



Judicial Council of California
ADMINISTRATIVE OFFICE OF THE COURTS

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June 21, 2010

Hon. Denise Moreno Ducheny
Chair, Joint Legislative Budget Committee
Chair, Senate Budget and Fiscal Review Committee
California State Senate
State Capitol, Room 5035
Sacramento, California 95814

Hon. Bob Blumenfield
Chair, Assembly Budget Committee
California State Assembly
State Capitol, Room 6026
Sacramento, California 95814

Re: Independent Project Oversight Reports for the California Court Case Management System
as Required by Government Code Section 68511.8(b)

Dear Senator Ducheny and Assembly Member Blumenfield:

Attached are the independent project oversight (IPO) and independent verification and validation (IV&V) reports for the California Court Case Management System issued in 2009, submitted under the requirements of Government Code section 68511.8(b). Consistent with the statutory requirement, the reports include “descriptions on actions taken to address identified deficiencies.”

In future years, these reports will be submitted along with the report on the status of the California Court Case Management System, required under subdivision (a) of Government Code section 68511.8. The Judicial Council will be happy to provide copies of the IPO and IV&V reports issued in prior years upon request.

Hon. Denise Moreno Ducheny

Hon. Bob Blumenfield

June 21, 2010

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If you have any questions regarding the information provided in this report, please contact Ms. Donna Hershkowitz, Assistant Director, AOC Office of Governmental Affairs, at 916-323-3121 or donna.hershkowitz@jud.ca.gov.

Sincerely,



William C. Vickrey
Administrative Director of the Courts

WCV/cs

Enclosures

cc: Members of the Judicial Council

Mr. Ronald G. Overholt, AOC Chief Deputy Director

Hon. Robert Dutton, Vice-chair, Senate Budget and Fiscal Review Committee

Hon. Jim Nielsen, Vice-chair, Assembly Budget Committee

Ms. Diane F. Boyer-Vine, Legislative Counsel

Mr. Gregory P. Schmidt, Secretary of the Senate

Mr. E. Dotson Wilson, Chief Clerk of the Assembly (electronic copy)

Mr. Brian Brown, Consultant, Senate Budget and Fiscal Review Committee

Mr. Matt Osterli, Consultant, Senate Republican Fiscal Office

Mr. Joe Stephenshaw, Consultant, Assembly Budget Committee

Mr. Allan Cooper, Consultant, Assembly Republican Fiscal Office

Mr. Drew Soderborg, Fiscal and Policy Analyst, Legislative Analyst's Office

Ms. Jennifer Osborn, Principal Program Budget Analyst, California Department of Finance

AOC Regional Administrative Directors

Mr. Curtis L. Child, Director, AOC Office of Governmental Affairs

Hon. Denise Moreno Ducheny

Hon. Bob Blumenfield

June 21, 2010

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bcc: Ms. Tina Carroll, Executive Office Liaison, AOC Executive Office
Mr. Mark W. Dusman, Director, AOC Information Services Division
Mr. Stephen Nash, Director, AOC Finance Division
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Mr. Tom Bates, Senior Budget Analyst, AOC Finance Division
Mr. Henry Sepulveda, Senior Governmental Affairs Fiscal Analyst, AOC Office of Governmental Affairs
Mr. Colin Simpson, Budget Analyst, AOC Finance Division
Judicial Administration Library (two copies)



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Report title: Independent Project Oversight and Independent Verification and Validation for the California Court Management System (CCMS) Development Project

Statutory citation: Government Code section 68511.8(b)

Date of report: June 21, 2010

The Judicial Council has submitted a report to the Legislature in accordance with Government Code section 68511.8(b).

The following summary of the report is provided under the requirements of Government Code section 9795.

Sjoberg Evashenk Consulting, Inc. (SEC), under the supervision of the Internal Audit Services of the Administrative Office of the Courts (AOC) and on behalf of the CCMS Executive Sponsor in the AOC's Southern Regional Office, performed independent project oversight (IPO) and independent verification and validation (IV&V) services for the final CCMS product currently in development. The objectives of the IPO and IV&V are to monitor the activities, deliverables, milestones, deadlines, and design of the CCMS project and to communicate status, progress, issues, and challenges to the success of the project as designed. SEC issues monthly IPO/IV&V reports intended to capture and assess current project activities to determine whether the established process and procedures used to build and manage the CCMS application 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.

The descriptions on actions taken to address recommendations made by SEC can be found in Appendix A: Matrix of Areas of Concern (Open) and Appendix B: Matrix of Areas of Concern (Closed) in each report.

The full report can be accessed at: www.courtinfo.ca.gov/reference/legislaturereports.htm.

A printed copy of the report may be obtained by calling 415-865-7454.

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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 January 31, 2009



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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 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:

In general, the Regional Program Office (RPO) Management Team, AOC staff, individual court staff, and Deloitte Consulting continue to practice many solid project management and systems engineering practices over the CCMS-V4 project. Moreover, the IPO/IV&V Team continues to experience a cooperative atmosphere regarding discussions of potential and imminent project concerns with the RPO staff, AOC Information Services Division (ISD), and points of contact as identified by the Executive Sponsor.

During the month of January, the IPO/IV&V Team implemented an additional working session with the CCMS-V4 Product Manager Don Collins to ensure further communication between the IPO/IV&V Team and the RPO Management Team. Contact has also been made with ISD to put the structure in place to have focused working sessions with them, as well. These individual informal meetings will be in addition to the monthly IPO/IV&V meeting where all participants attend to identify, discuss, and vet IPO/IV&V observations and identification of risk.

Some IPO/IV&V observations documented in this report are meant to inform the RPO Management Team and other stakeholders of practices we believe should be tightened, addressed, or modified to reduce risk to the project and make management aware of instances where industry best practices are not being employed. Other IPO/IV&V items noted are elevated to "Areas of Concern" that we highlight and track (as summarized in Appendix A) because we believe they pose higher levels of risk to the project. Thus, not all items discussed in each of the Project Oversight and Technical Focus Areas in the monthly IPO/IV&V report have the same level of importance or significance. For the month of January 2009, we highlight the items on the following page:

- The Final Functional Design (FFD) review continues to exceed the time allocated for review of the deliverable. As a result of this, the Core application, Portals, and Statewide Data Warehouse portions of the FFD will be completed by March 30, 2009. The Data Exchanges portion is currently expected to be completed by April 15, 2009. This concern is being closely managed by the AOC, Courts, and Deloitte Consulting. Because of the significance of these activities and risk to the project schedule, IPO/IV&V will continue to monitor this area.
- Last month, SEC reported that the AOC's Information Services Division (ISD) did not appear to have a single point of contact for ISD-related activities since the responsibilities appeared to be spread amongst various staff. It is now our understanding that David Corral has been identified as the single point of contact. However, it is not clear whether David has the authority to allocate resources, manage the ISD project schedule activities and tasks, identify ISD risks and resolve them, and speak on behalf of ISD in order to ensure efficient resolution of concerns. It is our observation that ISD workload and action items are discussed on a weekly basis, but require more active management. Specifically, the ISD project schedules should be shared and integrated into the overall project schedule to ensure that timelines are met. During the month of February, Virginia Sanders-Hinds will work with the IPO/IV&V Team to better understand the ISD roles and responsibilities within the project.

As a three-part project consisting of RPO, ISD, and Deloitte staff, it is imperative that all three parties share an integrated schedule for the CCMS-V4 Project that addresses specific details on what actions each party is taking regarding timelines for completion and next steps. In addition, because it is our belief that following items could significantly impact the development schedule and budget, as well as deployment planning, if not addressed immediately, IPO/IV&V will continue to monitor this area as well.

- Comprehensive Plan for the Justice Partners (Interfaces); and
- Action Plan for the delivery of Document Management.

To assist in addressing our concerns, the RPO Management Team has stated that they have loaned staff, Kevin Hughes, to ISD to assist with the completion of the Justice Partners Plan. ISD has stated that they have developed a plan. Without review of this plan, IPO/IV&V cannot determine if the level of detail in this plan is sufficient to alert all parties to their specific actions and deadlines. However, during the month of February, IPO/IV&V will request the plan. Additionally, it is not clear what progress is being made on the Action Plan for the delivery of Document Management.

- Further, to address a previous IPO/IV&V observation made to better align the CCMS-V4 processes with industry best practices, the SRO Product Director has addressed the IPO/IV&V Team's previous recommendation that a separate weekly meeting be established to address action items outside of the weekly Project Management meeting. To this end, a meeting has been established for 2:00 PM every Thursday afternoon between RPO Senior Management, ISD Senior Management, and Deloitte Consulting Senior Management.
- Finally, one other observation made in the prior month by the IPO/IV&V Team is that Deloitte Consulting continues to forge ahead and code what SEC refers to as the "infrastructure" components in an effort to mitigate the risks associated with the FFD review timeline. ISD is actively managing this effort and has employed the use of quality assurance staff to review the work being conducted including code walkthroughs. ISD has visibility into the construction schedule and communication with Deloitte Consulting with respect to what has been coded and may require rework as well as what has not been coded. This risk has been brought to the attention of Deloitte Consulting and they have accepted this risk.

Detailed Observations, Impact, and Recommendations

Despite the lengthy review time necessary to complete a thorough review of the FFD, 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 overall good health of the project is a direct result of the diligence employed by the RPO staff, AOC staff, Court staff, and Deloitte Consulting. Yet, 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

Schedule Management:

The delay in the review of the FFD due to the sheer volume of documentation that must be reviewed continues to create challenges and risks toward Deloitte's approach of coding ahead of schedule on the less volatile portions of the application. Because this approach may delay the schedule due to rework on the already-coded components, the IPO/IV&V Team will continue to monitor this area as the project progresses under our schedule related issue reported as "*July07.1 Aggressive Schedule*".

Scope Management:

The final scope item noted below, and recorded in the JCC Intranets Issue Tracker, has not been actioned to determine if this item still requires attention. The RPO Management Team will be reviewing this scope item with the e-filing team:

- *E-Service and other Portal functionality require e-mail notifications. Can we work on having e-mail included in JC forms to start migrating users towards online services?*

Cost Management:

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

Risk Management:

Although eRoom was established as the vehicle to track and communicate project risks, our efforts reveal that risks do not appear to be updated on a weekly basis in eRoom. It was mentioned to us that eRoom may not contain the most up to date information on project risks and that there may be other tools used to identify, track, and inform the team of risk. Yet, if risks are being documented via another communication vehicle, then this vehicle should be shared with the extended project team and the Communication Plan updated accordingly. Moreover, if these risks are being addressed outside the eRoom site, the project team could potentially not know the resolution. Since eRoom was established at the project start as the vehicle of choice, the IPO/IV&V Team reviews the

management and attention given to update risk status on that site. The RPO Management Team has stated that they will discuss the need to update the eRoom with up-to-date information with Deloitte Consulting. As of January 31, 2009, no new risks were raised by the CCMS-V4 Project Team; however, the risks identified below were active. While these risks may no longer be active or the team may be in process of mitigating, we have not seen documentation of resolution.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
5	ISB Development and Delivery Timeframes	The RPO Management Team believes that the schedule has been published and that this risk should be closed.	<u>11-28-08</u> Resolution Date has not been updated in eRoom.
16	BI Tool and Environments (Cognos)	The project schedule for Stress and PAT has been revised. The Stress and PAT schedule for Portals and SWRDW are still under development. Stress Testing will now be pushed out two months and will overlap with PAT for one month. The Stress Test Results deliverable will be pushed back two months as well. The RPO Management Team believes that this risk should be closed.	<u>10-3-08</u> Resolution Date has not been updated in eRoom.
25	Expectations of Incorporating DES Changes	The RPO Management Team believes that all DES work products have been completed and that this risk should be closed.	<u>8-27-08</u> Resolution Date has not been updated in eRoom.
26	FFD Review	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.	<u>12-12-08</u> Resolution Date has not been updated in eRoom.
27	SME Staffing Plan	Sean Yingling has identified multiple gaps and has communicated them to the SRO Product Director. SME movement between tracks was discussed, but no movements have occurred and testing is currently lacking the expected number of staff, but will receive more resources as FFD review sessions conclude. More discussion is needed on this risk.	<u>11-28-08</u> Resolution Date has not been updated in eRoom.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
29	Functional Design Deliverable Development before Approval	Deloitte is commencing with development before approval of the FDD. Deloitte recognizes and accepts the risk associated with this approach.	None <u>Specified Resolution Date has not been entered in eRoom.</u>
31	Water's Edge	The RPO Management Team believes that all Water's Edge issues have been resolved and that this risk should be closed.	10-31-08 <u>Resolution Date has not been updated in eRoom.</u>

The following risks were closed in the month of January:

Risk Number	Risk Title	Activity Performed	Target Resolution Date
19	Standardization and Configuration	The Court executives will determine which SMEs can be provided for Standardization and Configuration and the PM group agreed to close this risk.	Closed
32	TIBCO Support Unavailable	The AOC/TIBCO contract has been finalized.	Closed

Issue Management:

Similarly, it does not appear that issues are updated on a weekly basis in eRoom, although eRoom is the stated vehicle of choice to identify, track, and inform of issues. It was mentioned to us that eRoom may not contain the most up to date information on project issues and that there may be other tools used to identify, track, and inform the team on the issues. As mentioned in the previous section, if issues are being documented via another communication vehicle, then this vehicle should be shared with the extended project team and the Communication Plan updated accordingly. Since eRoom was established at the project start as the vehicle of choice, the IPO/IV&V Team reviews the management and attention given to update issue status on that site. The RPO Management Team has stated that they will discuss the need to update the eRoom with up-to-date information with Deloitte Consulting. As of January 31, 2009, one new issue was raised by the CCMS-V4 Project Team; additionally, the issues identified below were active—although they do not appear to have been addressed. While these issues may no longer be active or the team may be in process of mitigating, we have not seen documentation of resolution.

Issue Number	Issue Title	Activity Performed	Target Resolution Date
14	DMV Data Exchange	In the absence of any additional information from the DMV - the architecture team will assume the DMV interface architecture will be accomplished through terminal emulation/screen scraping, however this architecture has not been fully documented.	<u>None Specified</u> Resolution Date has not been entered in eRoom.
17	The data exchange deliverable may not fully support e-filing	This issue is waiting for the output of the eFiling JAD sessions to determine if there are any gaps in the DES. This item will remain open until that assessment can be completed.	<u>12-19-08</u> Resolution Date has not been updated in eRoom.
20	What will replace kiosk functionality in the portal?	The Steering Committee has decided to descope the kiosk functionality. This issue will be closed.	<u>None Specified</u> Resolution Date has not been entered in eRoom.
23	<p>The Notification Common Service is missing the following functionality:</p> <ul style="list-style-type: none"> - Notification of successful delivery of a DX via web services - Notification of errors while processing a DX via web services - Notification of to what systems the DX was routed via web services <p>The AOC has not provided a date when this functionality will be delivered. Without a complete Notification Common Service, Deloitte is unable to:</p> <ul style="list-style-type: none"> - Complete DX Technical Design - Complete DX Construction <p>This missing functionality has already caused delays in the DX project schedule and without a confirmed delivery date a project impact assessment cannot be done.</p>	Deloitte will review the impact assessment with the AOC.	<u>1-16-09</u> Resolution Date has not been modified in eRoom.

The following issues were closed in the month of January:

Risk Number	Risk Title	Activity Performed	Resolution Date
15	Review time has been lost due to the incorporation of Release 8 and 9 changes	The deliverable review schedule is being actively managed to provide the necessary time to thoroughly review and comment on the FFDP.	1-8-09
19	The ownership of the ISB Web Services and ISB Configuration must be decided.	This issue will be closed as EZLegalfile is no longer a viable solution.	1-22-09

Communication Management:

Several strong practices are in place in this area. For instance, the CCMS-V4 Project Team continues to discuss both existing and emerging items during and outside of project meetings. In addition, the SRO Product Director has addressed the IPO/IV&V Team's previous recommendation that a separate weekly meeting be established to address action items outside of the weekly Project Management meeting. To this end, a meeting has been established for 2:00 PM every Thursday afternoon between RPO Senior Management, ISD Senior Management, and Deloitte Consulting Senior Management.

The RPO Management Team and AOC staff has been proactive and responsive in addressing IPO/IV&V observations in the communication management area. For instance, ISD has designated David Corral as the single point of contact for CCMS-V4 Project communication. However, it is not clear whether David has the authority to allocate resources, manage the ISD project schedule activities and tasks, identify ISD risks and resolve them, and speak on behalf of ISD in order to ensure efficient resolution of concerns. It is our observation that ISD workload and action items are discussed on a weekly basis, but require more active management. Specifically, the ISD project schedules should be shared and integrated into the overall project schedule to ensure that timelines are met. As a result, the IPO/IV&V Team has identified this as an Area of Concern this month and will monitor this area as the project progresses as "***Dec08.2 ISD Single Point of Contact***".

