



NB PEI Educational Computer Network

*Supporting higher education in Atlantic Canada for over 50 years*

# ANNUAL REPORT 2020-2021

*April 1, 2020 - March 31, 2021*



# MISSION

To ensure high quality Information and Communication Technology (ICT) services to all member institutions in New Brunswick and Prince Edward Island

# VISION

To apply our collective skills and resources to the betterment of the New Brunswick and Prince Edward Island higher education communities through the deployment of state-of-the-art technology while saving money for our provinces and institutions

# VALUES

**Honesty**

**Collaboration**

**Collegiality**

**Openness**

**Trust**

Visit our website at:

<http://www.nbpei-ecn.ca> (English)

<http://rie-nbipe.ca> (French)

# NEW BRUNSWICK and PRINCE EDWARD ISLAND EDUCATIONAL COMPUTER NETWORK MEMBERS



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# Message from the Chair



On behalf of the NB/PEI Educational Computer Network, I am pleased to present our 2020-2021 Annual Report highlighting our activities and accomplishments over the past fiscal year. The ECN continues to exemplify effective collaboration for the benefits of its members while continuing to lead in Network and Communication Technology. This document highlights the ECN's activities and accomplishments over the past fiscal year.

I would like to begin by thanking Scott Chamberlain (UNB Fredericton) for chairing the Network Committee this past year and to acknowledge the talented and dedicated members of the Network Committee who generously provide expertise and guidance to achieve their mandate. I would also like to thank our respective provincial governments, fellow Board members, partners and stakeholders for their continuous support, hard work and dedication, which combined, has made this network successful for over 50 years.

The NB/PEI ECN continues to build on its policy development and framework around successful security strategies. By adding tools such as QRadar, which will provide security analytics for actionable insight into critical threats across the ECN membership, the ECN will be able to accurately detect and prioritize threats.

As you read the pages ahead, you will find out more about the accomplishments of the ECN this year and I hope that you will be impressed with the significant return on our collaborative investment.

Dr. Alexander (Sandy) MacDonald

A handwritten signature in blue ink that reads "Alex Sandy MacDonald". The signature is written in a cursive, flowing style.

Chair, ECN Board of Directors

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## Overview

The NB/PEI Educational Computer Network (ECN), founded in 1970, connects all of the universities, community colleges and the Maritime College of Forest Technology in New Brunswick (NB) and UPEI and Holland College in Prince Edward Island (PEI). The primary service provided by the network is connectivity among its members and to the wider world. Many additional benefits are enjoyed by members, notably joint purchasing and licensing, shared IT services, professional development, cyber security and the delivery of network-based services and information exchange.

This approach has enabled all ECN members to realize the benefits of a high capacity, high speed data communications network at a reasonable cost, regardless of size. It also allows members to take advantage of economies of scale not available to individual member institutions, and ensures that smaller institutions receive the same level of service as larger ones. The ECN reduces overall IT expenditures for its members by an average of \$1.3 million annually, resulting in 100% return on investment. Through economies of scale, and with expertise contributed by all, ECN members pay less for many software applications, connections to commercial internet services, and equipment, than they could independently. Finally, members become stronger on the national front by providing a united voice with respect to the collective needs of New Brunswick and Prince Edward Island research and education sector.

ECN is one of the oldest yet most innovative of the higher education IT consortia across Canada. ECN members benefit from a strong governance and management model, and a reasonably secure budget that ensures continuity and flexibility. ECN's collaborative and collegial culture firmly supports its many accomplishments.

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## More about ECN

Following a pilot project in the late 1960's, the NB Educational Computer Network was formed in 1970 when the New Brunswick Higher Education Commission, Mount Allison University, l'Université de Moncton, the University of New Brunswick, and St. Thomas University entered into an agreement to share computer-processing services. In 1974, the newly formed Maritime Provinces Higher Education Commission (MPHEC) assumed stewardship of the Agreement and in 1975, the University of Prince Edward Island joined as a full member, establishing the NB/PEI ECN. The signing of a five-year agreement, from May 1, 1992 to April 30, 1997, formalized the addition of Holland College as the next member of the group. A subsequent five-year agreement (May 1, 1997 to April 30, 2002) witnessed the addition of the Maritime Forest Ranger School (now the Maritime College of Forest Technology) to the list of member institutions of the ECN. The current five-year agreement (January 1, 2017 to March 31, 2022) witnessed the addition of the

Collège communautaire de Nouveau Brunswick (CCNB) and the New Brunswick Community College (NBCC) to the list of member institutions.

The ECN is overseen by a Board of Directors, consisting of the Presidents of the member institutions and the Chief Executive Officer of the MPHEC. The overall management and operation of the network and the associated services is the responsibility of a Network Committee consisting of the Senior IT positions from each member institution. The ECN is funded by the Provinces of New Brunswick and Prince Edward Island, through the funding administered by the MPHEC, and is topped-up with some direct funding from some of the institutions.

