Date of Meeting: April 12, 2016

#14

BOARD OF SUPERVISORS
FINANCE/GOVERNMENT OPERATIONS AND
ECONOMIC DEVELOPMENT COMMITTEE
INFORMATION ITEM

SUBJECT: **Update on Public Safety Technology Systems (PSTS) Project**

ELECTION DISTRICT: Countywide

STAFF CONTACTS: Wendy Wickens, Dept. of Information Technology
Keith Brower, Chief, Fire, Rescue and Emergency Management
Mike Chapman, Loudoun County Sheriff
Matt Tobia, Asst. Chief, Support Services and Volunteer Admin.

PURPOSE: To provide an update on the status of the County's new Computer Aided Dispatch (CAD) system implementation.

BACKGROUND: Loudoun County began implementation of a new CAD system in July 2014 as part of a larger Public Safety Technology System (PSTS) replacement and upgrade initiative. The County's existing CAD system lacks efficiency and modern capabilities in handling today's nomadic emergency calling environment. Replacement of the CAD presented the County with an opportunity to gain additional applications, and enhance records management and emergency response capabilities to better serve the residents and visitors of Loudoun County through the PSTS initiative.

On July 2, 2014, the Board of Supervisors approved award of this project to the prime vendor, Motorola Solutions for a total base price of $10,785,796 including the first year of maintenance, with an additional four (4) years of annual maintenance support totaling $5,442,410 for a combined total of $16,228,206. As part of its FY 2016 Adopted Budget (April 2015), the Board provided $364,753 in local tax funds for 3.00 FTEs for the Department of Information Technology in order to support the Public Safety Technology System. In addition, funding for overtime for training of staff in the amount of $790,812 was set aside in a non-departmental account. In FY 2016, the Board also approved $1.4 million in financing as part of its Adopted FY 2015-FY 2020 CIP for the PSTS capital project for the purchase of additional licenses to incorporate an estimated 1,200 volunteer fire and rescue users of the PSTS ($796,780), specifically the CAD and Records Management System (RMS) components and to increase the contingency for the project.

STATUS: The project was initiated on July 29, 2014 with a vendor kick-off meeting, and activities to complete the system implementation commenced following this date. The project consists of three (3) major sub-systems, and several related applications:

1. Orion Workforce Management Application
2. Computer Aided Dispatch (CAD) and Mobile Application
3. Records Management System (RMS)

Specific activities to accomplish the implementation of all three (3) major Sub-Systems are currently underway.

Sub-System 1 **- Orion Workforce Management Application**

Orion is providing the County emergency responder community with a common personnel management solution known as AgencyWeb. It is a web-based system that centralizes the automated coordination of day-to-day public safety workforce management. AgencyWeb spans all applications and provides a single portal from which to manage users, training, scheduling, and work. The integration of this application also provides the County with a mechanism to track an individual resource across all departments. It integrates schedule management with the positions being filled and the personnel who are qualified to fill those positions. Events are monitored to inform supervisors when staffing levels are low or excessive; and therefore allowing personnel to be moved to the optimal position. Since workforce events are coordinated, scheduling conflicts are viewable. Once changes are committed, they are reflected in each employee's profile. The Orion sub-system is also crucial to the successful update of unit availability to the CAD application, and by extension for the National Capital Regions' (NCR) Data Exchange Hub (DEH) CAD-2-CAD initiative. The Orion application will also directly interface to the County's Cyborg platform for electronic time reporting by all public safety agency resources.

The Orion sub-system is in the implementation phase with ongoing data configuration and verification, acceptance testing, and user training currently underway. The Orion portion of the project is within budget and scope, but is behind schedule by approximately ten (10) weeks. This schedule delay is a result of the Orion application's inability to accommodate FREM's personnel and staffing procedures without significant modification. The personnel module of this application is on track for deployment for use throughout the Sheriff's Office by the end of April 2016. However, the personnel module of the application design is not currently in accordance with the RFP requirements or meeting the needs for FREM. The vendor is currently implementing remediated design updates in an effort to achieve FREM's goals. The forecasted completion and cutover to the Orion application for FREM is for July 2016. Motorola staff is providing weekly updates regarding the schedule status of system component, including Orion. If there is a delay in the cutover readiness of the Orion component, it might delay the go-live of the other system components. However, the County may choose to cutover with the new CAD, Mobile, and RMS components without Orion. This decision would be based on the County's subject matter expert recommendations at that time.

Sub-System 2 **- CAD Application**

The CAD application is being provided by Motorola Solutions and is known as PremierOne. CAD consists of several modules that will provide services at multiple levels within the Emergency Communications Center (ECC) and in the field. It not only provides a modern computer-based method of dispatching emergency services, but will also provide dispatchers in the ECC with the ability to view and understand the status of all units available and being dispatched, capability to send emergency caller and response information to first responders in the field through a Mobile Data Computer (MDC), and store and retrieve data from any incident. Additionally, Loudoun County has procured 26 specific interfaces to be deployed with the PremierOne CAD application that will further enhance the County's emergency response capabilities. These include interfaces to the County's E911 call taking system, Westnet paging system, Radio system, and Corrections applications, among many others.

