

Accountability Topic: Technology Services

Date of Board Meeting:

May 5, 2022

Strategic Priority:

- ⊠ High Quality Teaching and Learning
- Engagement of All Students, Families, and Communities
- \boxtimes Effective Policy and Procedures
- Healthy, Sustainable Physical & Social Environments

Quality Indicator(s) (if applicable):

- QI 3.2. Adequate internal financial controls exist and are being followed.
- QI 3.6. Reviews expenditures to ensure continuous improvement in terms of value for money.
- QI 6.2. The Director keeps the Board informed about Division operations.

Key Measures:

- Technology Infrastructure upgrade
- Operational Projects
- Update Five-Year Technology Plan

Targets:

- Annual Deployments
 - Student Devices and Computer Labs
 - Microsoft for Education Licenses
 - o Network Device (Wi-Fi Access points and Switches) Deployment
- Technology Infrastructure Upgrade
 - o YRHS and GSEC Datacenter upgrade
 - o Internet Bandwidth Upgrade
- Operational Projects
 - o MSS/Edsby Implementation
 - o Intune MDM (Mobile Device Management) Implementation
 - o Portal/Website Migration
 - Large Area Sound Systems
 - o VoIP (Voice Over Internet Protocol) Phone System
 - Cyber Security Training

Data:

- Annual Deployment:
 - Devices:
 - Deployed more than 850 Chromebooks, 220 iPads and upgraded desktop computers in 5 computer labs.
 - o Microsoft Licenses

- Changed license deployment model which contributed to huge savings.
- Network Device Deployment
 - Purchased Cisco Meraki License which will give us an extension for additional 1.5 years.
 - Parallelly testing other Networking devices which doesn't require any license or subscription.
- Technology Infrastructure upgrade
 - YRHS and GSEC Datacenter upgrade
 - 7 year old datacenter at YRHS and 12 year old datacenter at GSEC were upgraded successfully during winter break in February 2022.
 - Internet Bandwidth Upgrade
 - Upgrade Internet bandwidth in all schools to support future demand and technology requirements.
- Operational Projects
 - MSS/Edsby Implementation
 - MSS is operational without any major issue.
 - Edsby Report Card work
 - Edsby Parent Portal deployment
 - Edsby Credit recovery work in progress
 - Intune Implementation
 - Testing of Intune MDM was done in April 2022 to replace MaaS360 iPad management software.
 - Portal/Website Migration
 - Website will be migrated to Rallyonline.ca platform and Portal will be migrated on Teams/SharePoint Online.
 - Large Area Sound Systems
 - Estimated time to finish this project is end of June 2022.
 - VoIP (Voice Over Internet Protocol) Phone System
 - Grayson School, Springside School, and Canora Junior Elementary School will get VoIP phone system in summer 2022.
 - Cyber Security Training
 - In-house training materials are in development. All staff will receive PD at the beginning of next School year.

Key Strategies Employed:

- Annual Deployment:
 - Student Devices:
 - IT supervisor worked with CFO and decided to invest in Student Devices every year and support schools from division.
 - Included other school division in the tender process and negotiated with Vendor against more quantity to purchase extended warranty. These 3 years extended warranty will reduce repair cost.
 - Moreover, we introduced a "Parent Purchase Program" in Yorkton Regional High School to reduce school's expenditure. With this program families were able to purchase Chromebooks at cheaper price from the division.
 - o Microsoft Licenses
 - Technology department changed the Microsoft license assignment process. In this new
 process licenses will be assigned to staff based on their job roles and daily usage. This new

process saved \$40,000 to our division in this school year and will also contribute to future savings.

