

# Office of the State Court Administrator

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May 14, 2013

**Gerald A. Marroney**  
*State Court Administrator*

**Carol M. Haller**  
*Deputy State Court Administrator  
Legal Counsel*

**Troy C. Singleton**  
*Administrative Assistant*

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**DIRECTORS**

**Mindy Masias**  
*Human Resources*

**David Kribs, CFO**  
*Financial Services*

**Chad Cornelius, CIO**  
*Judicial Business Integrated  
With Technology Services*

**Sherry Stwalley**  
*Planning & Analysis  
Legislative Liaison*

**Eric Philp**  
*Probation Services*

Dianne E. Ray, CPA  
State Auditor  
Colorado Office of the State Auditor  
200 East 14<sup>th</sup> Avenue, 2<sup>nd</sup> Floor  
Denver, CO 80203

Dear Ms. Ray:

In response to your request, we have prepared an updated status report regarding the implementation of audit recommendations contained in the *Colorado Judicial Department's Integrated Colorado Courts E-Filing and Judicial Paper on Demand Systems Independent Verification and Validation Review*. The attached report provides a brief explanation of the actions taken by the Judicial Department to implement each recommendation.

If you have any questions, please do not hesitate to contact me at 720-625-5000 or by email at [gerald.marroney@judicial.state.co.us](mailto:gerald.marroney@judicial.state.co.us).

Sincerely,

A handwritten signature in blue ink that reads "Gerald A. Marroney".

Gerald A. Marroney  
State Court Administrator

## **AUDIT RECOMMENDATION STATUS REPORT**

**AUDIT NAME:** Colorado Judicial Department’s Integrated Colorado Courts E-Filing and Judicial Paper on Demand Systems  
Independent Verification and Validation Review

**AUDIT NUMBER:** 2172

**DEPARTMENT/AGENCY/ENTITY:** Judicial Department

**DATE:** April 4, 2013

### **SUMMARY INFORMATION**

<b>Recommendation Number</b> <i>(e.g., 1a, 1b, 2, etc.)</i>	<b>Agency’s Response</b> <i>(i.e., agree, partially agree, disagree)</i>	<b>Original Implementation Date</b> <i>(as listed in the audit report)</i>	<b>Implementation Status</b> <i>(Implemented, Implemented and Ongoing, Partially Implemented, Not Implemented, or No Longer Applicable)</i>	<b>Revised Implementation Date</b> <i>(Complete only if agency is revising the original implementation date.)</i>
1a	Disagree	N / A	N / A	
1b	Partially Agree	September 2013	Implemented and Ongoing	
2a	Agree	September 2013	Implemented and Ongoing	
2b	Agree	January 2014	Partially Implemented	
2c	Agree	January 2014	Partially Implemented	
3a	Agree	October 2012	Implemented	
3b	Agree	September 2013	Not Implemented	
3c	Agree	September 2014	Partially Implemented	
4a	Agree	September 2013	Implemented and Ongoing	
4b	Partially Agree	September 2013	Implemented and Ongoing	
4c	Partially Agree	September 2013	Implemented and Ongoing	
4d	Agree	July 2013	Partially Implemented	
4e	Partially Agree	June 2013	Implemented and Ongoing	
4f	Agree	February 2014	Not Implemented	

<b>Recommendation Number</b> <i>(e.g., 1a, 1b, 2, etc.)</i>	<b>Agency's Response</b> <i>(i.e., agree, partially agree, disagree)</i>	<b>Original Implementation Date</b> <i>(as listed in the audit report)</i>	<b>Implementation Status</b> <i>(Implemented, Implemented and Ongoing, Partially Implemented, Not Implemented, or No Longer Applicable)</i>	<b>Revised Implementation Date</b> <i>(Complete only if agency is revising the original implementation date.)</i>
5a	Agree	August 2012	Implemented and Ongoing	
5b	Agree	August 2012	Implemented and Ongoing	
6a	Agree	August 2012	Implemented	
6b	Agree	April 2013	Implemented and Ongoing	

