CITY & PORT OF OAKLAND
JOINT DOMAIN AWARENESS CENTER

PROPOSAL
APPENDIX - A

TECHNICAL
STATEMENT OF WORK
(SOW)

VERSION

Wednesday, January 23, 2013
8:22 AM

Contract SOW Only

Overview

The following provides a general description of the tasks established to perform the scope of work covered under this contract and subsequently further described in detail in the respective sections that follow.

1.0 TASK 1: Program Management

Program Management and reporting duties are performed under this task from project start thru to the end of implementation (through to the end and completion of Task 4).

2.0 TASK 2: EBI Construction, Architecture and Video Wall Display System

This task covers all work activities and efforts to satisfy the Part-B EBI Requirements.

- 2.1 Construction Services
- 2.2 Architecture Design Services
- 2.3 Video Display Wall System

3.0 TASK 3: TLS Planning and Scoping

This task covers the Part – A TLS Planning and Scoping Reqts

- 3.1 TLS Needs Assessment and Survey
- 3.2 TLS Proof-of-Concept Design
- 3.3 TLS Design Customer Acceptance

4.0 TASK 4: TLS Implementation

This task covers the Part – A TLS Implementation Reqts

- 4.1 Design-Build Implementation
- 4.2 System Integration
- 4.3 Testing and QA
- 4.4 Training

5.0 TASK 5: Two Years Maintenance

This task covers the 2 year base maintenance period (included is PM support for this period of performance but only to the low level needed for this effort)

6.0 TASK 6: Optional, Three Years Extended Maintenance

This task provides an "Optional" placeholder to provide an "extended" 3 more years of maintenance support (included will be PM support for this period of performance but only to the low level needed for this effort)

7.0 TASK 7: Optional, EOC Staff Support Services

This task provides an "optional" placeholder to allow for the inclusion of additional 24/7/365 as may be needed – on-call or otherwise EOC DAC staff support resources

8.0 TASK 8: Optional, As-Needed Additional Expansion Services

This task provides an "optional" placeholder to allow for the inclusion of any additional technical expansion or enhancements not otherwise thought of at this moment, but that may surface in the future.

1.0 TASK 1

PROJECT MANAGEMENT AND REPORTING

Project management involves tightly knit communication and cooperation between the PM and key support staff and subcontractors throughout all phases of this project: design, construction, and maintenance.

The SAIC Program Manager will prepare meeting agendas, meeting notes, action item capture and monitoring, and distribution of same to the SAIC Team, the City-Port, and required stakeholders. Meetings to be held include:

- A project kickoff meeting to establish objectives and timing of the project, including finalization of the roles and responsibilities of each team member.
- Monthly meetings with the City-Port will be held, and meeting notes that cover managerial and technical issues will be maintained. The SAIC Team will prepare the meeting notes.
- Internal Technical Interface Meetings: Internal meetings are held when necessary to ensure the continuity of information exchange necessary for the project. Action items will be maintained and monitored using an Action Item Register resident on a project SharePoint® collaboration site hosted by SAIC.

Kick-Off Meeting

The SAIC Project Manager will hold a kick-off meeting at a location determined by the customer within 15 days following receipt of the Notice to Proceed (NTP). The kickoff meeting will serve as a working session for the SAIC Team to talk through the project goals, technical challenges, and mitigation options to determine the final and optimal path forward. At least two days prior to the kick-off meeting, the SAIC Team will provide the Oakland customer with a draft project schedule for review. The overall outcome of the kickoff meeting will be a refined and final schedule. The SAIC Key Staff will lead the kick-off meeting on behalf of the SAIC, with attendance from the Task Leads and any task advisors that will have a major role in shaping the development of the DAC.

Following completion of the kick-off meeting, the SAIC Project Manager will revise the draft schedule to address any comments or concerns raised during the kick-off meeting. He will also submit a final schedule within two weeks of the kick-off meeting.

Project Controls

SAIC's Project Control Mechanisms are built on industry-standard methodologies, specifically the Project Management Institute's Project Management Body of Knowledge (PMBOK). The methodologies have been effective, and SAIC Team have taught them in SAIC University to the PM, Engineering Managers, QA Manager, Project Controller, Contracts Manager, and Subcontracts Manager assigned to this project.

Weekly Email Progress Updates

The development of the DAC will involve numerous activities spanning different members of the SAIC Team. The ensure that communications are continuously maintained as well as that the City-Port is aware of all activities occurring on the project, the SAIC Team plans to provide the City-Port with weekly email progress updates throughout the duration of this project. The purpose of these progress updates will be to provide a timely and detailed review of project status, activities, budget, risks, and immediate next steps. Further, these weekly updates will serve as a framework to the monthly meetings, described in Section **Error! Reference source not found.**, held between the City-Port and the SAIC Team.

Monthly Progress Reporting

Upon contract award, SAIC Project Manager and Project Controllers will establish project charge numbers aligned with the project work breakdown structure (WBS) and project work packages. SAIC Project Manager has the flexibility to organize the project charge numbers to achieve the level of granularity and visibility necessary to manage the project budget. SAIC uses the Deltek® Time Recording and Expense Reporting System with daily electronic time card entries. The software helps SAIC automate the collection, validation, approval, and processing of labor, expense, and human resources-related information. Automatic reminders are sent to any employee and his supervisor when timecards are not completed by the end of the business day.

Management Indicators

All SAIC projects use management indicators to help manage project status and communicate status to the customer. Project-level management indicators include status reports and schedules, as determined by SAIC Project Manager, which are maintained in the Project Library.

Measurement and Reporting

Project control tracks all projects at the cost line and the revenue line for performance against budget. The PM is responsible for ensuring that all information is correct and maintained as required:

Minimum data requirements to be collected include:

- Contract type(s) used
- Actual costs and revenues (including subcontractor and offline company data) by period and actual cost of work performed (ACWP)
- Planned expenditures by period and budgeted cost of work scheduled (BCWS)
- Open commitments
- Funding per contract and change order
- Special project authorization (SPA) funding (SAIC own risk)
- Unbillable expenditures
- Estimate to complete (ETC)
- Estimate at completion (EAC)

Metrics to be reported include:

- Remaining funding
- Projected overruns
- Cost variance
- Completion variance
- Schedule variance
- Cost performance indices (CPIs).

This data and resulting metrics will be reported to business unit senior management in the project review format quarterly and will be tracked biweekly by the PM's organization.

Communications

The SAIC Team will initiate a monthly conference call with the City-Port to discuss all activities that occurred during the previous month. This call will be attended by the SAIC Team PM as well as any Task or subcontractor leads providing support during the previous month. The purpose of these calls will be to provide an opportunity for a more detailed discussed on the weekly email progress report updates as well as

other topics or concerns as required by the City-Port. The SAIC Team will provide meeting summary notes to the City-Port following the completion of each meeting.

Further, SAIC will initiate a weekly conferences with subcontractors to cover the SAIC and subcontractor technical and project management status. The meeting will be chaired by SAIC's PM or his designated representative and attended by representatives from all subcontractors working during activities for that week as well as SAIC's Subcontract Manager. Issues that require resolution will be followed up by e-mail and/or direct contact or discussion.

Changes to the project schedule will be captured by the Project Controller with input from the applicable subcontractors. The updated schedule will be posted to the SharePoint site and included in the monthly status report to the City-Port.

Technical Coordination and Collaboration with City Staff and Community

The SAIC Team understands that close technical coordination and collaboration are a necessity to not only successfully complete the technical approach, but engage the surrounding community. As such, the SAIC Team will develop a robust communication and collaboration plan to ensure efficient communication both internally within the project team and the City-Port as well as externally with the wider community. SAIC Team will identify available channels of communication that will allow us to: detect project problems early; identify issues, concerns, and corrective actions; manage stakeholder expectations; and implement strategies to improve quality of project deliverables. This communications plan will be integrated into the project management plan delivered as part of the project management task.

Coordination and Collaboration Strategies for Communicating with City Staff

The development of the DAC-TLS includes multiple agencies (e.g., the City of Oakland, the Port of Oakland, etc.), multiple subcontractors, and multiple activities simultaneously in motion (e.g., design, construction, and maintenance). The number of stakeholders coupled with the close interactions required between the different tasks could quickly affect the project schedule or budget without clear and concise communication. SAIC Team will make this site securely accessible by all project team members and the City-Port as well as other project stakeholders to enable information sharing related to project management activities and documentation.

Coordination and Collaboration Strategies for Communicating with the Community

In addition to collaborating and communicating with internal stakeholders, the SAIC Team will establish multiple modes of communication and collaboration with external stakeholders and the surrounding community. Coordinating and collaborating with the community benefits this effort in multiple ways. First, by actively keeping the public apprised of the project, the SAIC Team can provide opportunities for public input. Secondly, collaboration and communication with the community will allow the City-Port to generate buy-in and support from the community that may be critical on both this and future projects. The SAIC Team proposes the use of technical briefs, public service announcements, and town hall-style meetings to communicate with the public.

Because much of the work completed on this project is technical in nature, SAIC Team propose to develop short technical briefs which can describe recently completed and upcoming activities in lay terms which can be disseminated to the public electronically (e.g., on a project website). SAIC Team also propose to develop public service announcements in a format decided on by the City-Port (e.g., electronic, paper, radio, etc.). These public service announcements can be developed using input from the technical briefs providing time and cost savings.

Deliverables and Milestones

The SAIC Team will produce the following deliverables during Task 1:

- Kick-off meeting and meeting summary notes,
- Final project schedule,
- Weekly progress reporting updates delivered by email,
- Monthly Meetings with the port and meeting summary notes, and
- Monthly progress reports.

2.0 TASK 2

PART B: Design-Build Existing Building Improvements (EBI)

As an overview, this TASK 2 provides detail information as to what SAIC Team propose to deliver as well as detail on how SAIC Team propose to get the work completed to satisfactorily meet and satisfy the requirements for the PART-B EBI work scope.

