

DATE November 21, 2017

Report To: Administration and Finance Executive Committee

From: Shane Freamo, Information Technology Manager

SUBJECT: Summary of Information Technology work completed to date and Outlining a 3-year plan

Since coming onboard in February 2017 as the Information Technology Manager the following items related to the Town of Fort Frances' IT infrastructure have been undertaken.

Server Failures

There have been 3 server failures since February 2017 which forced a move to upgraded equipment. First was the loss of Server02 which ran USTI, at the time was still a vital system being used by Treasury. The second server to fail was MSDC2 which was the main Domain Controller and file server. This server allowed employees to log into their computers and access shared files. The third server to fail was Server03, this acted as a secondary domain controller. This failure had no impact since all services had already been migrated to the new systems.

New Backup System

A new server and backup tape library were purchased to replace the existing backup system that was not operating properly. Veeam Backup and Replication replaced the existing Symantec Backup Exec software. Backups occur throughout the day, and offsite backups are done weekly, monthly and yearly to tapes. Tape backups are stored securely at Public Works in a fire proof safe.

Reduction of Services provided by MicroAge

Since February 2017 there has been a move away from using services provided by MicroAge out of Thunder Bay. Currently the only services they continue to provide is email spam filtering, renewal of Symantec Endpoint Protection antivirus licenses and renewal of a certificate required for the email server.

Changes to the Civic Centre's Server Room

This is an ongoing effort to clean up and correctly utilize the space that houses the servers and core networking equipment. The server enclosure has been repositioned to allow for better access and correct airflow for cooling. Environmental monitoring has been installed. This measures temperature, airflow, humidity, power and has a sensor to detect water entering the server room. The room has been secured by key fob so only authorized employees may enter, previously the room was unlocked. Cabling for the core networking

equipment has been cleaned up, this is still a work in progress as new switches are being purchased.

Replacement of Computers and Windows 10 Upgrades

Several computers have been replaced as old ones have failed. In these cases, other computers have been repurposed or brand-new ones were brought in. Any replacement computers have been upgraded to Windows 10. 12 computers were upgraded to Windows 10 this year.

Remainder of 2017

Tbaytel Fibre Internet Connection at Civic Centre

The existing Vianet internet connection has been replaced by a much faster and cost-effective connection from Shaw. The download speed was increased from 20mbps to 150mbps. A secondary connection with Tbaytel is also going to be added. This adds another 200mbps connection and removes a single point of failure. The cost of both connections will be less than the single Vianet connection was. Shaw is \$300 per month, Tbaytel is \$80 per month for the 1st year, \$180 per month for the 2nd and 3rd year. The Vianet monthly bill was \$600 per month. The install date for Tbaytel fibre at the Civic Centre is still pending.

New Firewall for Civic Centre

The current WatchGuard firewall is due for replacement. It adds significant overhead to the internet connection coming into the Civic Centre which is shared by all other town facilities, excluding the Library. It is also another single point of failure in the Town's network. Currently if it was to suffer a hardware failure the town would lose its internet connection which is required to connect Thunder Bay Hydro for the hydro system and required to send and receive emails. The proposed solution is purchasing 2 new Fortinet FortiGate 200E firewalls which can operate in High Availability (HA) mode. This way if there was a failure there would be an automatic failover to the secondary device which would limit any outage experienced by employees.

Information Technology 3-year Plan Outline

2018

- Replace remaining outdated network switches
- Increase storage capacity for shared files and backups
- Replace Symantec Antivirus with Carbon Black
- Continue Windows 10 migration

2019

- Implement Interim Disaster Recovery Solution
- Develop Disaster Recovery Plan
- Complete Windows 10 migration

2020

- Implement Disaster Recovery Site
- Install an Enterprise grade Wi-Fi network

From a financial point of view, the 2017 capital budget included two capital items related to computer upgrades for a total approved amount of \$45,000. As of November 15, 2017, the actual expenditure is \$40,669.97. The cost to purchase two Fortigate 200E firewalls is estimated at \$10,867.48 (includes town's portion of HST). There will be a budget shortfall of approximately \$6,550. This shortfall could be financed through the corporate project reserve fund or wait until the year-end audit process where all capital projects will be reconciled.

It is recommended that Council support the purchase of new Fortinet FortiGate 200E firewalls to replace the existing WatchGuard firewall.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Shane Freamo', is positioned above the printed name.

Shane Freamo
Information Technology Manager