

# **Project Resourcing & Schedule**

# **Management System**

# **Quarterly PRSM Status Report to the Legislature**

**December 1, 2011 – February 29, 2012** 



California Department of Transportation
Division of Project Management
Office of Statewide Project Management Improvement

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# **IPO Report for February 2012**

Project Name: Caltrans PRSM Assessment Date: February 29, 2012

Frequency: Monthly

# **Oversight Provider Information**

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# **Project Information**

Project Number: 2660-160 Department: Transportation (Caltrans)

Criticality: High Agency: Business, Transportation & Housing

Last Approved SPR (02/2012) Total One-time

Document/Date: (in approval) Cost: \$26,078,375

**Start Date:** June 7, 2000 **End Date:** July 19, 2013

Project Manager: Kari Gutierrez Organization: Caltrans

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# **Summary: Current Status**

Project Phase: Adaptation Phase

Planned Start Date: May 20, 2009 Planned End Date: March 28, 2012

Actual Start Date: July 1, 2009 Forecasted End Date: March 28, 2012

# **Schedule**

On Schedule

Select the statement that most closely applies, measured against the last Finance 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%)

Comments:

As per the direction of the California Technology Agency, TMS has used the revised schedule as the governing schedule for this reporting period. Caltrans has submitted SPR revision February 2012 to CTA and is waiting for approval. This schedule has become the

baseline for the PRSM project.

Initially, the PRSM project was scheduled to complete the end of Rolling Wave 3: Adaptation Phase by November 22, 2011. However, due to delays in testing and report development the Adaptation phase is now scheduled for completion by mid-March.

Test phases 1 through 4 were initially scheduled to be completed in mid-October but were unable to exit these test phases and start phase 5 System Testing due to the existence of outstanding defects or delays in the execution of certain test scripts. Testing continued in the months of December and January and was focused on correction of existing defects. An Exit Strategy meeting was held in mid- January to review the results of the Phase 1-4 test and assess the project's readiness for the Phase 5 System Test and User Acceptance Testing. Phases 1-4 of testing have been closed out and all associated anomalies and defects were resolved.

A revised, schedule was received by TMS in early February. A re-planning effort for testing, data conversion and pilot activities has been in progress for the last two months and Caltrans has developed a modified strategy for completing its test and pilot activities. Once the Phase 1-4 testing was completed, the regression testing activities (System Test Environment Configuration, Regression Test Data Load and Develop regression test scripts) all progressed on/or better than scheduled. The actual testing started 1/30 and ended early on 2/2.

The next area of focus for the PRSM team is on UAT Part B (formerly system test) which started on 10/03/2011 and is scheduled to end on 03/21/2012. As per the current schedule, it shows that this phase includes the following work in progress: Pre-UAT activities (100%), UAT test environment configuration (100%), UAT data load (100%), develop test scripts (100%), conduct UAT testing (13%) and conduct performance and load testing (13%).

Activities for the Pilot, such as pre-pilot activities (100%) training activities (100%), and load district 3 data (100%) all lead up to conducting the small pilot milestone scheduled for 02/21/2012 through 03/19/2012.

TMS has reviewed the revised schedule and assessed the revisions against the findings and recommendations that TMS provided in our initial Schedule Assessment report in September 2011. TMS submitted a second One-Time Assessment on the revised schedule in February 2012 and observed that the majority of the IPOC recommendations addressed in the revised schedule (including leveling of resources for Adaptation, System Testing, UAT and small pilot, removal of group resources, application of fixed effort tasks, etc.) were deployed to the new schedule. Based upon this new schedule, and the completion of late tasks, TMS believes the project is on track and has moved the status from "Behind Schedule" to "On Schedule" effective this February reporting period. The only outstanding action item for Caltrans on the new schedule is to add work effort to all tasks starting in the Rollout Phase and resources for these tasks.

The table below represents the current milestones as represented in the project schedule dated 02/01/2012.

Document	End of Adaptation Phase	End of Project
SPR (dated 12/08/09)	02/2010	06/13/2011
Executive Steering Committee Approved Schedule (dated 09/01/2010)	11/23/2010	02/14/2012
Current Schedule (dated 02/01/2012)	03/28/2012	07/19/2013 (Statewide Rollout Acceptance)

The new schedule has more tasks running in parallel rather than sequentially and breaks Phase 5 into two distinct phases for regression testing and system/UAT testing. In addition, the pilot is also broken into two distinct phases, one for a small pilot for district 3 for one project, and one for the large pilot for 50+ projects.

**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:

From a vendor perspective, SAIC documents the on-board staff in each project position in their monthly status reports. The project appears to have the appropriate vendor staff in place in all the lead positions; however, the project does not appear to have a similar tracking system in place to document State staff. IPOC has observed that several new resources have been added to the testing and data conversion efforts on both the State and Vendor teams. Although the schedule has now been revised and leveled with State resources, without a clear staffing plan, IPOC is unable to discern whether or not this level of increased staffing is enough to complete the anticipated tasks on-time. TMS has not observed evidence of a staffing Plan describing the schedule for arrival and departure of staff over the course of the project. In the absence of a plan, TMS must rely on the resource leveling in the project schedule. An evaluation of the schedule indicates that the majority of the Caltrans resources are leveled, but some SAIC resources remain to be leveled. In addition, tasks in the Project Rollout phase have not yet been assigned resources.

Two months ago, Caltrans brought on board an additional project manager to assist the State PM, focusing on Testing and Pilot activities. This new resource has also been instrumental in developing the new approach and strategy for testing and pilot activities. In the December IPOR, TMS stated that we recommended each of the functional area leads (Testing, Conversion, Pilot, and Training) needed to take a more active role in the day-to-day management of their functional activities and allow the State PM more time to strategically manage the project. TMS is aware that daily meetings are being held with the lead roles in the project to assess the tactical actions items that need addressed within the next 24 hour period. This level of communication, action and involvement of the project team is a positive proactive approach that minimizes the concern addressed by TMS in December.

Upon review of the revised schedule, TMS feels more confident in the project teams ability to complete the remaining project tasks within the current level of resources. The revised schedule shows leveled resources up through the end of the small pilot phase and TMS is aware that the project team is working on the continued leveling of resources through large pilot and rollout. TMS has moved this category from "Needs More Resources" to "Within Resources".

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

#### Less cost

The project is (>5%) under budget.

# **Not Able to Assess**

Within cost

The project is operating within budget.

# **Higher cost**

Material budget increases (>5%) are likely.

#### Comments:

The funding source for PRSM is the State Transportation Fund. TMS has reviewed the vendor deliverable tracking spreadsheet and the updated cumulative expenditures that the project has reported in the most current CA-PMM report for January 2011. As per the CA-PMM status report for the January time reporting period, the total project approved costs were \$30,685,793 and the Cumulative Actual Cost to date is \$21,999,900.

	SPR 3 Costs	<b>Cumulative Actual Costs</b>
Project Costs	\$30,685,793	\$21,999,900
One-Time	\$26,078,375	\$19,787,544
Continuing	\$4,607,418	\$2,212,356
Annual M&O	\$2,057,000	\$0

As per the Vendor Payment Point and Deliverables spreadsheet, SAIC has been paid \$5,559,566 (less holdback) of the \$13,200,656 contract. Please note this spreadsheet has not been updated since June 2011 since no new SAIC costs have been incurred.

	Budgeted	Invoiced
Planning	\$1,009,739	\$908,765
Adaptation	\$4,933,935	\$4,190,791
Pilot	\$2,807,271	\$0
Rollout	\$2,211,424	\$0
Maintenance	\$2,128,292	\$0
Unanticipated	\$109,995	\$0
TOTAL	\$13,200,056	\$5,099,556

In order to properly assess the cost for PRSM, TMS must be able to view the expended and <u>projected</u> monthly tracking expenditures and compare that to the economic analysis worksheet in the last approved SPR. To date, TMS has only been exposed to budgeted and actual costs, but has not observed forecasting of projected costs against SPR EACs. Because of this, TMS has stated that we are Unable to Assess the Resources (Budget/Cost) section.

**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.

# **Inadequately 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:

TMS has reviewed the requirements and to-be use cases and workflows created for PRSM and found them to be quite thorough and inclusive of the underlying solution flow. 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. Some of the to-be uses appear pretty high-level and perhaps un-testable, but some are fairly discrete and testable and could represent areas where test coverage may be lacking. For example, To-Be 580 Create action item or To-be 718.

Baseline New Project are testable use cases that should have a test cases associated with it that contains steps with measurable and expected outcomes. TMS has provided this data to Caltrans and they are currently going through the testing materials to complete the mapping. A preliminary review of the approach Caltrans is taking for this exercise was reviewed by TMS and found to be consistent with our recommended mitigation. Once this exercise is complete, TMS will modify our assessment to "adequately defined".

TMS reviewed the closeout meeting minutes from the Phase 1 through 4 Test Exit Meeting held on 01-24 and understands that there were no show-stopper defects that prevented the entrance into Phase 5 system testing. Defects have been resolved to within allowances of the adaptation acceptance criteria. All critical defects have been addressed; remaining defects are moderate or cosmetic.

Regression testing for Phase 5 started on time and is now complete. Testing progressed faster than expected due to the addition of test resources; new and converted projects have been tested. No defects were reported; two moderate anomalies reported. No bug fixes were required.

The project has begun additional ad-hoc testing of business processes that aren't necessarily tied to requirements but require testing to ensure the overall experience of the user works as expected. Additionally, UAT Part B (System) scripted test cases began the last week in February and it appears that there are adequate resources to complete this testing on time.

# 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:

TMS is aware that the Implementation Vendor has submitted a Configuration Management Plan, High Level Design, Test Plan and updated Architecture Diagram. The Production environment hardware has been configured and turned over to Caltrans. Performance, volume and scalability testing activities have been added to the revised project schedule as part of Phase 5 System Testing Part B. These tasks remain fairly high level and TMS has been told by the Caltrans team that a Performance Plan is being drafted to document the tasks of performance and load testing in more defined detail.

During February, the project implemented a Performance testing tool that will monitor the CPU cycles, memory, etc during the testing phases. The tool will run in the background to collect data that will be analyzed and if issues become apparent, they will be mitigated appropriately. Although this data collection will not aid in load testing or analysis (only 15-20 users will be on the system during the testing phases), the tool will help identify isolated performance issues.

Until there are some concrete load and performance tests and metrics collected with which to evaluate against, this area will remain inadequate.

# **New Risks**

IPOC has submitted no new risks this reporting period.

# **Progress Toward Addressing Prior Risks**

# Risk R-8: Availability and skill set of PRSM resources may not be sufficient for the revised project approach and schedule for testing, conversion and pilot

<u>Risk Statement</u>: TMS has reviewed the new PRSM approach and strategy for testing, conversion and pilot activities which assume a higher percentage of parallel tasks in order to compress the schedule and meet key milestone dates. Although TMS is in agreement with the new parallel project activities that are designed to compress the overall project schedule as much as possible, TMS also believes there is a significant risk of not having enough qualified and available resources to perform he necessary work in the shortened timeframes. The majority of resources for both Caltrans and SAIC's are currently focused on Phase 1-4 testing and the necessary planning and execution of activities in the upcoming parallel activities are already falling behind schedule.

Probability:	Medium	Impact:	Medium	Timeframe:	Long Term
Severity:	Medium	Opened:	01-2012	Status:	Open

# **IPOC Recommendations:**

- TMS believes each of the functional area leads (Testing, Conversion, Pilot, and Training) needs to continue to take an
  active role in the day-to-day management of their functional activities and allow the State PM more time to
  strategically manage the project.
   Status: This has been mitigated.
- Based on the new approach for testing, pilot and conversion, TMS is also concerned about resource allocation for these parallel activities and will be looking to the revised project schedule to determine if the allocations are realistic given the new workload.

Status: This has been mitigated.

3. TMS recommends adding additional time for UAT regression testing, bug remediation, adjustment cycles or lessons learned cycles, and district review to ensure that all issues are resolved, anomalies identified and bugs fixed before moving to the next phase of the schedule. Although adding these additional these tasks into the schedule may push out the overall completion date, TMS believes that appropriate time for planning, execution and validation must take place if the new approach is going to be successful. The lack of regression testing during Phases 1-4 creates the risk that new and previously unidentified defects will surface during the Phase 5 System and User Acceptance Tests. Status: Some lag time was implemented into the new schedule but the schedule remains aggressive with minimal lag between phases.

#### Status

<u>02-29:</u> The PRSM project has made significant efforts towards mitigating this risk during the month of February. The revised schedule was reviewed by TMS and found to address many of the issues TMS raised in our one-time schedule assessment in September. Specifically, the revised schedule includes improved resource leveling and resource allocation for the parallel activities taking place. Additionally, the project has started daily meetings with the leads in each area to tactically address daily issues, action items and priorities. The Impact has been reduced to Medium, which has also reduced the severity to Medium. The project has not yet addressed the third recommendation TMS has made for this risk (increasing the time for UAT regression testing, bug remediation and lessons learned).

<u>01-31:</u> The new project schedule was not received until 02/02/2012. TMS will focus its efforts on the review and analysis of the new schedule and provide input to Caltrans to determine if the appropriate staffing is in place for the parallel approach. However, in discussions with Caltrans staff, TMS is aware Test, Conversion and Pilot Leads have been participating in daily war room style status call to review progress on in-flight tasks and look forward to the week's upcoming tasks. Action items are displayed in the war room on a large white board. Action items are not removed until they are completed or otherwise resolved. Although TMS has not yet had an opportunity to review the revised schedule in detail, Caltrans has stated that while pilot and test activities are scheduled in parallel, there are different resources participating and that focused attention was taken in the schedule to ensure conversion efforts were single threaded and there was minimal resource overlap with testing. Caltrans has also noted that regression test has completed without issue and project data conversions have been thoroughly exercised and

the team is confident in the implementation. Functionality in Clarity is well isolated within each functional object, reducing the risk that a new defect will have a high impact is discovered during system test and UAT. With properly converted project data, and isolated defect fixes, Caltrans feels the impact should be reduced. TMS is pleased to see that the schedule has a resource assignment view that now displays responsible party (SAIC/CT), team (Dev/Test/Train/etc.) and resource (a named individual). The resource column no longer has SAIC or CT assignment. Resource allocation is relatively level for most resources; additional review of assignments will be conducted to minimize resource conflict.

# Risk R-7: Inability to document checklist readiness for districts may delay pilot and rollout activities

<u>Risk Statement</u>: TMS has reviewed the PRSM Adaptation Project Schedule as well as the two Pilot Readiness deliverables and has found there to be a gap in definition of the activities, tasks and expectations of the Districts for preparation to start the pilot. Although it may be the responsibility of the District Implementation Manager to ensure that certain tasks are completed prior to the start of the pilot, the project should have visibility into the progress the District has made in regards to those items that are needed to be completed prior to the pilot start date.

Probability:	High	Impact:	High	Timeframe:	Short Term
Severity:	High	Opened:	10-2011	Status:	Open

# **IPOC Recommendations:**

TMS recommends that the project team work with the pilot district to determine the appropriate checklist of items that needs to be completed prior to pilot start. Items may include things such as: confirmation of availability of staff for training, availability of hardware and software necessary for training, implementation and any additional resources need for the HQ or SAIC staff that may be on-site during initial implementation, availability of facilities for training, verification that pre-requisite documentation has been reviewed, verification of any organizational change management tasks that should be completed, verification that all district pilot readiness tasks have been completed, etc. Caltrans needs to be able to answer:

- · Are district staff ready for pilot activities?
- · Who will be on-site to assist with support?
- What activities need to take place to prepare for training?
- Are all hardware and software pre-requisites available and configured to support the PRSM solution?

#### Status:

<u>02-29:</u> SAIC submitted an updated Implementation plan in February that TMS assessed at a high-level. The plan itself did not contain the expected detail that TMS was looking for; however, a checklist was referred to several times in the report that TMS just received at the end of this reporting period. TMS will review this checklist in March and provide comments to the project team. IV&V will also review the PRSM Support Plan in this effort. Through discussions with the Caltrans team, TMS is aware that Caltrans and the SAIC Implementation Team have developed a project schedule with activities and resources dedicated to the Implementation phase. Key milestones and activities from this mater plan are included in the Caltrans revised schedule. Every district will have an implementation manager designated in this plan with assigned tasks and resources. The PRSM PM will send this plan to both oversight entities for review.

<u>01-31:</u> The Plan for Pilot deliverable was updated by SAIC and reviewed by IPOC for this reporting period. The revised version of the document contained very few changes as detailed in the next section and did not incorporate any elaboration on how the new alternative approach would be implemented. The proposed alternative approach includes a revised timeline that adjusts the focus of activities to ensure an early validation and verification of one project as well as verification and validation of the general processes, help desk support, etc. Once validated, the remaining 49 projects will be converted and tested by the end users. IPOC concurs with this approach, however, in order to achieve success with the first project in the proposed four-week timeframe, it is critical to have a well-defined plan outlining roles and responsibilities, precise execution of how defects are documented, reported, mitigated and analyzed for lessons learned and adjustment of strategy. It is also critical to have exit criteria defined for the first project so that it is clear when the remaining 49 projects can commence. The exit criteria may be different for the first project than the final pilot exit criteria. The Plan for Pilot needs to be updated to include all the relevant details as described above for the new approach.

<u>12-30:</u> TMS discussed the recommendation to have IPOC survey the districts to determine pilot readiness, conversion validation, training readiness, etc. However, due to the timing of the holidays, the State PM was unable to get approval from the Project Sponsor in time to develop and distribute the surveys. TMS will continue to discuss this recommendation with the PRSM team for a future implementation.

# Risk R-6: Lack of performance and scalability planning may lead to issues with the Pilot or Rollout if not resolved quickly

<u>Risk Statement:</u> For performance testing, there is a lack of requirements and goals. There is also a lack of a test plan for scalability and performance, a lack of performance test scripts created and executed, when Pilot activities are a month away.

Probability:	Medium	Impact:	High	Timeframe:	Short Term
Severity:	Medium	Opened:	09-2011	Status:	Open

### **IPOC Recommendations:**

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?

Status: This has been mitigated.

Take the current scheduling system and establish baseline for these performance requirements and determine if they
are meeting the goals?

Status: To the best of IPOC's knowledge, this has not yet been done.

If they are not meeting the goals, develop and execute test cases for performance.
 Status: This is in progress.

# Status:

<u>02/29</u>: During February, the project team implemented a tool for performance monitoring that will be used to try and isolate any functional performance issues. The tool will run in the background, collect data and that data will be analyzed to determine if there are any issues that need mitigated. The tool and the data collected will not address load testing issues as the load will be minimal compared to production level loads, however, it represents a good start toward understanding if there are specific, isolated performance issues that need addressed. In addition, performance and load activities were added to the revised project schedule and the Caltrans team is preparing for conducting the performance monitoring activities as part of Phase 5 System Testing Part B. Based on these activities, TMS has reduced the Probability from High to Medium and the Severity to Medium and continuing to track the activities of performance and load testing.

<u>01/31:</u> The project has lacked a comprehensive approach and defined tools for performance testing for the last six months. SAIC is not contractually obligated to conduct performance testing and Caltrans has not yet developed a Performance Plan. In addition, Caltrans has indicated that it lacks automated tools for simulating the production environment to conduct load and performance tests and would need to schedule execution of manual test scripts by multiple users to adequately assess if performance or load testing objectives are being met. Both IPOC and IV&V have identified that the risk remains that Caltrans will be able to effectively simulate the product environment with this approach, given the number of users who could be using the production system statewide. There is a significant risk that the performance test will not be effective. In the new schedule received on 02/01, TMS observes that there are some high level tasks added to Phase 5 System testing that include performance and load testing; however, TMS in unaware of a high level plan that addresses the requirements to be tested or the plans for conducting this testing. TMS will work with the PRSM PM to get a better understanding of the strategy moving forward and any supporting documentation.

<u>12/30:</u> Performance and Load testing activities are included in the new approach strategy and scheduled in a high level MS Visio roadmap; however, IPOC has not observed the revised schedule and detailed tasks that encompass this effort or identified the resources needed.

# Risk R-5: Inadequate planning for data conversion may cause additional schedule delays and impact the quality of integration testing.

