

The Judicial Council of California, Administrative Office of the Courts

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

Status Report as of September 30, 2009



455 Capitol Mall•Suite 700•Sacramento, California•95814•Tel 916.443.1300•Fax 916.443.1350

Table of Contents

Executive Summary	1
Detailed Observations, Impact, and Recommendations	2
Project Oversight Focus Areas.....	2
Technical Focus Areas	5
Appendix A: Matrix of Areas of Concern (Open).....	9
Appendix B: Matrix of Areas of Concern (Closed)	10
Appendix C: Project Oversight Review Checklist.....	19
Appendix D: IPO/IV&V Project Scorecard	25
Appendix E: IPO/IV&V Background, Scope, and Methodology.....	26
Appendix F: SEC Activities - Performed & Planned.....	31

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 risks and issues are known by project 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:

During September, the IPO/IV&V Team reviewed testing documentation and continued to meet with key CCMS-V4 Project Team members to discuss areas of observation, concern, or interest. Specifically, we highlight the following:

- The IPO/IV&V Team was able to verify the traceability of the Final Functional Design Use Cases to the System Test scripts for a sample set of System Test scripts provided by the Deloitte vendor on the CCMS-V4 Project Team that addressed a past concern raised by the IPO/IV&V Team. However, the IPO/IV&V Team cannot confirm that these scripts were actually executed during System Testing or that every Use Case traced to a System Test script.
- During the month of October, the IPO/IV&V Team will review the testing effort and the results of the QA Code Analysis Trend Reports.
- With less than a year remaining on development of the CCMS-V4 product before product acceptance (anticipated for September 2010), the IPO/IV&V Team has started developing an interim final report summarizing the observations and areas of concern documented during the first two major phases of the project—namely, the Requirements Analysis and Design phases—that have been completed. As of September 2009, the remaining two phases to be completed are Development (including construction (build/coding), testing, and acceptance) and Implementation (Deployment). Since the CCMS-V4 Project Team does not plan to use the IPO/IV&V Team in Deployment, we will submit our final report including the Development phase after product acceptance (anticipated for September 2010).

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.

While IPO/IV&V has concerns with the requirements gathering process used and the testing of those requirements, 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. With the overall health of the project continuing to be mixed, we have some observations to share that better align CCMS-V4 activities with industry best practices and protocols as well as have identified some concerns that we will continue to track.

Project Oversight Focus Areas

Communication Management:

Communication continues to be strong within the CCMS-V4 Project Team and there does not appear to be any current communication concerns noted by the CCMS-V4 Project Team.

Schedule Management:

The IPO/IV&V Team believes that the schedule will continue to be aggressive for the duration of the project and that this presents a high risk to the project. The RPO and AOC staff understands the IPO/IV&V Team concerns and have accepted the risk since the budget and schedule for the CCMS-V4 project cannot be changed. The IPO/IV&V Team will continue to monitor the current project activities related to testing as the project progresses to monitor the potential impact on the project's already compressed schedule.

Scope Management:

There do not appear to be any scope management items raised by the CCMS-V4 Project Team that are not being actively managed through eRoom. Additionally, the IPO/IV&V Team does not have any new issues with respect to Scope Management.

Risk Management:

During the month of September, eRoom was updated with risk status. As of September 30, 2009, 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	Preliminary staffing estimates have been developed and Deloitte will schedule a meeting with the AOC to discuss the estimates. After this discussion, more will be known about the number of PAT cycles that will be required to adequately test the application.	10-9-09
34	CCMS-V4 & ISB TIBCO Versions	There is potential for errors when ISB common services move from the ISB environment to the CCMS-V4 environments. This is an accepted risk and will continue to be monitored on a weekly basis. At this time, no mitigation actions are required.	10-17-09
35	CCMS-V3 Resources	There is an ongoing effort to combine V3 and V4 project schedules to evaluate staffing needs. However, events occurring in V3 will affect the number of resources available to assist in V4 activities.	10-14-09
37	Justice Partner Readiness	If Statewide and/or Local Integration Partners are not available, PAT and Early Adopter Testing of data exchanges may be delayed. Dale Good's plan was received and is currently under review by the AOC.	8-27-09 <i>(Date should be updated)</i>

No risks were closed in the month of September.

Additionally, the IPO/IV&V Team did not identify any new issues with respect to Risk Management during the month of September 2009.

Issue Management:

As of September 30, 2009, the following issue tracked by the CCMS-V4 Project Team remained active.

Issue Number	Issue Title	Activity Performed	Target Resolution Date
25	Without a complete and updated DES, Deloitte will be unable to produce the XSDs and WSDLs for the ISB web services during the data exchange construction phase, which is scheduled to end on 9/4/09.	The AOC and Deloitte are on track for completion of the DX DES Reference Implementation by 10/7/09. The DX DES Reference Implementation results were presented to AOC and Deloitte management on 9/29/09 and during the presentation the team was asked to determine how best to prioritize the remaining DES work and to produce a delivery timeline by 10/9/09.	10-7-09

One issue was closed by the CCMS-V4 Project Team in the month of September.

