DEPARTMENT OF TRANSPORTATION
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Flex your power!
Be energy efficient!

April 11, 2013

The Honorable Mark Leno
Chair, Joint Legislative Budget Committee
California State Senate
1020 N Street, Room 553
Sacramento, CA 95814

Dear Senator Leno:

I am pleased to submit the California Department of Transportation's (Caltrans) quarterly report on the *Project Resourcing and Schedule Management System*. This report is required under the provisions of Item 2660-492-0042 of the Budget Act of 2005. The provision states:

> "Beginning July 1, 2005, the Department of Transportation shall provide to the Chairperson of the Joint Legislative Budget Committee copies of the monthly status and oversight reports submitted to the Department of Finance for the Project Resource and Scheduling Management Project on a quarterly basis."

The enclosed package contains three monthly reports that were submitted by the Independent Project Oversight Consultant to the California Department of Finance from October 1, 2012, through December 31, 2012. These reports identify potential risks with significant probability of occurrence and impact. Caltrans is actively monitoring these risks and mitigating them as identified in Attachment A.

Distribution to the Legislature has been made by Caltrans pursuant to California Government Code section 9795. This report can be found at www.dot.ca.gov/reports.htm.

Sincerely,

Malcolm Dougherty
Director

Attachment

c. Ms. Diane Boyer-Vine, Mr. Gregory Schmidt, Mr. E. Dotson Wilson

DEPARTMENT OF TRANSPORTATION
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Flex your power!
Be energy efficient!

April 11, 2013

Ms. Diane Boyer-Vine
Legislative Counsel
State Capitol, Room 3021
Sacramento, CA 95814

Mr. Gregory Schmidt
Secretary of the Senate
State Capitol, Room 3044
Sacramento, CA 95814

Mr. E. Dotson Wilson
Chief Clerk of the Assembly
State Capitol, Room 3196
Sacramento, CA 95814

Dear Ms. Boyer-Vine, and Messrs. Schmidt, and Wilson:

I am pleased to submit the California Department of Transportation's (Caltrans) quarterly report on the *Project Resourcing and Schedule Management System*. This report is required under the provisions of Item 2660-492-0042 of the Budget Act of 2005. The provision states:

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October 1, 2012, through December 31, 2012. These reports identify potential risks with significant probability of occurrence and impact. Caltrans is actively monitoring these risks and mitigating them as identified in Attachment A.

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Sincerely,

MALCOLM DOUGHERTY
Director

Enclosure
c. The Honorable Mark Leno

Project Resourcing & Schedule

Management System

Quarterly PRSM Status Report to the Legislature

October 1, 2012 – December 31, 2012

California Department of Transportation

Division of Project Management

Office of Statewide Project Management Improvement

PRSM
Effective Resource and Schedule Management

EXECUTIVE SUMMARY

Project Background

In June 2000, the Department of Transportation (Caltrans) received approval for a Feasibility Study Report (FSR) to implement the Project Resourcing and Schedule Management (PRSM) system. PRSM will provide an enterprise information system to manage State highway projects and will be used by approximately 9,000 project delivery staff. PRSM will integrate Computer Associates (CA) Clarity tool, which is a commercial-off-the-shelf (COTS) software product, with Caltrans' Enterprise Resource Planning Financial InfraStructure (EFIS) and Staff Central systems. PRSM will replace the eXpert Project Management (XPM) system and several independent district-specific systems and processes.

As stated in the FSR and subsequent Special Project Reports, the primary objectives are:

- Replace a legacy scheduling system which is not supported by a vendor and does not meet current functional requirements of the department.
- Improve Caltrans's ability to meet the operating and reporting requirements of SB 45.
- Establish a project-scheduling database that complies with Caltrans' information technology standards.
- Integrate planned and actual resources for all projects modeled in the database.

The project has experienced delays in the Adaptation Phase (now completed) against the project schedule in the Special Project Report (SPR) approved in December 2009. The SPR reported an implementation date of May 2011 and the current project schedule estimates implementation to complete September 2013, which is a twenty-eight month delay. In addition to schedule delay, the scope has changed to allow PRSM to interface with Caltrans' recently implemented financial system.

Although the project has experienced challenges and delays, the FSR objectives have not changed and have been met with the system successfully deployed in four of twelve Caltrans districts with the balance scheduled to complete in September 2013. The PRSM project provides an enterprise project resourcing and scheduling system that integrates with Caltrans' enterprise human resource and financial systems. Once fully deployed, the system will greatly improve project planning, schedule control, resource management, and reporting for Caltrans' state highway projects.

Current Status:

The North Region (consisting of Districts 1, 2, and 3 in Northern California) is currently in production with roll out to District 4 (Oakland) in progress.

PRSM
Effective Resource and Schedule Management

EXECUTIVE SUMMARY

Major Project Milestones:

1. Project Contract Award Date:	03/05/09 (Actual)
2. Adaptation Phase Complete:	05/16/12 (Actual)
3. Pilot Phase Complete:	07/13/12 (Actual)
4. Phase-1 District Rollout Complete:	05/15/13 (Planned)
5. Phase-2 District Rollout Complete:	09/12/13 (Planned)
6. Statewide Rollout Acceptance:	09/30/13 (Planned)
7. State Closeout:	10/30/13 (Planned)
8. PIER Report	10/29/14 (Planned)

Project Budget and Expenditures:

Total Project Budget (SPR 4)	$36,377,496
Expended to date	$24,931,770

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IPO Report for December 2012

Project Name:	Project Resource Scheduling Management System (PRSM)	**Assessment Date:**	12/01/2012 – 12/31/2012
		Frequency:	Monthly

Oversight Provider Information

Oversight Leader:	Ann Richardson	**Organization:**	CA Technology Agency
Phone Number:	916-228-6652	**Email:**	Ann.Richardson@state.ca.gov

Project Information

Project Number:	**2660-160**	**DEPARTMENT:**	Department of Transportation
Criticality:	High	**Agency:**	Business, Transportation & Housing
Last Approved Document/Date:	SPR – 04/02/2012	**Total One-time Cost:**	26,947,129
Start Date:	06/07/2000	**End Date:**	05/24/2013
Project Manager:	Steve Kawano	**Organization:**	Department of Transportation
Phone Number:	916-749-5675	**Email:**	Steve_kawano@dot.ca.gov

Summary: Current Status – If multiple current phases, use section at end to assess the status of additional phases.

Project Phase:	Rollout Phase I		
Planned Start Date:	April 18, 2012	**Planned End Date:**	March 15, 2013
Actual Start Date:	April 9, 2012		

Schedule

Select the statement that most closely applies, measured against the last **OCIO approved** document.

Ahead-of-schedule:
One or more major tasks or milestones have been completed and approved early (> 5%). All other major tasks and milestones completed and approved according to plan.

On-schedule:
All major tasks and milestones have been completed and approved according to plan. (Within 5%)

Behind Schedule:
One or more major tasks or milestones are expected to be delayed. (> 5%)

Behind Schedule

Comments:

Several events that include power outages and data source issues delayed the conversion and validation activities of Districts 1, 2, & 3 data. Once the data became available to migrate, there were problems loading the data into production. Originally, migration of the data into production was a 3-day task. A missing step in the migration process, which is linking the data to existing projects, resulted in the task needing to extend to 6 days. In addition, when the data load began for Districts 1, 2 & 3 into production, the archiving files became full and the production environment had to disabled.

Rollout for Districts 1, 2 & 3 project data completed on September 25, 2012 and due to unexpected issues with the expenditure data, the Districts deployment did not complete until October 6, 2012. PRSM Districts 1, 2, and 3 have been in production for three months.

User training was suspended for District 4 from October 30, 2012 until November 28, 2012 due to unresolved performance issues in the training environment. The training approach was changed and performance measurement tools were added to the network in an effort to reduce the system load and monitor it for potential issues.

Although the root cause of training performance problems remains unidentified, the project team did not report issues significant enough to impede training in December. The resumption of training provided the project team with the opportunity to resume its implementation schedule for all remaining districts starting with District 4.

The project resumed all training sessions the week of December 10, 2012. During this time, District 4 staff was trained; conversion was initiated and is near completion. The planned go-live date for District 4 has been set for January 7, approximately 98 days behind schedule.

Resources (Level of Effort) Choose the statement that most closely applies.

Fewer Resources
Completion of one or more major tasks and/or acceptable products has required or is expected to require materially (>5%) fewer hours/staff than planned.

Within Resources

Within Resources
All major tasks have been completed and acceptable products created using the planned number of hours/staff (within 5%).

More Resources
Completion of major tasks and/or acceptable products has required or is expected to require materially (>5%) more hours/staff than planned.

Comments: The PRSM project manager left the PRSM project effective April 6, 2012. Since that time, the project has transitioned to two interim project managers. Caltrans has advertised for a permanent State employee to fill the PM position. Due to departmental directives, this position remains as a temporary assignment. The "acting" PM continues to also be in the "acting" role of the Enterprise Technology Investment Division Chief. Although his staff is not providing direct oversight on the PRSM project, nor does he directly complete the CA-PMM report, there continues to be concern for conflict that could occur with his staff providing some instances of oversight on the project, such as reviewing CA-PMM reports prior to submitting to CA Technology Agency.

Vendor resources have stepped up and staff has been more responsive to data load activities than last reported. Although vendor staff appear to have limited experience in enterprise-wide project management systems, specifically for Clarity, and for transportation clients.

Resources (Budget/Cost) Choose the statement that most closely applies.

Less cost
The project is (>5%) under budget.

Within Budget

Within cost
The project is operating within budget.

Higher cost
Material budget increases (>5%) are likely

Comments: According to the CA-PMM report submitted in December 2012, the project is currently within budget. Contract services for Project Oversight and Other Contract Services have exceeded the approved amounts; however, Project Oversight is no longer a contracted service since CA Technology Agency provides the services. The Other Contract Services amount is in question as to what the services are and the reason for overage. Risk of continued overage is not known until the information is received. The only changes from last month were staffing and IV&V costs.

PRSM has been deployed into production for Districts 1, 2 and 3, and deployment of District 4 has been initiated. Maintenance is being provided by SAIC, therefore there are no Staff costs at this time.

Caltrans staffing hours are collected by an internal application that produces a monthly report. It is projected that the staffing costs balance is sufficient for the remainder of project.

Reporting Period: From September 1, 2000 through December 31, 2012		
	Last Approved Budget ($)	**Cumulative Actual Cost ($)**
One-Time IT Project Costs		
Staff (Salaries & Benefits)	10,023,182	9,939,848
Hardware Purchase		
Software Purchase/License	1,759,500	782,000
Telecommunications		
Contract Services - Software Customization	9,312,864	5,639,654
Contract Services - Project Management		
Contract Services - Project Oversight	893,310	899,142
Contract Services – Independent Verification and Validation (IV&V) Services	1,099,274	1,003,234
Contract Services - Other Contract Services	3,438,638	3,629,033
Data Center Services	6,750	6,750
Agency Facilities		
Other	413,611	128,510
Total One-Time IT Project Costs	**26,947,129**	**22,028,172**
Continuing IT Project Costs		
Staff (Salaries & Benefits)	341,232	0
Hardware Lease/Maintenance		
Software Maintenance/Licenses	2,588,292	460,000
Telecommunications		
Contract Services		
Data Center Services	6,500,843	2,424,873
Agency Facilities		
Other		
Total Continuing IT Project Costs	**9,430,367**	2,884,873
TOTAL	**36,377,496**	**24,913,045**

Note: This information is from the January 2012 CA-PMM report.

Quality (Client Functionality) Choose the statement that most closely applies.

Adequately Defined
Required client functionality is adequately defined, and is being successfully built into the system, given the current project phase.

Adequately Defined

Inadequately Defined
One or more significant components of required client functionality are inadequately defined, or are not being successfully built into the system, given the current project phase.

Comments: The project is in the rollout phase. TMS (the previous oversight vendor) reviewed the requirements, to-be use cases and workflows created for PRSM and found them to be quite thorough and inclusive of the underlying solution flow.

The Technical As-Built Documentation (Deliverable #20) was delivered on September 5, 2012. The IV&V consultants independently reviewed this documentation. In addition, the project team members reviewed and accepted the deliverable.

Quality (Architecture/System Performance) Choose the statement that most closely applies.

Adequately Defined
The system technical architecture is adequately defined, and modeling, benchmarking and testing are being conducted (or are planned) appropriate to the current project phase.

Inadequately Defined

Inadequately Defined
The system technical architecture is not adequately defined, or modeling, benchmarking and testing are not being conducted (or are planned) appropriate to the current project phase.

Comments: The project has experienced performance issues in both the production and training environments. The training environment issues were thought to be resource constraints since Development, Testing and Training instances all resided on the same server box. An additional server was installed that solely hosted the training environment. When performance issues did not improve, training was suspended. Changes were made to the system, performance measurement tools were added; and the training approach was modified. Training resumed on November 28, 2012.

Production performance issues have reduced since pilot. Caltrans and OTech continue to work closely to identify and mitigate all of the performance issues. There is a risk that the continuing performance issues in the training environment will be realized in production as more Districts are deployed.

There is an issue with the archiving architecture, in that the archiving files become full during the process of migrating data into production. A work around is in place at this time, which includes creating a backup file and then turning off the archiving during the process.

