

Introduction

The St. John's staff have indicated that their computers are no longer meeting their needs due to very poor response times and out-of-date operating systems and software. In producing this report, I had the assistance of Total Support Solutions, a local IT company. This company was chosen as they currently provide support for the diocesan office and the cathedral. They are also the company that administers the church's Office 365 accounts.

Background

The 8 computers in use at St. John's were obtained from a computer refurbishing company. The extent of the refurbishing is unknown, but some of the system software indicates they were manufactured in 2011, so they are about nine years old. Three of the computers are still running Windows 7 (Carol-Ann's, Reception and the computer in the office across from the kitchen), while the rest have been upgraded to Windows 10. Windows 7 is no longer supported by Microsoft, the major implication of which is that security updates are no longer made available when vulnerabilities in the operating system are identified. In addition, there have been frequent complaints from staff about the responsiveness of the computers and this can mostly be put down to the old processors and slow hard drives.

The computers all have Microsoft Office 2010 installed, which is four versions out of date. Support for Office 2010 ends on October 13, 2020 and, as with Windows 7, no updates will be available to fix identified vulnerabilities after that date. Through a program organised by the Diocese, all staff also have Office 365 accounts, but they are currently only used for email. The Office 365 license allowed for the use of the latest versions of the Microsoft Office suite of programs in an on-line mode only, the programs could not be downloaded to the computers. Other free and purchased software is also running on most of the computers.

The church's file server (commonly referred to as the O: Drive) is located in the administration office with all computers accessing it via the wired ethernet network. This means the O: Drive can only be accessed by those computers in the building.

Support for the church's computer systems has been provided for many years by an individual with his own company. That support ended at the end of April when he closed the business. He provided support as required, as well as doing a monthly backup of the server and keeping the backup at a remote location.

The WIFI network in the Parish House is very patchy and needs to be improved.

Recent Changes

The arrival of COVID-19 which forced the closing of the church premises prompted some changes. The existing computer network configuration with an on-site server did not allow for staff to access their server stored files from a computer outside the buildings. In order to allow remote access to the files, they were moved from the existing server to Microsoft OneDrive, part of the Office 365 suite. This gives all staff with a St. John's Office 365 account access to the files from their home computers.

Alastair and Carol-Ann did not have access at home to reliable computers, so the decision was made to purchase a new notebook for each of them and the latest versions of Office 365, now renamed to Microsoft 365. Both have worked successfully with this configuration for the last few months.

The one application that does not work in this environment is Power Church. The license St. John's is using is a server-based license and after discussions with Power Church it was determined that Power Church cannot be moved to OneDrive. Other options for running Power Church are available and should be investigated.

Hardware Proposal

As all the computers are nine years old, it is recommended they all be replaced. The computer recommended by Total Support Solutions is the Lenovo ThinkCentre M720e. This computer comes with Windows 10, 8GB of memory and a 256GB solid state drive (much faster access speeds than the old-style hard disks, and more reliable). These computers are 'small form factor' meaning they are much smaller than the existing PCs being 12" x 4" x 11" and can sit under the monitor giving easy access to USB ports, etc.

The Lenovo computers are business grade computers versus the consumer grade normally found in retailers. The advantage of business grade computers is they come with higher grade components and software which makes it easier for an administrator to make software upgrades to the computers as required, thus ensuring the computers have the latest operating system and software patches installed. This does however come at a cost, and these computers are \$1,220 each, including tax.

Carol-Ann has indicated that she would like to continue to use the recently purchased notebook instead of getting a new PC. The notebook will be further configured to print, etc., while in the office. The purchase of a docking station allows the notebook to be connected to her existing monitor and the network making it easier to take the notebook back and forth from the office without have to worry about unplugging multiple cables.

Ideally, all the other computers should be replaced but, recognising that cost may be an issue, the replacement can be phased. The computers which are most in need of upgrade are David's, reception and the one in the downstairs office. Alastair has indicated he does not have an issue with his computer and Ruth and Bill's computers are not heavily used. The Treasurer has requested a new computer for finance as it is intended to upgrade the accounting software and an up-to-date computer will give them more options. Therefore, it is proposed that new computers be purchased for David, reception and finance. The existing finance computer will be moved to the office by the kitchen and then upgraded next year with the remaining computers.

There is another computer at St. John's and that is the notebook connected to the projector. Both the notebook and the projector are very old with the notebook running an even older

version of Microsoft Office than 2010. The projector, while functional in the Denson Lounge, is not powerful enough to be used in the brighter environment of the church. In addition, it cannot accept an HDMI connection which most newer notebooks use to connect to monitors and projectors. This has presented problems in the past when presenters did not have a suitable adapter to connect their computer to the projector. The upgrade of these two devices is not seen as a high priority but should be budgeted for in the next year or so.

The treasurer has expressed the need for a notebook computer to be used by the Guild of St. Matthew to streamline the counting and reporting of offerings. As this notebook would not be heavily used, it could also be used as the computer for presentations. The Guild's data would be stored online, not on the notebook, so there would be no security issues with sharing the computer. Separate logins could be setup for the Guild and for presentations.

Software Proposal

As mentioned above, a very old copy of Microsoft Office is still in use on all the computers. It is recommended that all staff members have a [Microsoft 365 business license](#). The non-profit cost of the license is \$3.80 per user per month, which would be a total of \$408 per year, including tax, for the 8 computers. This license allows the software to be installed on the PC and on any tablets or phones used by the staff member. As new versions of the Office products are released, they will be installed on the computers at no additional cost.