**Risk Statement:** 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.

Probability:	Medium	Impact:	High	Timeframe:	Medium
Severity:	Medium	Opened:	09-2011	Status:	Open

# **IPOC Recommendations:**

- 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.
   Status: This has been mitigated.
- Review of the current conversion metrics showing what has been successfully converted and what remains to be converted. Status: IPOC is unaware of any conversion metrics that are available for review.
- Include districts in conversion validation activities no one knows their data better than they do.
   Status: Plan for Pilot and Implementation Plan have roles and responsibilities assigned for districts related to validation. IPOC is evaluating the implementation checklist for the next reporting period.
- 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 cleansing 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.

Status: To the best of IPOC's knowledge, this checklist has not yet been developed.

# Status:

<u>02-29:</u> TMS has reviewed the Implementation Plan (and will review the checklist during March). System Testing for Phase 5 Part A has completed and UAT Testing for Phase 5 Part B has started. TMS is aware that Caltrans has been in weekly communication with the districts in discussing conversion and validation activities but is unaware if any of the remaining recommendations made above have been implemented. TMS will schedule time with IV&V to discuss data conversion and understand the processes that have been developed.

<u>01-31:</u> The vendor continues to finalize the implementation plan, which is running significantly behind schedule, now targeted for mid-February. Once a draft plan is received by the State, TMS plans to form an in-depth assessment of the Implementation Plan. With respect to data load and conversion, data load activities have started in advance of schedule. Four projects have been converted and loaded. 19 of 22 test cases are now complete. Two packages of test cases have been delivered to IV&V for comment. One review meeting with IV&V has been completed. All indicators for early start of scripted testing are positive. Ad-hoc testing investigations have been defined and are expected to begin 2/6/12.

12/30: All updates have been made to the Conversion plan which has been submitted to Caltrans. The Caltrans team has completed validation of the conversion process and has been through the process of readying a converted project for use in PRSM. The conversion team is now drafting a white paper to summarize the steps for readying a project so that anyone will be able to complete the process. The vendor continues to finalize the implementation plan, which is running significantly behind schedule. Once a draft plan is received by the State, TMS plans to form an in-depth assessment of the Implementation Plan.

# Risk R-1: 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

<u>Risk Statement:</u> 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.

Probability:	Medium	Impact:	Medium	Timeframe:	Medium

Severity: Mediu	m Opened:	Unknown	Status:	Open
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# **IPOC Recommendations:**

- 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 Roll Out.
   Status: This has been mitigated.
- 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.

  Status: TMS is aware that all of the districts have been engaged in training for the six key functional areas and the business processes associated with them.

# Status:

<u>2/29:</u> An Implementation Plan was submitted during February which TMS reviewed at a high-level. The plan did not contain the substance expected; however, during our initial review the checklist referred to in the document was not available. TMS has received this checklist and will review it during March and will provide comments to the project. In conversations with the Caltrans team, TMS is aware that the districts do not have sufficient resources to perform formal OCM, nor does Caltrans have a formal OCM team that is skilled in training on business processes. Caltrans is trying to train a business analyst team that can work with the districts and understand their business processes, but they are not up and running at full strength yet. However, there are still activities in place that are geared towards OCM awareness. TMS has observed that through the small pilot, the data conversion team is providing daily sessions with the district to demonstrate how the data moves through the functional processes of the business and engage the small pilot stakeholders. This becomes even more important as we move onto larger districts who all have different tools and different data needs. TMS believes we need to be able to find a way to incorporate the business process awareness into the district training. The Caltrans PM says there are plans in place to visit the large districts and perform training with the functional business processes, and TMS sees this as a positive step.

<u>01/31:</u> Implementation manager training is scheduled to resume at the start of the small pilot and is scheduled out in the new revised schedule. Training activities have been reorganized in the schedule. The Implementation Manager training (AKA SME Sessions) are now scheduled to occur during rollout training in mid-September. There have been sessions at two districts with a third planned, to present key business impacts to the district management and future PRSM users. Reducing Probability to Medium and Impact to Medium as a result of progress.

<u>12/30:</u> Formal training for the implementation managers began on 10/31/11 and was suspended the first week of November. Training will resume once Pilot begins. Additionally, SAIC continues to prepare for Pilot end-user training. The vendor is continuing work on the Implementation Plan and Plan for Pilot based upon Caltrans' comments. TMS has still not observed the development of a pilot checklist.

Closed Risks		
Ciosea Risks		

# Risk R-2: Lack of Resource Availability may impact the schedule

<u>Risk Statement:</u> Without adequate Caltrans resources working on PRSM, the project schedule could be delayed. While in the Adaptation Phase, PRSM Project Team members should be allocated full time. Individual Resources may need to be identified at the task level in the Project Plan in order to estimate resource requirements and availability.

 Probability:
 Medium
 Impact:
 Medium
 Timeframe:
 Short Term

 Severity:
 Medium
 Opened:
 Unknown
 Status:
 Closed

# **IPOC Recommendations:**

- After the PRSM work plan is complete, determine the resource gaps and reallocate effort as appropriate.
   Status: This has been mitigated.
- Assign individual resources at the task level in the project schedule to assist in estimating resource requirements.
   Status: This has been mitigated (still need resource assignments for Rollout phase).
- All PRSM project resources, including vendor and State resources, should be included.
   Status: This has been mitigated.
- For those tasks that are incomplete, the task type should be set to Fixed Work or Fixed Duration and resource overallocations should be reviewed.
   Status: This has been mitigated.
- Remove all group designations or dual-resource allocations as resources in the project schedule and assign to specific resources to allow for more efficient resource tracking and leveling.
   Status: This has been partially mitigated – still have some over-allocations with SAIC resources.

### Status:

<u>02-29:</u> TMS has closed this risk. Based upon the revised schedule, TMS believes this risk has been mitigated. The majority of Caltrans staff are loaded and assigned to appropriate tasks, and leads have been meeting daily to review activities. The addition of the new Test manager has helped in delegating tasks to a more tactical level.

<u>01/31:</u> The revised schedule was received on 02/02, but it was not enough time to perform an adequate review of the resource leveling. TMS will perform this assessment for the next reporting period. TMS is aware that additional resources were added to Phase 5 System Testing, Conduct Regression Testing Part A which allowed testing to progress faster than expected.

<u>12/30:</u> The revised project schedule is not yet available for review. However, since many of the activities that were previously sequentially scheduled (i.e. cannot start UAT until System Testing is completed) are now in parallel, TMS will focus on the resource allocation of these parallel activities in detail to ensure that they are not over-allocating project staff.

# **General Comments**

This report reflects the time period February 1 – February 29, 2012. The PRSM project remains in Rolling Wave 3: Adaptation Phase part B, which includes development, data conversion and interfaces, production build-out, testing, Adaptation phase training and Adaptation Acceptance. The project is scheduled to move into Rolling Wave 4: Pilot in Spring 2012.

This General Comments section focuses on the project management processes. TMS has included the following project management process chart documenting TMS's assessment of each major area of project management on the PRSM project by a color code in the table below. Three month's worth of status is displayed.

RED = Unsatisfactory project management practices that present significant risk to the project.
YELLOW = Corrections to project management practices needed to reduce risks.
GREEN = Satisfactory project management practices are being followed.

BLUE = Assessment in progress.

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
General Project	Y	G	<u>2/29:</u> During the month of February, significant progress was made by the project team both in	TMS observes a lack of staff management planning and

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
Management			execution and in project management activities. Daily meetings are now being held to improve communication and to expedite the acknowledgment and mitigation of issues, risk and issue monitor has recommenced during the weekly internal team meetings and the project has committed to providing IPOC with a full spreadsheet of risk and issue activity each month and the schedule has been revised (but not yet approved) taking into consideration most of the deficiencies raised in the one-time schedule assessment report TMS submitted in September. Given these improvements, the status has changed to green to reflect the overall project management improvements. Note: some of the individual status ratings will remain the same as last month so that we can monitor and assess the plans that have been put into place to ensure they occur as planned.  O1/31: The revised schedule was delivered to oversight for review on 02/01 and contains all of the tasks discussed in the revised approach for pilot and testing. Risk and Issue meetings have not yet been re-scheduled. Status remains Yellow.  12/31: Revised project schedule is not yet available for review; however, TMS is pleased with the re-planning effort and the new approach for testing and pilot. Since the bi-weekly status meetings were cancelled, TMS will need to review meeting minutes from the currently scheduled Internal PM meetings in order to assess execution of general project management for PRSM.	recommends that the project may benefit from spending some time analyzing the staffing needs for the rest of the pilot implementation and rollout. Status: The revised approach focused on tangible benefits made in tasks and activities related to pilot implementation and rollout. A new Plan for Pilot was received from SAIC, as well as the Implementation Plan and Checklist.  • TMS observed that formal risk identification activities have not occurred since the beginning of the project and recommended that as the project gear up for the pilot implementation, that a brainstorming session takes place that includes the core project team as well as the pilot district. Status: Risk Identification remains at an informal level.  • TTo date, the project has followed a very tactical approach to project management. As PRSM gears up for the start of Phase 5 Testing and pilot rollout, TMS recommends that a more global or strategic approach be conducted. Status: The revised approach utilizes a more strategic direction for the project and allows for more parallelization of activities. Adding a Test manager has allowed the PRSM PM to focus on more strategic planning.
Planning and Tracking (Work Plan)	Y	G	2/29: TMS has changed the status of this item to green based upon the newly revised project schedule. The revised draft schedule now includes individual assignments rather than group assignments, baselines, fixed work/effort tasks, loading of resources and a readjustment of strategy in terms of some of the activities being performed during the pilot. Based on the new approach, IPOC believes the work plan is now manageable and accurate. However, resource assignments stil need to be made for all activities starting with the Roll Out phase, and some SAIC resources still need to be leveled. TMS will monitor the updating of the schedule to ensure it is being worked in a timely manner.  O1/31: The revised schedule was delivered to oversight for review on 02/01 and contains all of the tasks discussed in the revised approach for pilot and testing. IPOC will conduct a formal review of the schedule for the February reporting period. Status remains Yellow until the assessment is conducted.	<ul> <li>SCH Finding 2: The critical path should be clearly defined for each phase of the project. Status: The schedule now has a defined critical patch that threads through conversion activities from testing through the final rollout.</li> <li>SCH Finding 4: TMS observed that promotion activities, test cases reviews, performance testing, stress testing, load testing and scalability testing seem to be missing from the plan. TMS recommends adding activities and milestones for the above activities. Status: The schedule now contains test script reviews. Performance test activities are included but only at a high-level.</li> <li>SCH Finding 5: TMS</li> </ul>

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			12/31: Revised project schedule is not yet available for review.	recommends that the project level the current workplan such that all resources listed in the schedule are allocated at a reasonable level. Status: SAIC resources still need to be leveled and resources need to be added to the activities in the Rollout phase.
Quality Management	G	G	2/29: The project team has completed regression testing and is performing some additional ad-hoc testing of business processes and functions that are not associated with requirements, yet will affect the overall experience of the user. UAT has also started along with the small pilot. IPOC is still concerned with the subset of requirements that do not map to test cases; however, a list was provided to the project for investigation and they are trying to determine if there is any impact related to these missing mappings.  01/31: Testing for Phases 1-4 is now closed. The revised schedule was delivered to oversight for review on 02/01 and contains all of the tasks discussed in the revised approach for pilot and testing. Defects for phases 1-4 have been resolved to within allowances of the adaptation acceptance criteria. All critical defects have been addressed; remaining defects are moderate or cosmetic. Regression test started on time and is now complete. Testing progresses faster than expected due to the addition of resources; new and converted projects tested. No defects reported; two moderate anomalies reported. No bug fixes required. Data load activities have started in advance of schedule. Four projects have been converted and loaded. 19 of 22 test cases are now complete. Two packages of test cases have been delivered to IV&V for comment. One review meeting with IV&V has been completed. All indicators for early start of scripted testing are positive. Ad-hoc testing investigations have been defined and are expected to begin 2/6/12. Although IPOC would like to see more trending metrics, it is obvious from the results of the testing over the past two months that quality has improved. Status moved from Yellow to Green.  12/31: Weekly Test Results continue to be published almost on a daily basis and the team meetings weekly to gather statistics on FEATS, test case execution and defects. However, in order to assess quality over time improvements, trending statistics would need to be observed.	<ul> <li>PM Finding 2: The quality management metrics collected, tracked and analyzed on a regular basis should be expanded to include more process areas and detail that would allow trends and potential issues and risks to be identified. TMS recommends concentrating on testing and requirements metrics first. Status: No update on this recommendation.</li> <li>TST Finding 2: System Test activities have not yet begun for the PRSM project so TMS strongly recommends that trending metrics be implemented at minimum on a monthly basis to track testing metrics over time such as: number of changes, status of actual vs. planned progress against defect resolution, number of defects discovered over time (increasing or decreasing), period in the testing process where the defect is discovered, repeated errors having the same cause, time to fix the defects. Status: System Testing is completed for Part A and has started for Part B. Some defect metrics were tracked for phases 1-4, and TMS will request that the test manager distribute testing metrics on a regular basis during Phase 5.</li> </ul>
Requirements Management	R	Y	2/29:The lack of traceability is a tremendously large project concern, and is specifically why IPOC has rated this category RED last month.	TTraceability through the project life cycle should be an on-going activity that is performed with

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			Since then, the project has begin completing the remaining mappings that had no test cases associated with the requirements. Caltrans has shared their approach to this exercise with TMS and TMS concurs with the approach. This item has been turned to yellow as a result of the progress and will be green upon completion of the activity.  O1/31: The last updated Requirements Traceability Matrix of November 12, 2010 is out of date and does not contain updated data from the past testing phases. Requirements / FEATS have been revised throughout the testing process, the scope and functionality of some focus customizations have changed during the test process, and some requirements have been eliminated because they were not considered technically feasible or functionally necessary. The project team has not conducted a comprehensive review of these changes with stakeholders to validate that the system as a whole continues to meet Caltrans' business requirements. Moreover, the changes have not yet been processed through the project change control process for approval. There is a risk that certain functions of the system may not meet user's needs or expectations as a result of these changes. SAIC has confirmed that they will submit a revised traceability matrix that reflects the results of the current testing efforts and traceability to requirements within the next month. Status remains Red.  12/31: TMS was told that SAIC was scheduled to update the traceability matrix in November but was unable to confirm if this activity took place. There are no new traceability results posted to iCenter.	some level of regularity to ensure that all changes are incorporated into the project consistently. The RTM should be updated as a result of the exit-phase sessions for Phases 1-4. Status: TMS is aware that the Caltrans contract manager is working with IV&V to complete this assessment - in progress.  • TMS would recommend a review of the gaps in the traceability matrix to ensure proper testing coverage, weekly review of testing metrics to understand the current progress being made and clearly defined exit criteria as the project enters the pilot phase. If there are no plans to directly terrace requirements to Test Cases, then the traceability matrix should state the approach for traceability and clearly define how the mapping of test cases to FEATS is satisfactory to the customer. Status: TMS provided some information to the Test Manager for review, a draft of the mitigation approach was provided by Caltrans and TMS has validated that this approach is consistent with our recommendation. Work is in progress to complete the remaining mappings.
Change Management	G	G	2/29: No change requests in February.  01/31: There have been no change in status for Change Management (nor have there been any new change requests). Status remains Green.  12/31: There have been no change in status for Change Management (nor have there been any new change requests).	<ul> <li>TMS recommends that predictive analysis be used on the project schedule to show how scope increase or schedule changes will affect all downstream tasks.</li> <li>TMS recommends that all cost increases be documented within the change request.</li> </ul>
				TMS also recommends that the type of resources be identified and the impact assessed to determine if external constraints may impact the schedule.
Risk Management	Y	Y	<u>2/29:</u> The team has started to resume the risk and issue discussions as part of their internal team meeting which IPOC is not a part of. The project has suggested sending a monthly spreadsheet of all risk and issue activity to IPOC each month for review and assessment. This solution is acceptable to TMS, and once we have received the	RSK Finding 1: TMS recommends that the project hold one or more brainstorming sessions involving all stakeholders in the project to re-assess new Risks and Issues for the upcoming project phases.

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			first month of updates, we will reassess this status to determine if it can be changed to green.  O1/31: All Risk and Issue Meetings have been cancelled and have not been re-scheduled. TMS has discussed the results of the One-Time Assessment on risk and issue execution with the PRSM project team and anticipates that some of the recommendations will be incorporated into the revised meeting structure. IPOC will reassess this area once the risk management process begins again. Status remains Yellow.  12/31: TMS performed a One-Time Assessment on the Risk and Issue Management and Execution process for PRSM to provide observations and findings that may help to improve the processes and procedures in place for the project. Risk & Issue management are critical process areas that when performed well, can greatly increase the probability of the project completing on time, within budget and with high-quality. The objective was to provide some insight into planned versus actual execution as well as analysis of some metrics gathered from the current risk and issue spreadsheets. 1 Observation and 3 Findings were identified which can be used to help the project team re-structure the current Risk and Issue process.	<ul> <li>RSK Finding 2: TMS recommends creating detailed, actionable mitigation and contingency plans for each risk. TMS also recommends referencing the mitigation plan during each risk status report and prompting the owner of the risk to report progress against the plan and to add new actions for the plan or remove irrelevant out-of-date items from the plan. The mitigation plans should always reflect the current strategy and approach for lowering the probability and impact for the risks.</li> <li>RSK Finding 3: TMS recommends reviewing all open risks for potential triggers and referencing the defined triggers during risk management status updates to determine if the trigger has been detected. This will allow the project to quickly respond with either heightened mitigation efforts or to start implementing the contingency plan.</li> </ul>
Issue Management	Y	Y	2/29: The team has started to resume the risk and issue discussions as part of their internal team meeting which IPOC is not a part of. The project has suggested sending a monthly spreadsheet of all risk and issue activity to IPOC each month for review and assessment. This solution is acceptable to TMS, and once we have received the first month of updates, we will reassess this status to determine if it can be changed to green.  O1/31: All Risk and Issue Meetings have been cancelled and have not been re-scheduled. TMS has discussed the results of the One-Time Assessment on risk and issue execution with the PRSM project team and anticipates that some of the recommendations will be incorporated into the revised meeting structure. IPOC will reassess this area once the risk management process begins again. Status remains Yellow.  12/31: TMS performed a One-Time Assessment on the Risk and Issue Management and Execution process for PRSM to provide observations and findings that may help to improve the processes and procedures in place for the project. Risk & Issue management are critical process areas that when performed well, can greatly increase the probability of the project completing on time, within budget and with high-quality. The objective was to provide some insight into planned versus actual execution as well as analysis of some metrics	RSK Observation 1: Action Plans are created but not tracked.  RSK Observation 2: No assessment of relation to critical path. Most issues have an impact to the project cost, schedule, quality and/or scope. As a result, it is important to address any additional impacts the lack of resolution may have on the critical path for the project.