In addition to providing connectivity among its members, both NB and PEI portions of the network also connects member institutions to the wider world through a shared connection to the Canadian Advanced Research Network (CANARIE) and through CANARIE to the world. ECN has been highly successful in attracting capital investment from the federal government with over one million dollars contributed to the development and expansion of the NB research and education communications network and the Security Information and Event Management (SIEM) project over the last five years. Inestimable value from collaboration, cooperation, and highly professional relationships among the members has contributed greatly to ECN's reputation across Canada as having one of the best governance, management, and operating models among similar organizations.

#### ECN highlights for 2020-2021 include:

The NB/PEI Educational Computer Network (ECN) continued to successfully provide connectivity among its members and to the wider world, just as it has for the past 50 years.

- With continued COVID-19 restrictions in place, the ECN50RIÉ and AtlanticNet 2020 were delayed for another year. An informative video was prepared on the ECN to coincide with the 50<sup>th</sup> Anniversary celebration and can be viewed in both English and French on the website at <http://nbpei-ecn.ca>.
- The Communications Team continued to circulate, promote, provide updates on ECN successes, and keep partner information (NREN and CANARIE) current by using the website as a communication tool.
- UNB continues to work on the 100GB connection to Montreal. The team is mapping the NREN project and patching upgrades.
- Continued partnering with CANARIE in a Security Information and Event Management solution (SIEM).
- The Network Sustainability Team worked with IBM to design and architecture a model, pricing structure and finally the purchase of a SIEM (QRadar) that will cover the NB and PEI RANs and the ECN membership at the institutional level. This initiative is expected to be operational by the fall of 2021. Development of an RFP, for the management and monitoring services of the QRadar for 24/7 coverage and service has begun.



- Preparation of a funding proposal to CANARIE for the QRadar SIEM initiative is underway.
- The expression of interest for the new Climate Change Centre connection in Saint Peter's Bay, PEI was submitted to CANARIE and funding was approved.
- The ECN Computer tender was extended for one year and the RFP for leasing services for fibre connection is being revised for decision in the upcoming year. Additional connections for both Edmundston and Sackville are being finalized to enable both areas access to a diverse physical path for network traffic.
- In November 2020 the technical workshop was held for the first time “virtually” over two days. The workshop consisted of a series of short sessions on a variety of topics by Microsoft staff. ECN SharePoint staff built a platform using SharePoint in conjunction with Microsoft Teams to deliver the online sessions successfully.
- Participating ECN members sites received training and have deployed LastPass Enterprise, a Password Manager solution for faculty/staff and students. Other institutions are in the planning stages and expect to implement in 2021-22.
- UNB is leading the way on the Telephony as a Shared ECN Service by launching the tool on campus. The purchase of additional equipment in the last quarter of 2020-21 will allow UNB to accommodate additional members to take part in this initiative that will provide significant cost savings for the ECN members.

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## Governance (Board of Directors)

The ECN is governed by a Board of Directors (Board) consisting of the following members:

- The President of Holland College
- The Executive Director of the Maritime College of Forest Technology
- The Chief Executive Officer of the MPHEC
- The President of Mount Allison University
- The President of St. Thomas University
- Le recteur de l'Université de Moncton
- The President of the University of New Brunswick
- The President of the University of Prince Edward Island
- The President and CEO of the New Brunswick Community College
- Le président-directeur général du Collège communautaire du Nouveau-Brunswick

The Chairperson, whose term is five years, renewable for a second five-year term, is elected by the Board. Quorum is six members. Decisions must have the unanimous consent of those members voting (with the exception of a vote declaring that the service of the designated installation is inadequate; in which case the designated member is ineligible to vote). Generally, two meetings are held each year. The MPHEC performs administrative duties for the Board and manages the budget on behalf of all the members.

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## Network Committee

The NB/PEI Educational Computer Network Committee (Network Committee) includes one voting representative nominated by each of the parties of the Agreement as well as a voting member who represents the Network Operations. An alternate representative to the Network Committee is also appointed. Members and alternates are appointed for an indefinite period or are replaced upon recommendation in writing to the Chairperson of the Board. The Chairperson of the Network Committee is nominated by the Network Committee, and is non-voting, and is approved by the Board for a maximum of two 2-year terms. The MPHEC representative is the Secretary of the Network Committee. The Network Committee meets 5-6 times annually. The duties of the Network Committee are listed in Appendix A of the ECN Agreement. The Network Committee makes decisions by unanimous consent of members voting.

The Network Committee submits, on or before January 15, a recommended Network Plan and Budget to the Vice-President (Finance) of each of the member institutions for confirmation. Once confirmed, the Network Committee submits the Network Plan and Budget to the Board for approval. At the end of the year, the Committee drafts an annual report for approval by the Board showing its performance compared to the Network Plan from the beginning of the fiscal year.

