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AGENDA REPORT

TO: Sabrina B. Landreth
City Administrator

FROM: Andrew Peterson
Chief Information Officer

SUBJECT: 9-1-1 Upgrade/PRIME Update

DATE: June 12, 2019

City Administrator Approval

Date:

6/12/19

RECOMMENDATION

Staff Recommends That The City Council Receive An Informational Report Which Provides An Update On The Next Generation 9-1-1 Public Safety Upgrade and the Court Mandated Performance, Reporting, Information and Metrics Environment System (PRIME 2.0) Projects.

EXECUTIVE SUMMARY

The information contained in this report provides an update of progress made on each of these independent projects (911 Upgrade and PRIME 2.0) since the last semi-annual update to Finance and Management Committee on December 4, 2018.

BACKGROUND

Next Generation Public Safety 9-1-1 System

Summary

On July 18, 2017, City Council Approved Resolution No. 86867 C.M.S., which authorized funding for the Next Generation Public Safety System project and execution of a professional services agreement with Motorola Solutions, Inc.

PRIME 2.0

On July 18, 2017, City Council Approved Resolution No. 86867 C.M.S. authorizing the development and deployment of a version 2.0 of a court mandated Performance, Reporting, Information and Metrics Environment System ("PRIME 2.0").

Due to the importance of both of these projects, the Committee requested a semi-annual report from staff be presented to keep Council informed of project status.

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Finance and Management Committee Meeting
June 25, 2019

ANALYSIS AND POLICY ALTERNATIVES

Next Generation Public Safety 9-1-1 System

The Computer Aided Dispatch/Records Management System (CAD/RMS) project is comprised of 3 Phases – 1.) System Design and Implementation (described in detail below), 2.) System Hardware, Deployment, Disaster Recovery, and 3.) Maintenance Agreement. Phase 1 is described below and is approximately 6-8 months behind schedule. The primary reason for the slippage is the inability to dedicate appropriate internal Subject Matter Experts (SME) to focus on the required process design and provisioning tasks. In fact, all Departments - Oakland Fire Department (OFD), Oakland Police Department (OPD) and Information Technology Department (ITD), in varying degrees, have struggled with consistently allocating resources to the project. Staff is currently in talks with Federal Engineering, a contractor to assist the city with the Business Process design, Provisioning, and Project Management. The intention is that with dedicated, experienced resources, the project can be significantly accelerated overcoming some of the incurred slippage.

Phase 2 of the project is currently in negotiations with Motorola. The primary discussion with this phase has been the design and cost of having a cloud-based Disaster Recovery solution for the CAD/RMS system. As of May 30, 2019, we have agreed on the design and currently in the process of finalizing the contract terms, conditions and pricing. Staff anticipate having the Phase 2 amendment completed by late June. Phase 3 of the project covers the ongoing Maintenance of the system once completely implemented. Terms, Conditions, and pricing for the Maintenance contract have largely been agreed upon, and the contract is expected to be executed on time. Given the current status of Phase 1 (as described below), project completion for all phases of the project is currently estimated as the fourth quarter of 2020. The original completion date for Phase 1 was January 2020.

Phase 1 (System Design and Implementation) Status

a. PremierOne Computer-Aided Dispatch (CAD) and CAD Mobile Implementation

CAD Provisioning Work:

- Oakland Fire Department (OFD), Oakland Police Department (OPD) and Information Technology Department (ITD) project team members have continued the work of provisioning and configuring CAD to function in accordance with OPD and OFD policies, procedures and practices. This work stream of the project is now approximately 48% complete but continues to lag due to insufficient personnel resources in both OPD and OFD. Given the continued resource challenges, the project's Executive Steering Committee met on February 8, 2019 and approved bringing in an external consulting company to work closely with OPD and OFD to accelerate and complete provisioning.
- A company (Federal Engineering) has been identified and negotiations are underway to bring them onboard. Once a final proposal and work schedule has been submitted, an estimated completion date will be determined.

CAD Mobile Provisioning Work:

- Provisioning and configuration for the CAD mobile components of the overall system have also been ongoing, although progress has been made. The OPD work is complete other than for testing and refinements that are dependent on another project workstream scheduled to be completed during the first quarter of 2020, so the OPD mobile provisioning work should be completed by March 30, 2020. On the OFD side, mobile provisioning is projected to be completed by September 30, 2019.

