


2020/21 ANNUAL REPORT







**“ I do not consider MERLIN as our Vendor or ISP, instead, I look at MERLIN as our valuable education and business partner which helps Seven Oaks School Division provide an excellent quality and sustainable education for our students who will be the future leaders of this country. Thanks for your support.”**

—Ron C. Paragas, Director | Information and Communication Technology, Seven Oaks School Division


# contents

Minister's Letter of Transmittal	5
Deputy Minister's Letter of Transmittal	5
Message from the Chief Operating Officer	5
Agency Profile	
Background	7
Mission and Mandate	7
Services	7
Markets	9
Performance Review	
Performance Targets and Accomplishments	11
Future Outlook	17
Audited Financial Statements	
Management's Responsibility for Financial Reporting	18
Independent Auditor's Report	19
Statement of Financial Position	21
Statement of Operations	22
Statement of Change in Net Debt	23
Statement of Cash Flow	23
Notes to the Financial Statements	24

## Staff as at March 31, 2021

Kiley Bender – A/Chief Operating Officer  
Alicia Baldwin – Office Manager  
Barb Fimmimore – Office Administrative Support  
Travis Friesen – Consultant, IT Security  
Warren Grieder - Consultant, Internet Technologies  
Michael Hart - Consultant, Microsoft Technologies  
Ryan Hébert – Consultant, Microsoft Technologies  
John Hiebert - Consultant, Networking Technologies  
Diane Karalash – Provincial Licensing and Software Sales Specialist  
Colette Lafond - Communications Coordinator  
Brent McCrea - Consultant, Microsoft Technologies  
Adam Thompson – Consultant, Infrastructure Services  
Rhonda Williams - Controller  
Vacant - Manager, Information & Communication Technologies  
Vacant – Manager, Partner Programs  
Vacant – Media Technician





**“The staff at MERLIN are outstanding and their IT support is irreplaceable! Without MERLIN, our school division would struggle to properly and efficiently manage its IT. Words that pop into my head when I think of MERLIN. Knowledgable, professional, courteous, helpful, capable, positive, outstanding, and irreplaceable.”**

—Shawn Kleebaum, Educational Technology Leader,  
Turtle Mountain School Division

## LETTER FROM THE MINISTER

Her Honour the Honourable Janice C. Filmon, C.M., O.M.  
Lieutenant Governor of Manitoba  
Room 235, Legislative Building  
Winnipeg, MB R3C 0V8

Your Honour:

It is my privilege to present the Annual Report of the Manitoba Education, Research and Learning Information Networks (MERLIN) for the operational year ended March 31, 2021.

Respectfully submitted,

Original Signed by:

Honourable Reg Helwer

## LETTER FROM THE DEPUTY MINISTER

The Honourable Reg Helwer  
Minister of Central Services  
Room 343, Legislative Building  
Winnipeg, Manitoba R3C 0V8

Dear Minister Helwer:

I am pleased to submit for your consideration the Annual Report of the Manitoba Education, Research and Learning Information Networks (MERLIN) for the year ended March 31, 2021.

For over 25 years, MERLIN's knowledge and application of technology has benefited schools, colleges and universities in Manitoba. The Agency's broad range of technology services include software licensing and purchasing, consulting, Internet access, technical training, hosting and security services. The Agency's Information Technology (IT) service delivery has evolved over time to meet the advanced and imminent changes of technology that benefit students in learning. MERLIN plays a key role in growing, simplifying technology choices and getting the best value for money for educational organizations with limited budgets.

MERLIN has negotiated a single Master Agreement for all K-12 and post-secondary institutions in Manitoba to achieve the highest level of discount available from Microsoft, enabling Manitoba's education community to have the lowest possible pricing ever for Microsoft products – a major accomplishment this year.

MERLIN's Partner Programs, bundled IT service package, bring major savings, benefits and value for Manitoba Education. A new three-year agreement was renegotiated effective April 1st for post-secondary institutions. The K-12 Partner Program is now in its second year of its three-year agreement. Benefits include licensing compliance, best practices, consistency of application and long term technical and financial planning.

I would like to thank all staff for their dedication and effort that keeps contributing to MERLIN's success.

Respectfully submitted,

Original Signed by:

Scott Sinclair

## MESSAGE FROM THE CHIEF OPERATING OFFICER

On behalf of staff, I am pleased to report the achievements of Manitoba Education, Research and Learning Information Networks (MERLIN) for the year ended March 31, 2021. Some of our major accomplishments include:

- **25<sup>th</sup> Anniversary** – This year highlights MERLIN serving the education sector for over 25 years. With the worldwide pandemic, technology has never been more important to the achievements and success of students. Our educational institutions continue to adjust to a very different world in educating students in a new and different way. MERLIN continues to work with schools, colleges and universities to provide services for learners during this challenging time.
- **Connectivity** – Has never been more important in education. MERLIN continues to make network improvements to address improved reliability and services for remote users. An ongoing process of being proactive to meet Internet needs and capacity. All school divisions and most of the post-secondary institutions rely on MERLIN for their Internet connectivity.
- **Best Microsoft Pricing for Manitoba Education** – MERLIN has negotiated a single Master Agreement for all K-12 and post-secondary institutions in Manitoba to achieve the highest level of discount available from Microsoft, enabling Manitoba's education community to have the lowest possible pricing ever for Microsoft products.
- **Partner Programs** – For the last 15 years, MERLIN has provided the education community in Manitoba with a shared services and licensing bundle that provides savings to all school divisions, as well as post-secondary institutions. Major savings, benefits and value for Manitoba Education that continue to contribute to today's students using technology in learning.
- **Innovation** – MERLIN staff continue to improve the services that MERLIN operates, providing educational organizations with near real time information on network traffic, security incidents and other network related statistics that aid in decision making and planning for all organizations.

Finally, I would like to thank our clients and stakeholders who have supported our endeavours over the past year. Your input, suggestions and ideas have created a collaborative environment which support your technology needs today and into the future in teaching and training students. I also want to thank our professional and dedicated staff for keeping MERLIN focused on important objectives and meeting the needs of the education community.

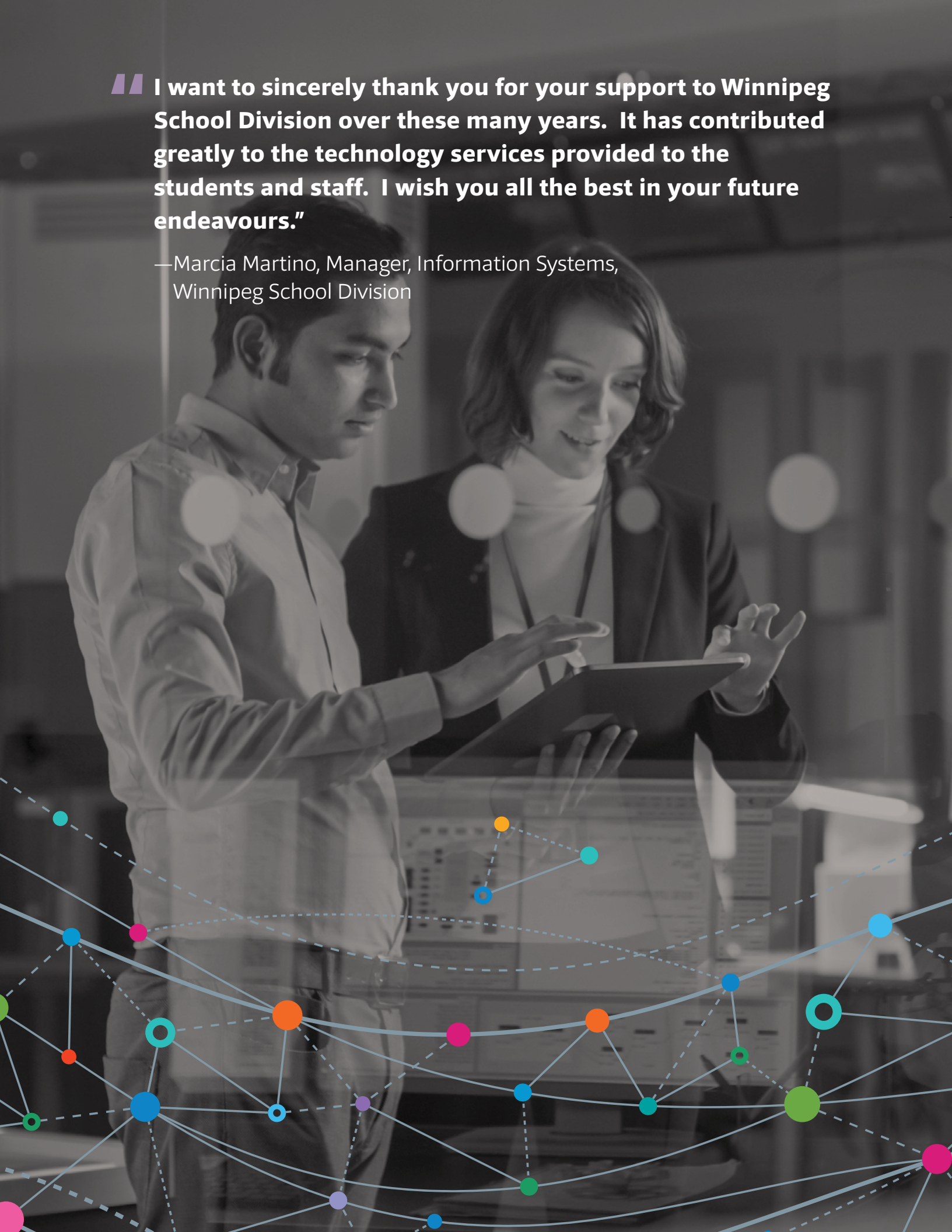
Original Signed by:

Kiley Bender  
A/Chief Operating Officer



**“ I want to sincerely thank you for your support to Winnipeg School Division over these many years. It has contributed greatly to the technology services provided to the students and staff. I wish you all the best in your future endeavours.”**

—Marcia Martino, Manager, Information Systems,  
Winnipeg School Division



# agency profile

## BACKGROUND

Manitoba Education, Research and Learning Information Networks (MERLIN) was established in 1995 as a special operating agency with the Department of Education and Training. It was formed as a facilitating body to coordinate the delivery of technology services to the education community across Manitoba.

## MISSION

To support the use of technology in improving educational services to learners.

## MANDATE

- Provide services that support educational institutions in the application of technology tools to enhance and expand program delivery; and
- Provide direction and management in the educational use of networks, acting as a broker of services to meet client needs.

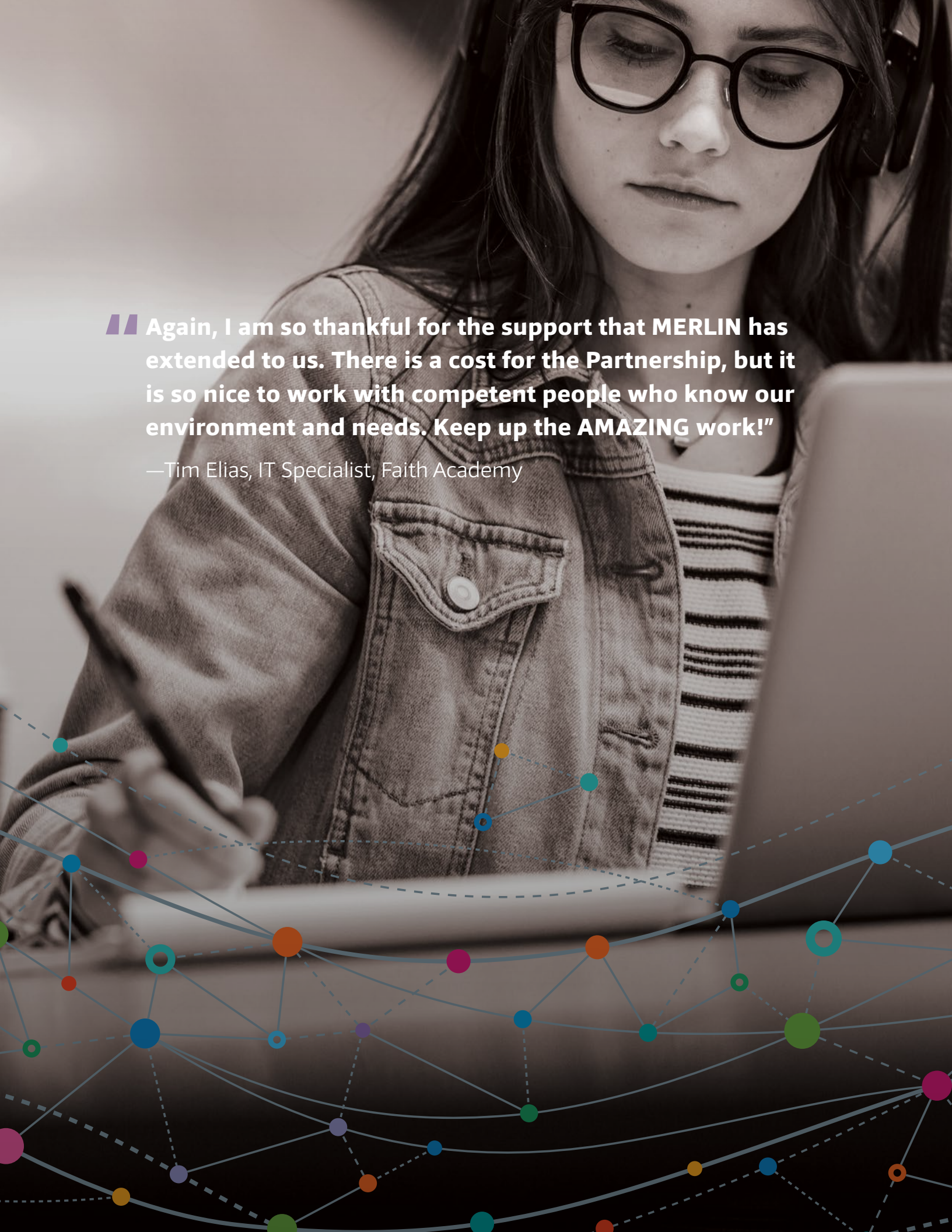
## SERVICES

The services provided are allocated into the following sections:

Services	Schools	Dept. of Education	Post-Secondary Institutions	Other Depts./Agencies
Partner Programs	X		X	
Consulting	X	X	X	
Provincial Licensing and Purchasing	X	X (MSD)*	X	
Shared Services	X	X X (MSD)*	X	X
Technical Training Services	X		X	
General Support for the education community	X	X (MSD)	X	

\* Manitoba School for the Deaf



A young woman with long dark hair, wearing black-rimmed glasses and a denim jacket over a striped shirt, is looking down at a laptop. The background is a soft-focus indoor setting. Overlaid on the bottom half of the image is a complex network diagram consisting of numerous colored dots (blue, orange, green, pink, purple) connected by thin lines, some solid and some dashed, creating a web-like structure.

**“ Again, I am so thankful for the support that MERLIN has extended to us. There is a cost for the Partnership, but it is so nice to work with competent people who know our environment and needs. Keep up the AMAZING work!”**

—Tim Elias, IT Specialist, Faith Academy



## PARTNER PROGRAMS

The Partner Programs are educational specific packages of software and IT services that assists schools and post-secondary institutions in providing a robust, secure and flexible environment to help improve the educational outcomes of learners. These Programs simplify the administration of many licensing and technology services for partners, allowing more resources to be directed at the classroom. The K-12 Partner Program was designed to allow schools to explore online resources and services without adding additional costs or limits on things like Internet bandwidth.

## CONSULTING

This service includes per diem consulting, project consulting and support contracts.

- Design and implementation of on-premise infrastructures
- Design and implementation of Cloud-based technologies like Office 365
- Advice on the selection of technical equipment and services
- Advice on technologies that support distance education delivery
- Network systems management
- IT security services
- Assistance with development and review of educational technology plans

## PROVINCIAL LICENSING AND PURCHASING

MERLIN negotiates province-wide licensing agreements to assist schools and post-secondary institutions with procuring best of breed solutions at pricing that's affordable and equitable across the province regardless of the size of the educational organization. MERLIN also provides licensing consulting and advice that is specifically tailored to schools and other educational institutions in Manitoba.