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			gathered from the current risk and issue spreadsheets.	
Communication Management	G	G	2/29: Daily meetings have started with the leads from each group. During periods of high activity such as UAT testing and validation of the small pilot, this practice of a daily meeting will help the project keep focused and prioritized on the most important issues that need resolution.  O1/31: Additional communication between the districts has been occurring. The focus of the PRSM team in January remained on completion of the Phase 1-4 testing efforts and re-planning for the new testing and pilot approach. Risk and issue meetings have not yet started back up and the regular status meetings for oversight are now held weekly. Status remains in Green.  12/31: The bi-weekly risk and issue meetings have been cancelled and not yet re-scheduled. The bi-weekly status meetings have also been cancelled and transitioned to a weekly oversight meeting with IPOC, IV&V, PRSM PM and CTA. TMS observes that these meetings will also oversight more of an opportunity to discuss strategy, review current issues and recommend new direction. However, TMS now has no participation in any meetings to observe the project team or the system vendor. While not yet a risk or issue, TMS will need to observe or participate in project management activities at a sufficient level with which to evaluate compliance to best practices.	<ul> <li>TMS recommends analyzing the current methods of communication to determine if additional processes should be put in place to facilitate change management preparation and discussions within the districts and to open up the channels for any risks or issues the districts are concerned with during the pre-pilot phase, pilot phase and post pilot/rollout phase.</li> <li>PM Finding 1: TMS recommends including more tactical communication planning with the districts and strategic communication planning for change management activities at the district level, pilot and rollout communication (including how risks, issues, changes and initial rollout support issues will be communicated).</li> <li>TMS recommends restructuring the Risk and Issue meeting to include oversight and incorporate some of the recommendations made in the December Risk and Issue Management assessment.</li> </ul>
Pilot Readiness	Y	Y	2/29: IPOC did review the revised pilot readiness plan and found that there was very little substantive change in the document. The new document did not coincide with the newly revised schedule, nor did it take into account the deficiencies and recommendations proposed by TMS in our one-time assessment from October 2011. The project did release an implementation plan during February 2012 that was a high-level approach to implementation. A checklist was referenced multiple times in that document that IPOC did not received until the end of the month. We will review that checklist in March to determine if it meets the needs for pilot readiness.  O1/31: The Plan for Pilot was updated by SAIC and is now in review by Caltrans. IPOC reviewed the document and did not observe much improvement in resolving the initial deficiencies noted in the October 2011 review. The Implementation Plan is over 2 months late and is not expected until mid-February. The revised approach for pilot was added into the project schedule but has not yet been reviewed by IPOC. With the start of Pilot targeted for March 2012, this status remains Yellow	<ul> <li>PLT Observation 1: The selection process for choosing which districts participate in the pilot and the scope of what will be accomplished during the pilot is unclear. Status: This observation is now overcome by events – selection of pilot has been made.</li> <li>PLT Observation 2: Resolve the inconsistencies between the Plan for Pilot and the Pilot Support Plan regarding SAIC involvement in the pilot. Status: This has been completed.</li> <li>PLT Finding 1: An Entry Criteria Pilot Readiness Checklist should be developed from the District Perspective. Status: This has been provided to IPOC but has not yet been reviewed.</li> <li>PLT Finding 2: Include specific district involvement in the pilot verification process to reduce</li> </ul>

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			until further analysis can be conducted.  12/31/11: The vendor is continuing work on the Implementation Plan and Plan for Pilot based upon Caltrans' comments; however, this plan is significantly late in being delivered. Once TMS reviews the revised schedule and the activities for pilot, we will be able to assess if the new direction and strategy for pilot is green.	schedule delays. Status: Verification activities have been added into the revised project schedule.  PLT Finding 3: Tactical processes and procedures for extracting lessons learned and assessing common problems mitigated during level one support should be included in any pilot documentation.  PLT Finding 4: Pilot exit criteria tasks need to be added to the punch list. Status: This has been provided to IPOC but has not yet been reviewed.
Testing	G	G	2/29: Regression testing completed. UAT testing started. A performance monitoring tool has been put in place and activities on the small pilot have begun. Enhanced system test activities were added to the schedule for regression and UAT.  O1/31: Phases 1-4 Testing are now closed and Phase 5 System Testing, Conduct Regression Testing Part A started on time and is now complete. Testing progressed faster than expected due to the addition of resources; new and converted projects tested. No defects reported; two moderate anomalies reported. No bug fixes required. All test activities are now accounted for in the project schedule and more effective tracking mechanisms have been put in place for monitor the progress for Phase 5 UAT. With respect to performance and load testing, one of the 22 test cases addresses performance. Additionally the architecture team will be monitoring data load performance. Status moved from Yellow to Green.  12/311: Phase 1 through Phase 4 testing activities are continuing and scheduled for completion by the end of December. Phase 5 (System Test) preparation activities are continuing and execution of system test scripts is due to be complete by mid-January. EFIS and Staff Central Interface testing is being conducted. All test cases have been executed, the team is now working through fixing and retesting the anomalies. FEAT statistics have improved greatly and the team is making good progress in resolving the known anomalies in phases 1-4. Status moved from Red to Yellow.	TST Observation 1: The Adaptation Test Plan does not address traceability of test cases back to the requirements. Status: At this point in the project, it is not anticipated that any additional changes will be made to the Adaptation Test Plan. IPOC will close this observation.  TST Finding 1: 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? Status: Planning is underway to develop a plan for conducting performance testing and the criteria/requirements. High Level activities have been added to the schedule.

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
End-User Training	G	G	<u>2/29:</u> The train the trainer is no longer happening at each district. There will be two sessions, one in phase 1 rollout and one in phase 2 rollout. At this point in time there does not appear to be an impact with this change.	Ensure all PRSM staff has received foundational Clarity training. <u>Status:</u> This has been completed.
			<u>01/31:</u> Training activities have been reorganized in the revised schedule. The Implementation Manager training (AKA SME Sessions) are now schedule to occur during rollout training in mid-September. Status moved from Yellow to Green.	Eliminate overlaps in project schedule for pilot training education. Status: Caltrans has indicated that this has been resolved in the revised schedule.      Eliminate the inconsistencies
			12/31: Formal training for the implementation managers began on 10/31/11 and was suspended the first week of November. Training will resume once Pilot begins. Additionally, SAIC continues to prepare for Pilot end-user training. The yellow status will be reassessed once the revised schedule is available for review.	between the course material defined in the Plan for Pilot and the actual project schedule tasks.  Status: This has been resolved in the revised schedule.
Data Conversion and Load	G	G	2/29: All regression testing has completed. Scripted testing has started as well as ad-hoc testing. TMS is unaware of the status of the load and conversion activities status, but will schedule time with the IV&V team to better understand the progress made towards establishing and executing conversion plans and processes for the next reporting period.	Provide test measurements and metrics to oversight for review.
			<u>01/31</u> : Data load activities have started in advance of schedule. Four projects have been converted and loaded. 19 of 22 test cases are now complete. Two packages of test cases have been delivered to IV&V for comment. One review meeting with IV&V has been completed. All indicators for early start of scripted testing are positive. Ad-hoc testing investigations have been defined and are expected to begin 2/6/12.	



# **CALTRANS - PRSM Project Oversight Review Checklist** (February 2012)

# **Project Oversight Review Checklist: High Criticality Project**

This checklist is an assessment for the Adaptation Phase. The end date of this phase is 03/28/2012 (per the most recent revised project schedule).

Practices and Products	Adequat e	Deficie nt	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?	X		TMS has reviewed the last approved SPR dated December 2009, and will review the new SPR request for the schedule delay once available.
Has a detailed project plan with all activities (tasks), milestones, dates, and estimated hours by task loaded into project management (PM) software? Are the lowest level tasks of a short duration with measurable outcomes?	X		The project does use a 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, trackable items with durations less than 80 hours. A new project schedule has been developed to include the new approach for testing, pilot and conversion.
Is completion of planned tasks recorded within the PM software?	X		Changed from Deficient to Adequate in February 2012. Caltrans has revised the project schedule to include the new approach to system and UAT testing, pilot and rollout. TMS has 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 PM software?		X	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.
Are estimated hours to complete by task recorded at least monthly within PM software?		X	TMS has reviewed the project schedule TMS reviews all updates to the project schedule when available. Status meetings in January did not focus on updated status to the schedule and instead focused on the development of the new schedule approach. Actual costs are reported, but estimated hours, or projected hours, are not tracked in the documents that have been provided to TMS.
Is there a formal staffing plan, including a current organization chart, written roles and responsibilities, plans for staff acquisition, schedule for arrival and departure of specific staff, and staff training plans		X	TMS has not been exposed to a formal staffing plan. We have reviewed the <u>Project Organization Chart</u> 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 and responsibilities for the project team (vendor and State).

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
Have project cost estimates, with supporting data for each cost category, been maintained?		X	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, not estimated future costs or projections are included. TMS has also reviewed the PRSM Payment Milestone and Deliverables spreadsheet for SAIC vendor costs, although this spreadsheet has not been updated since June 2011because there are no new vendor invoices/payments.
Are software size estimates developed and tracked?	N/A	N/A	This item is not applicable.
Are two or more estimation approaches used to refine estimates?	N/A	N/A	This item is not applicable.
Are independent reviews of estimates conducted?	N/A	N/A	This item is not applicable.
Are actual costs recorded and regularly compared to budgeted costs?	X		The CA-PMM status report cost tracking summary shows various project categories, last approved SPR3 cost and cumulative actual costs for the total project, but not by month or fiscal year. The <u>PRSM Payment Milestone and Deliverables spreadsheet</u> shows actual costs incurred for vendor deliverables; although this spreadsheet has not been updated since June 2011because there are no new vendor invoices/payments.
Is supporting data maintained for actual costs?	X		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?	X		During status meetings, the PRSM Project Manager distributes an updated status report, which includes an updated schedule in MS Project for the current phase. The bi-weekly status meeting has been cancelled and the weekly oversight meetings that replaced it have not revised the schedule as a regular agenda item. A new version of the schedule was delivered to reflect the new re-planning tasks and has been reviewed by TMS and found to be adequate. TMS has also reviewed the CA-PMM reports submitted by the project.
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?		X	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.
Are issues/problems and their resolution (including assignment of specific staff responsibility for issue resolution and specific deadlines for completion of resolution activities), formally tracked?		X	Changed from Adequate to Deficient in January 2012.  TMS has reviewed the <u>Issue Management Plan</u> and has observed Issue management being executed on the project. However, the bi-weekly Risk and Issue meeting has

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			been cancelled for the past several months with no formal tracking of risks and issues during that time. At the end of February, the project informed TMS that the formal review of risks and issues will be reinstated as part of the weekly internal team meeting (which IPOC is not a part of). The project will provide IPOC with an updated spreadsheet of all risk and issue activity taking place at the end of each month for our review. TMS has accepted this approach and once the process has become institutionalized and repeatable, we will consider changing this item to adequate. TMS submitted a One-Time Assessment on Risk and Issue Management and Execution in December 2011 and made some recommendations for improvement to the issue management process.
Is user satisfaction assessed at key project milestones?	X		Changed from Deficient to Adequate in January 2012. 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. TMS reviewed the Communication Management Plan and observed that the plan does not address communication methods to and from the districts.  TMS performed a one-time assessment of the Pilot Readiness in October and found limited District involvement in Pilot Preparation activities and validation of converted projects. IPOC noted in November that communication with the districts had increased, additional districts have been participating in the monthly Implementation Manager's meetings and district involvement in the validation of data conversion results also increased. Although IPOC has no direct exposure to the above, the project has reported these additional district reach-outs in their monthly PRSM Nuggets of Knowledge. The system integrator submitted a new version of the Plan for Pilot in January, but the revised version of the document contained very few changes as detailed and did not incorporate any elaboration on how the new alternative approach would be implemented.  The Implementation Manager training (AKA SME Sessions) are now scheduled to occur during rollout training in mid-September. There have been sessions at two districts with a third planned, to present key business impacts to the district management and future PRSM users.
Is planning in compliance with formal standards or a system development life-cycle (SDLC) methodology?		X	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. TMS has observed that a traceability matrix does exist that maps the RFP requirements to feature requirements to "to-be" processes (use cases) and onto test cases. This is a critical element to ensure that there is full coverage on the testing end and to ensure that all the user requirements and reports are implemented as planned. TMS did observe that there are many "to-be" processes and features that are not mapped to test cases. TMS 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). At this phase in the project, it is probably not worth the

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			project's time to create a document describing the methodology; however, TMS would recommend discussions and decisions to be made regarding a very tactical approach to validation of the product prior to the pilot phase. This would include review of the gaps in the traceability matrix to ensure proper testing coverage, weekly review of testing metrics to understand the current progress being made and clearly defined exit criteria as the project enters the pilot phase.
Is there formal enterprise architecture in place?	X		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?	N/A	N/A	Project is in the Adaptation Phase – this is not applicable in this phase.
Procurement			
Are appropriate procurement vehicles selected (e.g. CMAS, MSA, "alternative procurement") and their required processes followed?	X		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?	X		Detailed written scope of work is contained in the RFP.
Are detailed requirement specifications included in solicitation documents?	X		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?	X		Outside expertise and counsel has been sought from DOF, DGS, and consultants when appropriate.
For large-scale outsourcing, is qualified legal counsel obtained?	N/A	N/A	The project does not involve outsourcing as currently defined.
Risk Management			
Is formal continuous risk management performed, including development of a written risk management plan, identification, analysis, mitigation and escalation of risks in accordance with DOF/TOSU Guidelines, and regular management team review of risks and mitigation progress performed?		X	Changed from Adequate to Deficient in January 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 that has observed that risk management metrics are not included in this part of the risk planning or execution.  The bi-weekly Risk and Issue meeting has been cancelled for the past several months with no formal tracking of risks and issues during that time. At the end of February, the project informed TMS that the formal review of risks and issues will be reinstated as part of the weekly internal team meeting (which IPOC is not a part of).

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			The project will provide IPOC with an updated spreadsheet of all risk and issue activity taking place at the end of each month for our review. TMS has accepted this approach and once the process has become institutionalized and repeatable, we will consider changing this item to adequate. TMS submitted a One-Time Assessment on Risk and Issue Management and Execution in December 2011 and made some recommendations for improvement to the issue management process
Does the management team review risks and mitigation progress at least monthly?		X	Changed from Adequate to Deficient in December 2011. The bi-weekly Risk and Issue meeting has been cancelled. The team will be reviewing risks and issues during their internal weekly team meeting and providing IPOC an updated matrix containing all monthly activity at the end of the month. TMS has accepted this approach and once the process has become institutionalized and repeatable, we will consider changing this item to adequate.
Are externally developed risk identification aids used, such as the SEI Taxonomy Based Questionnaire?		X	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. Although an initial formal SEI-based assessment was conducted several years ago. There has not been a follow-up brain storming session or formal risk assessment since that time.
Communication	•		
Is there a written project communications plan?	X		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.
Are regular written status reports prepared and provided to the project manager, department CIO (if applicable) and other key stakeholders?  Are there written escalation policies for issues and risks?	X		TMS is aware that the project does formally report to CTA on a monthly basis and TMS has reviewed the most current CTA status report from December 2011.  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?	X		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.  The Implementation Manager training (AKA SME Sessions) are now scheduled to occur during rollout training in mid-September. There have been sessions at two

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			districts with a third planned, to present key business impacts to the district management and future PRSM users.
System Engineering			
Are users involved throughout the project, especially in requirements specification and testing?	X		The PRSM team has reached out to districts for more involvement during the month of November. Specifically, additional 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.
Do users formally approve/sign-off on written specifications?	X		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. TMS will work with the project to understand more about the current level of involvement of the users and expected involvement in the upcoming months.
Is a formal SDLC methodology followed?	X		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 there tracking of requirements traceability through all life-cycle phases?		X	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. The current versions in iCenter show significant gaps in traceability that the project is currently in the process of updating. Caltrans has reviewed the approach with TMS and once the exercise is complete, this item can move to Adequate.
Do software engineering standards exist and are they followed?	X		Engineering standards exist and are documented in the PRSM <u>Configuration</u> <u>Management Plan</u> . 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?	X		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.  In the quarterly review of the testing plans and execution, TMS did find that the test cases do not identify anomalies for each failed test step. TMS does not have access to the defect management tool to validate whether or not defects have been created, however, according to the test management plan and template, the anomalies are supposed to be documented within the test case which does not seem to be the case.
Are formal code reviews conducted?	X		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.

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
Are formal quality assurance procedures followed consistently?		X	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?	N/A	N/A	Project is in the Adaptation Phase – this item is not applicable.
Is the enterprise architecture plan adhered to?	N/A	N/A	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 and will need to work with the project team to gain access for this document.
Are formal deliverable inspections performed, beginning with requirements specifications?	X		The PRSM <u>Quality Management Plan</u> 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. TMS will work with the project team to understand the current status of the "as-is" and "to-be" business process documentation.
Are IV&V services obtained and used?	X		The IV&V Contract was approved and the IV&V Vendor began work in April 2008.

# **IPO Report for January 2012**

Project Name: Caltrans PRSM Assessment Date: January 31, 2011

> Frequency: Monthly

# **Oversight Provider Information**

Technology Management Solutions, **Oversight Leader:** Cindy Blehm Organization:

cindyblehm@aol.com **Phone Number:** 916-591-1746 Email:

# Project Information

Transportation (Caltrans) **Project Number:** 2660-160 Department:

Criticality: High Agency: Business, Transportation & Housing

**Last Approved** 

**Total One-time** SPR (12/08/09) \$26,078,375 Document/Date: Cost:

Start Date: June 7, 2000 **End Date:** March 29, 2013

**Project Manager:** Kari Gutierrez Organization: Caltrans

(916) 654-7255 kari gutierrez@dot.ca.gov **Phone Number:** Email:

# **Summary: Current Status**

**Project Phase:** Adaptation Phase

**Planned Start Date:** May 20, 2009 Planned End Date: November 23, 2010

**Actual Start Date:** July 1, 2009 Forecasted End Date: April 5, 2012

# **Schedule**

**Behind Schedule** 

Select the statement that most closely applies, measured against the last Finance 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%)

Comments: The PRSM project is late completing the end of Rolling Wave 3: Adaptation Phase.

Adaptation Phase activities were scheduled to be complete by November 22, 2011. However, due to delays in testing and report development the Adaptation phase is now scheduled for completion by mid-January.

Test phases 1 through 4 were initially scheduled to be completed in mid-October but were unable to exit these test phases and start phase 5 System Testing due to the existence of outstanding defects or delays in the execution of certain test scripts. Testing continued in the months of December and January and was focused on correction of existing defects. An Exit Strategy meeting was held in mid January to review the results of the Phase 1-4 test and assess the project's readiness for the Phase 5 System Test and User Acceptance Testing. Phases 1-4 of testing have been closed out and all associated anomalies and defects were resolved.

A new schedule was received by TMS in early February. A re-planning effort for testing, data conversion and pilot activities has been in progress for the last two months and Caltrans has developed a modified strategy for completing its test and pilot activities. Once the Phase 1-4 testing completed, the regression testing activities (System Test Environment Configuration, Regression Test Data Load and Develop regression test scripts) all progressed on/or better than scheduled. The actual testing started 1/30 and ended early on 2/2.

All Production environment build out tasks are completed with the exception of the audit – the current schedule indicates it was scheduled to end on 12/02/2011 and is showing 0% complete. However, Caltrans has stated that the draft of the audit has been delivered and there are some points of clarification that they are working on with SAIC. Caltrans believes this task is almost 75% complete.

The next area of focus for the PRSM team is on UAT Part B (formerly system test) which started on 10/03/2011 and is scheduled to end on 03/29/2012. As per the current schedule, it shows that this phase includes the following work in progress: Pre-UAT activities (100%), UAT test environment configuration (100%), UAT data load (0%), develop test scripts (33%), conduct UAT testing (0%) and conduct performance and load testing (0%). In discussions with Caltrans, they have indicated that 19 of 22 system test scripts were completed and delivered to IV&V for review by 1/30. The remaining three are draft complete, but undergoing modification. Caltrans believes a more accurate percentage complete would be 75%.

Activities for the Pilot, such as pre-pilot activities (77%) training activities (25%), and load district 3 data (0%) all lead up to conducting the small pilot milestone scheduled for 03/01/2012 through 03/28/2012. TMS plans to review the new schedule in detail and provide empirical data on the run rates of meeting dates and milestones for the February assessment report. Once the baseline has been approved by CTA, IPOC will re-evaluate the "Behind Schedule" status reported in this IPOR.

The table below represents the current milestones as represented in the project schedule dated 02/01/2012.

Document	End of Adaptation Phase	End of Project
SPR (dated 12/08/09)	02/2010	06/13/2011
Executive Steering Committee Approved Schedule (dated 09/01/2010)	11/23/2010	02/14/2012
Current Schedule (dated 02/01/2012)	04/05/2012	07/10/2013 (Statewide Rollout Acceptance)

The new schedule has more tasks running in parallel rather than sequentially and breaks Phase 5 into two distinct phases for regression testing and system/UAT testing. In addition, the pilot is also broken into two distinct phases, one for a small pilot for district 3 for one project, and one for the large pilot for 50+ projects.

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

**More 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:

From a vendor perspective, SAIC documents the on-board staff in each project position in their monthly status reports. The project appears to have the appropriate vendor staff in place in all the lead positions; however, the project does not appear to have a similar tracking system in place to document State staff. IPOC has observed that several new resources have been added to the testing and data conversion efforts on both the State and Vendor teams, however, without a clear staffing plan and an updated and resource loaded schedule that includes all State activities, IPOC is unable to discern whether or not this level of increased staffing is enough to complete the anticipated tasks on-time. TMS has not observed evidence of a staffing Plan describing the schedule for arrival and departure of staff over the course of the project. In the absence of a plan, TMS must rely on the resource leveling in the project schedule. Although TMS has not yet assessed the schedule in sufficient detail, a high-level evaluation shows that resource leveling is relatively level with the exception of a few SAIC resources.