New Project Risks

List (in priority order) the most critical risks to completing the project within the approved schedule, budget and scope. See instructions for description of desired format. If more than five risks are to be included, copy and paste as needed.

There are no new risks identified during this reporting period.

Progress toward Addressing Prior Risks

List the risks included in the *New Project Risks* section in previous IPORs. Risks are to remain reported in this section until they are closed or no longer critical, with an explanation of the resolution. See instructions for description of desired content. If more than five risks are to be included, copy and paste as needed.

Risk Identifier	R-9	**Risk Statement:** Key Critical Resources have left or are leaving the project, which may have an impact on decision making, problem solving and/or strategy setting.
Probability	Medium	
Impact	High	
Timeframe	Short	
Status	Open	**Description:** In the past several months, the initial PRSM project manager has left Caltrans, a new interim manager was appointed in May. IPOC was told that a permanent position has been posted for this position, but based on State hiring timelines it could be several months before this position is filled. In addition, the project manager support (Brian Spray) contract terminates in August and there are no plans to keep him on board for a longer period. This poses a significant risk to the PRSM project by not having dedicated, permanent and knowledgeable staff in place for decision making, trouble-shooting and setting direction or escalating issues.
Project Risk No.		**Recommendation:** • Caltrans Management needs to appoint a permanent staff member in the position of PRSM project manager immediately – the transition in and out of the interim staff is causing disruption to the project team. • Extend the current project manager support staff throughout the remainder of the large pilot and at a minimum, through the first three production district rollouts. There needs to be continuity on the PRSM project and a central team member responsible for risk and issue management, schedule management and scope management. • With significant attrition on the project on both the Caltrans and SAIC teams as we approach Rollout, it may be necessary to revise the roles and responsibilities of the Project Management Plan and the organization/governance processes.

12/31/2012 – There is no change from last month. The risk will continue to be monitored.
11/30/12 – There is no change from last month. The positions appear to be stable; this risk will continue to be monitored until the Caltrans PM position is a permanent.
10/31/12 – The Caltrans PM "acting" roles are still in place with no evidence of moving forward with permanent positions. The Project Management support Services contract was awarded.
9/30/12 – The Caltrans PM has an "acting" role, not only as the PRSM PM, but also as the Enterprise Technology Investment Division Chief. The Project Management Support Services contract award is outstanding.

Risk Identifier	R-6	**Risk Statement:** Lack of performance and scalability planning may lead to issues with the Pilot or Rollout if not resolved quickly. **Description:** For performance testing, there is a lack of requirements and goals. There is also a lack of a test plan for scalability and performance, and a lack of performance test scripts created and executed. **Recommendation:** • Understand performance requirements – how many users will be on the system concurrently, what is the expected performance metrics for submitting data, what is the expected performance for running reports, what are the scalability requirements? • Take the current scheduling system, establish baseline for these performance requirements, and determine if they are meeting the goals. • If they are not meeting the goals, develop and execute test cases for performance.
Probability	High	
Impact	High	
Timeframe	Short	
Status	Open	
Project Risk No.		

12/31/2012 – There is no change from last month. This risk will continue to be monitored.
11/30/12 – Monitoring tools are installed on the servers at OTech to assist with the resolution of the training environment performance issues. These tools will also be used to monitor production performance. Tools simulating multiple users have been used for testing of the training environment to ensure that the system is ready for the load needed to conduct training.
10/31/12 – The training environment continues to experience poor performance with the new server. SAIC have open tickets with CA while Caltrans and OTech continue to monitor the Caltrans network.
9/30/12 – The training environment will be migrated to a new server box so that resources are not competing with the development and testing environments. Caltrans has assigned resources to address network concerns that may be the root cause of the 3-second delay in the production environment. As Districts prepare for rollout, testing of the network traffic for each district will occur.

Risk Identifier	R-5	**Risk Statement:** Inadequate planning for data conversion may cause additional schedule delays and impact the quality of integration testing.
Probability	High	
Impact	High	
Timeframe	Medium	
Status	Open	**Description:** There have been unexpected problems with the dry-run data conversion process and for several of the Districts' pilot data; there has not been a successful dry run to date. This may cause additional schedule delays and impact the quality of integration testing. In addition, planning for conversion is behind schedule with the team continuing to document the implementation plan and the end-to-end Caltrans Conversion Process document.
Project Risk No.		**Recommendation:** • Reconcile discrete tasks listed in the go-forward plan with high-level tasks in the project schedule to ensure that all conversion activities are tracked and assigned. • Review of the current conversion metrics showing what has been successfully converted and what remains to be converted. • Include districts in conversion validation activities – no one knows their data better than they do. In discussions with the project team, they have indicated that they would like to document, by District, where the source data is coming from, what pre-conversion activities or data cleanings have been done so far, what remains to be done, and results of testing. This will help the State identify which district is in the best position to move forward in Pilot. IPOC agrees and supports this approach.

12/31/2012 – Activities to convert, load, and validate the remaining District 4 projects resumed the second week of December. Revised data load activities added effort required to schedule. Milestones have slipped from baseline due to load and training delays. However, lessons learned from conversion of District 1, 2, 3 were acted upon. Data conversion for District 4 is near completion.

11/30/12 – Conversion for District 4 has been placed on hold due to the temporary suspension of training. Once 50% of the staff in District 4 is trained, conversion activities will begin. Training resumed on November 28, 2012. Based on previous challenges of loading Districts 1, 2 &3, some adjustments have been made to the conversion process. The Conversion Plan is not updated to reflect these changes.

10/31/12 – Districts 1, 2 & 3 project data completed migration on September 25. However, the expenditure data did not fully migrate until October 6, 2012. The project team is looking at a new strategy to migrate the project and expenditure data to avoid further issues. It is recommended that the process be tested prior to the next rollout.

9/30/12 – Migration of Districts 1, 2 & 3 occurred 26 days behind schedule. All of the data migrated into production with the exception of some missing expenditures. An analysis is being conducted to determine the volume and impact of the missing expenditures. Migration of this data started on September 15, 2012 with an unsuccessful completion. The archiving files became full and the production environment needed to be suspended. At the same time, it was realized that there is a missing step in the loading process, which includes linking the data to existing projects. This missing step will double the time need to load the data into production. Tasks for the new process are included in the schedule for future rollouts. This risk will remain open and reassessed after the next rollout.

Risk Identifier	R-1	**Risk Statement:** Lack of effective organizational change management or District buy-in for Pilot could lead to lack of acceptance of PRSM or to new PRSM processes.
Probability	Medium	
Impact	Medium	
Timeframe	Medium	
Status	Open	
Project Risk No.		**Description:** One of the most significant challenges to the PRSM Project could be engaging and obtaining buy-in from district executives, management and staff. It is very important that District executives and management are knowledgeable about PRSM and the changes to their business processes and benefits of using PRSM. District staff, in addition to training, should be knowledgeable of the decisions and consequences of changing/standardizing business processes. Lack of engagement of District personnel at all levels could have a negative impact on overall PRSM system acceptance and usage. **Recommendation:** • Assess the changes to the training program/plan proposed in the most recent implementation vendor change request in order to understand the impact on Organizational Change Management. Work with the Districts to help them understand the changes to the training program in order to gain organizational buy-in and confirm that the program is adequate to enable a successful rollout. • Consider hiring/extending additional consulting resources to assist with refining the organizational change management plan and to execute the plan. • Involve the end users in a more direct way and allow them to participate in the risk management process. This will allow the project team to obtain early buy-in and a stake in the project. Hold a risk identification session to identify the district concerns of the pilot activities and help define appropriate mitigation strategies to address the risks identified. • Analyze current methods of communication to determine if additional processes need put in place to get the districts to open up the channels for communicating risks and issues associated with pre-pilot, pilot and post pilot activities. • Engage the districts in reviewing business functionality and business processes.
12/31/2012 - Lessons learned from conversion of District 1, 2, 3 were utilized, providing for a smoother conversion for District 4. 11/30/12 – District 4 has been kept informed and involved in status meetings regarding the progress of the training environment issues.		

10/31/12 – Customer buy-in is deteriorating due to the performance issues in the training environment. Training is temporarily suspended until the issues can be resolved.
9/30/12 – District 4 has been engaged with cleaning their data for conversion readiness and has begun training. District 4 staff has shown enthusiasm about migrating to the PRSM system and is requesting post-training access to the system. Access to either production as "read only" or continued access to the training environment has been requested. This is a positive indication that customer buy-in exists. This risk will remain open through District 12 readiness to ensure that this positive response continues.

Closed Risks

No risks were closed during this reporting period.

General Comments

The project team is gathering data regarding all issues and challenges that have been encountered related to performance and data conversion and documenting the efforts completed and what issues and/or work that remains. Although the issues are being tracked in the issues log, this documentation will be the roadmap to describe what efforts have been completed and will provide the project team with a tool to make the appropriate decisions on what the next steps are in resolving these outstanding issues.

CALTRANS - PRSM Project Oversight Review Checklist (December 2012)

Project Oversight Review Checklist: High Criticality Project

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
Planning and Tracking			
Have the business case, project goals, objectives, expected outcomes, key stakeholders, and sponsor(s) identified and documented?	✓		TMS reviewed the last approved SPR dated April 2012. TMS validated that the dates in the project schedule correspond to the new baselined dates (Baseline 1) as a result of the SPR approval for cost and schedule.
Has a detailed project plan with all activities (tasks), milestones, dates, and estimated hours by task loaded into CA-PMM Toolkit or other identified software? Are the lowest level tasks of a short duration with measurable outcomes?	✓		The project does use an MS Project schedule to track the work. Tasks, milestones dates and estimated hours are documented within the schedule and the tasks, for the most part, are represented as manageable, traceable items with durations less than 80 hours.
Is completion of planned tasks recorded within the CA-PMM Toolkit, Microsoft Project, or other identified software?	✓		Changed from Deficient to Adequate in February 2012. Caltrans revised the project schedule to account for the delay in rollout activities which has translated with a delay in the overall end date. TMS reviewed this schedule and found that almost all of the recommendations made in our one-time assessment report were mitigated in the new revision.
Are actual hours expended by task recorded at least monthly within the CA-PMM Toolkit or other identified software?		✓	As per the project team, PRSM budget information for each contract is accessed by using the PMO and CA-PMM monthly reports and the SPR. Each month, the project rolls each of the contract expenditures into the CA-PMM report for total project costs. Actual costs are reported, as are actual percent complete. However, hours by task are not tracked at either the State or the vendor level, so this category is Deficient as per the checklist requirements. As per Caltrans, this will be addressed with additional resource loading and reporting of actual start and finish data in future reporting periods.
Are estimated hours to complete by task recorded at least monthly within the CA-PMM Toolkit or other identified software??	✓		The project schedule is updated weekly and reviewed during the weekly project status meeting.
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		✓	There is no exposure to a formal staffing plan. We have reviewed the Project Organization Chart that documents the overall structure and high-level roles; however, a breakdown of specific staff on the vendor side and State side is not clear. Roles and responsibilities are defined within each project process plan (i.e. change management roles and responsibilities are defined within the Change Management Plan), however, TMS has not seen an overall description of the general roles

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			and responsibilities for the project team (vendor and State). With the attrition that is natural in the system integrator team as we start to get closer to rollout, and with the significant resource transitions that have occurred at the State level on the project, a Staffing Plan and strategy for transition become more critical to success. IPOC has recommended that the State develop a Staffing Plan for the remainder of the rollout activities to assist in planning resources for both the State and SAIC and to assist in the resolution of resource conflicts.
Have project cost estimates, with supporting data for each cost category, been maintained?		✓	As per the project team, PRSM budget information for each contract is accessed by using the PMO and CA-PMM monthly reports and the SPR. Each month, the project rolls each of the contract expenditures into the CA-PMM report for total project costs. TMS has reviewed the cost tracking that the project includes within the CA-PMM and observes that the actual expenditures are summarized as total amount "to-date"; however, no estimated future costs or projections are included.
Are software size estimates developed and tracked?	NA	NA	
Are two or more estimation approaches used to refine estimates?	NA	NA	
Are independent reviews of estimates conducted?	NA	NA	
Are actual costs recorded and regularly compared to budgeted costs?	✓		Status changed from Deficient to Adequate in June 2012. The CA-PMM status report cost tracking summary shows various project categories, last approved SPR cost and cumulative actual costs for the total project, but not by month or fiscal year. The PRSM Payment Milestone and Deliverables spreadsheet shows actual costs incurred for vendor deliverables.
Is supporting data maintained for actual costs?	✓		Status changed from Deficient to Adequate in June 2012. The Microsoft Excel version of the CA-PMM status report shows comments notes for each new data entry for the cumulative actual costs and registers the amount of invoices paid to the various vendors and subtotals on Total of One-Time IT Project Costs, Total of Continuing Project Costs and Total Project Costs.
Is completion status of work plan activities, deliverables, and milestones recorded, compared to schedule and included in a written status reporting process?	✓		IPOC meets twice a month with the project team and other oversight entities to review project status and review schedule status, deliverables, milestones and key activities. The current schedule adequately tracks all major deliverables, milestones and activities.
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 management plan?		✓	TMS has reviewed the Configuration Management Plan at a high level and found that there are some gaps in terms of the promotion process, specific roles and responsibilities for some of the configuration management tasks and a lack of configuration control for some of the project management process documentation. TMS is more concerned with the execution of configuration management and the concern that the project is not following the drafted procedures defined in the plan. TMS is not aware of any planned changes or revisions to the current