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## Designated installation

UNB is the designated, and the major, installation for the Network. Computing facilities and Information and Communication Technology (ICT) services are provided by UNB to all ECN members as detailed in Appendices B and C of the ECN Agreement.

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## Meetings

The ECN Network Committee met seven times in 2020-2021:

June 15, 2020	Virtual meeting
July 7, 2020	Virtual meeting
July 15, 2020	Virtual meeting
September 23, 2020	Virtual meeting
November 3, 2020	Virtual meeting
January 13, 2021	Virtual meeting
March 10, 2021	Virtual meeting

A list of the Board and Network Committee members is included in Appendix I.

Appendix II includes:

A New Brunswick map displaying the physical network connections and their relative bandwidth as well as CANARIE links.

A New Brunswick map displaying the connected campuses of the partner institutions; there are a total of 36 campuses connected in 15 cities, towns, and villages.

The Prince Edward Island map shows the connected locations and the CANARIE link.

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## Strategy

The key shared service of the ECN is connecting member institutions via a high-speed, high-capacity research and education network. Members also jointly purchase and deploy IT products and services, with anti-virus, Office 365, firewalls, anti-spam and Password Manager solution being recent examples of successful collaborations.

ECN updated its strategic plan to focus on the following areas:

Communication and collaboration tools: The ECN continued to expand the use of Office 365 (a Microsoft software platform used for file sharing and co-editing, document and records management, and collaboration). Support by a dedicated employee at UNB continued to be accessible for all member institutions. Further deployment of services offered through other Office365 applications that will benefit the consortia will continue, for example, VOIP telephony.

Consortium Security: Security issues identified through the joint external threat risk assessment in 2019 continued to occupy the ECN. In addition to addressing the everyday threats all members deal with, ECN continued to support policy and plan development at member institutions to provide the essential framework upon which successful security strategies are built. We continued to add tools and services to expand the security toolkit available to ECN members, including password managers for students, faculty, and staff. ECN continued participating in the national security incident and event management (SIEM) project led by CANARIE; ECN is extending the SIEM to all the individual institutions, to be completed over Summer 2021. ECN also coordinated institutional adoption of CANARIE-sponsored projects under their cybersecurity initiatives program (CIP).

Network sustainability and improvement: The network continued to perform efficiently and economically in a time of increasing demand by members and their use of cloud-based solutions, driven largely by the rapid pivot due to Covid-19. The ECN also focused on network development, extending it where needed, while building in resiliency and redundancy wherever possible. Finally, with critical optic fibre cable agreements coming up for renewal in 2022, planning is underway to ensure the network remains stable and sustainable for the following decade

A table of strategic objectives is in Appendix III.

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## Financial operations

A copy of the approved budget vs actual expenditures for 2020-2021 (showing a deficit of \$194,249 (NB: -\$198,409); PEI: \$4,160) as well as the balance of the ECN committed funds as of March 31, 2021 is included in Appendix IV. New Brunswick's deficit was the result of the planned purchase of hardware for the network as well as the purchase of the QRadar application for the SIEM coverage at the ECN member institutions. Internet Access was higher than budgeted on the PEI side but under budget on the NB side. Hardware, software and maintenance were all below budget for the year. The CAF membership remains stable with no increases and SharePoint services expenses were slightly lower with the removal of the SPLA fees. Due to COVID restrictions, meetings and training expenditures nil. Although the Network operation core costs were stable, additional hardware was purchased for upgrading the Network which reflects an increase overall. The NB GigaPOP had significant cost savings which help to offset the overall increase. In PEI, a surplus was realized due to savings on travel and collaborative projects. Most PEI budget line items fell in line with what was proposed although Internet Access was higher. The ECN's accumulated surplus of \$1,013,537 (NB: \$937,892; PE: \$75,645) will be used to fund initiatives such as the VOIP- Telephony, Management services for QRadar as well as other Cyber Security initiatives, Network maintenance and Disaster Recovery, as identified in the strategic plan.

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## Appendices

### Appendix I: Members, Representatives, Alternates, and Chair

The Board members as of March 31, 2021 were:

<u>Institution</u>	<u>Representative</u>
• Mount Allison University	Dr. Jean-Paul Boudreau
• St. Thomas University	Ms. Dawn Russell
• Université de Moncton	Dr. Denis Prud'homme
• University of New Brunswick	Dr. Paul Mazerolle
• University of Prince Edward Island	Dr. Alaa Abd-El-Aziz
• Holland College	Dr. Alexander MacDonald (Chair)
• Maritime College of Forest Technology	Mr. Tim Marshall
• Maritime Provinces Higher Education Commission	Ms. Catherine Stewart
• Collège communautaire du Nouveau-Brunswick	M. Pierre Zundel
• New Brunswick Community College	Ms. Mary Butler

The Network Committee Representatives and Alternates as of March 31, 2021 were:

<b><u>Institution</u></b>	<b><u>Representative</u></b>	<b><u>Alternate</u></b>
• Mount Allison University	Mr. John Gillis	Mr. Peter Crawshaw
• St. Thomas University	Mr. Dan Crabbe	Mr. Robert Brewer
• Université de Moncton	M. André Lee	Vacant
• University of New Brunswick	Mr. Terry Nikkel	Benjamin Steeves
• New Brunswick Network	Mr. Dave Totton	Mr. John Jackson
• University of Prince Edward Island	Mr. Dana Sanderson	Mr. Blair Vessey
• Holland College	Mr. Richard MacDonald	Mr. Greg Mermuys
• Maritime College of Forest Technology	Mr. Jim Bowen	Mr. Mike Boucher
• Maritime Provinces Higher Education Commission	Ms. Rachael Anderson	Mr. Scott Stonehouse
• Collège communautaire du Nouveau- Brunswick	Mr. Tony Roy	Mr. Marc-André Arseneau
• New Brunswick Community College	Ms. Carole Daley	Vacant

The Chair of the Network Committee was Scott Chamberlain.

The Network Sustainability Team as of March 31, 2021 were:

<b><u>Institution</u></b>	<b><u>Representative</u></b>
• Mount Allison University	Mr. Peter Crawshaw
• St. Thomas University	Mr. Tim O'Brien
• Université de Moncton	M. Philippe Boudreau
• University of New Brunswick	Ms. Ying Zhang
• New Brunswick Network	Mr. David Totton
• University of Prince Edward Island	Mr. Doug Burton
• Holland College	Mr. Greg Mermuys
• Collège communautaire du Nouveau-Brunswick	M. Marc-Andre Arseneau
• New Brunswick Community College	Vacant

The ECN Communication Team as of March 31, 2021 were:

<b><u>Institution</u></b>	<b><u>Representative</u></b>
• University of New Brunswick	Ms. Andrea Hanson
• University of Prince Edward Island	Mr. Dana Sanderson
• University of New Brunswick	Mr. Scott Chamberlain
• Collège Communautaire de Nouveau-Brunswick	Mr. Tony Roy

The Firewall Change Management Team as of March 31, 2021 were:

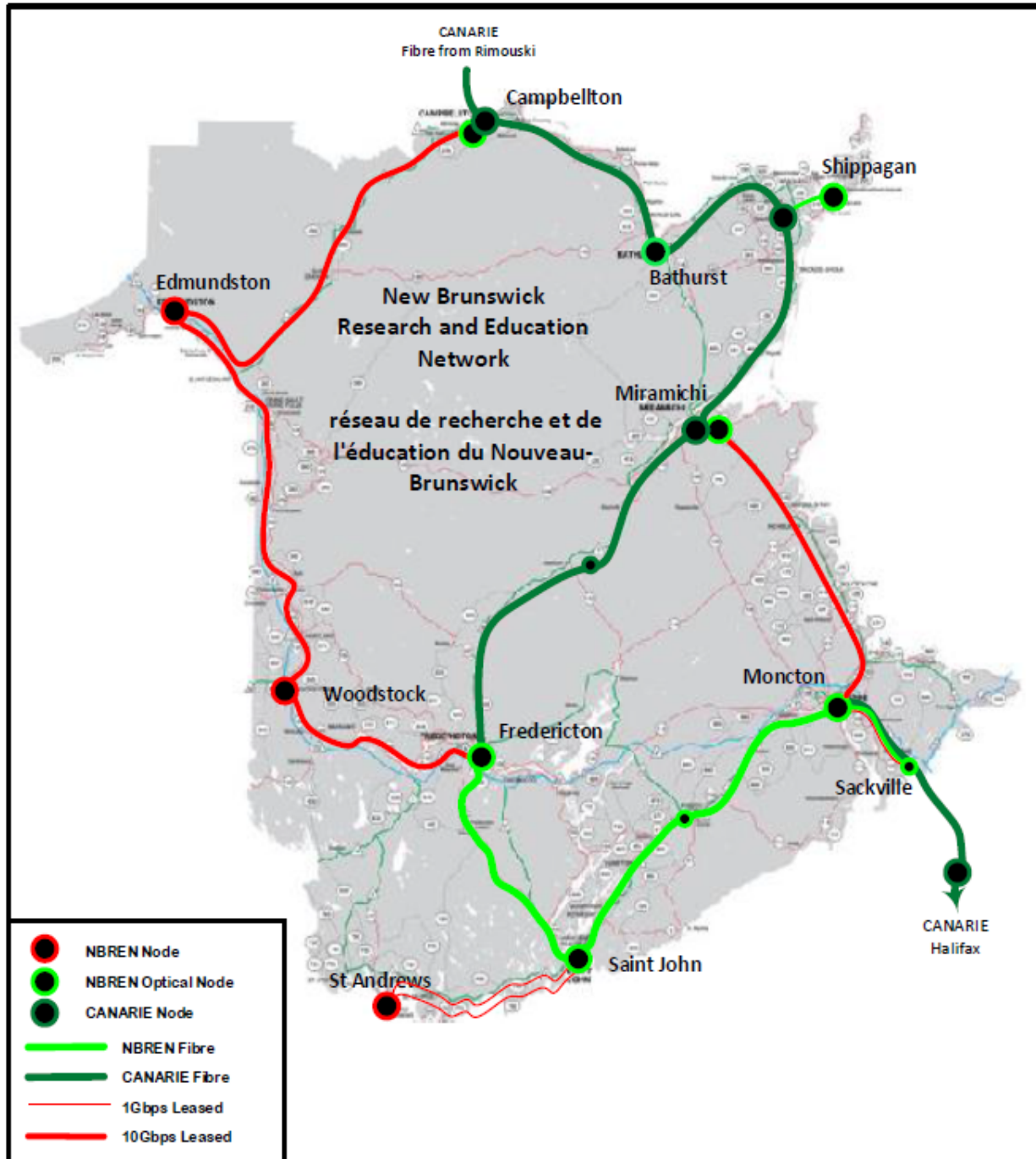
<b><u>Institution</u></b>	<b><u>Representative</u></b>
• Mount Allison University	Mr. Peter Crawshaw
• St. Thomas University	Mr. Rob Brewer
• St. Thomas University	Mr. Tim O'Brien
• Université de Moncton	M. Daniel Poirier
• Université de Moncton	M. Denis Richard
• Université de Moncton	M. Denis Pelletier
• Université de Moncton	Mr. Brahim Benahmed
• Université de Moncton	M. Luc Bosse
• University of New Brunswick	Mr. John Debique
• University of New Brunswick	Ms. Ying Zhang
• University of New Brunswick	Mr. Stephen Gamblin
• University of New Brunswick	Mr. Dave Totton
• University of New Brunswick	Mr. Jonathan MacAdam
• University of Prince Edward Island	Mr. Walter Pirch
• Holland College	Mr. Greg Mermuys
• Maritime College of Forest Technology	Mr. Bob Ross
• Maritime Provinces Higher Education Commission	Mr. Scott Stonehouse
• Collège communautaire du Nouveau-Brunswick	M. Eric Bellefleur
• Collège communautaire du Nouveau-Brunswick	M. Denis Landry
• Collège communautaire du Nouveau-Brunswick	M. Marc-André Arseneau
• New Brunswick Community College	Mr. Georges Leblanc
• New Brunswick Community College	Mr. Jamie Coughlan