The detailed delivery descriptions and approach information contained herein this TASK 2 is organized to address the following SUBTASK areas as follows:

SUBTASK REF.	PART-B EBI
SUBTASK 2.1	Construction Services
SUBTASK 2.2	Architecture Design Services
SUBTASK 2.3	Electrical – Video Wall Display System

17-Week PART-B EBI Delivery Schedule

SAIC team has developed the 17 week delivery schedule for the PART-B Existing Building Improvements (EBI) that includes the completion of the construction tenant improvements and the design/build/implementation of the video display wall system. Figure 5-1 depicts the work scope areas covered by the 17 Week PART-B EBI Delivery Schedule.

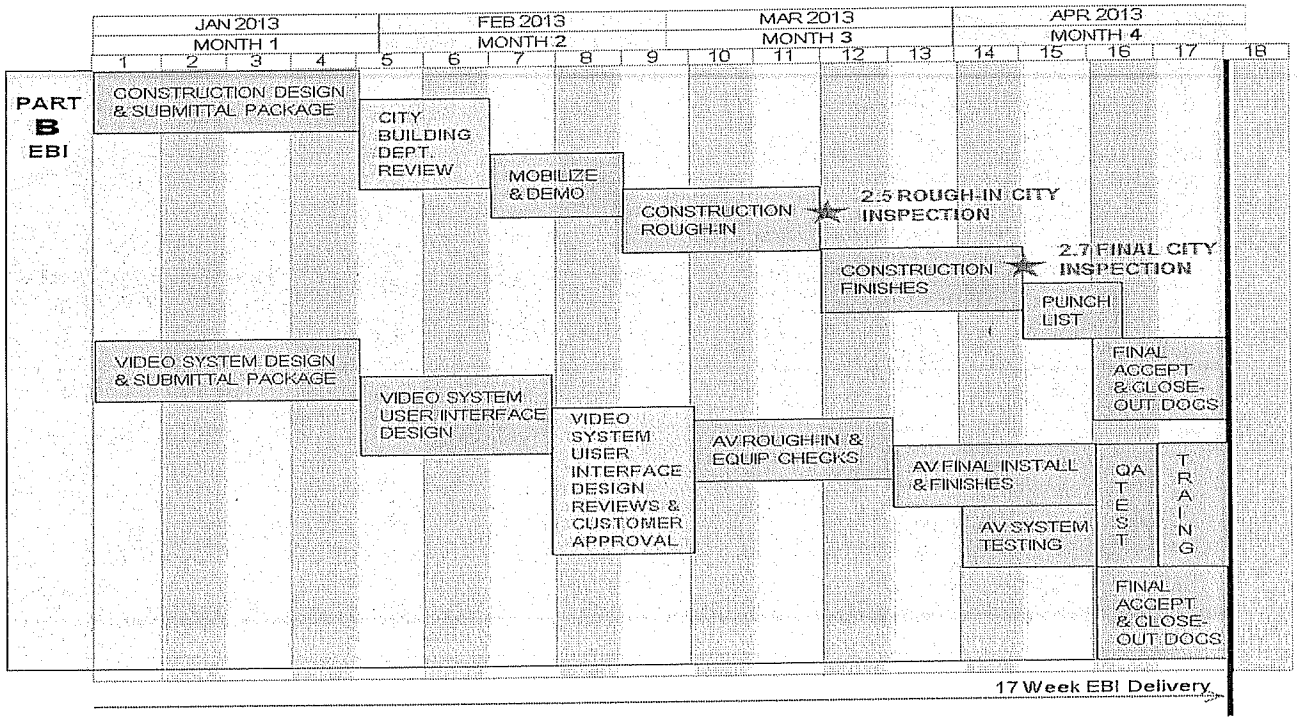


Figure 5-1. 17 Week PART-B EBI Delivery Schedule

SUBTASK 2.1 EBI – Construction Services

The following provides additional detail as to the work efforts per the sub task activities currently planned and programmed in the project delivery schedule. The references made herein to the SAIC team reflect that SAIC as the prime contractor system integrator has primary and overall responsibility for delivery with the support of its team.

Specific work efforts to be performed under this SUBTASK 2.1 construction services are outlined here as follows:

- Construction Design and Submittal Package
- City Building Department Review
- Construction Mobilization and Demolition
- Construction Rough-In
- Construction Rough-In City Building Department Inspection
- Construction Finishes
- Final Construction City Building Department Inspection
- Construction Punch List
- Final Customer Acceptance and Close-out Documents

Construction Design Preparation and Submittal Package

SAIC team will develop the construction design package and the submittal package and these packages will be submitted to the Oakland City Building Department for expedited review and approval. SAIC team will complete this subtask effort within a three (3) week time period. SAIC team assumes that the City will work collaboratively and efficiently with SAIC team to complete the construction design. SAIC team outcomes for this work effort are that the PART-B EBI Construction Design Package and a Submittal Package delivered for City Review-Approval.

City Building Department Review Support

Following submission of the construction design package and the submittal package to the City Building Department, SAIC team will be available to provide clarifications or changes as may be necessary to obtain approvals. SAIC team assumes the City Building Department will complete their review-approval within a two (2) week period. SAIC team assumes the City will expedite the review process as well as quickly engage the SAIC team for clarifications. SAIC team outcomes for this work effort are for the City to complete its expedited review and provide SAIC team with approvals to proceed with construction.

Construction Mobilization and Demolition

Once design plans/submittals have been approved by the City, SAIC team will mobilize the construction work force and perform demolition at the Emergency Operations Center (EOC). SAIC team proposes to complete this subtask within a two (2) week period. SAIC team assumes the City will make necessary provisions to provide appropriate [redacted]ccess to construction workforce. SAIC team outcomes for this work effort are to complete mobilization and demolition and all construction refuse appropriately removed.

EBI Construction Rough-In

SAIC team will perform the rough-in construction in the Oakland EOC in adherence to the guidelines and occupancy restrictions and/or conditions set forth by the Oakland City/Port customer. SAIC team will complete this subtask within a three (3) week period. SAIC team assumes the City will make necessary

provisions to provide appropriate EOC access to construction workforce. SAIC team outcomes for this work effort are to complete construction rough-in and make ready to schedule for City Building Department inspection.

City Building Department Inspection of EBI Post-Construction Rough-In

SAIC team will contact the City Building Department and schedule and coordinate the City's inspection of the completed construction rough-in. SAIC team will be readily available to support the City's rough-in inspection process and will record and remedy any construction deficiencies identified by the City. SAIC team will coordinate with the City to schedule the rough-in inspection on a specific one (1) day date. SAIC team assumes the City will quickly communicate to SAIC team any rough-in construction discrepancies and remedies. SAIC team outcomes for this work effort are to have City complete rough-in inspection and provide SAIC team approvals to proceed with construction finishes and/or a list of issues that need remedy before an inspection approval can be obtained to proceed with next step finishes.

EBI Construction Finishes

SAIC team will perform the construction finishes in the Oakland EOC in adherence to the guidelines and occupancy restrictions and/or conditions set forth by the Oakland City/Port customer. SAIC team will complete this subtask within a three (3) week period. SAIC team assumes the City will make necessary provisions to provide appropriate [redacted] access to construction workforce. SAIC team outcomes for this work effort are to complete construction finishes and make ready to schedule for City Building Department inspection.

City Building Department Final Inspection of EBI Post-Construction Finishes

SAIC team will contact the City Building Department and schedule and coordinate the City's inspection of the completed construction finishes. SAIC team will be readily available to support the City's finishes inspection process and will record and remedy any construction deficiencies identified by the City. SAIC team will coordinate with the City to schedule the finishes inspection on a specific one (1) day date. SAIC team assumes the City will quickly communicate to SAIC team any finish construction discrepancies and remedies. SAIC team outcomes for this work effort is to have the City complete final inspection of construction finishes and provide SAIC team with an EBI Construction Punch List or final approvals that EBI construction has been satisfactorily completed.

EBI Construction Punch List

If post City Final Inspection identifies discrepancies that require remedy, the SAIC team in collaboration with the City will develop an EBI Construction Punch List describing the items that must be corrected before the City will agree to issue a final approval that the EBI construction has been satisfactorily completed. SAIC team proposes that the remedy of issues on an anticipated Punch List to be completed around ten (10) days, pending the severity and complexity of the discrepancies. SAIC team assumes City will make necessary provisions to provide appropriate EOC access to construction workforce. SAIC team outcomes for this work effort is to have the City's complete Punch List items remedied and City re-inspects and provides final approvals verifying PART-B EBI construction work scope satisfactorily completed.

Final Review and Close-Out Documentation

SAIC team will coordinate a final customer walk-through review of all EBI construction and will prepare and submit documentation as part of this subtask close-out effort. SAIC team proposes to complete this subtask within a two (2) week period. SAIC team will determine acceptance criteria for documentation deliverables in consultation with City. SAIC team outcome for this work effort is to have PART-B EBI construction close-out documents delivered and City-customer acknowledges EBI construction complete.

SUBTASK 2.2 PART-B EBI – Architecture Design Services

SUBTASK 2.2 addresses the work efforts concerning architectural design services to be performed in support of meeting the PART-B EBI requirements. The SUBTASK 2.2 PART-B EBI Architecture Design Services (ADS) are to be completed in conjunction with the other work efforts of the overall PART-B EBI work scope. The architecture design services are detailed herein and can be summarized as to be executed in the following steps:

- Architecture Design Basic Services
- Architecture Design Permit Application and Administration

Architecture Design Basic Services

Based on the bridging documents provided by The Port of Oakland, SAIC team will advance the documents for the design of the Domain Awareness Center from 90% to 100%. SAIC team shall also coordinate the mechanical, electrical and plumbing seismic upgrades. SAIC team will prepare 100% Contract Documents consisting of:

- Construction plan indicating the layout of partitions
- Reflected ceiling plans indicating standard and special ceiling treatment and lighting coordinated with those elements shown on the engineering documents such as sprinkler heads and HVAC diffusers, as applicable
- Finish plans with symbols and legends showing the materials, colors, and their locations
- Details for special conditions
- Specifications for construction items, as required
- Review construction documents
- Coordinate with the engineering consultants, the preparation of engineering contract documents mechanical, electrical, fire protection, and life-safety systems seismic upgrades

Architecture Design Permit Application and Administration

Upon City and Port of Oakland approval, SAIC team shall proceed to issue the contract documents to obtain competitive pricing for their respective work. SAIC team shall also provide the contract documents for submittal to the appropriate governing agencies for building permit review as follows.

