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October 31, 2014

The Honorable Paul Krekorian  
Chair, Budget and Finance Committee  
c/o City Clerk, Room 395  
Los Angeles, CA 90012

Staffing Required to Enhance Public Safety Technology  
(C.F. 14-0600-S250; C.F. 14-1473)

The Mayor's Fiscal Year 2014-15 Proposed Budget included \$1.285M under the General City Purposes line item "Police/Fire Dispatch System Consolidation." During the Budget and Finance Committee process, however, the Mayor's Office clarified that the intent of the funding was to provide resources to enhance public safety technology, including determining the appropriateness and feasibility of merging the Los Angeles Fire Department (LAFD) Computer Aided Dispatch (CAD) with the Los Angeles Police Department's (LAPD). As elected officials have recognized, the LAFD has significant technology needs that have gone unfulfilled due to resource limitations. By establishing a Public Safety Technology Team, technology projects could be more efficiently and effectively developed through collaboration by LAFD and LAPD personnel. City Council moved the funding to the Unappropriated Balance (UB) and instructed the Departments to report on how the funds would be expended.

Following adoption of the FY 2014-15 Budget, the Mayor's Office, LAFD, LAPD, and Information Technology Agency (ITA) have been working together to define the strategy to enhance public safety technology and identify the staffing required to implement that strategy.

On behalf of both the LAFD and LAPD, I requested that the City Administrative Officer (CAO) consider transfers from the UB to our respective department accounts for the staffing and expense needs to establish the Public Safety Technology Team. In summary, the LAFD requested resolution authority for four new positions; the LAPD requested resolution authority for two new positions, a salary differential for the LAPD CIO to reflect the additional responsibilities managing the Technology Team (Chief Information Officer for Public Safety job classification would be created), pay grade upgrade of two existing positions, and unfreezes of two vacant positions.

The CAO First Financial Status Report (FSR) dated October 23, 2014 (C.F. 14-0600-S250) recommends that the LAFD transmit the proposed staffing plan to appropriate Council Committee(s) under separate cover for consideration. The FSR also provides the following fund transfer recommendations:

- Appropriate \$217,863 from the UB, Police/Fire Dispatch System Consolidation line item to the Fire Department's Salaries General (\$232,423) and Office and Administrative (\$4,000) accounts.
- Appropriate \$236,423, from the UB, Police/Fire Dispatch System Consolidation line item to the Police Department Salaries General (\$209,863) and Office and Administrative (\$8,000) accounts.

On October 29, 2014, a Motion was introduced (Krekorian-Englander; C.F. 14-1473) instructing the LAFD, LAPD and ITA to report on:

- (a) The objectives of the Public Safety Technology Team;
- (b) The positions of the Technology Team staffing plan; and
- (c) The status of the public safety technology projects, including potential funding that may be required to meet the Fire Department's immediate technology needs.

This report is in response to the CAO recommendation contained in the FSR, and the instructions contained in the Krekorian-Englander Motion.

### **Background**

The focus of this effort has been twofold. First, an effort has been made to identify ways in which LAFD technology can be improved. Over the past several years, the LAPD has made great strides in implementing current technologies (e.g., the Advanced Patrol Vehicle project, Automated License Plate Recognition, the use of surveillance cameras, data analytics/data driven policing, crime forecasting/predictive policing, digital in-car video, etc.). The LAFD, however, has long been without a Chief Information Officer (CIO), and has struggled to maintain pace with technological advances. As such, much of developing a strategy for this first effort has focused on tapping into LAPD resources with the skills, expertise and experience in large-scale technology implementations to evaluate existing LAFD technologies and projects in progress.

Second, an effort has been made to identify public safety platforms that are common to both police and fire to determine if a shared platform might be recommended. Of course, such recommendations will not only depend on specifics pertaining to the technology (e.g., resultant cost savings and efficiencies by sharing infrastructure, hardware, licensing, support and maintenance costs, etc.), but also on whether it makes operational sense to do so (i.e., can both agencies successfully accomplish their core missions while also recognizing benefits such as shorter response times, more efficient deployment of resources, etc.).

