



THE CITY OF SAN DIEGO  
**REPORT TO THE CITY COUNCIL**

DATE ISSUED: November 3, 2014 REPORT NO. 14-066  
ATTENTION: Honorable Council President Todd Gloria and Members of City Council  
SUBJECT: Public Safety Communications Projects  
REFERENCE: None

REQUESTED ACTION:

**General**

The Chief Financial Officer is authorized to appropriate, from available fund balance, \$204,333 to the Fire and Lifeguard Facilities Fund (200228), Fire-Rescue Department (1912), for the purpose of transferring funds to the General Fund (100000), to support public safety IT infrastructure.

The Chief Financial Officer is authorized to transfer an amount of \$1,788,001 from the General Fund (100000) to General Fund Contributions to the CIP Fund (400265), as follows: \$1,230,275 from the Police Department (1914), and \$557,726 from the Fire-Rescue Department (1912).

**Sub-Item A: San Diego Police Call Manager**

Authorize the Mayor or his designee to execute an agreement with the State of California to secure and install the equipment to upgrade the Police Department's primary Customer Premise Equipment (CPE) / 9-1-1 Call Managing System, as well as the equipment for a backup emergency dispatch site for the Police and Fire-Rescue Departments. This agreement will allow for the purchase and maintenance of equipment from AT&T, a state-approved vendor, with reimbursement from the state in December 2017. The \$1M threshold will be exceeded in FY 2015 with the purchase and installation of the equipment.

The Chief Financial Officer is authorized to add CIP S15XXX, 9-1-1 Police Call Manager, to the Fiscal Year 2015 Capital Improvements Program.

The Chief Financial Officer is authorized to increase the Capital Improvements Program Budget in CIP S15XXX, 9-1-1 Police Call Manager, and to appropriate and expend \$1,230,275 from the GF Contributions to the CIP Fund (400265), for the purpose of funding the 9-1-1 Call Manager project.

**Sub-Item B: Enterprise Radio/Phone Logger**

The Chief Financial Officer is authorized to add CIP S15XXX, 9-1-1 Radio Loggers, to the Fiscal Year 2015 Capital Improvements Program.

The Chief Financial Officer is authorized to increase the Capital Improvements Program Budget in CIP S15XXX, 9-1-1 Radio Loggers, and to appropriate and expend \$1,697,882 as follows: \$1,140,156 from the State Grant Fund (600001), State COPS 2013 Grant (1000046-2013); and, \$557,726 from the GF Contributions to the CIP Fund (400265), for the purpose of funding the 9-1-1 Radio Loggers project.

**STAFF RECOMMENDATION:**

Approve requested actions.

**EXECUTIVE SUMMARY OF ITEM BACKGROUND:**

**Background**

The San Diego Police Department currently uses a 23-year old Computer Aided Dispatch (CAD) system for dispatching police officers to 9-1-1 and non-emergency calls for service. To replace this aging equipment, the City approved an enterprise CAD project, which will also be used by the Fire-Rescue Department and other departments with dispatching needs. Proposals received in response to the enterprise CAD request for proposal (RFP) are being evaluated at this time.

In preparation for the new enterprise CAD system, additional business and technical analysis has been underway. During this process, several other critical systems necessary for efficient and effective public safety response have been identified as outdated or unreliable, or posing a security risk. These components are interrelated and are essential to ensuring reliable emergency response service to the citizens of San Diego. The identified components include the need for: a new public safety network, which is infrastructure that connects the Police and Fire-Rescue communications systems and provide backup systems; an upgraded 9-1-1 call manager for the San Diego Police Department, which is the system that receives 9-1-1 and non-emergency calls; and an upgraded radio/phone logging system that is used to record Police and Fire-Rescue radio and phone traffic.

## **Enterprise Public Safety Network**

The Enterprise Public Safety Network is an underlying project, recently underway, that is necessary to support reliable emergency communications in the City of San Diego. The Police and Fire-Rescue Department's current emergency network infrastructures, which support the critical 9-1-1 Call Manager, Computer Aided Dispatch (CAD), and telephone/radio logger systems, were historically maintained and serviced by engineers from the San Diego Data Processing Center (SDDPC) on a time and materials basis. When the City entered into a contract with Xerox State & Local Solutions, Inc. (Xerox) in July 2012 to provide Citywide voice and data networking services, the Police and Fire-Rescue Departments' emergency network infrastructures continued on a time and materials basis, provided by Xerox. As a result, routine maintenance and regular equipment refreshes/upgrades have not been performed.

In December 2013, the Police Department requested Xerox evaluate its current emergency network infrastructure to determine if the Master Services Agreement (MSA) between the City and Xerox could be modified to include maintenance and service for this critical network. In May 2014, after a thorough examination of the Department's emergency network infrastructure, Xerox concluded that many of the existing components were "end of life" and needed to be upgraded in order to meet requirements necessary to modify the service agreement.