Permit application services shall be provided in the following manner:

- Provide, to the selected Construction Manager, architectural documents with "wet signature" for submittal to the appropriate governing agency for building permit application and plan check.
- Clarify all architecturally related questions generated during plan check
- Review all permit comments with appropriate representatives
- Provide permit "back check" services and shall revise construction documents as required to incorporate all plan check comments within documents.

Upon approval of the construction costs, SAIC team will provide construction administration services to insure that construction proceeds in conformance with the Contract Documents.

- Review and approve shop drawings and the General Contractor's material and equipment submittals for conformance with the established design intent and contract documents.
- Prepare a punch list of deficiencies for items relating to the construction trades.
- Coordinate, as necessary, to correct all punch list items.

SUBTASK 2.3 PART-B EBI – Electrical and Video Wall Display System

The SUBTASK 2.3 PART-B EBI Electrical and Video Display Wall System are to be completed in conjunction with the other work efforts of the overall PART-B EBI work scope.

Below is a high-level summary description of the DAC Video Display Wall System (VDWS) step-by-step design-build and installation, test, training and delivery plan.

- VDWS STEP 1: Technical Design & Finalized Solution
- VDWS STEP 2: Infrastructure
- VDWS STEP 3: Video Wall Bracket & Rack Install
- VDWS STEP 4: Video Wall Install And Trim Out
- VDWS STEP 5: Video Processor Configuration
- VDWS STEP 6: System Testing & Training

VDWS STEP 1: Technical Description –Finalized Solution

After receipt of City's Notice to Proceed, SAIC team will initiate a coordination meeting with the DAC project team. This meeting will provide the opportunity for the Consultant and the City to review our planned approach, expected event time line and to explore our value added options. After this meeting, SAIC Team will begin work on the video systems design and submittal package consisting of drawings and equipment lists to incorporate any requested changes.

Upon receipt of the City's purchase order, SAIC team will begin work on the video system design and submittal package. Our team will create AutoCAD drawings for the video wall's structural platform and audio/video/control signal flow diagrams. Our team will create a complete bill of materials, and equipment cut sheets.

At our follow up meeting, SAIC Team will deliver the AV system design and submittal package. After the DAC project team reviews our design and submittal package, our engineering staff will prepare the project's programming specifications. Next, our team will issue purchase orders to our equipment vendors & Sub Contractor. SAIC Team will also procure construction and disposal permits.

SAIC Team will prepare construction drawings and cable pull lists. He will also confirm the City's planned Network infrastructure to support the video wall and PC sources.

SAIC Team will submit sample touch panel layouts for Rack, Shift Supervisor and Room 203's wall mounted touch panel.

SAIC team will submit the names of all on site personnel to initiate the security coordination required for site access.

VDWS STEP 2: Technical Description: Infrastructure

VDWS STEP 2 will begin, after the initial kick-off project meeting. After the meeting, our programmer will begin design of the [redacted] layouts and our install team will begin the fabrication process.

Based on feedback from our January 28th meeting, our Programmer will begin creating [redacted] layouts. Our programmer will create code for the critical interaction between the Crestron control system and the Extron Quantum Elite video wall processor. He will also be creating code to control the matrix switcher routing schemes and drivers to control the CATV receiver channel selection and guide functions.

SAIC Team will submit touch panel layouts for Rack, Shift Supervisor and [redacted] He will also provide GUI layouts for City approval on February 18th 2013. After the City's approval, the programming will be completed March 4th.

Materials will arrive shortly after the meeting. Our install team will begin fabrication of the equipment racks. This will include installing the audiovisual components needed to support the video wall (video wall processor and the matrix switcher).

SAIC team will coordinate with the City on the appropriate dates and site access procedures. He will also coordinate with the City Facilities department and run through the pre demolition plan and execution conforms to the City's guidelines.

VDWS STEP 3: Technical Description: Video Wall Bracket & Rack Install

VDWS STEP 3 will begin shortly after the new wall is complete and will consist of pulling cable from the equipment rack location to the new connection points in the room, video wall mounting bracket installation, and equipment rack installation. Our SAIC team will schedule the delivery of the cable, video wall brackets, and equipment racks.

Cable Pull:

SAIC Team will utilize the existing and new cable paths to pull the required cabling for the system. Excess cable will be neatly coiled at the equipment rack location and neatly coiled at each pull destination location. Once the video wall and equipment rack installations are complete, our install team will terminate and dress the excess cable. The dressed cabling will be neatly tied into the equipment rack and at the mounting bracket locations for device connection.

Video Wall Bracket Installation:

Our SAIC team will mount the twelve (12) video wall monitor brackets on the new front wall of the room. Manufacturer specific spacers will be used to ensure that the brackets are installed in the correct locations. [redacted] monitors will be temporarily delivered to site and test mounted in place to ensure that he bracket spacing is correct. These monitors will then be returned to our shop for safe storage until Phase IV of the project.

Equipment Rack Installation:

During our pre installation meeting, SAIC Team confirmed the type of equipment, planned equipment positioning and spacing within the equipment rack. In VDWS STEP 3, the SAIC team will coordinate with the DAC team on the delivery of the owner furnished source PCs and owner furnished Cable TV receivers. The equipment rack is delivered to the jobsite at the same time the video wall bracket installation occurs. The equipment rack will be seismically braced to the floor. Our install team will mount the owner furnished Cable TV into the equipment rack. Once this is complete, our team will mount the side panels and locking front and rear vented doors.

SAIC Team processes will ensure that the cable pull, video wall bracket installation, and equipment rack Installations are conducted in close coordination. Constructing the equipment racks off site, and managing the drop ship delivery of materials will ensure a just-in-time delivery and assembly of the video wall and equipment racks. This approach will maximize our time on site, while minimizing the overall labor costs for DAC team.

VDWS STEP 4: Technical Description: Video Wall Install and Trim Out

VDWS STEP 4 will begin once the construction site is dust free and will consist of [redacted] monitors in the adjacent conference rooms, and trimming out all connections in the DAC and surrounding conference rooms. The SAIC Team will schedule the delivery of the monitors and miscellaneous accessories.

Video Wall Installation:

Prior to installation, our install team will turn on and test each monitor to ensure that these products arrived at the jobsite ready to be deployed. Our install team will install each of the twelve (12) monitors while verifying proper placement and alignment. Input cabling and CAT5 receiver devices will be installed at each monitor location with cabling dressed neatly into the pull-out armatures.

Trim-Out Installation:

During our final trim-out, cabling will be terminated at all source and destination locations. [redacted] mounted and installed in the front console areas to provide input connections for the computers [redacted] installed in the adjacent conference rooms to provide signal feeds from the DAC system. Inter rack wiring between the new and old systems will be terminated and connected to the appropriate components to allow signals from the existing system to be sent to the new system.

VDWS STEP 5: Technical Description: Video Processor Configuration

VDWS STEP 5 will begin once the video wall's physical installation is complete. STEP 5 will consist of configuring the Extron Quantum Video Wall Processor.

During our initial coordination meeting, SAIC Team confirmed desired video wall image window layout configurations. In our subsequent pre installation meeting, SAIC Team will again confirm that the planned layouts meet the DAC project team's approval.

During VDWS STEP 5, SAIC team will configure the Extron Quantum to properly map the video wall and will begin setting up the layout configurations. The programmer will set up the display desktop so that is displayed perfectly across the video wall. He will then build and name the video wall layouts per the input received from DAC project team during the coordination meetings. If required, he label and set up boarders for display windows.

Once the configuration is complete, SAIC team will confirm video wall processor's display operation with an on-site visit from an applications engineer from Extron Electronics who will ensure that all systems are 100% calibrated and tested.

VDWS STEP 6: Technical Description: System Testing & Training

SAIC team will conduct will a full system test to ensure proper system performance. This final system test will follow up on the system testing and system commissioning previously completed in VDWS STEP 5.

In the Situation Room: SAIC Team propose to conduct test and mock operations utilizing the Quantum Elite Control Software and the Crestron touch panel and WEB GUI. The Engineer conduct thorough testing of the control systems' coordination with the video wall processor to recall video wall layouts, control image window source selection, select sources to be transmitted to overflow monitors. The Engineer will also test out the control system's control over the CATV channel/guide operations and matrix switcher's routing functions, as well as control over the video wall's LED monitors.

In Room 205 (the Planning & Intelligence Room), SAIC Team propose to test out the videoconferencing system and control system's control operation of the videoconferencing hardware. The Engineer will also thoroughly test out the control system's management over the matrix switcher's signal routing. Our Project Engineer will produce as part of our close out documentation certifying that the installation is in full compliance with the manufacturer's best practices and compliant with the contract documents.

Training: SAIC Team propose to submit our training plan during our pre construction meeting. This will allow the DAC project team ample opportunity to review our training approach. Once SAIC Team have approval from the DAC project team that SAIC Team have successfully demonstrated system operation and compliance with the RFP specified system operation/performance, SAIC Team will submit our training schedule. SAIC Team will coordinate with the DAC project regarding training dates, number of the DAC personnel, participants included in the basic and advanced training courses.