Two months ago, Caltrans brought on board an additional project manager to assist the State PM, focusing on Testing and Pilot activities. This new resource has also been instrumental in developing the new approach and strategy for testing and pilot activities. In the December IPOR, TMS stated that we recommended each of the functional area leads (Testing, Conversion, Pilot, and Training) needed to take a more active role in the day-to-day management of their functional activities and allow the State PM more time to strategically manage the project. Based on the new approach for testing, pilot and conversion, TMS is also concerned about resource allocation for these parallel activities and will be looking to the revised project schedule to determine if the allocations are realistic given the new workload. Although TMS is in agreement with the new parallel project activities that are designed to compress the overall project schedule as much as possible, TMS also believes there is a significant risk of not having enough qualified and available resources to perform he necessary work in the shortened timeframes.

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

Less cost

The project is (>5%) under budget.

Not Able to Assess

Within cost

The project is operating within budget.

**Higher cost** 

Material budget increases (>5%) are likely.

# Comments:

The funding source for PRSM is the State Transportation Fund. TMS has reviewed the vendor deliverable tracking spreadsheet and the updated cumulative expenditures that the project has reported in the most current CA-PMM report for December 2011. As per the CA-PMM status report for the December time reporting period, the total project approved costs were \$30,685,793 and the Cumulative Actual Cost to date is \$21,371,180.

	SPR 3 Costs	Cumulative Actual Costs
Project Costs	\$30,685,793	\$21,787,511
One-Time	\$26,078,375	\$19,575,155
Continuing	\$4,607,418	\$2,212,356
Annual M&O	\$2,057,000	\$0

As per the Vendor Payment Point and Deliverables spreadsheet, SAIC has been paid \$5,559,566 (less holdback) of the \$13,200,656 contract. Please note this spreadsheet has not been updated since June 2011 since no new SAIC costs have been incurred.

	Budgeted	Invoiced
Planning	\$1,009,739	\$908,765
Adaptation	\$4,933,935	\$4,190,791
Pilot	\$2,807,271	\$0
Rollout	\$2,211,424	\$0
Maintenance	\$2,128,292	\$0
Unanticipated	\$109,995	\$0
TOTAL	\$13,200,056	\$5,099,556

In order to properly assess the cost for PRSM, TMS must be able to view the expended and <u>projected</u> monthly tracking expenditures and compare that to the economic analysis worksheet in the last approved SPR. To date, TMS has only been exposed to budgeted and actual costs, but has not observed forecasting of projected costs against SPR EACs. Because of this, TMS has stated that we are Unable to Assess the Resources (Budget/Cost) section.

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.

**Inadequately 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:

TMS has reviewed the requirements and to-be use cases and workflows created for PRSM and found them to be quite thorough and inclusive of the underlying solution flow. 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. Some of the to-be uses appear pretty high-level and perhaps un-testable, but some are fairly discrete and testable and could represent areas where test coverage may be lacking. For example, To-Be 580 Create action item or To-be 718, Baseline New Project are testable use cases that should have a test cases associated with it that contains steps with measurable and expected outcomes. TMS has provided this data to Caltrans and the Caltrans test manager is going to go through the testing materials in detail to determine which can be mapped appropriately. TMS is aware that SAIC has agreed to provide an updated traceability matrix before Phase 5 testing begins to ensure sufficient coverage of test cases to requirements.

TMS reviewed the closeout meeting minutes from the Phase 1 through 4 Test Exit Meeting held on 01-24 and understands that there were no show-stopper defects that prevented the entrance into Phase 5 system testing. Defects have been resolved to within allowances of the adaptation acceptance criteria. All critical defects have been addressed; remaining defects are moderate or cosmetic.

Regression testing for Phase 5 started on time and is now complete. Testing progressed faster than expected due to the addition of test resources; new and converted projects have been tested. No defects were reported; two moderate anomalies reported. No bug fixes required.

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:

TMS is aware that the Implementation Vendor has submitted a Configuration Management Plan, High Level Design, Test Plan and updated Architecture Diagram. The Production environment hardware has been configured and turned over to Caltrans. In a review of the Adaptation Test Plan, TMS has observed a lack of performance, volume and scalability testing from a test plan, test case or test execution perspective. Although not a contractual part of the system integrator's contract, performance testing is a vital component in the testing realm to sufficiently validate that the application is ready for the end-user. TMS has observed, however, that performance and load testing activities have been added to the schedule at a high level as part of Phase 5 System Test activities.

Ν	ew	Ris	ks

IPOC has submitted two new risks for this reporting period.

# Risk R-8: Availability and skill set of PRSM resources may not be sufficient for the revised project approach and schedule for testing, conversion and pilot

<u>Risk Statement</u>: TMS has reviewed the new PRSM approach and strategy for testing, conversion and pilot activities which assume a higher percentage of parallel tasks in order to compress the schedule and meet key milestone dates. Although TMS is in agreement with the new parallel project activities that are designed to compress the overall project schedule as much as possible, TMS also believes there is a significant risk of not having enough qualified and available resources to perform he necessary work in the shortened timeframes. The majority of resources for both Caltrans and SAIC's are currently focused on Phase 1-4 testing and the necessary planning and execution of activities in the upcoming parallel activities are already falling behind schedule.

Probability:	Medium	Impact:	High	Timeframe:	Short Term
Severity:	High	Opened:	01-2012	Status:	New

# **IPOC Recommendations:**

- 4. TMS believes each of the functional area leads (Testing, Conversion, Pilot, and Training) needs to continue to take an active role in the day-to-day management of their functional activities and allow the State PM more time to strategically manage the project.
- 5. Based on the new approach for testing, pilot and conversion, TMS is also concerned about resource allocation for these parallel activities and will be looking to the revised project schedule to determine if the allocations are realistic given the new workload.
- 6. TMS recommends adding additional time for UAT regression testing, bug remediation, adjustment cycles or lessons learned cycles, and district review to ensure that all issues are resolved, anomalies identified and bugs fixed before moving to the next phase of the schedule. Although adding these additional these tasks into the schedule may push out the overall completion date, TMS believes that appropriate time for planning, execution and validation must take place if the new approach is going to be successful. The lack of regression testing during Phases 1-4 creates the risk that new and previously unidentified defects will surface during the Phase 5 System and User Acceptance Tests.

#### Status:

<u>01-31:</u> The new project schedule was not received until 02/02/2012. TMS will focus its efforts on the review and analysis of the new schedule and provide input to Caltrans to determine if the appropriate staffing is in place for the parallel approach. However, in discussions with Caltrans staff, TMS is aware Test, Conversion and Pilot Leads have been participating in daily war room style status call to review progress on in-flight tasks and look forward to the week's upcoming tasks. Action items are displayed in the war room on a large white board. Action items are not removed until they are completed or otherwise resolved. Although TMS has not yet had an opportunity to review the revised schedule in detail, Caltrans has stated that while pilot and test activities are scheduled in parallel, there are different resources participating and that focused attention was taken in the schedule to ensure conversion efforts were single threaded and there was minimal resource overlap with testing. Caltrans has also noted that regression test has completed without issue and project data conversions have been thoroughly exercised and the team is confident in the implementation. Functionality in Clarity is well isolated within each functional object, reducing the risk that a new defect will have a high impact is discovered during system test and UAT. With properly converted project data, and isolated defect fixes, Caltrans feels the impact should be reduced. TMS is pleased to see that the schedule has a resource assignment view that now displays responsible party (SAIC/CT), team (Dev/Test/Train/etc.) and resource (a named individual). The resource column no longer has SAIC or CT assignment. Resource allocation is relatively level for most resources; additional review of assignments will be conducted to minimize resource conflict.

# **Progress Toward Addressing Prior Risks**

# Risk R-7: Inability to document checklist readiness for districts may delay pilot and rollout activities

<u>Risk Statement</u>: TMS has reviewed the PRSM Adaptation Project Schedule as well as the two Pilot Readiness deliverables and has found there to be a gap in definition of the activities, tasks and expectations of the Districts for preparation to start the pilot. Although it may be the responsibility of the District Implementation Manager to ensure that certain tasks are completed prior to the start of the pilot, the project should have visibility into the progress the District has made in regards to those items that are needed to be completed prior to the pilot start date.

Probability:	High	Impact:	High	Timeframe:	Short Term
				_	
Severity:	High	Opened:	10-2011	Status:	Open

# **IPOC Recommendations:**

TMS recommends that the project team work with the pilot district to determine the appropriate checklist of items that needs to be completed prior to pilot start. Items may include things such as: confirmation of availability of staff for training, availability of hardware and software necessary for training, implementation and any additional resources need for the HQ or SAIC staff that may be on-site during initial implementation, availability of facilities for training, verification that pre-requisite documentation has been reviewed, verification of any organizational change management tasks that should be completed, verification that all district pilot readiness tasks have been completed, etc. Caltrans needs to be able to answer:

- Are district staff ready for pilot activities?
- Who will be on-site to assist with support?
- What activities need to take place to prepare for training?
- Are all hardware and software pre-requisites available and configured to support the PRSM solution?

#### Status:

<u>01-31:</u> The Plan for Pilot deliverable was updated by SAIC and reviewed by IPOC for this reporting period. The revised version of the document contained very few changes as detailed in the next section and did not incorporate any elaboration on how the new alternative approach would be implemented. The proposed alternative approach includes a revised timeline that adjusts the focus of activities to ensure an early validation and verification of one project as well as verification and validation of the general processes, help desk support, etc. Once validated, the remaining 49 projects will be converted and tested by the end users. IPOC concurs with this approach, however, in order to achieve success with the first project in the proposed four-week timeframe, it is critical to have a well-defined plan outlining roles and responsibilities, precise execution of how defects are documented, reported, mitigated and analyzed for lessons learned and adjustment of strategy. It is also critical to have exit criteria defined for the first project so that it is clear when the remaining 49 projects can commence. The exit criteria may be different for the first project than the final pilot exit criteria. The Plan for Pilot needs to be updated to include all the relevant details as described above for the new approach.

<u>12-30:</u> TMS discussed the recommendation to have IPOC survey the districts to determine pilot readiness, conversion validation, training readiness, etc. However, due to the timing of the holidays, the State PM was unable to get approval from the Project Sponsor in time to develop and distribute the surveys. TMS will continue to discuss this recommendation with the PRSM team for a future implementation.

11-30: TMS is aware that Implementation Manager meetings have resumed and have been expanded to include more districts. The project reports that topics such as the current schedule, pending issues or concerns, and business process impacts are all discussed with the districts during these meetings. Unfortunately, TMS does not have direct visibility into the effectiveness of these meetings, nor can we validate the readiness or level of comfort the districts are feeling since we have been asked not to participate in these meetings. TMS is considering having the next Quarterly Assessment Report include a survey to the pilot district with questions related to implementation readiness, conversion validation, communication with the project team, training readiness, etc. TMS would compile the results and summarize the main issues of concern as PRSM prepares to enter the first pilot district. TMS will explore this opportunity with the PRSM team.

# Risk R-6: Lack of performance and scalability planning may lead to issues with the Pilot or Rollout if not resolved quickly

<u>Risk Statement:</u> For performance testing, there is a lack of requirements and goals. There is also a lack of a test plan for scalability and performance, a lack of performance test scripts created and executed, when Pilot activities are a month away.

Probability:	High	Impact:	High	Timeframe:	Short Term
Severity:	High	Opened:	09-2011	Status:	Open

# **IPOC Recommendations:**

- 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 and 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.

# Status:

O1/31: The project has lacked a comprehensive approach and defined tools for performance testing for the last six months. SAIC is not contractually obligated to conduct performance testing and Caltrans has not yet developed a Performance Plan. In addition, Caltrans has indicated that it lacks automated tools for simulating the production environment to conduct load and performance tests and would need to schedule execution of manual test scripts by multiple users to adequately assess if performance or load testing objectives are being met. Both IPOC and IV&V have identified that the risk remains that Caltrans will be able to effectively simulate the product environment with this approach, given the number of users who could be using the production system statewide. There is a significant risk that the performance test will not be effective. In the new schedule received on 02/01, TMS observes that there are some high level tasks added to Phase 5 System testing that include performance and load testing; however, TMS in unaware of a high level plan that addresses the requirements to be tested or the plans for conducting this testing. TMS will work with the PRSM PM to get a better understanding of the strategy moving forward and any supporting documentation.

<u>12/30:</u> Performance and Load testing activities are included in the new approach strategy and scheduled in a high level MS Visio roadmap; however, IPOC has not observed the revised schedule and detailed tasks that encompass this effort or identified the resources needed.

11/30: The project team has taken the lead to develop an approach for performance testing that will include the performance goals/requirements for measurable criteria such as the number of concurrent users expected, the expected load, etc. It is unknown right now who would be executing the implementation of the performance plan; however, TMS views this first step as a positive mitigation to this risk. Additionally, the project has tried to tactically address some of the performance concerns by upgrading from 32-bit to 64-bit java. There are also service requests into OTech to add memory and storage (capacity) to all non-production environments.

# Risk R-5: Inadequate planning for data conversion may cause additional schedule delays and impact the quality of integration testing.

<u>Risk Statement:</u> 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.

Probability:	Medium	Impact:	High	Timeframe:	Medium
		_			
Severity:	Medium	Opened:	09-2011	Status:	Open

# **IPOC Recommendations:**

- 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 cleansing 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.

# Status:

<u>01-31:</u> The vendor continues to finalize the implementation plan, which is running significantly behind schedule, now targeted for mid-February. Once a draft plan is received by the State, TMS plans to form an in-depth assessment of the Implementation Plan. With respect to data load and conversion, data load activities have started in advance of schedule. Four projects have been converted and loaded. 19 of 22 test cases are now complete. Two packages of test cases have been delivered to IV&V for comment. One review meeting with IV&V has been completed. All indicators for early start of scripted testing are positive. Ad-hoc testing investigations have been defined and are expected to begin 2/6/12.

12/30: All updates have been made to the Conversion plan which has been submitted to Caltrans. The Caltrans team has completed validation of the conversion process and has been through the process of readying a converted project for use in PRSM. The conversion team is now drafting a white paper to summarize the steps for readying a project so that anyone will be able to complete the process. The vendor continues to finalize the implementation plan, which is running significantly behind schedule. Once a draft plan is received by the State, TMS plans to form an in-depth assessment of the Implementation Plan.

<u>11/30</u>: As part of the new strategy the project is implementing, they have decided to start with one large, mega project and ensure that it converts successfully (including validation from the pilot district) before moving on to other projects. TMS supports this approach. The project is still working on the updated data conversion plan and TMS will review when it is available.

# Risk R-2: Lack of Resource Availability may impact the schedule

<u>Risk Statement:</u> Without adequate Caltrans resources working on PRSM, the project schedule could be delayed. While in the Adaptation Phase, PRSM Project Team members should be allocated full time. Individual Resources may need to be identified at the task level in the Project Plan in order to estimate resource requirements and availability.

Probability:	Medium	Impact:	Medium	Timeframe:	Short Term
		_		_	
Severity:	Medium	Opened:	Unknown	Status:	Open

# **IPOC Recommendations:**

- After the PRSM work plan is complete, determine the resource gaps and reallocate effort as appropriate.
- Assign individual resources at the task level in the project schedule to assist in estimating resource requirements. All PRSM project resources, including vendor and State resources, should be included.

- (new) For those tasks that are incomplete, the task type should be set to Fixed Work and resource over-allocations should be reviewed.
- (new) Remove all group designations or dual-resource allocations as resources in the project schedule and assign to specific resources to allow for more efficient resource tracking and leveling.

# Status:

<u>01/31:</u> The revised schedule was received on 02/02, but it was not enough time to perform an adequate review of the resource leveling. TMS will perform this assessment for the next reporting period. TMS is aware that additional resources were added to Phase 5 System Testing, Conduct Regression Testing Part A which allowed testing to progress faster than expected.

<u>12/30:</u> The revised project schedule is not yet available for review. However, since many of the activities that were previously sequentially scheduled (i.e. cannot start UAT until System Testing is completed) are now in parallel, TMS will focus on the resource allocation of these parallel activities in detail to ensure that they are not over-allocating project staff.

<u>11/30:</u> To TMS's knowledge, the above recommendations have not yet been incorporated into the project schedule; however, the project is currently discussing a new strategy for the remaining testing efforts and pilot implementation that will eventually result in an updated schedule. TMS continues to recommend the above actions to obtain a better understanding of the adequacy of the current staffing levels.

# Risk R-1: 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

<u>Risk Statement:</u> 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.

Probability:	Medium	Impact:	Medium	Timeframe:	Medium
				_	
Severity:	medium	Opened:	Unknown	Status:	Open

# **IPOC Recommendations:**

- Define the process for gaining District consensus on policies, new business rules and business processes. The
  process should describe how information on new business rules and business processes will be communicated to the
  field with sufficient time to get feedback and buy-in.
- Modify the format of the monthly Implementation Manager's Video Conference Meeting to begin utilizing this forum as a mechanism for Organizational Change Management. As PRSM gets closer to District roll out, change the frequency of these meetings to bi-weekly.
- 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 Roll Out.
- Consider hiring / extending additional consulting resources to assist with refining the Organizational Change Management Plan and to execute the plan.
- (new) 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.
- (new) 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.

#### Status

<u>01/31:</u> Implementation manager training is scheduled to resume at the start of the small pilot and is scheduled out in the new revised schedule. Training activities have been reorganized in the schedule. The Implementation Manager training (AKA SME

#### Quarterly PRSM Status Report to the Legislature

Sessions) are now scheduled to occur during rollout training in mid-September. There have been sessions at two districts with a third planned, to present key business impacts to the district management and future PRSM users. Reducing Probability to Medium and Impact to Medium as a result of progress.

<u>12/30:</u> Formal training for the implementation managers began on 10/31/11 and was suspended the first week of November. Training will resume once Pilot begins. Additionally, SAIC continues to prepare for Pilot end-user training. The vendor is continuing work on the Implementation Plan and Plan for Pilot based upon Caltrans' comments. TMS has still not observed the development of a pilot checklist.

<u>11/30:</u> The project has reported an increased involvement with the districts and increased district participation in the Implementation Managers monthly meeting. IPOC does not participate in this meeting and cannot validate whether organizational change management discussions are taking place or not. TMS has not observed the creation of a pilot checklist, however, during recent strategy discussions, the project team has agreed to re-define the entry and exit criteria for Phase 5 testing and pilot implementation.

#### **General Comments**

This report reflects the time period January 1 – January 31, 2012. The PRSM project remains in Rolling Wave 3: Adaptation Phase part B, which includes development, data conversion and interfaces, production build-out, testing, Adaptation phase training and Adaptation Acceptance. The project is scheduled to move into Rolling Wave 4: Pilot in Spring 2012.

This General Comments section focuses on the project management processes. TMS has included the following project management process chart documenting TMS's assessment of each major area of project management on the PRSM project by a color code in the table below. Two month's worth of status is displayed.

**RED** = Unsatisfactory project management practices that present significant risk to the project.

YELLOW = Corrections to project management practices needed to reduce risks.

GREEN = Satisfactory project management practices are being followed.