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			Configuration Management Plan.
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?	✓		Status changed from Deficient to Adequate in April 2012. TMS has reviewed the Issue Management Plan. Formal risk and issue management processes were executed on the project from the time IPOC started in July 2011 through November 2011. At that time the risk and issue meetings were cancelled. The meetings resumed again in April 2012 and are being conducted in a very thorough manner according to best practices. Current issues and risks are reviewed and the team has added several new risks and issues to the log in the past month.
Is user satisfaction assessed at key project milestones?	✓		Through documentation review, it appears that users have been engaged in product reviews and training reviews and have participated in regular meetings to discuss organizational change management and pilot preparations. However, TMS reviewed the Communication Management Plan and observed that the plan does not address communication methods to and from the districts. District 3 was engaged in the small pilot and districts 1, 2,and 3 were engaged in the large pilot. User surveys were conducted for both the small and large pilots as well as user activity sessions were daily feedback was received.
Is planning in compliance with formal standards or a system development life cycle (SDLC) methodology?		✓	Compliance with PMBOK standards is not adequate for this phase of the project. Although this project does not contain a typical design and development cycle, there are requirements, configuration and testing that need to be tracked and managed in a similar way to that of a typical development project. Oversight believes that a modified SDLC should have been adopted for the project that clearly identifies how validation of expected behavior will occur (i.e. description of the requirements management, configuration management and test management areas of the SDLC). Although the project is not in compliance with a formal standards or SDLC methodology, at this phase in the project IPOC does not see value in creating a document describing the methodology. However, Oversight has observed that the project schedule and the approved strategy for realigning testing, pilot and conversion adopts a more tactical approach to validation of the product prior to the pilot phase. This alleviates many of the concerns of a non-standard SDLC. PRSM has reviewed the gaps in the traceability matrix to ensure proper testing coverage and has also held weekly review of testing metrics to understand the current progress being made and clearly defined entry and exit criteria. All of these are improvements to the previous process. At this point in the project, there are no further improvements to be made that would add value.
Is there a formal enterprise architecture in place?	✓		The RFQI describes the target Caltrans enterprise environment.
Are project closeout activities performed, including a PIER, collection and	NA	NA	

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
archiving up-to-date project records and identification of lessons learned?			
Procurement			
Are appropriate procurement vehicles selected (e.g. CMAS, MSA, "alternative procurement") and their required processes followed?	✓		The final contract was signed by the Implementation Vendor on February 26, 2009. Caltrans received, reviewed and signed the contract on February 27, 2009. DGS Legal reviewed and signed the contract on March 5th, 2009.
Is a detailed written scope of work for all services included in solicitation documents?	✓		Detailed written scope of work is contained in the RFP.
Are detailed requirement specifications included in solicitation documents?	✓		Detailed requirement specifications are contained in the RFP. Requirements are also described in the RFQI and Value Analysis documents.
Is there material participation of outside expertise (e.g. DGS, Departmental specialists, consultants) in procurement planning and execution?	✓		Outside expertise and counsel has been sought from DOF, DGS, and consultants when appropriate.
For large-scale outsourcing, is qualified legal counsel obtained?	NA	NA	
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 the CA-PMM, and regular management team review of risks and mitigation progress performed?	✓		Status changed from Deficient to Adequate in April 2012 TMS has reviewed the Risk Management Plan and it contains well documented processes and procedures that include Risk Identification, Risk Analysis, Risk Response Planning, Risk Monitoring and Control and Risk Communication. The plan does not address any formalized approach to risk identification (such as periodic brainstorming sessions, SEI risk identification checklists or the use of software tools). TMS has also observed risk management metrics are not included in this part of the risk planning or execution. Formal risk and issue management processes were executed on the project from the time IPOC started in July 2011 through November 2011. At that time the risk and issue meetings were cancelled. The meetings resumed again in April 2012 and are being conducted in a very thorough manner according to best practices. Current issues and risks are reviewed and the team has added several new risks and issues to the log in the last few reporting periods.
Does the management team review risks and mitigation progress at least monthly?	✓		Status changed from Deficient to Adequate in April 2012 Formal risk and issue management processes were executed on the project from the time IPOC started in July 2011 through November 2011. At that time the risk and issue meetings were cancelled. The meetings resumed again in April 2012 and are being conducted in a

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			very thorough manner according to best practices.
Are externally developed risk identification aids used, such as the SEI "Taxonomy Based Questionnaire?"	✓		Status changed from Deficient to Adequate in April 2012 The PRSM Risk Identification process describes how any stakeholder can submit a risk, defines the process for completing the "PRSM Risk Identification and Response Plan" and addresses how the initial risk is validated and assigned. An initial formal SEI-based assessment was conducted several years ago, and in April 2012 when the risk meetings resumed, another brainstorming session took place to identify new risks. The project stakeholders are frequently solicited for risk identification in the bi-monthly meetings.
Communication			
Is there a written project communications plan?	✓		The latest version of the finalized and approved Communications Plan is dated 6/22/2009. TMS has reviewed the Communication Management Plan, which has a very thorough list of Roles and Responsibilities defined and contains an organization chart showing the relationships of the major stakeholders on the project. However, TMS has observed that this organization chart is out of date and that the Roles and Responsibilities tend to focus mostly on the immediate project team, with very little reference to district communication. TMS is not aware of any planned changes or revisions to the current Communication Management Plan.
Are regular written status reports prepared and provided to the project manager, department CIO (if applicable) and other key stakeholders?	✓		Status changed from Deficient to Adequate in June 2012. TMS is aware that the project does formally report to CTA on a monthly basis.
Are there written escalation policies for issues and risks?	✓		Both the Risk Management Plan and the Issue Management Plan contain a risk escalation process.
Is there regular stakeholder involvement in major project decisions, issue resolution and risk mitigation?	✓		TMS is aware that monthly Implementation Meetings are held with select district stakeholders for the purpose of keeping the District project managers regularly updated on the status of the project and to receive their input. At the recommendation of the PRSM Project manager, TMS is not attending these meetings but is available to review status documentation or meeting minutes to determine the value-add in meeting stakeholder expectations about involvement in the deployment process. Large pilot user PM & TM training completed successfully and large pilot completed on June 29. Training facilities have all be reserved, trainee invitations sent, materials produced and trainers scheduled. Additional sessions for T4T and custom reporting are scheduled. The Go/No-go decision for transition from large pilot to rollout was held on July 9th with a GO decision. Districts are not engaged in risk identification, issue identification or risk mitigation activities.
System Engineering			

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
Are users involved throughout the project, especially in requirements specification and testing?	✓		Districts have been added to the monthly Implementation Manager's meetings, districts have stronger participation in validating the converted data and for discussing risks and issues on the project. A survey was sent to the districts in early August to determine rollout readiness and identify any corrective actions needed in rollout based on participation in small and large pilot. IPOC performed an assessment of this survey and provided recommendations to the project team for improvement in processes based on district responses.
Do users formally approve/sign-off on written specifications?	✓		Configuration requirements baseline, customizations and deleted requirement agreements were reviewed by Caltrans at regularly scheduled Checkpoint meetings and feedback was provided to the Implementation Vendor. Through documentation review, it appears that users have been engaged in product reviews and training reviews and have participated in regular meetings to discuss organizational change management and pilot preparations.
Is a formal system development life cycle (SDLC) methodology followed?	✓		The project schedule is categorized into high level summary tasks: program Milestones, Project Management, PRSM Adaptation Phase, Testing Phase, PRSM Pilot phase, PRSM Rollout, Statewide Rollout Acceptance and state Closeout.
Is a software product used to assist in managing requirements? Is the tracking of requirements traceability performed through all life cycle phases?	✓		Changed from Inadequate to Adequate in March 2012. TMS has reviewed spreadsheets of requirements but is unaware of any other tool that is currently being used to manage requirements. Traceability matrices do exist and have been reviewed at a high level by TMS. These traceability matrices are significantly out of date. TMS has also reviewed the traceability spreadsheets in the project document library and found that there are many to-be use cases that are not traced to any associated test cases. This could be an indication of insufficient testing coverage. TMS provided this data to Caltrans and they have gone through the testing materials to complete the mapping. A review of the approach Caltrans took for this exercise was reviewed by TMS and found to be consistent with our recommended mitigation. There are (12) Unknown mappings that could be out-of-the-box functionality that is not used by Caltrans, or an item that was removed or re-designed. There were (4) items that could not be traced and require some additional investigation. Based on the significant improvement in mapping completed by the PRSM team on filling the gaps of the No Match and Partial Match requirements, IPOC now finds this category Adequately Defined.
Do software engineering standards exist and are they followed?	✓		Engineering standards exist and are documented in the PRSM Configuration Management Plan. TMS has reviewed the Configuration Management Plan at a high-level and will complete a more in-depth assessment in the future.
Does product defect tracking begin no later than requirements specifications?	✓		As per the Adaptation Test Plan dated July 1, 2001, Test Team members document defects in iCenter's Test Tracker as they find them, starting at the Testing Phase. A process is defined for the Test

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			Leads to review open iCenter Test track issues with PRSM team members and also identifies a process to identify, classify and resolve test anomalies. In addition, a document titled PRSM Anomaly Identification and Resolution Process Utilizing Test Tracker provides detailed instructions for how to use the defect tracker.
Are formal code reviews conducted?	✓		TMS is aware that the PRSM Project Team has performed formal configuration reviews to occur during checkpoints throughout the Adaptation Phase. TMS has not been exposed to any code review documentation or Checkpoint 4 review documentation.
Are formal quality assurance procedures followed consistently?		✓	TMS reviewed the Quality Management Plan and observed that it contains a high-level of detail for the review, analysis and approval of formal deliverable documentation from the vendor. However, TMS did find the overall process and procedure for non-deliverable quality management to be lacking. The Quality Management Plan contains a single-line reference to the Configuration Management, Change Control, Issue Management and Risk Management plans but does not discuss what activities are performed by the quality team to ensure these process areas are functioning efficiently, correctly and in accordance to the documented processes and procedures. There are some quality activities defined for requirements management, however, the frequency for when those activities take place, the tools used to perform the activities and the reporting vehicle for those activities are not defined.
Do users sign-off on acceptance test results before a new system or changes are put into production?		✓	Project started the Rollout Phase in July 2012. An Implementation Plan was completed late and a separate rollout schedule was developed and later integrated into the master schedule. At this point, TMS is unaware of any formal sign-off activities scheduled for rollout with the districts.
Is the enterprise architecture plan adhered to?			TMS is aware that Caltrans is in the process of creating a formal enterprise architecture plan. The PRSM technology solution was requested to be submitted as part of the study. However, TMS has not been exposed to the enterprise architecture plan.
Are formal deliverable inspections performed, beginning with requirements specifications?	✓		The PRSM Quality Management Plan contains a high-level of detail for the review, analysis and approval of formal deliverable documentation from the vendor. Upon review of the PRSM project schedule, it appears that formal deliverable inspections are conducted for critical milestones of the project.
Are IV&V services obtained and used?	✓		The IV&V Contract was approved and the IV&V Vendor began work in April 2008.

Appendix G: Independent Project Oversight Report

[See separate instruction sheet for guidance on any of the fields in the form]

Project Name:	Project Resource Scheduling Management System (PRSM)	**Assessment Date:**	11/01/2012 – 11/30/2012
		Frequency:	Monthly

Oversight Provider Information

Oversight Leader:	Kim Colunga	**Organization:**	CA Technology Agency
Phone Number:	916-403-9635	**Email:**	Kim.Colunga@state.ca.gov

Project Information

Project Number:	**2660-160**	**DEPARTMENT:**	Department of Transportation
Criticality:	High	**Agency:**	Business, Transportation & Housing
Last Approved Document/Date:	SPR – 04/02/2012	**Total One-time Cost:**	26,947,129
Start Date:	06/07/2000	**End Date:**	05/24/2013
Project Manager:	Steve Kawano	**Organization:**	Department of Transportation
Phone Number:	916-749-5675	**Email:**	Steve_kawano@dot.ca.gov

Summary: Current Status – If multiple current phases, use section at end to assess the status of additional phases.

Project Phase:	Rollout Phase I		
Planned Start Date:	April 18, 2012	**Planned End Date:**	March 15, 2013
Actual Start Date:	April 9, 2012		

Schedule

Select the statement that most closely applies, measured against the last **OCIO approved** document.

Ahead-of-schedule:
One or more major tasks or milestones have been completed and approved early (> 5%). All other major tasks and milestones completed and approved according to plan.

Behind Schedule

On-schedule:
All major tasks and milestones have been completed and approved according to plan. (Within 5%)

Behind Schedule:
One or more major tasks or milestones are expected to be delayed. (> 5%)

Comments:

Several events that include power outages and data source issues delayed the conversion and validation activities of Districts 1, 2, & 3 data. Once the data became available to migrate, there were problems loading the data into production. Originally, migration of the data into production was a 3-day task. A missing step in the migration process, which is linking the data to existing projects, resulted in the task needing to extend to 6 days. In addition, when the data load began for Districts 1, 2 & 3 into production, the archiving files became full and the production environment had to disabled. Rollout for Districts 1, 2 & 3 project data completed on September 25, 2012 and due to unexpected issues with the expenditure data, the Districts deployment did not complete until October 6, 2012.