3.0 TASK 3

PART A: DAC - Technology Linkage System (TLS) – Planning and Scoping

The detailed delivery descriptions and approach information contained herein this sub-section is organized to address the following areas as follows:

- PART – A TLS Needs Assessment and Survey
- PART – A TLS Proof-of-Concept Design
- PART – A TLS Oakland City-Port Design Approval

SUBTASK 3.1 – Perform a DAC-TLS Needs Assessment and Survey

Before the design work begins, the SAIC Team will work with the Oakland Customer to reassess the CONOPS and Technology Linkage documents to determine which elements are still relevant to the DAC-TLS project. The SAIC Team will review the existing technologies and interfaces to make sure they match the proposed expectations. The updated information will be captured in a project concept document that will continuously evolve as the assessment and survey progresses. At the end of the assessment and survey period, SAIC Team will hold a workshop to present the findings to the project team. The result of this effort will produce a new common understanding of the ConOps and the technology linkage functionality that will be available at the DAC.

SUBTASK 3.2 – Proof-of-Concept Design

Before beginning construction, the SAIC Team will perform a DAC-TLS Proof-of-Concept Design. This proof-of-concept design will include the identification of project delivery system solutions as outlined in the DAC-TL document, identification of remote field device and hardware interface methodologies for the integration of systems, and provide a video wall, display, and controls switching operational narrative, as well as a methodology for communication of information to agencies and how these technologies will interface with the PSIM.

The proof-of-concept design will equate to the 90% system design. System design components include:

- Network architecture design;
- Video storage solution design;
- Function definition documents for the technology linkage components that will integrate the VidSys PSIM with the other security subsystems;
- Design of the CONOPS integration into the [redacted]. Design includes operator workflow in [redacted]; and
- Sensor placement design on floor plans and maps.

The proof-of-concept design also includes an initial technology linkage demonstration to show the capabilities of the [redacted] system. In parallel to the paper design work, [redacted] will be developing the technology linkages to many of the security subsystems. Where the technology linkage design already exists [redacted] will create the linkage with the security subsystem, add the new sensors, and configure them within the PSIM application. This will provide the City-Port with an immediate proof-of-concept of the PSIM application and provide the first opportunity for Oakland to touch and feel a real system.

Identification of DAC-TLS Project Delivery Systems

As part of planning and scoping activities, SAIC team will collaborate with the City and Port and other DAC stakeholders to ensure that our proposed system integration plans for project delivery systems will meet the needs of the DAC. SAIC Team will work to identify potential networking or infrastructure bottlenecks and/or technical design or integration obstacles and develop strategies to mitigate or overcome for successful delivery. Furthermore, SAIC Team will evaluate potential DAC-TLS and platform integration end points and establish standard data exchange and interface protocols and schema to ensure proper seamless technical interface. As a final step in identifying the project delivery systems solution, SAIC Team will evaluation potential data sources, including contractors and vendors whom with their cooperation may be required to effectively and efficiently complete the system component integration effort.

Remote Field Device/Hardware Interface and Integration Methodology

For remote field device and hardware interfaces integration efforts, SAIC Team will leverage our proven methodologies based on lessons learned from numerous similar projects to ensure the most optimized use of technical resources and capabilities delivery the desired outcomes. To provide the remote field device and hardware interface methodology for the integration of systems, SAIC Team will define the minimum technical requirements for end-user hardware, define the data maintenance and data migration requirements, and define systems integration priorities and requirements. SAIC Team propose to also bench test the interfaces in a lab environment using simulated data so as to prove-out intended interfaces actually work as envisioned. In the lab environment using simulated data, troubleshooting efforts can be cost effectively applied supporting an optimized use of resources to achieve accelerated delivery and subtask completion.

EOC Video Wall, Display, and Controls Switching Operational Narrative

SAIC Team member Anderson Audio Visual will provide instruction to the SAIC Task 1 Team regarding the functionality, use, and control of video wall, display, and control switch equipment. The narrative will provide the proof-of-concept design team, Anderson Audio Visual, with basic information including operational characteristics and space requirements necessary for the development of schematic plans, to be developed in coordination with BBI Construction. The narrative will accompany the initial submittal of 90% system design plans, to provide the City-Port with an understanding of video wall/display planning and design concepts, thus providing a basis for plan evaluation.

PSIM Communication Interfaces and Information Exchange Methodology

A reason for using the PSIM system is the ability to integrate information sources from various agencies into one location. In addition to collecting information from various sources, the rapid evolution of technology used to capture and disseminate this information makes it important that the system designed for the DAC not only integrates the information sources available at the completion of this project, but is designed in a way that is easily scalable for other and future information sources. The SAIC Team will provide the methodology for the communication of information to these agencies including both automatic (policy-based) communication protocols and manual (user-based) methods of communication activation.

To design this methodology, SAIC Team will define the proof-of-concept design, including hardware, software, database, licensing, networking, services, and security. Once the overall design is established, SAIC Team will define the characteristics of the data used on the system such as the data type, format, accuracy or resolution, attributes, amount, source, and maintenance. With the data characteristics understood, the SAIC Team will establish methodologies and standards for data mapping, the metadata, and database maintenance. Finally, SAIC Team will define the conceptual data model, including structure, relationships, base layers, security, and data acquisition, conversion and/or migration, administration, maintenance, control, backup, archive, and retrieval and/or distribution.

Once design and data characteristics are established, the SAIC Team will design the systems integration processes. First, SAIC Team will define systems integration framework and then SAIC Team will define the

business integration model. The systems integration framework will include database methods, data, and/or systems interfaces, imports, and any other links or connections while the business integration model will include people, processes and procedures, and the usability and application of the technology. The proof-of-concept design will include several items related to the base layer design, including defining and design a records/case management system relevant, defining a communications dispatch application, and defining the service contract. The service contract will include information on the guarantee, support, maintenance, management, and monitoring.

Further, the SAIC Team will develop a project plan to include milestones, deliverables, sequences, timelines, budget, and resources required. In the development of this project plan, all assumptions, constraints, opportunities, benefits, issues, and risks will be clearly defined and explained to the Oakland Customer to ensure complete transparency. Lastly, SAIC Team will develop a cost menu that will describe the costs related to implementation, customization, and ongoing support costs associated with the deployment of each system into the PSIM.

SUBTASK 3.3 – Oakland City-Port Customer Design Approval

The SAIC Team will conduct design reviews during the project design phases to ensure stakeholders are able to provide feedback throughout the development process and to ensure that all operational and integration requirements are considered and addressed. The review process will cover the technical design, project costs, and line-item review of technology linkage systems. SAIC Team will conduct a preliminary design review (PDR) to present our initial design and provide the entire set of Oakland stakeholders with an opportunity to provide feedback. After the feedback has been incorporated and the design has fully matured, the SAIC Team will conduct a final design review (FDR) to ensure the design is consistent and true to Oakland's concept of operation and technology linkage plans. Upon satisfactory approval of the FDR, the City-Port would grant the SAIC Team approval to proceed with the project implementation.

TASK 3 – Deliverables

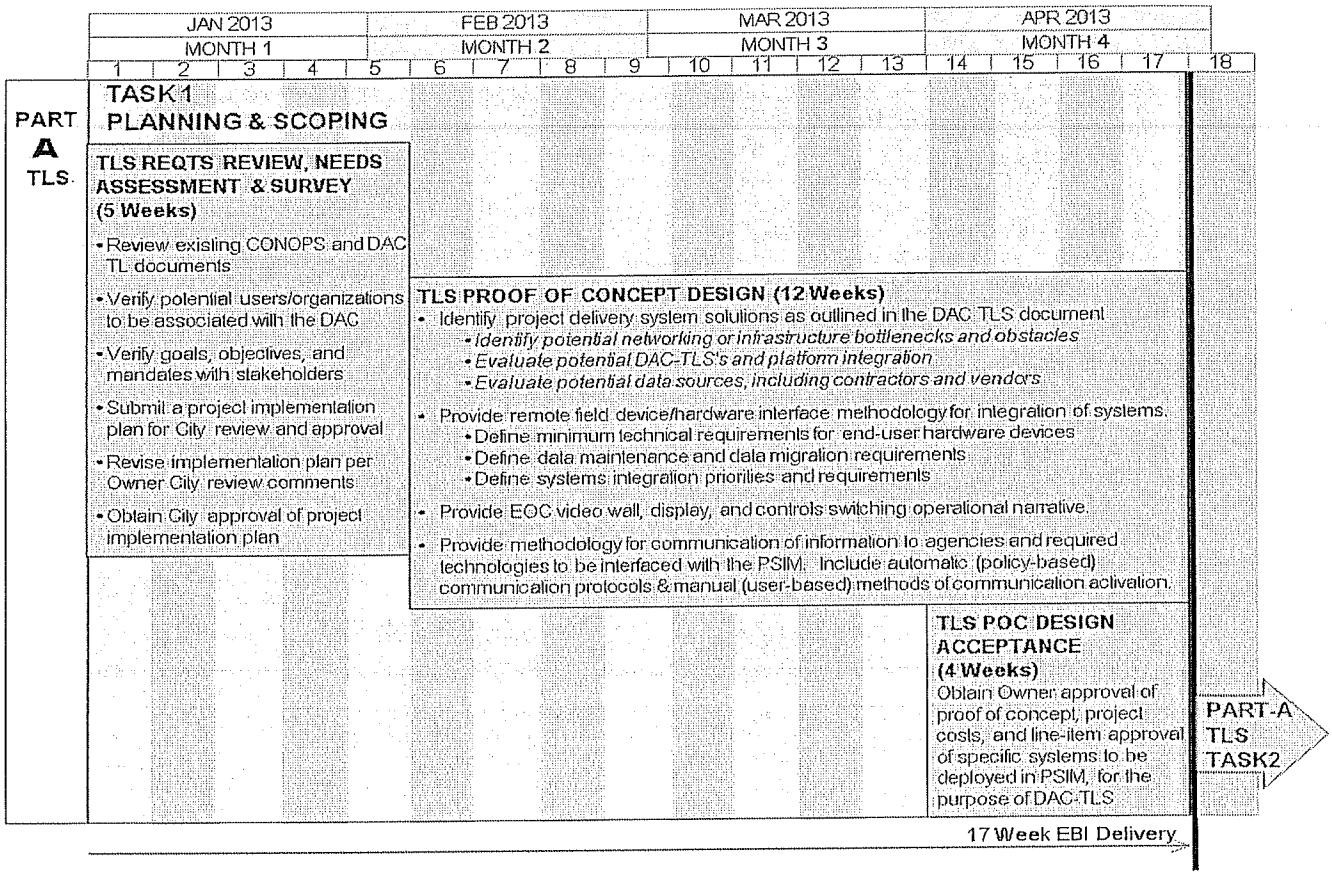
SUBTASK	SUBTASK ACTIVITY	DELIVERABLES
3.1	REQTSREVIEW	Conops Review Report
3.1	REQTSREVIEW	TLS Review & Report
3.1	REQTSREVIEW	Included Systems Def. Doc
3.1	REQTSREVIEW	Network Assessment
3.1	REQTSREVIEW	Network Improve List
3.1	REQTSREVIEW	POC Design Document
3.2	POC DESIGN	Systems Interface Design Doc
3.2	POC DESIGN	Design Review
3.2	POC DESIGN	Access Schema & Procedures
3.2	POC DESIGN	Test Plan & Acceptance Criteria
3.2	POC DESIGN	CM Plan & Procedures
3.2	POC DESIGN	Training Plan
3.2	POC DESIGN	Transition Plan
3.2	POC DESIGN	Maint. Support Plan
3.3	CUST SIGNOFF	Final 1.0 Approval Docs