## Appendix II:

## Research and Education Networks (REN)

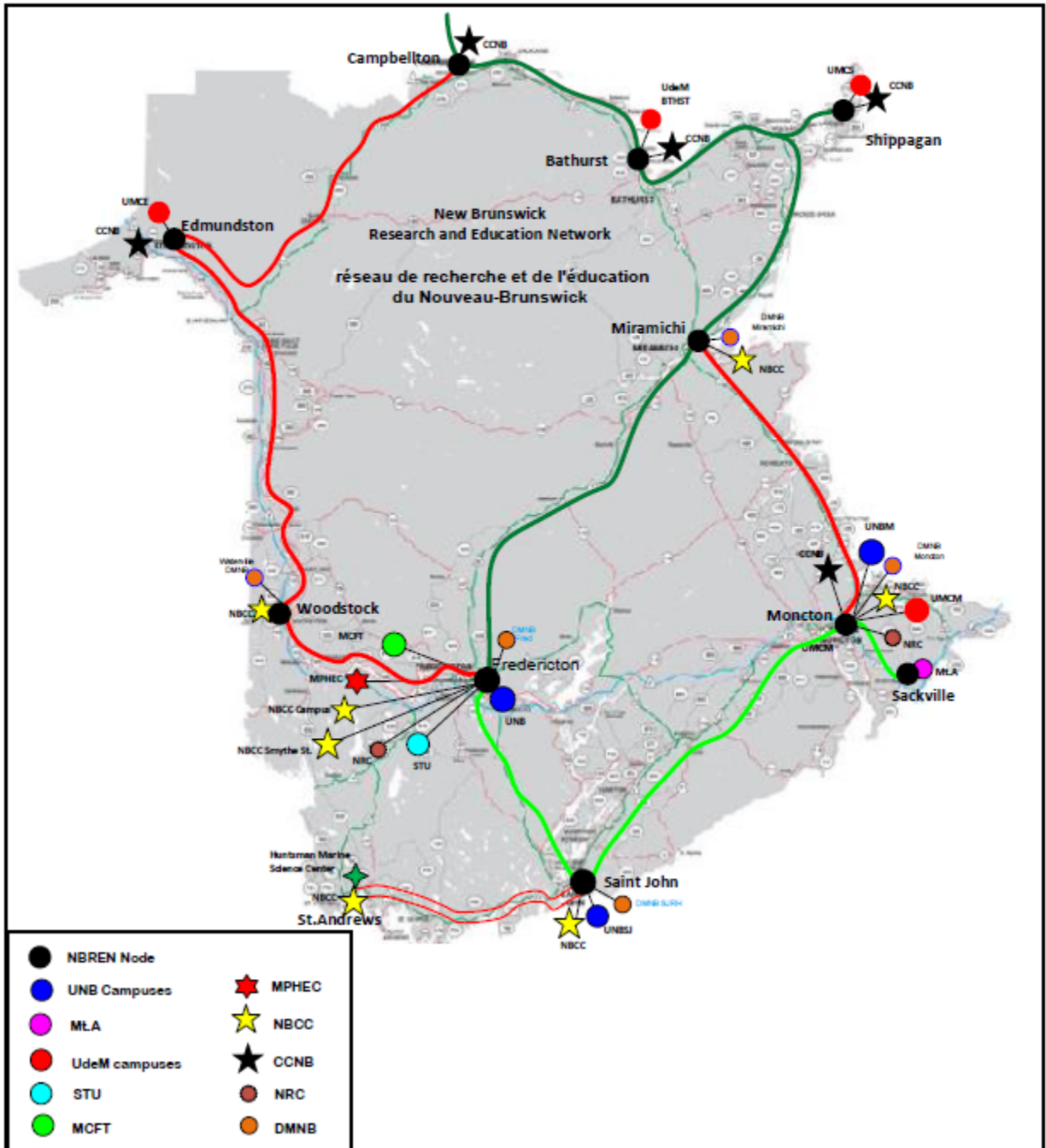
### New Brunswick Research and Education Network