## DETAIL OF IMPLEMENTATION STATUS

**Recommendation #:** 1a

**Agency Addressed:** Judicial

**Recommendation Text in Audit Report:** Take immediate steps to comply with State cyber security policies and related statutory provisions by:

- a. developing a robust set of implementation plans, practices, and guidelines as outlined in State cyber security policies;

**Agency's Response:** Disagree

**Agency's Written Response in Audit Report:** The Department is committed to the Cyber Security Program, as well as continuing to seek ways of reducing information security risks and complying with regulatory guidelines. While the Judicial Department was remiss in submitting its 2010 cyber security plan to the Office of Information Technology (OIT), the Department would like to acknowledge that in 2010 an updated cyber security policy was presented and reviewed by the Department's IT oversight committee. The Department has also verified that a 2011 cyber security plan (ACSP) was submitted to the CISO at the Governor's Office of Information Technology. Accompanying the agency cyber security plan was the Departments plan of actions and milestones, disaster recovery plan executive summary, disaster recovery test results, and the cyber security training progress report. Due to the resignation of the Department's Information Security Officer (ISO) in September 2011, the Acting CIO did not receive confirmation of the ACSP submission as it was delivered to the ISO. The Department has completed a draft of its 2012 cyber security plan and will submit the final draft to the CISO once reviewed by the Department's IT oversight committee in July.

**Current Implementation Status of Recommendation:** Not Applicable. The Department disagreed with the recommendation.

**Agency's Current Comments on Implementation Status of Recommendation:** Not Applicable. The Department disagreed with the recommendation.

**Recommendation #:** 1b

**Agency Addressed:** Judicial

**Recommendation Text in Audit Report:** Take immediate steps to comply with State cyber security policies and related statutory provisions by:

- b. Performing a periodic vulnerability, threat, and risk assessment of the Judicial Department's policies, procedures, systems, and network infrastructure.

**Agency's Response:** Partially agree Implementation date: September 2013.

**Agency's Written Response in Audit Report:** The Department agrees that performing documented penetration and vulnerability scans of its systems and networks is critically important and will focus on these efforts in the near future. A risk assessment was completed in 2011 and the Department can provide a copy of the report if necessary. The risk assessment was conducted to provide a qualitative assessment in the areas of management, operational, and technical security. Based upon the NIST SP 800-30 and SEI Octave Allegro methodologies and guidelines, the risk assessment measured confidentiality, integrity, vulnerability, and availability of critical systems within the Judicial Department. In fiscal year 2014, the Department plans to seek funding for a third party vendor to perform an independent vulnerability, threat, and risk assessment of the Department's policies, procedures, systems, and network infrastructure.

**Current Implementation Status of Recommendation:** Implemented and Ongoing

**Agency's Current Comments on Implementation Status of Recommendation:** On September 6, 2012, the Department issued a Request for Proposal (RFP) to secure a contract for Information Security Assessment Consultants to assist in strengthening the Department's information security posture. On October 29, 2012 North Highland Company was awarded the contract to provide Information Security Assessment services. North Highland is currently in the process of providing vulnerability and penetration tests of the Department's network with plans to complete the assessments and final report to the Department by June 30, 2013. In fiscal year 2014 and 2015, the plan is for North Highland Company to perform application code reviews, information security organization and program assessments, and data loss prevention assessments. The Department understands the importance of securing its systems, networks, and data. Therefore, the Department will take the necessary measures to continue independent assessments of its systems and network infrastructure beyond fiscal year 2015, by prioritizing and allocating funds from the Department's Information Technology Infrastructure Long Bill line.

**Recommendation #: 2a**

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should strengthen its project management practices by:

- a. Generating and/or improving project documentation artifacts as well as tracking and documenting project activities. Documentation of artifacts should include a project management plan and its associated component plans, including a risk register within the risk management component plan.