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project is stretching Court resources too thin—this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27. At this point in time, no V3 SMEs have been added to the CCMS-V4 Project. However, the project team as a whole has been reaching out to non-V3 courts in an effort to mitigate this concern. The Executive Sponsor and her RPO Management Team are making strong efforts at recruiting other courts statewide to supply additional court resources to maximize the leveraging of staff.

Technical Focus Areas

Requirements Identification and Traceability:

In past months, the IPO/IV&V Team has expressed concerns in that there is no traceability between use cases and business rules. The RPO Management Team has recognized SEC's concern, but has stated that they will not be creating a traceability matrix between use cases and business rules. Instead, they are putting a management structure in place which they believe will provide oversight in this area and are strengthening their testing effort. It is the IPO/IV&V Team's belief that these measures may not be enough to mitigate this concern. We believe that this approach may add time to the already compressed schedule and creates a risk for a higher number of testing incidents since some requirements will undoubtedly not be tested without this traceability.

In other actions related to this IPO/IV&V focus area, a Court Executive Management work group was established in the month of January to address the concerns surrounding the standardization and configuration requirements. The committee has embarked on addressing the following IPO/IV&V items, noted in the previous month's report, among other areas of interest:

- How will local customization impact global system/configuration updates?
- How will global system/configuration updates be made to the local configurations?
- How will the statewide consistency of the system be maintained?

The committee will not be addressing the following IPO/IV&V noted item since this is a deployment concern:

- When there are subsequent enhancements and new CCMS versions, how will the changes be made at the local levels? Will this require more time and resources to implement each Court's specific version? Or, will it become the responsibility of each Court to make the necessary changes (which they may choose to do or not do depending on competing priorities)?

However, the RPO Management Team has stated that this effort is part of "steady state" and is not within the scope of SEC's contract. Thus, these observations will be removed in the next report.

Detailed Design Review:

As documented in previous reports and discussed verbally, the AOC and the Courts are aware of the IPO/IV&V Team's concerns that the ambiguity surrounding the interpretation of the requirements presents a risk to the construction and testing phases of the project. 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 to project cost, schedule, required or expected

Court functionality, and overall quality. This item will remain open and SEC will continue to monitor it as an area of concern as "***Apr08.1 Unclear Requirements.***"

Quality Management:

Our primary observation and concern continues to be that the Quality Assurance (QA) reports generally contain project management information rather than industry standard information related to more technical processes such as code walkthroughs, documentation, and user sign-off of requirements. Further, the reports do not address the following items:

- QA process metrics to show progress over time;
- Deloitte's improvements to their QA process;
- A method for the AOC and Court Project Managers to easily determine if Deloitte's performance is getting better or worse; and
- A process plan of action should be documented that could be employed in the situation that Deloitte does not show improvement in a particular area.

In discussions with a Deloitte Consulting representative, they agreed that the QA Report currently being provided to the AOC is not a "traditional" QA Report with respect to its contents. Rather, the CCMS-V4 QA Report is a carryover from the CCMS-V3 project with the format and general contents accepted and approved by the AOC. However, because the IPO/IV&V Team was told that Deloitte Consulting does collect traditional QA process metric and trend data as part of their normal organizational business process, the IPO/IV&V Team recommends that the AOC revisit the QA Report contents and request that Deloitte Consulting include data that measures and reports process performance. This will allow the AOC to be more proactive in solving "project" issues and problems.

In a project of this magnitude, a CMMI Level 3 certification of processes is desirable (or needed) because the assessment of Level 3 signifies that the processes exist and the organization was proactive in creating the processes. As reported in prior months, Deloitte Consulting has received an independent CMMI Level 3 certification for its "Centers of Excellence" and other client projects—the IPO/IV&V Team requested and has recently received the related CMMI SCAMPI Report from Deloitte Consulting. As identified in the SCAMPI report as well as our the December 2008 IPOIV&V report, the assessment was not CCMS-V4 Project specific, but was a Deloitte Development Services Group assessment. The primary focus for the IPO/IV&V Team identifying this distinction is to ensure the AOC clearly understands that the CCMS-V4 Project is not considered CMMI Level 3 compliant—rather, the Deloitte Development Services Group was deemed CMMI Level 3 compliant.

According to the Deloitte representative, Deloitte does not plan to perform another CMMI assessment until sometime in 2011. Upcoming audits that were discussed during the last Executive Steering Committee meeting of January 27, 2009 are Deloitte internal audits; they are not CMMI audits. Deloitte has an internal organization that audits projects to ensure they are following the Deloitte standard "playbook" processes. These

are performed periodically (approximately every six months). In addition, internal members of the Deloitte CCMS-V4 Project periodically audit other processes, outside of their sphere of control or use, to identify potential process issues. Again, from the IPO/IV&V Team's perspective, the distinction between the CMMI assessment and the Deloitte internal audits must be clearly understood by the AOC.

Moreover, if Deloitte Consulting's standard "playbook" processes that were reviewed during the certification are modified for the CCMS-V4 Project, either by Deloitte itself or as requested by the AOC, the CMMI Level 3 assessment may not be valid since this assessment was based on the Deloitte standards—which may or may not be used for the CCMS-V4 Project. Since the IPO/IV&V Team does not have access, nor would expect to have access, to Deloitte's proprietary "playbook" processes, it is impossible to verify if the CCMS-V4 Project is following the Deloitte standards that were assessed and certified as CMMI Level 3 compliant.

From the IPO/IV&V Team's perspective, this is not a significant risk as long as the overall CCMS-V4 Project Team understands the distinction as well as exercises due diligence to help ensure Deloitte's processes employed on the CCMS-V4 project have adequate integrity to result in a quality product. Deloitte is a process-oriented organization and as long as they follow their "playbook" with respect to following organizational processes, this distinction between Deloitte Development Services Group CMMI Level 3 certification and the lack of a CCMS-V4 CMMI Level 3 certification poses little risk to the project.

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.

Architecture:

During the detailed Technical Design, the IPO/IV&V Team will re-visit some of the Quality Attribute architecture decisions after specific product solutions have been selected, such as products for memory/bandwidth utilization that impacts performance.

System Development Quality and Progress:

The IPO/IV&V Team will continue to monitor how well the Architecture Team documents their decisions and forwards them to the management team. As always, architectural decisions are based on the non-functional aspects of a system, such as reliability, maintainability, security, and performance. Thus, the team decisions must be well documented to understand why certain tradeoff decisions were made as well as how the decisions were balanced against other competing non-functional needs of the AOC. Without this type of documentation (e.g., tradeoff matrix), more time and effort could be required to revisit and reanalyze past decisions and, ultimately, increase the risk that past mistakes could be repeated. ISD is actively participating in the Architecture Team and has visibility into the decisions that are made and the rationale for them.

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.

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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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>
Apr08.1	Unclear Requirements	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>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</p>

Item Number	Area of Concern	Recommendation	Action Taken
			<p>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>Moreover, 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>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>

Item Number	Area of Concern	Recommendation	Action Taken
			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 to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain in watch status.
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 FDD and reviewed again.	12-2008 – New this month. 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.
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	12-2008 – New this month. 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.

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 new areas of concern were closed this month.

Item Number	Area of Concern	Recommendation	Action Taken
Aug07.1	JAD Schedule	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.	09-2007 – The schedule should be completed in October 2007. 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. 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.

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>

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Status Report as of January 31, 2009

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>

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

The changes/updates made this month to the Project Oversight Review Checklist are highlighted in yellow.

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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

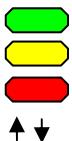
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?			Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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. The AOC should implement a process for ensuring that the coding standards are adhered to.
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. SEC will be investigating the AOC enterprise architecture at a later phase in the development 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 January 1, 2009 - January 31, 2009 Time Period

Process Area	AUG 2008	SEP 2008	OCT 2008	NOV 2008	DEC 2008	JAN 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	There is concern that there is insufficient time allocated to the FFD review and test preparation.
Scope/Change Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Yellow	Green	Green	Yellow	Yellow	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting. Risks are not being fully documented in eRoom.
Issue Management	Green	Green	Green	Green	Yellow	Yellow	Issues are discussed/reported weekly at various project management and Executive Committee meetings. Issues are not being fully documented in eRoom.
Resource Management	Green	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources currently seem adequately staffed. Court resources are stretched thin between V3 and V4 and may be insufficient during the review of the FFD and into test development.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	We are unable to conclude on the quality of the client functionality at this point as the project is still in the requirements review phase.
Quality Architecture	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	SEC will continue to assess during review of the FFD; however, we have concerns with the link between use cases and business rules.
Detailed Design Review	Green	Yellow	Yellow	Yellow	Yellow	Yellow	The FFD contains several incomplete sections open to interpretation that could add time to test phase or result in problems with functionality.
System Development Quality and Progress	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Planning 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 January, SEC performed the following activities:

- Reviewed Configuration Bulk Loading Documentation;
- Reviewed Standardization and Configuration Track Schedule Documentation;
- Reviewed V3 Enhancements List;
- Reviewed Batch Printing Documentation;
- Reviewed Decisions Document Summary;
- Reviewed Statewide Reporting Data Warehouse Documentation;
- Reviewed CCMS Forms Summit Documentation;
- Reviewed Steering Committee Documentation;
- Attended weekly Project Management Meetings;
- Attended monthly Project Management Meeting;
- Participated in CCMS-V4 IPO/IVV Project Meetings;
- Initiated individual working meetings with both the RPO Management Team and ISD;
- Attended weekly CCMS-V4 Technical Architecture Meetings and reviewed technical documentation;
- Performed analysis of areas in the Project Oversight Review Checklist Appendix C;
- Identified and tracked potential risks, observations, and issues; and
- Discussed and prepared monthly IPO/IV&V written status reports.

Planned SEC Activities for February 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, a monthly Project Management Meeting, monthly RPO Management Meeting, monthly ISD Meeting, bi-weekly Steering Committee Meetings, weekly Technical Architecture Meetings, CIO Meetings, Oversight Committee meetings, and monthly IPO/IVV Project Meetings;
- 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 Final Design Deliverable in terms of sufficiency of design, detail, and compliance with contract requirements;
- Continue review of Requirements Traceability;
- Review and comment on compliance of Deloitte Consulting deliverables with the project management elements, if completed, as specified in the contract;
- Identify and track new risks or issues as well as accomplishments and review prior issue resolution; and
- Prepare monthly IPO/IV&V status report.

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 February 28, 2009



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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 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:

The IPO/IV&V Team focused on communication concerns during the month of February. We are hopeful that our working session with the CCMS-V4 Product Manager Don Collins established in January and the newly established working session with ISD's Virginia Sanders-Hinds and David Corral will elicit more conversation and allow the IPO/IV&V Team to gain a more in-depth discussion of concerns. These individual informal meetings will be in addition to the monthly IPO/IV&V meeting where all participants attend to identify, discuss, and vet IPO/IV&V observations and identification of risk.

For the month of February 2009, we highlight the following:

- The Final Functional Design (FFD) review continues to exceed the time allocated for review of the deliverable but is expected to be completed by mid-April, 2009. The Core application, Portals, and the Statewide Data Warehouse portions of the FFD are on target for completion by March 29, 2009. The Data Exchanges portion is expected to be completed in mid-April. The delay and this concern is being closely managed by the AOC, Courts, and Deloitte Consulting. Because of the significance of these activities and risk to the project schedule, IPO/IV&V will continue to monitor this area.

- In past months, SEC was informed that the AOC's Information Services Division (ISD) single point of contact for ISD-related activities was David Corral. Through subsequent discussions, David Corral's role has been clarified. David Corral maintains day-to-day, on-the-ground interaction with the project team while Virginia Sanders-Hinds has the authority to allocate resources, manage the ISD project schedule activities and tasks, identify ISD risks and resolve them, and speak on behalf of ISD in order to ensure efficient resolution of concerns.
- All project workload and action items, whether they are owned by Deloitte Consulting, the RPO Management Team, or ISD, must be discussed on a weekly basis and require more active management. Specifically, individual project schedules should be shared to ensure that timelines are met.

As a three-part project consisting of RPO, ISD, and Deloitte staff, it is imperative that all three parties share schedules of activities for the CCMS-V4 Project that address specific details on what actions each party is taking regarding timelines for completion and next steps. In addition, because it is our belief that following items could significantly impact the development schedule and budget, as well as deployment planning, if not addressed immediately, IPO/IV&V will continue to monitor this area as well.

- Comprehensive Plan for the Justice Partners (Interfaces); and
- Action Plan for the delivery of Document Management.

Each party's responsibilities for the Justice Partners (Interfaces) must be clarified and agreed to. ISD has stated that they have developed a plan. Without review of this plan, IPO/IV&V cannot determine if the level of detail in this plan is sufficient to alert all parties to their specific actions and deadlines. Additionally, it is not clear what document management solution will be provided to each of the courts on day 1 of Go Live. The RPO, ISD, and Deloitte management teams are working through both of these issues.

- As stated in previous months, Deloitte Consulting continues to forge ahead and code what the IPO/IV&V Team refers to as the "infrastructure" components in an effort to mitigate the risks associated with the FFD review timeline. ISD is actively monitoring this effort and has employed the use of quality assurance staff to review the work being conducted including code walkthroughs. ISD has visibility into the construction schedule and communication with Deloitte Consulting with respect to what has been coded and may require rework as well as what has not been coded. ISD will be trending the February results of the quality assurance effort and will be presenting those results in March.

Detailed Observations, Impact, and Recommendations

Despite the lengthy review time necessary to complete a thorough review of the FFD, 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 overall good health of the project is a direct result of the diligence employed by the RPO staff, AOC staff, Court staff, and Deloitte Consulting. Yet, 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

Schedule Management:

The delay in the review of the FFD due to the sheer volume of documentation that must be reviewed continues to create challenges and risks toward Deloitte's approach of coding ahead of schedule on the less volatile portions of the application. Because this approach may delay the schedule due to rework on the already-coded components, the IPO/IV&V Team will continue to monitor this area as the project progresses under our schedule related issue reported as "***July07.1 Aggressive Schedule***".

Scope Management:

There do not appear to be any scope management items that are not being actively managed through eRoom.

Cost Management:

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

Risk Management:

Effort was made in the month of February to update eRoom with target resolution dates and up-to-date risk status. As of February 28, 2009, no new risks were raised by the CCMS-V4 Project Team; however, the risks identified below were active.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
5	ISB Development and Delivery Timeframes	The conditions and approval dates of the Data Exchange FFD are being finalized.	3-5-09

IPO/IV&V Report for the CCMS-V4 Project
Status Report as of February 28, 2009

Risk Number	Risk Title	Activity Performed	Target Resolution Date
16	BI Tool and Environments (Cognos)	ISD will provide the schedule trigger points and associated dates for the activities conducted between now and 4/22/09 to provide the project team the appropriate transparency and information to track progress towards the 4/22/09 date.	4-1-09
25	Expectations of Incorporating DES Changes	The Data Exchange portion of the FFD will be completed by March 30, 2009.	3-5-09
26	FFD Review	The FFD will be completed by March 30, 2009.	3-26-09
27	SME Staffing Plan	Remote participation options are being explored. Some Northern courts may be able to provide resources. Kern County has provided 3-4 resources.	3-5-09
29	Functional Design Deliverable Development before Approval	Deloitte is commencing with development before approval of the FDD. Deloitte recognizes and accepts the risk associated with this approach. ISD has supplied 2 resources for quality assurance review.	4-2-09
31	Water's Edge	The conditions and approval dates of the Data Exchange FFD are being finalized.	3-5-09

No risks were closed in the month of February.

Issue Management:

As of February 28, 2009, no new issues were raised by the CCMS-V4 Project Team; however, the issues identified below were active.

Issue Number	Issue Title	Activity Performed	Target Resolution Date
14	DMV Data Exchange	The conditions and approval dates of the Data Exchange FFD are being finalized.	3-5-09

Issue Number	Issue Title	Activity Performed	Target Resolution Date
23	<p>The Notification Common Service is missing the following functionality:</p> <ul style="list-style-type: none"> - Notification of successful delivery of a DX via web services - Notification of errors while processing a DX via web services - Notification of to what systems the DX was routed via web services <p>The AOC has not provided a date when this functionality will be delivered. Without a complete Notification Common Service, Deloitte is unable to:</p> <ul style="list-style-type: none"> - Complete DX Technical Design - Complete DX Construction <p>This missing functionality has already caused delays in the DX project schedule and without a confirmed delivery date a project impact assessment cannot be done.</p>	The conditions and approval dates of the Data Exchange FFD are being finalized.	3-5-09

The following issues were closed in the month of February:

Risk Number	Risk Title	Activity Performed	Resolution Date
17	The data exchange deliverable may not fully support e-filing	A gap of 11 data exchanges has been identified as a result of the eFiling JAD sessions.	2-26-09
20	What will replace kiosk functionality in the portal?	The Steering Committee has decided to de-scope the kiosk functionality and the PM group agreed to close this issue.	2-5-09

Communication Management:

In response to the IPO/IV&V observations in the communication management area, several additional meetings have been established to allow the CCMS-V4 Project Team to discuss both existing and emerging items.