User training was suspended from October 30, 2012 until November 28, 2012 due to unresolved performance issues in the training environment. The root cause remains unknown. Training resumed after some adjustments were made to the environment. In addition, fewer sessions were conducted at one time and some adjustments regarding timing of training activities were made. As of November 30, 2012, the performance appeared to be improved. The project will resume all sessions the week of December 10, 2012 with anticipation that the performance will be stabilized.

As the training environment becomes stable and when 50% of the District 4 staff have completed training, then conversion activities will begin. The schedule will be revised to reflect the planned dates.

Resources (Level of Effort) Choose the statement that most closely applies.

Fewer Resources
Completion of one or more major tasks and/or acceptable products has required or is expected to require materially (>5%) fewer hours/staff than planned.

Within Resources

Within Resources
All major tasks have been completed and acceptable products created using the planned number of hours/staff (within 5%).

More Resources
Completion of major tasks and/or acceptable products has required or is expected to require materially (>5%) more hours/staff than planned.

Comments: The PRSM project manager left the PRSM project effective April 6, 2012. Since that time, the project has transitioned to two interim project managers. Caltrans has advertised for a permanent State employee to fill the PM position. Due to departmental directives, this position remains as a temporary assignment. The "acting" PM is also in the "acting" role of the Enterprise Technology Investment Division Chief. Although his staff is not providing direct oversight on the PRSM project, nor does he directly complete the CA-PMM report, there is some concern of the conflict that could occur with his staff providing some instances of oversight on the project, such as reviewing CA-PMM reports prior to submitting to CA Technology Agency.

Vendor staffing appears to be low for purposes of data load activities. There is a concern that long hours and no back up could be a risk since the project could be left without the adequately skilled resource. Caltrans PM and Project Director are addressing this concern with the vendor.

Resources (Budget/Cost) Choose the statement that most closely applies.

Less cost
The project is (>5%) under budget.

Within Budget

Within cost
The project is operating within budget.

Higher cost
Material budget increases (>5%) are likely

Comments: According to the CA-PMM report submitted in November, 2012, the project is currently within budget. Contract services for Project Oversight and Other Contract Services have exceeded the approved amounts; however, Project Oversight is no longer a contracted service since CA Technology Agency provides the services. The Other Contract Services amount is in question as to what the services are and the reason for overage. Risk of continued overage is not known until the information is received. The only changes from last month were staffing and IV&V costs.

Although PRSM has been deployed into production for Districts 1, 2 and 3, the maintenance is being provided by SAIC. As a result there are no Staff costs at this time.

Caltrans staffing hours are collected by an internal application that produces a monthly report. It is projected that the staffing costs balance is sufficient for the remainder of project.

Reporting Period: From September 1, 2000 through October 31, 2012		
	Last Approved Budget ($)	**Cumulative Actual Cost ($)**
One-Time IT Project Costs		
Staff (Salaries & Benefits)	10,023,182	9,477,835
Hardware Purchase		
Software Purchase/License	1,759,500	782,000
Telecommunications		
Contract Services - Software Customization	9,312,864	5,639,654
Contract Services - Project Management		
Contract Services - Project Oversight	893,310	899,142
Contract Services – Independent Verification and Validation (IV&V) Services	1,099,274	990,859
Contract Services - Other Contract Services	3,438,638	3,629,033
Data Center Services	6,750	6,750
Agency Facilities		
Other	413,611	128,510
Total One-Time IT Project Costs	**26,947,129**	**21,553,783**
Continuing IT Project Costs		
Staff (Salaries & Benefits)	341,232	0
Hardware Lease/Maintenance		
Software Maintenance/Licenses	2,588,292	460,000
Telecommunications		
Contract Services		
Data Center Services	6,500,843	2,424,873
Agency Facilities		
Other		
Total Continuing IT Project Costs	**9,430,367**	2,884,873
TOTAL	**36,377,496**	**24,266,984**

Note: This information is from the CA-PMM report dated 11/10/12.

Support Contracts

The PRSM project uses contract resources for work that requires expertise, which is not readily available within state service. Following are the support contracts currently utilized:

Active Support Contracts					
Contract Type	**Contractor**	**Term**	**Contract Encumbrance**	**Expended**	**Contract Balance**
S/I Vendor	SAIC	05/25/2009 05/30/2014	$13,200,656	$9,673,017	$3,527,639
IV&V	Infiniti	06/29/2012 06/28/2013	$97,500	$57,600	$39,900

Quality (Client Functionality) Choose the statement that most closely applies.

Adequately Defined
Required client functionality is adequately defined, and is being successfully built into the system, given the current project phase.

Adequately Defined

Inadequately Defined
One or more significant components of required client functionality are inadequately defined, or are not being successfully built into the system, given the current project phase.

Comments: The project is in the rollout phase. TMS (the previous oversight vendor) reviewed the requirements, to-be use cases and workflows created for PRSM and found them to be quite thorough and inclusive of the underlying solution flow.

The Technical As-Built Documentation (Deliverable #20) was delivered on September 5, 2012. The IV&V consultants independently reviewed this documentation. In addition, the project team members reviewed and accepted the deliverable.

Quality (Architecture/System Performance) Choose the statement that most closely applies.

Adequately Defined
The system technical architecture is adequately defined, and modeling, benchmarking and testing are being conducted (or are planned) appropriate to the current project phase.

Inadequately Defined

Inadequately Defined
The system technical architecture is not adequately defined, or modeling, benchmarking and testing are not being conducted (or are planned) appropriate to the current project phase.

Comments: The project has experienced performance issues in both the production and training environments. The training environment issues were thought to be resource constraints since Development, Testing and Training instances all resided on the same server box. An additional server was installed that solely hosted the training environment. Unfortunately, the performance issues in training had not improved. Training became suspended and resumed on November 28, 2012 after changes were made to the system and adjustments made based on some changes as of November 28, 2012. As of November 30, 2012, it appeared that there are improvements in performance, and will continue to be monitored as sessions increase.

Although the production performance issues have reduced since pilot, a focus is now on mitigating all network issues. Caltrans and OTech have worked closely to identify and mitigate all of the performance issues. There is a risk that the unacceptable performance issues in the training environment will be realized in production as more Districts are deployed.

There is an issue with the archiving architecture, in that the archiving files become full during the process of migrating data into production. A work around is in place at this time which includes creating a backup file and then turning off the archiving during the process. .

New Project Risks

List (in priority order) the most critical risks to completing the project within the approved schedule, budget and scope. See instructions for description of desired format. If more than five risks are to be included, copy and paste as needed.

There are no new risks identified during this reporting period.

Progress toward Addressing Prior Risks

List the risks included in the *New Project Risks* section in previous IPORs. Risks are to remain reported in this section until they are closed or no longer critical, with an explanation of the resolution. See instructions for description of desired content. If more than five risks are to be included, copy and paste as needed.

Risk Identifier	R-9	**Risk Statement:** Key Critical Resources have left or are leaving the project which may have an impact on decision making, problem solving and/or strategy setting.
Probability	Medium	
Impact	High	
Timeframe	Short	
Status	Open	**Description:** In the past several months, the initial PRSM project manager has left Caltrans, a new interim manager was appointed in May. IPOC was told that a permanent position has been posted for this position, but based on State hiring timelines it could be several months before this position is filled. In addition, the project manager support (Brian Spray) contract terminates in August and there are no plans to keep him on board for a longer period. This poses a significant risk to the PRSM project by not having dedicated, permanent and knowledgeable staff in place for decision making, trouble-shooting and setting direction or escalating issues.
Project Risk No.		**Recommendation:** • Caltrans Management needs to appoint a permanent staff member in the position of PRSM project manager immediately – the transition in and out of the interim staff is causing disruption to the project team. • Extend the current project manager support staff throughout the remainder of the large pilot and at a minimum, through the first three production district rollouts. There needs to be continuity on the PRSM project and a central team member responsible for risk and issue management, schedule management and scope management. • With significant attrition on the project on both the Caltrans and SAIC teams as we approach Rollout, it may be necessary to revise the roles and responsibilities of the Project Management Plan and the organization/governance processes.

11/30/12 – There is no change from last month. The positions appear to be stable; this risk will continue to be monitored until the Caltrans PM position is a permanent.

10/31/12 – The Caltrans PM "acting" roles are still in place with no evidence of moving forward with

permanent positions. The Project Management support Services contract was awarded.

9/30/12 – The Caltrans PM has an "acting" role, not only as the PRSM PM, but also as the Enterprise Technology Investment Division Chief. The Project Management Support Services contract award is outstanding.

Risk Identifier	R-6	**Risk Statement:** Lack of performance and scalability planning may lead to issues with the Pilot or Rollout if not resolved quickly. **Description:** For performance testing, there is a lack of requirements and goals. There is also a lack of a test plan for scalability and performance, and a lack of performance test scripts created and executed. **Recommendation:** • Understand performance requirements – how many users will be on the system concurrently, what is the expected performance metrics for submitting data, what is the expected performance for running reports, what are the scalability requirements? • Take the current scheduling system, establish baseline for these performance requirements, and determine if they are meeting the goals. • If they are not meeting the goals, develop and execute test cases for performance.
Probability	High	
Impact	High	
Timeframe	Short	
Status	Open	
Project Risk No.		

11/30/12 – Monitoring tools are installed on the servers at OTech to assist with the resolution of the training environment performance issues. These tools will also be used to monitor production performance. Tools simulating multiple users have been used for testing of the training environment to ensure that the system is ready for the load needed to conduct training.

10/31/12 – The training environment continues to experience poor performance with the new server. SAIC have open tickets with CA while Caltrans and OTech continue to monitor the Caltrans network.

9/30/12 – The training environment will be migrated to a new server box so that resources are not competing with the development and testing environments. Caltrans has assigned resources to address network concerns that may be the root cause of the 3-second delay in the production environment. As Districts prepare for rollout, testing of the network traffic for each district will occur.

Risk Identifier	R-5	**Risk Statement:** Inadequate planning for data conversion may cause additional schedule delays and impact the quality of integration testing.
Probability	High	
Impact	High	
Timeframe	Medium	
Status	Open	**Description:** There have been unexpected problems with the dry-run data conversion process and for several of the Districts' pilot data; there has not been a successful dry run to date. This may cause additional schedule delays and impact the quality of integration testing. In addition, planning for conversion is behind schedule with the team continuing to document the implementation plan and the end-to-end Caltrans Conversion Process document.
Project Risk No.		**Recommendation:** • Reconcile discrete tasks listed in the go-forward plan with high-level tasks in the project schedule to ensure that all conversion activities are tracked and assigned. • Review of the current conversion metrics showing what has been successfully converted and what remains to be converted. • Include districts in conversion validation activities – no one knows their data better than they do. In discussions with the project team, they have indicated that they would like to document, by District, where the source data is coming from, what pre-conversion activities or data cleanings have been done so far, what remains to be done, and results of testing. This will help the State identify which district is in the best position to move forward in Pilot. IPOC agrees and supports this approach.

11/30/12 – Conversion for District 4 has been placed on hold due to the temporary suspension of training. Once 50% of the staff in District 4 is trained, conversion activities will begin. Training resumed on November 28, 2012. Based on previous challenges of loading Districts 1,2 &3, some adjustments have been made to the conversion process. The Conversion Plan is not updated to reflect these changes.

10/31/12 – Districts 1, 2 & 3 project data completed migration on September 25. However, the expenditure data did not fully migrate until October 6, 2012. The project team is looking at a new strategy to migrate the project and expenditure data to avoid further issues. It is recommended that the process be tested prior to the next rollout.

9/30/12 – Migration of Districts 1, 2 & 3 occurred 26 days behind schedule. All of the data migrated into production with the exception of some missing expenditures. An analysis is being conducted to determine the volume and impact of the missing expenditures. Migration of this data started on September 15, 2012 with an unsuccessful completion. The archiving files became full and the production environment needed to be suspended. At the same time, it was realized that there is a missing step in the loading process, which includes linking the data to existing projects. This missing step will double the time need to load the data into production. Tasks for the new process are included in the schedule for future rollouts. This risk will remain open and reassessed after the next rollout.

Risk Identifier	R-1	**Risk Statement:** Lack of effective organizational change management or District buy-in for Pilot could lead to lack of acceptance of PRSM or to new PRSM processes.
Probability	Medium	
Impact	Medium	
Timeframe	Medium	
Status	Open	
Project Risk No.		**Description:** One of the most significant challenges to the PRSM Project could be engaging and obtaining buy-in from district executives, management and staff. It is very important that District executives and management are knowledgeable about PRSM and the changes to their business processes and benefits of using PRSM. District staff, in addition to training, should be knowledgeable of the decisions and consequences of changing/standardizing business processes. Lack of engagement of District personnel at all levels could have a negative impact on overall PRSM system acceptance and usage. **Recommendation:** • Assess the changes to the training program/plan proposed in the most recent implementation vendor change request in order to understand the impact on Organizational Change Management. Work with the Districts to help them understand the changes to the training program in order to gain organizational buy-in and confirm that the program is adequate to enable a successful rollout. • Consider hiring/extending additional consulting resources to assist with refining the organizational change management plan and to execute the plan. • Involve the end users in a more direct way and allow them to participate in the risk management process. This will allow the project team to obtain early buy-in and a stake in the project. Hold a risk identification session to identify the district concerns of the pilot activities and help define appropriate mitigation strategies to address the risks identified. • Analyze current methods of communication to determine if additional processes need put in place to get the districts to open up the channels for communicating risks and issues associated with pre-pilot, pilot and post pilot activities. • Engage the districts in reviewing business functionality and business processes.