**Agency's Response:** Agree. Implementation date: September 2013

**Agency's Written Response in Audit Report:** The Department recognizes the need to improve and strengthen its project management practices, particularly from a documented process and artifact delivery perspective. However, the Department must also find a balance between adhering to PMI standards and the delivery of accurate, complete, and timely information that the justices, judges, court, and probation staff needs to make informed decisions. After the successful implementation of the ICCES and jPOD projects, the Department plans to improve and strengthen its documented project management methodologies by utilizing agile principles that incorporate PMI standards along with the SCRUM framework. With four certified Project Management Professionals (PMP's) in good standing and a commitment to consistently involve court and probation business stakeholders in all application development efforts, the Department has been extremely successful over the last twelve years in its delivery of IT systems. While the Department does lack certain documentation within the various PMI process groups, its success can be attributed to implementing lean principles and a hybrid agile project management (APM) approach that includes an APM framework (envision, speculate, explore, adapt, and close).

**Current Implementation Status of Recommendation:** Implemented and Ongoing

**Agency's Comments on Implementation Status of Recommendation:** In March 2013, the Department contracted with an agile/SCRUM training professional to provide two, 2.5 days of onsite agile training for the application development teams, business analysts, technical services, and management teams. The Department is currently in the process of implementing various SCRUM project management values and principles, all of which involve input from executives, teams, stakeholders, and users. Some of the agile/SCRUM artifacts include the product backlog, sprint backlog, user stories, metrics such as the risk adjusted burn-up chart, sprint review, finished work, and sprint retrospective documentation. Implementation of agile/SCRUM project management methodologies will take time to perfect; however, the Department is committed to agile project management values and principles for all future projects.

**Recommendation #:** 2b

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** : The Judicial Department (the Department) should strengthen its project management practices by:

- b. Collecting project metrics and perform “earned value analysis” or an equivalent metric on the project so that the exact status of the project based on fine-grained work breakdown can be reported to any interested stakeholders on a regular (minimum monthly) basis

**Agency’s Response:** Agree. Implementation date: January 2014

**Agency’s Written Response in Audit Report:** The Department agrees that it can improve tracking project performance metrics, such as Earned Value Management (EVM), or a SCRUM variant, such as agile burn charts, that are able to track product progress as a percentage of total product size, as well as the cost incurred as a percentage of the total project. Similarly, by implementing a software development methodology such as SCRUM, the Department will be able to produce artifacts that will aid in the development, monitoring, and tracking of actual versus planned effort through agile burn charts. Incorporating a SCRUM methodology within the Departments IT Division will necessitate proper training for project team members that the Department is willing and excited to implement. Proficiency in SCRUM methodologies will take time, but the Department’s goal will be to slowly implement these methodologies once the first phase of the ICCES and jPOD projects are live and stable.

**Current Implementation Status of Recommendation:** Partially Implemented

**Agency’s Comments on Implementation Status of Recommendation:** The Department has started the process of implementing agile/SCRUM project management methodologies, which includes burn-up and burn-down charts, as well as user story/task boards—a variant of the work breakdown structure. Burn-up and burn-down charts will help the Department measure risk, project/sprint status, and release status. User story/task boards will provide more accurate feature/task estimating practices, as well as requirement and regression testing documentation.

**Recommendation #:** 2c

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should strengthen its project management practices by:

- c. Tracking actual versus planned effort by adopting a more standardized software development methodology such as an agile process like SCRUM.

**Agency's Response:** Agree. Implementation date: January 2014

**Agency's Written Response in Audit Report:** The Department agrees that it can improve tracking project performance metrics, such as Earned Value Management (EVM), or a SCRUM variant, such as agile burn charts, that are able to track product progress as a percentage of total product size, as well as the cost incurred as a percentage of the total project. Similarly, by implementing a software development methodology such as SCRUM, the Department will be able to produce artifacts that will aid in the development, monitoring, and tracking of actual versus planned effort through agile burn charts. Incorporating a SCRUM methodology within the Departments IT Division will necessitate proper training for project team members that the Department is willing and excited to implement. Proficiency in SCRUM methodologies will take time, but the Department's goal will be to slowly implement these methodologies once the first phase of the ICCES and jPOD projects are live and stable.

