



School District No. 10 (Arrow Lakes)
2023-2028 Long-range Technology Plan
June 20, 2023

2023-2028 Long-Range Technology Plan

This long-range technology plan (the “**Plan**” or the “**LRTP**”) for School District No. 10 (Arrow Lakes) (the “**District**”) is the District’s first district-wide technology plan. It is expected that this Plan will be updated periodically in the future.

This Plan includes all computing technologies (the “**Technologies**”) used in the District that impact student achievement and organizational excellence. These Technologies are considered in three spheres:

1. Schools & Student Technologies: Hardware and applications used for school staff and students, including laptops, Chromebooks, iPads, Printers, Classroom Presentation Equipment including A/V equipment, Projectors, Touch Presentation Screens and Sound Systems, as well as ad hoc other devices like 3D Printers. Applications include all educational software, including ALDL platform software.
2. District Technologies: Hardware and applications used for administration and operations, including laptops and phones. Applications include operating systems, Office 365, email, Enterprise Resource Planning, Library Resource Management, and various other applications across the District.
3. Networking & Infrastructure: Networks, internet and server resources, including Wi-Fi access for all uses at Schools, the District Office and by Operations. It also includes network access for PA systems, school security systems, and digital controls for HVAC, Solar and Lighting Systems. All networks must comply with Ministry requirements for infrastructure, security, and data privacy guidelines.

Consultation & Input

In preparing this Plan, the District engaged employees, students, parents and guardians, partner groups and other stakeholders. The District sought their impressions of the Technologies currently used by the District and asked that they provide us with input on what and how Technologies should be used.

Initially, stakeholder input was obtained during strategic plan consultation meetings and the budget consultation process in spring 2023. More profound feedback from stakeholders was received at meetings of the District’s Technology Committee, comprised of representatives from the ALTA, CUPE, ALELA, the Board of Education, and District staff.

In developing this LRTP, the District set forth to understand better how Technologies are being used and if there are new or alternative Technologies that could better support student achievement and organizational effectiveness. Questions that were asked included:

- Is the current use of technology in schools helping students prepare for today and the future?
- Do students have access to technologies and the ‘right devices’ to prepare them for the future and meet their learning goals?
- What technologies used by and for students are working well or are needed?
- Have staff been provided with the technology tools they need?
- Have staff received appropriate training to do their job and best teach students?

School & Student Technology Plans

Students are currently well served with a high 1:1 device/student ratio. Most of the devices are Chromebooks, and the remainder are iPads. Feedback from stakeholders was positive about the types of student devices and applications currently available. However, many student devices have reached or will soon reach obsolescence.

Computers or laptops are also provided for all teaching and administrative staff. There are also nine 3D printers, numerous Spheros STEM Kits, and other assistive technologies. Classrooms are equipped with a wide array of front-of-classroom presentation equipment with differing functionality.

A diversity of software applications are used by school staff and for student learning, including:

- Office 365
- G-Suite including Google Classroom
- Moodle ALDL Platform
 - Western Canadian Learning Network
 - Connect Connections
 - Study Forage
- Media Smarts: Digital and Media Literacy / digital citizenship K-12
- Open Parachute: Social and Emotional Learning K-12
- Mystery Science: Science videos and lessons K - 7
- SIMBI: Reading/literacy intervention K-7
- Spaces: Communicating student learning (replaced Fresh Grade) K- 7
- Starfall: Early Learning
- Live It Earth: Interactive science, environmental and STEM resources for teachers and students (new)
- Rosetta Stone
- MyBlueprint
- Focused Ed: Vetted resources for teachers through MECC
- Various Other iOS applications (hundreds of applications, e.g. Minecraft)

For the 2023-2024 year, plans for school and student learning technologies include the following:

- Classroom Presentation Equipment
 - Set new standards for classroom projectors, screen boards, and video conferencing technologies.
 - Develop a multi-year plan to replace and upgrade presentation equipment in all classrooms and begin implementation, starting with classrooms without equipment.
- Student Devices:
 - Purchase replacement student devices needed for the 2023-2024 school year.
 - Conduct a user survey, analyze options, and set standards for the next generation of student devices.
 - Develop and begin implementation of a multi-year student device evergreen plan.
- Staff Devices:
 - Conduct a user survey and set standards and protocols for the next generation of staff devices.
 - Develop and begin implementation of a staff device renewal program.
- Learning Tools
 - Conduct user surveys of staff and students to determine technology needs.

