

City of Portland

Public Safety Systems Revitalization Program

Radio Replacement Project



Periodic QA Evaluation Report

For the Month of July 2013

Deliverable: Radio.C.9

V2.0 Final Version

8/14/2013

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Version	Date	Comments
V1.2	8/8/2013	Initial Version for PSSRP Review.
V1.3	8/12/2013	Incorporated feedback from the PSSRP POM.
V2.0	8/14/2013	Incorporate PSSRP PM feedback. Final Version.

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Executive Summary

Executive Steering Watch List

This section identifies potential issues that ESC should be watching closely. The “watch list” documents program related concerns that have come to CAI’s attention but have not yet been completely assessed. As of this report, the following are on the watch list:

1. The height and construction of the microwave tower at Walter’s Hill.

Status: The Gresham Mayor and a number of Gresham residents are concerned about the tower height to replace the existing 40’ telephone pole. It is likely that the tower construction meets the land use requirements established by the City of Gresham. The tower replacement is a BTS project (not PSSRP) and they have been working on it for some time. PSSRP briefed the Executive Steering Committee at the 6/19/2013 meeting.

BTS is filing an application to obtain a permit to construct a 140’ tower.

The Radio project’s conceptual design included a microwave tower location on Walters Hill and the schedule is dependent on this tower to complete the east side microwave loop. Alternatives may be risky, expensive, and delay the Radio project. PSSRP is actively addressing this significant risk.

- 2 The Acquisition Phase schedule.

Status: Contract negotiations are proceeding as planned. The project can tolerate some months of slippage before it affects the overall project schedule.

- 3 Subscriber Units purchase from Motorola.

The project is considering an offer from Motorola to purchase the subscriber units. Such a decision could obviate the RFP for subscriber units.

Project Status and Progress

The PSSRP Radio Replacement Project is to replace the current City of Portland Public Safety radio communications system with a modern all digital P25 Phase I compliant system.

This is the ninth monthly Radio Replacement Project Periodic QA Evaluation Report intended to assess the health of the project and provide independent observations (positive or negative) and recommendations for avoiding and/or responding to any future negative impacts.

The Radio Replacement Project is in two major phases:

1. Phase I - Infrastructure. The project is in this phase. This Periodic QA Evaluation Report focuses on this phase.
2. Phase II - Subscriber Units. CAI will include reviews of this phase when appropriate. PSSRP plans to release the RFP in mid-2014.

Overall Project QA Status

Contract negotiations with Motorola, the successful vendor, started 6/12/2013. To help develop the contract, PSSRP has recent contract samples from other Motorola clients. The Radio team also went on a



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site visit to Spokane. Contract negotiations are expected to last through August 2013. When the contract is reviewed by all necessary parties, including legal counsel and Procurement Services, PSSRP will seek approval from the City Council to execute the contract. The current plan is to present the contract to Council in October 2013.

The Bureau of Technology Services (BTS) completed the street-level coverage analysis. This data is necessary for the contract negotiations and will be used as a baseline against which to compare the new system.

All Quality Focal Points (QFP) are rated **Stable**.

The Overall Health rating is also **Stable**, reflecting that the project is well run and requires no immediate intervention.

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Overall Project Health

Overall Rating: **Stable**

The overall health of the project is based on the three main factors described in the table below:

Health Factor	Rating	Comments
Schedule	Stable	The project is proceeding according to expectations. Some project risks could affect the schedule. To address this, QFP #3 and QFP #5 are rated as needing attention.
Budget	Stable	The project has a budget and contingency. Most expenditures will be planned during and shortly after contract negotiations. The adequacy of the budget will be reassessed then.
Scope	Stable	The project scope is clearly defined in the RFP and the Project Charter.

Quality Focal Points Rated **Alert**

NONE - No Quality Focal Points are impacting the project at this time.

Quality Focal Points Rated **Attention**

NONE - No Quality Focal Points need attention at this time.