11/30/12 – District 4 has been kept informed and involved in status meetings regarding the progress of the training environment issues.

10/31/12 – Customer buy-in is deteriorating due to the performance issues in the training environment. Training is temporarily suspended until the issues can be resolved.

9/30/12 – District 4 has been engaged with cleaning their data for conversion readiness and has begun training. District 4 staff has shown enthusiasm about migrating to the PRSM system and is requesting post-training access to the system. Access to either production as "read only" or continued access to the training environment has been requested. This is a positive indication that customer buy-in exists. This risk will remain open through District 12 readiness to ensure that this positive response continues.

Closed Risks

No risks were closed during this reporting period.

General Comments

The project team is gathering data regarding all issues and challenges that have been encountered related to performance and data conversion and documenting the efforts completed and what issues and/or work that remains. Although the issues are being tracked in the issues log, this documentation will be the roadmap to describe what efforts have been completed and will provide the project team with a tool to make the appropriate decisions on what the next steps are in resolving these outstanding issues.

CALTRANS - PRSM Project Oversight Review Checklist (November 2012)

Project Oversight Review Checklist: High Criticality Project

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
Planning and Tracking			
Have the business case, project goals, objectives, expected outcomes, key stakeholders, and sponsor(s) identified and documented?	✓		TMS reviewed the last approved SPR dated April 2012. TMS validated that the dates in the project schedule correspond to the new baselined dates (Baseline 1) as a result of the SPR approval for cost and schedule.
Has a detailed project plan with all activities (tasks), milestones, dates, and estimated hours by task loaded into CA-PMM Toolkit or other identified software? Are the lowest level tasks of a short duration with measurable outcomes?	✓		The project does use an MS Project schedule to track the work. Tasks, milestones dates and estimated hours are documented within the schedule and the tasks, for the most part, are represented as manageable, traceable items with durations less than 80 hours.
Is completion of planned tasks recorded within the CA-PMM Toolkit, Microsoft Project, or other identified software?	✓		Changed from Deficient to Adequate in February 2012. Caltrans revised the project schedule to account for the slight delay in rollout activities which has translated with a delay in the overall end date. TMS reviewed this schedule and found that almost all of the recommendations made in our one-time assessment report were mitigated in the new revision.
Are actual hours expended by task recorded at least monthly within the CA-PMM Toolkit or other identified software?		✓	As per the project team, PRSM budget information for each contract is accessed by using the PMO and CA-PMM monthly reports and the SPR. Each month, the project rolls each of the contract expenditures into the CA-PMM report for total project costs. Actual costs are reported, as are actual percent complete. However, hours by task are not tracked at either the State or the vendor level, so this category is Deficient as per the checklist requirements. As per Caltrans, this will be addressed with additional resource loading and reporting of actual start and finish data in future reporting periods.
Are estimated hours to complete by task recorded at least monthly within the CA-PMM Toolkit or other identified software??	✓		The project schedule is updated weekly and reviewed during the weekly project status meeting.
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		✓	There is no exposure to a formal staffing plan. We have reviewed the Project Organization Chart that documents the overall structure and high-level roles; however, a breakdown of specific staff on the vendor side and State side is not clear. Roles and responsibilities are defined within each project process plan (i.e. change management roles and responsibilities are defined within the Change Management Plan), however, TMS has not seen an overall description of the general roles

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			and responsibilities for the project team (vendor and State). With the attrition that is natural in the system integrator team as we start to get closer to rollout, and with the significant resource transitions that have occurred at the State level on the project, a Staffing Plan and strategy for transition become more critical to success. IPOC has recommended that the State develop a Staffing Plan for the remainder of the rollout activities to assist in planning resources for both the State and SAIC and to assist in the resolution of resource conflicts.
Have project cost estimates, with supporting data for each cost category, been maintained?		✓	As per the project team, PRSM budget information for each contract is accessed by using the PMO and CA-PMM monthly reports and the SPR. Each month, the project rolls each of the contract expenditures into the CA-PMM report for total project costs. TMS has reviewed the cost tracking that the project includes within the CA-PMM and observes that the actual expenditures are summarized as total amount "to-date"; however, no estimated future costs or projections are included. TMS has also reviewed the PRSM Payment Milestone and Deliverables spreadsheet for SAIC vendor costs, including the updated costs for the August reporting period.
Are software size estimates developed and tracked?	NA	NA	
Are two or more estimation approaches used to refine estimates?	NA	NA	
Are independent reviews of estimates conducted?	NA	NA	
Are actual costs recorded and regularly compared to budgeted costs?	✓		Status changed from Deficient to Adequate in June 2012. The CA-PMM status report cost tracking summary shows various project categories, last approved SPR cost and cumulative actual costs for the total project, but not by month or fiscal year. The PRSM Payment Milestone and Deliverables spreadsheet shows actual costs incurred for vendor deliverables.
Is supporting data maintained for actual costs?	✓		Status changed from Deficient to Adequate in June 2012. The Microsoft Excel version of the CA-PMM status report shows comments notes for each new data entry for the cumulative actual costs and registers the amount of invoices paid to the various vendors and subtotals on Total of One-Time IT Project Costs, Total of Continuing Project Costs and Total Project Costs.
Is completion status of work plan activities, deliverables, and milestones recorded, compared to schedule and included in a written status reporting process?	✓		IPOC meets twice a month with the project team and other oversight entities to review project status and review schedule status, deliverables, milestones and key activities. The current schedule adequately tracks all major deliverables, milestones and activities.
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		✓	TMS has reviewed the Configuration Management Plan at a high level and found that there are some gaps in terms of the promotion process, specific roles and responsibilities for some of the configuration management tasks and a lack of configuration control for some of the

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
management plan?			project management process documentation. TMS is more concerned with the execution of configuration management and the concern that the project is not following the drafted procedures defined in the plan. TMS is not aware of any planned changes or revisions to the current Configuration Management Plan.
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?	✓		Status changed from Deficient to Adequate in April 2012. TMS has reviewed the Issue Management Plan. Formal risk and issue management processes were executed on the project from the time IPOC started in July 2011 through November 2011. At that time the risk and issue meetings were cancelled. The meetings resumed again in April 2012 and are being conducted in a very thorough manner according to best practices. Current issues and risks are reviewed and the team has added several new risks and issues to the log in the past month.
Is user satisfaction assessed at key project milestones?	✓		Through documentation review, it appears that users have been engaged in product reviews and training reviews and have participated in regular meetings to discuss organizational change management and pilot preparations. However, TMS reviewed the Communication Management Plan and observed that the plan does not address communication methods to and from the districts. District 3 was engaged in the small pilot and districts 1, 2,and 3 were engaged in the large pilot. User surveys were conducted for both the small and large pilots as well as user activity sessions were daily feedback was received.
Is planning in compliance with formal standards or a system development life cycle (SDLC) methodology?		✓	Compliance with PMBOK standards is not adequate for this phase of the project. Although this project does not contain a typical design and development cycle, there are requirements, configuration and testing that need to be tracked and managed in a similar way to that of a typical development project. Oversight believes that a modified SDLC should have been adopted for the project that clearly identifies how validation of expected behavior will occur (i.e. description of the requirements management, configuration management and test management areas of the SDLC). Although the project is not in compliance with a formal standards or SDLC methodology, at this phase in the project IPOC does not see value in creating a document describing the methodology. However, Oversight has observed that the project schedule and the approved strategy for realigning testing, pilot and conversion adopts a more tactical approach to validation of the product prior to the pilot phase. This alleviates many of the concerns of a non-standard SDLC. PRSM has reviewed the gaps in the traceability matrix to ensure proper testing coverage and has also held weekly review of testing metrics to understand the current progress being made and clearly defined entry

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			and exit criteria. All of these are improvements to the previous process. At this point in the project, there are no further improvements to be made that would add value.
Is there a formal enterprise architecture in place?	✓		The RFQI describes the target Caltrans enterprise environment.
Are project closeout activities performed, including a PIER, collection and archiving up-to-date project records and identification of lessons learned?	NA	NA	
Procurement			
Are appropriate procurement vehicles selected (e.g. CMAS, MSA, "alternative procurement") and their required processes followed?	✓		The final contract was signed by the Implementation Vendor on February 26, 2009. Caltrans received, reviewed and signed the contract on February 27, 2009. DGS Legal reviewed and signed the contract on March 5th, 2009.
Is a detailed written scope of work for all services included in solicitation documents?	✓		Detailed written scope of work is contained in the RFP.
Are detailed requirement specifications included in solicitation documents?	✓		Detailed requirement specifications are contained in the RFP. Requirements are also described in the RFQI and Value Analysis documents.
Is there material participation of outside expertise (e.g. DGS, Departmental specialists, consultants) in procurement planning and execution?	✓		Outside expertise and counsel has been sought from DOF, DGS, and consultants when appropriate.
For large-scale outsourcing, is qualified legal counsel obtained?	NA	NA	
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 the CA-PMM, and regular management team review of risks and mitigation progress performed?	✓		Status changed from Deficient to Adequate in April 2012 TMS has reviewed the Risk Management Plan and it contains well documented processes and procedures that include Risk Identification, Risk Analysis, Risk Response Planning, Risk Monitoring and Control and Risk Communication. The plan does not address any formalized approach to risk identification (such as periodic brainstorming sessions, SEI risk identification checklists or the use of software tools). TMS has also observed risk management metrics are not included in this part of the risk planning or execution. Formal risk and issue management processes were executed on the project from the time IPOC started in July 2011 through November 2011. At that time the risk and issue meetings were cancelled. The meetings resumed again in April 2012 and are being conducted in a

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			very thorough manner according to best practices. Current issues and risks are reviewed and the team has added several new risks and issues to the log in the last few reporting periods.
Does the management team review risks and mitigation progress at least monthly?	✓		Status changed from Deficient to Adequate in April 2012 Formal risk and issue management processes were executed on the project from the time IPOC started in July 2011 through November 2011. At that time the risk and issue meetings were cancelled. The meetings resumed again in April 2012 and are being conducted in a very thorough manner according to best practices. Current issues and risks are reviewed and the team has added several new risks and issues to the log in the past month.
Are externally developed risk identification aids used, such as the SEI "Taxonomy Based Questionnaire?"	✓		Status changed from Deficient to Adequate in April 2012 The PRSM Risk Identification process describes how any stakeholder can submit a risk, defines the process for completing the "PRSM Risk Identification and Response Plan" and addresses how the initial risk is validated and assigned. An initial formal SEI-based assessment was conducted several years ago, and in April 2012 when the risk meetings resumed, another brainstorming session took place to identify new risks. The project stakeholders are frequently solicited for risk identification in the bi-monthly meetings.
Communication			
Is there a written project communications plan?	✓		The latest version of the finalized and approved Communications Plan is dated 6/22/2009. TMS has reviewed the Communication Management Plan, which has a very thorough list of Roles and Responsibilities defined and contains an organization chart showing the relationships of the major stakeholders on the project. However, TMS has observed that this organization chart is out of date and that the Roles and Responsibilities tend to focus mostly on the immediate project team, with very little reference to district communication. TMS is not aware of any planned changes or revisions to the current Communication Management Plan.
Are regular written status reports prepared and provided to the project manager, department CIO (if applicable) and other key stakeholders?	✓		Status changed from Deficient to Adequate in June 2012. TMS is aware that the project does formally report to CTA on a monthly basis.
Are there written escalation policies for issues and risks?	✓		Both the Risk Management Plan and the Issue Management Plan contain a risk escalation process.
Is there regular stakeholder involvement in major project decisions, issue resolution and risk mitigation?	✓		TMS is aware that monthly Implementation Meetings are held with select district stakeholders for the purpose of keeping the District project managers regularly updated on the status of the project and to receive their input. At the recommendation of the PRSM Project

