and monthly meetings;
- Continue review and comment on the Testing Documentation in terms of sufficiency of detail including implementation of integration test plan and PAT plan;
- Monitor results of product testing in terms of progress in script executions, frequency and severity of defects identified, and resolution of defects.
- Prepare monthly IPO/IV&V status report that identifies and tracks new risks or issues as well as accomplishments and review prior issue resolution.