TASK 3 17-Week PART-A TLS Planning and Scoping Delivery Schedule

SAIC Team has developed the 17 week delivery schedule for the PART-A Technology Linkage System (TLS) TASK 1 Planning and Scoping activities covering the following subtask work efforts;

- TLS Requirements Review, Assessment, and Survey – to ensure a complete understanding of the TLS delivery requirements mapped with the proposed PSIM solution and sensor/system integration plan and the over project implementation plan. This subtask work effort will commence at project start and be completed within 5 weeks.
- TLS Proof-Of-Concept (POC) Design – to prototype and bench test the PSIM solution using simulated data the interfaces for remote field devices and data sources establishing the minimum requirements for information exchange and communications. This subtask work effort will commence following the completion of TASK 1 and be completed in 12 weeks, by week 17.
- TLS Proof-Of-Concept Design Customer Acceptance and Approval – will be performed through a formal presentation of the proof-concept design, determined project costs, and final field sensor or data exchange end-points to be integrated with the PSIM. This acceptance-approval process is envisioned to take approximately 4 weeks and that the completion of such, the SAIC team will continue and proceed to PART-A TLS TASK 2 Implementation.

The following depicts the work scope areas covered by the 17 Week PART-A TLS TASK 1 Planning and Scoping Delivery Schedule.



17 Week PART-A TLS TASK 1 Planning and Scoping Delivery Schedule

4.0 TASK 4

PART A: DAC - Technology Linkage System (TLS) – Implementation

The detailed delivery descriptions and approach information contained herein this sub-section is organized to address the following areas as follows:

- Design-Build-Implement TLS
- System Integration
- Quality Assurance Testing
- Training

SUBTASK 4.1 – Design Build and Deploy the DAC-TLS

The design, build and deployment of the DAC-TLS begins with setting up the PSIM server hardware. The SAIC Team will deliver two servers: a production server and a development server. VidSys will develop and test the technology linkages on the development server first. When the linkage functionality has been tested an approved by SAIC quality assurance, the linkage will transition to the production server. Once a linkage is transitioned to the production server, the technology linkage will be configured with the applicable devices from the security subsystem. The first two systems to come online and be configured will be the Port's ESRI GIS system and the Port's Genetec Security Center system.

VidSys has already developed linkages for these systems as part of other projects. The integration of these systems will provide the Oakland customer with immediate usage of the system and return on their investment.

The DAC-TLS system capability will continue to grow as each new technology linkage becomes available and gets configured on the production server. The SAIC Team considers a spiral development to be the most effective means of providing customer satisfaction and receiving customer feedback. A spiral development process combines both design and delivery in stages or iterations. A cyclical approach improves customer satisfaction by allowing the customer to evaluate early results. The process also reduces technical risk by allowing engineers to identify potential issues at an early stage. Waiting for one large delivery at the end of the project increases the risk for not meeting customer expectations and overlooking key system requirements.

During the technology linkage deployment, the SAIC Team will work closely with the technology linkage partners to acquire the system configuration data and network connections for integration into the PSIM. The process and the data will be fully documented to provide a framework for the City-Port for future reference, management, and maintenance of the system.

SUBTASK 4.2 – Systems Integration

The most important aspect to a successful PSIM integration is a strong early start at collecting the necessary interface information to complete the linkage. Necessary information includes the linkage system software version and the linkage [redacted] SAIC has been responsible for integrating PSIM systems for a variety of customer and SAIC Team have consistently found the initial preparation to be the most important driver for delivering an on-time solution. Once [redacted] has reviewed the interface documents, they can

determine the functionality that can be made available to the user. The linkage system API/SDK is always the limiting factor and determines how much or little integration can be achieved. For example, SAIC [redacted] do not support 3rd party integration. [redacted] have a very good interface for developers to use.

SAIC will coordinate with the security system manufacturers to help solve any technical issues that may arise during the system integration process. SAIC has teamed with many of the security system manufacturers and integrators to ensure a successful integration process for the Oakland Customer.

SUBTASK 4.3 – Quality Assurance and Testing

The SAIC Team will thoroughly test the system to ensure that the infrastructure and the solution's major components [redacted] achieve the expected level of quality and durability as specified in the system requirements during the design phase of the DAC. All system changes will be fully tested before introducing them into the production environment. The system will be fully documented to ensure ease of use and facilitate servicing and upgrading.

The SAIC Team will perform integration tasks and confirm results during pretests before each scheduled project testing milestone. The most important part of the integration and pretest effort centers on the video interfaces to exterior applications. SAIC Team will work closely [redacted] major subsystem custodians to ensure that the required interfaces have been validated before formal testing at the DAC. SAIC Team will also inspect, configure, integrate, and perform testing of equipment before it goes to the installation site. The SAIC Team will work closely with the [redacted] development team at their offsite facilities for development to simulate a typical project installation. SAIC Team will integrate systems by connecting sensors through the network to servers and workstations at these facilities.

These typical sites are used for system integration and testing with sensors, interface equipment, servers, and workstations and have been used to test project hardware for deployments in past projects.

Before testing, the SAIC Team will prepare and obtain approval of the project test plans and procedures from the City-Port. All proposed systems and other equipment will be tested and inspected at the suppliers' sites during Factory Acceptance Tested (FAT) before delivery to the SAIC Team. The PSIM software will initially be checked and tested at the DAC as well as VidSys sites, to be considered as FAT, where integration with interface equipment or software will also be checked. Field checkout will be performed after installation for each piece of equipment. System Acceptance Testing will be performed at the DAC by proceeding through the test procedures after all the equipment and software are checked and tested individually.

DAC-TLS Test Plan, Procedures, and Acceptance Criteria

To enable test activity, the SAIC Team Test Manager, Mr. Tony Ahmad, will develop a comprehensive plan which details the strategy and the criteria that determines the success of the test exercise. For each test category, our test engineers will develop detailed test scripts from the system requirements for each of the major components. These engineers will methodically execute the test scripts and record defects in the problem tracking database. SAIC Team will manage defect correction using our change control management process, which involves assessment/prioritization, planning/scheduling, developing and implementing correction. After correction, SAIC Team will execute the test scripts again and, depending on the test phase, SAIC Team will conduct regression tests. Upon completion of each category of testing, Mr. Ahmad will prepare and submit test results in the form of test reports to enable the City-Port Information Technology Division to inspect and verify that the system meets all requirements. Tests will be conducted during all

major milestones of the DAC (System Integration, User Acceptance and Performance). These tests are described below.

Implement Configuration Management and Control Processes

SAIC is certified Capability Maturity Model Integration (CMMI) Level 3. SAIC Team understand and will implement our proven Change Management (CM) processes, tools, and methodologies in regards to any system configuration changes or patches once the systems are operational to maintain high system performance. Configuration Management methods will be applied throughout integration, implementation and system operation to ensure tractability of system changes and revision control.

Conduct Software Integration Testing

The SAIC Team will test the integration of all major system components, thus validating that the entire system functions properly and that all processes, including customizations and interfaces, work together to support the required business functions as specified in the requirements. When defects are corrected, SAIC Team will execute regression tests to ensure that implemented changes do not adversely affect correct operation of other functionality. Testing between the major components of DAC-TLS to the VidSys PSIM system will be documented for analysis and City-Port reviews and approval prior to any system changes as result of testing.

Conduct System Integration Testing

The SAIC Team will test the integration of all major system components and physical infrastructure and devices similarly to system software integration testing, thus validating that the entire system communicates and functions properly, furthermore that all processes, including customizations and interfaces, work together to support the required business functions as specified in the requirements. When defects are corrected, SAIC Team will execute regression tests to ensure that implemented changes do not adversely affect correct operation of other functionality. Testing between the major components of DAC-TLS to the VidSys PSIM system over the communication infrastructure will be documented for analysis and Oakland Customer reviews and approval prior to any system infrastructure changes as result of testing.

Conduct 30 Day Acceptance Test

The SAIC Team will develop the System Acceptance Test (SAT) plan and test scripts. These will be submitted for review and approval of the City-Port Information Technology Division. The SAT will be conducted at the DAC environment during the implementation phase and final system delivery. SAIC will use staff and pre-selected set of City-Port operation staff to execute the test cases. Results will be documented while SAIC Team continue to track and correct any defects. Configuration Management will be employed for version control synchronization. The Port's Information Technology Division will review all test reports and validate the completeness of SAT.