While both of these efforts have been underway over the last few months, it has become clear that to accomplish any of this quickly and successfully, a Public Safety

Technology Team must be established so that resources can be properly dedicated to achieving the desired outcomes.

### **Proposed Staffing Plan**

To staff a Public Safety Technology Team that can successfully implement the projects and strategies described below, the following positions and six months funding will be required. It is understood that if the positions are authorized, the LAFD and LAPD must comply with the Managed Hiring Process before the positions may be filled.

In addition to the technical/civilian staffing requests, the LAFD will assign a number of sworn resources to serve as subject matter experts to the Public Safety Technology Team. The LAFD will assign staff to provide user, functional and business requirements for each technology initiative. Those LAFD resources will also weigh in on operational pros and cons in regard to technology options presented by the Public Safety Technology Team, conduct user acceptance testing of any technology being implemented, provide operational training of those systems, and participate in the rollout of new systems and technology.

### Los Angeles Police Department

1. Chief Information Officer for Public Safety: \$12,363 (11% differential above incumbent LAPD CIO position to reflect additional duties and responsibilities)

During the FY 2014-15 budget process, City Council instructed the Personnel Department to create a new job classification of Chief Information Officer for Public Safety. The CIO for Public Safety will report to both the Chief of Police and the Fire Chief for joint LAPD/LAFD projects. The position will oversee specific technology initiatives for the Police and Fire Departments, and will directly manage joint LAPD/LAFD projects that are deemed to be a priority by the Chiefs of both departments. The first set of projects, intended to improve and enhance LAFD technology, is listed below.

The CIO for Public Safety will not replace the responsibilities of the existing LAPD CIO, or the LAFD CIO position funded beginning January 2015, as they will continue to be necessary to manage all other technology efforts within each department.

2. Upgrade Senior Systems Analyst I to II: \$12,194 (differential between the I and II pay grade)

The Senior Systems Analyst II (SSA II) will serve as the Project Manager for Public Safety Technology Initiatives. The position will have specialized skills and a Project Management Professional (PMP) Certification that will enable the SSA II to manage large-scale, enterprise level technology efforts through all phases from requirements gathering and design to implementation, including training and roll-out. The position will be responsible for all aspects of a technology project for the life of the project,

and will lead and direct cross-functional teams to deliver projects within the constraints of schedule, budget and scope.

The SSA II will possess the knowledge and experience to both manage the technical tasks of a project, and appropriately apply a project management methodology to a technical project to produce project deliverables on time and within budget. The position will provide leadership and supervision for all technical and professional staff on the projects, ensure all work meets technology and department standards, and ensure staff is properly trained. The SSA II will develop professional presentations and documentation, and make regular presentations to the CIO for Public Safety and other executive leadership within the City.

### 3. Systems Programmer III: \$58,543

The Systems Programmer III (SP III) will work under the direction of the Senior Systems Analyst II, and will be responsible for daily technical tasks on various Public Safety Technology Projects. The SP III will develop, implement, modify and maintain operating systems software of the various information systems applications environments, including development, testing, staging, training and production environments. The position will perform hardware and software analyses; provide technical assistance to other IT personnel; and serve as lead to other employees engaged in daily technical activities.

The SP III will apply sound technical principals, processes and techniques in building and maintaining Public Safety Technology systems, and document those processes in technical procedures manuals. The SP III will be responsible for the administration and regular maintenance of hardware and software at the "L-1" and "L-2" layers, including hardware configuration; operating systems installation, patching and upgrades; firmware upgrades; and disk and archival storage system maintenance.