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project is stretching Court resources too thin—this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27. At this point in time, V3 SMEs are completing V3 work efforts and some of those resources (approximately 4-6) will be deployed to assist with the CCMS-V4 Project. However, the project team as a whole has been reaching out to non-V3 courts in an effort to mitigate this concern. The Executive Sponsor and her RPO Management Team are making strong efforts at recruiting other courts statewide to supply additional court resources to maximize the leveraging of staff. Some of the Courts closest to the Deloitte Consulting Santa Ana facility may be directing some retirement annuitants toward the CCMS-V4 Project for three to six month assignments. In addition, the CCMS-V4 Project is looking at hiring professional testers to supplement the Court SMEs.

Technical Focus Areas

Requirements Identification and Traceability:

In past months, the IPO/IV&V Team has expressed concerns in that there is no traceability between use cases and business rules. The RPO Management Team has recognized SEC's concern, but has stated that they will not be creating a traceability matrix between use cases and business rules. Instead, they are putting a management structure in place which they believe will provide oversight in this area and are strengthening their testing effort. It is the IPO/IV&V Team's belief that these measures may not be enough to mitigate this concern. We believe that this approach may add time to the already compressed schedule and creates a risk for a higher number of testing incidents since some requirements will undoubtedly not be tested without this traceability.

Detailed Design Review:

As documented in previous reports and discussed verbally, the AOC and the Courts are aware of the IPO/IV&V Team's concerns that the ambiguity surrounding the interpretation of the requirements presents a risk to the construction and testing phases of the project. 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 to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain open and SEC will continue to monitor it as an area of concern as "***Apr08.1 Unclear Requirements.***"

During the month of February, the early adopter courts (San Diego, Ventura, Inyo, and Siskiyou) were added to the Court Executive Management work group. The Court Project Managers are compiling a list of design limitations that may have an adverse impact upon implementation for the Court Executive Management work group's review.

The Standards and Configuration Management Group will address the following:

- How will local customization impact global system/configuration updates?
- How will global system/configuration updates be made to the local configurations?
- How will the statewide consistency of the system be maintained?

Quality Management:

Our primary observation and concern continues to be that the Quality Assurance (QA) reports generally contain project management information rather than industry standard information related to more technical processes such as code walkthroughs, documentation, and user sign-off of requirements. Further, the reports do not address the following items:

- QA process metrics to show progress over time;
- Deloitte's improvements to their QA process;
- A method for the AOC and Court Project Managers to easily determine if Deloitte's performance is getting better or worse; and
- A process plan of action should be documented that could be employed in the situation that Deloitte does not show improvement in a particular area.

At this point in time, the IPO/IV&V Team has not seen a revised QA Report that includes Deloitte's data that measures and reports process performance. The inclusion of this information will allow the AOC to be more proactive in solving "project" issues and problems.

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.

Architecture:

During the detailed Technical Design, the IPO/IV&V Team will re-visit some of the Quality Attribute architecture decisions after specific product solutions have been selected, such as products for memory/bandwidth utilization that impacts performance.

System Development Quality and Progress:

The IPO/IV&V Team will continue to monitor how well the Architecture Team documents their decisions and forwards them to the management team. As always, architectural decisions are based on the non-functional aspects of a system, such as reliability, maintainability, security, and performance. Thus, the team decisions must be well documented to understand why certain tradeoff decisions were made as well as how the decisions were balanced against other competing non-functional needs of the AOC. Without this type of documentation (e.g., tradeoff matrix), more time and effort could be required to revisit and reanalyze past decisions and, ultimately, increase the risk that past mistakes could be repeated. ISD is actively participating in the Architecture Team and has visibility into the decisions that are made and the rationale for them.

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.

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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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>
Apr08.1	Unclear Requirements	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	<p>04-2008 – New this month.</p> <p>05-2008 – It is not clear whether action has been taken on this issue.</p>

Item Number	Area of Concern	Recommendation	Action Taken
		<p>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>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 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>

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:

- Two areas of concern were closed this month.

Item Number	Area of Concern	Recommendation	Action Taken
Aug07.1	JAD Schedule	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.	09-2007 – The schedule should be completed in October 2007. 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. 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.

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>
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>

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 changes/updates were made this month to the Project Oversight Review Checklist.

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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

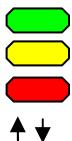
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?			Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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. The AOC should implement a process for ensuring that the coding standards are adhered to.
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. SEC will be investigating the AOC enterprise architecture at a later phase in the development 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, 2009 - February 28, 2009 Time Period

Process Area	AUG 2008	SEP 2008	OCT 2008	NOV 2008	DEC 2008	JAN 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	There is concern that there is insufficient time allocated to the FFD review and test preparation.
Scope/Change Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Yellow	Green	Green	Yellow	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting. Risks are not being fully documented in eRoom.
Issue Management	Green	Green	Green	Green	Yellow	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings. Issues are not being fully documented in eRoom.
Resource Management	Green	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources currently seem adequately staffed. Court resources are stretched thin between V3 and V4 and may be insufficient during the review of the FFD and into test development.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	We are unable to conclude on the quality of the client functionality at this point as the project is still in the requirements review phase.
Quality Architecture	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	SEC will continue to assess during review of the FFD; however, we have concerns with the link between use cases and business rules.
Detailed Design Review	Green	Yellow	Yellow	Yellow	Yellow	Yellow	The FFD contains several incomplete sections open to interpretation that could add time to test phase or result in problems with functionality.
System Development Quality and Progress	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Yellow	Green	Green	Green	Green	Green	Planning 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 February, SEC performed the following activities:

- Reviewed Calendar for SMEs Documentation;
- Reviewed Efilng Impact on Core Application Documentation;
- Reviewed Deloitte CMMI Process Assessment;
- Reviewed FFD Review Schedule;
- Reviewed Steering Committee Documentation;
- Attended weekly Project Management Meetings;
- Attended monthly Project Management Meeting;
- Participated in CCMS-V4 IPO/IVV Project Meetings;
- Continued working meetings with both the RPO Management Team and ISD;
- Attended weekly CCMS-V4 Technical Architecture Meetings and reviewed technical documentation;
- Performed analysis of areas in the Project Oversight Review Checklist Appendix C;
- Identified and tracked potential risks, observations, and issues; and
- Discussed and prepared monthly IPO/IV&V written status reports.

Planned SEC Activities for March 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, a monthly Project Management Meeting, monthly RPO Management Meeting, monthly ISD Meeting, bi-weekly Steering Committee Meetings, weekly Technical Architecture Meetings, CIO Meetings, Oversight Committee meetings, and monthly IPO/IVV Project Meetings;
- 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 Final Design Deliverable in terms of sufficiency of design, detail, and compliance with contract requirements;
- Continue review of Requirements Traceability;
- Review and comment on compliance of Deloitte Consulting deliverables with the project management elements, if completed, as specified in the contract;
- Identify and track new risks or issues as well as accomplishments and review prior issue resolution; and
- Prepare monthly IPO/IV&V status report.

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 March 31, 2009



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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 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 March, CCMS-V4 activities continued to focus on the Final Functional Design (FFD) review and approval process as well as preparing for the testing effort. While our IPO activities primarily concentrated on communication and resource management as well as the Project Team's process for tracking and managing risks and issues, our IV&V efforts continued to focus on communication challenges experienced by the CCMS-V4 Team in addition to the Quality Assurance (QA) reports being prepared by Deloitte Consulting. Once the FFD is approved and coding starts, the IV&V will review a sample of source code and analyze the proposed Testing Methodology.

For the month of March 2009, we highlight the following:

- The Portals and Statewide Data Warehouse portions of the Final Functional Design (FFD) will be accepted by the end of March and the Core application is on target for completion by the end of March. The Data Exchanges portion continues to experience delays and is not expected to be completed until the end of April. The delay in finalizing the review of the FFD is being closely managed by the AOC, Courts, and Deloitte Consulting. Because of the significance of this delay and the risk to the project schedule and the potential risk to implementation, IPO/IV&V will continue to monitor this area.

- Moreover, it continues to be our belief that the following items could significantly impact the development schedule and budget, as well as deployment planning, if not addressed immediately:
 - Comprehensive Plan for the Justice Partners (Interfaces); and
 - Action Plan for the delivery of Document Management.

ISD has clarified that the common “State” interfaces are currently being reviewed by the Justice Partners (Interfaces) and that the courts are pleased with the progress they are making and are moving ahead. The remaining interfaces will be documented in the Data Exchanges.

With regards to document management, ISD has clarified that the courts will receive an agnostic “generic” interface since the requirement is that the CCMS-V4 application will support any existing document management solution.

- Deloitte Consulting continues to code what the IPO/IV&V Team refers to as the “infrastructure” components in an effort to mitigate the risks associated with the FFD review delay. ISD is actively monitoring this effort and has employed the use of quality assurance staff to review the work being conducted including code walkthroughs. Last month, ISD stated that they were trending the February results of the quality assurance effort and would be presenting those results in March. ISD expects to discuss the results of the quality assurance effort with the RPO Management Team in April and will provide the IPO/IV&V Team with a copy of the report once this has occurred.

Detailed Observations, Impact, and Recommendations

Despite the lengthy review time necessary to complete a thorough review of the FFD, 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 overall health of the project is mixed. While IPO/IV&V has concerns with requirements gathering and the traceability of those requirements, the 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. Yet, 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

Schedule Management:

The approach of coding ahead of schedule on the less volatile portions of the application may delay the schedule due to rework on the already-coded components. The IPO/IV&V Team will continue to monitor this area as the project progresses under our schedule related issue reported as "**July07.1 Aggressive Schedule**".

ISD has clarified that the common "State" interfaces are currently being reviewed by the Justice Partners. IPO/IV&V will track this area of concern as "**Mar09.1 Justice Partners (Interfaces) Plan.**"

ISD has clarified that the courts will receive an agnostic "generic" interface since the requirement is that the CCMS-V4 application will support any existing document management solution. IPO/IV&V will track this area of concern as "**Mar09.2 Document Management Plan.**"

Scope Management:

There do not appear to be any scope management items that are not being actively managed through eRoom. Further, for the month of March, there were no new IPO/IV&V issues with respect to Scope Management.

Cost Management:

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

Risk Management:

During the month of March, eRoom was kept up to date with risk status. As of March 31, 2009, no new risks were raised by the CCMS-V4 Project Team; however, the risks identified below were active.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
16	Environments	ISD has provided Deloitte Consulting with a tentative schedule; however a new development has arisen that may change the dates in that schedule and ISD has indicated that the 4/22/09 date may be in jeopardy.	4-22-09
26	FFD Review	The FFD, with the exception of the Data Exchanges, will be completed by March 31, 2009.	3-29-09
27	SME Testing Staffing Plan	Ownership of this risk is as follows: - Art Rodriguez owns the responsibility of scheduling court staff week by week and working with Kunal Shah to create a script development schedule - Margie Borjon-Miller owns the responsibility of reaching out to the courts and requesting more resources - Keri Collins owns the responsibility of working out the logistics of bringing on recently retired court staff	6-30-09
29	Functional Design Deliverable Development before Approval	Deloitte is commencing with development before approval of the FDD. Deloitte recognizes and accepts the risk associated with this approach. ISD has supplied 2 resources for quality assurance review.	6-30-09
31	Water's Edge	An updated SOW was submitted to the AOC on 3/17/09 to support the Water's Edge deal. This SOW is under review by ISD.	4-30-09

The following risks were closed in the month of March:

Risk Number	Risk Title	Activity Performed	Target Resolution Date
5	ISB Development and Delivery Timeframes	The conditions and approval dates of the Data Exchange FFD have been finalized.	3-5-09

Risk Number	Risk Title	Activity Performed	Target Resolution Date
25	Expectations of Incorporating DES Changes	The DES work product is now under change control and all mapping of the 92 data exchanges has been completed and submitted, in the DX FFD Deliverable, to the AOC for review.	3-5-09

Issue Management:

As of March 31, 2009, no new issues were raised by the CCMS-V4 Project Team; however, the issues identified on the following page were active.

Issue Number	Issue Title	Activity Performed	Target Resolution Date
14	DMV Data Exchange	An updated SOW was submitted to the AOC on 3/17/09 to support the Water's Edge deal. This SOW is under review by ISD.	4-30-09
23	<p>The Notification Common Service is missing the following functionality:</p> <ul style="list-style-type: none"> - Notification of successful delivery of a DX via web services - Notification of errors while processing a DX via web services - Notification of to what systems the DX was routed via web services <p>The AOC has not provided a date when this functionality will be delivered. Without a complete Notification Common Service, Deloitte is unable to:</p> <ul style="list-style-type: none"> - Complete DX Technical Design - Complete DX Construction <p>This missing functionality has already caused delays in the DX project schedule and without a confirmed delivery date a project impact assessment cannot be done.</p>	ISD has stated that this issue is resolved and will be closed shortly.	4-30-09

No issues were closed in the month of March.

Communication Management:

The AOC/Deloitte Management Meeting needs to be more consistent.

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project is stretching Court resources too thin—this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27. In an effort to mitigate this risk, approximately twenty retired resources have been identified to assist with the CCMS-V4 Project.

Technical Focus Areas

Requirements Identification and Traceability:

The IPO/IV&V Team continues to express concern in the lack of traceability between use cases and business rules especially when combined with concerns mentioned in prior IPO/IV&V reports related to gaps in requirements identification and functionality from using the discreet functional area, or silo, JADs approach. The RPO Management Team has recognized SEC's concern, but has stated that they will not create a traceability matrix between use cases and business rules. Instead, they are putting a management structure in place which they believe will provide oversight in this area and are strengthening their testing effort. It is the IPO/IV&V Team's belief that these measures may not be enough to mitigate this concern. We believe that this approach may add time to the already compressed schedule and creates a risk for a higher number of testing incidents since some requirements will undoubtedly not be tested without this traceability.

Detailed Design Review:

As documented in previous reports and discussed verbally, the AOC and the Courts are aware of the IPO/IV&V Team's concerns that the ambiguity surrounding the interpretation of the requirements presents a risk to the construction and testing phases of the project. 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 to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain open and SEC will continue to monitor it as an area of concern as "*Apr08.1 Unclear Requirements.*"

Quality Management:

Our primary observation continues to be that the Quality Assurance (QA) reports generally contain project management information rather than industry standard information related to more technical processes such as code walkthroughs, documentation, and user sign-off of requirements.

The most recent CCMS-V4 Development Services Quality Assurance Report 5 includes some significant changes/improvements over previous QA Reports reviewed by the IPO/IV&V Team. While this particular QA Report still includes Project Management information that is not directly related to QA (e.g., schedule concerns, contract issues, project resource concerns), it has been clarified by the RPO Management Team that the focus of this report is for management—as such, it appears that this report serves that purpose well. However, a lack of metrics still exists. Without these metrics, management will need to rely on their memory to relate previous reported incidents or issues to process execution. In addition, the report information and the process areas need to be further broken out into the processes within each of the process areas and the active processes reported.

For this QA Report 5, there was also a significant improvement in the CMMI Status Report section of the report. The changes in this section provide a simple and straightforward management-level overview of the applicable CMMI Level 3 process areas, though there are still no metrics-type information provided to assess how critical key processes are executing over time.

Compared to the previous reports that the IPO/IV&V Team reviewed, the CMMI Status Report is vastly improved with the additional columns and more expanded information. For example, in the Configuration Management process area, the previous QA Report (#4) identified only one item in the “Areas for Improvement” column. The current QA Report (#5) identifies six specific incidents or issues that occurred during the period that impact Configuration Management. Again, while metrics are not provided, specific incidents were identified that could be used to develop metrics by Deloitte or the RPO QA Manager.

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.

Architecture:

During the detailed Technical Design, the IPO/IV&V Team will re-visit some of the Quality Attribute architecture decisions after specific product solutions have been selected, such as products for memory/bandwidth utilization that impacts performance.

System Development Quality and Progress:

The IPO/IV&V Team will continue to monitor how well the Architecture Team documents their decisions and forwards them to the management team. As always, architectural decisions are based on the non-functional aspects of a system, such as reliability, maintainability, security, and performance. Thus, the team decisions must be well documented to understand why certain tradeoff decisions were made as well as how the decisions were balanced against other competing non-functional needs of the AOC.

Although ISD is actively participating in the Architecture Team and has visibility into the decisions that are made and the rationale for them, a tradeoff matrix has not been developed. A tradeoff matrix would be helpful and would decrease the time and effort that could be required to revisit and reanalyze past decisions and, ultimately, decrease the risk that past mistakes could be repeated.

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:

- Two new areas of concern were identified 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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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
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 to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain in watch status.</p>

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Item Number	Area of Concern	Recommendation	Action Taken
			<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>
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.	New this month
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..	New this month

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
Aug07.1	JAD Schedule	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.	09-2007 – The schedule should be completed in October 2007. 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. 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.