Xerox also evaluated the Fire-Rescue Department's emergency network infrastructure and concluded that some of Fire-Rescue's equipment was similarly out-of-date. Identified components need to be upgraded before the MSA can be modified to cover the Fire-Rescue Department's emergency network infrastructure.

The outdated infrastructure supporting the Police and Fire 9-1-1 phone and CAD systems poses possible public safety risks, since a network failure could result in the inability to answer 9-1-1 calls or dispatch officers to crimes in progress. Redundancy could mitigate potential impacts in the event of a failure, but is not currently available. Also, without a modified MSA that includes these networks, Xerox cannot be held accountable to service levels that are standard for other City infrastructure.

In addition to issues regarding out-of-date emergency infrastructures, the existing networks in the Police and Fire-Rescue Departments will not fully support the planned enterprise CAD system, nor will it support a new geo-diverse 9-1-1 Call Manager configuration and a replacement enterprise telephone/radio logger. The existing emergency networks do not provide the bandwidth requirements to operate and sustain the updated systems and programs. Furthermore, in order to establish redundancy to support the "no single point of failure" initiative and to establish an emergency backup dispatch center for the Police and Fire-Rescue Departments, the existing network infrastructure must be enhanced.

The Police and Fire-Rescue Departments have worked with Xerox, the City's Communications Division, and other pertinent vendors, to design a resilient, highly diverse, geographically redundant network that would meet the Police and Fire-Rescue Departments' requirements. This new network will provide coverage for five sites: San Diego Police Communications, San Diego

Fire-Rescue Communications, San Diego Lifeguard Communications, Chollas (the primary public safety radio site), and an emergency backup dispatch site.

Once established, the Enterprise Public Safety Network will have numerous benefits. The new equipment will be owned by Xerox, consistent with the rest of City network equipment. The MSA between the City of San Diego and Xerox will be updated to include the new emergency network infrastructure, resulting in required service levels for support, and regular maintenance. The proposed design will provide redundancy, ensuring no single point of failure, and will allow the Police and Fire-Rescue Departments to establish the City's first emergency backup dispatch site.

The total cost of this project is approximately \$473,000, which will be funded jointly by the Police and Fire-Rescue Departments. The Police Department's share of this project is approximately \$271,000, which includes \$111,000 for the equipment and approximately \$160,000 for the first year of maintenance, and will be funded with State COPS 2013 grant funds. The Fire-Rescue Department's share of this project is approximately \$202,000, which includes \$126,000 for the equipment and \$76,000 for the first year of maintenance. This will be funded with the Fire-Rescue Department's General Fund budget. Financial Management will be reviewing expenditures in the General Fund for the Fire-Rescue Department during the Quarterly Budget Monitoring process and a request to increase appropriations for these expenditures may be brought forward at that time.

### **San Diego Police Call Manager**

The Police Department uses the Vesta 2.2 Customer Premise Equipment (CPE)/9-1-1 call managing system to receive 9-1-1 and non-emergency calls from the public. The system runs on the Windows XP operating system (OS) and the manufacturer, Cassidian, will not upgrade the system to a newer OS. The City has mandated the Department upgrade all of its existing computers to the Windows 7 OS, since Microsoft no longer supports or provides security patches for Windows XP. This important migration to Windows 7 cannot be completed without replacing the existing call manager, and continuing to operate on the current Windows XP system poses an increasing risk of failure to this critical system over time.

Additionally, the current system does not provide for redundancy and a backup dispatch site, both critical to avoiding a 9-1-1 outage in the event of failure. Best practices recommend redundancy within these types of critical systems, so if one part of the system fails, operations can continue on redundant components. This supports the principle of having no single point of failure in systems that support the receiving, handling and dispatching of 9-1-1 calls, and is an important goal of the new enterprise CAD system. The upgrade of the call manager equipment will allow for redundancy, and also supports deployment in multiple locations, allowing Police and Fire-Rescue to establish an emergency backup dispatch site.

This upgrade is also needed to support full functionality of the new CAD system and to correct inaccurate and inconsistent reporting of call times between the Police and Fire-Rescue Departments. In an effort to correct these issues, the Police Department has started to transition its existing call taker and radio telephone lines over to Voice over Internet Protocol (VOIP).

Cassidian, however, no longer manufactures some of the necessary hardware to support VOIP. The new Vesta 4.2 call manager system is compatible with next generation 9-1-1 technology, and will support full functionality offered by new CAD systems currently available.

Finally, the reporting component of the current call manager system has recently proven to be unreliable. The system has failed to record important statistics, which are used to measure workload and performance of the dispatch center. Lost data has not been recoverable during recent outages. Further, according to the current service provider, Verizon, it is not possible to set system failure alerts to immediately notify key staff in the event of a problem.