**BLUE** = Assessment in progress.

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
General Project Management	Y	Y	O1/31: The revised schedule was delivered to oversight for review on 02/01 and contains all of the tasks discussed in the revised approach for pilot and testing. Risk and Issue meetings have not yet been re-scheduled. Status remains Yellow.  12/31: Revised project schedule is not yet available for review; however, TMS is pleased with the re-planning effort and the new approach for testing and pilot. Since the bi-weekly status meetings were cancelled, TMS will need to review meeting minutes from the currently scheduled Internal PM meetings in order to assess execution of general project management for PRSM.  11/30: TMS recognizes the efforts the project is taking to assess the existing risks and issues in the areas of testing, conversion and pilot readiness and strategize a go-forward plan that is realistic and mitigates some of the acknowledged risk. Once a tactical project schedule is produced, TMS will reassess this rating.	<ul> <li>TMS observes a lack of staff management planning and recommends that the project may benefit from spending some time analyzing the staffing needs for the rest of the pilot implementation and rollout.</li> <li>TMS observed that formal risk identification activities have not occurred since the beginning of the project and recommended that as the project gear up for the pilot implementation, that a brainstorming session takes place that includes the core project team as well as the pilot district.</li> <li>To date, the project has followed a very tactical approach to project management. As PRSM gears up for the start of Phase 5 Testing and pilot rollout, TMS recommends that a more global or strategic approach be conducted.</li> </ul>
Planning and Tracking (Work Plan)	Y	В	01/31: The revised schedule was delivered to oversight for review on 02/01 and contains all of the tasks discussed in the revised approach for	SCH Observation 2: TMS recommends that the project use the Notes field to understand the

review of the schedule for the February reporting period. Status remains Yellow until the assessment is conducted.  12/31: Revised project schedule is not yet available for review.  11/30: As part of the new strategy planning, an updated project schedule will be created to reflect the new approach to testing, conversion and pilot readiness. TMS recommends taking advantage of this opportunity to structure the schedule such that all tasks (vendor and State) are included in the schedule and resource loaded so that the project is able to assess the adequacy of current staffing levels.  mitigates tasks Notes new resome tasks added to the some task of the control	ons behind delays in tasks, ation strategies for bringing back on track, etc. Status: s field has been updated with notes that should address e of these concerns. A late view and filter has been d and weekly reviews are rway to look at tasks due in oming week.  Finding 1: TMS highly mmends that the project de the SPR baseline dates
mana  SCH shoul phase schee critice conve throu  SCH that p cases testin testin seem plan. activi above schee revie activi a higi  SCH recon level that a schee reso Altho this, chan throu preso Jon ( two re alloce distrit traini	in the electronic version of the ct schedule as well as in the ed reports that are generated e biweekly status meeting eported up to executive agement.  Finding 2: The critical path lid be clearly defined for each e of the project. Status: The dule now has a defined all patch that threads through ersion activities from testing gh the final rollout.  Finding 4: TMS observed promotion activities, test is reviews, performance and scalability testing in to be missing from the TMS recommends adding ties and milestones for the exactivities. Status: The dule now contains test script wis. Performance test ties are included but only at the level.  Finding 5: TMS inmends that the project the current workplan such all resources listed in the dule are allocated at a phable level. Status: ugh TMS has not reviewed Caltrans states that The ges have been made gh test and pilot. The urces Bill Frey (training) and technical) Brockman are the esources that have high attons; work is under way to but the workload to other ng and technical resources.
revised schedule was delivered to oversight for mana	inding 2: The quality agement metrics collected, ed and analyzed on a

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			discussed in the revised approach for pilot and testing. Defects for phases 1-4 have been resolved to within allowances of the adaptation acceptance criteria. All critical defects have been addressed; remaining defects are moderate or cosmetic. Regression test started on time and is now complete. Testing progresses faster than expected due to the addition of resources; new and converted projects tested. No defects reported; two moderate anomalies reported. No bug fixes required. Data load activities have started in advance of schedule. Four projects have been converted and loaded. 19 of 22 test cases are now complete. Two packages of test cases have been delivered to IV&V for comment. One review meeting with IV&V has been completed. All indicators for early start of scripted testing are positive. Ad-hoc testing investigations have been defined and are expected to begin 2/6/12. Although IPOC would like to see more trending metrics, it is obvious from the results of the testing over the past two months that quality has improved. Status moved from Yellow to Green.  12/31: Weekly Test Results continue to be published almost on a daily basis and the team meetings weekly to gather statistics on FEATS, test case execution and defects. However, in order to assess quality over time improvements, trending statistics would need to be observed.  11/30: During the month of November, three critical areas of focus were identified: testing, conversion and pilot readiness. TMS is aware that daily test meetings are conducted and that weekly test results are distributed. However, TMS would also like to see some metrics developed to track the data conversion and validation process, as well as pilot readiness and planning. TMS recommends starting with these three areas and developing metrics that can be reviewed on a bi-weekly basis during the PRSM status meetings.	regular basis should be expanded to include more process areas and detail that would allow trends and potential issues and risks to be identified. TMS recommends concentrating on testing and requirements metrics first.  • TST Finding 2: System Test activities have not yet begun for the PRSM project so TMS strongly recommends that trending metrics be implemented at minimum on a monthly basis to track testing metrics over time such as: number of changes, status of actual vs. planned progress against defect resolution, number of defects discovered over time (increasing or decreasing), period in the testing process where the defect is discovered, repeated errors having the same cause, time to fix the defects.
Requirements Management	R	R	O1/31: The last updated Requirements Traceability Matrix of November 12, 2010 is out of date and does not contain updated data from the past testing phases. Requirements / FEATS have been revised throughout the testing process, the scope and functionality of some focus customizations have changed during the test process, and some requirements have been eliminated because they were not considered technically feasible or functionally necessary. The project team has not conducted a comprehensive review of these changes with stakeholders to validate that the system as a whole continues to meet Caltrans' business requirements. Moreover, the changes have not yet been processed through	Traceability through the project life cycle should be an on-going activity that is performed with some level of regularity to ensure that all changes are incorporated into the project consistently. The RTM should be updated as a result of the exit-phase sessions for Phases 1-4. Status: TMS is aware that the Caltrans contract manager is working with IV&V to complete this assessment.  TMS would recommend discussions and decisions to be made regarding a very tactical

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			the project change control process for approval. There is a risk that certain functions of the system may not meet user's needs or expectations as a result of these changes. SAIC has confirmed that they will submit a revised traceability matrix that reflects the results of the current testing efforts and traceability to requirements within the next month. Status remains Red.  12/31: TMS was told that SAIC was scheduled to update the traceability matrix in November but was unable to confirm if this activity took place. There are no new traceability results posted to iCenter.  11/30: There has been no status change in requirements management.	approach to validation of the product prior to the pilot phase. This would include review of the gaps in the traceability matrix to ensure proper testing coverage, weekly review of testing metrics to understand the current progress being made and clearly defined exit criteria as the project enters the pilot phase. If there are no plans to directly terrace requirements to Test Cases, then the traceability matrix should state the approach for traceability and clearly define how the mapping of test cases to FEATS is satisfactory to the customer.
Change Management	G	G	<ul> <li>01/31: There have been no change in status for Change Management (nor have there been any new change requests). Status remains Green.</li> <li>12/31: There have been no change in status for Change Management (nor have there been any new change requests).</li> <li>11/30: There have been no change in status for Change Management (nor have there been any new change requests).</li> </ul>	TMS recommends that predictive analysis be used on the project schedule to show how scope increase or schedule changes will affect all downstream tasks.  TMS recommends that all cost increases be documented within the change request.  TMS also recommends that the type of resources be identified and the impact assessed to determine if external constraints may impact the schedule.
Risk Management	Y	Y	<ul> <li>O1/31: All Risk and Issue Meetings have been cancelled and have not been re-scheduled. TMS has discussed the results of the One-Time Assessment on risk and issue execution with the PRSM project team and anticipates that some of the recommendations will be incorporated into the revised meeting structure. IPOC will reassess this area once the risk management process begins again. Status remains Yellow.</li> <li>12/31: TMS performed a One-Time Assessment on the Risk and Issue Management and Execution process for PRSM to provide observations and findings that may help to improve the processes and procedures in place for the project. Risk &amp; Issue management are critical process areas that when performed well, can greatly increase the probability of the project completing on time, within budget and with high-quality. The objective was to provide some insight into planned versus actual execution as well as analysis of some metrics gathered from the current risk and issue spreadsheets. 1 Observation and 3 Findings were identified which can be used to help the project team re-structure the current Risk and Issue process.</li> <li>11/30: The PRSM project made significant steps</li> </ul>	<ul> <li>RSK Finding 1: TMS recommends that the project hold one or more brainstorming sessions involving all stakeholders in the project to re-assess new Risks and Issues for the upcoming project phases.</li> <li>RSK Finding 2: TMS recommends creating detailed, actionable mitigation and contingency plans for each risk. TMS also recommends referencing the mitigation plan during each risk status report and prompting the owner of the risk to report progress against the plan and to add new actions for the plan or remove irrelevant out-of-date items from the plan. The mitigation plans should always reflect the current strategy and approach for lowering the probability and impact for the risks.</li> <li>RSK Finding 3: TMS recommends reviewing all open risks for potential triggers and referencing the defined triggers during risk</li> </ul>

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			towards addressing and determining mitigation strategies for pilot readiness, testing and conversion risks. A high-level conceptual approach has been discussed and IPOC will closely monitor the execution of mitigation strategies to see if the conceptual approach manifests in tangible action items. TMS will also be performing a One-Time Assessment of the Project Risk and Issue Management Process during the month of December where we will analysis the execution of the process in comparison with the approved plans and best practices. Based the results of the one-time assessment and evidence of actionable activities resulting from the conceptual strategy discussion, IPOC will re-assess this area next month to determine if it can turn green.	management status updates to determine if the trigger has been detected. This will allow the project to quickly respond with either heightened mitigation efforts or to start implementing the contingency plan.
Issue Management	G	Y	O1/31: All Risk and Issue Meetings have been cancelled and have not been re-scheduled. TMS has discussed the results of the One-Time Assessment on risk and issue execution with the PRSM project team and anticipates that some of the recommendations will be incorporated into the revised meeting structure. IPOC will reassess this area once the risk management process begins again. Status remains Yellow.  12/31: TMS performed a One-Time Assessment on the Risk and Issue Management and Execution process for PRSM to provide observations and findings that may help to improve the processes and procedures in place for the project. Risk & Issue management are critical process areas that when performed well, can greatly increase the probability of the project completing on time, within budget and with high-quality. The objective was to provide some insight into planned versus actual execution as well as analysis of some metrics gathered from the current risk and issue spreadsheets.  11/30: TMS will be performing a One-Time Assessment of the Project Risk and Issue Management Process during the month of December where we will analyze the execution of the process in comparison with the approved plans and best practices. IPOC will re-assess this item in January based on the results of our findings.	<ul> <li>RSK Observation 1: Action Plans are created but not tracked.</li> <li>RSK Observation 2: No assessment of relation to critical path. Most issues have an impact to the project cost, schedule, quality and/or scope. As a result, it is important to address any additional impacts the lack of resolution may have on the critical path for the project.</li> </ul>
Communica- tion Management	G	G	O1/31: Additional communication between the districts has been occurring. The focus of the PRSM team in January remained on completion of the Phase 1-4 testing efforts and re-planning for the new testing and pilot approach. Risk and issue meetings have not yet started back up and the regular status meetings for oversight are now held weekly. Status remains in Green. 12/31: The bi-weekly risk and issue meetings have been cancelled and not yet re-scheduled. The bi-weekly status meetings have also been cancelled	TMS recommends analyzing the current methods of communication to determine if additional processes should be put in place to facilitate change management preparation and discussions within the districts and to open up the channels for any risks or issues the districts are concerned with during the pre-pilot phase, pilot phase and post pilot/rollout phase.

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			and transitioned to a weekly oversight meeting with IPOC, IV&V, PRSM PM and CTA. TMS observes that these meetings will also oversight more of an opportunity to discuss strategy, review current issues and recommend new direction. However, TMS now has no participation in any meetings to observe the project team or the system vendor. While not yet a risk or issue, TMS will need to observe or participate in project management activities at a sufficient level with which to evaluate compliance to best practices.	PM Finding 1: TMS recommends including more tactical communication planning with the districts and strategic communication planning for change management activities at the district level, pilot and rollout communication (including how risks, issues, changes and initial rollout support issues will be communicated).
			11/30: The project reached out to IPOC, IV&V and CTA this month to receive input on a new strategy that they will be sending to executive management. As part of this outreach, team reviewed the Top 5 testing, conversion, pilot readiness and administrative challenges and the team was open to feedback and recommendations on mitigation approaches. The project is meeting bi-weekly to review conversion results with the districts and the project seems to be listening to the training suggestions made during the first round of training and incorporating those suggestions and feedback into a revised approach. If communication continues in this fashion, IPOC will assess turning this process area green next month.	TMS recommends restructuring the Risk and Issue meeting to include oversight and incorporate some of the recommendations made in the December Risk and Issue Management assessment.
Pilot Readiness	Y	Y	O1/31: The Plan for Pilot was updated by SAIC and is now in review by Caltrans. IPOC reviewed the document and did not observe much improvement in resolving the initial deficiencies noted in the October 2011 review. The Implementation Plan is over 2 months late and is not expected until mid-February. The revised approach for pilot was added into the project schedule but has not yet been reviewed by IPOC. With the start of Pilot targeted for March 2012, this status remains Yellow until further analysis can be conducted.  12/31/11: The vendor is continuing work on the Implementation Plan and Plan for Pilot based upon Caltrans' comments; however, this plan is significantly late in being delivered. Once TMS reviews the revised schedule and the activities for pilot, we will be able to assess if the new direction and strategy for pilot is green.  11/30/11: As part of the new strategy, the PRSM team has decided to convert one large mega project, validate the results, apply changes as appropriate and then proceed in converting the remainder of the pilot district projects. TMS views this as a positive approach to mitigate some of the risk for the pilot. PRSM is also meeting with the pilot district bi-weekly to review general issues and concerns, review conversion test results and business process impacts. TMS acknowledges that the project is taking a strong positive approach in proactively readying the district, however, TMS also recommends establishing some empirical checklists to support the activities taking place so that there is a better gauge to measure progress	<ul> <li>PLT Observation 1: The selection process for choosing which districts participate in the pilot and the scope of what will be accomplished during the pilot is unclear.</li> <li>PLT Observation 2: Resolve the inconsistencies between the Plan for Pilot and the Pilot Support Plan regarding SAIC involvement in the pilot.</li> <li>PLT Finding 1: An Entry Criteria Pilot Readiness Checklist should be developed from the District Perspective</li> <li>PLT Finding 2: Include specific district involvement in the pilot verification process to reduce schedule delays</li> <li>PLT Finding 3: Tactical processes and procedures for extracting lessons learned and assessing common problems mitigated during level one support should be included in any pilot documentation.</li> <li>PLT Finding 4: Pilot exit criteria tasks need to be added to the punch list.</li> <li>Include roles and responsibilities for pilot support, both Vendor and State.</li> </ul>

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			and know when the team is done. TMS continues to recommend a pilot readiness checklist, a conversion results spreadsheet listing the number of projects per district and how many have successfully been converted and validated by the PRSM team, and how many have been validated by the district.	Complete the Department Support standards section, which is not complete.
Testing	Y	G	O1/31: Phases 1-4 Testing are now closed and Phase 5 System Testing, Conduct Regression Testing Part A started on time and is now complete. Testing progressed faster than expected due to the addition of resources; new and converted projects tested. No defects reported; two moderate anomalies reported. No bug fixes required. All test activities are now accounted for in the project schedule and more effective tracking mechanisms have been put in place for monitor the progress for Phase 5 UAT. With respect to performance and load testing, one of the 22 test cases addresses performance. Additionally the architecture team will be monitoring data load performance. Status moved from Yellow to Green.  12/311: Phase 1 through Phase 4 testing activities are continuing and scheduled for completion by the end of December. Phase 5 (System Test) preparation activities are continuing and execution of system test scripts is due to be complete by midJanuary. EFIS and Staff Central Interface testing is being conducted. All test cases have been executed, the team is now working through fixing and retesting the anomalies. FEAT statistics have improved greatly and the team is making good progress in resolving the known anomalies in phases 1-4. Status moved from Red to Yellow.  11/30: The project is still not complete with phases 1-4 of testing, although significant improvements have been made in phase 1 and phase 4 this month. Daily test meetings continue with the test team co-located in one building. The project team has started developing the test scripts for phase 5, but as part of the new strategy moving forward, the PRSM team agrees with the IPOC recommendation to completely finish with phases 1-4 prior to starting phase 5 of testing. The new strategy also includes establishing new entry and exit criteria for both Phase 5 testing and pilot. TMS is very encouraged by this new approach and will await a concrete plan from the project to show how the conceptual strategy will actually be implemented.	<ul> <li>TST Observation 1: The Adaptation Test Plan does not address traceability of test cases back to the requirements.</li> <li>TST Finding 1: 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?</li> <li>TST Finding 2: Take the current scheduling system and establish baseline for these performance requirements and determine if they are meeting the goals?</li> </ul>

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
End-User Training	Y	G	o1/31: Training activities have been reorganized in the revised schedule. The Implementation Manager training (AKA SME Sessions) are now schedule to occur during rollout training in mid-September. Status moved from Yellow to Green.  12/31: Formal training for the implementation managers began on 10/31/11 and was suspended the first week of November. Training will resume once Pilot begins. Additionally, SAIC continues to prepare for Pilot end-user training. The yellow status will be reassessed once the revised schedule is available for review.  11/30: Status moved to Yellow. A revised training plan has been submitted to Caltrans from SAIC but IPOC has not been given a copy as of 11/30/11. The first session of the Implementation Team-SME training was delivered in Sacramento and the team received feedback that they rolled into updates to the training materials and delivery format. The remaining sessions were cancelled and will be rescheduled after the changes to the training program are made. Although the schedule for training has been delayed, TMS supports the adaptation to the training based on the feedback received. The status change to yellow is a result of unknown impact to the delayed training.	<ul> <li>Ensure all PRSM staff has received foundational Clarity training.</li> <li>Eliminate overlaps in project schedule for pilot training education. Status: Caltrans has indicated that this has been resolved in the current schedule.</li> <li>Eliminate the inconsistencies between the course material defined in the Plan for Pilot and the actual project schedule tasks.</li> </ul>
Data Conversion and Load	N/A	G	01/31: Data load activities have started in advance of schedule. Four projects have been converted and loaded. 19 of 22 test cases are now complete. Two packages of test cases have been delivered to IV&V for comment. One review meeting with IV&V has been completed. All indicators for early start of scripted testing are positive. Ad-hoc testing investigations have been defined and are expected to begin 2/6/12.	•

## **CALTRANS - PRSM Project Oversight Review Checklist** (January 2012)

#### **Project Oversight Review Checklist: High Criticality Project**

This checklist is an assessment for the Adaptation Phase. The end date of this phase is 04/05/2012 (per the last approved project schedule).