Prepare and Submit Final Test Report

The SAIC Team will document all phases of the test and the final acceptance test along with the data collected during the 30 day acceptance to provide system performance data in compliance with the system requirements. As indicated in the previous test steps upon completion of each category of testing, the SAIC Team will prepare and submit test reports to enable the City-Port Information Technology Division to inspect and verify that the system meets all requirements. The SAIC Team will deliver a final detail acceptance and performance test document per the requirements and project milestone to the City-Port for sign-off.

SUBTASK 4.4 – Training

The SAIC Team will provide training material in accordance to the requirements and based on industry standard practice. Training material will consist of procedure manuals, workflow documents and system documentations. Our team starts on the preparation of training material from day one system design with end-user operation and system maintenance in mind throughout the duration of the project. This method ensures ease of system operations with intuitive ways of system interaction by end users.

Training materials will be provided in soft and hardcopies, hardcopies are organized in a binder to deliver a complete system detail operation and maintenance document. The documentation provided will contain the following:

- System specifications
- System cut sheets
- System reliability matrix with error resolution
- Subsystem user and maintenance manuals
- System software, hardware and network architecture
- Event handling and response procedures
- System Administration procedures
- System configuration guide

All training material will be provided to the Oakland Customer review team for approval for all aspects of the system. Post approval SAIC team will schedule small group training sessions at the DAC in class rooms using a designated room provided at the facility for the training to cover the material with the end users. SAIC will break down training by end user needs and cover material and teach each group within their system operational domain. Post class room style training a practical approach of training will occur with the users using production system. System operators at the DAC will be trained behind the command and control system. It is important to note that SAIC is flexible and will work with City-Port to determine the optimal location for personnel training.

Important operational procedures will be documented on one page instructional manuals for operators to utilize as cheat sheets during system operations.

Develop PSIM User Procedures Manual

SAIC will deliver [redacted] PSIM system documentation covering all aspects of the system from configuration, operation to maintenance. Below showcases snapshots of the [redacted] User Guide that will be provided to City-Port users.

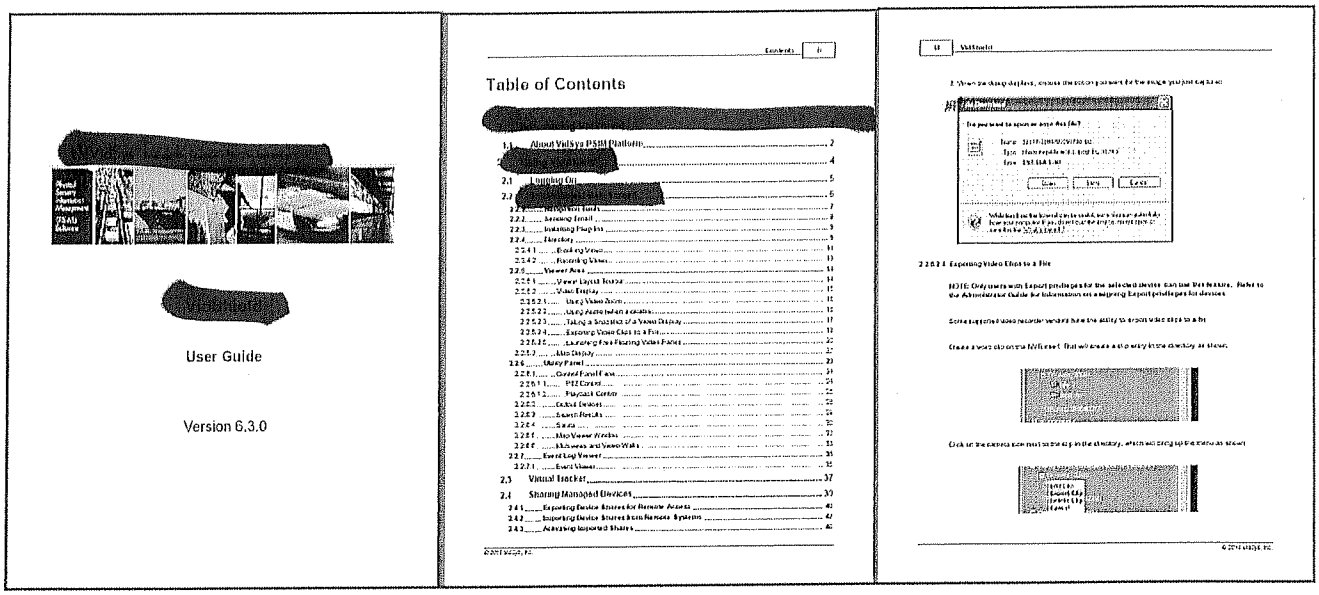


Figure 5-2. [redacted] Sample User Guide.

SAIC engineering will create simplified User manuals that cover system operations pertaining to each system user group. A system login matrix will be created working together with the Oakland Customer to assign proper attributes to system users of different groups.

Document users can follow the user matrix to review areas of importance and functionality for their main user group base. System backup and maintenance procedures will pertain to technical staff and system users whereas system operators will only be interested in system monitoring and using automated events configured on the system to display alarms.

Users will be provided with a document containing a list of system support personnel contact information. Users will be provided documentation and training on the SAIC ProVM to submit IT trouble tickets. The SAIC [redacted] is designed to route trouble tickets to the proper support staff, however SAIC will also provide system users with technical support staff contact information comprising of phone numbers and email addresses.

Develop PSIM User Workflow Document

As part of the CONOPS integration into the PSIM, SAIC will develop a workflow document for the Oakland Customer. The workflow document will be used to create an "Action Plan" in [redacted] that will help the operator manage an event by incorporating standard operating procedures with dynamic links to respond to different types of events. In addition to programming the first set of workflows for Oakland, SAIC will provide detailed procedures for Oakland to add, edit or delete a workflow in the [redacted] PSIM.

Develop Training Plan

SAIC will deliver a training plan to accompany the PSIM user manuals. The training plan will include a training schedule that will designate training activities by user and administrator. The training plan will be submitted to the City-Port for review and approval.

Conduct PSIM Management Training

Training will be conducted by both members of the [redacted] educational services team as well as skilled facilitator, Ms. Ayeshah Abuelhiga of SAIC. The SAIC Team will provide both classroom and hands-on training for proper operation, maintenance, and troubleshooting of the system. This training will include hands-on demonstrations and hands-on operation of advanced tools and functions. The primary objective of the configuration training is to educate advanced operators/managers in the proper methods for

registering new system sensors and devices, creating work flows, and performing basic troubleshooting and maintenance of the system.

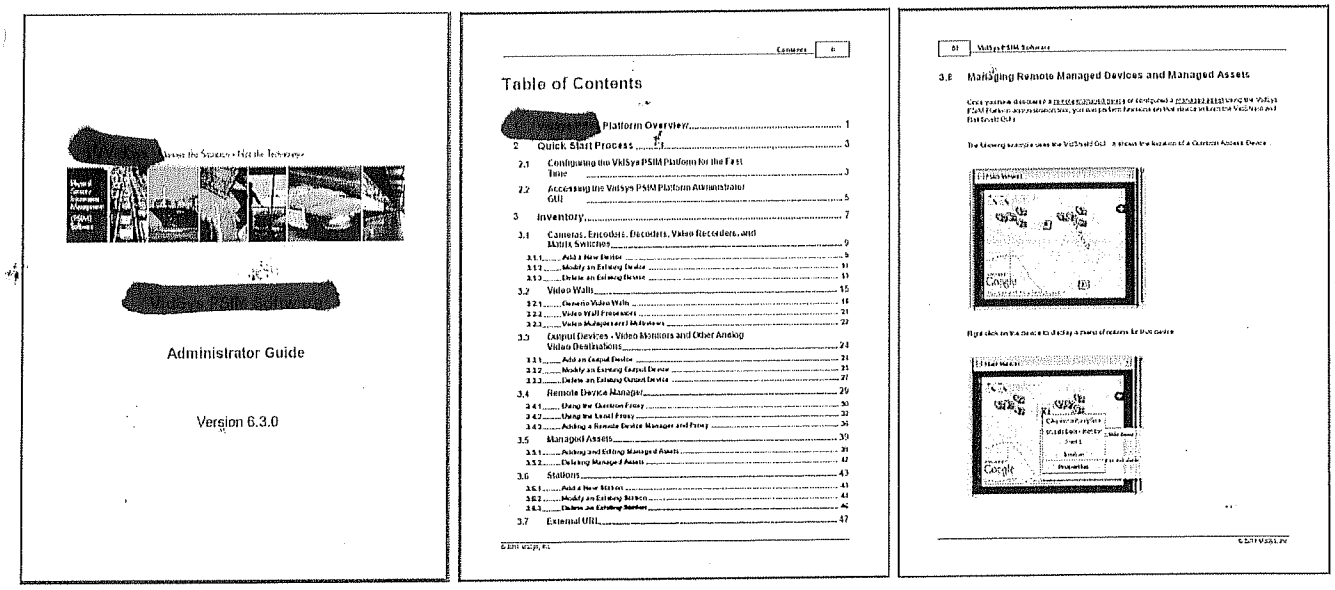


Figure 5-3. VidSys Administrator Training Manual Sample.

The administrator training will also occur as classroom and hands-on training. Classroom training will provide much greater system detail, and the hands-on training will include exercises for each of the major functional areas. The classroom instruction will include: link capabilities and topology; sensor inventory; server inventory; intelligent video analytics (IVA), video management system (VMS) and sensor management system (SMS) administration; configuration management, troubleshooting methodology and procedures; system component troubleshooting; and recommended preventive maintenance. The exercises during the hands-on portion of the class will include: system component (server, camera, etc.) configurations, installing a server, setup of a camera or door sensor, setup of a monitor, maintaining user accounts, maintaining analytic rules, network maintenance, network security procedures, familiarization with the baseline system performance (i.e., how to validate proper operation), responding to trouble reports and correcting problems (problems to be introduced by the instructor.) A test will be administered at the completion of training.