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>

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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>
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>

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 changes/updates were made this month to the Project Oversight Review Checklist.

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.

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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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

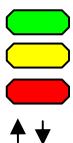
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?			Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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. The AOC should implement a process for ensuring that the coding standards are adhered to.
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. SEC will be investigating the AOC enterprise architecture at a later phase in the development 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.

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Appendix D: IPO/IV&V Project Scorecard

For March 1, 2009 - March 31, 2009 Time Period

Process Area	OCT 2008	NOV 2008	DEC 2008	JAN 2009	FEB 2009	MAR 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	There is concern that there is insufficient time allocated to test preparation and execution.
Scope/Change Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Green	Yellow	Yellow	Green	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting.
Issue Management	Green	Green	Yellow	Yellow	Green	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources currently seem adequately staffed. Court resources are stretched thin between V3 and V4 and may be insufficient during test development and execution.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	We are unable to conclude on the quality of the client functionality at this point as the project is still in the requirements review phase.
Quality Architecture	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	SEC has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The FFD contains several incomplete sections open to interpretation that could add time to test phase or result in problems with functionality.
System Development Quality and Progress	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Green	Planning 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 March, SEC performed the following activities:

- Reviewed Detailed Calendar for SME Involvement;
- Reviewed Architecture Presentations and Topics
- Reviewed Case Assignment Scope Documentation
- Reviewed Steering Committee Minutes, Action Items, and Agendas;
- Reviewed Resource Planning Update;
- Reviewed Deployment and Development Updates;
- Reviewed QA Report #5;
- Attended weekly Project Management Meetings;
- Attended monthly Project Management Meeting;
- Attended Steering Committee Meeting;
- Participated in CCMS-V4 IPO/IVV Project Meetings;
- Continued working meetings with both the RPO Management Team and ISD;
- Attended weekly CCMS-V4 Technical Architecture Meetings and reviewed technical documentation;
- Performed analysis of areas in the Project Oversight Review Checklist Appendix C;
- Identified and tracked potential risks, observations, and issues; and
- Discussed and prepared monthly IPO/IV&V written status reports.

Planned SEC Activities for April 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, a monthly Project Management Meeting, monthly RPO Management Meeting, monthly ISD Meeting, bi-weekly Steering Committee Meetings, weekly Technical Architecture Meetings, CIO Meetings, Oversight Committee meetings, and monthly IPO/IVV Project Meetings;
- 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 Final Design Deliverable in terms of sufficiency of design, detail, and compliance with contract requirements;
- Continue review of Requirements Traceability;
- Review and comment on compliance of Deloitte Consulting deliverables with the project management elements, if completed, as specified in the contract;
- Identify and track new risks or issues as well as accomplishments and review prior issue resolution; and
- Prepare monthly IPO/IV&V status report.

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 May 1, 2009



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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 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 April, CCMS-V4 activities continued to focus on the Final Functional Design (FFD) review and approval process as well as restructuring the project schedule and preparing for the testing effort. Once the FFD coding is further along, the IPO/IV&V Team will review a sample of source code and analyze the proposed Testing Methodology.

For the month of April 2009, we highlight the following:

- The Final Functional Design (FFD) was signed off May 1, 2009. The Data Exchanges are expected to be completed by May 22, 2009. The delay in delivery for the Data Exchanges is being closely managed by the AOC, Courts, and Deloitte Consulting. Now that the FFD has been approved, the RPO Management Team should focus their efforts on the next most critical area — namely, the plan and schedule for testing. The IPO/IV&V Team is concerned about the inherent conflict between the deployment/product completion deadline and the timelines allowed for the testing effort. Recently, ten weeks were added to the project schedule but this addition of time did not affect the timelines for Product Acceptance Testing.

As with many other previous and vital elements deferred to the testing phase (such as the lack of requirements understanding, the lack of mapping of use cases to business rules resulting from the absence of a traceability matrix between the use cases and the business rules, and the sheer numbF), it is the IPO/IV&V Team's estimate that a complete and thorough testing of the CCMS-V4 product may take as long as 9 to 12 months. This estimate is based on parametric models developed by the University of Southern California's Center for Software Engineering and the United States Air

Force. Both of these models are driven by the number of requirements, underlying architecture (database and network), requirements clarity/completeness, and developer factors—for which Deloitte reduced the time. Currently, only 5 months is allocated to Product Acceptance Testing. Thus, we believe there is even greater risk associated with the aggressive schedule for the project especially as it relates to the testing effort. Because of the significance of this concern and the risk to the project schedule and the potential risk to implementation, IPO/IV&V will continue to monitor this area.

- Deloitte Consulting continues to code while ISD monitors this effort through the use of quality assurance staff review the work being conducted and performing code walkthroughs. ISD is trending the results of the quality assurance effort and is working with the RPO Management Team to review these results. Starting in May, ISD will share the results with the CCMS-V4 Project Team. ISD will also provide the IPO/IV&V Team with a copy of the report monthly.

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 overall health of the project is mixed. While IPO/IV&V has concerns with requirements gathering and the traceability of those requirements, the 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. Yet, 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

Schedule Management:

The IPO/IV&V Team will continue to monitor the coding and testing effort as the project progresses under our schedule related issue reported as “**July07.1 Aggressive Schedule**”.

The IPO/IV&V Team has suggested that the state and progress of the common “State interfaces be assessed for project schedule impact since these Justice Partners interfaces must be operational at go live. To our knowledge, this impact analysis has not been conducted. 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. IPO/IV&V will track this area of concern as “**Mar09.1 Justice Partners (Interfaces) Plan.**”

The IPO/IV&V Team has also suggested that the state and progress of the agnostic “generic” document management interface be assessed for project schedule impact since the requirement is that the CCMS-V4 application will support any existing document management solution. 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. To our knowledge, this impact analysis has not been conducted. IPO/IV&V will track this area of concern as “**Mar09.2 Document Management Plan.**”

Scope Management:

There do not appear to be any scope management items that are not being actively managed through eRoom. Further, for the month of April, there were no new IPO/IV&V issues with respect to Scope Management.

Cost Management:

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

Risk Management:

During the month of April, eRoom was updated with risk status. As of April 30, 2009, one new risk (#34) was raised by the CCMS-V4 Project Team and the risks identified below were active.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
27	SME Testing Staffing Plan	An updated resource schedule is being developed that will forecast resource needs between now and the beginning integration testing.	6-30-09
29	Functional Design Deliverable Development before Approval	Deloitte is continuing to code while ISD utilizes two QA resources. Development status updates will be provided during the weekly and monthly status report meetings.	6-30-09
34	V4 & ISB TIBCO Versions	All CCMS-V4 environments will be upgraded in the next few months for new TIBCO products. Until the same versions are installed in the ISB Dev, Staging, and Production environments at the CCTC (by Oct. 2009) there will be a small risk if the V4 environments are running a different version of the software than the ISB environments. This risk has been accepted and will continue to be monitored on a weekly basis; at this time, no mitigation actions are required.	10-17-09

Three risks were closed in the month of April:

Risk Number	Risk Title	Activity Performed
16	Environments	The hardware delivery schedule is now in concert with the Stress and PAT schedules. The PM group agreed to close this risk.
26	FFD Review	Final sign off for the FFD is expected by May 1, 2009. The PM group agreed to close this risk.
31	Water's Edge	A revised SOW addresses this risk. The PM group agreed to close this risk. NOTE: This risk may be reopened in the month of May when more conversations regarding the SOW content are conducted.

Issue Management:

As of April 30, 2009, no new issues were raised by the CCMS-V4 Project Team; however, the issues identified on the following page were active.

Issue Number	Issue Title	Activity Performed	Target Resolution Date
23	<p>The Notification Common Service is missing the following functionality:</p> <ul style="list-style-type: none">- Notification of successful delivery of a DX via web services- Notification of errors while processing a DX via web services- Notification of to what systems the DX was routed via web services <p>The AOC has not provided a date when this functionality will be delivered. Without a complete Notification Common Service, Deloitte is unable to:</p> <ul style="list-style-type: none">- Complete DX Technical Design- Complete DX Construction <p>This missing functionality has already caused delays in the DX project schedule and without a confirmed delivery date a project impact assessment cannot be done.</p>	A revised SOW was submitted to the AOC on 4/27/09.	4-30-09 <i>The resolution date should be updated.</i>

One issue was closed in the month of April.

Issue Number	Issue Title	Activity Performed
14	DMV Data Exchange	A revised SOW addresses this risk. The PM group agreed to close this risk. NOTE: This risk may be reopened in the month of May when more conversations regarding the SOW content are conducted.

Communication Management:

The communication issues addressed in earlier IPO/IV&V reports appear to have been resolved and all parties are comfortable that the level of communication occurring on a weekly basis is adequate.

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project requires more resources—this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27. In an effort to mitigate this risk, an updated resource schedule is being developed that will forecast resource needs between now and the beginning of integration testing. The IPO/IV&V Team will review this schedule to assess impact to the project as a whole.

Technical Focus Areas

Requirements Identification and Traceability:

The IPO/IV&V Team continues to express concern in the lack of traceability between use cases and business rules especially when combined with concerns mentioned in prior IPO/IV&V reports related to gaps in requirements identification and functionality from using the discreet functional area, or silo, JADs approach. The RPO Management Team has recognized SEC's concern, but has stated that they will not create a traceability matrix between use cases and business rules. However, they are assessing the level of traceability for testing that may need improvements and are in the process of mapping the business rules to the test scenarios. The IPO/IV&V Team's concern that the lack of traceability between use cases and business rules may add time to the already compressed schedule and creates a risk for a higher number of testing incidents since some requirements will undoubtedly not be tested without this traceability.

Detailed Design Review:

As documented in previous reports and discussed verbally, the AOC and the Courts are aware of the IPO/IV&V Team's concerns that the ambiguity surrounding the interpretation of the requirements presents a risk to the construction and testing phases of the project. 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 to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain open and SEC will continue to monitor it as an area of concern as "*Apr08.1 Unclear Requirements.*"

Quality Management:

A continuing concern exists with respect to the Quality Assurance (QA) reports that in the past have contained project management information rather than industry standard information related to more technical processes such as code walkthroughs, documentation, and user sign-off of requirements. The IPO/IV&V Team will continue to watch this item.

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.

Architecture:

During the detailed Technical Design, the IPO/IV&V Team will re-visit some of the Quality Attribute architecture decisions after specific product solutions have been selected, such as products for memory/bandwidth utilization that impacts performance.

System Development Quality and Progress:

The IPO/IV&V Team will continue to monitor how well the Architecture Team documents their decisions and forwards them to the management team. As always, architectural decisions are based on the non-functional aspects of a system, such as reliability, maintainability, security, and performance. Thus, the team decisions must be well documented to understand why certain tradeoff decisions were made as well as how the decisions were balanced against other competing non-functional needs of the AOC.

Although ISD is actively participating in the Architecture Team and has visibility into the decisions that are made and the rationale for them, to the IPO/IV&V Team's knowledge a tradeoff matrix has not been developed. A tradeoff matrix would be helpful and would decrease the time and effort that could be required to revisit and reanalyze past decisions and, ultimately, decrease the risk that past mistakes could be repeated. ISD will work with the IPO/IV&V Team to better understand the documentation for trade-offs.

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.

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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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
			4-2009 – The FFD was signed off May 1, 2009. The Data Exchanges are expected to be completed by May 22, 2009.
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 to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain in watch status.</p>

Item Number	Area of Concern	Recommendation	Action Taken
			<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>
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.	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.
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.	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.

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
Aug07.1	JAD Schedule	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.	09-2007 – The schedule should be completed in October 2007. 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. 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.

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>
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>

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 changes/updates were made this month to the Project Oversight Review Checklist.

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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

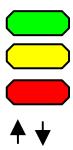
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?			Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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. The AOC should implement a process for ensuring that the coding standards are adhered to.
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. SEC will be investigating the AOC enterprise architecture at a later phase in the development 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 April 1, 2009 - April 30, 2009 Time Period

Process Area	NOV 2008	DEC 2008	JAN 2009	FEB 2009	MAR 2009	APR 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	There is concern that there is insufficient time allocated to test preparation and execution.
Scope/Change Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Yellow	Yellow	Green	Green	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting.
Issue Management	Green	Yellow	Yellow	Green	Green	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources currently seem adequately staffed but Court resources may be insufficient during test development and execution.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	We are unable to conclude on the quality of the client functionality at this point as the project is still in the requirements review phase.
Quality Architecture	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	SEC has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The FFD contains several incomplete sections open to interpretation that could add time to test phase or result in problems with functionality.
System Development Quality and Progress	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Green	Planning 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 April, SEC performed the following activities:

- Reviewed Detailed Calendar for SME Involvement;
- Reviewed Architecture Presentations and Topics;
- CCMS V3 Quality Report for January and February;
- Consistency JAD - Participant Roles and Stages;
- Consistency JAD – V3 Participant Stages Analysis;
- Consistency JAD – V4 Participant Stages Analysis;
- Consistency JAD – V3 and V4 Participant Roles – V3 Stage Implications;
- Consistency JAD – April 14 Participant Roles – Stages;
- Consistency JAD Documentation Tracker;
- Steering Committee Agenda;
- Steering Committee Presentation;
- Steering Committee Minutes from 3-25-09;
- Steering Committee Action Items List;
- Steering Committee Key V4 Design Issues;
- Attended weekly Project Management Meetings;
- Attended monthly Project Management Meeting;
- Attended Steering Committee Meeting;
- Participated in CCMS-V4 IPO/IVV Project Meetings;
- Continued working meetings with both the RPO Management Team and ISD;
- Attended weekly CCMS-V4 Technical Architecture Meetings and reviewed technical documentation;
- Performed analysis of areas in the Project Oversight Review Checklist Appendix C;
- Identified and tracked potential risks, observations, and issues; and
- Discussed and prepared monthly IPO/IV&V written status reports.

Planned SEC Activities for May 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, a monthly Project Management Meeting, monthly RPO Management Meeting, monthly ISD Meeting, bi-weekly Steering Committee Meetings, weekly Technical Architecture Meetings, CIO Meetings, Oversight Committee meetings, and monthly IPO/IVV Project Meetings;
- 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 Final Design Deliverable in terms of sufficiency of design, detail, and compliance with contract requirements;
- Continue review of Requirements Traceability;
- Review and comment on compliance of Deloitte Consulting deliverables with the project management elements, if completed, as specified in the contract;
- Identify and track new risks or issues as well as accomplishments and review prior issue resolution; and
- Prepare monthly IPO/IV&V status report.

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 May 31, 2009



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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 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 May, CCMS-V4 activities focused on assessing resource concerns and conducting test preparation. Once the Final Functional Design (FFD) coding is further along, the IPO/IV&V Team will review a sample of source code and analyze the proposed Testing Methodology.

For the month of May 2009, we highlight the following:

- While the Data Exchanges deliverable due date has slipped to June 5, 2009, the delay in delivery for the Data Exchanges is being closely managed by the AOC, Courts, and Deloitte Consulting.
- The RPO Management Team has focused their efforts on the development of Integration and Acceptance Test scripts which should be complete by July 10, 2009. The IPO/IV&V Team continues to be concerned about the inherent conflict between the deployment/product completion deadline and the timelines allowed for the testing effort. The IPO/IV&V Team will review the test scripts for conformance to industry standard requirements.
- The IPO/IV&V Team is equally concerned that the testing resources may be insufficient to ensure complete and thorough testing of the CCMS-V4 product. Currently, only 5 months is allocated to Product Acceptance Testing. Thus, we believe there is even greater risk associated with the aggressive schedule for the project especially as it relates to the testing effort. Because of the significance of this concern and the risk to the project schedule and the potential risk to implementation, IPO/IV&V will continue to monitor this area.

- Deloitte Consulting continues to code while ISD monitors this effort through the use of quality assurance staff reviewing the work being conducted and performing code walkthroughs. ISD is trending the results of the quality assurance effort and is working with the RPO Management Team to review these results. At this point in time, ISD has not shared their results with the IPO/IV&V Team.

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 overall health of the project is mixed. While IPO/IV&V has concerns with requirements gathering and the traceability of those requirements, the 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. Yet, 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

Schedule Management:

The IPO/IV&V Team will continue to monitor the coding and testing effort as the project progresses under our schedule related issue reported as "**July07.1 Aggressive Schedule**".

The IPO/IV&V Team has suggested that the state and progress of the common "State interfaces be assessed for project schedule impact since these Justice Partners interfaces must be operational at go live. ISD has reported that they are conducting the impact analysis and meeting with the Justice Partners at both the State and local levels. In addition, ISD has stated that the schedule impact will be evaluated once the Data Exchanges deliverable has been signed off (now anticipated for June 5, 2009) and the actual interfaces have been finalized and agreed to. IPO/IV&V will track this area of concern as "**Mar09.1 Justice Partners (Interfaces) Plan**."