## INTERNET ACCESS

MERLIN is the Internet gateway for most of the K-12 schools in Manitoba as well as most of the post-secondary institutions. MERLIN manages and maintains, with our partner suppliers, one of the most extensive networks in Manitoba and is consistently one of top three of educational and research networks in terms of data usage in Canada.

## HOSTING

MERLIN collaborates with the education community to offer a wide array of IT hosting services tailored to the individual needs of the organizations. These hosting services save school divisions and post-secondary institutions administrative costs associated with managing and maintaining their own technology infrastructures. MERLIN hosts many different applications from websites to student records systems and firewalls to Infrastructure as a Service.

## SECURITY

MERLIN operates one of the largest security infrastructures in western Canada in order to protect students and staff from a wide range of Internet related threats. All MERLIN's security services are designed and deployed to ensure that students and schools have access to security tools and services that are rated amongst the top solutions in the world.

## TECHNICAL TRAINING SERVICES

Customized training for school divisions helps sustain operations and enhance technology infrastructures. Training services are intended to provide education-specific training in areas where it might not normally be available.

## GENERAL SUPPORT TO THE EDUCATION COMMUNITY

MERLIN continues its 25-year history of being the trusted advisor to schools, universities and colleges in Manitoba for all topics related to educational technologies. MERLIN actively participates with educational organizations in Manitoba including Manitoba Association of Educational Technology Leaders (MAETL), Manitoba's Regional Advanced Research and Education Network (MRnet).

## MARKETS

### PRIMARY

Schools and school divisions (K-12) comprised of 37 school divisions, over 700 public schools, 94 independent schools and over 50 band-operated schools within about 62 First Nations and post-secondary institutions.

### SECONDARY


Adult learning centres, educational organizations, Department of Education

### TERTIARY

Other government departments and the broader public sector

While MERLIN does not have a monopoly for its services within the province, it does have a unique position in the education community, allowing for the provision of an education-specific component to decision-making, provincial coordination, and advisory services. The Agency attempts to foster cooperative relationships with private industry to benefit the education community.





**“The online subscription courses that MERLIN negotiated have been fabulous. I have completed multiple courses. Trainers have been great, very knowledgeable and so easy to understand them. Very professional. I will continue to take more courses over summer.”**

—Sandra Drabot, Computer Technician,  
Portage la Prairie School Division



# performance review

## PERFORMANCE TARGETS AND ACCOMPLISHMENTS

MERLIN MADE A SIGNIFICANT IMPACT IN MANY AREAS DURING THE FISCAL YEAR 2020/21. SOME EXAMPLES ARE HIGHLIGHTED BELOW.

### MERLIN PARTNER PROGRAMS

The Partner Programs includes a collection of commonly used technology services bringing major cost savings and benefits to all schools and post-secondary institutions in Manitoba.

MERLIN's K-12 Partner Program is in its second year of the three-year Agreement effective July 1<sup>st</sup>, 2019. All of Manitoba's school divisions and 70% of funded independent schools participate in the Partner Program. The Agency also renegotiated the Partner Program three-year Agreement for post-secondary institutions effective April 1<sup>st</sup>, 2020.

### PROVINCIAL LICENSING and PURCHASING

#### MICROSOFT

- MERLIN negotiates and administrates the Master Agreement for all Microsoft software and services for every educational organization in Manitoba. This provides equity to all organizations regardless of their size and access to the Microsoft suite of software and services for every student, teacher, professor and staff member in Manitoba's educational institutions. This includes Microsoft Cloud-based services like Office 365 and Teams as well as Desktop Operating Systems, database software and other products.
- MERLIN has negotiated a single Master Agreement for all K-12 and post-secondary institutions in Manitoba to achieve the highest level of discount available from Microsoft, enabling Manitoba schools to have the lowest possible pricing for Microsoft products.
- MERLIN has worked with Microsoft to renew the Shape the Future Program for Manitoba schools. This Program provides schools with a discount on OEM desktop licenses.

#### ADOBE

- MERLIN continues to work with Adobe on educational pricing on Adobe products for K-12 schools and post-secondary institutions. These products include Adobe's Creative Cloud, Acrobat Pro, Photoshop Elements and Premiere Elements.

#### TRIMBLE SKETCHUP PRO

- MERLIN continues to be a facilitator of the Trimble SketchUp Pro K-12 Provincial-Wide License Grant Program providing all publicly funded K-12 schools with access to the latest versions at no cost. SketchUp Pro is a full-featured desktop 3D modeling tool.

## CONSULTING

<p>MERLIN provides consulting support for two provincial departments</p>	<p><b>Department of Central Services</b> – MERLIN facilitates Manitoba Network services for education.</p> <p><b>Department of Education</b> – MERLIN has a Memorandum of Understanding with the Department of Education which provides a number of consulting and IT-related services.</p>
<p>The Agency has also worked with all public and private schools as well as post-secondary institutions</p>	<p><b>Design and implementation of:</b></p> <ul style="list-style-type: none"> <li>• Design and implementation of network security and monitoring solutions</li> <li>• Authentication services including integration with Office 365, G-Suite and other Cloud services</li> <li>• Collaboration services like Email, Instant Messaging, SharePoint and others</li> <li>• Network solutions which include security and virtual private networks (VPN), network management, disaster recovery/backup solutions, desktop deployments, application deployments, virtual infrastructure deployments, network connectivity failover strategies and strategic planning</li> </ul>
<p>MERLIN provides fee-for-service consulting for the education community</p>	<p><b>Some examples:</b></p> <ul style="list-style-type: none"> <li>• Installed and managed security services</li> <li>• Design and implementation of Office 365 tenant services</li> <li>• Migration of mail from on premises Exchange to Office 365</li> <li>• Federated authentication with Google 's G-Suite and Office 365</li> <li>• Reviewed network segmentation and design and implementation of directory services for single user directory</li> <li>• Software security lifecycle review</li> <li>• Network security review</li> <li>• Wide Area Network performance testing and problem resolution</li> <li>• Design and setup of a network monitoring solution</li> <li>• Design and implementation of virtual server infrastructure</li> <li>• MERLIN is frequently called upon to assist school divisions with problem-solving and provides an objective evaluation as well as recommendations. The Agency's goal is to assist school divisions to become self-sufficient in managing their own infrastructures.</li> </ul>

## INTERNET ACCESS

MERLIN partners with many private sector network providers to provide the best value for money solutions to get schools across the province connected to Internet services. Some of these organizations are:

- BellMTS
- MRnet
- Shaw
- Manitoba Hydro
- Manitoba Network
- Westman Communication
- Pembina Trails School Division
- Valley Internet Service Provider (VISP)

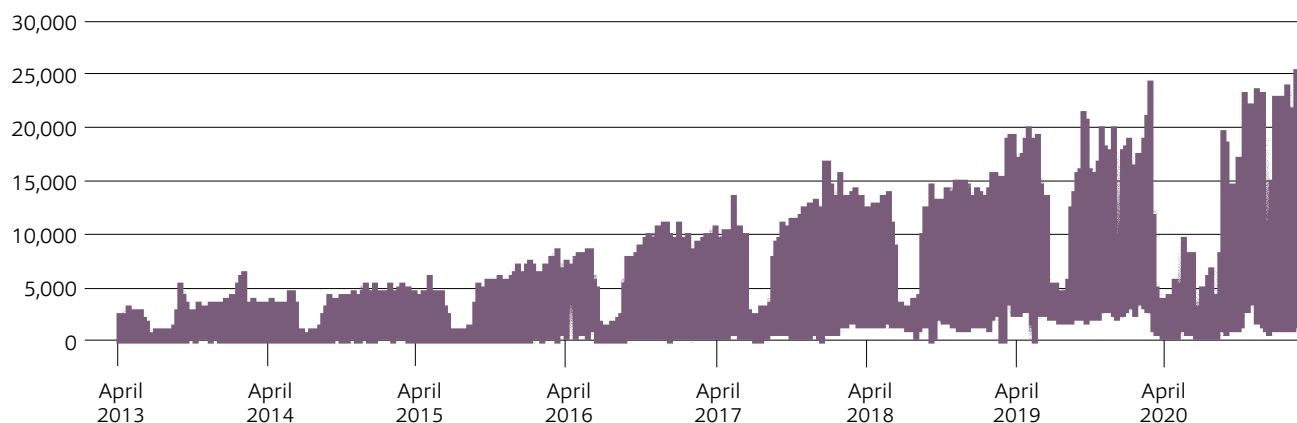
MERLIN works in very close partnership with MRnet (Manitoba's Regional Advanced Research and Education Network) who is Manitoba's connection to the global high-speed education and research networks through the CANARIE network. In Manitoba, MERLIN is the gateway organization for K-12 school connectivity to CANARIE. This includes approximately 700 schools.