This CAD sub-system is in the implementation phase with ongoing data provisioning and verification, acceptance testing, and user training currently underway. The CAD portion of the project is currently on schedule, within budget and scope and there are currently no serious issues with this phase. The CAD cutover is forecasted for late summer 2016. However, the complete deployment and cutover of the CAD application is contingent upon the successful completion of other integrated applications, such as the Orion

component described above. As mentioned previously, a delay in the cutover of the Orion component might result in a delay to the cutover of the CAD component. If County subject matter expert resources determine that the County would be better served by going live with CAD, as opposed to introducing additional delay to the cutover schedule, the CAD can fully function without Orion, but automated capabilities brought by the Orion component would then need to be conducted manually until such time that Orion was readied for cutover.

Mobile System

In order to achieve full functionality of the capabilities described above, the CAD sub-system involves the deployment of a mobile component. The Mobile component provides emergency responders in the field with emergency caller location and other information to respond to emergency calls for service when dispatched. The Mobile component allows dispatchers to recommend closest units based on their location at the time of the call, and provides routing information (turn by turn directions) to the responders. Motorola has recognized that the Mobile component contains a defect preventing accurate reading of GPS location information by the Mobile units and preventing accurate interpretation between the Mobile and CAD systems. This prevents proper routing information from being made available to the mobile units and ultimately to the first responders.

The issue identified above has created a delay in the deployment of the Mobile system, and by extension, the full deployment of the CAD system. It is not in the best interest of public safety to deploy the CAD system without a fully functional Mobile component. To that end, Loudoun County is working with Motorola to define a revised schedule for deployment that provides sufficient time to develop, implement, and test the required update to the Mobile system to make it function properly. This is forecasted to be complete in late April 2016, and has contributed to a revised cutover target date for the CAD, Mobile, and RMS systems in late summer 2016. The County will not cutover the Mobile system if it is not fully functional and error-free. Therefore, the project could be further delayed if the Mobile system issue cannot be resolved in accordance with the revised schedule provided in Attachment 1.

***CAD-2-CAD (C2C*)**

Loudoun County is in regular communication with Data Exchange Hub (DEH) staff to coordinate all remaining testing to complete the deployment of the C2C interface for fire and rescue dispatch operations. This testing is scheduled to resume following the deployment of the CAD system, and after completion of a 30-day error free period in which the CAD system is continually in real-time use without any serious system errors. As a result, the C2C testing is expected to resume in September 2016 and continue for up to 90 days, resulting in readiness of the C2C interface before the end of calendar year 2016. This interface will then provide the County with the ability to readily know the availability of mutual aid assets, which will result in more timely notification of those units for response into Loudoun County. Long term, C2C will have the capability to identify and recommend for dispatch the closest units to the location of an emergency regardless of County jurisdictional boundaries. In other words, if a capable Fairfax unit is closest to an emergency caller's location and is available, Loudoun County dispatchers will be able to assign that Fairfax unit to that emergency, saving valuable time in the response process.

***Sub-System 3* - RMS Application**

The RMS application is being provided by Motorola Solutions and is part of the PremierOne suite of products. This application captures and secures all records data into a single repository for advanced information sharing. This aspect is critical to FREM which has never possessed a CAD-based RMS, which severely limits the collection and reporting of fire and rescue incident data, as well as critical non-incident data (training records, productivity reporting, etc.) on a County wide basis. The RMS application will allow FREM to move to a centralized and uniform reporting platform, consistent with philosophy of the Combined Fire and Rescue System Ordinance adopted by the Board of Supervisors in July 2014.

Loudoun County's specific business processes will be matched to PremierOne's data entry methodology resulting in easily searchable, presentable and shared data across multiple agencies. Information stored in the RMS will be accessible from multiple applications and platforms, both in the ECC and in the field through the MDCs to increase first responder situational awareness and enhance interoperability and information sharing.

The RMS system is in the implementation phase with ongoing module provisioning and verification, acceptance testing, and user training currently underway. This phase of the project is currently on schedule, within budget and scope, and there are currently no serious issues with this phase. Due to the interdependencies of the various products and the plan to deploy the RMS and CAD systems simultaneously, the cutover of the RMS application is forecasted for late summer August 2016.

The following tables illustrates the current project budget for the PSTS to date:

TABLE 1.
Public Safety Technology System Project Funding Status

Project Budget	$14,011,115[1,2]
Actual Expenses To Date	-$6,419,362
Encumbrances	-$5,945,111
Available Balance	$1,646,642
Approved and Pending Fund Uses	$800,170
Available Contingency Funds Balance	$846,472

Notes:

[1] The total Project Budget includes the $13.4 million in capital appropriations and use of fund balance for $237,480 for RMS and $373,635 for eCitation devices for the Sheriff's Office.

[2] The Motorola Solutions contract is $10,785,796 of the $14.01M project budget. There will be future annual maintenance support costs in DIT's annual baseline budget for four (4) consecutive fiscal years totaling $5.4M for a total contract of $16.2M.

TABLE 2.
Training Budget for Public Safety Technology System[1]

Training	Budget	Actual Y-T-D[2]	Balance
FREM	$225,063	$37,106	$187,957
LCSO	565,749	40,357	$525,392
TOTAL	$790,812	$77,463	$713,349

Notes:

[1] The total overtime reserve budget was established in January 2015.

[2]As of the pay period ending 3/30/16, approximately 38% of all identified system training has been completed. Through the same time period, the amounts listed above have been charged to the established overtime training budgets for the Public Safety Technology System.

FISCAL IMPACT: Additional funding is not requested at this time