The IPO/IV&V Team has also suggested that the state and progress of the agnostic "generic" document management interface be assessed for project schedule impact since the requirement is that the CCMS-V4 application will support any existing document management solution. 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. To our knowledge, this impact analysis has not been conducted. IPO/IV&V will track this area of concern as "**Mar09.2 Document Management Plan**."

Scope Management:

There do not appear to be any scope management items that are not being actively managed through eRoom. Further, for the month of May, there were no new IPO/IV&V issues with respect to Scope Management.

Cost Management:

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

Risk Management:

During the month of May, eRoom was updated with risk status. As of May 31, 2009, one new risk (#35) was raised by the CCMS-V4 Project Team and the risks identified below were active.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
27	SME Testing Staffing Plan	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.	6-30-09
29	Functional Design Deliverable Development before Approval	Deloitte is continuing to code while ISD utilizes two QA resources. Development status updates will be provided during the weekly and monthly status report meetings.	6-30-09
34	CCMS-V4 & ISB TIBCO Versions	All CCMS-V4 environments will be upgraded in the next few months for new TIBCO products. Until the same versions are installed in the ISB Dev, Staging, and Production environments at the CCTC (by Oct. 2009) there will be a small risk if the V4 environments are running a different version of the software than the ISB environments. This risk has been accepted 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	Adequate CCMS-V3 resources are not associated with the CCMS-V4 project.	6-5-09

No risks were closed in the month of May.

Issue Management:

As of May 31, 2009, no new issues were raised by the CCMS-V4 Project Team and no issues were active.

One issue was closed in the month of May.

Issue Number	Issue Title	Activity Performed
23	<p>The Notification Common Service is missing the following functionality:</p> <ul style="list-style-type: none">- Notification of successful delivery of a DX via web services- Notification of errors while processing a DX via web services- Notification of to what systems the DX was routed via web services <p>The AOC has not provided a date when this functionality will be delivered. Without a complete Notification Common Service, Deloitte is unable to:</p> <ul style="list-style-type: none">- Complete DX Technical Design- Complete DX Construction <p>This missing functionality has already caused delays in the DX project schedule and without a confirmed delivery date a project impact assessment cannot be done.</p>	A revised SOW was submitted to the AOC on 4/27/09. The PM Group agreed to close this issue.

Communication Management:

There do not appear to be any current communication problems.

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project requires more resources—this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27. In an effort to mitigate this risk, an updated resource schedule is being developed that will forecast resource needs. The IPO/IV&V Team will review this schedule to assess impact to the project as a whole once the schedule is made available

Technical Focus Areas

Requirements Identification and Traceability:

The IPO/IV&V Team is concerned that the lack of traceability between use cases and business rules in the Functional Design Documents may add time to the already compressed Test schedule and creates a risk for a higher number of testing incidents due to the lack of this traceability and developers/coders needing to interpret or guess as to which business rule maps to which decision block. In an effort to mitigate this concern, the CCMS-V4 Project Team has embarked on an effort to build a Business Rules Traceability Matrix which will trace business rules to test scenarios and scripts. The IPO/IV&V Team will evaluate this matrix in the month of June.

Detailed Design Review:

As documented in previous reports and discussed verbally, the AOC and the Courts are aware of the IPO/IV&V Team's concerns that the ambiguity surrounding the interpretation of the requirements presents a risk to the construction and testing phases of the project. 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 to project cost, schedule, required or expected Court functionality, and overall quality. This item will remain open and SEC will continue to monitor it as an area of concern as "**Apr08.1 Unclear Requirements.**"

Quality Management:

A continuing concern exists with respect to the Quality Assurance (QA) reports that in the past have contained project management information rather than industry standard information related to more technical processes such as code walkthroughs, documentation, and user sign-off of requirements. The IPO/IV&V Team will continue to watch this item.

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.

Architecture:

During the detailed Technical Design, the IPO/IV&V Team will re-visit some of the Quality Attribute architecture decisions after specific product solutions have been selected, such as products for memory/bandwidth utilization that impacts performance. Some of this re-visiting of architectural design decisions has been completed and is documented in the May 2009 CCMS-V4 Technical Architecture Deliverable. Changes will continue to occur due to open issues and these changes are currently being tracked through issues, decision documents, and other management means.

System Development Quality and Progress:

The IPO/IV&V Team will continue to monitor how well the Architecture Team documents their decisions and forwards them to the management team. As always, architectural decisions are based on the non-functional aspects of a system, such as reliability, maintainability, security, and performance. Thus, the team decisions must be well documented to understand why certain tradeoff decisions were made as well as how the decisions were balanced against other competing non-functional needs of the AOC.

Although ISD is actively participating in the Architecture Team and has visibility into the decisions that are made and the rationale for them, to the IPO/IV&V Team's knowledge a tradeoff matrix has not been developed. A tradeoff matrix would be helpful and would decrease the time and effort that could be required to revisit and reanalyze past decisions and, ultimately, decrease the risk that past mistakes could be repeated. However, the IPO/IV&V Team realizes that many of the documents, meeting minutes, PowerPoint Presentations and other documents are located on the JCC Web site and they contain much of the data. Yet, the documents are not well organized or structured to assist in locating the tradeoff information—additionally, the IPO/IV&V Team cannot be confident that the information is complete.

Testing:

During the month of May, there have been numerous Test preparation activities ongoing. Of particular significance was the preparation and revisions of the deliverable approach for the Core Product Stress Test Plan and Scripts as well as the posting of the Standard CCMS-V4 Configuration Data Sets and Workbooks. These and other events, such as the creation of new folders in eRoom to support test planning, are positive indications that the CCMS-V4 Project Team is beginning to prepare for Testing. Since the CCMS-V4 Project Team has stated previously that some of the IPO/IV&V Team issues with the CCMS-V4 requirements would be addressed during Testing, test planning now is critical to meet the IPO/IV&V Team's assessed short test schedule. Some mitigation steps taken by the CCMS-V4 Project Team include adding eight additional retired resources with subject matter expertise to the team and implementing a DS3 line. ISD anticipates that the DS3 line will allow for more productive testing and less disruption during the testing effort and will allow testing at regional centers.

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.

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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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>
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>

Item Number	Area of Concern	Recommendation	Action Taken
			<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 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>
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.	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.

Item Number	Area of Concern	Recommendation	Action Taken
			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.
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.	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. 5-2009 – The “generic” interface is currently under development. This item will remain in watch status.

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
Aug07.1	JAD Schedule	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.	09-2007 – The schedule should be completed in October 2007. 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. 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.

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>
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>

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 changes/updates were made this month to the Project Oversight Review Checklist.

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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

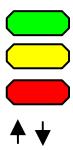
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?			Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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. The AOC should implement a process for ensuring that the coding standards are adhered to.
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. SEC will be investigating the AOC enterprise architecture at a later phase in the development 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 May 1, 2009 - May 31, 2009 Time Period

Process Area	DEC 2008	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	There is concern that there is insufficient time allocated to test preparation and execution.
Scope/Change Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Yellow	Yellow	Green	Green	Green	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting.
Issue Management	Yellow	Yellow	Green	Green	Green	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources appear to be insufficient during test development and execution.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	We are unable to conclude on the quality of the client functionality at this point as the project is still in the requirements review phase.
Quality Architecture	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	SEC has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The FFD contains several incomplete sections open to interpretation that could add time to test phase or result in problems with functionality.
System Development Quality and Progress	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Green	Test Planning 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 May, SEC performed the following activities:

- Monitored Detailed Calendar for SME Involvement;
- Reviewed Architecture Presentations and Topics;
- Assessed CCMS V4 Standardization and Configuration Comment Response;
- Monitored Integration Test Script Status;
- Reviewed and analyzed Specialized vs. Generalized Calendar Types and V3 Minute Codes Documentation;
- Attended weekly and monthly Project Management Meetings and Steering Committee Meeting;
- Reviewed and analyzed various Steering Committee documentation including Agenda, Minutes from 4-21-09, V3 Update, V4 Update, Presentation, CCMS Change Management Process, Action Items List, and Key V4 Design Issues.
- Participated in CCMS-V4 IPO/IVV Project Meetings;
- Continued working meetings with both the RPO Management Team and ISD;
- Attended weekly CCMS-V4 Technical Architecture Meetings and reviewed technical documentation;
- Performed analysis of areas in the Project Oversight Review Checklist Appendix C;
- Identified and tracked potential risks, observations, and issues; and
- Discussed and prepared monthly IPO/IV&V written status reports.

Planned SEC Activities for June 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, a monthly Project Management Meeting, monthly RPO Management Meeting, monthly ISD Meeting, bi-weekly Steering Committee Meetings, weekly Technical Architecture Meetings, CIO Meetings, Oversight Committee meetings, and monthly IPO/IVV Project Meetings;
- 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 Final Design Deliverable in terms of sufficiency of design, detail, and compliance with contract requirements;
- Continue review of Requirements Traceability;
- Review and comment on compliance of Deloitte Consulting deliverables with the project management elements, if completed, as specified in the contract;
- Identify and track new risks or issues as well as accomplishments and review prior issue resolution; and
- Prepare monthly IPO/IV&V status report.

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 June 30, 2009



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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 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 June, the IPO/IV&V Team primarily focused on reviewing the test scenarios and the business rules traceability matrix. For the month of June 2009, we highlight the following:

- The RPO Management Team has focused their efforts on the development of Integration and Acceptance Test scripts. The IPO/IV&V Team continues to be concerned about the inherent conflict between the deployment/product completion deadline and the timelines allowed for the testing effort. The IPO/IV&V Team has reviewed a sampling of the test scripts and has documented initial observations later in this report. Despite the allocated 19 weeks for testing, the exit criteria of 0-0-50 must still be met to exit testing and implement.
- Deloitte Consulting continues to code while ISD monitors this effort through the use of quality assurance staff reviewing the work being conducted and performing code walkthroughs. ISD is trending the results of the quality assurance effort and is working with the RPO Management Team to review these results.

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.

Yet, the overall health of the project is mixed. While IPO/IV&V has concerns with the requirements gathering process used and the testing of those requirements, the 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. Yet, 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

Schedule Management:

While the IPO/IV&V Team believes the schedule is aggressive and will remain aggressive for the duration of the project, the RPO and AOC has taken steps to address our original concerns through contract amendments that have extended the overall development schedule. Although the IPO/IV&V Team still considers the aggressive schedule to be a huge risk to the project and will continue to monitor the coding and testing effort schedule as the project progresses, the RPO and AOC staff have accepted the risk since the budget and schedule for the CCMS-V4 project cannot be changed.

In previous reports, the IPO/IV&V Team has suggested that the state and progress of the common State interfaces be assessed for project schedule impact since these Justice Partners interfaces must be operational at go live. In response, the ISD has reported that they are meeting with the Justice Partners at both the State and local levels. A plan has been defined for day-one critical exchanges and each Justice Partner will be given a Microsoft Project Plan to follow. Additionally, 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. Without their participation in testing the product prior to day-one “go-live”, one cannot be assured that the CCMS-V4 system will accurately and completely interface the critical data to be shared with and between the Statewide Partners (e.g., DMV, DOJ) at deployment. Thus, this item will continue to be tracked as **“Mar09.1 Justice Partners (Interfaces) Plan.”**

The IPO/IV&V Team has also suggested that the state and progress of the agnostic “generic” document management interface be assessed for project schedule impact since the requirement is that the CCMS-V4 application will support any existing document management solution. 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. Similar to the justice partner interface, if the agnostic “generic” document

management interface is not tested, one cannot be assured that the CCMS-V4 system will accurately and completely interface with the Court's specific document management solution at deployment. The IPO/IV&V Team will continue to track this area of concern as "*Mar09.2 Document Management Plan.*"

Scope Management:

There do not appear to be any scope management items that are not being actively managed through eRoom. Further, for the month of June, there were no new IPO/IV&V issues with respect to Scope Management.

Cost Management:

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

Risk Management:

During the month of June, eRoom was updated with risk status. As of June 30, 2009, one new risk (#35) was raised by the CCMS-V4 Project Team and the risks identified below were active.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
27	SME Testing Staffing Plan	Discussions are ongoing concerning SME availability during integration testing and PAT.	7-10-09
34	CCMS-V4 & ISB TIBCO Versions	All CCMS-V4 environments will be upgraded in the next few months for new TIBCO products. Until the same versions are installed in the ISB Dev, Staging, and Production environments at the CCTC (by Oct. 2009) there will be a small risk if the V4 environments are running a different version of the software than the ISB environments. This risk has been accepted 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 seek V3 SME involvement in the parts of the V4 project where V3 participation is most critical. This includes combining the V3 and V4 project schedules to evaluate staffing and plan activities	7-10-09

Additionally, one risk was closed in the month of June.

Risk Number	Risk Title	Activity Performed
29	Functional Design Deliverable Development before Approval	The PM Group closed this risk.

Issue Management:

As of June 30, 2009, no new issues were raised by the CCMS-V4 Project Team and no issues were active.

Communication Management:

There do not appear to be any current communication problems.

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project requires more resources—this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27. In an effort to mitigate this risk, an updated resource schedule is being developed that will forecast resource needs. The IPO/IV&V Team will review this schedule to assess impact to the project as a whole once the schedule is made available

Technical Focus Areas

Requirements Identification and Traceability:

The IPO/IV&V Team is concerned that the lack of traceability between use case steps and the specific use case step that a business rule applies to in the Final Functional Design Documents may add time to the already compressed Test schedule. This creates a risk of a higher number of testing incidents due to the lack of this traceability and developers/coders needing to interpret or guess as to which business rule maps to which decision block.

In an effort to mitigate this concern, the CCMS-V4 Project Team has built a Business Rules Traceability Matrix which traces business rules to test scenarios and scripts. During the IPO/IV&V Team's evaluation of this matrix in June, we verified that the Business Rules identified in the Final Functional Design Documents are captured in the matrix and there is an associated test Scenario identified for each. However, we still have not seen any traceability between the use case steps and the Business Rules. For example, in CCMS-V4-BR06-01, Business Rules 1 through 5 are branch logic rules that apply to the CCMS-V4-INI02 Initiate Case use case. However, going to this use case, there are no steps that invoke or identify any of these branch logic Business Rules. The only references to the Business Rules are in Step L, which states "*Venue rules are outlined in the CCMS-V4-BR06-01 Business Rules*", and Step ZB, which states "*Some case types may be sealed during Case Initiation for a specified period of time. Please,*

refer to CCMS-V4-BR06-01 Business Rules for further details.” The Step L reference is actually referring to CCMS-V4-BR06-01 Business Rule 6 and the Step ZB reference is unknown as there are 8 Business Rules in CCMS-V4-BR06-01 that refer to the CCMS-V4-INI02 Initiate Case use case. Therefore, the IPO/IV&V Team’s concern remains.

Detailed Design Review:

As documented in previous reports and discussed verbally, the AOC and the Courts are aware of the IPO/IV&V Team’s concerns that the ambiguity surrounding the interpretation of final requirements presents a risk to the construction and testing phases of the project in that it could add time to an already compressed schedule as well as result in inaccurate interpretations of unclear requirements. 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 to project cost, schedule, required or expected Court functionality, and overall quality. Data is being captured by the AOC Software Quality Assurance Team (as described in the Quality Management section below) during early testing that should assist in defining the extent of the problem to assist the RPOs planning effort.

Additionally, the RPO Management Team has established four tracks that meet for one hour per day each to resolve the items documented in the “Development Tracker”.

Quality Management:

A continuing concern exists with respect to the Quality Assurance (QA) reports that in the past have contained project management information rather than industry standard information related to more technical processes such as code walkthroughs, documentation, and user sign-off of requirements. However, the IPO/IV&V Team has recently received the AOC Software Quality Assurance (SQA) Monthly Status Report for June as well as the following reports—Core FindBugs Summary Trend Report 20090622, Core PMD Summary Trend Report 20090622, and Portal FindBugs Summary Trend Report 20090622. These reports and metrics (Trend Reports) are more typical of Quality Assurance Reports for a software development project. During July, the IPO/IV&V Team will re-evaluate our concerns by mapping the contents of the Deloitte Monthly QA Report, the AOC SQA Monthly Status Report, and the Trend Reports to the Industry Standard QA requirements tailored for the CCMS-V4 Project and update our findings in the July report.

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. However, as reported in the AOC SQA Monthly Status for June report, adherence to coding standards and software development environment practices appears to be an emerging problem as discussed in the System Development Quality and Progress section below.

Architecture:

Architecture Meetings are continuing and many of the remaining topics are related to open issues or issues that have been resolved and are now being finalized by the Architecture Team. Overall, from an IPO/IV&V Team perspective, the Architecture Team with Deloitte, AOC, ISD, and other Court members has done a very good job in identifying and defining the architecture as well as architectural tradeoffs, raising issues for resolution, and generally creating a solid CCMS-V4 architecture.