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			manager, TMS is not attending these meetings but is available to review status documentation or meeting minutes to determine the value-add in meeting stakeholder expectations about involvement in the deployment process. Large pilot user PM & TM training completed successfully and large pilot completed on June 29. Training facilities have all be reserved, trainee invitations sent, materials produced and trainers scheduled. Additional sessions for T4T and custom reporting are scheduled. The Go/No-go decision for transition from large pilot to rollout was held on July 9th with a GO decision. Districts are not engaged in risk identification, issue identification or risk mitigation activities.
System Engineering			
Are users involved throughout the project, especially in requirements specification and testing?	✓		Districts have been added to the monthly Implementation Manager's meetings, districts have stronger participation in validating the converted data and for discussing risks and issues on the project. A survey was sent to the districts in early August to determine rollout readiness and identify any corrective actions needed in rollout based on participation in small and large pilot. IPOC performed an assessment of this survey and provided recommendations to the project team for improvement in processes based on district responses.
Do users formally approve/sign-off on written specifications?	✓		Configuration requirements baseline, customizations and deleted requirement agreements were reviewed by Caltrans at regularly scheduled Checkpoint meetings and feedback was provided to the Implementation Vendor. Through documentation review, it appears that users have been engaged in product reviews and training reviews and have participated in regular meetings to discuss organizational change management and pilot preparations.
Is a formal system development life cycle (SDLC) methodology followed?	✓		The project schedule is categorized into high level summary tasks: program Milestones, Project Management, PRSM Adaptation Phase, Testing Phase, PRSM Pilot phase, PRSM Rollout, Statewide Rollout Acceptance and state Closeout.
Is a software product used to assist in managing requirements? Is the tracking of requirements traceability performed through all life cycle phases?	✓		Changed from Inadequate to Adequate in March 2012. TMS has reviewed spreadsheets of requirements but is unaware of any other tool that is currently being used to manage requirements. Traceability matrices do exist and have been reviewed at a high level by TMS. These traceability matrices are significantly out of date. TMS has also reviewed the traceability spreadsheets in the project document library and found that there are many to-be use cases that are not traced to any associated test cases. This could be an indication of insufficient testing coverage. TMS provided this data to Caltrans and they have gone through the testing materials to complete the

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			mapping. A review of the approach Caltrans took for this exercise was reviewed by TMS and found to be consistent with our recommended mitigation. There are (12) Unknown mappings that could be out-of-the-box functionality that is not used by Caltrans, or an item that was removed or re-designed. There were (4) items that could not be traced and require some additional investigation. Based on the significant improvement in mapping completed by the PRSM team on filling the gaps of the No Match and Partial Match requirements, IPOC now finds this category Adequately Defined.
Do software engineering standards exist and are they followed?	✓		Engineering standards exist and are documented in the PRSM Configuration Management Plan. TMS has reviewed the Configuration Management Plan at a high-level and will complete a more in-depth assessment in the future.
Does product defect tracking begin no later than requirements specifications?	✓		As per the Adaptation Test Plan dated July 1, 2001, Test Team members document defects in iCenter's Test Tracker as they find them, starting at the Testing Phase. A process is defined for the Test Leads to review open iCenter Test track issues with PRSM team members and also identifies a process to identify, classify and resolve test anomalies. In addition, a document titled PRSM Anomaly Identification and Resolution Process Utilizing Test Tracker provides detailed instructions for how to use the defect tracker.
Are formal code reviews conducted?	✓		TMS is aware that the PRSM Project Team has performed formal configuration reviews to occur during checkpoints throughout the Adaptation Phase. TMS has not been exposed to any code review documentation or Checkpoint 4 review documentation.
Are formal quality assurance procedures followed consistently?		✓	TMS reviewed the Quality Management Plan and observed that it contains a high-level of detail for the review, analysis and approval of formal deliverable documentation from the vendor. However, TMS did find the overall process and procedure for non-deliverable quality management to be lacking. The Quality Management Plan contains a single-line reference to the Configuration Management, Change Control, Issue Management and Risk Management plans but does not discuss what activities are performed by the quality team to ensure these process areas are functioning efficiently, correctly and in accordance to the documented processes and procedures. There are some quality activities defined for requirements management, however, the frequency for when those activities take place, the tools used to perform the activities and the reporting vehicle for those activities are not defined.
Do users sign-off on acceptance test results before a new system or changes are put into production?		✓	Project has just started the Rollout Phase in July 2012. An Implementation Plan was completed late and a separate rollout schedule was developed and later integrated into the master schedule. At this point, TMS is unaware of any formal sign-off activities

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			scheduled for rollout with the districts.
Is the enterprise architecture plan adhered to?			TMS is aware that Caltrans is in the process of creating a formal enterprise architecture plan. The PRSM technology solution was requested to be submitted as part of the study. However, TMS has not been exposed to the enterprise architecture plan.
Are formal deliverable inspections performed, beginning with requirements specifications?	✓		The PRSM Quality Management Plan contains a high-level of detail for the review, analysis and approval of formal deliverable documentation from the vendor. Upon review of the PRSM project schedule, it appears that formal deliverable inspections are conducted for critical milestones of the project.
Are IV&V services obtained and used?	✓		The IV&V Contract was approved and the IV&V Vendor began work in April 2008.

IPO Report for October 2012

Appendix G: Independent Project Oversight Report

[See separate instruction sheet for guidance on any of the fields in the form]

Project Name:	Project Resource Scheduling Management System (PRSM)	**Assessment Date:**	10/01/2012 – 10/31/2012
		Frequency:	Monthly

Oversight Provider Information

Oversight Leader:	Kim Colunga	**Organization:**	CA Technology Agency
Phone Number:	916-403-9635	**Email:**	Kim.Colunga@state.ca.gov

Project Information

Project Number:	**2660-160**	**DEPARTMENT:**	Department of Transportation
Criticality:	High	**Agency:**	Business, Transportation & Housing
Last Approved Document/Date:	SPR – 04/02/2012	**Total One-time Cost:**	36,377,496
Start Date:	06/07/2000	**End Date:**	05/24/2013
Project Manager:	Steve Kawano	**Organization:**	Department of Transportation
Phone Number:	916-749-5675	**Email:**	Steve_kawano@dot.ca.gov

Summary: Current Status – If multiple current phases, use section at end to assess the status of additional phases.

Project Phase:	Rollout Phase I		
Planned Start Date:	April 18, 2012	**Planned End Date:**	11/20/2012
Actual Start Date:	April 9, 2012		

Schedule

Select the statement that most closely applies, measured against the last **OCIO approved** document.

Behind Schedule

Ahead-of-schedule:
One or more major tasks or milestones have been completed and approved early (> 5%). All other major tasks and milestones completed and approved according to plan.

On-schedule:
All major tasks and milestones have been completed and approved according to plan. (Within 5%)

Behind Schedule:
One or more major tasks or milestones are expected to be delayed. (> 5%)

Comments:

Several events that include power outages and data source issues delayed the conversion and validation activities of Districts 1, 2, & 3 data. Once the data became available to migrate, there were problems loading the data into production. Originally, migration of the data into production was a 3-day task. A missing step in the migration process, which is linking the data to existing projects, resulted in the task needing to extend to 6 days. In addition, when the data load began for Districts 1, 2 & 3 into production, the archiving files became full and the production environment had to be disabled. Rollout for Districts 1, 2 & 3 project data was scheduled to complete on September 25, 2012 and due to unexpected issues with the expenditure data, the Districts' deployment did not complete until October 6, 2012.

Due to the ongoing performance issues in the training environment and the lack of knowledge identifying the root cause, training is suspended until the issue can be identified and resolved. District 4 rollout is suspended until the training environment becomes stable and 50% of District 4 has been trained. The schedule will be revised once the training environment is stable.

Per the SPR approved on April 2, 2012, Phase I Rollout completion date is November 20, 2012. Phase I rollout includes Districts 1, 2, 3, 4, 8 & 12.
To date, Districts 1, 2 and 3 are in production. The scheduling of the remainder of Phase I rollout is on hold.

Resources (Level of Effort) Choose the statement that most closely applies.

Within Resources

Fewer Resources
Completion of one or more major tasks and/or acceptable products has required or is expected to require materially (>5%) fewer hours/staff than planned.

Within Resources
All major tasks have been completed and acceptable products created using the planned number of hours/staff (within 5%).

More Resources
Completion of major tasks and/or acceptable products has required or is expected to require materially (>5%) more hours/staff than planned.

Comments: The PRSM project manager left the PRSM project effective April 6, 2012. Since that time, the project has transitioned to two interim project managers. Caltrans has advertised for a permanent State employee to fill the PM position. Due to departmental directives, this position remains as a temporary assignment. The "acting" PM is also in the "acting" role of the Enterprise Technology Investment Division Chief. Although his staff is not providing direct oversight on the PRSM project, nor does he directly complete the CA-PMM report, there is some concern of the conflict that could occur with his staff providing some instances of oversight on the project, such as reviewing CA-PMM reports prior to submitting to CA Technology Agency.

Vendor staffing appears to be low for purposes of data load activities. There is a concern that long hours and no back up could be a risk since the project could be left without the adequately skilled resource. Caltrans PM and Project Director are addressing this concern with the vendor.

Resources (Budget/Cost) Choose the statement that most closely applies.

Within Budget

Less cost
The project is (>5%) under budget.

Within cost
The project is operating within budget.

Higher cost
Material budget increases (>5%) are likely.

Comments: According to the CA-PMM report submitted in October, 2012 the project is currently within budget. Contract services for Project Oversight and Other Contract Services have exceeded the approved amounts; however, Project Oversight is no longer a contracted service since CA Technology Agency provides the services. The Other Contract Services amount is in question as to what the services are and the reason for overage. Risk of continued overage is not known until the information is received.

Although PRSM has been deployed into production for Districts 1, 2 and 3, the maintenance is being provided by SAIC. As a result there are no state staff costs at this time .

Caltrans staffing hours are collected by an internal application that produces a monthly report. It is projected that the staffing costs balance is sufficient for the remainder of project.

Reporting Period: From September 1, 2000 through September 30, 2012		
	Last Approved Budget ($)	**Cumulative Actual Cost ($)**
One-Time IT Project Costs		
Staff (Salaries & Benefits)	10,023,182	9,335,978
Hardware Purchase		
Software Purchase/License	1,759,500	782,000
Telecommunications		
Contract Services - Software Customization	9,312,864	5,639,654
Contract Services - Project Management		
Contract Services - Project Oversight	893,310	899,142
Contract Services – Independent Verification and Validation (IV&V) Services	1,099,274	961,044
Contract Services - Other Contract Services	3,438,638	3,629,033
Data Center Services	6,750	6,750
Agency Facilities		
Other	413,611	128,510
Total One-Time IT Project Costs	**26,947,129**	**21,382,111**
Continuing IT Project Costs		
Staff (Salaries & Benefits)	341,232	0
Hardware Lease/Maintenance		
Software Maintenance/Licenses	2,588,292	460,000
Telecommunications		
Contract Services		
Data Center Services	6,500,843	2,424,873
Agency Facilities		
Other		
Total Continuing IT Project Costs	**9,430,367**	2,884,873
TOTAL	**36,377,496**	**24,266,984**

Note: This information is from the CA-PMM report dated 10/10/12.

Support Contracts

The PRSM project uses contract resources for work that requires expertise which is not readily available within state service. Following are the support contracts currently utilized:

Active Support Contracts					
Contract Type	**Contractor**	**Term**	**Contract Encumbrance**	**Expended**	**Contract Balance**
S/I Vendor	SAIC	05/25/2009 05/30/2014	$13,200,656	$8,955,004	$4,245,652
IV&V	Infiniti	06/29/2012 06/28/2013	$97,500	$36,125	$36,125

Quality (Client Functionality) Choose the statement that most closely applies.

Adequately Defined
Required client functionality is adequately defined, and is being successfully built into the system, given the current project phase.

Adequately Defined

Inadequately Defined
One or more significant components of required client functionality are inadequately defined, or are not being successfully built into the system, given the current project phase.

Comments: The project is in the rollout phase. TMS (the previous oversight vendor) reviewed the requirements, to-be use cases and workflows created for PRSM and found them to be quite thorough and inclusive of the underlying solution flow.

The Technical As-Built Documentation (Deliverable #20) was delivered on September 5, 2012. The IV&V consultants independently reviewed this documentation. In addition, the project team members reviewed and accepted the deliverable.

Quality (Architecture/System Performance) Choose the statement that most closely applies.

Adequately Defined
The system technical architecture is adequately defined, and modeling, benchmarking and testing are being conducted (or are planned) appropriate to the current project phase.

Inadequately Defined

Inadequately Defined
The system technical architecture is not adequately defined, or modeling, benchmarking and testing are not being conducted (or are planned) appropriate to the current project phase.

Comments: The project has experienced performance issues in both the production and training environments. The training environment issues were thought to be resource constraints since Development, Testing and Training instances all resided on the same server box. An additional server was installed that solely hosted the training environment. Unfortunately, the performance issues in training have not improved. Training is suspended until issues can be identified and resolved.

Although the production performance issues have reduced since pilot, a focus is now on mitigating all network issues. Caltrans and OTech have worked closely to identify and mitigate all of the performance issues. There is a risk that the unacceptable performance issues in the training environment will be realized in production as more Districts are deployed.

There is an issue with the archiving architecture, in that the archiving files become full during the process of migrating data into production. A work around is in place at this time which includes creating a backup file and then turning off the archiving during the process. .

New Project Risks

List (in priority order) the most critical risks to completing the project within the approved schedule, budget and scope. See instructions for description of desired format. If more than five risks are to be included, copy and paste as needed.

There are no new risks identified during this reporting period.

Progress Toward Addressing Prior Risks

List the risks included in the *New Project Risks* section in previous IPORs. Risks are to remain reported in this section until they are closed or no longer critical, with an explanation of the resolution. See instructions for description of desired content. If more than five risks are to be included, copy and paste as needed.