### 4. Database Architect: \$56,475

The Database Architect (DBA) will assist in the establishment and maintenance of the databases required for the various Public Safety Technology applications. The DBA will conduct data analyses, establish data designs, and perform database implementations necessary for the use, integration, integrity, security, availability, maintenance and operation of the public safety databases. This position will install and configure database software and related administration tools and utilities; develop and implement production scripts for database maintenance tasks; monitor and fine-tune database performance; utilize database tools to perform various types of database backups and recoveries; and ensure database security.

5. Upgrade existing Senior Police Service Representative I to II: \$10,192  
(differential between I and II pay grade)

The Senior Police Service Representative II (Sr. PSR II) will serve as the LAPD subject matter expert for technology projects pertaining to dispatch operations and Computer Aided Dispatch (CAD). The Sr. PSR II will interface with ITA personnel and LAFD sworn and civilian technology staff in identifying common dispatch platforms and determining the feasibility of sharing those platforms. The position will provide planning, organization and coordination of technical support staff assigned to the departments' 9-1-1 dispatch centers on dispatch related projects to ensure appropriate steps are taken for successful integration and implementation. The Sr. PSR II will also serve as a subject matter expert on dispatch business functions and responsibilities, such as systems for radio communications, 9-1-1 telephony, AVL, CAD dispatching, and logging recorded systems.

The Sr. PSR II will have a thorough working knowledge of the principles and practices of public safety communications; knowledge of Federal, State and municipal laws and regulations pertaining to public safety communications; and policies and procedures pertaining to law enforcement call taking, dispatching, training, supervision and management.

6. Unfreeze vacant Systems Analyst II: \$43,399

The Systems Analyst II (SA II) will work under the direction of the Senior Systems Analyst II, and will be responsible for daily technical tasks on various Public Safety Technology Projects. The position will participate in the design and implementation of all technical tasks and will make recommendations to project leadership on technical approaches. The SA II will perform feasibility analyses related to the modification of existing computer-based information systems, the maintenance and support of information systems, and the implementation of new computer-based systems.

The SA II will be responsible for information systems documentation, including technical requirements, system architecture diagrams, user acceptance test scripts and procedures, system administration guides, and training materials. The position will work directly with technical staff from LAFD, ITA and vendors to perform technical tasks and implement system requirements.

7. Unfreeze vacant Police Service Representative III: \$43,257

The Police Service Representative III (PSR III) will work under the direction of the Sr. PSR II and will serve as a subject matter expert for all Public Safety Technology Projects pertaining to dispatch operations and Computer Aided Dispatch (CAD). The PSR III will have experience operating in a City 9-1-1 dispatch center and implementing and supporting dispatch related systems, such as CAD and AVL.

The PSR III will serve as a subject matter expert for dispatch business functions and responsibilities including radio, 9-1-1 telephony, AVL, CAD dispatching, and logging recorded systems. The PSR III will develop user guides and training materials and conduct training pertaining to use of all dispatch systems.

Los Angeles Fire Department

1. Systems Programmer II: \$54,200

The Systems Programmer II (SP II) will be dedicated to the support, administration and maintenance of LAFD's Network Staffing System (NSS) servers, network connections to the Fire Stations, network port configurations and application support and will serve as the NSS technical expert. The NSS, among other functions, maintains deployment and timekeeping schedules for field personnel, and is, therefore, critical to LAFD operations.

The position will be responsible for establishing and enforcing NSS standard operating procedures; monitoring and maintaining the NSS network environment; providing administration and maintenance of NSS servers and data storage systems; monitoring and maintaining software configurations for the various NSS servers; developing and implementing a server backup strategy; providing disaster recovery solutions to ensure business continuity; and, creating and maintaining documentation related to the NSS network environment. The SP II will also provide the hardware platforms necessary for the LAFD Programmer Analysts to deploy LAFD applications, such as the deployment and time keeping systems.