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Quality Focal Point Summary Chart¹

Quality Focal Point	Impact	Prior as of: 6/56/13	Prior as of: 7/7/13	Current as of: 8/7/13	Next Month ²
1. Meeting Milestones	High	Stable	Stable	Stable	↔
Planning					↔
2. Requirements Management	High	Stable	Stable	Stable	
3. Project Schedule	High	Stable	Stable	Stable	
4. Communications	High	Stable	Stable	Stable	
5. Risk and Issue Management	High	Stable	Stable	Stable	
6. Radio System Acquisition	High	Stable	Stable	Stable	
7. Tech Transition	High	NR ³	NR	NR	
8. Operational Transition	High	NR	NR	NR	
Monitoring and Control					↔
9. Project Organization and Leadership	High	Stable	Stable	Stable	
10. Project Resources	High	Stable	Stable	Stable	
11. Project/Quality Management and Reporting	Medium	NR	NR	NR	
12. Budget Planning and Tracking	Medium	Stable	Stable	Stable	
13. Scope and Change Control	High	NR	NR	NR	
14. Radio System Architecture	High	NR	NR	Stable	
15. Radio System Acquisition Management	High	Stable	Stable	Stable	
16. Project Library and Configuration Management	Medium	Stable	Stable	Stable	
Delivery					↔
17. System Design Process	High	Stable	Stable	Stable	
18. Testing (Non-Functional)	High	NR	NR	NR	
19. User Acceptance Process	High	NR	NR	NR	
20. Training	High	NR	NR	NR	
21. Implementation & Integration Process	High	NR	NR	NR	

¹ The Quality Focal Point ratings are explained on the next page.

² The Next Month arrows are explained on the next page.

³ "NR" indicates Not Rated for this report.

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Definition of QFP Ratings:

Stable

- The Quality Focal Point is stable and not currently impacting the project.

CAI may include a **Suggestion** in a QFP rated as **Stable**. CAI rated the QFP as stable because it is not impacting the project at this time. The suggested action is a preventive measure to keep the QFP stable.

Attention

- The Quality Focal Point needs some improvement so it won't impact the project.

CAI includes a **Recommendation** for every QFP rated **Attention**. The recommended action is a corrective measure to improve the QFP so it won't impact the project.

Alert

- The Quality Focal Point is impacting the project and needs immediate attention.

CAI includes a **Recommendation** for every QFP rated **Alert**. The recommended action is a corrective measure to improve the QFP that is currently impacting the project.

Definition of Next Month Indicators:

The next month indicators signify expected changes in the QFP ratings.



- This Quality Focal Point (or group of QFPs) is expected to have the same rating in next month's Periodic QA Evaluation.



- Risk is decreasing on the Quality Focal Point. It may be upgraded to **Stable** in next month's evaluation.



- Risk is decreasing on the Quality Focal Point. It may be upgraded to **Attention** in next month's evaluation.



- Risk is increasing on the Quality Focal Point. It may be downgraded to **Attention** in next month's evaluation.



- Risk is increasing on the Quality Focal Point. It may be downgraded to **Alert** in next month's evaluation.

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Quality Focal Points

1	<h3>Milestones</h3> <p>Project milestones are being met on schedule. The Milestone QFP assesses the scheduled completion of interim and major project milestones and their impact on overall project completion.</p> <p>Risk Level Stable Attention Alert <div style="position: absolute; left: 20px; top: 5px; width: 20px; height: 10px; background-color: green;"></div> </p>
1.1	<p>Are project milestones being met so far? Finding: Yes –The project announced that Motorola received the award. The announcement was 5/22/2013, nine days ahead of schedule. Contract negotiations began on 6/12/2013, on schedule. The negotiations will continue through August 2013. Legal counsel and the City Procurement Services will then review the contract. PSSRP will present the final contract for approval to the City Council October 2013.</p>
1.2	<p>Is there sufficient time (with appropriate slack) to complete the project before the committed completion date? Finding: TBD – The project schedule will be developed during negotiations with the selected vendor. Contract Negotiations with the vendor are scheduled for June through August 2013. A detailed project schedule is not feasible until the system design is approved. PSSRP and Motorola are expecting to finalize the system design (DDR) in Jan/Feb 2014.</p>
2	<h3>Requirements Management</h3> <p>The Requirements Management process is appropriate and thorough.</p> <p>Risk Level Stable Attention Alert <div style="position: absolute; left: 20px; top: 5px; width: 20px; height: 10px; background-color: green;"></div> </p>
2.1	<p>Are the System and Business Requirements understood and confirmed? Finding: Yes –The requirements are clearly articulated in the RFP, “Functional Requirements” chapter. The Radio Project Charter contains high-level project objectives.</p>
2.2	<p>Are requirements traceable to design? Finding: Yes – The requirements are traceable to the Conceptual Design provided by the project consultants, Federal Engineering. The City accepted the requirements and conceptual design. The RFP contained requirements for the proposal. When the SOW and system design are developed they will be compared to the RFP to maintain traceability.</p>
2.3	<p>Are requirement change impacts understood and documented Finding: TBD</p>
2.4	<p>Are test conditions defined to validate requirements compliance? Finding: TBD</p>

