



## **CITY OF FORT BRAGG**

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### **COUNCIL COMMITTEE ITEM SUMMARY REPORT**

**MEETING DATE:** October 4, 2017  
**TO:** Finance & Administration Committee  
**FROM:** Lynda Davis & Scott Schneider  
**AGENDA ITEM TITLE:** **Receive Report and Make Recommendation to Council Regarding Modification to the IT Internal Service Fund Expenditures (Account #521-4394-0351 & #521-4394-0382) to Appropriate Funds for a Support Agreement with Dell/Lanair Group for the Upgrade of Network Security and Migration to Exchange Server 2016**

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#### **ISSUE:**

Currently, the City of Fort Bragg's email system (Microsoft Exchange) is version 2010. This version is out of date and will soon no longer be supported by the manufacturer. Furthermore, the Server on which it is installed is over six years old and replacement parts are no longer available from Hewlett Packard for this generation of ProLiant server. More importantly, the way in which the system is currently set up throughout the City is a security risk for the City's network domain. The email server upgrade project has a current budget of \$460. However, during research and preparation of the project, staff discovered the budget is insufficient to properly complete the project. A total of \$29,967 is required to ensure long-term security and efficiencies. The \$29,967 is comprised of \$23,187 for technical support and \$6,780 for Microsoft Client Access Licensing (CALs).

Funds exist within the current IT budget to properly complete this project. However, adjustments to specific projects and the related budgeted amounts are required to accommodate the increase in cost. No budget amendment for appropriation of additional funds is required. In order to complete the project, \$7,007 needs to be transferred from Account #521-4394-0382 ("Hardware-Upgrades/Infrastructure Improvements") to Account #521-4394-0351 ("Software-Upgrades/Infrastructure Improvements").

According to Fiscal Policy 2b, the City Manager has the authority to approve transfers of budget appropriations within any departmental budget provided both line items are budgeted.

While the City Manager has the authority to approve of these changes, she felt the budgetary transfer was significant enough that it should be reviewed by the Committee and approved by the City Council.

The recommended adjustments to the IT budgets and related expenditures for Account #521-4394-0351 & #521-4394-0382 are summarized in the chart below:

<u>Account # and Description</u>	<u>Current Budgeted Amount</u>	<u>Proposed Budgeted Amount</u>
#521-4394-0382 – Hardware	\$34,850*	\$27,843*
GIS Enabled GPS	\$13,000	\$5,993
#521-4394-0351 – Software	\$26,710*	\$34,177*
Exchange Server Upgrade	\$460	\$29,967
Office 2016 Pro	\$3,300	\$0
Office 2016 Standard	\$19,200	\$0

\*Amounts include all projects within related account number. Only affected projects are listed.

### **ANALYSIS:**

Several problems exist with the current email server and related applications. Aside from being out of date and no longer supported, the current configuration has the following issues:

- It is running on a server that has no power redundancy and is no longer supported by HP.
- Replacement parts are no longer available from the manufacturer for this generation.
- It is 'double homed,' which is to say that it has a network connection directly to the PD network and to the City network. This is a major security risk for the City and the Police Department's network domain.
- No physical documentation of Microsoft Client Access Licensing (CALs) exists for the current version of Exchange. A physical search of these licenses by IT staff and a search by Microsoft revealed no records of the CALs.
- Our version of Microsoft Exchange is behind by two service packs due to the configuration that was needed for the current version to work with the original Domain Controller and Office version 2003. (These have since been upgraded in preparation for the upgraded Exchange Server.)

The newer version of Exchange server is a dramatic change with regard to functionality and interactions with the City's network and domain accounts. Because work on the Exchange server is an integral part of the City's IT systems and affects every user and group mailbox on the City's network, the IT Department recommends employing the assistance of a knowledgeable and industry-leading company like Dell and the Lenair Group to guide IT through the migration from Exchange 2010 to Exchange 2016 (IT has formal training with Exchange 2010, but not with Exchange 2016). This will help ensure the project has minimal impact on the everyday work flow of the City's 60 employees and the means of communication for Councilmembers.

Along with the upgraded server, IT will work with Dell to create a system which significantly increases the security of the City's email system. Cyber security is a very serious concern and will only become more important going forward. For example, IT will create two virtual Machines on the system. One will be a new Domain Controller, and the other will be the new email (Exchange) server. This gives us the ability to add more virtual servers in the future if needed. As a result, new CALS must be purchased for every user and mailbox along with the new version of Exchange. These CALS add to the original estimate for the cost of the software. Staff can provide more specifics should the Committee want more information regarding the security and efficiencies of this project.

IT would like to use the Lanair Group, an affiliate of Dell Computers, to assist the City in the Email Migration. The proposed scope of work is described in Attachment 2. The project will include the following steps:

- Install Exchange 2010 SP3 Update Rollup 11
- Install Active Directory on standalone VM
- Move the servers to their own protected subnet
- Set up Protected Routing on the Firewall and Layer 3 Switches
- Remove AD from the current exchange server
- Configuring Exchange 2016 prerequisites
- Setup Co-existence with Exchange 2010
- Install Exchange 2016
- Update the Service Connection Point for Auto-discover
- Export the certificate as PFX format from Exchange 2010
- Import the Certificate PFX File
- Assign the SSL certificate to services
- Configure Exchange URLs
- Configure Outlook Anywhere
- Configure Receive Connectors
- Move Default Mailbox Databases
- Create additional Mailbox Databases
- Test base functionality
- Update Exchange 2010 Virtual Directory URLs
- Update Internal DNS records and switch external HTTPS connectivity
- Update Inbound Mail Routing
- Update Outbound Mail Routing
- Migrate 110 Mailboxes
- Replicate and Update public folders
- Decommission Exchange 2010

#### **FISCAL IMPACT:**

The Information Technology Department had originally budgeted \$460 for the Exchange Server 2016 software which is the correct cost without any CALS (licenses) or project support from the Lanair Group. It was discovered during the project preparation phase that CALS are required for the new Exchange server. Regardless of the desired support from the Lanair Group for the migration, the additional \$6,780 for the CALS is necessary to complete the project.

In order to accommodate the new required budget of \$29,967, IT proposes using the \$22,500 allocated for this fiscal year for the upgrade of the City's computers to Microsoft Office 2016. This causes only a minor setback as our current version of Microsoft Office is still supported by Microsoft. IT will propose the upgrade to Office 2016 (or the latest Office version) in next year's budget to complete the upgrade approximately a year from now.

The remaining required funds will come from the budgeted amount to purchase hardware to upgrade the GIS enabled GPS for the engineering department. This project has a budget of \$13,000 of which \$7,007 would be used for the server migration project. The new estimate to purchase upgraded GIS enabled GPS hardware is no more than \$4,000 which is well below the \$5,993 which would be available after the transfer of funds. The original estimate of \$13,000 is no longer necessary as IT and the Engineering Team have discovered more inexpensive hardware to properly update the Public Works GPS system.

The hardware for the server migration was purchased, as budgeted, in last year's budget.

**IMPLEMENTATION/TIMEFRAMES:**

If the contract is signed in early October, project construction would begin in mid-October. It is anticipated that the project will require 60 days to construct and will be completed in mid-January 2018.

**RECOMMENDATION:**

Receive update and provide feedback on the server migration project.

**ATTACHMENTS:**

1. Statement of Work (SOW) from Dell Marketing LP including quote for support services
2. Quote for Microsoft Client Access Licenses (CALs) from CDW-G

**NOTIFICATION:**

Dell Marketing LP