2. Systems Programmer II: \$54,200

This Systems Programmer II (SP II) will monitor and maintain the LAFD application environment; provide administration and maintenance of LAFD servers and data storage systems; monitor and maintain software configurations for enterprise server applications; develop and implement data backup and recovery strategies; and recommend business continuity solutions. This position will also be responsible for creating and maintaining documentation related to the LAFD network environment.

The SP II will ensure that LAFD servers and data storage systems are up and running at all times. In addition, the position will serve as the LAFD's security officer and will represent the Department at the City's Cyber Intrusion Command Center (CICC) and serve as a member of the CICC Cyber Security Incident Management Team.

3. Database Architect: \$56,475

The Database Architect (DBA) will create and manage the LAFD electronic databases required to store and organize vast amounts of data captured by LAFD software applications. This position will conduct data analyses, establish data designs, and perform database implementations necessary for the use, integration, integrity, security, availability, maintenance and operation of the public safety

databases. The tasks will ensure the data integrity of records such as patient medical records (where HIPAA compliance is required), financial data, inspection records, procurement records, human resources records, and GIS data.

The DBA is critical to LAFD daily operations, and well as accomplishing the goals set by the Mayor and Fire Chief in regard to open data and the development of data driven performance metrics. Further, without a DBA, LAFD applications are at risk of suffering from poor performance and unexpected outages.

#### 4. Programmer Analyst V: \$52,988

The Programmer Analyst V will perform application programming in modern programming languages to ensure Public Safety Technology software applications meet the needs of the public safety end users. The position will focus on automating several manual/paper processes within the LAFD to ensure critical deadlines, legal mandates and/or timelines for operational tasks are met.

For example, the Programmer Analyst V will be responsible for developing a software application to automate the tracking of the operations of the LAFD Recruit Academy. Tracking has been conducted via paper processes. The resulting Training Tracking Application will track lesson plans and skills evolution performed in the Drill Tower. The Programmer Analyst V will also update and maintain the notification and call out system, work with in-service training resources to create a master training and certification module, and address the continual need to enhance and update existing applications that require modifications as a result of operational changes.

### **Technology Projects and Status**

The following technology projects have been identified as core to enhancing public safety technology, and will be the initial focus of the Public Safety Technology Team:

- Computer Aided Dispatch (CAD)
- Fire Station Alerting
- Automatic Vehicle Locator (AVL)
- Tiered Dispatch System (TDS; medical dispatch protocol)
- Mobile Device Management (use of tablets in the field)
- Radio Network Controller (RNC; send data from CAD to Mobile Data Computers in vehicles)
- Communications Network and Infrastructure
- Fire Prevention Applications (inspections for new construction, brush clearance, etc.)

The projects listed above as being the initial focus of the Public Safety Technology Team are in various states of progress. While some are just in the analysis and planning phase, others are in development or pilot phases. The approach the Public Safety Technology Team will take in regard to the various projects is as follows.

The goal for the Public Safety Technology Team in regard to CAD is to conduct an analysis to determine if the investment the City has made in the procurement and Chair, implementation of the LAPD CAD can be leveraged to bring the LAFD onto the system as a subscriber agency (just as LADOT did a little more than one year ago). To that end, LAFD, LAPD, ITA and vendor resources will spend several months on two fronts. First, the team will discuss and document the LAFD operational user requirements for CAD. Second, the team will explore all technical requirements for the CAD, including all interfaces to CAD and integrations with other LAFD systems (e.g., Fire Station Alerting, Tiered Dispatch System, etc.). The team will then conduct a gap analysis to determine if there are any functional or technical needs that cannot be met by the existing LAPD CAD. The CIO for Public Safety will then make a recommendation to the Fire Chief as to whether the LAPD CAD can meet the needs of the LAFD.

If the recommendation is to bring the LAFD onto the LAPD CAD, the Public Safety Technology Team will then develop a plan, timeline, and projected costs for the effort. If the recommendation indicates that the LAPD CAD will not meet the needs of LAFD, the Public Safety Technology Team will work to develop a Request for Proposals for the procurement of a CAD for the LAFD.