CANARIE provides high-speed access to popular Internet based resources and content providers such as Microsoft, Google, Amazon and others via the CANARIE's Content Delivery Service (CDS). MERLIN is consistently one of the top three largest users of CANARIE's CDS in Canada. Approximately 40% of the traffic from education in Manitoba uses CANARIE's network. This partnership provides significant cost savings as well as shorter, faster paths to services like G-Suite, Office 365, YouTube, Apple and others.

MERLIN works closely with BellMTS as MERLIN's primary supplier of commercial Internet transit. MERLIN is one of the largest volume customers of BellMTS in Manitoba.



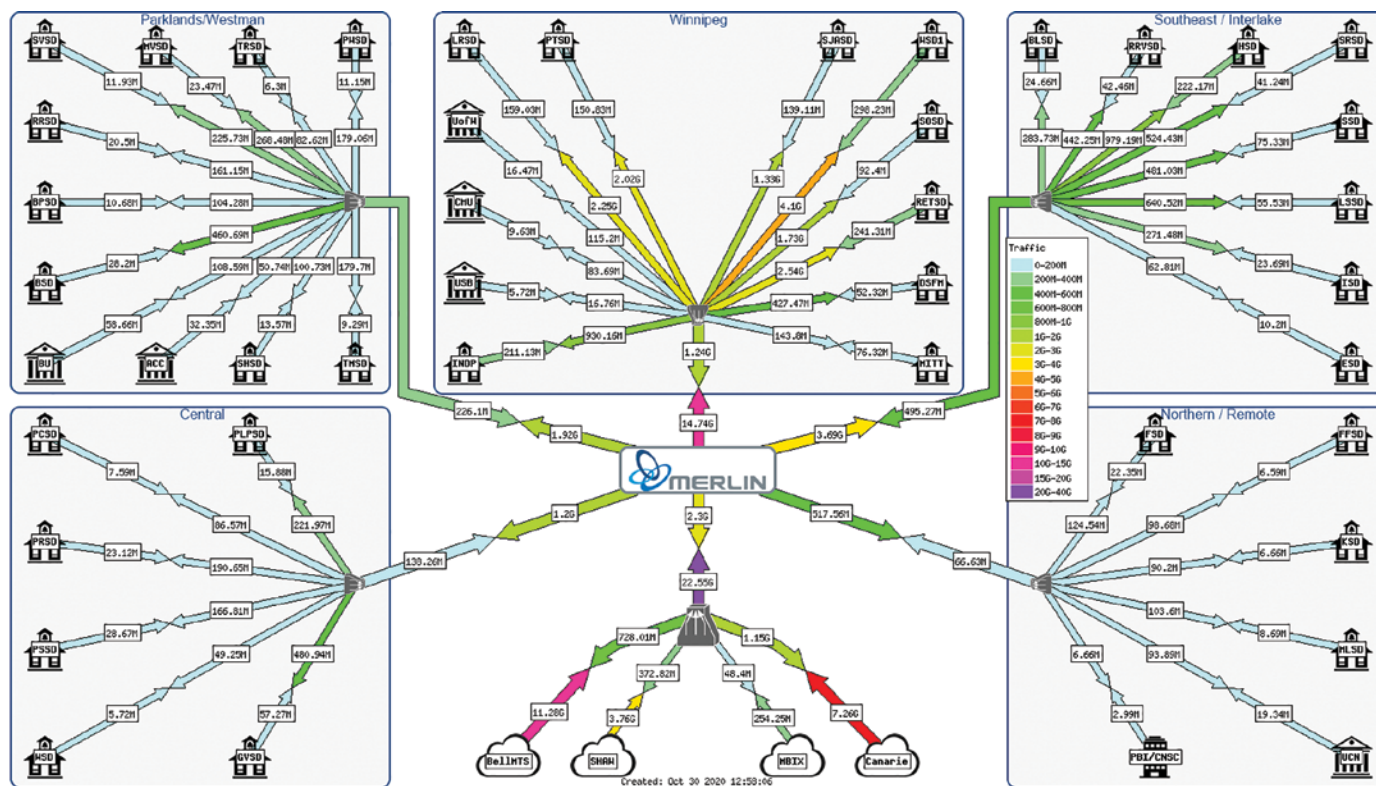
## Summary Inbound Gb/s



MERLIN's commercial Internet is currently supplied by BellMTS and Shaw with connections to multiple locations, allowing educational institutions to share 30 Gbps of capacity. MERLIN also offers both IPv4 and IPv6 connectivity services as part of its Internet gateway services.

## INTERNET WEATHER MAP

MERLIN staff maintains a service called the Internet Weather Map. This tool is a point in time view of school division, post-secondary and Independent school Internet usage across the Province of Manitoba. Usage statistics are updated every five minutes. This can be viewed at <https://observium.merlin.mb.ca/weathermap>.



## HOSTING

MERLIN works in partnership with educational institutions in Manitoba to host many different applications and infrastructure components.

### APPLICATION AND INFRASTRUCTURE HOSTING

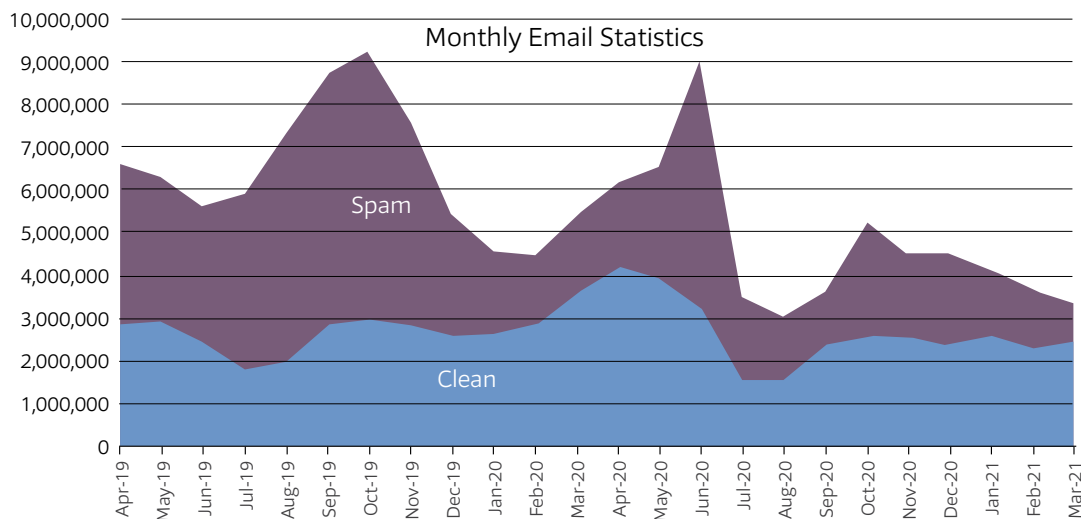
- **Email**—MERLIN has created and maintains 13,818 email accounts for school staff (down from 22,982 last fiscal year). This includes more than 50 email domains for educational organizations in Manitoba. Microsoft Office 365 and Google email services in the Cloud continue to improve their offerings for education and some organizations have migrated to these Cloud-based services.
- **Microsoft SharePoint** allows staff to set up websites to share information with others, manage documents from start to finish and publish reports. There are 13 educational institutions using this hosted Microsoft SharePoint service.
- **Data Back-up service**—This service remotely backs-up server data to MERLIN's Data Centre. This service has expanded to offer backup of Cloud services to infrastructure in MERLIN's data center.
- **Hosted virtual servers and storage** (Infrastructure as a Service (IAAS)) - Benefits to clients include infrastructure and licensing cost-savings and cost efficiencies with redundancy and fault tolerance. MERLIN is currently hosting 571 virtual machines (up from 538 last fiscal year) for 22 educational organizations (up from 15 last fiscal year) in MERLIN's infrastructure.
- **Hosting websites and domain names**—MERLIN hosts 103 websites and 151 primary and 22 secondary domain names.
- **Email list server**—This electronic mail discussion list gives each mailing list a unique web page and allows users to subscribe, unsubscribe and change their account options over the web. Currently, MERLIN maintains 56 lists.
- Through hosting services for the Department of Education, school divisions also benefit from the following initiatives:
  - **Blackboard Learning Environment**—MERLIN staff have assisted the Department of Education in course exports for the transition to the Desire 2 Learn platform for the 2020-2021 school year. Effective July 1<sup>st</sup>, 2020, the Agency is no longer hosting Blackboard.
  - **Websites**—MERLIN has been hosting the Department of Education's website since 1996. This currently includes 7,374 web pages (up from 6,935) web pages and 16,545 PDFs (up from 15,810).
  - **Hosted ORME/DREF for the Manitoba Education Library systems and associated databases.** Teachers across the province can access these online resources. MERLIN provides ongoing support for the library servers. There are three ORME and five DREF servers in MERLIN's infrastructure available to staff and Manitoba teachers. These are accessible from the Internet as well as from the Managed Environment.