Interfaces:

- 10 of the 22 Interface Requirements Documents (IRDs) for CAD interfaces have now been completed and development work for several is underway or completed (particularly in the case of pre-existing interfaces that only needed some Oakland-specific configuration changes). Four (4) other IRDs should be finalized by the end of June 2019; the rest are still in development.

b. PremierOne Police Records Management System (RMS)

The structure of the RMS portion of the project closely parallels the structure of the CAD/Mobile piece, although only OPD is getting a new RMS product. OFD is just upgrading its existing (non-Motorola) product, which is a much simpler exercise (see further below). Specifically, for the OPD RMS, the status is:

Provisioning Work:

- OPD project team members, with hands-on help from Motorola (help that far exceeded their contractual obligations), have completed an estimated 93% of the RMS provisioning effort. The remaining effort largely consists of work that cannot be completed until 3-4 RMS interfaces are done and incorporated into the RMS screens. Because of the interface dependency, RMS provisioning is currently scheduled for completion in the first quarter of 2020.

Interfaces:

- There are 12 interfaces and/or data feeds between RMS and other systems that are in the scope of this project and Motorola is working with the appropriate personnel from OPD, ITD and third-party organizations to produce interface requirements documents to provide detailed specifications from which they will later build the actual interfaces. This requirements-gathering activity has been initiated and, for some interfaces, is far along but it is a complicated activity that requires the active cooperation of both OPD staff and of organizations outside the City of Oakland. The external cooperation has been slow in coming and even the internal efforts have taken longer than Motorola anticipated, so completion of this work is currently forecast for first quarter 2020.

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c. Locution Fire Station Alerting System

Infrastructure Readiness:

- For the Locution system to work effectively, the supporting infrastructure in the OFD communications center and each OFD fire station must be functioning properly. Given the age and reported questionable condition of certain elements of that infrastructure, particularly the station public-address (PA) systems, the Locution installation has been delayed by a year. Several days of assessment were conducted in 2019 on the 25 currently active fire stations and the severity of the reported PA systems problems has been determined to be less than originally feared, although there are still issues. With this new information, staff has decided to move forward and schedule the installation of the Locution systems as soon as the vendor's installation team can schedule installation in the coming months, and address the PA system issues as resources and time allow.

d. Deccan Fire Department Decision-Support Software

Product Delivery:

- Configuration and installation of all three Deccan products – in a configuration that work with the current CAD system - have been completed and these products are undergoing final testing – including being used a few times in a production environment to support actual OFD operational decisions. The current projection is for these products to go into full-time production use by July 15, 2019. Once OFD has progressed its Motorola PremierOne CAD provisioning efforts, then provisioning, configuration and deployment of Deccan products for use with new P1 CAD will begin.

e. Zoll Fire Records Management System Upgrade

OFD currently uses an older version of the Zoll Fire RMS that is interfaced to the existing CAD system. An upgrade to that system is included in the scope of this project along with an interface between the upgraded software and the new Motorola P1 CAD system. The upgrade, originally scheduled to occur in Q1 of 2019, has been postponed until early Q3 due to OFD's constraints in accommodating the training logistical requirements before then. Separately, the interface to P1 CAD needs to be completed before the new CAD system can be deployed in 2020 and that effort is on track.

f. Other

County & State Approvals:

Prior to going live with the new PremierOne system, OPD and ITD must work together to apply for and receive approval from County and State public safety authorities with respect to the security architecture of the new system. This is a lengthy process that can take up to 12-months. OPD has recently asked an existing consultant (Federal Engineering) who is familiar and experienced with this approval process to take the lead on driving these efforts, which has been very helpful. The updated estimate since their involvement is that State approvals will occur by