The California 9-1-1 Emergency Communications Branch funds call manager system upgrades for Public Safety Answering Points (PSAPs), such as the San Diego Police Department, on a five-year cycle using funds from the Emergency Telephone Users Surcharge. The California 9-1-1 Branch has agreed to reimburse the City for the mid-cycle upgrade of its existing 9-1-1 call manager. This reimbursement of approximately \$1.6 million will occur in December 2017, when the City is due for its five-year upgrade. A sole source request for the purchase and maintenance of this equipment from AT&T, a State approved vendor, has been approved by Purchasing and Contracting.

The Fire-Rescue Department is currently in the process of upgrading its call manager system to Vesta 4.2, with service provided by AT&T. Fire-Rescue's upgrade will be funded by the State 9-1-1 Branch as part of their regular cycle upgrade. With both departments operating on the same type of system and the same service provider, call-taking backup operations will be possible between departments.

Approval is being requested to add this project to the Capital Improvement Program Budget and to appropriate funding for this purpose. The total cost of this project is approximately \$1,685,000, which will be funded by Police Department's General Fund budget. Of this amount, \$1,230,000 will be used to replace the existing equipment and approximately \$455,000 will be used to offset the costs associated with 48 months of maintenance. Financial Management will be reviewing expenditures in the General Fund for the Police Department during the Quarterly Budget Monitoring process and a request to increase appropriations for these expenditures may be brought forward at that time.

### **Enterprise Radio/Phone Logger**

Radio/phone logger equipment records radio and phone traffic. These recordings are essential in investigations, and are frequently utilized during court proceedings. The Police Department's existing Data Instruments telephone/radio logger currently operates on the outdated Gold Elite radio infrastructure, which is no longer in use, and has been replaced by the new Motorola P25 radio system. The existing logger also utilizes an unsupported, and no longer available, interface to record telephone and radio traffic on the Department's radio dispatch consoles.

Over time, the Police Department's Data Instruments logger has proven to be unreliable, which has resulted in the loss of emergency and non-emergency telephone calls and radio traffic recordings. There have been instances in which telephone and radio positions within Police Communications Division have gone unrecorded for several days without any alert or notification. The missing recordings were discovered by happenstance when Police Audio Research personnel attempted to locate recordings and were unable to find them.

The new Motorola Nice logger will support the full functionality offered by the new enterprise CAD and the new Police and Fire 9-1-1 call managing systems. The new logger will allow the elimination of the old Gold Elite radio infrastructure, and end the Police Department's reliance on the unsupported interface currently used to record telephone and radio traffic. In addition, the logger will consolidate logging services used by the Police and Fire-Rescue Departments, and could result in additional savings if other City Departments choose to use the logger. Recurring support and maintenance costs will be minimized since these costs will be added to the overall system maintenance contract between the City's Communications Division and Motorola.

Approval is being requested to add this project to the Capital Improvement Program Budget and to appropriate funding for this purpose. The total cost of this project is approximately \$1,698,000, which will be funded jointly by the Police and Fire-Rescue Departments. The Police Department's share of this project is approximately \$1,140,000 and will be funded with State COPS 2013 grant funds. The Fire-Rescue Department's share of this project is approximately \$558,000 and will be funded from the Fire-Rescue Wellness Program, Fire/Lifeguard Facilities Fund, and General Fund budget. Financial Management will be reviewing expenditures in the General Fund for the Fire-Rescue Department during the Quarterly Budget Monitoring process and a request to increase appropriations for these expenditures may be brought forward at that time.

FISCAL CONSIDERATIONS:

The costs associated with these projects will be funded by the FY 2015 Police and Fire-Rescue Departments' General Fund budgets and State COPS 2013 Grant funds. Financial Management will be reviewing expenditures in the General Fund for the Police and Fire-Rescue Departments during the Quarterly Budget Monitoring process and requests to increase appropriations for these expenditures may be brought forward at that time.

EQUAL OPPORTUNITY CONTRACTING INFORMATION (if applicable)

This action is subject to the City's Equal Opportunity Contracting Ordinance (San Diego Ordinance No. 18173, Section 22.2701 through 22.22708) and the City's Non-Discrimination in Contracting Ordinance (San Diego Municipal Code Sections 22.3501 through 22.3517).

PREVIOUS COUNCIL and/or COMMITTEE ACTIONS: N/A

COMMUNITY PARTICIPATION AND OUTREACH EFFORTS: N/A

KEY STAKEHOLDERS AND PROJECTED IMPACTS

San Diego Police and Fire-Rescue Departments, and the residents of the City of San Diego.

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Police Department

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Deputy Chief/Chief Operating Officer