**Current Implementation Status of Recommendation:** Partially Implemented

**Agency's Comments on Implementation Status of Recommendation:** The Department has started the process of implementing agile/SCRUM project management methodologies, which includes burn-up and burn-down charts, as well as user story/task boards—a variant of the work breakdown structure. Burn-up and burn-down charts will help the Department measure risk, project/sprint status, and release status. User story/task boards will provide more accurate feature/task estimating practices, as well as requirement and regression testing documentation.

**Recommendation #:** 3a

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should ensure a smooth transition to enterprise-level application support for ICCES/jPOD by:

- a. Developing staffing and management plans to support the Department's transition to an enterprise service model with 24-hour support operations.

**Agency's Response:** Agree. Implementation date: October 2012.

**Agency's Written Response in Audit Report:** The Department has recently approved a plan to provide enterprise application support services between the hours of 6:00 AM and 12:00 AM. The Department is in the process of developing staffing and management plans for application support operations. Between April and June 2012, the Department conducted several meetings with the current vendor to discuss transition plans and enterprise level support. As a short-term enterprise solution, the Department has issued an RFP to solicit a tier 1 customer support call center service to support the ICCES application. The Department hopes to contract with a local Colorado call center and is also in the process of hiring a call center manager that will act as a liaison between the Department's tier 2 support staff and the selected call center. The Department's long-term strategy of providing enterprise support will consist of the call center manager developing an on-premise call center within the Department to support the daily operations of the courts and probation. This would include all public facing applications, as well as fielding tier 1 calls for court and probation business needs.

**Current Implementation Status of Recommendation:** Implemented

**Agency's Comments on Implementation Status of Recommendation:** On June 19, 2012, the Department issued a Request for Proposal (RFP) for tier 1 call center services in order to provide enterprise level application support for the ICCES and jPOD projects. After several site visits to various bidders, on August 24, 2012, the Department awarded the call center service contract to a local call center vendor. After several meetings and a thorough evaluation of the customer support representatives, the Department determined that in order to provide the high level of support services that ICCES customers would require, the Department decided to hire and train its own customer support center using FTE that were allocated to the ICCES project. The Department was able to hire and train its customer support representatives prior the October 1, 2012 implementation date and has proven to be very successful strategic decision.

**Recommendation #:** 3b

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should ensure a smooth transition to enterprise-level application support for ICCES/jPOD by:

- b. Developing and maintaining service level agreements with users of ICCES/jPOD.

**Agency's Response:** Agree. Implementation date: September 2013.

**Agency's Written Response in Audit Report:** The Department agrees that developing and maintaining documented Service Level Agreements (SLA's) with users of the ICCES and jPOD applications, as well as future applications, will help ensure service levels meet all of the agreed targets for ongoing software development. With three employees recently certified in ITIL Foundation Service Management, the Department understands the significant value that ITIL best practices and service level management processes can provide. By ensuring IT services are aligned with the business needs, the Department's IT staff can better serve the court and probation users. According to ITIL 2011 best practices, service level managers manage a variety of Service Level Management (SLM) processes. Therefore, based on the project management structure as outlined on page 9 of the IV&V report, the Department will need to balance the duties and roles of service level managers, with that of operational and project oriented roles that the managers of application development must be a part of. The Department plans to begin development and implementation of service-based SLA's after the first phase of ICCES and jPOD is complete. The SLA's can be developed so that they retroactively fit with requested ICCES requirements to-date, as well as current and future modules of jPOD.

**Current Implementation Status of Recommendation:** Not Implemented

**Agency's Comments on Implementation Status of Recommendation:** While the Department continues to use its E-Filing Oversight Committee to assist in proper design, enhancement requests, and service levels that meet the needs of all users and customers involved, the Department has not yet established a formal Service Level Agreement (SLA). With such a large number of attorneys, paralegals, and collection agencies using the ICCES program throughout the state, the Department is reviewing the most appropriate method to properly establish an SLA with so many customers and users that might have varying requirements.

**Recommendation #:** 3c

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should ensure a smooth transition to enterprise-level application support for ICCES/jPOD by:

- c. Developing or enhancing documented operational processes and procedures that address specific sub-processes, such as output management, job scheduling, backup and restoration, network monitoring/management, system monitoring/management, database monitoring/management, and storage monitoring/management.