- Network Device Deployment
 - Past strategy included Cisco Meraki devices (Wi-Fi access points and switches) in all our schools and central office. These devices require a license to use and operate. Every year costs for the device and license were increasing, therefore the Technology department is testing other devices which do not require any license or subscription. Cisco Meraki licenses were purchased for another 1.5 years so that the Technology department can have smooth transition onto new devices.
- Technology Infrastructure upgrade
 - YRHS and GSEC Datacenter upgrade
 - Datacenter located at YRHS is the core for whole network infrastructure of our division. This datacenter contains more than 35 virtual servers and are heavily used every day. Due to its age and some limitations these servers were using 10 years old software. Moreover, datacenter at GSEC was 12 years old and it was causing a lot of disruption to administrative staff at GSEC.
 - Due to above reasons, tender was published in the last quarter of year 2021. Good Spirit School Division awarded this tender to a local Saskatchewan based business and during February 2022 winter break both datacenters were replaced. These new datacenters are capable to handle heavy usage and latest software for next 5 to 10 years. Also, this project was completed 33% under budget and remaining budget will be repurposed for student devices and computer lab upgrades.
 - Internet Bandwidth Upgrade
 - Since last few years, usage of internet has been increased. Also, during mandatory remote learning due to COVID-19 staff and students heavily relied on digital resources, Google Classroom, and other internet-based applications.
 - Therefore, to increase the capacity of Internet in all schools Technology Supervisor sent a request to Ministry for this upgrade in March 2022. After receiving approval from Ministry, Good Spirit School Division is working with SaskTel along with Ministry to double the Internet Bandwidth in all schools. By end of year 2022, 14 schools will receive this upgrade and remaining schools will be upgraded by end of year 2023. Any cost related to this project will be covered by Ministry of Education.
- Operational Projects

- MSS/Edsby Implementation
 - MSS (Provincial Student Data System)
 - MSS is heavily used by division office, Administrators, and Admin Assistants. MSS data is syncing daily with all major platforms like School Messenger, Clevr, Bus Planner, Destiny Library, etc.
 - Training sessions for MSS were delivered regularly and also based on request.
 - Edsby (Gradebook, Report Cards, Parent Portal, Credit Recovery)
 - Parent Portal and Edsby App were rolled out to all schools. More than 75% parents are now using Edsby app. Through this app parents are kept up to date about their Childs' assignments, attendance, and other progress reports. To onboard more parents on this app our Digital Learning Consultants are working with each school, and they are also promoting it over social media and our website.

- Mili Patel and Jhonnette Derkatch worked with Consultants, Coaches and Edsby team to customize more than 13 report card templates.
- Training sessions for Edsby were delivered regularly and also based on request.
- Intune Implementation
 - Division was using MaaS360 software provided by IBM to manage iPads and iPhones. However, there was another software included in Microsoft License package called "Intune" that was able to provide the same functionality. Team tested Intune in April 2022 and we were able to do everything that MaaS360 was providing us. Therefore, Technology department will transition to Intune by end of June 2022 which will save more than \$21,500 to our division.
- Portal/Website Migration
 - Our current website and portal are hosted at YRHS Datacenter and are consuming lot of resources. Therefore, to move everything on cloud, Technology Supervisor and Digital Learning Consultants looked at different School division's websites and what they are using. Also, they met with other School divisions and received their reviews. Based on reviews, Technology Supervisor and Digital Learning Consultants attended demo from two vendors: Rallyonline.ca and Edlio. Based on the information provided by vendors, it was decided to go with Rallyonline.ca. This project is currently in progress and new website will be published in September 2022 including division and all schools' websites.
 - Division's portal will move on Teams/SharePoint Online. Technology Supervisor along with Digital Learning Consultants are working with various departments to clean their current data on current portal and will migrate to new platform before next school year.
- Large Area Sound System
 - This project was started in School year 2020-21. However, due to global supply chain issue all components were on backorder. While waiting for those components' vendor provided training to those schools where work was done. There are still few schools left where work isn't complete. Estimated time for completion of this project is end of June 2022.
- VoIP (Voice Over Internet Protocol) Phone System
 - To keep VoIP phone system running in case of power outage at YRHS or main server failure, additional backup server was installed at GSEC.
 - During summer break, three schools will receive VoIP phone system:
 - Grayson School
 - Springside School
 - Canora Junior Elementary School
 - Paging system was added at GSEC for safety and security purposes.
- Cyber Security Training
 - Cyber Security assessment for GSSD was done by IBM K-12 during the previous school year and GSSD planned to receive training in this School year, but it was for current employees only. However, Technology Supervisor and CFO discussed about this project at the beginning of this school year and decided to create in-house training materials which will be beneficial for current employees and any future employee who will join GSSD.
 - Moreover, Technology Supervisor and Digital Learning Consultants are working on developing training materials. They will also provide PD to all staff on Cyber Security at the beginning of next School year.