School & Student Technology Plans - Continued

As listed above, for the School & Student Technologies sphere, the District will conduct two surveys, a student survey and a staff survey, to gain insight into all aspects of:

- Student learning,
- Device and application preferences for students; what is working well and where there may be coordination, sharing or a preferred district-wide application.
- How to enhance students' basic technology literacy (including typing).
- Other potential curricular program enhancements.
- Whether staff devices are meeting needs.
- Professional learning needs to strengthen the benefits and teaching of technologies in the classroom.
- Other technology trends and needs.

These surveys are priority objectives in 2023-2024. It is expected that the results will help in selecting the next generation of student and staff devices, choosing the proper classroom presentation equipment that is more capable and easier to operate, determining the best applications and potentially the means of coordinating, sharing and standardizing applications across the District.

District Technology Plans

The District is currently part-way through two major technology projects: the website re-design project and the finance ERP upgrade project. Feedback received from District staff included that Technologies are meeting needs.

District technologies include the following applications:

- Office 365 & SharePoint
- Adobe Suite and eSign
- Network Management Applications
- Insignia Library Automation and Management System
- SDS - Finance ERP
- MyEducation Student Information System
- Pro Care Daycare Management System (used by NELCC)
- Permission Click Student Activities Planning System (being piloted by NSS and LESS)
- Various telephones, printers, etc.

For the 2023-2024 year, plans for District technologies include the following:

- Complete the redesign and rebuild of the District and all Schools' websites and upgrade the back end of all sites.
- Upgrade various modules of the SDS Finance ERP System (year two of a multi-year system upgrade).
- Establish a work ticketing system for technology and operations through which principals can make requests for their schools.
- Explore student information systems for better district/school management.

Networking & Infrastructure Plans

The existing network provides reliable, high-speed internet access and access to network-based applications for all users. However, ongoing investments are required to stay current with performance, security, and privacy needs, including as required by the Ministry of Education and Childcare. Feedback from stakeholders included that networks are generally working well and meeting connectivity needs.

The existing network is comprised of the following:

- Master Network Infrastructure, including fibre, wiring, ports, etc.
- 8 Servers
- 23 Switches
- 60 Wi-Fi Access Points
- 12 Batteries (24 would be required)
- Various network management applications

Two areas were identified within the current network as priorities for improvement: network infrastructure and batteries.

Network Revitalization Plan

Parts of the District's network infrastructure are nearing the end of their life, and some hardware and management software requires replacement. The plan is to upgrade and streamline the network to make it more secure, easier to manage and increase its capacity to grow to meet the District's future technology needs and student learning goals. This will be accomplished by replacing various hardware components, changing to improved applications, and upgrading the network architecture.

Battery Renewal Plan

The batteries that ensure the operation of crucial internet, network, and server resources in the event of a power outage are aging out, and many of the District's newer power-over-ethernet devices have increased draws on the batteries. Also, there are no batteries for some network components that should have them. As a result, all network infrastructure batteries should be replaced, and additional batteries are needed where there are currently none. Thus, the plan is to supply all vital components, including networking and server racks, with batteries that ensure at least 30 minutes of operation for networking components and 90 minutes for critical server components in the event of a power outage.

Technology Budget

The District's technology budget for 2023-2024 includes similar operating funding to the current and prior years. This level of funding has not been sufficient to keep up with the demand for student devices and the maintenance of the District network.

The following table shows the funding available for technologies in the 2023-2024 budget and the additional funding that would be required to accomplish the primary goals of this Plan during the 2023-2024 budget year. Alternatively, these items can be done in phases over the next two years.

Technology Budget	2023-2024 Budget	Appropriated Surplus*	2024-2025 Budget or Surplus	TOTALs
Digital Service (MyEd & NGN)	\$35,000	-	-	\$35,000
Software Licensing	\$70,000	-	-	\$70,000
Supplies – General	\$45,000	-	-	\$40,000
Hardware & Equipment – Student Devices	\$35,000	-	\$45,000	\$80,000
Hardware & Equipment – Network Revitalization	\$40,000	\$65,000	*\$30,000	\$135,000
Hardware & Equipment – Battery Renewal	-	-	*\$18,000	\$18,000
Classroom Presentation Equipment	-	-	\$10,000	\$10,000
Website Redesign, Rebuild and Visual Identity	\$15,000	-	\$20,000	\$35,000
TOTALs	\$240,000	\$65,000	*\$123,000	\$428,000

 *Note: \$65,000 of the \$135,000 proposed spending on network infrastructure was already appropriated from the District's accumulated operating surplus in the prior year.