## SECURITY

- **Anti-spam/Anti-virus Email Filtering Service**—All email accounts hosted by MERLIN are scanned for spam and viruses. This service is also available for an annual fee to any school division that runs and maintains its own email server.
- Spam continues to be alive and well, albeit in lower volumes than the Agency has seen in past years. Highly targeted phishing campaigns are the top concern as spammers are utilizing improved techniques for evading IP reputation-based and traditional anti-virus tools. Staff continue to use new and novel methods to keep users from receiving unwanted or malicious email.
- **Distributed Denial of Service (DDoS) Mitigation Service**—All Internet traffic through MERLIN is protected from DDoS attacks. MERLIN currently sees about 100 Distributed Denial of Service (DDoS) attacks per month. MERLIN leverages a DDoS Mitigation Service from our Internet Service Provider which continues to be very effective. We also have expanded protection to routers within our network for reporting and blocking of DDoS attacks.
- **Web Content Filtering** is the blocking or filtering of undesirable Internet web content. Currently 48 educational organizations are using this service.
- **Vulnerability, Anti-virus, and Spyware Protection**—MERLIN provides protection from known vulnerabilities, spyware and viruses by utilizing a Palo Alto Networks' firewall. Non-hosted firewall client traffic passes through this firewall and is:
  - Scanned for client and server based vulnerabilities—Vulnerabilities classified as critical and high are blocked.
  - Scanned for viruses—Web, ftp, imap, pop, smtp, and smb traffic is analyzed. Traffic containing viruses is blocked and the connections are reset.
  - Examined for spyware—Spyware categorized as critical and high is blocked and connections are reset.

MERLIN also makes use of Palo Alto's Wildfire service for all client traffic. This service uploads unknown executables and portable apps to its Cloud sandbox. Files are executed and all activity is monitored to determine if the file contains malware or behaves in a malicious way. Future downloads of any files identified as malicious are blocked.





**This graph illustrates the volume of email and spam that the Agency has processed.**

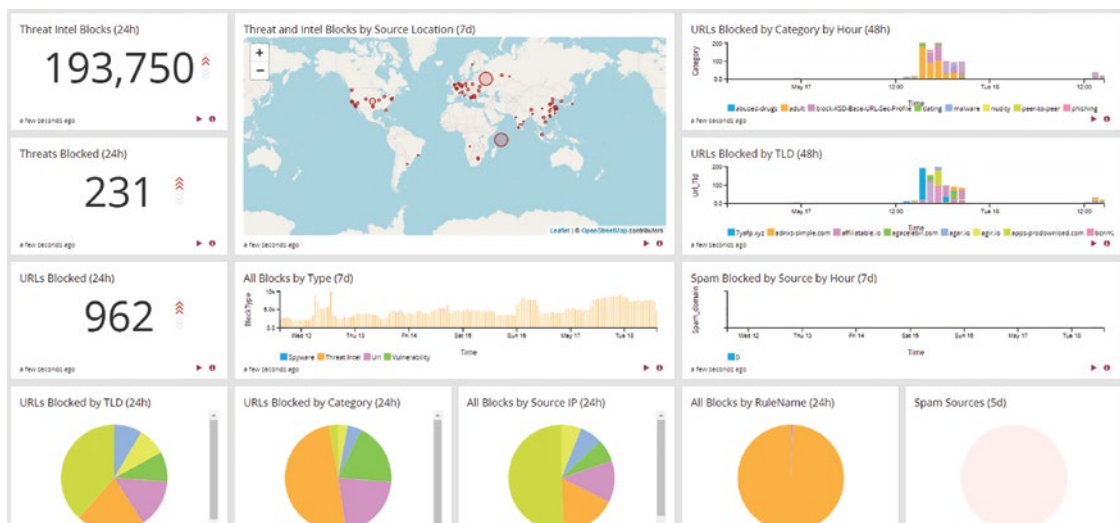
• **MERLIN's Hosted Firewall Service** is based on a Palo Alto Networks firewall and currently serves 29 (up from 25) MERLIN clients. It includes all the protection of MERLIN's vulnerability protection service and provides the following additional benefits:

- Layer 7 next-generation firewall technology which provides application visibility. Clients can identify and classify application traffic from applications such as Facebook, YouTube, Dropbox, iTunes, Twitter, FaceTime, Pinterest, Instagram, BitTorrent, and Netflix.
- User identification through the firewall's User ID functionality. This connects to a division's user directory and provides the ability to apply application control rules to the appropriate users and groups.
- Application control by user or group which provides flexibility on how, when, and to what destinations they are allowed. Applications can be blocked, allowed, or limited based on the application's category and the educational need.
- Visibility of internal device addresses which increases the client's ability to track down and identify the source of malicious traffic and unwanted applications.
- Content filtering by user or group allowing for multiple unique content filtering profiles within a single school or site.
- Secure VPN access to internal systems for staff.

- In a typical week, MERLIN's vulnerability, anti-virus, and spyware protection and hosted firewall services blocks:
  - 2,597,879,525 blocks to known malicious IPs. These are identified via MERLIN's Palo Alto firewall and shared threat Intel
  - 126,474 critical and high threats
  - 67,381,279 blocked URLs from customer identified URL categories (down this year due to students learning from home)

## SECURITY THREAT

**DASHBOARD—MERLIN staff have developed a Security Threat Dashboard. This tool is a point in time overview of all the threats, spam and malicious traffic blocked by MERLIN's security devices and software for school divisions, post-secondary institutions and independent schools.**



## TECHNICAL TRAINING

Customized training for school divisions helps them sustain operations and enhance their own technology infrastructures.

Due to the pandemic, MERLIN was not able to offer in house technical training to clients but did successfully reach a 25+ discount pricing for the education community on a subscription basis that offers a wide array of technical online courses. This includes different formats and benefits:

- ▶ Live Virtual Training – classes featuring a live instructor
- ▶ On-Demand Video Training – Courses feature a recording of the class that can be consumed on-demand
- ▶ Course format: courses are divided up to smaller manageable sections
- ▶ Labs: unlimited attempts
- ▶ Course Materials: many courses include books, study guides, and supplemental materials
- ▶ Practice Exams: unlimited attempts
- ▶ Mentorship: students have 1on1 access to their instructor for questions

## GENERAL SUPPORT TO THE EDUCATION COMMUNITY

As part of its service portfolio, MERLIN provides general support to the education community, facilitating communication and collaboration and ensuring that the Agency is on track in its service provision. Some of the areas in which MERLIN provides support include:

### PARTNERSHIPS / AFFILIATIONS

#### Educational Organizations

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- ▶ Manitoba Association of School Superintendents (MASS)
- ▶ Manitoba Association of School Business Officials (MASBO)
- ▶ Manitoba Association of Education Technology Leaders (MAETL)
- ▶ Manitoba First Nations Education Resource Center (MFNERC)
- ▶ Manitoba Association of Computing Educators (ManACE)
- ▶ Manitoba Learning Resource Center

#### Information Technology Organizations

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- ▶ CANARIE
- ▶ Manitoba's Regional Advanced Research and Education Network (MRnet)
- ▶ The Research and Education Networks Information and Analysis (REN-ISAC)
- ▶ Manitoba Internet Exchange (MBIX)
- ▶ Canadian Cyber Defense Challenge (CCDC)
- ▶ Defence Research and Development Canada
- ▶ Canadian Centre for Cyber Security
- ▶ Internet Society Manitoba Chapter

## EDUCATION TECHNOLOGY SUPPORT

The Agency provides technical support on educational concerns ranging from Internet access to network and computer hardware issues responding to a large volume of inquiries.