Risk Identifier	R-9	**Risk Statement:** Key Critical Resources have left or are leaving the project which may have an impact on decision making, problem solving and/or strategy setting.
Probability	Medium	
Impact	High	
Timeframe	Short	
Status	Open	**Description:** In the past several months, the initial PRSM project manager has left Caltrans, a new interim manager was appointed in May. IPOC was told that a permanent position has been posted for this position, but based on State hiring timelines it could be several months before this position is filled. In addition, the project manager support (Brian Spray) contract terminates in August and there are no plans to keep him on board for a longer period. This poses a significant risk to the PRSM project by not having dedicated, permanent and knowledgeable staff in place for decision making, trouble-shooting and setting direction or escalating issues.
Project Risk No.		**Recommendation:** • Caltrans Management needs to appoint a permanent staff member in the position of PRSM project manager immediately – the transition in and out of the interim staff is causing disruption to the project team. • Extend the current project manager support staff throughout the remainder of the large pilot and at a minimum, through the first three production district rollouts. There needs to be continuity on the PRSM project and a central team member responsible for risk and issue management, schedule management and scope management. • With significant attrition on the project on both the Caltrans and SAIC teams as we approach Rollout, it may be necessary to revise the roles and responsibilities of the Project Management Plan and the organization/governance processes.

10/31/12 – The Caltrans PM "acting" roles are still in place with no evidence of moving forward with permanent positions. The Project Management support Services contract was awarded. This contract is funded outside of the project.

9/30/12 – The Caltrans PM has an "acting" role, not only as the PRSM PM, but also as the Enterprise Technology Investment Division Chief. The Project Management Support Services contract award is outstanding.

8/31/12 – The permanent Project Management position has not been filled. The project management support contract has expired and the earliest date for the new contract award will be mid-September, leaving a minimum period of three weeks where the schedule management, risk management and issue management tasks will need to be performed by the "acting" Project Manager. This is coming at a time when the project is planning to rollout to District 4 while facing continuing network performance issues, conversion issues and after receiving less than favorable survey results from the large pilot. IPOC highly recommends filling these vacant positions immediately and creating a Staffing Management Plan for the rollout and Maintenance and Operations phases of the application.

Risk Identifier	R-6	**Risk Statement:** Lack of performance and scalability planning may lead to issues with the Pilot or Rollout if not resolved quickly. **Description:** For performance testing, there is a lack of requirements and goals. There is also a lack of a test plan for scalability and performance, and a lack of performance test scripts created and executed. **Recommendation:** • Understand performance requirements – how many users will be on the system concurrently, what is the expected performance metrics for submitting data, what is the expected performance for running reports, what are the scalability requirements? • Take the current scheduling system, establish baseline for these performance requirements, and determine if they are meeting the goals. • If they are not meeting the goals, develop and execute test cases for performance.
Probability	High	
Impact	High	
Timeframe	Short	
Status	Open	
Project Risk No.		

10/31/12 – The training environment continues to experience poor performance with the new server. SAIC have opened tickets with CA while Caltrans and OTech continue to monitor the Caltrans network.

9/30/12 – The training environment will be migrated to a new server box so that resources are not competing with the development and testing environments. Caltrans has assigned resources to address network concerns that may be the root cause of the 3-second delay in the production environment. As Districts prepare for rollout, testing of the network traffic for each district will occur.

8/31/12 – There are performance issues with both the training environment as well as production. Production is still experiencing a 3-second delay and the project is bounding production as needed. The training environments are experiencing some major performance, load issues, and need to be rebooted every two hours with a full data refresh each weekend. Even with rebooting the systems every two hours, there is still a long delay that is preventing some training sessions from taking place. The network issues have gone unresolved for many months. IPOC highly recommends that the project reconsider starting the rollout until the performance issues are mitigated.

Risk Identifier	R-5	**Risk Statement:** Inadequate planning for data conversion may cause additional schedule delays and impact the quality of integration testing. **Description:** There have been unexpected problems with the dry-run data conversion process and for several of the Districts' pilot data; there has not been a successful dry run to date. This may cause additional schedule delays and impact the quality of integration testing. In addition, planning for conversion is behind schedule with the team continuing to document the implementation plan and the end-to-end Caltrans Conversion Process document. **Recommendation:** • Reconcile discrete tasks listed in the go-forward plan with high-level tasks in the project schedule to ensure that all conversion activities are tracked and assigned. • Review of the current conversion metrics showing what has been successfully converted and what remains to be converted. • Include districts in conversion validation activities – no one knows their data better than they do. In discussions with the project team, they have indicated that they would like to document, by District, where the source data is coming from, what pre-conversion activities or data cleanings have been done so far, what remains to be done, and results of testing. This will help the State identify which district is in the best position to move forward in Pilot. IPOC agrees and supports this approach.
Probability	High	
Impact	High	
Timeframe	Medium	
Status	Open	
Project Risk No.		

10/31/12 – Districts 1, 2 & 3 project data completed migration on September 25. However, the expenditure data did not fully migrate until October 6, 2012. The project team is looking at a new strategy to migrate the project and expenditure data to avoid further issues. It is recommended that the process be tested prior to the next rollout.

9/30/12 – Migration of Districts 1, 2 & 3 occurred 26 days behind schedule. All of the data migrated into production with the exception of some missing expenditures. An analysis is being conducted to determine the volume and impact of the missing expenditures. Migration of this data started on September 15, 2012 with an unsuccessful completion. The archiving files became full and the production environment needed to be suspended. At the same time, it was realized that there is a missing step in the loading process, which includes linking the data to existing projects. This missing step will double the time need to load the data into production. Tasks for the new process are included in the schedule for future rollouts. This risk will remain open and reassessed after the next rollout.

8/31/12 – The District 1, 2 & 3 rollout has been delayed due to data validation dependency issues, as well as the other technical mishaps (cable cut in building, power outage at OTECH, network issues, etc.). Due to the delay, the district 4 extract (which has a dependency on data from Districts 1, 2 & 3) is also delayed by about two weeks. The project seems to constantly be resolving conversion and validation problems. Once one problem is fixed, another issue emerges and they can't seem to achieve a stable execution of conversion and validations. With the project ready to being large-scale rollout, IPOC is concerned that the conversion scripts are not stable enough to start this phase.

Risk Identifier	R-1	**Risk Statement:** Lack of effective organizational change management or District buy-in for Pilot could lead to lack of acceptance of PRSM or to new PRSM processes.
Probability	Medium	
Impact	Medium	
Timeframe	Medium	
Status	Open	**Description:** One of the most significant challenges to the PRSM Project could be engaging and obtaining buy-in from district executives, management and staff. It is very important that District executives and management are knowledgeable about PRSM and the changes to their business processes and benefits of using PRSM. District staff, in addition to training, should be knowledgeable of the decisions and consequences of changing/standardizing business processes. Lack of engagement of District personnel at all levels could have a negative impact on overall PRSM system acceptance and usage.
Project Risk No.		**Recommendation:** • Assess the changes to the training program/plan proposed in the most recent implementation vendor change request in order to understand the impact on Organizational Change Management. Work with the Districts to help them understand the changes to the training program in order to gain organizational buy-in and confirm that the program is adequate to enable a successful rollout. • Consider hiring/extending additional consulting resources to assist with refining the organizational change management plan and to execute the plan. • Involve the end users in a more direct way and allow them to participate in the risk management process. This will allow the project team to obtain early buy-in and a stake in the project. Hold a risk identification session to identify the district concerns of the pilot activities and help define appropriate mitigation strategies to address the risks identified. • Analyze current methods of communication to determine if additional processes need to be put in place to get the districts to open up the channels for communicating risks and issues associated with pre-pilot, pilot and post pilot activities. • Engage the districts in reviewing business functionality and business processes.

10/31/12 – Customer buy-in is deteriorating due to the performance issues in the training environment. Training is temporarily suspended until the issues can be resolved.

9/30/12 – District 4 has been engaged with cleaning their data for conversion readiness and has begun training. District 4 staff has shown enthusiasm about migrating to the PRSM system and is requesting post-training access to the system. Access to either production as "read only" or continued access to the training environment has been requested. This is a positive indication that customer buy-in exists. This risk will remain open through District 12 readiness to ensure that this positive response continues.

8/31/12 – The large pilot survey results and comments validated that there needs to be additional focus on the business process side of the PRSM implementation. Neither a tool without a process nor a process without a tool leads to a productive, efficient and accepted system. Survey participants stated that they don't understand how their daily work fits into the puzzle of PRSM. The PRSM training is very focused on using the tool, however, additional attention needs to be placed on showing how the tool works within the district specific business processes and daily activities of the users.

Closed Risks

No risks were closed during this reporting period.

General Comments

The project team has made the difficult decision of suspending training sessions until the performance issues in the training environment can be resolved. This demonstrates the integrity of both the Caltrans and SAIC team members. It is important to be able to provide adequate training and to be able to showcase the system to the new users. The temporary suspension can aid in restoring credibility to the project from the Stakeholders.

CALTRANS - PRSM Project Oversight Review Checklist (October 2012)

Project Oversight Review Checklist: High Criticality Project

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
Planning and Tracking			
Have the business case, project goals, objectives, expected outcomes, key stakeholders, and sponsor(s) identified and documented?	✓		TMS reviewed the last approved SPR dated April 2012. TMS validated that the dates in the project schedule correspond to the new baselined dates (Baseline 1) as a result of the SPR approval for cost and schedule.
Has a detailed project plan with all activities (tasks), milestones, dates, and estimated hours by task loaded into CA-PMM Toolkit or other identified software? Are the lowest level tasks of a short duration with measurable outcomes?	✓		The project does use an MS Project schedule to track the work. Tasks, milestones dates and estimated hours are documented within the schedule and the tasks, for the most part, are represented as manageable, traceable items with durations less than 80 hours.
Is completion of planned tasks recorded within the CA-PMM Toolkit, Microsoft Project, or other identified software?	✓		Changed from Deficient to Adequate in February 2012. Caltrans revised the project schedule to account for the slight delay in rollout activities which has translated with a delay in the overall end date. TMS reviewed this schedule and found that almost all of the recommendations made in our one-time assessment report were mitigated in the new revision.
Are actual hours expended by task recorded at least monthly within the CA-PMM Toolkit or other identified software?		✓	As per the project team, PRSM budget information for each contract is accessed by using the PMO and CA-PMM monthly reports and the SPR. Each month, the project rolls each of the contract expenditures into the CA-PMM report for total project costs. Actual costs are reported, as are actual percent complete. However, hours by task are not tracked at either the State or the vendor level, so this category is Deficient as per the checklist requirements. As per Caltrans, this will be addressed with additional resource loading and reporting of actual start and finish data in future reporting periods.
Are estimated hours to complete by task recorded at least monthly within the CA-PMM Toolkit or other identified software??	✓		The project schedule is updated weekly and reviewed during the weekly project status meeting.
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		✓	There is no exposure to a formal staffing plan. We have reviewed the Project Organization Chart that documents the overall structure and high-level roles; however, a breakdown of specific staff on the vendor side and State side is not clear. Roles and responsibilities are defined within each project process plan (i.e. change management roles and

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			responsibilities are defined within the Change Management Plan), however, TMS has not seen an overall description of the general roles and responsibilities for the project team (vendor and State). With the attrition that is natural in the system integrator team as we start to get closer to rollout, and with the significant resource transitions that have occurred at the State level on the project, a Staffing Plan and strategy for transition become more critical to success. IPOC has recommended that the State develop a Staffing Plan for the remainder of the rollout activities to assist in planning resources for both the State and SAIC and to assist in the resolution of resource conflicts.
Have project cost estimates, with supporting data for each cost category, been maintained?		✓	As per the project team, PRSM budget information for each contract is accessed by using the PMO and CA-PMM monthly reports and the SPR. Each month, the project rolls each of the contract expenditures into the CA-PMM report for total project costs. TMS has reviewed the cost tracking that the project includes within the CA-PMM and observes that the actual expenditures are summarized as total amount "to-date"; however, no estimated future costs or projections are included. TMS has also reviewed the PRSM Payment Milestone and Deliverables spreadsheet for SAIC vendor costs, including the updated costs for the August reporting period.
Are software size estimates developed and tracked?	NA	NA	
Are two or more estimation approaches used to refine estimates?	NA	NA	
Are independent reviews of estimates conducted?	NA	NA	
Are actual costs recorded and regularly compared to budgeted costs?	✓		Status changed from Deficient to Adequate in June 2012. The CA-PMM status report cost tracking summary shows various project categories, last approved SPR cost and cumulative actual costs for the total project, but not by month or fiscal year. The PRSM Payment Milestone and Deliverables spreadsheet shows actual costs incurred for vendor deliverables.
Is supporting data maintained for actual costs?	✓		Status changed from Deficient to Adequate in June 2012. The Microsoft Excel version of the CA-PMM status report shows comments notes for each new data entry for the cumulative actual costs and registers the amount of invoices paid to the various vendors and subtotals on Total of One-Time IT Project Costs, Total of Continuing Project Costs and Total Project Costs.
Is completion status of work plan activities, deliverables, and milestones recorded, compared to schedule and included in a written status reporting process?	✓		IPOC meets twice a month with the project team and other oversight entities to review project status and review schedule status, deliverables, milestones and key activities. The current schedule adequately tracks all major deliverables, milestones and activities.
Are key specification documents (e.g. contracts, requirement specifications		✓	TMS has reviewed the Configuration Management Plan at a high level

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
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 management plan?			and found that there are some gaps in terms of the promotion process, specific roles and responsibilities for some of the configuration management tasks and a lack of configuration control for some of the project management process documentation. TMS is more concerned with the execution of configuration management and the concern that the project is not following the drafted procedures defined in the plan. TMS is not aware of any planned changes or revisions to the current Configuration Management Plan.
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?	✓		Status changed from Deficient to Adequate in April 2012. TMS has reviewed the Issue Management Plan. Formal risk and issue management processes were executed on the project from the time IPOC started in July 2011 through November 2011. At that time the risk and issue meetings were cancelled. The meetings resumed again in April 2012 and are being conducted in a very thorough manner according to best practices. Current issues and risks are reviewed and the team has added several new risks and issues to the log in the past month.
Is user satisfaction assessed at key project milestones?	✓		Through documentation review, it appears that users have been engaged in product reviews and training reviews and have participated in regular meetings to discuss organizational change management and pilot preparations. However, TMS reviewed the Communication Management Plan and observed that the plan does not address communication methods to and from the districts. District 3 was engaged in the small pilot and districts 1, 2,and 3 were engaged in the large pilot. User surveys were conducted for both the small and large pilots as well as user activity sessions were daily feedback was received.
Is planning in compliance with formal standards or a system development life cycle (SDLC) methodology?		✓	Compliance with PMBOK standards is not adequate for this phase of the project. Although this project does not contain a typical design and development cycle, there are requirements, configuration and testing that need to be tracked and managed in a similar way to that of a typical development project. Oversight believes that a modified SDLC should have been adopted for the project that clearly identifies how validation of expected behavior will occur (i.e. description of the requirements management, configuration management and test management areas of the SDLC). Although the project is not in compliance with a formal standards or SDLC methodology, at this phase in the project IPOC does not see value in creating a document describing the methodology. However, Oversight has observed that the project schedule and the approved strategy for realigning testing, pilot and conversion adopts a more tactical approach to validation of the product prior to the pilot phase.