System Development Quality and Progress:

The IPO/IV&V Team will continue to monitor how well the Architecture Team documents their decisions and forwards them to the management team. As always, architectural decisions are driven by the non-functional aspects of a system, such as reliability, maintainability, security, and performance. Thus, the team decisions must be well documented to understand why certain tradeoff decisions were made as well as how the decisions were balanced against other competing non-functional needs of the AOC. Without an Architectural Decision Tradeoff Matrix to document the options, tradeoffs, decisions, and underlying rationale, locating this information will be difficult and require detailed searching of data, meeting minutes, PowerPoint Presentations, and other documents on the JCC Web site. Moreover, the completeness of the stored information cannot be verified.

Additionally, the AOC SQA Monthly Status for June report identified specific information of concern to the IPO/IV&V Team. The Findings section of the report identified issues with the developers not familiar (trained) in the use of the [software development] framework, extensive use of V3 code, absence of (skipping) Development Package reviews, and problems with exceptions and exception handling. The AOC SQA Team also found an increase in problems associated with coding practices. The report identified appropriate recommendations, which were provided to Deloitte, to correct these findings. In the following months, the IPO/IV&V Team will track and assess if the AOC SQA Team's recommendations are followed by Deloitte and determine whether the Trend Reports reflect improvement on part of the developer.

Testing:

System testing is ongoing with testing metrics being documented and provided to the IPO/IV&V Team consisting of the Core FindBugs Summary Trend Report, Core PMD Summary Trend Report, and Portal FindBugs Summary Trend Report, as well as general findings documented in the AOC SQA Monthly Status for June report. The Core FindBugs Summary Trend Report 20090622 identifies that out of 1,314 total files, there have been 3,775 total findings with 1,006 Priority 1 findings. The Trend Report is unclear as to whether the 1,314 files have all completed testing and what the average file size is for the files, in terms of source lines of executable code. If this information were available, the metric data could be compared with an extensive volume of industry data to

assist in our assessment. At this point in time, the IPO/IV&V Team cannot determine if a problem exists without additional data, which we will seek before the July report.

The IPO/IV&V Team has also been reviewing the Business Rules Traceability matrix and has verified 50 percent of the traceability between the Final Functional Design Document and the matrix. All of the evaluated Business Rules have successfully traced to the matrix. In July, the IPO/IV&V Team will trace the Business Rules to the test scenarios using the Scenario Id identified in the matrix for the associated Business Rule and verify the referenced scenario actually tests the Business Rule. However, the IPO/IV&V Team has not yet found a similar traceability matrix between the Final Functional Design Document Use Cases and the test scenarios. This traceability is important because the test scenario should test and verify that the business process described by the Use Case is implemented correctly as testing Business Rules alone will not verify the Use Case processes. Recently, the IPO/IV&V Team has found a partial traceability matrix and will attempt to evaluate the traceability between the use cases and test scenarios to ensure completeness that business processes will be captured in the population of test scenarios, and report our findings in the July report.

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.

Item Number	Area of Concern	Recommendation	Action Taken
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.	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. 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. 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.
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.	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

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Item Number	Area of Concern	Recommendation	Action Taken
			<p>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>

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:

- Two 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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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>

IPO/IV&V Report for the CCMS-V4 Project
Status Report as of June 30, 2009

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	<p>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>	<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	<p>A single point of contact should be established for AOC that can track and manage daily progress on ISD-related activities</p>	<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>

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 changes/updates were made this month to the Project Oversight Review Checklist.

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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

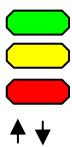
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?			Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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. The AOC should implement a process for ensuring that the coding standards are adhered to.
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. SEC will be investigating the AOC enterprise architecture at a later phase in the development 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 June 1, 2009 - June 30, 2009 Time Period

Process Area	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUN 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	There is concern that there is insufficient time allocated to test preparation and execution.
Scope/Change Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Yellow	Green	Green	Green	Green	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting.
Issue Management	Yellow	Green	Green	Green	Green	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources appear to be insufficient during test development and execution.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	We are unable to conclude on the quality of the client functionality at this point.
Quality Architecture	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	SEC has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The FFD contains several incomplete sections open to interpretation that could add time to test phase or result in problems with functionality.
System Development Quality and Progress	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Green	Test Planning 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 June, SEC performed the following activities:

- Monitored Detailed Calendar for SME Involvement;
- Attended weekly CCMS-V4 Technical Architecture Meetings and reviewed technical documentation including Architecture Presentations and Topics;
- Assessed CCMS-V4 Standardization and Configuration Comment Response;
- Monitored Test Script Status and reviewed Business Rules Traceability Matrix as well as started assessment and comparison of test plan, test scenarios, and test scripts with FFD system use cases and business rules;
- Attended weekly and monthly Project Management Meetings and Steering Committee Meeting as well as participated in CCMS-V4 IPO/IVV Project Meetings;
- Reviewed SQA Monthly Status Reports, Core FindBugs Summary Trend Report, Core PMD Summary Trend Report, and Portal FindBugs Summary Trend Report;
- 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 July 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, a monthly Project Management Meeting, monthly RPO Management Meeting, monthly ISD Meeting, bi-weekly Steering Committee Meetings, weekly Technical Architecture Meetings, CIO Meetings, Oversight Committee meetings, and monthly IPO/IVV Project Meetings;
- 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 (once developed);
- Work with ISD to determine accessibility of 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;
- Map the contents of the Deloitte Monthly QA Report, the AOC SQA Monthly Status Report, and the Trend Reports to the Industry Standard QA requirements;
- Review and comment on compliance of Deloitte Consulting deliverables with the project management elements, if completed, as specified in the contract; and
- Prepare monthly IPO/IV&V status report that identifies and tracks new risks or issues as well as accomplishments and review prior issue resolution.

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 July 31, 2009



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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 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.

The RPO Management Team shared with the IPO/IV&V Team that they did not believe we were actively reaching out to the project team to gather information. The IPO/IV&V Team explained that in order to provide an independent assessment of the project, the IPO/IV&V Team endeavored to remain as invisible as possible while still being a resource for the AOC. Consequently, the IPO/IV&V Team makes every effort to perform research on their own without interfering with the project staff to minimize disruption to their project activities. The overriding assumption is that the IPO/IV&V Team has full access to documentation and if a document or plan has been created, they should be able to find it without the involvement of project staff. However, after discussing the RPO Management Team's concern, the IPO/IV&V Team agreed to reach out to additional project staff members identified to obtain requested information as well as gain a better understanding of nuances of the CCMS-V4 project in light of industry standards.

Period Highlights:

During July, the IPO/IV&V Team primarily focused on reviewing the requirements traceability and testing efforts. For the month of July 2009, we highlight the following:

- There is a large volume of testing documentation that has been posted on eRoom and on the JCC Web site. Consequently, it is taking significant time for the IPO/IV&V Team to review the documentation to identify traceability documents and assess the testing efforts. Thus far, the IPO/IV&V Team has not been able to identify, on their own, any documents related to System Testing traceability which would provide assurance that each and every requirement (i.e., Use Case) will be tested. This type of technical verification is a standard part of an IV&V effort. Once the technical testing documentation has been found or provided, the IPO/IV&V Team can begin to

assess the documentation and potentially provide assurance that the requirements will be satisfied within the application. The absence of this type of documentation such as a System Testing Traceability Matrix presents a risk that not all requirements (Use Cases) will be tested and creates a potential for post-production errors where some court functions may not be operated/processed correctly through the system.

After requesting additional information, the CCMS-V4 Project staff discovered an artifact that maps the Use Cases to the System Test Scripts misfiled in a JCC folder and forwarded this document to the IPO/IV&V Team in mid-August. Thus, over the next few weeks in August, the document will be reviewed by the IPO/IV&V Team to assess whether it ensures requirements will be tested.

- ISD has reported that they are meeting with the Statewide Justice Partners at both the State and local levels and that a plan has been defined for day-one critical exchanges and that each Justice Partner will be given a Microsoft Project Plan to follow. Although a written plan is not yet developed and shared with the IPO/IV&V Team, they have clarified that the Statewide Justice Partners will participate in testing the product during PAT, prior to day-one “go-live”. Involving the Statewide Justice Partners during PAT, prior to the Deployment Stage, will ensure that issues and concerns are raised early enough to make corrections and prior to the AOC/court sign-off of the application at the completion of PAT.

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 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:

Although communication continues to be strong within the CCMS-V4 Project Team and there does not appear to be any current communication concerns, the RPO Management Team expressed concern that they did not believe the IPO/IV&V Team was actively reaching out to other members of the CCMS-V4 Project Team to gather information. The IPO/IV&V Team explained that in order to provide an independent assessment of the project, the IPO/IV&V Team endeavored to remain as invisible as possible while still being a resource for the AOC and makes every effort to perform research on their own to minimize disruption to the project staff involved in their daily activities. Based on this concern, the IPO/IV&V Team contacted additional team members as identified by the CCMS-V4 Project Team to obtain requested data and understand project nuances and application of industry standards. Additional analysis and assessment of the data will be presented in the August 2009 IPO/IV&V report.

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 coding and 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 that are not being actively managed through eRoom. Further, for the month of July, there were no new IPO/IV&V issues with respect to Scope Management.

Risk Management:

During the month of July, eRoom was updated with risk status with one new risk (#36) raised and closed by the CCMS-V4 Project Team. As of July 31, 2009, the risks identified below remain active.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
27	SME Testing Staffing Plan	At the start of integration testing, metrics will be gathered indicating daily progress for each SME. A detailed calendar for PAT will be developed from this data in order to more accurately estimate staffing needs.	9-17-09
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.	8-14-09

Additionally, one risk was closed in the month of July.

Risk Number	Risk Title	Activity Performed
36	ISB Common Service for E-Filing Switch Properties Unknown Status	The AOC has not provided an E-Filing Switch Common Service specification or code delivery date. If the specification is not delivered by 7/27/09, Deloitte will define a specification and build a common service stub to test the core eFiling switch functionality. The AOC and Deloitte met on 7/29/09 and finalized the API specification.

Issue Management:

As of July 31, 2009, one new issue was raised by the CCMS-V4 Project Team and is the only active issue.

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 currently on track to complete DX DES mapping and DES development by 8/7/09.	8-7-09

No issues were closed in the month of July.

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project requires more resources—this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27. In an effort to mitigate this risk, metrics will be gathered at the start of integration testing which will indicate daily progress for each SME. From there, a detailed calendar for PAT will be developed in order to more accurately estimate staffing needs. The IPO/IV&V Team will request and review this schedule to assess impact to the project as a whole once the schedule is made available.

Cost Management:

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

Technical Focus Areas

Quality Management:

The data being captured by the AOC Software Quality Assurance Team during early testing continues to be beneficial. The data assists the AOC in identifying coding problems that may not have otherwise been caught. Deloitte has reported that all of their development teams use a code review process to ensure adherence to design standards and documentation is made on the results of the code reviews. Since the AOC will own and maintain the code, it is critical that the AOC assessing the compliance against standards after code completion. The traceability between use case/requirements and test cases, yet to be reviewed by the IPO/IV&V Team, combined with specific branch logic and other coding errors found in the post-coding AOC Quality Assurance review effort decrease the project's risk that the code being programmed will not adhere to the established requirements and potentially result in inaccurate system functionality.

Quality Architecture:

There are no open issues with Architecture for the month of July 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 the month of August, the IPO/IV&V Team will review the traceability between Use Cases and System Test requirements. The absence of traceability of use case steps and the specific use case step that a business rule applies to in the Final Functional Design Documents may add time to the already compressed Test schedule. This creates a risk of a higher number of testing incidents due to the developers/coders needing to interpret or guess as to which business rule maps to which decision block.

The Use Cases seem to have had a significant amount of work put into them and the IPO/IV&V Team must assume the identified functionality is complete and accurately represents court processes per the requirements. However, the IPO/IV&V Team cannot be certain that this same functionality is being built into the code, or will be tested, until we have reviewed the Use Case to System Test traceability provided by the CCMS-V4 Project Team.

The CCMS-V4 Project Team will perform a review of the following testing paths: Unit Test, System Test, Integration Test, Production Acceptance Test (PAT). While industry standard terminology refers to Integration Testing as an extension of Unit Testing where individual code modules are combined to test the interactions between them and to ensure that they function when combined, the CCMS-V4 Project has used a different terminology. Integration Testing is scenario based and more in line with what the AOC/Court staff will execute during PAT Testing in that it appears to test/validate the ability of the application to perform typical court business processes across Use Cases/requirements—rather than testing a series of Use Case modules together as code is being developed as done in industry standard Integration Testing. System Testing should test/validate every requirement and possible process exception that would be performed since this will not occur in either Integration Testing or in PAT Testing. Thus, the AOC/courts could accurately execute Integration/PAT test scripts for the typical court

processes and form the basis for approving the CCMS-V4 product. The IPO/IV&V Team will review the System Test Traceability to ensure that exceptions to the court processes that will not be properly processed during Integration and PAT Testing or when the system is operating live in a Court will be considered and tested during System Testing.

Detailed Design Review:

ISD has reported that they are meeting with the Statewide Justice Partners at both the State and local levels and that a plan has been defined for day-one critical exchanges and that each Justice Partner will be given a Microsoft Project Plan to follow. They have clarified that the Statewide Justice Partners will participate in testing the product during PAT (prior to deployment). Involving the Statewide Justice Partners during PAT, prior to the Deployment Stage, will ensure that issues and concerns are raised early enough to make corrections and prior to the AOC/court sign-off of the application at the completion of PAT. Testing during PAT will provide some assurance that the interface will accurately and completely access the critical data to be shared with and between the Statewide Partners (e.g., DMV, DOJ) at deployment. Performing this testing during the deployment of each individual court presents a risk to the courts that may prove timely and costly if critical design concerns are raised that have to be configured or re-configured as a product enhancement. If that were to occur, decisions would have to be made between implementing the needed modification at an extra cost to the AOC/courts (via change orders) or not making the change resulting in a potential loss of system functionality for the courts. The “***Mar09.1 Justice Partners (Interfaces) Plan***” area of concern will be closed out.

Similar to the justice partner interface concern, the CCMS-V4 Project Team has clarified that the agnostic “generic” document management interface will be tested in PAT and that the solution being tested in PAT will cover all of the Lead Courts. This testing will ensure that the CCMS-V4 system will accurately and completely interface with the Court’s specific document management solution at deployment. Testing during PAT will ensure that issues and concerns are raised early enough to make corrections and prior to the AOC/court sign-off of the application at the completion of PAT and that the agnostic “generic” document management interface will be functional at deployment. While the Lead Courts use FileNet and are scheduled to test this interface during PAT, the agnostic “generic” document management interface will be finalized, if needed, during the deployment effort at each of the remaining courts throughout the State. Testing during the deployment of each individual court does present a risk to the courts that may prove timely and costly if critical design concerns are raised that have to be configured or re-configured as a product enhancement. If this occurs, decisions will have to be made between implementing the needed modification at an extra cost to the AOC/courts (via change orders) or not making the change which may potentially result in a loss of functionality for the courts. The “***Mar09.2 Document Management Plan***” area of concern will be closed out.

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.

Testing Practices and Progress:

System testing is ongoing with testing metrics being documented and provided to the IPO/IV&V Team. However, at this point in time, the IPO/IV&V Team cannot complete its assessment or identify if any potential problems exist without additional code data. The IPO/IV&V Team has requested and been granted a copy of the code, but it has not yet been delivered.

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 and there are no open areas of concern.**

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:

- Two 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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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>

IPO/IV&V Report for the CCMS-V4 Project
Status Report as of July 31, 2009

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	<p>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>	<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	<p>A single point of contact should be established for AOC that can track and manage daily progress on ISD-related activities</p>	<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	<p>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>	<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

The System Engineering section of the Project Oversight Review Checklist was updated 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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

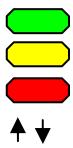
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?		X	Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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 July 1, 2009 - July 31, 2009 Time Period

Process Area	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUN 2009	JUL 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	There is concern that there is insufficient time allocated to test preparation and execution.
Scope Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Green	Green	Green	Green	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting.
Issue Management	Green	Green	Green	Green	Green	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources appear to be insufficient during test development and execution.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	We are unable to conclude on the quality of the client functionality at this point due to the absence of some traceability information.
Quality Architecture	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	SEC has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The FFD contains several incomplete sections open to interpretation that could add time to test phase or result in problems with functionality.
System Development Quality and Progress	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Green	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 July, 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/IV&V 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 August 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, a monthly Project Management Meeting, monthly RPO Management Meeting, monthly ISD Meeting, bi-weekly Steering Committee Meetings, weekly Technical Architecture Meetings, CIO Meetings, Oversight Committee meetings, and monthly IPO/IV&V Project Meetings;
- 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 monthly IPO/IV&V status report that identifies and tracks new risks or issues as well as accomplishments and review prior issue resolution.