MERLIN has created a mailing list that schools and post-secondary institutions can subscribe to view any planned and unplanned network outages and events along with a Twitter account to communicate these updates.

### PRESENTATIONS, MEETINGS AND COMMITTEE SUPPORT

#### Educational Activities

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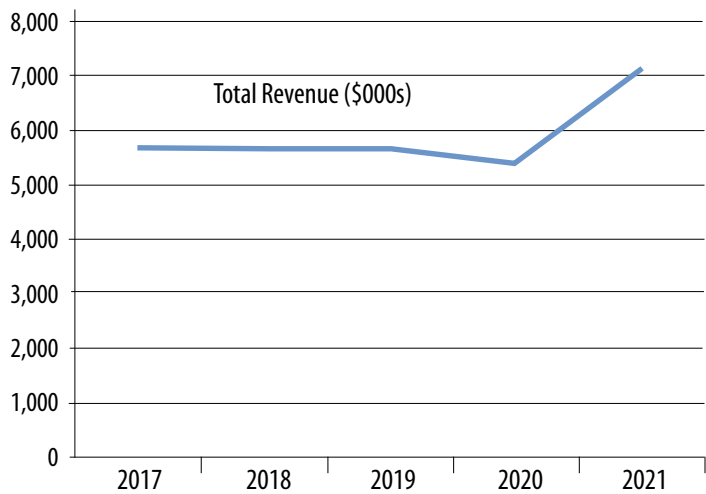
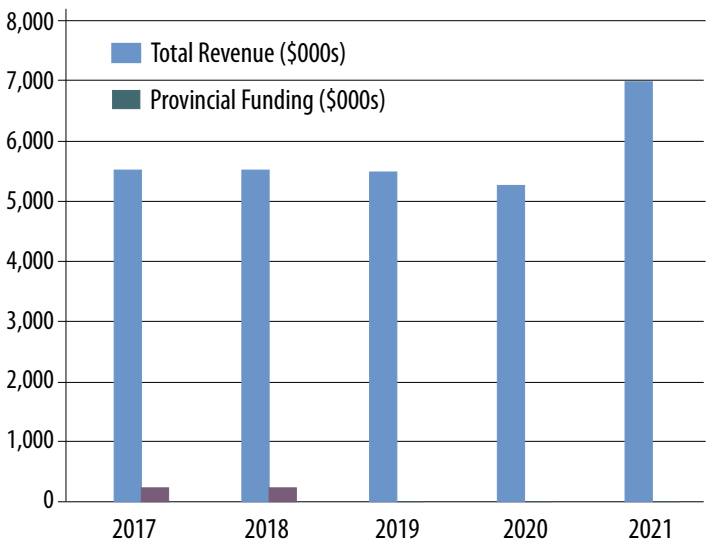
In addition to MERLIN's important role in supporting and providing technology services, MERLIN is also asked to participate on Advisory committees and support educational technology activities (assist in planning conferences, deliver IT presentations and workshops). Some of the events that MERLIN participated in include:

- **MAETL**—Manitoba Association of Educational Technology Leaders – This IT group is committed to supporting and promoting the objectives of its members in the use of ICT in teaching and learning as an integral part of curriculum delivery in the Province of Manitoba. Membership is open to all school divisions and partners with educational organizations (Department of Education, ManACE, MERLIN, etc.) MERLIN staff regularly attend monthly meetings.
- **MRnet**—Manitoba's Regional Advanced Research and Education Network - It is Manitoba's connection for all post-secondary institutions, research centers and K-12 schools to the global high-speed education and research network through the CANARIE Network. MERLIN staff participate on the Executive Committee.
- **RTW** (Riding the Wave of Change Annual Technology Conference) – MERLIN staff participate on the Planning Committee.
- **CCDC** (Canadian Cyber Defense Challenge) - This is a non-profit organization designed to promote and educate awareness of Cyber security.



FINANCIAL ANALYSIS

Clients value MERLIN’s services and have increased the use of MERLIN’s service offerings over the last five years. This has had a favorable financial impact as the Agency is now self-sufficient and no longer requires provincial funding.



FUTURE OUTLOOK

Overall, MERLIN’s proposal is to continue to forecast increased growth for the FY 2021/22 in the following, but not limited to, technology services that the Agency delivers to the education community:

- Expansion of the managed firewall service - The service makes available a modern, managed firewall platform to participating customers allowing them to more effectively manage IT security within their organizations at a reduced cost. MERLIN provides central management of the platform to ensure that it evolves to meet ongoing requirements.
- Expansion of the Infrastructure as a Service (IaaS)– MERLIN runs virtual servers within the Agency’s infrastructure for school divisions and post-secondary institutions.
- Expansion of MERLIN’s network and Internet service to accommodate the 50% annual growth in demand from our clients.
- Expansion of shared services with post-secondary clients.
- MERLIN will also continue to explore adding new IT services as opportunities arise depending on client needs and Agency capabilities.



# Management's Responsibility for Financial Reporting

The accompanying financial statements are the responsibility of the management of the Manitoba Education, Research and Learning Information Networks (the "Agency") and have been prepared in accordance with Canadian public sector accounting standards. In management's opinion, the financial statements have been properly prepared within reasonable limits of materiality, incorporating management's best judgment regarding all necessary estimates and all other data available to the date of the audit report.

Management maintains internal controls to properly safeguard the assets and to provide reasonable assurance that the books and records from which the financial statements are derived accurately reflect all transactions and that established policies and procedures are followed.

The responsibility of the external audit is to express an independent opinion on whether the financial statements of the Agency are fairly represented in accordance with Canadian public sector accounting standards. The Independent Auditor's Report outlines the scope of the audit examination and provides the audit opinion.

On behalf of Management of the Agency:

Original Signed by:

Kiley Bender, Acting Chief Operating Officer

Original Signed by:

Rhonda Williams, Controller

June 28, 2021





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## Independent Auditor's Report

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### TO THE SPECIAL OPERATING AGENCIES FINANCING AUTHORITY

#### OPINION

We have audited the financial statements of **Manitoba Education, Research and Learning Information Networks, An Agency of the Government of Manitoba** (the "Agency"), which comprise the statement of financial position as at March 31, 2021, and the statements of operations, change in its net financial assets, and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Agency as at March 31, 2021, and its results of operations, its change in net financial assets and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

#### BASIS FOR OPINION

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Agency in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Agency's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Agency or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Agency's financial reporting process.

#### AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered



material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for expressing an opinion on the effectiveness of the Agency's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Agency's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Agency to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Original Signed by: BDO Canada LLP

Chartered Professional Accountants

Winnipeg, Manitoba

June 28, 2021



## Financial Statements

### Statement of Financial Position

	(In Thousands)	
	March 31	March 31
	2021	2020
<b>Financial Assets</b>		
Cash and cash equivalents (Note 6)	\$ 1,724	\$ 1,008
Accounts receivable	271	568
Portfolio investments	47	47
	<u>2,042</u>	<u>1,623</u>
<b>Liabilities</b>		
Accounts payable and accruals	305	348
Unearned revenue	1,395	1,372
Employee future benefits (Note 7)	162	145
	<u>1,862</u>	<u>1,865</u>
<b>Net financial asset (debt)</b>	<u>180</u>	<u>(242)</u>
<b>Non-financial Assets</b>		
Prepaid expenses	415	594
Tangible capital assets (Note 8)	726	684
	<u>1,141</u>	<u>1,278</u>
<b>Accumulated surplus</b>	<u>\$ 1,321</u>	<u>\$ 1,036</u>

Commitments (Note 10)

The accompanying notes are an integral part of these financial statements.