**Agency's Response:** Agree. Implementation date: September 2014.

**Agency's Written Response in Audit Report:** The Department understands that it lacks sufficient documented operational process and procedures as outlined in the report under Enterprise Operations. However, the Department would like to acknowledge that there are enterprise operational processes and procedures in place to handle each of the identified areas. By implementing and building upon ITIL 2011 best practices, the Department plans to take advantage of the recent findings to refine and document its enterprise level operational processes and procedures.

**Current Implementation Status of Recommendation:** Partially Implemented

**Agency's Comments on Implementation Status of Recommendation:** The Department is continuing to develop documented operational processes and maintenance procedures for all new projects such as ICCES and jPOD, as well as existing applications which include our Case Management System Transformation (CMST) process, best practice for a scalable architecture, Electronic Content Management System (ECMS) standards and criteria, outage procedures, SAN topology, general architecture model to include Service Oriented Architecture (SOA) farm, and public access scaling and integration. The Department has or is in the process of purchasing more sophisticated monitoring and management software tools for its databases, network, storage, and server farm. Additional documentation needs to occur in the areas of job scheduling processes, backup and restoration, and various other standard operating procedures for the numerous applications that the Department must support and maintain.

**Recommendation #:** 4a

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should implement a strong quality control assurance program by:

- a. Developing a Requirements Traceability Matrix and performing a traceability exercise to link use-cases to business rules.

**Agency's Response:** Agree. Implementation date: September 2013.

**Agency's Written Response in Audit Report:** The Department is supportive of implementing a Traceability Matrix, as it will allow traceability from requirements to test scripts that are necessary to verify that the requirements were fulfilled. While implementing a traceability matrix would simplify the Department's current use-case template structure, the Department is committed to practicing SCRUM methodologies in the future, which would allow traceability of agile user stories, rather than use-case documents. The Department will incorporate a Traceability Matrix into its SCRUM implementation plan.

**Current Implementation Status of Recommendation:** Implemented and Ongoing

**Agency's Comments on Implementation Status of Recommendation:** The Department currently has a system in place that links use-case specifications, user interface (UI) specifications, test scripts, training manuals, and diagrams to both the ICCES and jPOD projects. This tool was extremely helpful in the successful implementation of the Department's e-filing efforts in county and district civil, general jurisdiction domestic relations, civil probate, water, and court of appeals civil case types. However, the Department would like to help build on its quality assurance program by first implementing a traceability matrix for all future projects using user stories. This would include all future enhancements and features to ICCES such as criminal and pro se e-filing, as well as future module releases to the Department's new case management system (jPOD). As time permits, Department staff will work to incorporate existing use-case documents into the traceability matrix to ensure accuracy and completeness.

**Recommendation #:** 4b

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should implement a strong quality control assurance program by:

- b. Reviewing the business requirement rules of each component of development to ensure complete and clear rules have been incorporated into the use-case.

**Agency's Response:** Partially Agree. Implementation date: September 2013.

**Agency's Written Response in Audit Report:** The Department has created a variety of use-case documents, design diagrams, and user interface (UI) specifications that contain business requirement rules of each component or module being developed for the current ICCES/jPOD projects. These projects are currently in the implementation phase; therefore, there is limited benefit to the Department to review these documents at this time. However, the Department will review the existing documentation for possible value-added improvements for future projects.

**Reviewer Addendum**

The review was performed at a point in time. The use cases we sampled did not include the business requirement rules of each component of development to ensure complete and clear rules had been incorporated; and as such, we continue to believe our work supports the finding.

**Current Implementation Status of Recommendation:** Implemented and Ongoing

**Agency's Comments on Implementation Status of Recommendation:** The Department currently has a system in place that links use-case specifications, user interface (UI) specifications, test scripts, training manuals, and diagrams to both the ICCES and jPOD projects. This tool was extremely helpful in the successful implementation of the Department's e-filing efforts in county and district civil, general jurisdiction domestic relations, civil probate, water, and court of appeals civil case types.

**Recommendation #:** 4c

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should implement a strong quality control assurance program by:

- c. Developing additional requirements, design specifications, use-cases, and test scripts for the system, interface, document upload process, payment fee process, and security and performance requirements.