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 August 31, 2009



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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 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 August, the IPO/IV&V Team met to discuss areas of concern with key CCMS-V4 Project Team members. For the month of August 2009, we highlight the following:

- The RPO Management Team shared with the IPO/IV&V Team that they did not believe we were actively reaching out to the project team to gather information. The IPO/IV&V Team explained that in order to provide an independent assessment of the project, the IPO/IV&V Team endeavored to remain as invisible as possible while still being a resource for the AOC. Consequently, the IPO/IV&V Team makes every effort to perform research on their own without interfering with the project staff to minimize disruption to their daily project activities. The overriding assumption is that the IPO/IV&V Team has full access to documentation and if a document or plan has been created, they should be able to find it without the involvement of project staff. However, after discussing the RPO Management Team's concern, the IPO/IV&V Team agreed to reach out to additional project staff members identified to obtain requested information as well as gain a better understanding of nuances of the CCMS-V4 project plans and practices in light of industry standards.
- The IPO/IV&V Team has been looking for evidence that the Final Functional Design Use Cases have or will be tested and verified during System Testing. During multiple discussions with the RPO Management Team and Deloitte Consulting, the IPO/IV&V Team was pointed to review a number of documents located on the jcc project site. The CCMS-V4 Project Team stated that by tracing back to the X.2 – Business Rules, X.3 – Screens, X.4 – Forms/Notices, X.5 – Reports, Data Exchanges, X.6 Screen Function Actions and MOCS Function Actions that they were inherently tracing back

to the Use Cases. The IPO/IV&V Team did not agree since the Use Cases define pre and post conditions, as well as flows, and these items were not captured in the System Test traceability documentation. The documents reviewed were:

- CCMS/CCMS-V4 Development /Testing/Integration Testing/Core-DX/SubmittedDeliverable/V1/UOW Traceability Report Phase 3 V1.zip report. This report, like other traceability documents, traces the X.3 - Screens, X.2 - Business Rules, X.4 - Forms/Notices, X.5 - Reports, Data Exchanges, X.6 - Screen Function Actions and MOCS Function Actions;
- CCMS/V4 Testing Submitted Deliverable and Artifacts Version 1/System Testing/Appendix A – System Test Scenarios Addendum (Core).xls; and
- Sample set of System Test scripts.

The Contract, Table “A4.59.01.4.2 System Testing” states that the objective of System Testing is to “Confirm that system construction of individual modules (e.g., Case Initiation, Disposition, etc.) meet documented Specifications”. However, per Contract Exhibit C4.59.01, there are no deliverables associated with System Testing and only System Testing identifies this objective. After reviewing the sample set of System Test scripts, the IPO/IV&V Team was able to verify that the Use Cases were included in the System Test traceability. However, the IPO/IV&V Team cannot confirm that these scripts were actually run during System Testing, only that they exist.

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 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.

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 coding and 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 that are not being actively managed through eRoom.

Risk Management:

During the month of August, eRoom was updated with risk status with one new risk (#37) raised by the CCMS-V4 Project Team. As of August 31, 2009, the risks identified below remain active.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
27	SME Testing Staffing Plan	At the start of integration testing, metrics will be gathered indicating daily progress for each SME. A detailed calendar for PAT will be developed from this data in order to more accurately estimate staffing needs.	9-17-09
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 August.

Issue Management:

As of August 31, 2009, one new issue (#26) was raised by the CCMS-V4 Project Team and the issues identified below remain 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 has provided a new DES design and build approach that meets their DES Guiding Principles. The AOC and Deloitte must now determine the level of effort required to satisfy this new approach. Level of effort estimates will be communicated to the AOC and Deloitte management team who will review the impacts to the CCMS-V4 schedule.	8-20-09 <i>(Date should be updated)</i>
26	The scalability of the TIBCO DX ETL tool used for SWRDW data transformation is being reviewed. The 32-bit and 64-bitDX 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.	TIBCO is working to provide results and appropriate sizing of on-site troubleshooting. A definitive direction from the AOC is required in order to avoid impact to the schedule.	9-2-09

No issues were closed in the month of August.

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project requires more resources—this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27. In an effort to mitigate this risk, metrics will be gathered at the start of integration testing which will indicate daily progress for each SME. From there, a detailed calendar for PAT will be developed in order to more accurately estimate staffing needs. The IPO/IV&V Team will request and review this schedule to assess impact to the project as a whole once the schedule is made available.

Cost Management:

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

Technical Focus Areas

Quality Management:

Deloitte has reported that their development teams use two open source tools (PMD and FindBugs). Deloitte has created a custom tool JCART that integrates these two tools and provides any coding standard violations introduced by new V4 code. Deloitte stated that they still need to work through the Software Quality Assurance Team reports to make corrections to the code based on the findings in these reports. The AOC QA Team will be publishing another QA Report during September and the IPO/IV&V Team will review this report when it is distributed.

Quality Architecture:

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

The CCMS-V4 Project Team will review the following testing paths in this order: Unit Test, System Test, Integration Test, Production Acceptance Test (PAT). While industry standard terminology refers to Integration Testing as an extension of Unit Testing where individual code modules are combined to test the interactions between them and to ensure that they function when combined, the CCMS-V4 Project has used a different terminology. Deloitte sent the IPO/IV&V Team a small sample set of System Test scripts, which the IPO/IV&V Team was able to verify, that the Use Cases were included in the System Test traceability. However, the IPO/IV&V Team cannot confirm that these scripts were actually run during System Test, only that they exist.

Detailed Design Review:

The lower level design work products that are being developed are being created in MagicDraw. MagicDraw is an object modeling tool that builds Class and Sequence diagrams in XML format. These work products will be owned by the AOC. A V4 Object Model artifact will be delivered to the AOC as well as sequence diagrams that are part of the Development Packets (Development Specifications).

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. 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.

System Testing is ongoing with testing metrics being documented and provided to the IPO/IV&V Team. However, at this point in time, the IPO/IV&V Team cannot complete its assessment or identify if any potential problems exist without additional metric data. In September, the AOC QA Team will be publishing an updated report that will contain additional information to better evaluate the testing metrics.

The IPO/IV&V Team has requested and been provided a copy of the code. 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.

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 and there are no open areas of concern.**

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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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>

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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	<p>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>	<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	<p>A single point of contact should be established for AOC that can track and manage daily progress on ISD-related activities</p>	<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	<p>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>	<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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

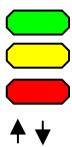
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?		X	Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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 August 1, 2009 - August 31, 2009 Time Period

Process Area	MAR 2009	APR 2009	MAY 2009	JUN 2009	JUL 2009	AUG 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The schedule remains aggressive.
Scope Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Green	Green	Green	Green	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting.
Issue Management	Green	Green	Green	Green	Green	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources appear to be insufficient during testing.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	We are unable to conclude on the quality of the client functionality at this point due to the absence of some traceability information.
Quality Architecture	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The IPO/IV&V Team has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The FFD contains several incomplete sections open to interpretation that could add time to test phase or result in problems with functionality.
System Development Quality and Progress	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Green	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 August, 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/IV&V 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 September 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, a monthly Project Management Meeting, monthly RPO Management Meeting, monthly ISD Meeting, bi-weekly Steering Committee Meetings, weekly Technical Architecture Meetings, CIO Meetings, Oversight Committee meetings, and monthly IPO/IV&V Project Meetings;
- 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 monthly IPO/IV&V status report that identifies and tracks new risks or issues as well as accomplishments and review prior issue resolution.

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



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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 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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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			<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>

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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>

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			<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>

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Dec08.1	Standardization and Configuration	<p>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>	<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	<p>A single point of contact should be established for AOC that can track and manage daily progress on ISD-related activities</p>	<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	<p>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>	<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>

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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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

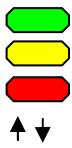
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?		X	Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The schedule remains aggressive.
Scope Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Green	Green	Green	Green	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting.
Issue Management	Green	Green	Green	Green	Green	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources appear to be insufficient during testing.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The IPO/IV&V Team has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Green	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.

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 October 31, 2009



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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 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 October, the IPO/IV&V Team reviewed AOC QA metrics and produced a draft of an Interim Closeout Report detailing all IPO/IV&V observations thus far. Specifically, for the month of October we highlight the following:

- 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. The Court and AOC staff will begin execution of the PAT test scripts during Cycle 2 of Integration Testing and will, therefore; have their first opportunity to track metrics and clearly show how the CCMS V4 System will actually perform with respect to functionality.
- The IPO/IV&V Team has drafted an Interim Closeout Report summarizing project status, progress, challenges, issues, and corrective actions over the life of the CCMS-V4 project until the current date. It is anticipated that the Interim Closeout Report will be distributed to the RPO Team in late November or early December.

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:

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 project continues to be a high risk for the AOC and the courts. 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 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 October, eRoom was updated with risk status. As of October 31, 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	Deloitte Consulting has provided initial staffing estimates for PAT and is awaiting AOC estimates of available resources to proceed.	10-30-09 <i>(Date should be updated)</i>
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.	11-27-09
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.	11-27-09
37	Justice Partner Readiness	Reference Implementation constraint schemas have been published.	11-27-09

No risks were closed in the month of October. Additionally, the IPO/IV&V Team did not identify any new issues with respect to Risk Management during the month of October 2009.

Issue Management:

As of October 31, 2009, there were no open issues being tracked by the CCMS-V4 Project Team. One issue was closed by the CCMS-V4 Project Team in the month of October. Additionally, the IPO/IV&V Team did not identify any new issues with respect to Risk Management during the month of October 2009.

Issue Number	Issue Title	Resolution	
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 DES RI for four DXs was completed on 10/7/09.	10-7-09

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 by Deloitte. The AOC, through the Court Project Managers, is in the process of determining the available resources for PAT.

Cost Management:

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

Technical Focus Areas

Quality Management:

In the September report, the IPO/IV&V Team recommended that the AOC QA Team include in its reports a brief written discussion explaining the metric anomalies shown in the metric charts. ISD, through David Corral, explained the anomalies were caused by the inclusion of CCMS-V3 code that will not be touched in CCMS-V4 development and resulted in skewing the metric. Thus, the AOC QA Team determined that more accurate and appropriate metrics would result from only including the CCMS-V3 codes that will be changed during the CCMS-V4 development. The IPO/IV&V Team found this to be a reasonable approach.

The IPO/IV&V Team further suggests that an average file size and the distribution around the average would be a beneficial metric to the RPO. 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. 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.

While ISD does not believe this metric applies to Java environments, the metric is actually a standing information density metric that applies to all repositories of information—not to a specific programming language. For instance, it would be easier to maintain a phone list with 10 names versus a phone list with 1,000 names. Thus, as it relates to the CCMS-V4 project, this metric would allow the AOC to gauge the complexity of the AOC's future maintenance effort, especially as refactoring occurs, which happens for all programming languages.

Quality Architecture:

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

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. This lack of visibility may increase the duration of the Product Acceptance Testing and the AOCs maintenance efforts, as well as general confidence in the final product.

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:

On October 23, 2009, the RPO approved the Deliverable Acceptance Document for the CCMS-V4 Core Product Acceptance Test Plan. This document identifies the major sections and sub-sections that will be included in the Plan. In comparison to the following Institute of Electrical and Electronics Engineers (IEEE) industry standards, the Product Acceptance Test Plan is being developed very late in the development lifecycle:

- ✓ IEEE Standard 829 - IEEE Standard for Software Test Documentation
- ✓ IEEE 1012 - IEEE Standard for Software Verification and Validation
- ✓ IEEE 12207 Series - IEEE/EIA Standard: Industry Implementation of International Standard ISO/IEC 12207:1995 Standard for Information Technology Software Life Cycle Processes,

These industry standards recommend that the Product Acceptance Test Plan be developed during the Requirements or no later than the early Design Phase of the software development effort. The development of this plan so late in the development cycle may not provide enough time to make necessary adjustments to the testing approach for accepting the product. However, the PAT test scripts were delivered on schedule as part of the Integration Test Plan.

Additionally, the IPO/IV&V Team will continue to 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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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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>

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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>

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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>

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			<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	<p>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>	<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	<p>A single point of contact should be established for AOC that can track and manage daily progress on ISD-related activities</p>	<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	<p>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>	<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>

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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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

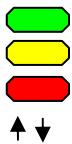
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?		X	Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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 October 1, 2009 - October 31, 2009 Time Period

Process Area	MAY 2009	JUN 2009	JUL 2009	AUG 2009	SEP 2009	OCT 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The schedule remains aggressive.
Scope Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Green	Green	Green	Green	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting.
Issue Management	Green	Green	Green	Green	Green	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources appear to be insufficient during testing.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The IPO/IV&V Team has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Green	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 October, SEC performed the following activities:

- Monitored QA Metrics;
- Attended weekly and monthly Project Management Meetings and Steering Committee Meeting as well as participated in CCMS-V4 IPO/IV&V 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 November 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/IV&V 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.
- Finalize draft Interim Closeout Report summarizing IPO/IV&V efforts to date;
- Prepare monthly IPO/IV&V status report that identifies and tracks new risks or issues as well as accomplishments and review prior issue resolution.

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 November 30, 2009



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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 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:

In addition to ongoing monitoring, the IPO/IV&V Team reviewed the most recent Deloitte QA report during November. While there have been improvements to the QA Report, the report continues to be more of a management-level report for reviewing how the project is progressing than a Quality Assurance Report and is presented from a high-level point of view as opposed to a detailed Quality Assurance point of view. However, the November QA Report did include some testing metrics that reflected the level of discovered defects, although not the quality of the product.

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:

As stated in previous report, the IPO/IV&V Team believes that the schedule will continue to be aggressive for the duration of the project and that this project continues to be a high risk for the AOC and the courts. 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 as the project progresses to monitor the potential impact on the project's already compressed schedule.

Scope Management:

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

Risk Management:

During the month of November, eRoom was updated with risk status. As of November 30, 2009, the risks identified below by the CCMS-V4 Project Team remain active. One new risk (38) was added, but no risks were closed.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
27	SME Testing Staffing Plan	Three testing models (45, 55, and 70 SME resources to execute test scripts) are being submitted along with the PAT Plan. The court have only identified 7-9 FTE resources to support PAT execution.	11-28-09

Risk Number	Risk Title	Activity Performed	Target Resolution Date
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.	11-27-09
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.	11-27-09
37	Justice Partner Readiness	Reference Implementation constraint schemas have been published.	11-27-09
38	System Response Time Matrix	It is anticipated that non-agreement on the system response time matrix will continue. By the second week of December there will be actual results to compare against current system response time matrix for more specificity. Resubmission of the CCMS-V4 Core Stress Test Plan deliverable will address two other outstanding comments.	11-27-09

Issue Management:

As of November 30, 2009, there was one open issue being tracked by the CCMS-V4 Project Team. No issues were closed during November 2009.

Issue Number	Issue Title	Resolution	
27	Two common services (the DaTS ISB common service to support large document attachments and the E-Filing ISB common service) will not be completed by ISD in time to include the DX related functionality in R1.0.	Due to the lack of an ISB E-Filing Switch common service, exchanges associated with that service will only be able to be tested via the manual clerk review path, not the fully automated path. Due to the lack of the DaTS ISB common service to support large document attachments, exchanges associated with the common service will only be testable with attachments that are 20MB or smaller in size. Decision Document #102 has been prepared to resolve this issue.	11-27-09

Resource Management:

There continues to be concern by all parties that the CCMS-V4 Project requires more resources to complete the product Development and Testing phases. Although this is being monitored and addressed by the CCMS-V4 Project Team as Risk #27, there is an immediate need to escalate and resolve this item. The staffing identified as being necessary to execute PAT is extremely inconsistent with the number of staff identified by the courts as available to assist during this effort.

Cost Management:

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

Technical Focus Areas

Quality Management:

Upon review of Quality Assurance Report #7, the IPO/IV&V Team observed that the report continues to be more of a management-level report for reviewing how the project was progressing and was presented from a high-level point of view as shown by the concerns noted below.

Note: The following is an extract from the Deloitte QA Report #7 which includes Deloitte's internal observations and recommendations about the project. The IPO/IV&V Team has bolded their particular areas of concern.

- **Deloitte's R01 Concern:** The initial draft of the SME resource plan for PAT requires more SMEs than are available from the AOC/Courts
Deloitte's Recommendation: A preliminary list of names of the available resources has been provided. Three testing models are being submitted, on 11/13/09, with the PAT plan based on the availability of SME resources to execute test scripts. The plan will include a model with 45, 55, and 70 SME resources. This topic will be discussed at the next Steering Committee meeting because, as of 11/12/09, the Courts have only identified 7-9 FTE resources to support PAT execution.
- **Deloitte's R03 Concern:** The Statewide and/or Local Integration Partners may not be available for end-to-end testing of data exchanges.
Deloitte's Recommendation: The team is currently working with the Justice partners and Statewide partners to determine ways to mitigate this risk.
- **Deloitte's QI01 Observation:** Deliverable reviews do not currently require the amount of effort that would be expected to thoroughly review deliverables of the size and scope produced by the project.

