



## Technology Accountability Report 2021-2022

The purpose of this report is to advise the Board of the Information Technology Services' direction and relevant matters in WRSD through the 2021 - 2022 school year.

### Personnel

- Years of service celebrations:
  - IT Services Director Jaymon Lefebvre - 20 years.
  - Senior Systems Analyst Scott Hetherington - 15 years.
  - Systems Analyst Scott Milne - 5 years.

### Projects and Matters

- In October, 2021, The Director of IT Services was invited to sit on the ARMIC (Alberta Risk Managed Insurance Consortium) + ATLE (Alberta Technology Leaders in Education) joint cybersecurity committee. The committee is a joint initiative between the Association of School Business Officials of Alberta (ASBOA) and ATLE to decipher and interpret new cybersecurity insurance requirements, and to ensure both the ARMIC members and the insurance underwriter agree on what controls need to be implemented.
- In December, 2021, The Director of IT Services presented to the (ATLE) annual conference on Cybersecurity. The presentation was called [Cyber Hygiene 101](#) and focused mostly on K12 sector email and identity security.
- In April, 2022, The Director of IT Services was invited to sit on Service Alberta's Cybersecurity Community of Interest committee. The committee is chaired by the Government of Alberta's Chief Information Security Officer Martin Denil and is intended to bring together industry and public sector expertise to discuss cybersecurity threats and strategies for the province.
- The summer of 2022 saw the completion of the digital classroom display replacement project. 249 classrooms have been retrofitted and IT has transitioned 100% of the

initially targeted active instructional spaces. The budget for this project was folded into the School Technology Allocation (STA) budget for staff and student devices, and for the ongoing maintenance of classroom displays. Note that the initial STA was underfunded in anticipation of the classroom display funds being folded in.

- Late 2021, as a result of a US Covid related supply chain issue, WRSD was given an incredible opportunity to purchase student Chromebooks at \$145. We took advantage of the deal and schools were able to replace all expiring Chromebooks (1735 units) and we were able to stock the 2021 and 2022 Summer School Chromebook program (400 units). At a discount of ~60%, this translated into a cost savings of ~\$440000! Not only was this the only way schools were able to refresh their entire fleet, it also contributed significantly to an ~\$210000 surplus returned to general from IT and the School Tech Allocation budgets.
- Cybersecurity - As a result of many factors such as the K12 sector being specifically targeted by cybersecurity gangs, drastically changing insurance requirements, and nation state actors involved in international cyber warfare, 21/22 saw WRSD focus heavily on cybersecurity.
  - Leveraging our Shared Services Firewall, WRSD launched a new cybersecurity tool. [CanSSOC](#) is a Federal Government supplemented initiative that delivers a national cyber security threat feed maintained by both commercial entities as well as over 130 participating post secondary institutions. In partnership with Alberta's Research and Education Network partner Cybera Inc. WRSD deployed the threat feed to the entire WRSD network and are in the process of enabling it on all ChromeOS devices. As a result of the federal funding and CanSSOC's inclusion of K12 in the threat feed contract, this solution was delivered at a fraction of what a commercial solution would cost.
  - Multi Factor Authentication (MFA) was added as a requirement for all staff accessing WRSD's Microsoft and Google cloud services. MFA was added as a mandatory access control by WRSD's cybersecurity insurance provider. A result of this has been a significant increase in required staff support with many of these support requests being urgent and requiring a timely response.
  - After adding MFA to staff cloud accounts, WRSD IT subsequently worked with our software vendors to implement Single Sign On (SSO) for all WRSD applications that support it. The combination of SSO and MFA greatly enhances security and lowers the risk of data theft as user credentials are no longer stored with an application vendor, onboarding and offboarding staff across all applications is automatic, cloud identity providers monitor credentials and support geofencing, applications become protected from attacks such as credential stuffing, and the user's expected experience increases their awareness when something is suspicious. The onboarding and offboarding benefit of enabling SSO is that IT Auditors check for automated provisioning of enterprise application

access. When system access is not automated the risk is that after users leave their accounts may not be disabled across District systems. The combination of the 20/21 Atrieve automation project and SSO means offboarding is now automated on all but 2 District systems.

- Another new cybersecurity insurance requirement is that where applicable, devices that can be secured with (Endpoint or Extended) Detection and Response (EDR/XDR), must be. These solutions are a significant additional cost and they stretch IT resources further. As ChromeOS is a non-applicable operating system, the District is moving to non-applicable operating systems wherever possible. Pilot classrooms were selected in 21/22 across the district with the goal of completing elementary and middle schools by September 2023 and high schools by September 2024. WRSD has met the EDR insurance requirement in a novel and cost effective way leveraging this strategy.
- WRSD anticipates the insurance industry will continue to add additional requirements in lockstep with K12 cybersecurity incidents.
- WRSD is now in year 11 of Google Workspace and year 4 of Microsoft 365 for all students and faculty.
- The WRSD private fiber project is now 26 months into the ~\$415000 project. WRSD has achieved total cost reductions of ~\$127500. Excluding uncaptured additional savings, 21-22 saved \$66000 and puts the total project's return on investment at ~49 months from December 2022. The project proposal was initially 75 months and we remain on schedule to achieve that.
- Global chip supply continues to be a challenge. While we have been successful keeping up with student and staff devices, supply chain constraints regarding District network infrastructure and school camera systems remain challenging.
- The District VoIP telephone project that was completed in 2020 required updated handsets. To eliminate a technical issue, WRSD replaced the handsets through one time funding at a total cost of ~\$80000. Utility cost savings in 21-22 were ~\$87000 and the total utility cost savings up to August 2022 was ~\$257000; ~\$177000 after the \$80000 spent on the handsets.

## Telephone Costs by Month