Issue Number	Issue Title	Resolution
26	The scalability of the TIBCO DX ETL tool used for SWRDW data transformation is being reviewed. The 32-bit and 64-bit DX Server memory configurations (8GB 1CPU Core) are a bottleneck for SWRDW ETL jobs and there is no load balancing for DX Servers. Multiple DX Servers cannot be installed in the same machine and several common transformers are memory intensive and DX ETL instantiates at least one thread for each transformer. The risks are: Performance issues in Production Environment, Failure if job resource use exceeds maximum capabilities of one DX Server instance, and Inability to execute nightly ETL without a large number of DX Servers.	9/17/09 - Issue Closed. The scalability issues with the TIBCO DX tool observed in the sandbox/development environment was largely addressed by additional testing with additional resources added (3 core / 14GB memory). Deloitte has agreed to add these additional resources to both the development and test environments. TIBCO has also made a production hardware recommendation based upon their additional tests (6 core / 32GB memory). TIBCO's recommendation does match the DX hardware profile in the Stress Test environment (8 core / 32GB memory). The SWRDW Stress Test phase will validate the final hardware recommendation for the DX tool.

Additionally, the IPO/IV&V Team did not identify any new issues with respect to Risk Management during the month of September 2009.

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project requires more resources to complete the product Development phase—this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27. In an effort to mitigate this risk, preliminary staffing estimates have been developed and Deloitte is in the process of scheduling a meeting with the AOC to discuss the estimates. Once this discussion has occurred, more will be known about the number of PAT cycles that will be required to adequately test the application.

Cost Management:

For September, there were no new IPO/IV&V issues with respect to Cost Management.

Technical Focus Areas

Quality Management:

We continue to find the CCMS-V4 Project Team's Quality Assurance (QA) efforts and reports are beneficial to the project especially since the data assists the AOC in identifying coding problems that may not have otherwise been caught. These reports and metrics (Trend Reports) are more typical of QA reports used in industry for a software development project, although we have some suggestions for improvements as discussed below.

On 9/24/09, the AOC Quality Assurance Team published its most recent QA Reports that included the CCMS V4 Core - Findbugs Summary Trend Report and the CCMS V4 Core - PMD Summary Trend Report. The Findbugs Summary Report metrics indicate an event occurring between 8/19/2009 and 8/26/2009 that dramatically decreased the cumulative number of files reviewed from 1,533 to 1,043 and the total findings from 3,909 to 2,436. Correspondingly, all other metrics included in the report (the Priority 1 Findings, Priority 2 Findings, and Findings by Category) have this same point of discontinuity. This could mean that the AOC QA team may have redefined the metric A between 8/19/09 and 8/26/09, which would explain how the total files reviewed could be reduced. However, the AOC QA Team did not go back and alter the previous data to be consistent with the new metric definition. This makes the metric (1) have a point of discontinuity and (2) makes all data collected prior to the metric definition questionable with respect to how the data relates to the new metric definition.

Similarly, in the CCMS V4 Core - PMD Summary Trend Report, the metric Total Files and Findings show a dip or decrease in the total files reviewed and number of findings noted. Regardless, the Priority 1 Findings remained level indicating that few additional Priority 1 defects have been discovered since the beginning of testing. However, the Priority 2 Findings does show an increase in Priority 2 defects during the last two months.

To improve the usefulness of these reports, the IPO/IV&V Team recommends that the AOC QA Team include in its reports a brief written discussion explaining the metric anomalies shown in the metric charts, such as the discontinuity in the CCMS V4 Core - Findbugs Summary Trend Report, dip in the CCMS V4 Core - PMD Summary Trend Report, or sharp drop and end roll off in the PMD Priority 1 Findings metric.

The IPO/IV&V Team discussed the metrics with David Corral of ISD. David explained that originally all CCMS-V3 code was being included in the metrics since the baseline included CCMS-V3 code. After realizing that the inclusion of CCMS-V3 code skewed the metrics since not all CCMS-V3 code would be revised, the metrics were changed to reflect only the CCMS-V3 code that would be revised.

From an IPO/IV&V perspective, one metric we feel would be beneficial to the RPO is the average file size and the distribution around the average. This metric is extremely useful when reviewing other existing metrics and clearly shows the effects of refactoring (i.e. reorganizing or restructuring) of the software which is done to improve attributes of the software such as readability, performance, simplify the code for maintainability, or various other reasons. For example, 3,500 findings when looking at 1,500 files may be indicative of a problem if the average file size is 50 lines of code—yet, the same finding would be viewed positively if the average file size is 500 lines of code; findings per lines of code is always a better metric than findings per file. Also, when Deloitte makes changes and refactors the software, it is important to understand how the code is growing, in terms of lines of code per file. Too many lines of code per file decreases maintainability and is a common occurrence during refactoring. ISD does not believe that this metric applies to Java environments. This topic will be explored and clarified further in November.

While the AOC QA Metrics provide some insight into the Quality of the software, as defined by what the metrics are based on, the metrics could be improved to provide a better insight into the Quality. Of concern are the actual failures that were detected as a result of the execution of the System Test Scripts—although the IPO/IV&V Team understands and acknowledges that the RPO does not have insight into this level of testing. Therefore, metrics associated with Integration Testing and PAT will be the first opportunity to clearly show how the CCMS V4 System will actually perform with respect to functionality.