**Agency's Response:** Partially Agree. Implementation date: September 2013.

**Agency's Written Response in Audit Report:** The Department agrees that it needs to develop additional quality assurance requirements such as test scripts, as well as security and performance requirement documentation. However, the Department does currently develop and maintain use-case, design specifications/diagrams, and user interface (UI) documents for the various business requirements and product features. This includes documented specifications for the interface, document upload process, and payment fee process. The Department's IT division will investigate ways to incorporate test scripts, security and performance requirements as part of its audit remediation plan, which will include enterprise operations support, ITIL best practices, and SCRUM methodologies.

**Reviewer Addendum**

The review was performed at a point in time. During the review we noted that the Department did not have adequate and complete information such as use-cases, system requirements, etc., for the system, interface, document upload process, payment fee process, and security and performance requirements. As such, subpart "c" of this finding is supported by the work performed and remains a valid concern.

**Current Implementation Status of Recommendation:** Implemented and Ongoing

**Agency's Comments on Implementation Status of Recommendation:** The Department has taken steps to incorporate test scripts and performance/load testing tools to ensure its applications can scale with anticipated user load. This includes an automated application build process that will eventually include automated regression and unit testing during the build process. Additionally, the Department currently has a system in place that links use-case specifications, user interface (UI) specifications, test scripts, training manuals, and diagrams to both the ICCES and jPOD projects. This tool was extremely helpful in the successful implementation of the Department's e-filing efforts in county and district civil, general jurisdiction domestic relations, civil probate, water, and court of appeals civil case types.

**Recommendation #:** 4d

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should implement a strong quality control assurance program by:

- d. Developing testing mechanisms and processes that (1) ensure creation of a unit testing framework, (2) perform extensive system testing to ensure the new ICCES/jPOD platforms will perform as desired, (3) document the confirmation from sponsors/stakeholders that the system satisfies the approved requirements, and (4) develop tests to evaluate pre- and post-conditions to ensure they are correct and complete requirements.

**Agency's Response:** Partially Agree. Implementation date: September 2013.

**Agency's Written Response in Audit Report:** The Department agrees that it needs to develop more efficient and automated regression and unit testing mechanisms to ensure its systems perform as desired. The Department's IT division plans to explore open source testing frameworks such as JUnit and Cactus. The Department would like to acknowledge that it has held many product demonstrations of both ICCES and jPOD for stakeholder feedback. This includes a variety of user groups at the Colorado BAR Association, court staff, Board of Governors, Association of Legal Administrators, Mile High Association of Legal Support Staff, and various collection agencies. Additionally, the Department is currently in the process of configuring a demo site for all ICCES stakeholders to test system functionality.

**Current Implementation Status of Recommendation:** Partially Implemented

**Agency's Comments on Implementation Status of Recommendation:** The Department has taken steps to incorporate test scripts and performance/load testing tools to ensure its applications can scale with anticipated user load. This includes an automated application build process that will eventually include automated regression and unit testing during the build process. As part of the agile/SCRUM project management training that Department IT staff recently received, the Department plans to review additional open source software such as Cucumber which aides development teams in automated tests. Such tests can be written in a readable fashion that can also serve as documentation. To further strengthen the Department's quality assurance program, the Department has also put together a document on Enterprise Architecture and Strategy for Software Testing.

**Recommendation #:** 4e

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should implement a strong quality control assurance program by:

- e. Developing a configuration management plan to incorporate an agile method process and project management measurements.

**Agency's Response:** Partially Agree. Implementation date: June 2013.

**Agency's Written Response in Audit Report:** The IV&V report suggests that the Department is currently not able to support configuration management functions, however, the Department has implemented many processes and practices currently that support the PMBOK's definition of configuration management and change control systems. The Department has an active Change Advisory Board (CAB) with a documented charter. While the change and configuration management processes are not formally documented, all configuration changes are handled through a change request form with tracking systems for reviewing and approving proposed changes. Approved configuration requests are then updated on the Department's SharePoint site within the Schedule of Planned Activities (SPA). As changes are made (during the change window), they are tracked using a detailed—color-coded—task list. The task list is distributed via email to all involved so that everyone is aware of what is complete, as well as the remaining items to be completed. The Department recognizes that it can do a better job at documenting its current configuration management procedures and plans to do so by implementing an enterprise IT Service Management system in Fiscal Year 2013.