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9	<h3 style="margin: 0;">Project Organization and Leadership</h3> <p style="margin: 0;">The project is appropriately organized. The Organization QFP assesses the breadth and depth of the project’s organization and the commitment to the project within the organization. This determines if the project’s organizational structure can manage both tactical and strategic project issues.</p> <p style="margin: 0; text-align: center;"> Stable Attention Alert </p> <p style="margin: 0;">Risk Level </p>
9.1	<p>Is the Steering Committee is comprised of executive decision-makers and is functioning? Finding: Yes – The Executive Steering Committee (ESC) meets regularly. The Governance, including the Executive Steering Committee was redefined in August 2012. The Steering Committee members are active during ESC meetings.</p>
9.2	<p>Executive Sponsors have been designated? Finding: Yes - The sponsor is designated in the Governance document.</p>
9.3	<p>Project Management roles and responsibilities with lines of authority and accountability have been defined, assigned and agreed upon? Finding: Yes – The project has two Project Managers assigned. Their individual roles are listed in a separate document; “Responsibility matrix – Co PMs.” In January 2013, one of the PMs was assigned to another PSSRP project. The Radio PMs are working well together to balance the load for the PM managing two projects.</p>
9.4	<p>Management and Staff are committed to the project. Finding: Yes</p>
9.5	<p>Are other Stakeholders/users committed to the project? Finding: Yes</p>

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11	<p>Project & Quality Management and Reporting</p> <p>The project is appropriately managed and quality controlled. Assessment of the Project Management and Quality Management Processes and Plans.</p> <p style="text-align: center;"> Stable Attention Alert </p> <p>Risk Level NOT APPLICABLE AT THIS TIME</p>
11.1	Have formal Project Management and Quality Management Plans been developed? Finding: TBD
11.2	Are the Plans being followed? Finding:
11.3	Have appropriate metrics and processes been put in place to successfully manage the project? Finding:
11.4	Have objective quality metrics been put in place for project deliverables? Finding:
11.6	Are the results of the metric measurements reported to the appropriate sponsor, users, and other stakeholders? Finding:
11.7	Are appropriate corrective actions put in place when measurements are not acceptable? Finding:
11.8	Are appropriate status reports prepared for tracking and monitoring all project tasks? Finding:
<p>Suggestion: The project should develop a detailed and formal Quality Management Plan (QMP). The City and the vendor will collaboratively develop the QMP. The plan will describe reviews and Quality Control and Quality Assurance steps to ensure that the vendor is progressing according to the City's needs.</p> <p>The QMP does not need to be a separate document and plan. It can be contained in another document, or all QM plans can be described in various other documents. For instance, design reviews and product reviews could be described in a Testing Plan. Likewise, Quality reporting could also be described in a Communication Plan.</p> <p>The QMP should be finalized shortly after contract negotiations are complete.</p>	

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12	<h3 style="margin: 0;">Budget Planning and Tracking</h3> <p style="margin: 0;">The project budget is appropriately planned, managed and tracked. Assessment of the Project Budget Planning and Tracking Processes. Are the Plans in place and followed to ensure project deliverables meet requirements and are accomplished on time and within budget?</p> <p style="margin: 0; text-align: center;"> Stable Attention Alert </p> <p style="margin: 0;">Risk Level <div style="width: 25%; background-color: green;"></div> </p>
12.1	<p>Is the Radio Budget thoroughly planned and Budget to Actuals reported in a timely manner? Finding: TBD – Most expenditures will be planned during and shortly after contract negotiations.</p>
12.2	<p>Are the appropriate funds budgeted in order to conduct required activities and complete and support the project? Finding: TBD - Most expenditures will be planned during and shortly after contract negotiations.</p>
12.3	<p>Does the Project Manager maintain a tracking report of expenditure? Finding: Yes – Budget management and tracking is performed by the city’s finance office in consultation with the PM and providing regular budget reports to the PM.</p>