#### NB REN – Research and Education Network with Optical Transport Layer



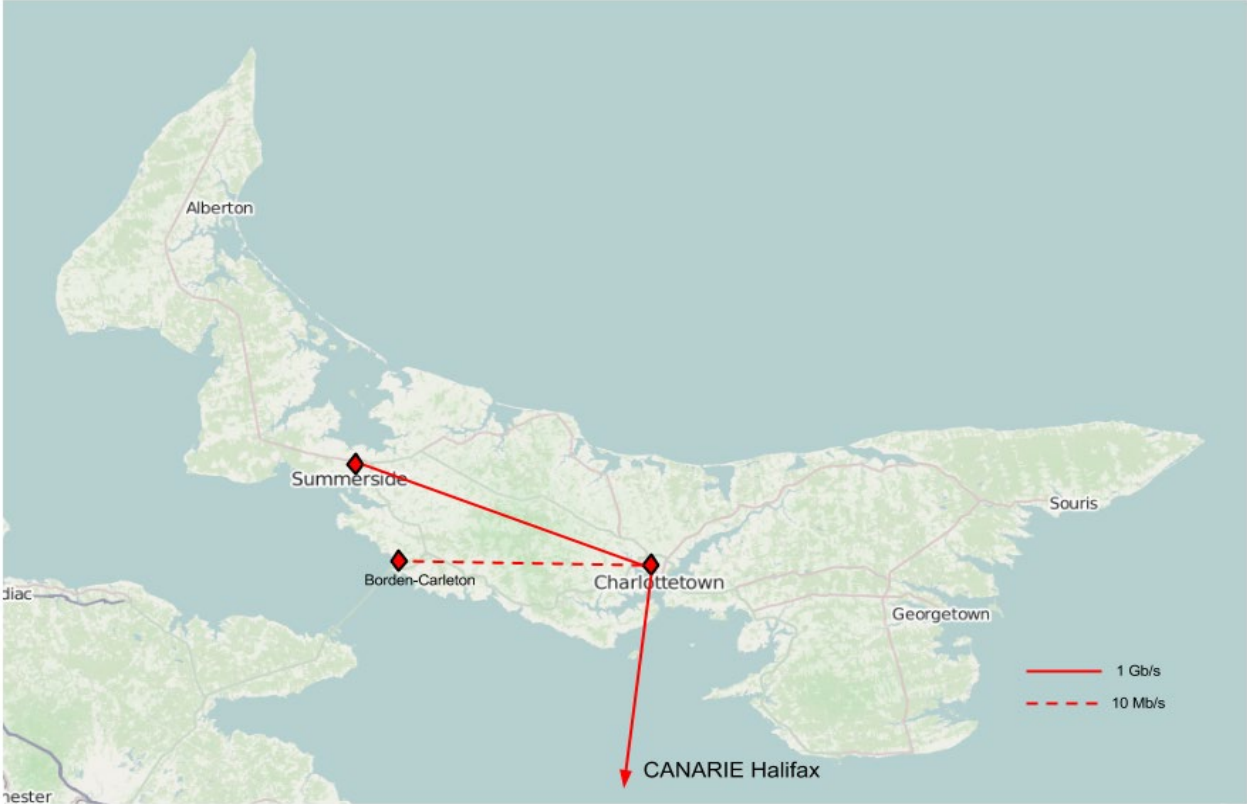
# NB REN – Research and Education Network