Other software used on the computers will have to be installed on the new computers. As mentioned above, the version of Power Church used by the church will not operate in this new environment and it is suggested that those using the software investigate the online version of Power Church or look at alternative products.

File Storage

The existing file server contains all the church's files on what is called the O: Drive. Those files are only accessible from computers in the church. The files were moved from the O: Drive to Microsoft OneDrive in order to allow staff to work from home during the current closure of the church. It is proposed that online storage of the files be maintained as it provides the ability for staff to access the files from home or anywhere, they have internet access.

Microsoft OneDrive is intended for storing files that do not need to be shared with other staff. Microsoft SharePoint is the recommended business tool to store the files from the O: Drive. When you use SharePoint, it stores the files on a Microsoft owned server in one of its Canadian data centres. The O: Drive was configured so that all users had access to all the files, whether they had a need to access them or not. Any user could change, copy or delete someone else's files. It is recommended that a more robust security arrangement be applied with folders and files having owners and those owners granting access to others are required.

It is also recommended that going forward, all committees and project groups be given a folder in SharePoint where their files are stored. As well as making it easier to share and update documents, it will create an archive. It is all too common at St. John's for groups to work on a

project and the files are saved on one of the participants computers with perhaps only a final report submitted to the church. Having the working notes available can aid others in the future to look back for specific details of a project.

Microsoft offers several very good free online training courses in the use of SharePoint, but it is suggested that Total Support Solutions be asked to provide staff training to reduce the learning curve. (costs to obtained)

Microsoft guarantees that data will not be lost so backups are not required to protect against the failure of a server. The other reason backups may be required is to recover files that have been accidentally deleted. SharePoint is configured so that deleted files are not actually deleted from the recycle bin for 93 days. Generally, people realise a file has been deleted very soon after accidentally deleting it, so 93 days is ample time.

On-Going Support

It is proposed that on-going support be contracted to Total Support Solutions. This company already administers the Microsoft 365 licenses and is familiar with church operations having supported the diocesan office, the cathedral several other parishes for several years. The most cost-effective model for support is to pre-purchase a block of 10 support hours at a cost of \$890 from which you draw against.

WIFI

The current WIFI system in the Parish House is inadequate, with reception being very poor in some areas. There is already a Shaw Open wireless network in the Parish House and the church, but this is really only of use to those with Shaw accounts. It should be investigated whether Shaw would be prepared to give St. John's a number of logins to the Shaw network that can be used by staff and anyone else needing WIFI access in the building. Even if a small cost was involved, it would be much cheaper than running additional network cables throughout the Parish House to install WIFI access points.

Accessories

Power surge protectors have been included for each computer to prevent power surges from damaging them. HDMI cables are also included for each computer to connect to the monitor. The monitors, which do not need to be replaced, are currently connected with old-style VGA connectors.

Training, Configuration and Data Migration

Costs have been included to install and configure the computers with the Microsoft 365 suite of programs and transfer any additional programs from old computer to the new. There are also costs to move the data files from OneDrive to SharePoint and provide a remote training session for staff on the use of SharePoint.

Recommendations for Upgrades to St. John's Computer Hardware and Software

Phase 1 Costs

Name	Item	Cost	
Carol Ann	Docking Station (Dell D3100)	230	
	HDMI cable (3 ft)	20	
	Surge suppressor (AOPC)	100	
David	Lenovo PC (M720e)	1,091	
	HDMI cable (3 ft)	20	
	Surge suppressor (AOPC)	100	
Reception	Lenovo PC (M720e)	1,091	
	HDMI cable (3 ft)	20	
	Surge suppressor (AOPC)	100	
Finance	Lenovo PC (M720e)	1,091	
	HDMI cable (3 ft)	20	
	Surge suppressor (AOPC)	100	
Guild of St. Matthew	Dell notebook	750	
	Total Hardware Costs		4,733
Micrososoft 365 licenses	\$3.80 per user per month x 8 (annual cost)	365	
	Total Software Costs		365
Implementation Costs	Install and configure computers	600	
	Move data files from OneDrive to SharePoint	445	
	SharePoint training	240	
Support Costs	Block of 10 support hours	890	
	Total Implementation Costs		2,175
	Total Phase 1 Costs		7,273
		Est. taxes	873
		Total	8,146

Recommendations for Upgrades to St. John's Computer Hardware and Software

Phase 2 Costs

Name	Item	Cost	
Office by the kitchen	Lenovo PC (M720e)	1,091	
	HDMI cable (3 ft)	20	
	Surge suppressor (AOPC)	100	
Ruth	Lenovo PC (M720e)	1,091	
	HDMI cable (3 ft)	20	
	Surge suppressor (AOPC)	100	
Clergy	Lenovo PC (M720e)	1,091	
	HDMI cable (3 ft)	20	
	Surge suppressor (AOPC)	100	
Alastair	Lenovo PC (M720e)	1,091	
	HDMI cable (3 ft)	20	
	Surge suppressor (AOPC)	100	
Projector	Projector	750	
	Total Hardware Costs		5,594
Implementation Costs	Install and configure computers	500	
	Total Implementation Costs		500
	Total Phase 2 Costs		6,094
		Est. Taxes	731.28
		Total	6,825