



MEMORANDUM

AGENDA ITEM #VI.C

DATE: SEPTEMBER 12, 2016

TO: COUNCIL MEMBERS

FROM: STAFF

SUBJECT: REPORT ON PURCHASE/LEASE OF COMPUTER EQUIPMENT AND SOFTWARE

Background

At the August 8, 2016 Council Meeting, Staff made a verbal presentation to the Board regarding the Council's aging technology infrastructure and the urgent need to upgrade the systems. The Board instructed Staff to present a more detailed plan at the September 12, 2016 Meeting.

Current Status

Please refer to the first attachment, "Current IT Infrastructure." The Council currently uses one file server to provide storage for user files and printing services and a second server to handle email. The units were purchased in 2006 and 2007 respectively. Both servers have recently experienced hardware failures. Due to their age, new replacement parts are not available in most cases and refurbished or used parts must be purchased.

Most Council Staff currently work on PCs purchased c. 2005-2006 still running Windows XP and Microsoft Office Versions 2003 or 2005. Due to the age of their hardware components, these units cannot be upgraded adequately. Three newer PCs purchased in 2008, 2009, and 2013 have already been upgraded to Windows 10 and are running newer versions of Office software.

Phase I Upgrades

Please refer to the second attachment, "Proposed Phase I Upgrades." Rather than incurring the cost of replacing the Email Server with another unit, Staff is investigating the benefits of moving this information to the Internet (i.e. "The Cloud"). Benefits include very high guaranteed uptime (99.99%+) and access anywhere/anytime through direct-wired, Wi-Fi or mobile networks using PCs, tablets or cell phones. In addition, current server maintenance charges would be eliminated. This approach will require Staff training and some changes to our operating procedures.



In order to take full advantage of cloud-based email, and provide Staff with modern PCs capable of running today's hardware-intensive programs, the 15 older units would be retired and replaced with new Windows 10 computers. All Staff PCs would be upgraded to the latest version of Office 365.

Phase 2 Upgrades

Please refer to the third attachment, "Proposed Phase 2 Upgrades." Instead of replacing the File Server with a new unit, Staff is investigating the benefits of moving user files to the Internet in a hosted server. Benefits include not having to purchase a new server and accompanying software, the same guaranteed uptime and access, and the elimination of its monthly maintenance. This approach will require Staff training and procedural changes.

Some software, such as GIS, requires the use of very large databases that are susceptible to the limited bandwidth of the Internet and corresponding response lag time. Other programs, particularly those that have sophisticated security schemes, also require local storage. Staff is proposing the installation of a small unit (not a full server) to handle such local file storage.

Cost

Phase I Upgrades essentially break down into two parts. Part one is the acquisition and installation of 15 new PCs at approximately \$800/PC plus \$125 setup each. The \$12,000 purchase may be supplanted by leasing the units for 24 to 48 months (roughly \$500 to \$300 monthly payments respectively).

Part two includes account setup, moving years of Council emails to the Cloud and Office 365 installation for each user. There is a one-time charge of \$2,000 for these upgrades. There is a monthly per user charge for Office 365 and cloud email running about \$350 per month office wide.

Phase 2 Upgrades also involves two parts. Part one is the migration of all user accounts and files to a Cloud-Based Server, including all user names, passwords and security. This part has a one-time charge of \$2,200 plus a monthly Server utilization charge of \$350. This charge varies with usage. Higher storage and computing needs raises the cost and lower utilization reduces the cost. Part two includes the installation of a unit for local file storage. The expected cost for this upgrade should not exceed \$3,000.

Please note that retiring the two file servers will reduce our monthly maintenance cost by \$400.

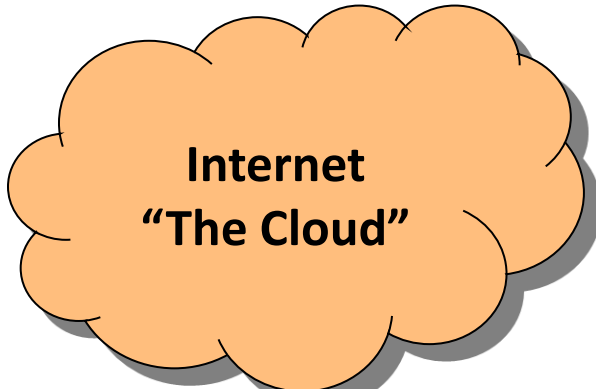
These costs are approximate. The exact number and makeup of the replacement PCs will vary as our exact needs are calculated. Additional miscellaneous items, such as some replacement monitors and laptops are likely. With increased reliance on Internet access, installation of a fail-over system to switch to a backup Internet line would be prudent.