Deloitte's Recommendation: Deliverable review processes could be improved to require a more thorough review of each deliverable. The project's PMO should look into ways of improving these processes.

- **Deloitte's QI02 Observation:** Although the defect analysis by severity and root cause analysis are being conducted, they are not formally documented.
Deloitte's Recommendation: Implement a process to formally document these activities.
- **Deloitte's CP03 Task:** Disagreements over the System Response Time Matrix section of the Core Stress Test Plan deliverable remain unresolved. Deloitte and the AOC will need to reach an agreement over the statistics detailed in the Matrix. If these issues continue to remain unresolved, there is a risk to the project schedule.
Deloitte's Recommendation: This risk has been elevated to the AOC and Deloitte Executive team. Resubmission of the CCMS-V4 Core Stress Test Plan deliverable is scheduled for 11/13/09.

Note: *The following are IPO/IV&V Team observations based on graphs in the Deloitte QA Report #7.*

- **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 large 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.

Note: *The following comments made by Deloitte in their QA Report #7 are unclear and should be investigated by AOC.*

- **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.

- **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 November 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:

The AOC has had a lack of visibility during the detailed design due to the absence of deliverables during this phase, as well as in System Testing. The primary areas where the lack of visibility is present are a documented detail design, coding and unit testing results, and System Testing efforts. This lack of visibility may increase the time duration of the Product Acceptance Testing and eventually effect the AOC’s maintenance efforts once the CCMS-V4 product is deployed because of the lack of knowledge of the applications as well as general confidence in the final product because a higher than expected defect rate occurring in Product Acceptance Testing may cause the end users to question/challenge the product more than if the product exhibited a lower defect rate.

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. ISD has stated that they will look into addressing this concern.

Testing Practices and Progress:

In last month's IPO/IV&V Report issued in October 2009, the IPO/IV&V Team observed that the Product Acceptance Test (PAT) Plan was developed very late in the development lifecycle and may not provide enough time to make necessary adjustments to the testing approach for accepting the product—despite the fact that the PAT test scripts were delivered on schedule as part of the Integration Test Plan. Additionally, we want to highlight a potential issue with court resources necessary to complete PAT, QA Report R01. Specifically, there is a major deficiency between the staffing level proposed by Deloitte and what the court can provide. As such, the IPO/IV&V Team will continue to monitor and assess the PAT efforts.

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 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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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	<p>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>	<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	<p>A single point of contact should be established for AOC that can track and manage daily progress on ISD-related activities</p>	<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	<p>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>	<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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

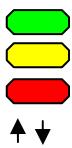
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?		X	Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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 November 1, 2009 - November 30, 2009 Time Period

Process Area	JUN 2009	JUL 2009	AUG 2009	SEP 2009	OCT 2009	NOV 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The schedule remains aggressive.
Scope Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Green	Green	Green	Green	Green	Risks are reported, discussed, and managed on a weekly basis by both the AOC and Deloitte Consulting.
Issue Management	Green	Green	Green	Green	Green	Green	Issues are discussed/reported weekly at various project management and Executive Committee meetings.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources appear to be insufficient during testing.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The IPO/IV&V Team has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Green	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 November, SEC performed the following activities:

- Monitored QA Metrics;
- Reviews the QA Status Report 7;
- Attended weekly and monthly Project Management Meetings and Steering Committee Meeting 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 December 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 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.
- Finalize draft Interim Closeout Report summarizing IPO/IV&V efforts to date;
- Prepare monthly IPO/IV&V status report that identifies and tracks new risks or issues as well as accomplishments and review prior issue resolution.

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 December 31, 2009



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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 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:

The Deloitte Quality Assurance Report #7 is produced by Deloitte Consulting and includes Deloitte's internal observations and recommendations about the project. Although the report indicated concerns with items already being addressed through the Risk Management process, two key points regarding process improvement were mentioned.

- ✓ The first observation was Deloitte's QI01 Observation which stated, "Deliverable reviews do not currently require the amount of effort that would be expected to thoroughly review deliverables of the size and scope produced by the project." Deloitte's recommendation was that deliverable review processes could be improved to require a more thorough review of each deliverable and that the project's PMO should look into ways of improving these processes. As of this report, it is not clear how the Deloitte PMO has addressed this issue and how the suggested process improvements will impact future deliverables.
- ✓ The second observation was Deloitte's QI02 Observation which stated, "Although the defect analysis by severity and root cause analysis are being conducted, they are not formally documented." Deloitte's recommendation was to implement a process to formally document these activities.

Additionally, Integration Testing also continues to be a concern for Deloitte and the AOC. The process utilized for defect analysis and root cause analysis should be further investigated and discussed between the AOC and Deloitte project management teams since the Court/AOC testing results do not validate Deloitte's testing results in that the Court/AOC testers have stated they continue to find approximately four to five times as many defects per script as the Deloitte testers and the application does not appear to be ready for PAT testing.

Moreover, the AOC has also expressed concern with the Integration Testing effort, specifically with the script execution problems and defects, the Deloitte testers missing defects, the number of script defects, and the general stability of the application. However, the AOC continues to assert that they will not move from Integration Testing to PAT while the test results from the Court/AOC testers contradicts the Deloitte test results.

Continuing from last month into this month, the IPO/IV&V Team notes that eRoom does not contain updated target resolution information for both Issues and Risks. Thus, the IPO/IV&V Team recommends that the project management team responsible for eRoom review the issues and risks and update the database accordingly

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 continues to assert that the schedule is aggressive and will continue to be so for the duration of the project and that this project continues to be a high risk for the AOC and the courts. 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 as the project progresses to monitor the potential impact on the project's already compressed schedule.

Scope Management:

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

Risk Management:

During the month of December, eRoom was updated with risk status but all target resolution dates appear to be past due. The IPO/IV&V Team recommends that the eRoom Risk Manager review the current status of all risks and update the Target Resolution Dates accordingly. As of December 31, 2009, the risks identified below by the CCMS-V4 Project Team remain active. No new risks were added, and no risks were closed.

Risk Number	Risk Title	Activity Performed	Target Resolution Date
27	SME Testing Staffing Plan	The Steering Committee committed to having a clearer picture of court resource availability by the third week in January.	10-30-09 <i>Target Date should be updated</i>
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.	11-27-09 <i>Target Date should be updated</i>
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.	11-27-09 <i>Target Date should be updated</i>
37	Justice Partner Readiness	Reference Implementation constraint schemas have been published.	11-27-09 <i>Target Date should be updated</i>
38	System Response Time Matrix	The CCMS-V4 Core Stress Test Plan deliverable will be resubmitted with a DAF for conditional acceptance on 12/2/09.	11-27-09 <i>Target Date should be updated</i>

Issue Management:

As of December 31, 2009, there was one open issue being tracked by the CCMS-V4 Project Team. No new issues were opened and no issues were closed during December 2009. The IPO/IV&V Team recommends that the eRoom Issue Manager review the current status of all issues and update the Target Resolution Dates accordingly.

Issue Number	Issue Title	Resolution	
27	Two common services (the DaTS ISB common service to support large document attachments and the E-Filing ISB common service) will not be completed by ISD in time to include the DX related functionality in R1.0.	The DaTS ISB common service to support large document attachments (a.k.a. LATS) was received from the AOC on 12/3/09. Deloitte is currently in the process of verifying if the LATS package is complete and has stated that if the LATS package must be retrofitted into R1.0 or R1.1, a change request will be needed. In addition, the AOC provided a delivery timeframe of April 2010 - May 2010 for the eFiling switch.	11-27-09 <i>Target Date should be updated</i>

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 Steering Committee committed at their last meeting to having a clearer picture of court resource availability by the third week in January.

Cost Management:

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

Technical Focus Areas

Quality Management:

In November, the IPO/IV&V Team commented on the Quality Assurance Report #7 and related that the report continues to be more of a management-level report for reviewing how the project was progressing and was presented from a high-level point of view.

The following is an extract from the Deloitte QA Report #7 which includes Deloitte's internal observations and recommendations about the project. The IPO/IV&V Team's comments are shown below the recommendation from Deloitte.

- **Deloitte's R01 Concern:** The initial draft of the SME resource plan for PAT requires more SMEs than are available from the AOC/Courts.

Deloitte's Recommendation: A preliminary list of names of the available resources has been provided. Three testing models are being submitted, on 11/13/09, with the PAT plan based on the availability of SME resources to execute test scripts. The plan will include a model with 45, 55, and 70 SME resources. This topic will be discussed at the next Steering Committee meeting because, as of 11/12/09, the Courts have only identified 7-9 FTE resources to support PAT execution.

IPO/IV&V Team Comment: This item is being tracked as Risk #27.

- **Deloitte's R03 Concern:** The Statewide and/or Local Integration Partners may not be available for end-to-end testing of data exchanges.
Deloitte's Recommendation: The team is currently working with the Justice partners and Statewide partners to determine ways to mitigate this risk.
IPO/IV&V Team Comment: This item is being tracked as Risk #37.

- **Deloitte's QI01 Observation:** Deliverable reviews do not currently require the amount of effort that would be expected to thoroughly review deliverables of the size and scope produced by the project.
Deloitte's Recommendation: Deliverable review processes could be improved to require a more thorough review of each deliverable. The project's PMO should look into ways of improving these processes.
IPO/IV&V Team Comment: It is not known whether Deloitte's project PMO has addressed this issue and how the suggested process improvements will impact future deliverables.

- **Deloitte's QI02 Observation:** Although the defect analysis by severity and root cause analysis are being conducted, they are not formally documented.
Deloitte's Recommendation: Implement a process to formally document these activities.
IPO/IV&V Team Comment: Integration Testing continues to be a concern. The process utilized for defect analysis and root cause analysis should be further investigated and discussed between the AOC and Deloitte project management teams since the Court/AOC testing results do not validate Deloitte's testing results. More detail of this item is discussed in the Testing Practices and Progress section below.

- **Deloitte's CP03 Task:** Disagreements over the System Response Time Matrix section of the Core Stress Test Plan deliverable remain unresolved. Deloitte and the AOC will need to reach an agreement over the statistics detailed in the Matrix. If these issues continue to remain unresolved, there is a risk to the project schedule.
Deloitte's Recommendation: This risk has been elevated to the AOC and Deloitte Executive team. Resubmission of the CCMS-V4 Core Stress Test Plan deliverable is scheduled for 11/13/09.

The following are IPO/IV&V Team observations based on graphs in the Deloitte QA Report #7.

- **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. It is not clear how this item was addressed.

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 detects should be investigated because of the high number of reported defects. While Track 2 may be significantly large than the other tracks, the high volume of defects for the track should be investigated. It is not clear how this item was addressed.

- **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. It is not clear how this item was addressed.

The following comments made by Deloitte in their QA Report #7 are unclear and should be investigated by AOC. These points will remain in the report until clarification and/or resolution is gained regarding the comments.

- **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. It is not clear if action was taken on this item.

- **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. It is not clear if action was taken on this item.

- **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. It is not clear if action was taken on this item

- **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 December 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:

The AOC has had a lack of visibility during the detailed design as well as in System Testing. This is partly due to the fact that some documentation is produced as artifacts where comments cannot be made as opposed to deliverables where the AOC has the ability to comment and request changes to the deliverable. The primary areas where the lack of visibility and ability to comment on work being produced is present are the documented detail design, coding and unit testing results, and System Testing efforts. This lack of ability to review, comment, and make adjustments to work products and processes used are due to the nature of the contract that is currently in place. However, this situation may increase the time duration of the Product Acceptance Testing and eventually affect the AOC's maintenance efforts once the CCMS-V4 product is deployed. A lack of knowledge of the application as well as general confidence in the final product as well as a higher than expected defect rate occurring in Product Acceptance Testing may cause the end users to question/challenge the product more than if the product exhibited a lower defect rate.

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. ISD has stated that they will look into addressing this concern but the IPO/IV&V Team has not received any feedback as of yet.

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. As such, the IPO/IV&V Team will continue to monitor and assess the PAT resource efforts.

A four-week extension has been applied to the Integration Testing effort. The AOC has expressed concern that the effort continues to run late, the outstanding defects are not resolved, and the application appears unstable and experiences down times. These items must be resolved between the AOC and Deloitte prior to the beginning of PAT.

The testing effort is now in Cycle 3 and is planned for completion between mid-January and early February. The AOC has reported that 36% of the 4,151 defects reported during the first three weeks of Cycle 3 are script defects and PAT Testing will not be successful if the Court/AOC testers cannot execute the scripts due to missing test data and script execution errors. They have also stated that 57% of the scripts the Court/AOC testers have attempted to execute during Cycle 3 were blocked and 25% failed, and as a result, only 18% of scripts passed.

The RPO Team has alerted Deloitte that during each of the testing sessions, the Court/AOC testers have continued to find approximately 4 to 5 times the number of defects per script than the Deloitte testers. While it is not clear why this discrepancy exists, the RPO Team has been working with Deloitte to seek explanation and corrective actions. The AOC is concerned that since the AOC resources have only tested between 6% and 8% of the entire code, that the remaining 92% to 94% of the code may not be tested or corrected in Integration Test and would likely contain more defects than can be adequately addressed during PAT Testing. They assert that at this point in the testing cycle (Cycle 3), the application should contain a relatively low defect rate as the application (being tested for the third time or cycle) should have been exercised, and defects corrected, enough to provide some assurance that the application was stable and relatively defect free prior to entering the PAT Testing phase.

In addition, the AOC has identified, as part of the Integration Testing effort, application stability issues. Their primary concerns are that the test environment had unplanned outages exceeding one hour in duration on 7 of the first 12 days of Cycle 3 testing and that Integration Testing is frequently disrupted because the number of scheduled builds has been increased from the planned schedule of “one build per week” in the Integration Test Plan deliverable to “three per week” during Cycle 3.

As a result of this information surrounding Integration Testing, the IPO/IV&V Team is concerned that the application is not sufficiently integration tested in order to proceed forward into the PAT Testing phase and will investigate this further during the month of January. If PAT is commenced prematurely, the resulting application could have many defects which may not only prevent the Courts from using the application in production, but also may take many iterations to correct the application prior to going live as well as potentially not meet the needs of the Courts.

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 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.	09-2007 - No action taken that SEC is aware of. 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). 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. 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. 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. 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.

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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>

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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>

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			<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	<p>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>	<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	<p>A single point of contact should be established for AOC that can track and manage daily progress on ISD-related activities</p>	<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	<p>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>	<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>

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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	<p>Deloitte is using an overlapped waterfall SDLC as evidenced by the structure of their project plan and the manner in which activities are performed.</p> <p>CMMI Level 3 requirements require that a defined, standard, consistent process and process measurement be followed. This would require that:</p> <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. <p>It is not clear where the processes and roles are documented and whether the CCMS-V4 Project is CMMI Level 3 compliant.</p>
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.

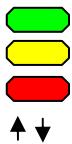
Practices and Products	Practice in Use	Practice Not in Use *	Notes:
System Engineering			
Are formal code reviews conducted?		X	Two levels of code reviews are conducted. Automated reviews of code are conducted using the JCART tool which checks for and highlights unacceptable coding practices. Any issues 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 December 1, 2009 - December 31, 2009 Time Period

Process Area	JUL 2009	AUG 2009	SEP 2009	OCT 2009	NOV 2009	DEC 2009	REMARKS
Communication Management	Green	Green	Green	Green	Green	Green	Day-to-day communication continues to be strong.
Schedule Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The schedule remains aggressive.
Scope Management	Green	Green	Green	Green	Green	Green	Project scope is managed and controlled through a variety of avenues.
Risk Management	Green	Green	Green	Green	Green	Yellow	Risks are reported, discussed, and managed on a weekly basis but do not appear to be up to date in eRoom.
Issue Management	Green	Green	Green	Green	Green	Yellow	Issues are discussed/reported weekly at various project management and Executive Committee meetings but do not appear to be up to date in eRoom.
Resource Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	AOC and Deloitte project resources appear to be insufficient during testing.
Cost Management	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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	Green	Green	Green	Green	Green	Green	Quality Architecture is currently adequately defined from an industry-sound SEI approach.
Configuration Management	Green	Green	Green	Green	Green	Green	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	Green	Green	Green	Green	Green	Green	Deloitte Consulting appears to be following currently accepted systems engineering standards and practices.
Requirements Identification and Traceability	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	The IPO/IV&V Team has concerns with the lack of traceability between use cases and business rules.
Detailed Design Review	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	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	Green	Green	Green	Green	Green	Green	The technical architecture and design is proceeding on the defined schedule with only minor changes.
Testing Practices and Progress	Green	Green	Green	Green	Green	Yellow	Testing resources continue to be a concern. Integration Testing results between AOC and Deloitte are dissimilar.



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 December, SEC performed the following activities:

- Monitored QA Metrics;
- Attended weekly and monthly Project Management Meetings and Steering Committee Meeting 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 January 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.