



MEMORANDUM

May 28, 2024
Regular Board Meeting

TO Board of Trustees

FROM Shauna Boyce, Superintendent

ORIGINATOR Scott Johnston, Associate Superintendent

RESOURCE Mark Karaki, Director, Technology Services

GOVERNANCE POLICY Board Policy 1: Division Foundational Statements
Board Policy 2: Role of the Board
Board Policy 12: Role of the Superintendent

ADDITIONAL REFERENCE BP 1: Vision, Foundational Statements
BP 12: Role of the Superintendent

SUBJECT **TECHNOLOGY SERVICES REPORT**

PURPOSE

For information. No recommendation required.

BACKGROUND

The Board is charged with the responsibility of providing, for its students and their parents, an education system organized and operated in the students' best interests. It exercises this responsibility through setting of local educational policy and the wise use of resources.

REPORT SUMMARY

The Technology Services Report provides an overview of essential technology services for the 2023-2024 school year. This report focuses on the significant attention given to technology and cybersecurity approaches during this period.

Administration would be pleased to respond to any questions.

SJ:kz



TECHNOLOGY SERVICES REPORT

MAY, 2024

Presented to the Board of Trustees, May 28, 2024

Scott Johnston, Associate Superintendent, Education and System Services

Resources: Mark Karaki, Director, Technology Services

BACKGROUND

In Parkland School Division, the use of technology continues as an essential aspect of educational and professional life. Staff and students use the power of technology in a purposeful and meaningful way to deepen understanding and demonstrate learning.

Parkland School Division students and staff utilize technology to facilitate collaboration and professional development as well as adapt instruction and resources to meet the needs of our students. This has also led to an increasing awareness of the need for systems and processes to ensure that we have safe and secure online learning environments for staff and students.

This Learning and Technology Report represents the duality of technology services and technology education. It is essential to review how technology is utilized to improve education and also how the application of technology is supported throughout the Division.

In the 2023-24 school year, the Technology Services team continued to play a crucial role in enhancing educational experiences through the effective integration of technology of staff and students of Parkland School Division. This report provides an overview of the key initiatives, achievements, challenges, and future plans.

Technology Services Audit

During the 2023-2024 school year, the Technology Services Department utilized the contracted services of IBM Canada, to conduct an audit of both Educational, and Informational Technology Services (ET and IT). The Audit revealed strengths and challenges and provided a 170 point action plan, that focused on potential improvements in the following areas:

- Instructional Technology Utilization,
- Strategic Technology Planning,
- Technology Organizational Structure Suggestions,
- Service Improvements,
- Technical Improvements,
- Security and Disaster Recovery,
- Network Improvements, and
- Customer Response.

Technology Services continues to utilize the Technology Services Audit to drive systemic improvements.

CYBERSECURITY

The cybersecurity program for PSD continues to evolve with the increasing threat environment. Controls are continually monitored to ensure these critical measures continue to safeguard our digital assets and ensure the confidentiality, integrity, and availability of our systems. In addition to the base controls required by our insurance company, we are improving security measures adding enhanced tools to increase our security posture.

Email Scanning:

Email scanning mechanisms continue to identify and mitigate potential threats, including malware, phishing attempts, and malicious attachments.

Monthly Average

- Phishing Attempts Detected: 1616
- Spam Filtered: 1500
- Spoofing Attempts: 625

Endpoint Detection and Response (EDR):

Endpoint Detection and Response solutions have been deployed to monitor and respond to security threats at the endpoint level, such as workstations, laptops, and servers.

Monthly Average

- Incidents Detected all requiring investigation and remediation: 45
 - High: 11
 - Medium: 15
 - Low: 19

TECHNOLOGY INFRASTRUCTURE INITIATIVES

A robust, reliable, and capable technology infrastructure is a necessity for meeting our current and future needs. Numerous projects were initiated and completed this school year.

Artificial Intelligence in PSD:

PSD began its journey with Artificial Intelligence in both the teaching and infrastructure realms. As a part of the PSD AI Committee, Technology services helped to research and onboard committee teaching staff onto the Brisk AI Teaching Platform. Technology Services is also investigating the use of AI in improving data mining and reporting in Student Information.

Technology Services and Instructional Services will benefit from staffing changes that include the utilization of an Emerging Technologies Facilitator. This role will serve as a liaison between the two departments, and will assist in determining the optimal implementation of artificial intelligence technologies in schools.

Connections for Learning:

SGCHS and MCHS Outreach school infrastructure was merged into one site at the CFL Spruce Grove Campus.

This project showcased a cohesive inter departmental and school team effort to deliver results to PSD staff and students.

Help Desk Ticketing System:

Technology Services is in the process of implementing a new Helpdesk System that integrates with our current Facilities *eBase Work Order* system. The *eBase system* will help to provide better troubleshooting information gathering. Being on a unified ticketing system will streamline connectivity and collaboration between departments and schools where there is shared work to be completed.

Transportation:

Transportation is implementing a centralized bus camera recording solution. Technology services in concert with Facilities Services will begin installing external wireless access points on 13 schools that will be the connection points to wirelessly transfer recordings from bus camera systems on demand.

Assets:

180 PSD staff laptops were upgraded this school year. Older models were converted to school spares to fulfill the need for devices for substitute teachers.

Devices

Parkland School Division continued a device evergreen initiative this school year for end of life devices. The devices were no longer supported through vendor operating system updates services. To ensure PSD is safe from security exploits and system vulnerabilities the devices were taken out of service and recycled.

CURRENT DEVICE COUNTS:

DEVICE	2023-2024	2022-2023	CHANGE
Windows Computers	1570	1881	- 311
Chrome Devices	7403	6719	+ 684
Apple Devices	2407	2141	+266

OUR STUDENT INFORMATION SYSTEM

The Student Information System plays a vital role in managing student data and academic information across PSD. There are many data integration points with Powerschool being the hub of all the information and data transactions. The student information system streamlines administrative tasks such as enrollment, scheduling, assessment, and reporting. PSD uses the data housed within to guide data driven decisions for areas such as attendance, reporting and resource allocation. Technology services has worked on numerous projects to fulfill a diverse array of requests in this school year.

Math Assessment Dashboards:

The SIS Team completed the development of the Math Assessment Dashboards. This provided an in-depth insight into student performance in mathematics. The dashboards utilized data from Powerschool and custom assessment forms. After a successful implementation this year further request enhancements are under review and will be developed for the next round of assessments.

Registration:

PSD returning student registration (RSVP) was simplified into a concise and efficient enrollment confirmation. If the student's demographic information had not changed for the 24-25, in as few as 4 mouse clicks, registration was complete. Alterations on the school administration side were also implemented in the approval process allowing for a reduced administrative burden for staff. Efficiency in time savings benefited all stakeholders.

FORWARD CONSIDERATIONS: 2024-2025

Utilizing insights from the 2023-2024 Audit, Technology Services will continue to improve the technology infrastructure footprint, as well as service response, in the 2024-2025 school year. A Datacenter server hardware renewal as well as additional staff device evergreening are both additionally on the roadmap.

The PSD Cybersecurity Program will evolve with additional managed endpoint detection feature sets.

PSD will further research and explore the power of AI (Artificial Intelligence). We will seek to evaluate the incorporation of AI in all areas and its impact on end user Support as well as Data Privacy and Security.