DATE: September 28, 2017

TO: Council Technology Application Committee

FROM: Director of Information Technology/CIO

SUBJECT: Public Safety Computer Aided Dispatch Update

RECOMMENDATION

That the Committee reviews this report and provides any feedback before it is forwarded to City Council for approval.

BACKGROUND

CIP funds for fiscal year 2018 were approved to fund the update of the New World Computer Aided Dispatch (CAD) System to the Enterprise Platform for Public Safety. Public Safety is currently on the New World MSP platform (MSP Platform), which, due to the underlying code it is written on, cannot be updated to take advantage of key features needed by Public Safety users.

This report focuses on the advantages of updating the CAD Enterprise and highlights the key components and structure of the project. The nature and scope of the CAD Enterprise update is a large undertaking by the City and it is anticipated to take over a year before it goes live.

DISCUSSION

The Hayward Police and Fire Departments went live in January 2012 with the MSP Platform after an extensive and comprehensive build had taken place by members of the Police, Fire, and Information Technology Departments. While the MSP platform has been serviceable, due to the age of the software code of the MSP platform, the City has been unable to obtain requested features or additions. Because there is no new software development work being performed on the current MSP platform, the City cannot take advantage of new features offered with the Enterprise platform.

A key function needed to meet current operational demands includes the ability to streamline the dispatcher experience and improve features related to unit calls. CAD Enterprise offers this capability and provides the City an opportunity to streamline the dispatcher experience as well as implement new and improved mapping features to assist in dispatching units to calls. These upgrades are a potential stepping stone to improving the Fire Department's ISO rating which could result in a meaningful reduction in home insurance rates for City of Hayward citizens.

FEATURES OF CAD ENTERPRISE

The CAD update to the Enterprise platform allows for more efficient responses to Police and Fire emergency calls, as well as leveraging the data and presenting it in an intuitive fashion for command staff. New features, such as proximity dispatching and improved layout of the dispatcher software screen, work together to provide a streamlined dispatch experience. Decision Support Software (DSS) works in conjunction with CAD Enterprise to populate data into actionable dashboards for command staff review and resource deployment.

Proximity Dispatching:

The CAD Enterprise update utilizes significant updates to the core ESRI mapping engine to dispatch calls based on proximity to a call, resulting in improved call routing as key factors such as travel time, one-way streets, vehicle height restrictions, vehicle weight restrictions, and turn delays are incorporated.

Customization of Dispatch Software Screen:

The current MSP platform allows for little dispatch screen customization, which limits opportunities to improve efficiency in how call data is entered into the system. In contrast, the CAD Enterprise provides Dispatchers the flexibility to adjust windows with ease, add multiple call input boxes, and manipulate the software to fit their needs, streamlining the input of information not currently possible on the existing MSP platform.

Decision Support Software (DSS):

Data from the CAD Enterprise platform feeds directly into the Decision Support Software (DSS) product to add the ability to aggregate public safety data into intuitive dashboards. These can then be used to make real-time as well as strategic decisions regarding public safety resource deployment and practices.

CAD ENTERPRISE PROJECT SCOPE

The update to CAD Enterprise will require significant resources to deliver a project of this size and scope. A Project Manager will be assigned from Tyler to our agency to aide in this undertaking. Internally, a multi-disciplinary build team from both Police and Fire will be assembled to customize the product to fit their needs as well as shape the structure of the training, a critical component in the scope of this project. Two hundred and eighty hours (280) hours are outlined in the scope of this project and includes implementation and

training. Providing training to the public safety user was among the top requests received, in order to maximize the product suite's available features. This part of the scope will provide the opportunity to train Police and Fire users on both the CAD Enterprise and the entire suite of New World products.

FISCAL IMPACT

The total estimated cost of $445,000 includes software, hardware, project management, and training and is included in the 2018 approved CIP budget. This amount includes an estimated $275,000 from the approved CIP project for professional services, training, and software related costs. The additional $170,000 will be used out of the approved CIP project which covers data storage, server setup, network configuration, VMware virtual hosting licensing, and professional services to setup these infrastructure components.

NEXT STEPS

The hardware components are currently being delivered and configuration of this hardware is expected to begin soon after delivery. In conjunction with this process, once the contract for CAD Enterprise is approved, Tyler will assign a project manager, who will then collaborate with the City to create the project timeline. Once the project manager is on board, the build process will begin, followed by extensive training, a mock go-live, and finally, the actual go-live. Although the process to update to CAD Enterprise is complex and difficult and requires significant resources to complete, the features that will be yielded from this upgrade will enhance response to public safety calls resulting in increased service delivery to the community and more efficient responses to emergency calls.

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Approved by:

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