## Main Campus Locations





Prince Edward Island Research and Education Network



## Appendix III:

## ECN Service Areas / Projects

	Objectives 2020-2021	Objectives 2021-2022	Objectives 2022-2023
<b>Connectivity</b>	<ul style="list-style-type: none"> <li>• UPEI network extension to Saint Peters Bay site</li> <li>• Reconfigure PEI provincial network for redundancy</li> </ul>	<ul style="list-style-type: none"> <li>• UPEI network extension continues</li> <li>• Reconfigure PEI provincial network for redundancy</li> <li>• RFP for leased circuits</li> </ul>	<ul style="list-style-type: none"> <li>• Renew IRU for Fredericton – Saint John – Moncton fibre</li> </ul>
<b>Shared Services</b>	<ul style="list-style-type: none"> <li>• SIEM 1b data collection</li> <li>• O365 expansion continued</li> <li>• VOIP-as-a-service assessment</li> </ul>	<ul style="list-style-type: none"> <li>• SIEM deployment to institutions</li> <li>• O365 expansion continued</li> <li>• VOIP-as-a-service deployment</li> </ul>	<ul style="list-style-type: none"> <li>• Advance cybersecurity initiatives, e.g. shared CISO</li> </ul>
<b>Joint Purchasing</b>	<ul style="list-style-type: none"> <li>• Deploy password manager to students, staff, and faculty across ECN</li> </ul>	<ul style="list-style-type: none"> <li>• SIEM monitoring services</li> </ul>	<ul style="list-style-type: none"> <li>• TBD</li> </ul>
<b>Professional Development</b>	<ul style="list-style-type: none"> <li>• Atlantic Net 2021</li> <li>• ECN 50th</li> <li>• AUCTC</li> <li>• ECN workshop</li> </ul>	<ul style="list-style-type: none"> <li>• ECN workshop</li> </ul>	<ul style="list-style-type: none"> <li>• ECN workshop</li> <li>• ECN 50th (52nd) anniversary</li> <li>• Atlantic Net reprise</li> </ul>
<b>National Representation and Sharing of Information and Best Practices</b>	<ul style="list-style-type: none"> <li>• NRENGC</li> <li>• NDRIO</li> <li>• CUCCIO</li> </ul>	<ul style="list-style-type: none"> <li>• NRENGC</li> <li>• NDRIO</li> <li>• CUCCIO</li> </ul>	<ul style="list-style-type: none"> <li>• NRENGC</li> <li>• NDRIO</li> <li>• CUCCIO</li> </ul>
<b>Organizational</b>	<ul style="list-style-type: none"> <li>• Strategic planning of spending on large scale initiatives</li> <li>• Review 5-year agreement</li> </ul>	<ul style="list-style-type: none"> <li>• Revise Network Committee structure</li> <li>• Finalize and approve 5-year agreement</li> </ul>	<ul style="list-style-type: none"> <li>• TBD</li> </ul>

## Appendix IV:

## Statements of Revenue and Expenditures

### EDUCATIONAL COMPUTER NETWORK NEW BRUNSWICK AND PRINCE EDWARD ISLAND STATEMENT OF REVENUE AND EXPENDITURES\*

Account Description	PERIOD ENDED: 3/31/2021	Budget 2020-2021	Actual 2020-2021
<b>Revenue</b>			
Provincial Transfers		946,538	946,538
Direct Funding from institutions		354,476	354,476
External fees for service		69,569	0
Committed funds		0	0
<b>Total Revenue</b>		<b>1,370,583</b>	<b>1,301,014</b>
<b>Expenditures</b>			
<b>Network Shared Services</b>			
UNB as the designated installation (service provider)		226,728	226,728
<b>Total Network Shared Services</b>		226,728	226,728
<b>Telecommunications</b>			
PEI Provincial Lines & Internet Access		57,047	67,268
NB Internet Access		100,000	56,673
<b>Total Telecommunications</b>		157,047	123,941
<b>Hardware, software, maintenance</b>			
Hardware		35,000	7,018
Software		68,153	66,934
CAF Maintenance		23,300	23,300
Maintenance		63,626	47,293
<b>Total Hardware, Software, Maintenance</b>		190,080	144,545
<b>Meetings and Collaboration</b>			
Network Committee		30,000	8
Collaborative Projects		136,259	350,419
Password Manager Solution		54,000	53,490
RAN contributions to SIEM Initiative		36,000	37,596
ECN SharePoint Services		65,000	60,193
<b>Total Meetings and Collaboration</b>		321,259	501,706
<b>NBREN and GigaPOP</b>			
NBREN CORE		409,700	473,343
NBREN Additional Connections		20,769	0
NB GigaPOP Services		45,000	25,000
<b>Total NBREN and GigaPOP</b>		475,469	498,343
<b>Total Expenditures</b>		<b>1,370,583</b>	<b>1,495,263</b>
<b>Net revenue (net loss)</b>		<b>0</b>	<b>-194,249</b>
<b>NB &amp; PEI Committed Funds Balance as at March 31, 2021:</b>			
Balance, April 1, 2020			1,207,786
Net revenue (loss) for the year			-194,249
<b>Balance, March 31, 2020</b>			<b>1,013,537</b>