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			This alleviates many of the concerns of a non-standard SDLC. PRSM has reviewed the gaps in the traceability matrix to ensure proper testing coverage and has also held weekly review of testing metrics to understand the current progress being made and clearly defined entry and exit criteria. All of these are improvements to the previous process. At this point in the project, there are no further improvements to be made that would add value.
Is there a formal enterprise architecture in place?	✓		The RFQI describes the target Caltrans enterprise environment.
Are project closeout activities performed, including a PIER, collection and archiving up-to-date project records and identification of lessons learned?	NA	NA	
Procurement			
Are appropriate procurement vehicles selected (e.g. CMAS, MSA, "alternative procurement") and their required processes followed?	✓		The final contract was signed by the Implementation Vendor on February 26, 2009. Caltrans received, reviewed and signed the contract on February 27, 2009. DGS Legal reviewed and signed the contract on March 5th, 2009.
Is a detailed written scope of work for all services included in solicitation documents?	✓		Detailed written scope of work is contained in the RFP.
Are detailed requirement specifications included in solicitation documents?	✓		Detailed requirement specifications are contained in the RFP. Requirements are also described in the RFQI and Value Analysis documents.
Is there material participation of outside expertise (e.g. DGS, Departmental specialists, consultants) in procurement planning and execution?	✓		Outside expertise and counsel has been sought from DOF, DGS, and consultants when appropriate.
For large-scale outsourcing, is qualified legal counsel obtained?	NA	NA	
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 the CA-PMM, and regular management team review of risks and mitigation progress performed?	✓		Status changed from Deficient to Adequate in April 2012 TMS has reviewed the Risk Management Plan and it contains well documented processes and procedures that include Risk Identification, Risk Analysis, Risk Response Planning, Risk Monitoring and Control and Risk Communication. The plan does not address any formalized approach to risk identification (such as periodic brainstorming sessions, SEI risk identification checklists or the use of software tools). TMS has also observed risk management metrics are not included in

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			this part of the risk planning or execution. Formal risk and issue management processes were executed on the project from the time IPOC started in July 2011 through November 2011. At that time the risk and issue meetings were cancelled. The meetings resumed again in April 2012 and are being conducted in a very thorough manner according to best practices. Current issues and risks are reviewed and the team has added several new risks and issues to the log in the last few reporting periods.
Does the management team review risks and mitigation progress at least monthly?	✓		Status changed from Deficient to Adequate in April 2012 Formal risk and issue management processes were executed on the project from the time IPOC started in July 2011 through November 2011. At that time the risk and issue meetings were cancelled. The meetings resumed again in April 2012 and are being conducted in a very thorough manner according to best practices. Current issues and risks are reviewed and the team has added several new risks and issues to the log in the past month.
Are externally developed risk identification aids used, such as the SEI "Taxonomy Based Questionnaire?"	✓		Status changed from Deficient to Adequate in April 2012 The PRSM Risk Identification process describes how any stakeholder can submit a risk, defines the process for completing the "PRSM Risk Identification and Response Plan" and addresses how the initial risk is validated and assigned. An initial formal SEI-based assessment was conducted several years ago, and in April 2012 when the risk meetings resumed, another brainstorming session took place to identify new risks. The project stakeholders are frequently solicited for risk identification in the bi-monthly meetings.
Communication			
Is there a written project communications plan?	✓		The latest version of the finalized and approved Communications Plan is dated 6/22/2009. TMS has reviewed the Communication Management Plan, which has a very thorough list of Roles and Responsibilities defined and contains an organization chart showing the relationships of the major stakeholders on the project. However, TMS has observed that this organization chart is out of date and that the Roles and Responsibilities tend to focus mostly on the immediate project team, with very little reference to district communication. TMS is not aware of any planned changes or revisions to the current Communication Management Plan.
Are regular written status reports prepared and provided to the project manager, department CIO (if applicable) and other key stakeholders?	✓		Status changed from Deficient to Adequate in June 2012. TMS is aware that the project does formally report to CTA on a monthly basis.

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
Are there written escalation policies for issues and risks?	✓		Both the Risk Management Plan and the Issue Management Plan contain a risk escalation process.
Is there regular stakeholder involvement in major project decisions, issue resolution and risk mitigation?	✓		TMS is aware that monthly Implementation Meetings are held with select district stakeholders for the purpose of keeping the District project managers regularly updated on the status of the project and to receive their input. At the recommendation of the PRSM Project manager, TMS is not attending these meetings but is available to review status documentation or meeting minutes to determine the value-add in meeting stakeholder expectations about involvement in the deployment process. Large pilot user PM & TM training completed successfully and large pilot completed on June 29. Training facilities have all be reserved, trainee invitations sent, materials produced and trainers scheduled. Additional sessions for T4T and custom reporting are scheduled. The Go/No-go decision for transition from large pilot to rollout was held on July 9th with a GO decision. Districts are not engaged in risk identification, issue identification or risk mitigation activities.
System Engineering			
Are users involved throughout the project, especially in requirements specification and testing?	✓		Districts have been added to the monthly Implementation Manager's meetings, districts have stronger participation in validating the converted data and for discussing risks and issues on the project. A survey was sent to the districts in early August to determine rollout readiness and identify any corrective actions needed in rollout based on participation in small and large pilot. IPOC performed an assessment of this survey and provided recommendations to the project team for improvement in processes based on district responses.
Do users formally approve/sign-off on written specifications?	✓		Configuration requirements baseline, customizations and deleted requirement agreements were reviewed by Caltrans at regularly scheduled Checkpoint meetings and feedback was provided to the Implementation Vendor. Through documentation review, it appears that users have been engaged in product reviews and training reviews and have participated in regular meetings to discuss organizational change management and pilot preparations.
Is a formal system development life cycle (SDLC) methodology followed?	✓		The project schedule is categorized into high level summary tasks: program Milestones, Project Management, PRSM Adaptation Phase, Testing Phase, PRSM Pilot phase, PRSM Rollout, Statewide Rollout Acceptance and state Closeout.
Is a software product used to assist in managing requirements? Is the tracking of requirements traceability performed through all life cycle phases?	✓		Changed from Inadequate to Adequate in March 2012. TMS has reviewed spreadsheets of requirements but is unaware of any other tool that is currently being used to manage requirements.

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			Traceability matrices do exist and have been reviewed at a high level by TMS. These traceability matrices are significantly out of date. TMS has also reviewed the traceability spreadsheets in the project document library and found that there are many to-be use cases that are not traced to any associated test cases. This could be an indication of insufficient testing coverage. TMS provided this data to Caltrans and they have gone through the testing materials to complete the mapping. A review of the approach Caltrans took for this exercise was reviewed by TMS and found to be consistent with our recommended mitigation. There are (12) Unknown mappings that could be out-of-the-box functionality that is not used by Caltrans, or an item that was removed or re-designed. There were (4) items that could not be traced and require some additional investigation. Based on the significant improvement in mapping completed by the PRSM team on filling the gaps of the No Match and Partial Match requirements, IPOC now finds this category Adequately Defined.
Do software engineering standards exist and are they followed?	✓		Engineering standards exist and are documented in the PRSM Configuration Management Plan. TMS has reviewed the Configuration Management Plan at a high-level and will complete a more in-depth assessment in the future.
Does product defect tracking begin no later than requirements specifications?	✓		As per the Adaptation Test Plan dated July 1, 2001, Test Team members document defects in iCenter's Test Tracker as they find them, starting at the Testing Phase. A process is defined for the Test Leads to review open iCenter Test track issues with PRSM team members and also identifies a process to identify, classify and resolve test anomalies. In addition, a document titled PRSM Anomaly Identification and Resolution Process Utilizing Test Tracker provides detailed instructions for how to use the defect tracker.
Are formal code reviews conducted?	✓		TMS is aware that the PRSM Project Team has performed formal configuration reviews to occur during checkpoints throughout the Adaptation Phase. TMS has not been exposed to any code review documentation or Checkpoint 4 review documentation.
Are formal quality assurance procedures followed consistently?		✓	TMS reviewed the Quality Management Plan and observed that it contains a high-level of detail for the review, analysis and approval of formal deliverable documentation from the vendor. However, TMS did find the overall process and procedure for non-deliverable quality management to be lacking. The Quality Management Plan contains a single-line reference to the Configuration Management, Change Control, Issue Management and Risk Management plans but does not discuss what activities are performed by the quality team to ensure these process areas are functioning efficiently, correctly and in accordance to the documented processes and procedures. There are

Practices and Products	Adequate	Deficient	Notes: Items Reviewed; Interviews Conducted; Demonstration
			some quality activities defined for requirements management, however, the frequency for when those activities take place, the tools used to perform the activities and the reporting vehicle for those activities are not defined.
Do users sign-off on acceptance test results before a new system or changes are put into production?		✓	Project has just started the Rollout Phase in July 2012. An Implementation Plan was completed late and a separate rollout schedule was developed and later integrated into the master schedule. At this point, TMS is unaware of any formal sign-off activities scheduled for rollout with the districts.
Is the enterprise architecture plan adhered to?			TMS is aware that Caltrans is in the process of creating a formal enterprise architecture plan. The PRSM technology solution was requested to be submitted as part of the study. However, TMS has not been exposed to the enterprise architecture plan.
Are formal deliverable inspections performed, beginning with requirements specifications?	✓		The PRSM Quality Management Plan contains a high-level of detail for the review, analysis and approval of formal deliverable documentation from the vendor. Upon review of the PRSM project schedule, it appears that formal deliverable inspections are conducted for critical milestones of the project.
Are IV&V services obtained and used?	✓		The IV&V Contract was approved and the IV&V Vendor began work in April 2008.

ATTACHMENT A

	Risk Title	Risk Mitigation Summary	Page
1	Risk R-9: Key Critical Resources have left or are leaving the project which may have an impact on decision making, problem solving and/or strategy setting.	The current PM has been permanently assigned to the project.	6 of 53
2	Risk R-6: Lack of performance and scalability planning may lead to issues with the Pilot or Rollout if not resolved quickly	The training environment has been migrated to a new server box so that resources are not competing with the development and testing environments. A second server, to be used concurrently with the first, is being installed, which should result in increased delivery capacity. Caltrans has assigned resources to address network concerns relating to load balancers installed in the production environment. As districts prepare for rollout, testing of the network traffic for each district will occur.	7 of 53
3	Risk R-5: Inadequate planning for data conversion may cause additional schedule delays and impact the quality of integration testing.	Caltrans & the Vendor have demonstrated successful conversion of project data and financial data from legacy systems and continue to revise the processes as necessary as minor adjustments are made to the system as part of the normal development process. Additionally, Vendor provided technical changes to the data load process that significantly shortened the duration of one of the main steps in the process. The data conversion and load process in District 4 completed as expected and on schedule.	8 of 53
4	Risk R-1: Lack of Effective Organizational Change Management or District Buy-in	The Department's Organizational Change Plan has consisted of 3 key elements, monthly communication through newsletters and VTC's, presentations and demos, and extensive user training. To date, Districts 1 through 4 have been converted, with District 8 next in line. Converted districts are working on the production system, and have been adapting their business processes to PRSM. District staff has shown enthusiasm about migrating work to PRSM. District 8 has been actively working to prepare for their migration to PRSM and is currently working on a small sample of District 8 projects loaded into the system as part of their district readiness assessment, an additional process that was added as a result lessons learned during the pilot effort in the North Region (Districts 1,2, and 3).	9 of 53