The goal for the Public Safety Technology Team in regard to the other technology initiatives listed above is to conduct an analysis of each initiative to determine: (1) the current state of the technology; (2) any need for system upgrades, enhancements or replacements; and (3) prioritize those upgrades, enhancements and replacement efforts based on LAFD business needs and the availability of resources and funding.

### **Funding Required to Meet LAFD Immediate Technology Needs**

The LAFD has an immediate need to rebuild its National Fire Incident Reporting System (NFIRS) and its Arson Information System (AIS) on an updated technology platform. NFIRS was designed by the U.S Fire Administration as a tool for fire departments to use to report fires and other response incidents, and to maintain records of these incidents in a uniform manner. The information collected describes the kind of incident responded to, where it occurred, the resources used to mitigate it, and how losses and other information designed to understand the nature and causes of fire, hazardous material (HazMat), and emergency medical service (EMS) incidents. AIS provides tracking and management tool fire incidents information to the LAFD Arson Investigation Section; integrates with NFIRS to identify arson incidents; provides monthly reporting to LAPD and Department of Justice; and maintains a database of arsonists.

NFIRS and AIS are currently running on an antiquated Windows Server 2000 operating system and ColdFusion 5 programming software. These systems must be upgraded to Windows 2012 and ColdFusion version 10 to comply with new Payment Card Industry 3.0 requirements and Windows Server end-of-life support deadlines that are fast approaching in 2015. If these systems are not upgraded, they will be required to be removed from the City network, as they would violate PCI compliance (prohibiting the acceptance of credit cards by the City) and create a substantial security vulnerability. If the systems are taken offline, the critical information maintained in these Systems will be inaccessible to Fire Department staff. As ITA does not have sufficient staff to

perform the upgrade and re-platforming of the NFIRS and AIS, this effort will require the hiring of contract programmers for six months.

The following summarizes the funding requirements to complete the upgrade and re-platforming of NFIRS and AIS.

Two (2) Contractors for 6 months:	\$205,000 (ITA)
Additional ColdFusion licenses:	20,000 (LAFD)
Added Storage Requirements:	<u>50,000 (LAFD)</u>
<b>Total</b>	<b>- \$275,000</b>

**Recommendations**

It is recommended that the City Council, subject to approval of the Mayor:

1. Authorize resolution authority for the following positions from January 1 through June 30, 2015, subject to allocation by the Personnel Department, and, as appropriate, pay grade determination and salary setting by the City Administrative Officer (CAO):

<u>Department</u>	<u>Positions</u>	<u>Class Title/Code</u>
Police	1	Chief Information Officer for Public Safety (new)
	1	Systems Programmer III (1455-3)
	1	Data Base Architect (1470)
Fire	2	Systems Programmer II (1455-2)
	1	Database Architect (1470)
	1	Programmer Analyst V (1431-5)

2. Instruct the Police Department to submit appropriate documentation to the CAO, Employee Relations Division for consideration of pay grade upgrades for one Senior Systems Analyst I (1597-1) to II (1597-2), and one Senior Police Service Representative I (2209-1) to II (2209-2).
3. Upon approval of the pay grade upgrades, authorize the CAO to activate substitute authorities through June 30, 2015 for one Senior Systems Analyst II and one Senior Police Service Representative II in the Police Department.
4. Approve the following transactions:

Appropriate from: Fund 100/58 Unappropriated Balance, Account 000184, Police/Fire Dispatch System Consolidation

Appropriate to:

<u>Fund/Account</u>	<u>Amount</u>
Fund 100/38 Fire, Account 006010	\$70,000
Fund 100/32 ITA, Account 003040	\$205,000

5. Authorize the City Administrative Officer, or his designee, to make technical adjustments to comply with the intent of these recommendations.

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If you have any questions, please do not hesitate to contact me at (213) 473-9989.

Sincerely,



RALPH M. TERRAZAS  
Fire Chief