# Statement of Operations

(In Thousands)

For the year ended March 31	2021	2021	2020
	Budget	Actual	Actual
<b>Revenue</b>			
Fee for goods and services	\$ 5,711	\$ 7,101	\$ 5,344
Other	-	21	21
	<b>5,711</b>	<b>7,122</b>	5,365
<b>Expense</b>			
Advertising and promotion	16	6	18
Amortization of tangible capital assets	350	338	338
Bad debt	-	7	-
Audit and legal fees	14	9	13
Communication and bandwidth	258	302	221
Cost of purchases for resale	2,399	3,526	2,088
Course delivery	50	29	35
Equipment repair and maintenance	384	376	357
Manitoba Network connections	756	827	841
Occupancy	124	107	108
Office and miscellaneous	66	83	83
Professional development	20	-	3
Purchased services	-	29	43
Salaries and benefits	1,254	1,194	1,165
Travel	20	4	6
	<b>5,711</b>	<b>6,837</b>	5,319
<b>Annual surplus</b>	-	285	46
<b>Accumulated surplus</b> , beginning of year	990	1,036	990
<b>Accumulated surplus</b> , end of year	\$ 990	\$ 1,321	\$ 1,036

The accompanying notes are an integral part of these financial statements.



# Statement of Change in Net Financial Asset (Debt)

(In Thousands)

For the year ended March 31	2021 Budget	2021 Actual	2020 Actual
<b>Annual surplus</b>	\$ -	\$ 285	\$ 46
<b>Tangible Capital Assets</b>			
Acquisition of tangible capital assets	(400)	(380)	(400)
Amortization of tangible capital assets	350	338	338
<b>Net acquisition of tangible capital assets</b>	(50)	(42)	(62)
<b>Other Non-financial Assets</b>			
Decrease in prepaid expenses	-	179	193
<b>Decrease in net financial asset (debt)</b>	(50)	422	177
<b>Net debt</b> , beginning of year	(590)	(242)	(419)
<b>Net financial asset (debt)</b> , end of year	\$ (640)	\$ 180	\$ (242)

# Statement of Cash Flows

(In Thousands)

For the year ended March 31	2021	2020
<b>Cash provided by (applied to):</b>		
<b>Operating Activities</b>		
Annual surplus	\$ 285	\$ 46
Amortization of tangible capital assets	338	338
	623	384
Changes in:		
Accounts receivable	297	(1)
Accounts payable and accruals	(43)	(184)
Unearned revenue	23	(83)
Employee future benefits	17	(2)
Prepaid expenses	179	193
Cash provided to operating activities	1,096	307
<b>Capital Activities</b>		
Acquisition of tangible capital assets	(380)	(400)
<b>Increase (decrease) in cash and cash equivalents</b>	716	(93)
<b>Cash and cash equivalents</b> , beginning of year	1,008	1,101
<b>Cash and cash equivalents</b> , end of year	\$ 1,724	\$ 1,008

The accompanying notes are an integral part of these financial statements.

# Notes to Financial Statements

(In Thousands)

For the year ended March 31, 2021

## 1. Nature of Organization

Effective April 1, 1995, Manitoba Education, Research and Learning Information Networks (the "Agency") was designated as a Special Operating Agency pursuant to The Special Operating Agencies Financing Authority Act, Cap S185, C.C.S.M. and operates under a charter approved by the Lieutenant Governor in Council. The Agency operates as part of Central Services under the general direction of the Assistant Deputy Minister.

The Agency is financed through the Special Operating Agencies Financing Authority (SOAFA). SOAFA has the mandate to hold and acquire assets required for and resulting from the Agency's operations. It finances the Agency through repayable loans and working capital advances. This financial framework enables the Agency to operate in a business-like manner according to public policy expectations.

A Management Agreement between SOAFA and the Minister of Central Services assigns responsibility to the Agency to manage and account for Agency related assets and operations on behalf of SOAFA.

The Agency remains bound by relevant legislation and regulations. It is also bound by administrative policy except where specific exemptions have been provided in its charter in order to meet business objectives.

## 2. Basis of Accounting

The financial statements are prepared in accordance with Canadian public sector accounting standards as recommended by the Public Sector Accounting Board.

## 3. Significant Accounting Policies

### A. REVENUE

#### (i) Government Transfers

Government transfers without eligibility criteria or stipulations are recognized as revenue when the transfer is authorized.

Government transfers with eligibility criteria but without stipulations are recognized as revenue when the transfer is authorized and all eligibility criteria have been met.

Government transfers with or without eligibility criteria but with stipulations are recognized as revenue in the period the transfer is authorized and all

eligibility criteria have been met, except when and to the extent that the transfer gives rise to a liability.

#### (ii) Exchange Transactions

Product revenue is recognized when the goods are shipped or delivered and title and risk of loss pass to the customer. Service revenue is recognized when the rendering of services is completed or substantially completed.

#### (iii) Other Revenue

All other revenues are recorded on an accrual basis.

### B. EXPENSES

#### (i) Accrual Accounting

All expenses incurred for goods and services are recorded on an accrual basis.

#### (ii) Government Transfers

Government transfers are recognized as expenses in the period in which the transfers are authorized and all eligibility criteria have been met.

### C. FINANCIAL ASSETS

#### (i) Portfolio Investments

Portfolio investments are short-term deposits with original maturities of more than three months. These investments are recognized at cost.

### D. LIABILITIES

Liabilities are present obligations as a result of transactions and events occurring prior to the end of the fiscal year. The settlement of the liabilities will result in the future transfer or use of assets or other form of settlement. Liabilities are recorded at the estimated amount ultimately payable.

### E. EMPLOYEE FUTURE BENEFITS

(i) The costs of severance benefits are determined by an actuary using the projected benefit method and reflect management's best estimates of the length of service, salary increases and ages at which employees will retire. Actuarial gains and losses are recognized over the expected remaining service life. The costs of benefits earned by employees are charged to expenses as services are rendered.

(ii) The cost of non-vested sick leave benefits is determined by an estimation of the number of days earned during the year that will be used in future periods in excess of annual entitlement.

### F. NON-FINANCIAL ASSETS

Non-financial assets do not normally provide resources to discharge liabilities of the Agency. These assets are normally employed to provide future services.

#### (i) Prepaid Expenses

Prepaid expenses are payments of goods or services which will provide economic benefit in future periods. The prepaid amount is recognized as an expense in the year the goods or services are consumed.

#### (ii) Tangible Capital Assets

Tangible capital assets are recognized at cost. Cost includes the purchase price as well as other acquisition costs. The cost of tangible capital assets, less any residual are amortized over their estimated useful lives as follows:

Computer hardware	25%, straight line
Computer software	25%, straight line
Equipment and furniture	20%, straight line
Leaseholds	20%, straight line

#### G. MEASUREMENT UNCERTAINTY

The preparation of financial statements in accordance with Canadian public sector accounting standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingencies at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

## 4. Financial Instruments and Financial Risk Management

#### MEASUREMENT

Financial instruments are classified into one of the two measurement categories: (a) fair value; or (b) cost or amortized cost.

The Agency records its financial assets at cost, which include cash and cash equivalents, accounts receivable and portfolio investments. The Agency also records its financial liabilities at cost, which include accounts payable.

The Agency did not incur any remeasurement gains and losses during the years ended March 31, 2021 and 2020.

#### FINANCIAL RISK MANAGEMENT — OVERVIEW

The Agency has exposure to the following risks from its use of financial instruments: credit risk; liquidity risk; market risk and interest risk.

#### CREDIT RISK

Credit risk is the risk that one party to a financial instrument fails to discharge an obligation and causes financial loss to another party. Financial instruments which potentially subject the Agency to credit risk consist principally of cash and cash equivalents, accounts receivable, and portfolio investments.