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13	<p>Scope and Change Control</p> <p>The project scope is appropriately controlled. Scope and Change Control assesses the implementation and adherence to change requests.</p> <p>Risk Level NOT APPLICABLE AT THIS TIME</p> <p style="text-align: center; font-size: small;">Stable Attention Alert</p>
13.1	Scope is being adhered to? Note: Changes in scope usually impact budget. Finding:
13.2	Are change requests appropriately identified, escalated, and resolved in a timely manner? Finding:
13.3	Are change requests effectively recognized, analyzed for impact, and approved prior to inclusion in the project scope? Finding:

14	<p>Radio System Architecture</p> <p>The project adheres to Radio System architecture standards. Verification that the Project conforms to Radio Architecture standards.</p> <p>Risk Level NOT APPLICABLE AT THIS TIME</p> <p style="text-align: center; font-size: small;">Stable Attention Alert</p>
14.1	The Project supports the Radio System Architecture Framework? Finding: Yes – There is a Conceptual Design. Motorola’s proposal was selected in part because of its fit into the City’s architecture.
14.2	The project supports the Radio System architecture with respect to geographical coverage, functionality, capacity, and interoperability. Finding: In Progress – the final step to prove the vendors fit with the City requirements will be at the Detailed Design Review expected to be completed in Jan/Feb 2014.

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15	<h3 style="margin: 0;">Radio System Acquisition Management</h3> <p style="margin: 0;">The vendor deliverables meet the Project requirements and standards per the Contract Terms and Conditions.</p> <p style="margin: 0;"> Stable Attention Alert </p> <p style="margin: 0;">Risk Level </p>
15.1	<p>Procedures are defined and documented to monitor and track vendor deliverables. Finding: Yes, for the RFP phase. The RFP is explicit regarding the Proposal content. The project defined and is following the RFP process. TBD for the Implementation phase.</p>
15.2	<p>Procedures are defined and documented to measure vendor deliverables against project requirements and standards per the contract. Finding: TBD</p>
15.3	<p>Project staff understands and follows documented procedures regarding vendor deliverables requirements. Finding: TBD for the Implementation phase.</p>

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16	<p>Project Library and Configuration Management</p> <p>The project has an appropriate Project Library in place to support Project Management and a Configuration Management Process in place to support System Delivery.</p> <p>Risk Level <div style="display: inline-block; width: 20px; height: 10px; background-color: green; vertical-align: middle;"></div> Stable Attention Alert </p>
16.1	A Secure library has been defined? Finding: Yes – The Radio project uses a hierarchical file system to manage all project related documentation. Access is limited to people with appropriate system accounts.
16.2	Procedures are documented for configuring and maintaining the library? Finding: Yes - Project uses standard IT system administration procedures for configuring and maintaining the file system which holds all project related documentation.
16.3	Procedures are documented for checking items in and out of the library? Finding: No – The project does not have a check-in-and-out process. A standardized document content and management procedures would support version controls.
16.4	There are contractor controls and monitoring in place. Finding: Yes – These are based on IT general contractor system access rules.
16.5	There are procedures for reviewing changes to items in the library? Finding: No – The file system has no procedures for reviewing changes in the library.

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SYSTEM DELIVERY - Quality Focal Points

17	<p>System Design Process</p> <p>The system design process is appropriate and thorough.</p> <p style="text-align: center;"> Stable Attention Alert </p> <p>Risk Level </p>
17.1	Are radio system specifications/designs in agreement with the system/business requirements? Finding: Yes – Requirements are clearly defined in the RFP.
17.2	Are the radio system specifications reasonable and acceptable? Finding: Yes – The specifications are in accordance with generally accepted industry standards, such as P25 Phase 1 and future Phase 2.
17.3	Is the current Public Safety Radio system infrastructure (towers, shelters, microwave, power, etc.) capable to support the new voice communication Public Safety Radio? Finding: TBD –The vendor and the City will conduct site surveys to confirm that the current infrastructure will support the new Radio system.
17.4	Does the radio system architecture allow for full interoperability among Portland and other metro area jurisdictions? Finding: TBD – This will be determined in the DDR and verified in testing.