Conduct PSIM User Training

Operator training will occur as both classroom and hands-on training. Classroom training will provide the foundational information that the hands-on training will build upon. The classroom instruction will include at a minimum: system overview, sensor locations and capabilities, sensor control, alarm management, incident management, problem reporting, and emergency procedures. The user training will consider alarm and event scenarios that are relevant to the Oakland Customer. The actual DAC-TLS systems will be used as the training workstations to provide the user with the actual operating environment. The user displays will be shown on the video wall so that other users in the training class can easily observe and learn from the system interaction by their peers.

The training will be delivered to the departments as specified by the Oakland Customer. The training sessions will be recorded on video for future reference and provided in DVD format.

TASK 4 – Deliverables

SUBTASK	SUBTASK ACTIVITY	DELIVERABLES

4.1	BUILD-DEPLOY	Purchase HW & BOM
4.1	BUILD-DEPLOY	Inventory Equip Deliverables
4.1	BUILD-DEPLOY	As Build-Deploy Docs
4.1	BUILD-DEPLOY	System Maint. Manuals
4.2	SYST INTEG/TEST	Progress & Discrepency Rprts
4.2	SYST INTEG/TEST	System Test Final Report
4.3	QA TESTING	Test Plan-Criteria Update
4.3	QA TESTING	Test Scripts & Procedures
4.3	QA TESTING	TRR Notes
4.3	QA TESTING	HOTWAS Notes
4.3	QA TESTING	Test Results & Acceptance
4.4	TRAINING	Training Plan Update & Proc.
4.4	TRAINING	Training Materials

TASK 4 -- 48 Week PART-A TLS TASK 2 Implementation Delivery Schedule

SAIC Team has developed the 48 week delivery schedule for the PART-A Technology Linkage System (TLS) TASK 2 Implementation activities covering the following subtask work efforts;

- **TLS Design, Build, Deploy** – to ensure a complete understanding of the TLS delivery requirements mapped with the proposed PSIM solution and sensor/system integration plan and the over project implementation plan. This subtask work effort will commence after PART-A TLS TASK 1 and will be completed within 21 weeks.
- **TLS System Integration** – to establish operational interfaces between the field sensors and/or technology and/or other data sources agreed upon as the baseline and to place such interfaces under configuration management and control so as to maintain the integrity of the data exchange. This subtask work effort will take approximately 30 weeks to complete.
- **TLS Quality Assurance and Testing** – will be performed to ensure the design, build, deployed TLS satisfies the requirements agreed upon during the TASK 1 Planning and Scoping work efforts. This subtask work effort will take approximately 21 weeks to complete.
- **TLS Training** – will be performed to ensure that the envisioned identified users can utilize the TLS. This subtask work effort will take approximately 8 weeks to complete.

Then following depicts the work scope areas covered by the 48 Week PART-A TLS TASK 2 Implementation Delivery Schedule.

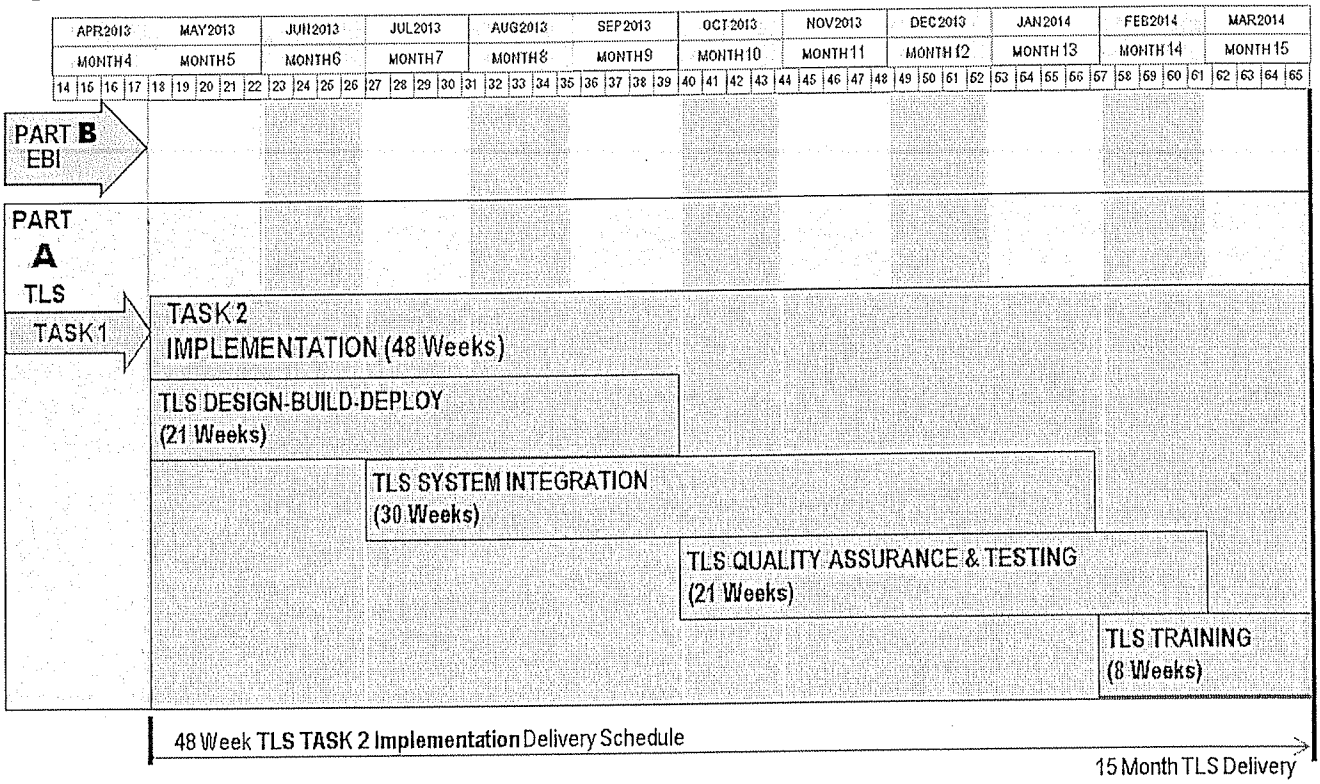


Figure 5-4. 48 Week PART-A TLS TASK 2 Implementation Delivery Schedule

The SAIC Team will work collaboratively with the City of Oakland and the Port of Oakland customer to prepare a project implementation plan to include any final delivery schedule adjustments and will submit the final project delivery schedule in MS Project. This MS Project Schedule will be maintained and updated during the project implementation period of performance.

5.0 TASK 5

DAC –TLS 2 Year (24 Month) "Base" Maintenance Service Agreement

The SAIC Team can provide initial post-deploy maintenance services for the installed-implemented DAC-TLS systems for a 2 year (24 month) base period that can include technical support and maintenance of the deployed DAC-TLS solution products, including hardware, software, database, and any other necessary components for the fully functional DAC- TLS solution.

In this subsection, for the initial 2 year (24 month) base period maintenance service agreement, SAIC Team discuss the additional sub-level topic areas in the following sub-task sequence order:

- SUBTASK 5.1 Support and Maintenance
  - Product Quality Assurance Program
  - Product Maintenance and Services
  - Product Configuration Change Management
  - Issue and Incident Management
  - Monthly Service Performance Reporting
- SUBTASK 5.2 Management and Monitoring
  - Infrastructure Management
  - Security and Compliance
  - Network Assurance
  - Technical Support and Help Desk
  - Configuration Change Management
  - Day-to-Day Database Maintenance Administration Services
  - Monthly Performance Reporting
- SUBTASK 5.3 Enhancements and Upgrades
  - Future Planning Strategies, Cost Impacts, and Change Management
  - Future Systems Integration Development
  - Future Database Maintenance Administration Services
  - Future Report Development Requirements

SUBTASK 5.1 – Support and Maintenance (24 months)

Support and maintenance activities cover the deployed DAC-TLS solution products, including hardware, software, database, and any other necessary components, including development of user workflows in the PSIM for the fully functional DAC- TLS solution. The sub-work efforts under this subtask include:

- Product Quality Assurance Program
- Product Maintenance and Services
- Product Configuration Change Management
- Issue and Incident Management
- Monthly Service Performance Reporting

Product Quality Assurance Program

SAIC can provide a guarantee of minimum "business day" service level (8 hours x 5 days a week, excluding public holidays) for a 24-month period, through the leveraging of both on-site and remote technical staff resources. SAIC Team can follow the established processes and procedures that are documented in the software development plan (SDP) to ensure that the software code is consistent and conforms to the standard style and format. At the functional level this step supports resolutions and the operational support of the DAC-TLS. SAIC Team can ensure that the implemented products conform to the specification defined in system, database, user interface, and external data interface design documents.

Our system engineers can leverage our team's experience to maintain the DAC-TLS infrastructure in all development, test, and production environments including conducting integration testing of COTS hardware and software as required. SAIC can develop and document criteria for testing and evaluating any modifications (software units, components, and configuration items) of the system also ensuring that regressions are not introduced adversely affecting the original requirements. Our development process includes unit level testing and assembly testing.

Our system testing approach includes test plans for regression, information assurance (IA), performance, and any Section 508 compliance. The SAIC comprehensive testing strategy includes load/stress, volume, performance, reliability/availability, degradation and recovery, configuration, compatibility, security, QA, IA, install-ability, and serviceability, and function testing.

Product Maintenance and Services

The SAIC Team understands the importance of providing a quality DAC-TLS solution whereby all components of the solution; hardware and software, are fully functional and perform to the highest level of the City of Oakland's expectations and satisfaction.