The maximum exposure of the Agency to credit risk at March 31 is:

	2021	2020
Cash and cash equivalents	\$ 1,724	\$ 1,008
Accounts receivable	271	568
Portfolio investments	47	47
Maximum exposure to credit risk	\$ 2,042	\$ 1,623

Cash and cash equivalents, and portfolio investments: The Agency is not exposed to significant credit risk as these amounts are held by the Minister of Finance.

Accounts receivable: The Agency is not exposed to significant credit risk as the balance is due from a large client base, and payment in full is typically collected when it is due. The Agency manages this credit risk through close monitoring of overdue accounts.

The Agency establishes an allowance for doubtful accounts that represents its estimate of potential credit losses. The allowance for doubtful accounts is based on management's estimates and assumptions regarding current market conditions, customer analysis and historical payment trends. These factors are considered when determining whether past due accounts are allowed for or written off.

The allowance for doubtful accounts balance at 2021 was \$7 (\$5 in 2020).

#### LIQUIDITY RISK

Liquidity risk is the risk that the Agency will not be able to meet its financial obligations as they come due.

The Agency manages liquidity risk by maintaining adequate cash balances and by review from the Province of Manitoba to ensure adequate funding will be received to meet the obligations.

#### MARKET RISK

Market risk is the risk that changes in market prices, such as interest rates and foreign exchange rates, will affect the Agency's income or the fair values of its financial instruments.

#### INTEREST RATE RISK

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The interest rate exposure relates to funds on deposit, and portfolio investments.

The interest rate risk on funds on deposit is considered to be low because of their short-term nature. The interest rate risk on portfolio investments is considered low as the original deposits are reinvested at rates for investments with similar terms and conditions.



## 5. Working Capital Advances

The Agency's authorized line of working capital advances was withdrawn effective April 1, 2020. As at March 31, 2020 working capital advances were \$NIL.

## 6. Cash and Cash Equivalents

The Agency invests all surplus cash in short-term deposits with the Province of Manitoba, which are made up of term deposits with maturities of up to three months.

## 7. Employee Future Benefits

	2021	2020
Severance benefits	<b>\$ 143</b>	\$ 126
Sick pay benefits	<b>19</b>	19
	<b><u>\$ 162</u></b>	<u>\$ 145</u>

### PENSION BENEFITS

Employees of the Agency are eligible for pension benefits in accordance with the provisions of the Civil Service Superannuation Act (CSSA), administered by the Civil Service Superannuation Board (CSSB). The CSSA established a defined benefit plan to provide benefits to employees of the Manitoba Civil Service and to participating agencies of the Government, including the Manitoba Education, Research & Learning Information Network, through the Civil Service Superannuation Fund (CSSF).

Pursuant to an agreement with the Province of Manitoba, the Agency is required to pay to the Province an amount equal to the current pension contributions of their employees. The amount paid for 2021 was \$74 (\$72 in 2020). Under this agreement, the pension liability is the responsibility of the Province, and the Agency has no further pension liability.

### SEVERANCE BENEFITS

Effective April 1, 1998, the Agency began recording accumulated severance pay benefits for its employees. The amount of severance pay obligations is based on actuarial calculations. The periodic actuarial valuations of these liabilities may determine that adjustments are needed to the actuarial calculations when actual experience is different from that expected and/or because of changes in actuarial assumptions used. The resulting actuarial gains or losses are amortized over the expected average remaining service life of the related employee group.

An actuarial report was completed for the severance pay liability as of March 31, 2020. The report provides a formula to update the liability on an annual basis. The Agency's actuarially determined net liability for accounting purposes as at March 31, 2021 was \$143 (\$126 in 2020), with an actuarial adjustment being amortized over the 15 year expected

average remaining service life (EARSL) of the employee group.

Significant long-term actuarial assumptions used in the March 31, 2020 valuation, and in the determination of the March 31, 2021 present value of the accrued severance benefit obligation were:

Annual rate of return:	
Discount rate	<u>3.20%</u>
Annual salary increase rates:	
Annual productivity increase	1.00%
Annual general salary increase	<u>2.50%</u>
	<u>3.50%</u>

The severance benefit liability at March 31 includes to following components:

	2021	2020
Accrued benefit liability		
Balance, beginning of year	<b>\$ 159</b>	\$ 165
Actuarial loss	<b>40</b>	-
Benefits accrued	<b>7</b>	5
Interest on accrued benefits	<b>6</b>	6
Severance paid	<b>-</b>	(17)
Balance, end of year	<b>212</b>	159
Less unamortized actuarial (losses) gains	<b>(69)</b>	(33)
Severance benefit liability	<b><u>\$ 143</u></b>	<u>\$ 126</u>

The total expenses related to severance benefits at March 31 includes the following components:

	2021	2020
Interest on obligation	<b>\$ 6</b>	\$ 6
Current period benefit cost	<b>7</b>	5
Amortization of actuarial losses over EARSL	<b>4</b>	3
Total expense related to severance benefit	<b><u>\$ 17</u></b>	<u>\$ 14</u>

### SICK PAY BENEFITS

The Agency provides sick leave benefits for employees that accumulate but do not vest. The accrued benefit obligation related to sick leave entitlement earned by employees is determined using a valuation model developed by an actuary. The valuation is based on employee demographics, sick leave usage and actuarial assumptions. These assumptions include a 3.20% discount rate and a 3.5% annual salary increase (2.5% general salary and 1% service and merit allowance).

## 8. Tangible Capital Assets

				2021
	Opening Balance	Additions	Disposals	Closing Balance
Cost				
Computer hardware	\$ 2,296	\$ 380	\$ -	\$ 2,676
Computer software	62	-	-	62
Equipment and furniture	48	-	-	48
Leaseholds	20	-	-	20
	<b>2,426</b>	<b>380</b>	<b>-</b>	<b>2,806</b>
Accumulated Amortization				
Computer hardware	1,624	332	-	1,956
Computer software	52	6	-	58
Equipment and furniture	46	-	-	46
Leaseholds	20	-	-	20
	<b>1,742</b>	<b>338</b>	<b>-</b>	<b>2,080</b>
Net book value	<b>\$ 684</b>	<b>\$ 42</b>	<b>\$ -</b>	<b>\$ 726</b>
				2020
	Opening Balance	Additions	Disposals	Closing Balance
Cost				
Computer hardware	\$ 2,642	\$ 400	\$ (746)	\$ 2,296
Computer software	132	-	(70)	62
Equipment and furniture	48	-	-	48
Leaseholds	20	-	-	20
	<b>2,842</b>	<b>400</b>	<b>(816)</b>	<b>2,426</b>
Accumulated Amortization				
Computer hardware	2,038	332	(746)	1,624
Computer software	116	6	(70)	52
Equipment and furniture	46	-	-	46
Leaseholds	20	-	-	20
	<b>2,220</b>	<b>338</b>	<b>(816)</b>	<b>1,742</b>
Net book value	<b>\$ 622</b>	<b>\$ 62</b>	<b>\$ -</b>	<b>\$ 684</b>

## 9. Designated Assets

The Agency has allocated \$47 (\$47 in 2020) of its portfolio investments as designated assets for cash received from the Province of Manitoba for the vacation entitlements earned by employees of the Agency prior to its designation as an SOA and the severance pay benefits accumulated to March 31, 1998 for certain of their employees. This amount is held in an interest bearing account until the cash is required to discharge the related liabilities. Any unused balance is reinvested annually.

## 10. Commitments

The Agency has entered into a lease agreement for the rental of the building with The University of Manitoba until March 31, 2022. The estimated minimum lease payments for each of the next two years are as follows:

2022	\$ 455
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## 11 Uncertainty Related to COVID-19 Pandemic

The impact of COVID-19 in Canada and on the global economy increased significantly. As the impact of COVID-19 continue, there could be further impact on the Agency and its major customers, suppliers and related government agencies that could impact the timing and amounts realized on the Agency's assets and future profitability. Management is actively monitoring the effect on its financial condition, liquidity, operations and workforce. Given the daily evolution of the COVID-19 outbreak and the global response to curb its spread, the Agency is not able to fully estimate the effects of the COVID-19 outbreak on its results of operations, financial condition, or liquidity at this time.



Manitoba Education Research and Learning Information Networks (MERLIN), a Special Operating Agency of the Province of Manitoba

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