**Reviewer Addendum**

The review was performed at a point in time. During the review a formal configuration management plan was not available for review. In addition, we were unable to verify that the Department was testing to evaluate pre- and post-conditions to ensure that the conditions were correct and complete. Although the Department partially agrees with this finding, we affirm that our work supports our conclusions.

**Current Implementation Status of Recommendation:** Implemented and Ongoing

**Agency's Comments on Implementation Status of Recommendation:** The Department does currently have a system in place for change and configuration management. Microsoft SharePoint and a Change Request (CR) form are used to track, schedule, and implement all change requests from the application and technical services teams. As changes are being implemented, each task is tracked using a detailed—color coded—task list, which is distributed to all staff involved in the change process. The Department plans to further enhance

and automate its change management/control process by purchasing an enterprise level IT Service Management (ITSM) system. On March 22, 2013, the Department issued a Request for Proposal (RFP) for an ITSM system. The proposal submission deadline is April 22, 2013, and the Department hopes to issue an award by the end of June 2013.

**Recommendation #:** 4f

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should implement a strong quality control assurance program by:

- f. Establishing an independent quality assurance role or function to oversee quality management and compliance.

**Agency's Response:** Agree. Implementation date: February 2014.

**Agency's Written Response in Audit Report:** The Department is supportive of an independent quality management team to oversee quality planning, quality assurance, and quality control processes. However, the Department is constrained by FTE allocations that would be necessary to develop an independent quality management team. As an alternative solution, the Department would like to begin training and certifying current IT business analysts through the International Software Testing Qualifications Board (ISTQB) or another variant such as Software Quality Engineering (SQE). The Department is in the process of requesting Fiscal Year 2014 funding to support this effort.

**Current Implementation Status of Recommendation:** Not Implemented

**Agency's Comments on Implementation Status of Recommendation:** The Department is researching the feasibility of using its customer support center staff to provide independent quality assurance of its major applications such as ICCES and jPOD.

**Recommendation #:** 5a

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should reevaluate and reassess its capacity planning and infrastructure performance based upon the projected utilization and capacity needs of ICCES/jPOD, including:

- a. Revisiting system architecture, that is, the hardware and network supporting ICCES/jPOD system, to validate and verify that the current design will support the projected processing load for ICCES and jPOD. Identify and document risks and a related mitigation strategy as necessary.

**Agency's Response:** Agree. Implementation date: August 2012

**Agency's Written Response in Audit Report:** The Department has begun identifying and documenting the risks associated with load and capacity planning, as well as determining mitigation strategies for each of the identified risks. Load and capacity testing plans are currently under development with an expected completion date of August 2012. During several meetings that took place with the current vendor between April and June 2012, the Department was able to obtain high-level operational performance information, as well as perform its own analysis on the number of documents the Department receives on a nightly basis from the current vendor for backup purposes. Based on the information gathered, the Department was able to meet with its hardware vendor to establish best effort configurations in order to meet the projected processing, load, and capacity levels necessary to achieve optimal performance for both the ICCES and jPOD systems.

**Current Implementation Status of Recommendation:** Implemented and Ongoing

**Agency's Comments on Implementation Status of Recommendation:** Based upon the IV&V capacity management recommendations, the Department—to the best of its ability—did reassess a scalable approach to handle current and future system processing load by architecting its hardware to scale both vertically and horizontally. Additionally, the Department has successfully developed a load and regression-testing plan, as well as documented the known risks that it has or could potentially encounter with the ongoing implementation and development of both ICCES and jPOD. The Department currently uses a tool called TestNG, JMeter, and WebLOAD to perform basic load testing of ICCES and jPOD. The Department would like to further refine and expand on this process by incorporating these tools into its automated build process.