Practices and Products	Adequat e	Deficie nt	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?	X		TMS has reviewed the last approved SPR dated December 2009, and will review the new SPR request for the schedule delay once available.
Has a detailed project plan with all activities (tasks), milestones, dates, and estimated hours by task loaded into project management (PM) software? Are the lowest level tasks of a short duration with measurable outcomes?	X		The project does use a 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, trackable items with durations less than 80 hours. A new project schedule has been developed to include the new approach for testing, pilot and conversion.
Is completion of planned tasks recorded within the PM software?		X	Changed from Adequate to Deficient in December 2011.  TMS reviews all updates to the project schedule when available. No status meetings were held in December, and the schedule was not revised until early February to reflect the new approach for planning. TMS will review the project schedule in depth and report on the progress of completing planned tasks and recording them in the project schedule.
Are actual hours expended by task recorded at least monthly within PM software?		X	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.
Are estimated hours to complete by task recorded at least monthly within PM software?		X	TMS has reviewed the project schedule TMS reviews all updates to the project schedule when available. Status meetings in January did not focus on updated status to the schedule and instead focused on the development of the new schedule approach. Actual costs are reported, but estimated hours, or projected hours, are not tracked in the documents that have been provided to TMS.
Is there a formal staffing plan, including a current organization chart, written roles and responsibilities, plans for staff acquisition, schedule for arrival and departure of specific staff, and staff training plans		X	TMS has not been exposed to a formal staffing plan. We have reviewed the <u>Project Organization Chart</u> 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

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			Plan), however, TMS has not seen an overall description of the general roles and responsibilities for the project team (vendor and State).
Have project cost estimates, with supporting data for each cost category, been maintained?		X	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, not estimated future costs or projections are included. TMS has also reviewed the PRSM Payment Milestone and Deliverables spreadsheet for SAIC vendor costs, although this spreadsheet has not been updated since June 2011because there are no new vendor invoices/payments.
Are software size estimates developed and tracked?	N/A	N/A	This item is not applicable.
Are two or more estimation approaches used to refine estimates?	N/A	N/A	This item is not applicable.
Are independent reviews of estimates conducted?	N/A	N/A	This item is not applicable.
Are actual costs recorded and regularly compared to budgeted costs?	X		The CA-PMM status report cost tracking summary shows various project categories, last approved SPR3 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; although this spreadsheet has not been updated since June 2011because there are no new vendor invoices/payments.
Is supporting data maintained for actual costs?	X		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?	X		During status meetings, the PRSM Project Manager distributes an updated status report, which includes an updated schedule in MS Project for the current phase. The bi-weekly status meeting has been cancelled and the weekly oversight meetings that replaced it have not revised the schedule as a regular agenda item. A new version of the schedule was delivered to reflect the new re-planning tasks but has not yet been assessed. TMS has also reviewed the CA-PMM reports submitted by the project.
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?		X	TMS has reviewed the <u>Configuration Management Plan</u> 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

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
Are issues/problems and their resolution (including assignment of specific		X	concern that the project is not following the drafted procedures defined in the plan.  Changed from Adequate to Deficient in January 2012.
staff responsibility for issue resolution and specific deadlines for completion of resolution activities), formally tracked?		X	TMS has reviewed the <u>Issue Management Plan</u> and has observed Issue management being executed on the project. However, the bi-weekly Risk and Issue meeting has been cancelled and has not yet been re-scheduled hence there has been no formal tracking of issues on the project in two months. TMS submitted a One-Time Assessment on Risk and Issue Management and Execution in December 2011 and made some recommendations for improvement to the issue management process.
Is user satisfaction assessed at key project milestones?	X		Changed from Deficient to Adequate in January 2012. 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. TMS reviewed the Communication Management Plan and observed that the plan does not address communication methods to and from the districts.  TMS performed a one-time assessment of the Pilot Readiness in October and found limited District involvement in Pilot Preparation activities and validation of converted projects. IPOC noted in November that communication with the districts had increased, additional districts have been participating in the monthly Implementation Manager's meetings and district involvement in the validation of data conversion results also increased. Although IPOC has no direct exposure to the above, the project has reported these additional district reach-outs in their monthly PRSM Nuggets of Knowledge. The system integrator submitted a new version of the Plan for Pilot in January, but the revised version of the document contained very few changes as detailed and did not incorporate any elaboration on how the new alternative approach would be implemented.  The Implementation Manager training (AKA SME Sessions) are now scheduled to occur during rollout training in mid-September. There have been sessions at two districts with a third planned, to present key business impacts to the district management and future PRSM users.
Is planning in compliance with formal standards or a system development life-cycle (SDLC) methodology?		X	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. TMS has observed that a traceability matrix does exist that maps the RFP requirements to feature requirements to "to-be" processes (use cases) and onto test cases. This is a critical element to ensure that there is full coverage on the testing end and to ensure that all the user requirements and reports are implemented as planned. TMS did observe that there are many "to-be" processes and features that are not mapped to test cases. TMS 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

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			areas of the SDLC). At this phase in the project, it is probably not worth the project's time to create a document describing the methodology; however, TMS would recommend discussions and decisions to be made regarding a very tactical approach to validation of the product prior to the pilot phase. This would include review of the gaps in the traceability matrix to ensure proper testing coverage, weekly review of testing metrics to understand the current progress being made and clearly defined exit criteria as the project enters the pilot phase.
Is there formal enterprise architecture in place?	X		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?	N/A	N/A	Project is in the Adaptation Phase – this is not applicable in this phase.
Procurement			
Are appropriate procurement vehicles selected (e.g. CMAS, MSA, "alternative procurement") and their required processes followed?	X		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?	X		Detailed written scope of work is contained in the RFP.
Are detailed requirement specifications included in solicitation documents?	X		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?	X		Outside expertise and counsel has been sought from DOF, DGS, and consultants when appropriate.
For large-scale outsourcing, is qualified legal counsel obtained?	N/A	N/A	The project does not involve outsourcing as currently defined.
Risk Management			
Is formal continuous risk management performed, including development of a written risk management plan, identification, analysis, mitigation and escalation of risks in accordance with DOF/TOSU Guidelines, and regular management team review of risks and mitigation progress performed?		X	Changed from Adequate to Deficient in January 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 that has observed that risk management metrics are not included in this part of the risk planning or execution.  The bi-weekly Risk and Issue meeting has been cancelled and

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			has not yet been re-scheduled, hence there has been no formal risk management tracking in two months. TMS submitted a One-Time Assessment on Risk and Issue Management and Execution in December 2011 and made some recommendations for improvement to the issue management process. TMS is unaware of any risk or issue management processes being executed in the month of January.
Does the management team review risks and mitigation progress at least monthly?		X	Changed from Adequate to Deficient in December 2011. The bi-weekly Risk and Issue meeting has been cancelled and has not yet been re-scheduled.
Are externally developed risk identification aids used, such as the SEI Taxonomy Based Questionnaire?		X	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. Although an initial formal SEI-based assessment was conducted several years ago. There has not been a follow-up brain storming session or formal risk assessment since that time.
Communication			
Is there a written project communications plan?	X		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.
Are regular written status reports prepared and provided to the project manager, department CIO (if applicable) and other key stakeholders?	X		TMS is aware that the project does formally report to CTA on a monthly basis and TMS has reviewed the most current CTA status report from December 2011.
Are there written escalation policies for issues and risks?	X		Both the <u>Risk Management Plan</u> and the <u>Issue Management Plan</u> contain a risk escalation process.
Is there regular stakeholder involvement in major project decisions, issue resolution and risk mitigation?	X		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.  The Implementation Manager training (AKA SME Sessions) are now scheduled to occur during rollout training in mid-September. There have been sessions at two districts with a third planned, to present key business impacts to the district management and future PRSM users.

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
System Engineering			
Are users involved throughout the project, especially in requirements specification and testing?	X		The PRSM team has reached out to districts for more involvement during the month of November. Specifically, additional 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.
Do users formally approve/sign-off on written specifications?	X		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. TMS will work with the project to understand more about the current level of involvement of the users and expected involvement in the upcoming months.
Is a formal SDLC methodology followed?	X		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 there tracking of requirements traceability through all life-cycle phases?		X	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. The current versions in iCenter show significant gaps in traceability that the project needs to address and is pending an update from the system integrator.
Do software engineering standards exist and are they followed?	X		Engineering standards exist and are documented in the PRSM <u>Configuration</u> <u>Management Plan</u> . 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?	X		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.  In the quarterly review of the testing plans and execution, TMS did find that the test cases do not identify anomalies for each failed test step. TMS does not have access to the defect management tool to validate whether or not defects have been created, however, according to the test management plan and template, the anomalies are supposed to be documented within the test case which does not seem to be the case.
Are formal code reviews conducted?	X		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

## Quarterly PRSM Status Report to the Legislature

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			documentation.
Are formal quality assurance procedures followed consistently?		X	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?	N/A	N/A	Project is in the Adaptation Phase – this item is not applicable.
Is the enterprise architecture plan adhered to?	N/A	N/A	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 and will need to work with the project team to gain access for this document.
Are formal deliverable inspections performed, beginning with requirements specifications?	X		The PRSM <u>Quality Management Plan</u> 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. TMS will work with the project team to understand the current status of the "as-is" and "to-be" business process documentation.
Are IV&V services obtained and used?	X		The IV&V Contract was approved and the IV&V Vendor began work in April 2008.

### **IPO Report for December 2011**

**Project Name:** Caltrans PRSM Assessment Date: December 31, 2011

> Monthly Frequency:

#### **Oversight Provider Information**

Technology Management Solutions, Cindy Blehm Organization: Oversight Leader:

**Phone Number:** 916-591-1746 Email: cindyblehm@aol.com

#### Project Information

**Project Number:** Department: Transportation (Caltrans) 2660-160

Criticality: High Business, Transportation & Housing Agency:

Last Approved

SPR (12/08/09) Document/Date:

**Total One-time** Cost:

\$26,078,375

Start Date: June 7, 2000 **End Date:** 

March 29, 2013

**Project Manager:** 

Kari Gutierrez

Organization:

Caltrans

**Phone Number:** 

(916) 654-7255

Email:

kari gutierrez@dot.ca.gov

#### **Summary: Current Status**

Project Phase: Adaptation

**Planned Start Date:** May 20, 2009 Planned End Date: November 23, 2010

**Actual Start Date:** Forecasted End Date: January 5, 2012 July 1, 2009

#### **Schedule**

Select the statement that most closely applies, measured against the last Finance 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:

The PRSM project is late completing the end of Rolling Wave 3: Adaptation Phase. Adaptation Phase activities were scheduled to be complete by November 22, 2011. However, due to delays in testing and report development the Adaptation phase is now scheduled for completion by mid-January. IPOC met frequently this month with the PRSM project team, CTA and IV&V to strategize on the options available to the project for Page 50 of 74

mitigating the late completion of Test Phases 1-5 and the late start of the Pilot rollout. The most current project schedule is dated 11-14-2011; however, the project is currently undergoing a restructuring of the project schedule and an incorporation of a new strategy for mitigating testing, conversion and pilot readiness issues, but has not had an opportunity to revise the current project schedule with the new dates. Once the schedule is available and a baseline has been approved by CTA, IPOC will re-evaluate the "Behind Schedule" status reported in this IPOR.

The table below represents the current milestones as represented in the project schedule dated 11-14-2011.

Document	End of Adaptation Phase	End of Project
SPR (dated 12/08/09)	02/2010	06/13/2011
Executive Steering Committee Approved Schedule (dated 09/01/2010)	11/23/2010	02/14/2012
Current Schedule (dated 11/14/2011)	<del>12/14/2011</del> 01/05/2012	02/8/2013 01/24/2013 (Statewide Rollout Acceptance)

The new strategy defined by the project team will require all testing for phases 1-4 to be complete prior to the start of phase 5 testing. In addition, it was discussed that new entry and exit criteria will be defined for phase 5 testing as well as for the pilot.

According to the current schedule, all four testing phases (Phase 1 Configuration Clarity, Phase 2 Integration Interfaces, Phase 3 Integration Data Conversion and Phase 4 Configuration Reports) are all running behind schedule. IPOC is aware that the project has instituted daily test meetings and has co-located the test team together at the 5<sup>th</sup> Street offices which has significantly improved the team's ability to identify critical defects and plan for re-testing efforts. The priority is to complete test phases 1-4 before starting phase 5. The chart below shows progress compared to baseline dates and percentage work complete.

Testing Phase	Baselin e Start	Baselin e Finish	Start	Expected Finish	% Complete
1 – Config Clarity	6/20	9/12	06/20	<del>10/14</del> 12/01	<del>96%</del> 90%
2 – Integ Interfaces	7/5	8/17	07/20	<del>10/17</del> 12/01	<del>86%</del> 94%
3 – Integ Data Conv	7/26	8/24	07/13	<del>09/23</del> 11/29	<del>96%</del> 76%
4 – Config Reports	7/8	10/3	08/29	<del>09/28</del> 11/30	<del>96%</del> 86%
5 – System	7/5	10/24	08/22	<del>11/22</del>	25%

Test		01/05	

#### 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

**More 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:

From a vendor perspective, SAIC documents the on-board staff in each project position in their monthly status reports. The project appears to have the appropriate vendor staff in place in all the lead positions; however, the project does not appear to have a similar tracking system in place to document State staff. IPOC has observed that several new resources have been added to the testing and data conversion efforts on both the State and Vendor teams, however, without a clear staffing plan and an updated and resource loaded schedule that includes all State activities, IPOC is unable to discern whether or not this level of increased staffing is enough to complete the anticipated tasks on-time. TMS has not observed evidence of a staffing Plan describing the schedule for arrival and departure of staff over the course of the project or specific staff training plans (PRSM training plans for end users are underway; however, training for PRSM project team members has not been evidenced).

Caltrans recently brought on board an additional project manager to assist the State PM, focusing on Testing and Pilot activities. This new resource has also been instrumental in developing the new approach and strategy for testing and pilot activities.

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

#### Less cost

The project is (>5%) under budget.

#### Not Able to Assess

Within cost
The project is operating within budget.

#### Higher cost

Material budget increases (>5%) are likely.

#### Comments:

The funding source for PRSM is the State Transportation Fund. TMS has reviewed the vendor deliverable tracking spreadsheet and the updated cumulative expenditures that the project has reported in the most current CA-PMM report for November 2011. As per the CA-PMM status report for the November time reporting period, the total project approved costs were \$30,685,793 and the Cumulative Actual Cost to date is \$21,371,180.

	SPR 3 Costs	Cumulative Actual Costs
Project Costs	\$30,685,793	\$21,371,180
One-Time	\$26,078,375	\$19,389,212
Continuing	\$4,607,418	\$1,981,968
Annual M&O	\$2,057,000	\$0

As per the Vendor Payment Point and Deliverables spreadsheet, SAIC has been paid \$5,559,566 (less holdback) of the \$13,200,656 contract. Please note this spreadsheet has not been updated since June 2011 since no new SAIC costs have been incurred.

	Budgeted	Invoiced
Planning	\$1,009,739	\$908,765
Adaptation	\$4,933,935	\$4,190,791

Pilot	\$2,807,271	\$0
Rollout	\$2,211,424	\$0
Maintenance	\$2,128,292	\$0
Unanticipated	\$109,995	\$0
TOTAL	\$13,200,056	\$5,099,556

In order to properly assess the cost for PRSM, TMS must be able to view the expended and projected monthly tracking expenditures and compare that to the economic analysis worksheet in the last approved SPR. To date, TMS has only been exposed to budgeted and actual costs, but has not observed forecasting of projected costs against SPR EACs. Because of this, TMS has stated that we are Unable to Assess the Resources (Budget/Cost) section.

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.

#### Inadequately 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:

TMS has reviewed the requirements and to-be use cases and workflows created for PRSM and found them to be quite thorough and inclusive of the underlying solution flow. 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 from any FEATs and many to-be use cases without associated test cases. This could be an indication of insufficient testing coverage.

TMS reviewed the test metrics available in iCenter. Adaptation Phase Test Results are produced by SAIC weekly and posted to iCenter. The testing reports show FEAT Summary metrics, Open Test Defects, Test Script Execution results and Pass/Fail Rate summary. The test report states that there is not a one-to-one correlation between a test script and a FEAT, and that some FEATs are partially satisfied in one of more test scripts and fully satisfied in others. There should also be a correlation of business processes to test cases that are trackable throughout the project phases. TMS produced a quarterly assessment report on the evaluation of testing plans and processes, test results and progress to date in meeting milestones for the month of October 2011.

FEAT Metrics as of 12-29-2011 are listed below. Significant improvement has been observed in the past month. In October, IPOC reported that 84% of FEATS have been tested, and of those tested, 96% have passed. For the November reporting period, IPOC observed that 90% of FEATS have been tested, and of those tested, 96% have passed. For December, 96% of the FEATS have been tested, and of those tested, 99% have passed. The project is now focusing on addressing the anomalies identified in each of the first four phases so they can be completed and phase 5 System Test can start.

Although testing activities are running significantly behind schedule, there has been a lot of progress made in completing phases 1-4 testing activities, including test case development, test execution and daily test

meetinas.

Test Phase	# FEATS	# Fully Satisfied	Passed	Failed	Partially Satisfied
1 – Config Clarity	223	221	220	1	2
2 – Integr Interface	49	47	47	0	2
3 – Integr Data Conversion	3	0	0	0	0
4 – Config Reports	31	27	25	2	4
Total	306	295	292	3	8

TMS acknowledges that the project is actively seeking the participation of districts with the validation of conversion testing. TMS views this as a positive step forward in increasing the quality of client functionality and recommends that detailed testing results are maintained showing which projects in each district have

been validated successfully and which have open defects associated with the testing.

#### 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:

TMS is aware that the Implementation Vendor has submitted a Configuration Management Plan, High Level Design, Test Plan and updated Architecture Diagram. The Production environment hardware has been configured and turned over to Caltrans. In a review of the Adaptation Test Plan, TMS has observed a lack of performance, volume and scalability testing from a test plan, test case or test execution perspective. Although not a contractual part of the system integrator's contract, performance testing is a vital component in the testing realm to sufficiently validate that the application is ready for the end-user.

If Caltrans cannot artificially or automatically create demand on the PRSM system and measure its response, then Caltrans will not have the ability to determine if the application is performing at expected usage. If Caltrans cannot determine how the system performs under a particular workload, then Caltrans will not be able to accurately predict the ability of the system to perform in multiple districts across the State, and will not be able to measure reliability of performance or the ability of the system to scale up or out as resources and workload are added. TMS recognizes that this is not contractually in scope for SAIC. However, Caltrans needs to own the development of performance and load requirements and goals, and then determine how best to resource the testing of those requirements prior to Pilot.

During the months of November and December, several meetings were held to discuss the state of testing, including the lack of a structured and methodical performance test plan. The PRSM project team has recognized this as an issue and has agreed to put together a plan outlining the requirements that need to be met including the number of concurrent users expected in the system, the load expectation, etc. It is unclear at this point in time who will execute the implementation of the performance plan, however, TMS views this as forward progress and encourages the project to complete this activity as soon as possible.

#### **New Risks**

No new risks have been added this reporting period.

#### **Progress Toward Addressing Prior Risks**

# Risk R-7: Inability to document checklist readiness for districts may delay pilot and rollout activities

<u>Risk Statement</u>: TMS has reviewed the PRSM Adaptation Project Schedule as well as the two Pilot Readiness deliverables and has found there to be a gap in definition of the activities, tasks and expectations of the Districts for preparation to start the pilot. Although it may be the responsibility of the District Implementation Manager to ensure that certain tasks are completed prior to the start of the pilot, the project should have visibility into the progress the District has made in regards to those items that are needed to be completed prior to the pilot start date.

Probability:	High	Impact:	High	Timeframe:	Short Term
		•			
Severity:	High	Opened:	10-2011	Status:	Open

#### **IPOC Recommendations:**

TMS recommends that the project team work with the pilot district to determine the appropriate checklist of items that needs to be completed prior to pilot start. Items may include things such as: confirmation of availability of staff for training, availability of hardware and software necessary for training, implementation and any additional resources need for the HQ or SAIC staff that may be on-site during initial implementation, availability of facilities for training, verification that pre-requisite documentation has been reviewed, verification of any organizational change management tasks that should be completed, verification that all district pilot readiness tasks have been completed, etc. Caltrans needs to be able to answer:

- Are district staff ready for pilot activities?
- Who will be on-site to assist with support?
- What activities need to take place to prepare for training?
- Are all hardware and software pre-requisites available and configured to support the PRSM solution?

#### Status:

<u>12-30</u>: TMS discussed the recommendation to have IPOC survey the districts to determine pilot readiness, conversion validation, training readiness, etc. However, due to the timing of the holidays, the State PM was unable to get approval from the Project Sponsor in time to develop and distribute the surveys. TMS will continue to discuss this recommendation with the PRSM team for a future implementation.

11-30: TMS is aware that Implementation Manager meetings have resumed and have been expanded to include more districts. The project reports that topics such as the current schedule, pending issues or concerns, and business process impacts are all discussed with the districts during these meetings. Unfortunately, TMS does not have direct visibility into the effectiveness of these meetings, nor can we validate the readiness or level of comfort the districts are feeling since we have been asked not to participate in these meetings. TMS is considering having the next Quarterly Assessment Report include a survey to the pilot district with questions related to implementation readiness, conversion validation, communication with the project team, training readiness, etc. TMS would compile the results and summarize the main issues of concern as PRSM prepares to enter the first pilot district. TMS will explore this opportunity with the PRSM team.

### Risk R-6: Lack of performance and scalability planning may lead to issues with the Pilot or Rollout if not resolved quickly

**Risk Statement:** For performance testing, there is a lack of requirements and goals. There is also a lack of a test plan for scalability and performance, a lack of performance test scripts created and executed, when Pilot activities are a month away.

Probability:	High	Impact:	High	Timeframe:	Short Term

Severity:	High	Opened:	09-2011	Status:	Open

#### **IPOC Recommendations:**

- 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 and 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.

#### **Status:**

<u>12/30:</u> Performance and Load testing activities are included in the new approach strategy and scheduled in a high level MS Visio roadmap; however, IPOC has not observed the revised schedule and detailed tasks that encompass this effort or identified the resources needed.

11/30: The project team has taken the lead to develop an approach for performance testing that will include the performance goals/requirements for measurable criteria such as the number of concurrent users expected, the expected load, etc. It is unknown right now who would be executing the implementation of the performance plan; however, TMS views this first step as a positive mitigation to this risk. Additionally, the project has tried to tactically address some of the performance concerns by upgrading from 32-bit to 64-bit java. There are also service requests into OTech to add memory and storage (capacity) to all non-production environments.