\*as per MPHEC audited financial statements

**EDUCATIONAL COMPUTER NETWORK  
NEW BRUNSWICK  
STATEMENT OF REVENUE AND EXPENDITURES\*  
PERIOD ENDED: 3/31/2021**

<b>Account Description</b>	<b>Budget 2020-2021</b>	<b>Actual 2020-2021</b>
<b>Revenue</b>		
Provincial Transfers	860,938	860,938
Direct contributions	328,000	328,000
External Fees for Service	69,569	0
Committed Funds	0	0
<b>Total Revenue</b>	<b><u>1,258,507</u></b>	<b><u>1,188,938</u></b>
<b>Expenditures</b>		
<b>Network Shared Services</b>		
UNB as the designated installation (service provider)	<u>215,392</u>	<u>215,391</u>
<b>Total Network Shared Services</b>	215,392	215,391
<b>Telecommunications</b>		
Internet Access	<u>100,000</u>	<u>56,673</u>
<b>Total Telecommunications</b>	100,000	56,673
<b>Hardware, software, maintenance</b>		
Hardware	35,000	7,018
Software	53,842	52,999
CAF membership	18,300	18,300
Maintenance	<u>53,626</u>	<u>38,524</u>
<b>Total Hardware, software, maintenance</b>	160,768	116,841
<b>Meetings and Collaboration</b>		
Network Committee	25,000	8
Collaborative Projects	126,878	348,812
Password Manager Solution	54,000	53,490
RAN contribution to SIEM initiative	36,000	37,596
Shared Services	<u>65,000</u>	<u>60,193</u>
<b>Total Meetings and Collaboration</b>	306,878	500,099
<b>NBREN and GigaPOP</b>		
NBREN CORE	409,700	473,343
NBREN Additional Connections	20,769	0
NB GigaPOP Services	<u>45,000</u>	<u>25,000</u>
<b>Total NBREN and GigaPOP</b>	475,469	498,343
<b>Total Expenditures</b>	<b><u>1,258,507</u></b>	<b><u>1,387,347</u></b>
<b>Net revenue (net loss)</b>	<b><u>0</u></b>	<b><u>-198,409</u></b>
<b>NB Committed Funds Balance as at March 31, 2021:</b>		
Balance, April 1, 2020		1,136,301
Net revenue (loss) for the year		<u>-198,409</u>
<b>Balance, March 31, 2021</b>		<b><u>937,892</u></b>
*as per MPHEC audited financial statements		

**EDUCATIONAL COMPUTER NETWORK  
PRINCE EDWARD ISLAND  
STATEMENT OF REVENUE AND EXPENDITURES\***

**PERIOD ENDED: 3/31/2021**

<b>Account Description</b>	<b>Budget 2020-2021</b>	<b>Actual 2020-2021</b>
<b>Revenue</b>		
Provincial Transfers	85,600	85,600
Direct HC/UPEI Transfer	26,476	26,476
<b>Total Revenue</b>	<b><u>112,076</u></b>	<b><u>112,076</u></b>
<b>Expenditures</b>		
<b>Network Shared Services</b>		
UNB as the designated installation (service provider)	11,336	11,336
<b>Total Network Shared Services</b>	<b><u>11,336</u></b>	<b><u>11,336</u></b>
<b>Telecommunications</b>		
Provincial Lines & Internet Access	57,047	67,268
<b>Total Telecommunications</b>	<b><u>57,047</u></b>	<b><u>67,268</u></b>
<b>Hardware, software, maintenance</b>		
Hardware	0	0
Software	14,312	13,935
CAF Maintenance	5,000	5,000
Maintenance	10,000	8,769
<b>Total Hardware, software, maintenance</b>	<b><u>29,312</u></b>	<b><u>27,704</u></b>
<b>Meetings and Collaboration</b>		
Network Committee	5,000	0
Collaborative Projects	9,381	1,607
<b>Total Meetings and Collaboration</b>	<b><u>14,381</u></b>	<b><u>1,607</u></b>
<b>Total Expenditures</b>	<b><u>112,076</u></b>	<b><u>107,916</u></b>
<b>Net revenue (net loss)</b>	<b><u>0</u></b>	<b><u>4,160</u></b>
<b>PEI Committed Funds Balance as at March 31, 2021:</b>		
Balance, April 1, 2020		71,485
Net revenue (loss) for the year		4,160
<b>Balance, March 31, 2021</b>		<b><u>75,645</u></b>

\*as per MPHEC audited financial statements