**Recommendation #:** 5b

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should reevaluate and reassess its capacity planning and infrastructure performance based upon the projected utilization and capacity needs of ICCES/jPOD, including:

- b. Developing plans for load/pilot testing and validating the system capacity and capability. Obtain operational performance information, either from the current third-party vendor or survey the potential stakeholders to validate/confirm anticipated system performance design and functionality.

**Agency's Response:** Agree. Implementation date: August 2012

**Agency's Written Response in Audit Report:** The Department has begun identifying and documenting the risks associated with load and capacity planning, as well as determining mitigation strategies for each of the identified risks. Load and capacity testing plans are currently under development with an expected completion date of August 2012. During several meetings that took place with the current vendor between April and June 2012, the Department was able to obtain high-level operational performance information, as well as perform its own analysis on the number of documents the Department receives on a nightly basis from the current vendor for backup purposes. Based on the information gathered, the Department was able to meet with its hardware vendor to establish best effort configurations in order to meet the projected processing, load, and capacity levels necessary to achieve optimal performance for both the ICCES and jPOD systems.

**Current Implementation Status of Recommendation:** Implemented and Ongoing

**Agency's Comments on Implementation Status of Recommendation:** The Department has successfully developed a load and regression testing plan as well as documented the known risks that it has or could potentially encounter with the ongoing implementation and development of both ICCES and jPOD. The Department currently uses a tool called TestNG and WebLOAD to perform basic load testing of ICCES and jPOD. The Department would like to further refine and expand on this process by incorporating these tools into its automated build process. Since the Department was not able to initially identify or determine concurrent user load of the vendor based systems, the Department purposely designed into its system the ability to scale its hardware and software both vertically and horizontally. Additionally, with the implementation of ICCES and jPOD nearly complete in county and district civil, general jurisdiction domestic relations, civil probate, water, and court of appeals civil cases, the Department is now in a position to better determine actual system load and can easily scale to meet increased load or capacity levels.

**Recommendation #:** 6a

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should ensure that project costs are appropriately capitalized as required by established accounting principles by:

- a. Establishing a plan to capitalize the project in the correct accounting period and re-stating financial records as needed.

**Agency's Response:** Agree. Implementation date: August 1, 2012.

**Agency's Written Response in Audit Report:** The Department will amend the current property management fiscal rule to create criteria for identifying what level of projects require capitalizing and establish a process to capitalize intangible assets. The Department is working on compiling data to capitalize the appropriate expenditures associated with the ICCES and jPOD projects in accordance with government accounting standards (GASB 51). The Department will capture these costs from the application development phase and make the corresponding accounting entries as part of the Fiscal Year 2012 year-end process.

**Current Implementation Status of Recommendation:** Implemented

**Agency's Comments on Implementation Status of Recommendation:** The Department began tracking all expenditures related to both jPOD and ICCES via organization codes in COFRS during Fiscal Year 2012. The Department's IT team worked with the Accounting Unit to identify the expenditures incurred during the Application Development Stage, which are the costs to be capitalized pursuant to GASB 51.

**Recommendation #:** 6b

**Agency Addressed:** Judicial

**Original Recommendation in Audit Report:** The Judicial Department (the Department) should ensure that project costs are appropriately capitalized as required by established accounting principles by:

- b. Estimating and recording the value of the project on an annual basis since the preliminary stage of the project.

**Agency's Response:** Agree. Implementation date: April 1, 2013.

**Agency's Written Response in Audit Report:** The Department will begin to identify and track all expenditures associated with ICCES and jPOD projects. The Department will also develop a fiscal rule requiring all projects over a certain dollar threshold to identify and track all direct and indirect costs. Further, the Department is evaluating the use of a time keeping system to enhance the accurate and timely collection of personnel costs associated with projects.

**Current Implementation Status of Recommendation:** Implemented and Ongoing

**Agency's Comments on Implementation Status of Recommendation:** At the end of Fiscal Year 2012, the Department identified and recorded the capitalized value of both projects for all prior years through June 30, 2012. Based on the process established by the Department to track expenditures and ongoing communication between IT and the Accounting Unit, appropriate entries will be made at each fiscal year-end.