10/31: Noticeably missing from the list of valid test phases is load and performance testing. Although not a contractual part of the system integrator's contract, it is a vital component in the testing realm to sufficiently validate that the application is ready for the end-user. If you cannot artificially or automatically create demand on the PRSM system and measure its response, you do not have the ability to determine if the application is performing at expected usage. If you cannot determine how the system performs under a particular workload, Caltrans will not be able to accurately predict the ability of the system to perform in multiple districts across the State, and will not be able to measure reliability of performance or the ability of the system to scale up or out as resources and workload are added. TMS recognizes that this is not contractually in scope for SAIC. However, Caltrans needs to own the development of performance and load requirements and goals, and then determine how best to resource the testing of those requirements prior to Pilot. To date, these activities have not yet been conducted.

# Risk R-5: Inadequate planning for data conversion may cause additional schedule delays and impact the quality of integration testing.

<u>Risk Statement:</u> 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.

Probability:	Medium	Medium Impact: High		Timeframe:	Medium
Severity:	Medium	Opened:	09-2011	Status:	Open

#### **IPOC Recommendations:**

- 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 cleansing 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.

#### Status:

<u>12/30</u>: All updates have been made to the Conversion plan which has been submitted to Caltrans. The Caltrans team has completed validation of the conversion process and has been through the process of readying a converted project for use in PRSM. The conversion team is now drafting a white paper to summarize the steps for readying a project so that anyone will be able to complete the process. The vendor continues to finalize the implementation plan, which is running significantly behind schedule. Once a draft plan is received by the State, TMS plans to form an in-depth assessment of the Implementation Plan.

<u>11/30</u>: As part of the new strategy the project is implementing, they have decided to start with one large, mega project and ensure that it converts successfully (including validation from the pilot district) before moving on to other projects. TMS supports this approach. The project is still working on the updated data conversion plan and TMS will review when it is available.

10/31: Data is processed through the dry-run conversion process pulling from Caltrans' legacy systems. The SAIC Team has loaded a good representation of the entire subset of districts - possibly 75% of the State over the last 15 months, with the only exceptions being District 5, which has still not been loaded. The Test Team has independently run most of the data conversion scripts. The objective is that metric data will be collected from this effort to determine how long it takes to convert data, and also prepare it to be used in PRSM so that this information can be used for planning for the Pilot phase and subsequent District rollouts. 2 Dry Run Conversions were conducted. The first was August 22nd for District 9 data in which the conversion of data was successful, but there were some process concerns raised and addressed in subsequent run. The second dry run was September 19th for District 4 data. The conversion of data was successful, but there were still some concerns raised around the need to "fix data in-flight". The team responded well to all errors and completed the Dry Run. TMS identified Finding PR-F002 in the Pilot Readiness Assessment this month, which states: "Lack of specific district involvement in the pilot verification process may lead to schedule delays". There does not appear to be adequate validation and verification of the data conversion template by the districts that are most familiar with the individual project data. TMS believes this verification needs to occur prior to pilot start due to the very aggressive timeline associated with the pilot. The time allocated for the district to validate the conversion data assumes that the template is correct and the verification process is a simple check to ensure the data is correct. To TMS's knowledge, the pilot districts have not yet validated any of the converted project data to ensure that the template correctly maps the original data to the new PRSM format. TMS recommends selecting the pilot district as soon as possible so that the data conversion template and approach can be reviewed and the results validated by the District prior to the start of the pilot.

## Risk R-2: Lack of Resource Availability may impact the schedule

<u>Risk Statement:</u> Without adequate Caltrans resources working on PRSM, the project schedule could be delayed. While in the Adaptation Phase, PRSM Project Team members should be allocated full time. Individual Resources may need to be identified at the task level in the Project Plan in order to estimate resource requirements and availability.

Probability:	Medium	Impact: Medium		Timeframe:	Short Term
Severity:	Medium	Opened:	Unknown	Status:	Open

#### **IPOC Recommendations:**

- After the PRSM work plan is complete, determine the resource gaps and reallocate effort as appropriate.
- Assign individual resources at the task level in the project schedule to assist in estimating resource requirements. All PRSM project resources, including vendor and State resources, should be included.
- (new) For those tasks that are incomplete, the task type should be set to Fixed Work and resource over-allocations should be reviewed.

• (new) Remove all group designations or dual-resource allocations as resources in the project schedule and assign to specific resources to allow for more efficient resource tracking and leveling.

#### **Status:**

<u>12/30</u>: The revised project schedule is not yet available for review. However, since many of the activities that were previously sequentially scheduled (i.e. cannot start UAT until System Testing is completed) are now in parallel, TMS will focus on the resource allocation of these parallel activities in detail to ensure that they are not over-allocating project staff.

11/30: To TMS's knowledge, the above recommendations have not yet been incorporated into the project schedule; however, the project is currently discussing a new strategy for the remaining testing efforts and pilot implementation that will eventually result in an updated schedule. TMS continues to recommend the above actions to obtain a better understanding of the adequacy of the current staffing levels.

<u>10/31</u>: The project team performed a detailed assessment of where the testing efforts are at, the current issues that need to be mitigated and the number of resources that they believe are needed to complete the testing effort. The Project Manager indicated last month that Caltrans is bringing on board more IT Technical resources and that the State was bringing on board more testing resources. However, IPOC has not been able to confirm that the staffing has increased. A project management consultant was brought on board part-time in October and ramping up to full-time in November to assist the State project manager.

## Risk R-1: Lack of Effective Organizational Change Management or District Buyin for Pilot could lead to lack of acceptance of PRSM or to new PRSM processes

Risk Statement: 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.

Probability:	High	Impact:	High	Timeframe:	Medium
		•			
Severity:	High	Opened:	Unknown	Status:	Open

#### **IPOC Recommendations:**

- Define the process for gaining District consensus on policies, new business rules and business processes. The process should describe how information on new business rules and business processes will be communicated to the field with sufficient time to get feedback and buy-in.
- Modify the format of the monthly Implementation Manager's Video Conference Meeting to begin utilizing this forum as a mechanism for Organizational Change Management. As PRSM gets closer to District roll out, change the frequency of these meetings to bi-weekly.
- 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 Roll Out.
- Consider hiring / extending additional consulting resources to assist with refining the Organizational Change Management Plan and to execute the plan.
- (new) 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.

• (new) 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.

#### Status:

<u>12/30</u>: Formal training for the implementation managers began on 10/31/11 and was suspended the first week of November. Training will resume once Pilot begins. Additionally, SAIC continues to prepare for Pilot end-user training. The vendor is continuing work on the Implementation Plan and Plan for Pilot based upon Caltrans' comments. TMS has still not observed the development of a pilot checklist.

11/30: The project has reported an increased involvement with the districts and increased district participation in the Implementation Managers monthly meeting. IPOC does not participate in this meeting and cannot validate whether organizational change management discussions are taking place or not. TMS has not observed the creation of a pilot checklist, however, during recent strategy discussions, the project team has agreed to re-define the entry and exit criteria for Phase 5 testing and pilot implementation.

<u>10/31</u>: TMS performed an extensive analysis of the Pilot Readiness activities in the month of October. The objective of this assessment is to review the pilot readiness documentation and preparation and to provide observations and findings that may help to reduce the risk of problems and issues during the pilot phase. Currently, the project is scheduled to go to pilot on 11/21/2011 as per the latest version of the PRSM project schedule. In general, TMS made the following observations and noted several findings:

- The selection process for choosing which districts participate in the pilot and the scope of what will be accomplished during the pilot is unclear.
- There are inconsistencies between the Plan for Pilot and the Pilot Support Plan regarding SAIC involvement in the pilot.
- An Entry Criteria Pilot Readiness Checklist is missing from the District Perspective
- Lack of specific district involvement in the pilot verification process may lead to schedule delays
- Tactical processes and procedures for extracting lessons learned and assessing common problems mitigated during level one support is missing from the documentation.
- Pilot exit criteria tasks are missing from the punch list.

#### **General Comments**

This report reflects the time period November 1 – November 30, 2011. The PRSM project remains in Rolling Wave 3: Adaptation Phase part B, which includes development, data conversion and interfaces, production build-out, testing, Adaptation phase training and Adaptation Acceptance. The project is scheduled to move into Rolling Wave 4: Pilot in Winter 2011. The project is currently revising the schedule based on the new strategy discussed in November.

This General Comments section focuses on the project management processes. TMS has included the following project management process chart documenting TMS's assessment of each major area of project management on the PRSM project by a color code in the table below. Two month's worth of status is displayed.

**RED** = Unsatisfactory project management practices that present significant risk to the project.

YELLOW = Corrections to project management practices needed to reduce risks.

**GREEN** = Satisfactory project management practices are being followed.

**BLUE** = Assessment in progress.

Process Area	Last Month	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement

review; however, TMS is pleased with the re-planning effort and the new approach for testing and plot. Since the bi-weekly status meetings were cancelled, TMS will need to review meeting minutes from the currently scheduled Internal PM meetings in order to assess execution of general project management for PRSM.  11/20; TMS recognizes the efforts the project is taking to assess the existing risks and issues in the areas of testing, conversion and pilot readiness and strategize a go-forward plan that is realistic and mitigates some of the acknowledged risk. Once at lactical project management progreation and policy readiness and strategize a go-forward plan that is realistic and mitigates some of the acknowledged risk. Once at lactical project schedule is produced, TMS will reassess this rating.  10/21; The last three bi-weekly oversight status meetings have been cancelled, making it two months since the last time the project tam and oversight have met to review status. TMS has observed that the project management efforts appear to be very reactive and focused to one particular crisis at a time.  Currently, the team is focused on testing: however, there are other critical areas in which TMS is unclear of the forward progress the team is making (conversion, pilot readiness, training, etc.). A positive step in addressing the testing gaps is the assignment of a Test Manager to the effort.  Planning and Tracking (Work Plan)  Planning and Tracking (Work Plan)  11/20; As part of the new strategy planning, an updated project schedule will be created to reflect the new approach to testing, conversion and pilot readiness. TMS recommends taking advantage of this opportunity to structure the schedule such that all tasks (vendor and State) are included in the schedule and resource load delays in tasks, mitigate and the project and the	Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
review.  11/30: As part of the new strategy planning, an updated project schedule will be created to reflect the new approach to testing, conversion and pilot readiness. TMS recommends taking advantage of this opportunity to structure the schedule such that all tasks (vendor and State) are included in the schedule and resource loaded so that the project is able to assess the adequacy of current staffing levels.  10/31: The project has recently revised the schedule to more accurately reflect the work that needs to be done (especially in the areas of testing and data conversion). Invalid dependencies were resolved and a more granular breakdown of tasks was determined. The project is now 22 months behind schedule. There are no activities related to to performance or load testing.  Tracking (Work Plan)  11/30: As part of the new strategy planning, an updated project schedule to free field to understand the behind delays in tasks, mitigs strategies for bringing tasks be track, etc.  SCH Finding 1: TMS highly recommends that the project has practically expected the SPR baseline dates within electronic version of the project has regentled to specific and a more granular breakdown of tasks was determined. The project is now 22 months behind schedule. There are no activities related to to performance or load testing.  SCH Finding 2: The critical should be clearly defined for phase of the project to such a strategies for bringing tasks be track, etc.  SCH Finding 2: TMS observe promotion activities are generated for biweekly status meeting and up to executive management.  SCH Finding 4: TMS observe promotion activities, test case reviews, performance testing, load testing and scala testing seem to be missing from plan. TMS recommends add activities and milestones for tabove activities.		Y	Y	review; however, TMS is pleased with the re-planning effort and the new approach for testing and pilot. Since the bi-weekly status meetings were cancelled, TMS will need to review meeting minutes from the currently scheduled Internal PM meetings in order to assess execution of general project management for PRSM.  11/30: TMS recognizes the efforts the project is taking to assess the existing risks and issues in the areas of testing, conversion and pilot readiness and strategize a go-forward plan that is realistic and mitigates some of the acknowledged risk. Once a tactical project schedule is produced, TMS will reassess this rating.  10/31: The last three bi-weekly oversight status meetings have been cancelled, making it two months since the last time the project team and oversight have met to review status. TMS has observed that the project management efforts appear to be very reactive and focused to one particular crisis at a time. Currently, the team is focused on testing; however, there are other critical areas in which TMS is unclear of the forward progress the team is making (conversion, pilot readiness, training, etc). A positive step in addressing the testing gaps is the assignment of	recommended that the project may benefit from spending some time analyzing the staffing needs for the rest of the pilot implementation and rollout.  • TMS observed that formal risk identification activities have not occurred since the beginning of the project and recommended that as the project gear up for the pilot implementation, that a brainstorming session takes place that includes the core project team as well as the pilot
workplan such that all resour	Tracking (Work	Y	Y	review.  11/30: As part of the new strategy planning, an updated project schedule will be created to reflect the new approach to testing, conversion and pilot readiness.  TMS recommends taking advantage of this opportunity to structure the schedule such that all tasks (vendor and State) are included in the schedule and resource loaded so that the project is able to assess the adequacy of current staffing levels.  10/31: The project has recently revised the schedule to more accurately reflect the work that needs to be done (especially in the areas of testing and data conversion). Invalid dependencies were resolved and a more granular breakdown of tasks was determined. The project is now 22 months behind schedule. There are no activities	recommends that the project use the Notes field to understand the reasons behind delays in tasks, mitigation strategies for bringing tasks back on track, etc.  • SCH Finding 1: TMS highly recommends that the project include the SPR baseline dates within the electronic version of the project schedule as well as in the printed reports that are generated for the biweekly status meeting and reported up to executive management.  • SCH Finding 2: The critical path should be clearly defined for each phase of the project  • SCH Finding 4: TMS observed that promotion activities, test cases reviews, performance testing, stress testing, load testing and scalability testing seem to be missing from the plan. TMS recommends adding activities and milestones for the

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
				a reasonable level.
Quality Management	Y	Y	12/31: Weekly Test Results continue to be published almost on a daily basis and the team meetings weekly to gather statistics on FEATS, test case execution and defects. However, in order to assess quality over time improvements, trending statistics would need to be observed.  11/30: During the month of November, three critical areas of focus were identified: testing, conversion and pilot readiness. TMS is aware that daily test meetings are conducted and that weekly test results are distributed. However, TMS would also like to see some metrics developed to track the data conversion and validation process, as well as pilot readiness and planning. TMS recommends starting with these three areas and developing metrics that can be reviewed on a bi-weekly basis during the PRSM status meetings.  10/31: Trend Analysis metrics are not reported in the weekly Test Results. Although the Adaption System Test Plan includes the test status metrics to be included on each weekly test report, it does not include the metrics that could be used to manage and perform trend analysis on the testing activities.	<ul> <li>PM Finding 2: The quality management metrics collected, tracked and analyzed on a regular basis should be expanded to include more process areas and detail that would allow trends and potential issues and risks to be identified. TMS recommends concentrating on testing and requirements metrics first.</li> <li>TST Finding 2: System Test activities have not yet begun for the PRSM project so TMS strongly recommends that trending metrics be implemented at minimum on a monthly basis to track testing metrics over time such as: number of changes, status of actual vs. planned progress against defect resolution, number of defects discovered over time (increasing or decreasing), period in the testing process where the defect is discovered, repeated errors having the same cause, time to fix the defects.</li> </ul>
Requirements Management	R	R	12/31: TMS was told that SAIC was scheduled to update the traceability matrix in November but was unable to confirm if this activity took place. There are no new traceability results posted to iCenter.  11/30: There has been no status change in requirements management.  10/31: The Adaption System Test Plan does not address traceability of the test cases back to the requirements. Best practices indicate that a Test Plan should identify the strategy for ensuring traceability in all areas of testing, and that this strategy should be scalable and inclusive. Although PRSM 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. This is a critical element to ensure that there is full coverage on the testing end and to ensure that all the user requirements and reports are implemented as planned.  TMS observed that there are many features that are not mapped to "to-be" processes and more concerning is the observation that there are many "to-be" processes and features that are not mapped to test cases. TMS is aware that SAIC is scheduled to update the traceability matrix next month.	<ul> <li>Traceability through the project life cycle should be an on-going activity that is performed with some level of regularity to ensure that all changes are incorporated into the project consistently.</li> <li>TMS would recommend discussions and decisions to be made regarding a very tactical approach to validation of the product prior to the pilot phase. This would include review of the gaps in the traceability matrix to ensure proper testing coverage, weekly review of testing metrics to understand the current progress being made and clearly defined exit criteria as the project enters the pilot phase. If there are no plans to directly terrace requirements to Test Cases, then the traceability matrix should state the approach for traceability and clearly define how the mapping of test cases to FEATS is satisfactory to the customer.</li> </ul>
Change Management	G	G	12/31: There have been no change in status for Change Management (nor have there been any new change requests).	<ul> <li>The project should track contractual changes to scope as indicated in the RFP and SPR.</li> </ul>

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			11/30: There have been no change in status for Change Management (nor have there been any new change requests).  10/31: TMS will discuss the recommendations made in the last reporting period with the project team to determine which hold the most value to implement prior to pilot. Since TMS has been on board, there have not been any change requests submitted and therefore, we have not been able to observe the execution of change management against the plan. TMS has also observed that the change control log located in iCenter is out of date (only the first 6 PCRs are listed, with creation dates of 7/14/09 and a status of open).	<ul> <li>TMS recommends that predictive analysis be used on the project schedule to show how scope increase or schedule changes will affect all downstream tasks.</li> <li>TMS recommends that all cost increases be documented within the change request.</li> <li>TMS also recommends that the type of resources be identified and the impact assessed to determine if external constraints may impact the schedule.</li> </ul>

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
Risk Management	Y	Y	12/31: TMS performed a One-Time Assessment on the Risk and Issue Management and Execution process for PRSM to provide observations and findings that may help to improve the processes and procedures in place for the project. Risk & Issue management are critical process areas that when performed well, can greatly increase the probability of the project completing on time, within budget and with high-quality. The objective was to provide some insight into planned versus actual execution as well as analysis of some metrics gathered from the current risk and issue spreadsheets. I Observation and 3 Findings were identified which can be used to help the project team re-structure the current Risk and Issue process.  11/30: The PRSM project made significant steps towards addressing and determining mitigation strategies for pilot readiness, testing and conversion risks. A highlevel conceptual approach has been discussed and IPOC will closely monitor the execution of mitigation strategies to see if the conceptual approach manifests in tangible action items. TMS will also be performing a One-Time Assessment of the Project Risk and Issue Management Process during the month of December where we will analysis the execution of the process in comparison with the approved plans and best practices. Based the results of the one-time assessment and evidence of actionable activities resulting from the conceptual strategy discussion, IPOC will re-assess this area next month to determine if it can turn green.  10/31: Status moved from Green to Yellow. TMS will discuss the recommendations made in the last reporting period with the project team to determine which hold the most value to implement prior to pilot. During the Pilot Readiness One-Time Assessment, TMS did observe that there were ten risks that were identified during the creation of the Plan for Pilot deliverable; however, TMS has not been able to find corresponding risk entries for each of these items in the risk register. Some of these risks may potentially have already turn	<ul> <li>TMS recommends including a more detailed discussion on the typical elements the risk owner should include in the risk response description.</li> <li>TMS recommends expanding the impact description to also include a textual identification of the impact on all significant project areas if the risk is realized.</li> <li>RSK Finding 1: TMS recommends that the project hold one or more brainstorming sessions involving all stakeholders in the project to re-assess new Risks and Issues for the upcoming project phases.</li> <li>RSK Finding 2: TMS recommends creating detailed, actionable mitigation and contingency plans for each risk. TMS also recommends referencing the mitigation plan during each risk status report and prompting the owner of the risk to report progress against the plan and to add new actions for the plan or remove irrelevant out-of-date items from the plan. The mitigation plans should always reflect the current strategy and approach for lowering the probability and impact for the risks.</li> <li>RSK Finding 3: TMS recommends reviewing all open risks for potential triggers and referencing the defined triggers during risk management status updates to determine if the trigger has been detected. This will allow the project to quickly respond with either heightened mitigation efforts or to start implementing the contingency plan.</li> </ul>
Issue Management	G	G	12/31: TMS performed a One-Time Assessment on the Risk and Issue Management and Execution process for PRSM to provide observations and findings that may help to improve the processes and procedures in place for the project. Risk & Issue management are critical process areas that when performed well, can greatly increase the probability of the project completing on time, within budget and with high-quality. The objective was to provide some insight into planned versus actual execution as well as analysis of some metrics gathered	<ul> <li>TMS recommends having a structured and repeatable process in place for issue management at the end user level. The process can be a streamlined version of the project Issue Management process or the same process could be used for both the project and end users.</li> <li>TMS has not observed any Issue Management metrics being used to</li> </ul>