Recommendation

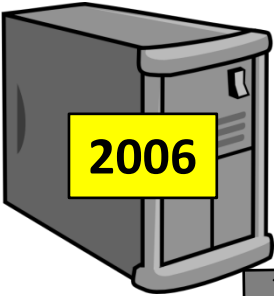
Cloud-based computing is the new paradigm. West Florida RPC has switched to Office 365 and cloud-based email and is in the process of moving everything else. Central Florida RPC has also switched to cloud-based email and file backup. Northeast Florida RPC is considering the switch when it is server replacement time.

Staff recommends the Council support the necessary technology upgrades.

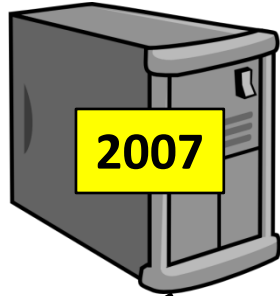
Current IT Infrastructure



File & Print Services



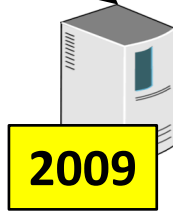
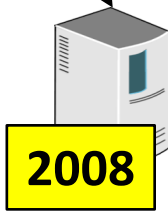
Email Server



Switch

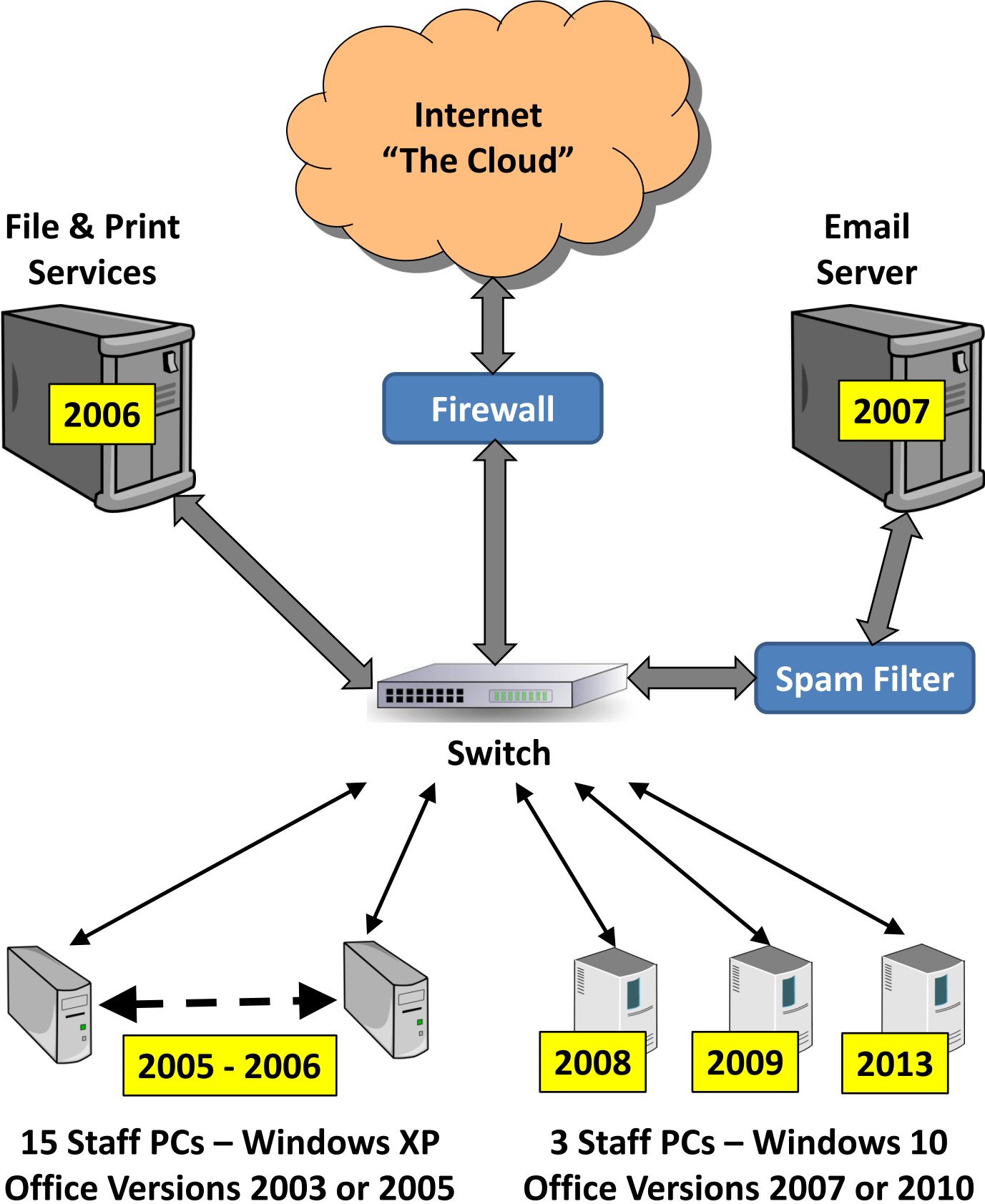


2005 - 2006

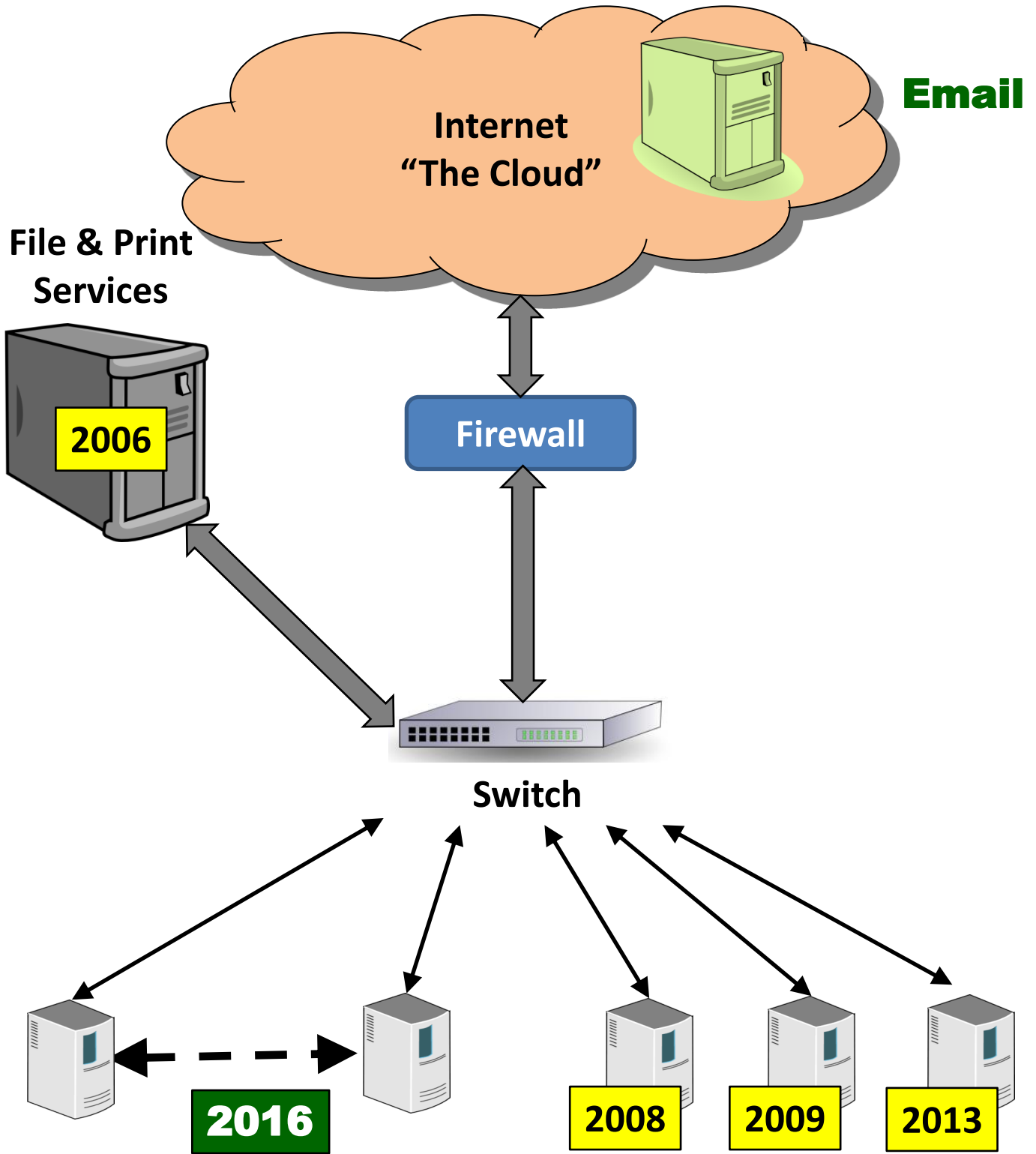


**15 Staff PCs – Windows XP
Office Versions 2003 or 2005**

**3 Staff PCs – Windows 10
Office Versions 2007 or 2010**



Proposed Phase I Upgrades