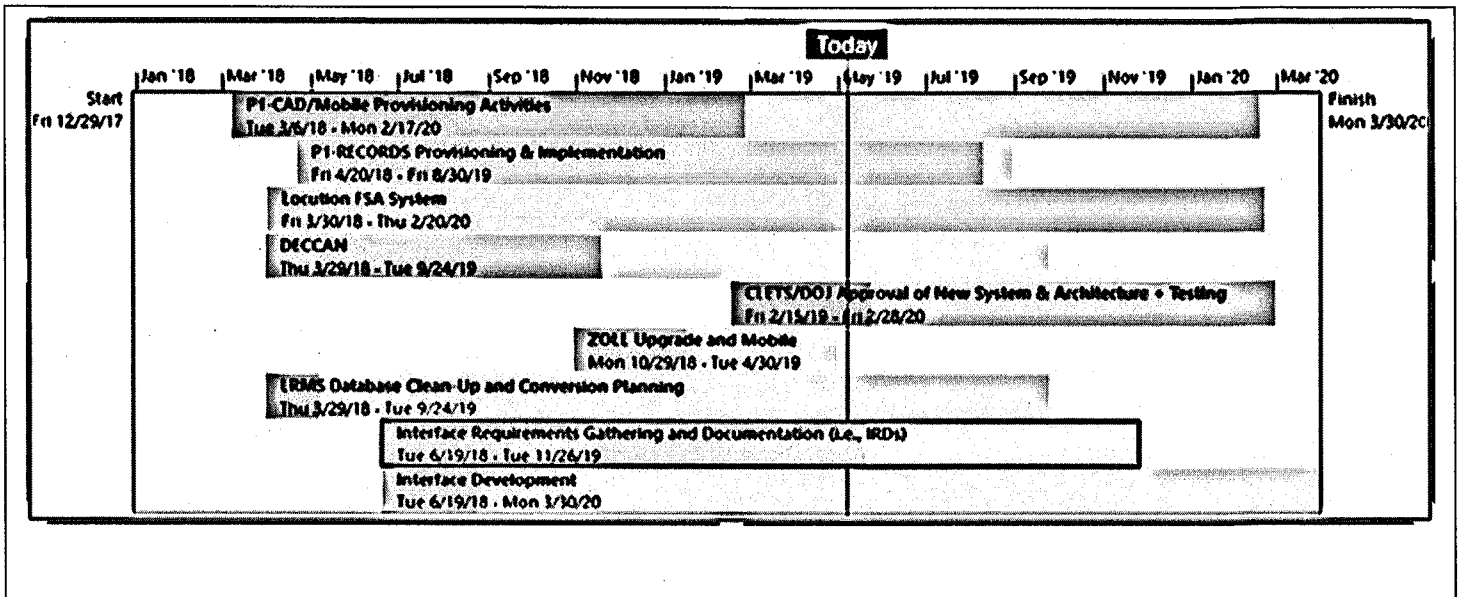
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December 2019, which is several months sooner than previously estimated, and well in advance of the forecasted cutover to the new products.

CAD/RMS Project Timeline

Table 1 represents Phase 1 project timeline that shows the major workstreams that parallel the sections outlined in the summary above. It should be noted that the timeline may change as the project progresses due to inter-related dependencies that may have an impact on production.

Project Timeline



PRIME 2.0 - OPD Early Intervention System

Summary

As noted in previous updates, the development of PRIME 2.0 will proceed in tandem with PRIME+ (reengineering PRIME 1.0), and includes four additional functional areas of development, for a total of five development or project streams. For ease of reporting, we will call the aggregate of the five projects PRIME 2.0 (renamed Vision 1.0). Since the last update, the project has experienced some delays due to the reasons stated in the stream summaries below; yet the project has progressed well and the outcomes to date have met or exceeded expectations. As of June 3, 2019, the project has exceeded the initial budget by approximately \$50,000 however, additional Change Requests (CR) may be needed as we continue to run into

data quality issues that must be addressed. Given the noted delays the current schedule calls for the system to be in production by September 2019, a 2 month slip from the original date of July 2019.

Following are summaries of the progress in each of the five development streams.