Future Strategies:

- 2022-2023 Projects
 - Establish a proper student device renewal cycle and implement in all schools.
 - Revise Technology related Administrative Procedures and standardized policy and procedures.
 - Replace current network devices in at least half of our schools.
 - Additional VoIP Systems in Schools.
 - Explore solution to replace School Servers (Centralize or Cloud).
 - Explore solution to replace Computer Labs (Virtual Desktop can be an option).
 - Implement new Helpdesk System (Trial of Freshdesk will be done from May to August).
 - Develop Cyber Security training materials.
 - Ongoing review of 5 years Technology renewal plan.

Risk Assessment:

Impact Categories	Insignificant	Minor	Moderate	Major	Catastrophic	
Financial	Financial impact of the event is less than \$50,000	Financial impact of the event exceeds \$50,000, but less than \$150,000	Financial impact of the event exceeds \$150,000, but is less than \$250,000	Financial impact of event exceeds \$250,000, but is less than \$500,000	Financial impact of the event exceeds \$500,000	
Comments & Mitigation Strategy	Division installed new firewall in previous school year and Technology department is updating security policies regularly. Apart from that division also enabled multi factor authentication for all staff to protect their accounts. Division is currently working on providing cyber security training for all current and future staff.					
Reputational	One negative article in a publication	Negative articles In more than one publication	Short term negative media focus and concerns raised by stakeholders	Long term negative media focus and sustained concerns raised by stakeholders	Stakeholders lose faith in management or Trustees	
Comments & Mitigation Strategy	Division is regularly updating technology infrastructure to cope with latest technology.					
Managerial Effort/Capacity	Impact can be absorbed through normal activity	Some management effort is required to manage the impact	Can be managed under normal circumstances with moderate effort	With significant management effort, can be endured	Potential to lead to the collapse of the organization	
Comments & Mitigation Strategy	Technology Supervisor tries to empower other team members so in case of any technology failure it can be resolved with minimal disruption.					
Government Relations	Routine ministerial inquires	In-depth ministerial inquires	Concerns raised by Ministry of Education	School division's ability mandate is questioned	Ministry of Education loses faith in the organization	
Comments & Mitigation Strategy	Keep up to date with ministry's communication to ensure compliance with ministry's policy and regulations.					

Legal	Legal action threatened	Civil action commenced/sma Il fine assessed	Criminal action threated/moderat e fine assessed	Criminal lawsuit commenced/significa nt fine assessed	Jail term of any length for a Trustee/Director; multiple significant fines assessed
Comments & Mitigation Strategy	Having better co	ntrol over technolog	gy provides an option	to track unusual activiti	es.
Student Outcomes	Immaterial impact on student achievement	Student achievement metrics begin to show a decline	Parental complaints submitted related to student achievement	Overall student competency levels are below standards	Inability to satisfactorily deliver curriculum or key programs
Comments & Mitigation Strategy	Providing Studer	nts with latest device	es capable of accessin	g multiple platforms for	learning.

Likelihood

The likelihood of identified risks is to be assessed by estimate the probability of the risk occurring during the planning horizon.

Rare	Unlikely	Moderate	Likely	Almost Certain		
Extremely rare in the sector. Once in more than 10 years at the school division.	Has occurred occasionally in the sector. Once in 5 to 10 years at the school division.	Periodic occurrence in the sector; possible occurrence. Once in 3 years at the school division.	Has occurred previously and could reasonably occur again. Once in 1 to 2 years at the school division.	Extremely likely to occur. Multiple times per year at the school division.		

Summary Comments:

• Before adopting any technology, team investigates and evaluates its impact on our current process, expenses, future dependencies, security, and ease of use.

Recommended Decision/Motion:

"That the Board accept the accountability report on Technology as presented."

Respectfully submitted,

Quintin M. Robertson, Director/CEO Good Spirit School Division