As a mitigation strategy and as a result of CCMS-V3 lessons learned, the Court SMEs will be executing the PAT scripts during cycles 2 and 3 of Integration Testing to validate the integration testing performed by Deloitte Consulting.

Quality Architecture:

There are no open issues with Architecture for the month of September 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:

During September, the IPO/IV&V Team discussed the traceability of the Final Functional Design Use Cases to the System Test scripts with key members of the CCMS-V4 Project Team. Based on this discussion, the CCMS-V4 Project Team sent the IPO/IV&V Team a small sample set of System Test scripts. Upon reviewing these scripts, the IPO/IV&V Team was able to verify that the Use Cases were included in the System Test traceability for the sample set Deloitte Consulting selected and provided to us for review. Thus, the IPO/IV&V Team cannot confirm that every Use Case traced to a System Test script or whether these scripts were actually executed during System Testing. .

Detailed Design Review:

The AOC has had a lack of visibility during the detailed design due to the absence of deliverables during this phase. The primary areas where a lack of visibility is present are a documented detail design, coding and unit testing results, and System Testing efforts. A CCMS-V4 Object Model artifact will be delivered to the AOC as well as sequence diagrams that are part of the Development Packets (Development Specifications) once this phase is complete, but will not be reviewed by the AOC and the courts during the development aspects of the project.

System Development Quality and Progress:

The completeness of the Architecture Team decisions cannot be verified due to the absence of an Architectural Decision Tradeoff Matrix which would document the options, tradeoffs, decisions, and underlying rationale for the approach taken. ISD has stated that they will look into addressing this concern.

Testing Practices and Progress:

For Unit Testing, Deloitte is using a custom framework built on top of JUnit. Deloitte will be initially maintaining the code. Consequently, the development environment and its configuration as well as the JDoc (Java Documentation) will not be turned over to the AOC at this point in time. The IPO/IV&V Team has requested and been provided a copy of the code. In total, 8,437 files in 2,200 directories and subdirectories were provided. In our initial sampling, the code appears consistent with standard Microsoft coding practices for classes and cascading style sheets. Over the next month, the IPO/IV&V Team will continue this review as well as monitor and assess the PAT efforts in addition to the results of the QA Code Analysis Trend Reports.

Appendix A: Matrix of Areas of Concern (Open)

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. The CCMS-V4 Project Team continues to address these areas of concern as they are raised by the IPO/IV&V Team and although no areas of concern exist at this point in time, the IPO/IV&V Team believes that the project will continue to be a high risk project due to the constraints imposed by the budget and schedule tradeoffs.**

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&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"> 1. Identify and evaluate subjective text in FFD (such as may or could) and clarify within the context of use; 2. Perform a traceability exercise to link use cases to business rules—again to reduce need for individual interpretation; 3. Review business rule part of each section to ensure complete and clear rules have been incorporated into the use case. 4. Evaluate pre and post-conditions to ensure they are correct and complete. 	<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&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&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

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:
Planning and Tracking			
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:
Planning and Tracking			
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:
Procurement			
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.
Risk Management			
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.
Communication			
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:
Communication			
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.
System Engineering			
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"> • Technical processes are defined in writing; • Project roles are clearly defined; • Staff are trained in standard methods and process activities before they are assigned to roles; and • Technical management activities are guided by defined processes. 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:
System Engineering			
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. We will evaluate these activities when appropriate in the project.
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 September 1, 2009 - September 30, 2009 Time Period

Process Area	APR 2009	MAY 2009	JUN 2009	JUL 2009	AUG 2009	SEP 2009	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 by both the AOC and Deloitte Consulting.
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 still unable to conclude on the quality of the client functionality at this point 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							No Detailed Design documentation was delivered to the RPO but it should be captured in the Deloitte design tool. 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 is in progress.

	Green – On Track
	Yellow – Warning
	Red – Significant Problems
↑ ↓	-- -- -- --

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

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

- 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

During September, SEC performed the following activities:

- Monitored Test Script Status and reviewed Business Rules Traceability Matrix as well as continued assessment and comparison of test plan, test scenarios, and test scripts with FFD system use cases and business rules;
- Attended weekly CCMS-V4 Technical Architecture Meetings and reviewed technical documentation including Architecture Presentations and Topics;
- Attended weekly and monthly Project Management Meetings and Steering Committee Meeting as well as participated in CCMS-V4 IPO/IVV Project Meetings;
- Continued working meetings with both the RPO Management Team and ISD;
- 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 October 2009

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 development of integration test plan and PAT plan;
- Analyze the Deloitte source code for IV&V review for compliance with coding standards and comparison with design requirements;
- Continue review of Traceability including comparison of test scenarios, test scripts, system use cases, and business rules; and
- Prepare an interim final report summarizing the observations and areas of concern documented during the Requirements and Design phases of the project.
- Prepare monthly IPO/IV&V status report that identifies and tracks new risks or issues as well as accomplishments and review prior issue resolution.