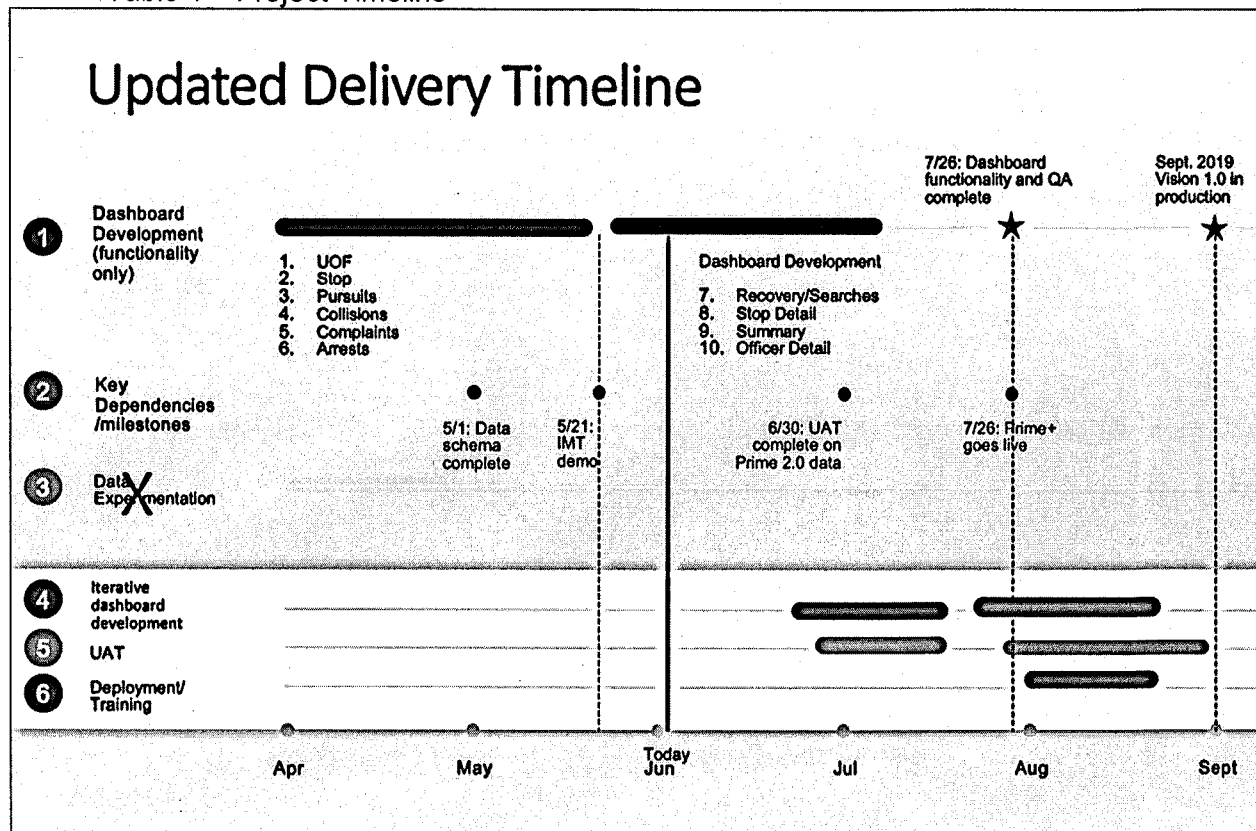
- 1) **A new personnel database to track employee and supervisor assignments that is easier to use and integrates with other PRIME functions - Complete.** ITD completed its development of this system (now referred to as "OPD HRM" [Oakland Police Department Human Resources Management]) in July 2018, and moved the system into full production in August 2018. The system has been successfully utilized by OPD Human Resources since going live.
- 2) **PRIME+ reengineering of PRIME 1.0 – operational data collection and reporting.** This stream has completed the Discovery, Gap Analysis, and the Design phases. Currently the stream is in the Development/Implementation phase and is approximately 90% complete. Once implementation is complete the project will be left with completing the Testing, Training, and Deployment (go live) phases. Overall the stream is 8 weeks behind schedule. A number of factors have led to delays including system availability, an incomplete warehouse schema which resulted in a Change Request, and delays in getting additional personnel through the background check approval process. These delays have resulted in a new projected completion date of July 2019 a 1 month slip from the original date of June 2019. There is only a confidence level 70% associated with the new projection. The mid-level confidence is due to the number of data quality issues that continue to surface and the continued difficulty of adding additional personnel due to background check requirements.
- 3) **Ability to access an officers' complete training history - Complete.** The stream consisted of development of a new Academy Training Module, and migration of existing data from TMS and Power DMS (legacy training data systems). The new module was completed, and all legacy data migrated as planned. The new system was moved into production in March 2019. Data from the new system has also been integrated into PRIME 1.0 and in the development environments of VISION 1.0.
- 4) **Risk Management analytical reporting (being developed in collaboration with Stanford) and dashboards that assist in automatic analysis of stop data and other early warning indicators.** In the last update, staff noted that there were risk of slippage due to data availability. This slippage did occur as well as additional slippage due to data gaps (incomplete data warehouse schema) found during dashboard development. The stream was paused in order to allow completion of a Change Request (CR) (noted above in stream 3) to overcome the gaps. This project stream has since resumed and 5 of 10 dashboards have functionally been completed; data validation remains. Due to the additional work required to discover and validate the data gaps, there will not be enough funds under the existing contract with Slalom to complete the stream. It is projected that the 6th dashboard will be completed with the remaining funds and a Change Request will be required to complete the final 4 dashboards. Negotiation of the CR is currently in process; 8 additional weeks of development are estimated.