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18	<p>Testing (Non-Functional)</p> <p>The project is appropriately tested. Appropriate functional and performance acceptance testing procedures and plans are in place and meet the operational needs of the system and verify and validate acceptable compliance to requirements.</p> <p style="text-align: center;">Stable Attention Alert</p> <p>Risk Level <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NOT APPLICABLE AT THIS TIME</p>
18.1	Has a formal Test Management Plan been developed? Finding: TBD – A high-level testing approach will be determined during contract negotiations. The Motorola proposal includes a formal Testing plan/approach.
18.2	Is the Plan being followed? Finding:
18.3	Do the documented functional specifications meet the business needs? Finding:
18.4	Are the end users involved in establishing the functional acceptance testing scope and standards? Finding:
18.5	Are the functional, capacity, and performance acceptance test procedures appropriate and are results monitored and tracked? Finding:
18.6	Do the functional, capacity, and performance specifications match operational needs? Finding:
18.7	Is comprehensive end-to-end functional, capacity, and performance acceptance testing planned and performed for all Radio System components, including supporting infrastructure? Finding:
18.8	Are infrastructure conditions that may affect the radio system being considered, tested and resolved? Finding:
18.9	Was a defect log maintained and effective corrective actions taken? Finding:

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19	<p>User Acceptance Process</p> <p>The User Acceptance Process is appropriate and defines the methods, test plans, test procedures, and test results required to ensure the delivered system meets customer requirements.</p> <p style="text-align: center;"> Stable Attention Alert </p> <p>Risk Level <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NOT APPLICABLE AT THIS TIME</p>
19.1	A User Acceptance Test Plan has been prepared. Finding: TBD – A high-level testing approach will be determined during contract negotiations. A detailed Test Plan will be developed later in the project.
19.2	The acceptance test procedures are complete. Finding:
19.3	Testing standards are understood and followed. Finding:
19.4	A defect log was maintained and corrective actions were effective. Finding:
19.5	User acceptance criteria have been met. Finding:

20	<p>Training</p> <p>The radio system technical staff and end users are appropriately trained in a timely manner. Assessment of training plans and materials.</p> <p style="text-align: center;"> Stable Attention Alert </p> <p>Risk Level <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NOT APPLICABLE AT THIS TIME</p>
20.1	Have formal end user and technical Training Plans been developed? Finding: TBD – The RFP requires the vendor to address training. A Training Plan will be developed later in the project. The project should include training and operations support in the schedule.
20.2	Are the Plans being followed? Finding:

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21	<p>Implementation & Integration Process</p> <p>The new system has been successfully moved into the production environment.</p> <p style="text-align: center;">Stable Attention Alert</p> <p>Risk Level <input type="text"/> <input type="text"/> <input type="text"/> NOT APPLICABLE AT THIS TIME</p>
21.1	The installation specification is complete and reasonable. Finding:
21.2	The integration specification is complete and reasonable. Finding:
21.3	The end user and technical training plans are complete and acceptable. Finding:
21.4	The actual training was acceptable. Finding:
21.5	System documentation is complete and acceptable. Finding:
21.6	Is there an appropriate Operations & Maintenance Plan in place to assure the new system is appropriately supported in accordance with (to be?) established Service Level Agreements (SLAs)? Finding:
21.7	The implementation and integration acceptance criteria have been met. Finding:

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Appendix A – CASE Associates Status Report

This section summarizes activities and deliverables completed for the Radio Replacement Project during April 2013.

When applicable, it includes:

- A list of any delayed items
- A description of the problem
- Schedule impact
- A recommended solution

Such items will be carried over to subsequent reports until the problem is resolved.

As of May 2013, this section replaces the “Quality Assurance Status Report.” In prior months this section was delivered as a separate report.

Meetings Attended

Meeting with the Project Managers and POM, 7/1/2013, 8/6/2013
Executive Steering Committee Meeting 7/17/2013

Documents Reviewed

Governance-Radio Final v2 2-2013
COP Radio Status report week ending 6-30-2013 Final – Project Managers’ Report
COP Radio Status report week ending 7 19 and 26 2013 Final
COP Radio Status report week ending 7-12-2013 Final
Governance-Radio Final v2 2-2013

Documents Delivered

Radio CAI Periodic QA Evaluation Report for June 2013, deliverable *Radio.C.8*

Documents in Process

Radio CAI Periodic QA Evaluation Report for July 2013, deliverable *Radio.C.9*

Delayed Items

Item	Description of problem	Schedule Impact	Recommended Solution
None			

Other Issues/Problems/Concerns

CAI and PSSRP signed an amendment to combine the monthly Periodic Evaluation and the Monthly Status Report and to add a subcontractor.