The SAIC Team's approach to maintenance support includes pro-active management of our subcontractors. SAIC Team can manage them through formal subcontract agreement and semiannual vendor performance reviews. All project management control originates from SAIC's prime contract with the City of Oakland. Adherence to these requirements is enforced with tools and systems that document work planning and identify deviations from the plan. Our Team can oversee all subcontractor support, maintenance, and warranties. The SAIC Team can provide service reports documenting support activities to DAC within 24 hours of all performed service. SAIC Team can furnish necessary devices to test, calibrate, maintain, and configure the DAC system for proper operations. SAIC Team propose to provide field service engineers (FSEs) to meet the DAC's onsite and field support needs. Following determination that remote support cannot resolve an issue, onsite response time can be within eight hours for non-critical support and four hours for critical support (system downtime affecting performance).

Monitoring, maintaining, and improving the health of the DAC system and infrastructure is the centerpiece of our mission. SAIC Team can leverage and tailor the existing tools in the DAC software and provide additional tools at no direct cost, with a focus on improving our capability to predict, identify, diagnose, isolate, and resolve problems as early as possible.

Our teams installed DAC network uptime is measured based on reliability communication factors to ensure that packet transmissions reach their destinations uncorrupted. The networks are deployed to interoperate with other networks within a protected environment, even when there are other similar networks operating on the same frequency band nearby. SAIC Team can demonstrate interoperability with a wide range of vendor hardware and software. As our past performance displays, SAIC Team have executed several projects where SAIC Team have interfaced to a variety of middleware products, [redacted]

Provide Software and Hardware Updates As Issued By the Systems Manufacturers

The SAIC Team can update software on an annual basis. Software updates include major releases to the VidSys PSIM and software updates to the video wall system as necessary. SAIC can only update the Windows operating system of the servers and workstations twice per year. SAIC Team suggest updates twice a year versus as they are released because Windows operating system updates have been shown to cause a conflict with video drivers or other parts of the PSIM system that could result in a temporary failure. SAIC can work with the City-Port's information technology points of contact if updates are required to be applied on a more frequent basis.

Product Technical Support and Help Desk Support

As DAC capabilities and components are implemented, the SAIC Team can provide 24/7/365 help desk services that are accessible via phone, email, or through a web-interface. SAIC Team [redacted] as our help desk tool to track issues from notification to closure and to support incident reporting requirements. Service incident metrics can be monitored for help desk Tier 1, 2, and 3 support.

Issue and Incident Management Tier 1, 2 and 3 Support

Our approach is to create an environment in which all three support tiers completely document all incidents received, focus on problem resolution, and close the incident once the customer is satisfied. All tickets can be acknowledged by assigning a ticket number and immediately providing it to the requestor. SAIC in cooperation with the City and Port can establish metrics for each DAC mechanisms to track and report any discrepancy incident. All issues can be extensively documented, resulting in a knowledge database. Upon acceptance of the system, SAIC Team understand Tier 1 support can be handled by DAC's technical staff.

Product Configuration Change Management

The SAIC Team can ensure that all changes are properly documented and managed in accordance with an approved Configuration Management Plan (CMP) for both Major and Minor Engineering Change Proposals (ECPs). SAIC Team understand that technological changes over time may result in the need to update the Hardware being provided to the DAC. The SAIC Team can submit a CMP for City of Oakland approval as part of the PMP. SAIC Team can provide a structured ECP methodology and CENTER IDE-based tool suite to support development and management of ECPs. SAIC Team base our ECP methodology on the Change Control Process component of SAIC's EngineeringEdge™ process. SAIC Team can manage Major and Minor ECPs in accordance with the requirements of the PWS.

Monthly Service Performance Reporting

The SAIC Team solution has the capability to deliver the complete range of enterprise reporting including operational reports, graphical business reports, and ad-hoc statements via popular user interfaces including Web browsers, Microsoft® Office applications, networked printers, mobile devices, and email.

SUBTASK 5.2 – Management and Monitoring

Management and monitoring activities cover the installed-implemented DAC-TLS systems for a 24 month period. The sub-work efforts under this Task 3.2 include:

- Infrastructure Management
- Security and Compliance
- Network Assurance
- Technical Support and Help Desk
- Configuration Change Management
- Day-to-Day Database Maintenance Administration Services
- Monthly Performance Reporting

Infrastructure Management

SAIC can provide a wide variety of services to monitor and manage elements of DAC IT infrastructure to include data center management, network management, end-user support (Service Help Desk), on-going available system engineering support, database management, storage and backup management, and IT security management.

Security and Compliance

The SAIC Team has been applying these activities to other major programs SAIC Team maintain such as [redacted]. Impact on operations staff can be minimized through use of automated inventory, compliance, patch, and configuration management practices via agent-based tools such as [redacted] security audits. To assure the necessary system security and resource requirement expectations, DAC-TLS security personnel can perform an impact assessment for all proposed changes under review by an Oakland-Port DAC Configuration [redacted] and if also established, an [redacted], and can participate in physical security assessment activities as necessary. This assessment can include the review of system interface diagrams, system architectural diagrams, software, network and communications services, hardware or firmware changes and upgrades.

Network and Information Assurance

SAIC's network and information assurance process begins with the enumeration and classification of the information assets to be protected. Then SAIC Team can perform a risk assessment for those assets. Vulnerabilities in the information assets can then be determined in order to enumerate the threats capable of exploiting these network and information assets. The assessment then considers both the probability and impact of a threat exploiting the vulnerability in an asset, with impact to the asset's stakeholders.

Once the risk assessment complete, SAIC then develops a risk management plan. This plan proposes countermeasures or mitigation strategies that support addressing, eliminating, accepting, or transferring the risks, and considers prevention, detection, and response to threats. SAIC follows and adheres to the frameworks already established by standards organization, such as Risk IT, CobiT, PCI DSS, ISO 17799 or ISO/IEC 27002. Mitigation strategies may include technical tools such as firewalls and anti-virus software, policies and procedures requiring such controls as regular backups and configuration hardening, employee training in security awareness, or organizing personnel into dedicated computer emergency response team (CERT) or computer security incident response team (CSIRT). SAIC will work with the City to determine the best method seek to manage risk in most effective way. After the risk management plan is implemented, SAIC can test, evaluate, and support network and information assurance audits. SAIC network and information assurance process is an iterative one, in that the risk assessment and risk management plan are periodically revised and improved based on data gathered about their completeness and effectiveness.

Configuration Change Management

The SAIC Team can ensure that all changes are properly documented and managed in accordance with an approved Configuration Management Plan (CMP) for both Major and Minor Engineering Change Proposals (ECPs). SAIC Team understand that technological changes over time may result in the need to update the Hardware being provided to the DAC. The SAIC Team can submit a CMP for City of Oakland approval as part of the PMP. SAIC Team can provide a structured ECP methodology and CENTER IDE-based tool suite to support development and management of ECPs. SAIC Team base our ECP methodology on the Change Control Process component of SAIC's EngineeringEdge process. SAIC Team can manage Major and Minor ECPs in accordance with the requirements of the PWS.

Day-to-Day Database Maintenance Administration Services

SAIC will collaborate with the Oakland City and Port to perform day-to-day database maintenance and system administration services that ensures activities and duties are performed in a scheduled manner to improve the life cycle of the DAC.

Monthly Performance Reporting

SAIC will collaborate with the Oakland City and Port to identify and establish the IT performance monitor data elements per any agreed to service level agreements and then use tools to capture the trends of the IT monitoring data parameters and record and report those trends and alarms where parameters exceed the threshold limits to the City and port of Oakland.

SUBTASK 5.3 – Enhancement and Upgrades

SAIC team herein discusses enhancements and upgrades for the following topic areas:

- Future Planning Strategies, Cost Impacts, and Change Management
- Future Systems Integration Development
- Future Database Maintenance Administration Services
- Future Report Development Requirements

Future Planning Strategies, Cost Impacts, and Change Management

SAIC proposes to work with the City and Port on a routine basis to conduct planning strategies to develop a roadmap for future implementation efforts outlining rough-order-magnitude cost impacts with any proposed future candidate upgrades or system modifications. As part of any envisioned changes planned in the DAC Implementation Roadmap, SAIC will work with the City and Port to address any change management impacts, risks, and mitigation strategies. The DAC Implementation Roadmap will address the following future impact areas:

- **Future Systems Integration Development:** SAIC proposes that any future systems integration and development activities take into account the existing systems and infrastructure and that a migration strategy will be developed to address how new future systems and in what sequence will offer the City-Port the most optimal delivery for realizing the DAC objectives
- **Future Database Maintenance Administration Services:** SAIC proposes that any future systems integration and development activities take into account the existing systems and infrastructure and that a migration strategy will be developed to address how new future systems and in what sequence will offer the City-Port the most optimal delivery for realizing the DAC objectives
- **Future Report Development Requirements:** SAIC proposes that any future systems integration and development activities take into account the existing systems and infrastructure and that a migration strategy will be developed to address how new future systems and in what sequence will offer the City-Port the most optimal delivery for realizing the DAC objectives

6.0 TASK 6 (OPTIONAL)

DAC –TLS 3 Year (36 Month) "Extended" Maintenance Service Agreement

This "Optional" TASK 6 can be exercised by the Oakland City-Port, at their sole discretion, as a follow-on continuation of DAC-TLS Maintenance to commence at the completion of the TASK 5 2 year (24 month) base maintenance service agreement support. In addition, at the discretion and interest of the City and Port, SAIC may provide additional more expanded maintenance support services on an as needed, as requested, task order basis.

7.0 TASK 7 (OPTIONAL)

EOC Support Services

This "Optional" TASK 7 can be exercised by the Oakland City-Port, at their sole discretion, for staff resource support services on an as needed, as requested, task order basis.

8.0 TASK 8 (OPTIONAL)

Expansion Support Services

This "Optional" TASK 8 can be exercised by the Oakland City-Port, at their sole discretion, for any additional expansion support services on an as needed, as requested, task order basis.