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			from the current risk and issue spreadsheets.  11/30: TMS will be performing a One-Time Assessment of the Project Risk and Issue Management Process during the month of December where we will analyze the execution of the process in comparison with the approved plans and best practices. IPOC will re-assess this item in January based on the results of our findings.  10/31: TMS will discuss the recommendations made in the last reporting period with the project team to determine which hold the most value to implement prior to pilot.	analyze the effectiveness of the PRSM Issue Management Process. Lessons learned, metrics and trend analysis are an important aspect of issue management and TMS encourages the project to develop some mechanisms for tracking their issue management methodology.  RSK Observation 1: Action Plans are created but not tracked.  RSK Observation 2: No assessment of relation to critical path. Most issues have an impact to the project cost, schedule, quality and/or scope. As a result, it is important to address any additional impacts the lack of resolution may have on the critical path for the project.
Communication Management	Y	G	12/31: The bi-weekly risk and issue meetings have been cancelled and not yet re-scheduled. The bi-weekly status meetings have also been cancelled and transitioned to a weekly oversight meeting with IPOC, IV&V, PRSM PM and CTA. TMS observes that these meetings will also oversight more of an opportunity to discuss strategy, review current issues and recommend new direction. However, TMS now has no participation in any meetings to observe the project team or the system vendor. While not yet a risk or issue, TMS will need to observe or participate in project management activities at a sufficient level with which to evaluate compliance to best practices.  11/30: The project reached out to IPOC, IV&V and CTA this month to receive input on a new strategy that they will be sending to executive management. As part of this outreach, team reviewed the Top 5 testing, conversion, pilot readiness and administrative challenges and the team was open to feedback and recommendations on mitigation approaches. The project is meeting bi-weekly to review conversion results with the districts and the project seems to be listening to the training suggestions made during the first round of training and incorporating those suggestions and feedback into a revised approach. If communication continues in this fashion, IPOC will assess turning this process area green next month.  10/31: Status moved from Yellow to Red. Bi-weekly Oversight Status meetings have been cancelled the last 3 out of 5 occurrences. TMS opened an issue in the monthly Progress report that states the importance of having the project team meet on a consistent basis with all critical stakeholders to review status and discuss areas of issue and need for escalation. TMS is aware that the project team meets regularly to discuss status internally, but this is the only meeting afforded for oversight. In addition, there was a communication breakdown between Caltrans and SAIC regarding the progress of the first four phases of testing. At the start	<ul> <li>TMS recommends analyzing the current methods of communication to determine if additional processes should be put in place to facilitate change management preparation and discussions within the districts and to open up the channels for any risks or issues the districts are concerned with during the pre-pilot phase, pilot phase and post pilot/rollout phase.</li> <li>PM Finding 1: TMS recommends including more tactical communication planning with the districts and strategic communication planning for change management activities at the district level, pilot and rollout communication (including how risks, issues, changes and initial rollout support issues will be communicated).</li> <li>TMS recommends restructuring the Risk and Issue meeting to include oversight and incorporate some of the recommendations made in the December Risk and Issue Management assessment.</li> </ul>

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			of the Testing Checkpoint meetings, Caltrans was under the impression that the purpose of the meeting was to evaluate the test results and receive approval for the testing phases; however, none of the four test phases were ready for completion or sign-off.	
Pilot Readiness	Y	Y	12/31/11: The vendor is continuing work on the Implementation Plan and Plan for Pilot based upon Caltrans' comments; however, this plan is significantly late in being delivered. Once TMS reviews the revised schedule and the activities for pilot, we will be able to assess if the new direction and strategy for pilot is green.  11/30/11: As part of the new strategy, the PRSM team has decided to convert one large mega project, validate the results, apply changes as appropriate and then proceed in converting the remainder of the pilot district projects. TMS views this as a positive approach to mitigate some of the risk for the pilot. PRSM is also meeting with the pilot district bi-weekly to review general issues and concerns, review conversion test results and business process impacts. TMS acknowledges that the project is taking a strong positive approach in proactively readying the district, however, TMS also recommends establishing some empirical checklists to support the activities taking place so that there is a better gauge to measure progress and know when the team is done. TMS continues to recommend a pilot readiness checklist, a conversion results spreadsheet listing the number of projects per district and how many have successfully been converted and validated by the PRSM team, and how many have been validated by the district.  10/31/2011: TMS performed an extensive analysis of the Pilot Readiness activities in the month of October. The objective of this assessment is to review the pilot readiness documentation and preparation and to provide observations and findings that may help to reduce the risk of problems and issues during the pilot phase. Currently, the project is scheduled to go to pilot on 11/21/2011 as per the latest version of the PRSM project schedule. TMS believes there are significant gaps in the checklist of activities to determine if the project is ready to enter pilot.	PLT Observation 1: The selection process for choosing which districts participate in the pilot and the scope of what will be accomplished during the pilot is unclear.  PLT Observation 2: Resolve the inconsistencies between the Plan for Pilot and the Pilot Support Plan regarding SAIC involvement in the pilot.  PLT Finding 1: An Entry Criteria Pilot Readiness Checklist should be developed from the District Perspective  PLT Finding 2: Include specific district involvement in the pilot verification process to reduce schedule delays  PLT Finding 3: Tactical processes and procedures for extracting lessons learned and assessing common problems mitigated during level one support should be included in any pilot documentation.  PLT Finding 4: Pilot exit criteria tasks need to be added to the punch list.  • Include roles and responsibilities for pilot support activities for each level of support, both Vendor and State.  • Complete the Department Support standards section, which is not complete.
Testing	R	Y	12/311: Phase 1 through Phase 4 testing activities are continuing and scheduled for completion by the end of December. Phase 5 (System Test) preparation activities are continuing and execution of system test scripts is due to be complete by mid-January. EFIS and Staff Central Interface testing is being conducted. All test cases have been executed, the team is now working through fixing and retesting the anomalies. FEAT statistics have improved greatly and the team is making good progress in resolving the known anomalies in phases 1-4. Status moved from Red to Yellow.  11/30: The project is still not complete with phases 1-4	TST Observation 1: The Adaptation Test Plan does not address traceability of test cases back to the requirements.  TST Finding 1: 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?

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
			of testing, although significant improvements have been made in phase 1 and phase 4 this month. Daily test meetings continue with the test team co-located in one building. The project team has started developing the test scripts for phase 5, but as part of the new strategy moving forward, the PRSM team agrees with the IPOC recommendation to completely finish with phases 1-4 prior to starting phase 5 of testing. The new strategy also includes establishing new entry and exit criteria for both Phase 5 testing and pilot. TMS is very encouraged by this new approach and will await a concrete plan from the project to show how the conceptual strategy will actually be implemented.  10/31: Status moved from Yellow to Red. TMS performed a quarterly assessment of the testing activities for PRSM in October. TMS reviewed the above testing documentation, observed the testing results for the first four phases of testing, and compared the documented processes and procedures against industry best practices and standards. Testing activities are behind schedule and the process being followed is not in compliance to the established and approved plans. Test case development is behind schedule and testing resources are constrained. The new Caltrans resource is assigned as the Test Manager to add focus to all testing activities, and daily test meetings have been re-initiated at the request of the Caltrans PM. A spreadsheet of all open defects for testing phases 1-4 is in the process of being developed to determine the time needed, resources assigned, target due date and dependencies for each defect.	

Process Area	Last Month Rating	This Month Rating	SUMMARY OF ASSESSMENT	Recommendations for improvement
End-User Training	G	Y	12/31: Formal training for the implementation managers began on 10/31/11 and was suspended the first week of November. Training will resume once Pilot begins. Additionally, SAIC continues to prepare for Pilot enduser training. The yellow status will be reassessed once the revised schedule is available for review.  11/30: Status moved to Yellow. A revised training plan has been submitted to Caltrans from SAIC but IPOC has not been given a copy as of 11/30/11. The first session of the Implementation Team-SME training was delivered in Sacramento and the team received feedback that they rolled into updates to the training materials and delivery format. The remaining sessions were cancelled and will be rescheduled after the changes to the training program are made. Although the schedule for training has been delayed, TMS supports the adaptation to the training based on the feedback received. The status change to yellow is a result of unknown impact to the delayed training.  09/31: Status moved to Green. Pilot End User Training Data Initialization, Pilot End User Training Delivery and Train the Trainer. TMS did find some inconsistency between the course material defined in the Plan for Pilot and the current PRSM Project Schedule. Additionally, TMS found that the schedule contains an overlap of classes, specifically, there is only one Time Reporting Class offered and it is scheduled at the same time as the Project Management with PRSM class and the Pilot Custom Reporting with PRSM class.	<ul> <li>Ensure all PRSM staff has received foundational Clarity training.</li> <li>Eliminate overlaps in project schedule for pilot training education.</li> <li>Eliminate the inconsistencies between the course material defined in the Plan for Pilot and the actual project schedule tasks.</li> </ul>

## **CALTRANS - PRSM Project Oversight Review Checklist** (December 2011)

#### **Project Oversight Review Checklist: High Criticality Project**

This checklist is an assessment for the Adaptation Phase. The end date of this phase is 01/05/2012 (per the last approved project schedule).

Practices and Products	Adequat e	Deficie nt	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?	X		TMS has reviewed the last approved SPR dated December 2009, and will review the new SPR request for the schedule delay once available.
Has a detailed project plan with all activities (tasks), milestones, dates, and estimated hours by task loaded into project management (PM) software? Are the lowest level tasks of a short duration with measurable outcomes?	X		TMS believes this item should be marked as adequate based on the fact that the project does use a 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, trackable items with durations less than 80 hours. TMS performed a detailed assessment on the project schedule in early September 2011 in which we have made some observations, findings and recommendations. In general, we believe that the project has developed a well-structured schedule and uses the schedule on a regular basis to track progress.
Is completion of planned tasks recorded within the PM software?	X	X	Changed from Adequate to Deficient in December. TMS reviews all updates to the project schedule when available. However, for the month of December, no project status meetings were held and there is no updated version of the schedule to reflect the new re-planning tasks for Testing and Pilot. and attends bi-weekly status meetings where updated schedules are provided and reviewed by the project team.
Are actual hours expended by task recorded at least monthly within PM software?		X	Changed from Adequate to Deficient in the month of September. 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.
Are estimated hours to complete by task recorded at least monthly within PM software?		X	Changed from Adequate to Deficient in the month of September. TMS has reviewed the project schedule TMS reviews all updates to the project schedule when available. Although no status meetings were held in the month of December, TMS has observed that the project team reviews upcoming tasks and the estimated hours to complete the tasks are updated as necessary. Actual costs are reported, but estimated hours, or projected hours, are not tracked in the documents that have been provided to TMS.
Is there a formal staffing plan, including a current organization chart, written roles and responsibilities, plans for staff acquisition, schedule for arrival and departure of specific staff, and staff training plans		X	Changed from Adequate to Deficient in the month of September. TMS has not been exposed to a formal staffing plan. We have reviewed the <u>Project Organization Chart</u>

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			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 and responsibilities for the project team (vendor and State). TMS has also not seen a plan describing the schedule for arrival and departure of staff over the course of the project or specific staff training plans (PRSM training plans for end users are underway; however, training for PRSM project team members has not been evidenced).
Have project cost estimates, with supporting data for each cost category, been maintained?		X	Changed from Adequate to Deficient in the month of September. 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, not estimated future costs or projections are included. TMS has also reviewed the PRSM Payment Milestone and Deliverables spreadsheet for SAIC vendor costs, although this spreadsheet has not been updated since June 2011because there are no new vendor invoices/payments.
Are software size estimates developed and tracked?	N/A	N/A	This item is not applicable.
Are two or more estimation approaches used to refine estimates?	N/A	N/A	This item is not applicable.
Are independent reviews of estimates conducted?	N/A	N/A	This item is not applicable.
Are actual costs recorded and regularly compared to budgeted costs?	X		The CA-PMM status report cost tracking summary shows various project categories, last approved SPR3 cost and cumulative actual costs for the total project, but not by month or fiscal year. The <u>PRSM Payment Milestone and Deliverables spreadsheet</u> shows actual costs incurred for vendor deliverables, although this spreadsheet has not been updated since June 2011because there are no new vendor invoices/payments.
Is supporting data maintained for actual costs?	X		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?	X		During status meetings, the PRSM Project Manager distributes an updated status report, which includes an updated schedule in MS Project for the current phase. The bi-weekly status meeting has been cancelled and the weekly oversight meetings that

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			replaced it have not revised the schedule as a regular agenda item. A new version of the schedule has not yet been delivered to reflect the new re-planning tasks. The schedule provides a detailed view of the status of activities, deliverables, and milestones for the current phase. Status reports go to the Legislature quarterly. TMS has also reviewed the CA-PMM reports submitted by the project.
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?		X	TMS has reviewed the <u>Configuration Management Plan</u> 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.
Are issues/problems and their resolution (including assignment of specific staff responsibility for issue resolution and specific deadlines for completion of resolution activities), formally tracked?	X		TMS has reviewed the <u>Issue Management Plan</u> and has observed Issue management being executed on the project. The bi-weekly Risk and Issue meeting has been cancelled and has not yet been re-scheduled. TMS submitted a One-Time Assessment on Risk and Issue Management and Execution in December 2011 and made some recommendations for improvement to the issue management process.
Is user satisfaction assessed at key project milestones?		X	Changed from Adequate to Deficient in October. 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. TMS reviewed the Communication Management Plan and observed that the plan does not address communication methods to and from the districts.  In the August CA-PMM status report, the project rated the customer Buy-In vital sign as a 1 (Yellow) and stated that although district users have been and will continue to be involved in design, testing and pilot program activities, project delays over the past 22 months have impacted District buy-in.  TMS performed a one-time assessment of the Pilot Readiness in October and found limited District involvement in Pilot Preparation activities and validation of converted projects. IPOC noted in November that communication with the districts had increased, additional districts have been participating in the monthly Implementation Manager's meetings and district involvement in the validation of data conversion results also increased. Although IPOC has no direct exposure to the above, the project has reported these additional district reach-outs in their monthly PRSM Nuggets of Knowledge. The project is in the process of revising the schedule to reflect the new strategy approach and IPOC will review to see if additional user satisfaction milestones are incorporated into the planned activities.
Is planning in compliance with formal standards or a system development life-cycle (SDLC) methodology?		X	Changed from Adequate to Deficient in September. 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. TMS has observed that a traceability matrix does exist that maps the RFP requirements to feature requirements to "to-be"

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration	
			processes (use cases) and onto test cases. This is a critical element to ensure that there is full coverage on the testing end and to ensure that all the user requirements and reports are implemented as planned. TMS did find that there are many features that are not mapped to "to-be" processes and more concerning is the observation that there are many "to-be" processes and features that are not mapped to test cases. TMS 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). At this phase in the project, it is probably not worth the project's time to create a document describing the methodology; however, TMS would recommend discussions and decisions to be made regarding a very tactical approach to validation of the product prior to the pilot phase. This would include review of the gaps in the traceability matrix to ensure proper testing coverage, weekly review of testing metrics to understand the current progress being made and clearly defined exit criteria as the project enters the pilot phase.	
Is there formal enterprise architecture in place?	X		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?	N/A	N/A	Project is in the Adaptation Phase – this is not applicable in this phase.	
Procurement				
Are appropriate procurement vehicles selected (e.g. CMAS, MSA, "alternative procurement") and their required processes followed?	X		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?	X		Detailed written scope of work is contained in the RFP.	
Are detailed requirement specifications included in solicitation documents?	X		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?	X		Outside expertise and counsel has been sought from DOF, DGS, and consultants when appropriate.	
For large-scale outsourcing, is qualified legal counsel obtained?	N/A	N/A	The project does not involve outsourcing as currently defined.	
Risk Management				
Is formal continuous risk management performed, including development of a written risk management plan, identification, analysis, mitigation and escalation of risks in accordance with DOF/TOSU Guidelines, and regular management team review of risks and mitigation progress performed?	Х	74 (74	TMS has reviewed the <u>Risk Management Plan</u> 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	

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			or the use of software tools). TMS has also observed that has observed that risk management metrics are not included in this part of the risk planning or execution. The bi-weekly Risk and Issue meeting has been cancelled and has not yet been rescheduled. TMS submitted a One-Time Assessment on Risk and Issue Management and Execution in December 2011 and made some recommendations for improvement to the issue management process.
Does the management team review risks and mitigation progress at least monthly?	X	X	Changed from Adequate to Deficient in December 2011. The bi-weekly Risk and Issue meeting has been cancelled and has not yet been re-scheduled.
Are externally developed risk identification aids used, such as the SEI Taxonomy Based Questionnaire?		X	Changed from Adequate to Deficient in September. 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. Although an initial formal SEI-based assessment was conducted several years ago. There has not been a follow-up brain storming session or formal risk assessment since that time.
Communication			
Is there a written project communications plan?	X		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.
Are regular written status reports prepared and provided to the project manager, department CIO (if applicable) and other key stakeholders?	X		TMS was able to locate a status report folder on iCenter, however, it does not appear that project reports have been filed in this area for almost a year. TMS has observed that the last status report submitted by the vendor on iCenter is from March 2011 and would encourage the project to ensure current status reporting is stored in the document repository.  TMS is aware that the project does formally report to CTA on a monthly basis and TMS has reviewed the most current CTA status report from November 2011.
Are there written escalation policies for issues and risks?	X		Both the <u>Risk Management Plan</u> and the <u>Issue Management Plan</u> contain a risk escalation process.
Is there regular stakeholder involvement in major project decisions, issue resolution and risk mitigation?	X		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

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			the deployment process.  In our review of the Pilot Readiness documentation, TMS did not find very much involvement of the districts in pilot preparation or issue and risk mitigation.
System Engineering			
Are users involved throughout the project, especially in requirements specification and testing?	X		Changed from deficient to adequate in November. The PRSM team has reached out to districts for more involvement during the month of November. Specifically, additional 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.
Do users formally approve/sign-off on written specifications?	X		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. TMS will work with the project to understand more about the current level of involvement of the users and expected involvement in the upcoming months.
Is a formal SDLC methodology followed?	X		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 there tracking of requirements traceability through all life-cycle phases?		X	Changed from Adequate to Deficient. 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. The current versions in iCenter show significant gaps in traceability that the project needs to address.
Do software engineering standards exist and are they followed?	X		Engineering standards exist and are documented in the PRSM <u>Configuration</u> <u>Management Plan</u> . TMS has reviewed the Configuration Management Plan at a high-level and will complete a more in-depth assessment in the future. TMS will monitor the project during the Adaptation Phase and subsequent phases to determine how effectively the PRSM Project is adhering to the engineering standards.
Does product defect tracking begin no later than requirements specifications?	X		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.  In the quarterly review of the testing plans and execution, TMS did find that the test cases do not identify anomalies for each failed test step. TMS does not have access to the defect management tool to validate whether or not defects have been created,
		70 (74	however, according to the test management plan and template, the anomalies are

Practices and Products	Adequat e	Deficie nt	Notes: Items Reviewed; Interviews Conducted; Demonstration
			supposed to be documented within the test case which does not seem to be the case.
Are formal code reviews conducted?	X		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?		X	Changed from Adequate to Deficient in the month of September. 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?	N/A	N/A	Project is in the Adaptation Phase – this item is not applicable.
Is the enterprise architecture plan adhered to?	N/A	N/A	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 and will need to work with the project team to gain access for this document.
Are formal deliverable inspections performed, beginning with requirements specifications?	X		The PRSM <u>Quality Management Plan</u> 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. TMS will work with the project team to understand the current status of the "as-is" and "to-be" business process documentation.
Are IV&V services obtained and used?	X		The IV&V Contract was approved and the IV&V Vendor began work in April 2008.