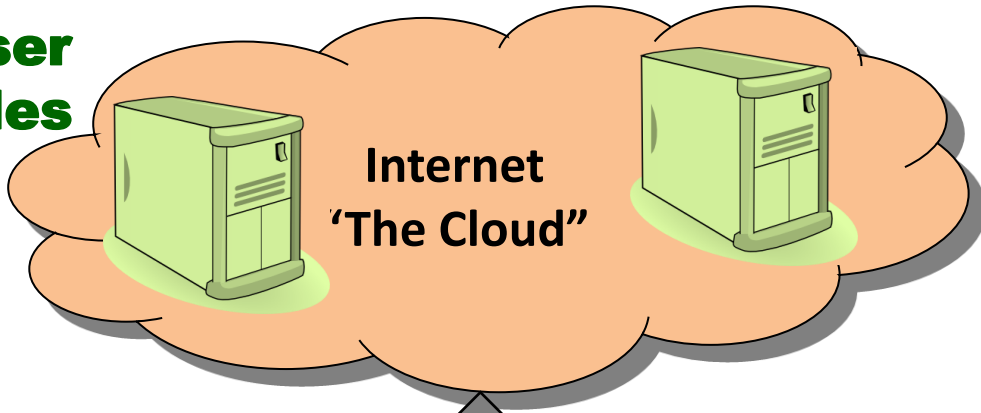


15 New PCs – Windows 10 3 Staff PCs – Windows 10
Office 365 - Version 2016

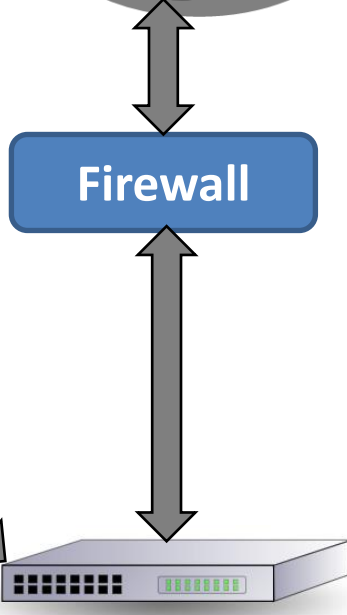
Proposed Phase 2 Upgrades

User Files

Email

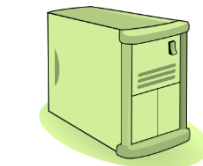


Firewall

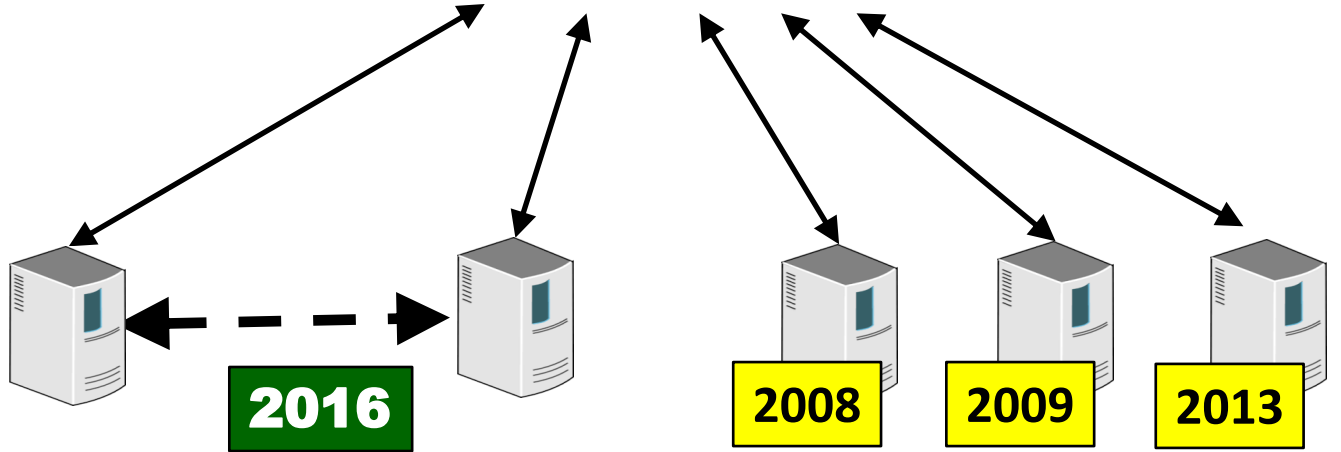


2016

Local File Storage



Switch



2016

2008

2009

2013

15 New PCs – Windows 10 3 Staff PCs – Windows 10

Office 365 - Version 2016