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- 5) **Integration of body worn camera (BWC) footage into PRIME to allow immediate review of stops, arrests and uses of force.** The City had pursued an automated method of identifying all BWC footage associated with an Incident and having hyperlinks to that footage dynamically included in the associated Incident Record in Vision. The vendor, however, was unable to produce a design to achieve this outcome. As a result, we have fallen back on a less complicated design and currently in the process of negotiating the Change Request with the Vendor. This alternate design requires manual searching to locate relevant footage and manually copying a hyperlink to the footage into the associated Incident Record.

The City anticipates a phased go live – Phase 1 in July – PRIME+ transactional system, and the Final Phase – all Risk Management Dashboards - in September 2019 (Table 1).

Table 1 – Project Timeline



FISCAL IMPACT

Next Generation Public Safety 9-1-1 System

Funding for this project was approved by Council Resolution No. 86867 C.M.S., dated July 18, 2017. As of October 31, 2018, the only project-related contractual financial obligation to the City is for the \$4,446,659.45 Motorola Solutions, Inc. Phase 1 contract and related deliverables and payment milestones. Contractual project milestones requiring payments of \$961,821.90 have so far been met and paid leaving \$3,484,837.55 in remaining payment milestones and related deliverables. There have been no changes to the funding for this project since the last report.

Vision 1.0 (PRIME 2.0) OPD Early Intervention System

Funding for this project was also approved by Council by Resolution No. 86867 C.M.S., dated July 18, 2017. As of May 20, 2019, \$1,658,332 of the project funds have been encumbered, of those funds 42% have been paid out. There remains an available balance of \$141,677 which will be utilized to fund the Change Requests (CR) mentioned in the summary – VieVu BWC linkage, and Slalom completion of the final 4 dashboards. As these CRs have not been completely negotiated, there will be the need for additional funding to complete the project and possibly returning to Council.

COORDINATION

In the preparation of this staff report, the Information Technology Department coordinated with the Oakland Police Department, the Oakland Fire Department, the Budget Bureau and the Office of the City Attorney.

SUSTAINABLE OPPORTUNITIES

Economic: Where feasible, equipment purchases for this project will be made locally to help support the local economy.

Environmental: Every effort will be made to select state of the art hardware and software that is energy efficient and environmentally preferred.

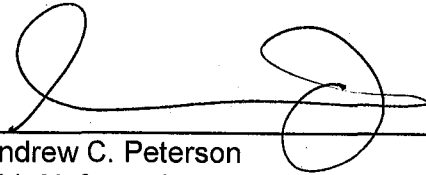
Social Equity: Implementation of this project will result in increased effectiveness of critical public safety information systems which will aid in the timely response of emergency services and the health and safety of Oakland residents.

ACTION REQUESTED OF THE CITY COUNCIL

Staff Recommends That The City Council Receive An Informational Report Which Provides An Update On The Next Generation 9-1-1 Public Safety Upgrade and the Court Mandated Performance, Reporting, Information and Metrics Environment System (PRIME 2.0) Projects.

For questions concerning the contents of this report, please contact Kirke Curtis, Project Manager II, Information Technology Department at (510-238-6873) for the CAD/RMS project and Andrew Peterson CIO at (510-238-6741) for the PRIME project.

Respectfully submitted,



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