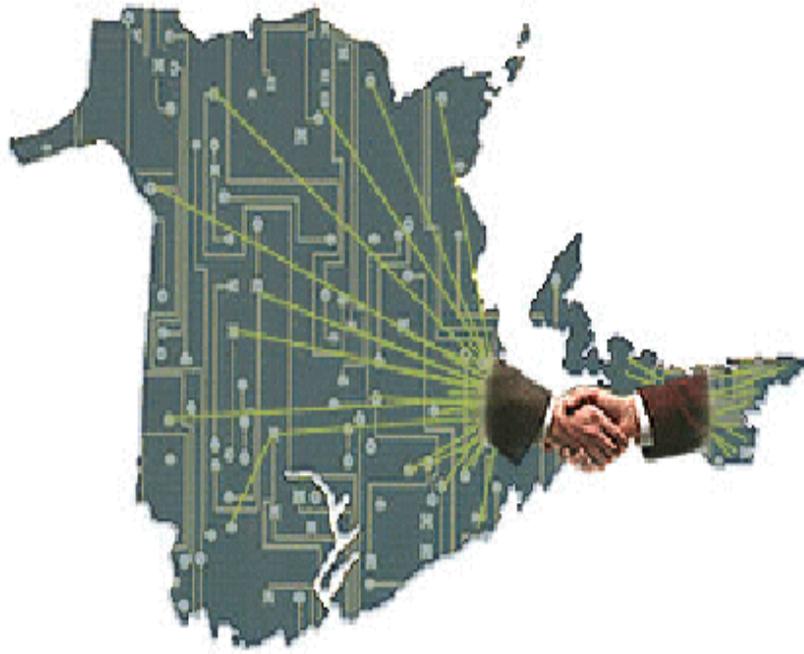


ANNUAL REPORT 2015-2016



NB/PEI EDUCATIONAL COMPUTER NETWORK

*Supporting higher education in Atlantic Canada
for over 40 years*

April 1, 2015 - March 31, 2016

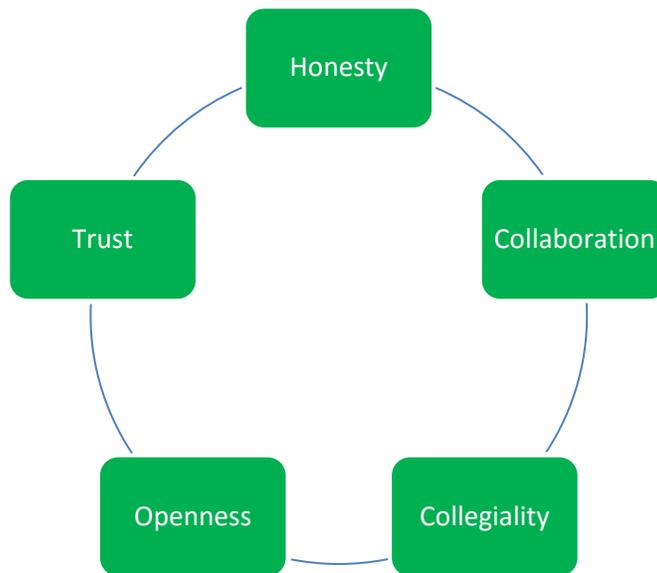
MISSION

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



Visit our website at:

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

<http://www.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 2015-2016 Annual Report. The ECN continues to be one of the best examples of inter-institutional collaboration in the post-secondary educational sector in the Maritimes. This document highlights the ECN's activities and accomplishments over the past fiscal year.

I would like to begin by thanking Rina Robichaud (UdeM – Shippagan) for chairing the Network Committee this past year. I would also like to thank our respective provincial governments, fellow Board and Network Committee members, partners and stakeholders for their continuous support, hard work and dedication.

The NB/PEI ECN was awarded the CUCCIO Collaboration Award in June 2015. The award recognized the unique model of providing IT services across the institutional and provincial boundaries. The ECN made significant strides toward expanding its shared services project during the year with the completion of the state of the art Data Centre at the UNB Fredericton Campus. The facility will not only host UNB IT infrastructure, but that of several member institutes as well resulting in significant cost savings among its members. ECN members have also been hard at work renewing consortium-level shared service agreements such as internet service, anti-SPAM and anti-virus.

I hope you will enjoy reading the next few pages to find out more about the accomplishments of the ECN this year.

Robert M. Campbell

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 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, 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. In fact, over the last 5 years members have collectively reduced or avoided **annual costs amounting to \$2.5M, as a direct result of ECN membership**. 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, which were recognized last year with a national award for collaboration from the Canadian University Council of CIOs (CUCCIO).

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 latest five-year agreement was signed in April 2012 and covers May 1, 2012 to April 30, 2017. Current members are Mount Allison University, l'Université de Moncton, the University of New Brunswick, St. Thomas University, the University of Prince Edward Island, Holland College, the Maritime College of Forest Technology and the MPHEC. The New Brunswick public colleges (NBCC and CCNB) recently accepted invitations to join ECN. The next five-year agreement will be revised to include them.

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 the institutions.

In addition to providing connectivity among its members, the New Brunswick portion of the network also connects New Brunswick member institutions to the wider world through a shared connection to the Canadian Advanced Research Network (CANARIE) and through CANARIE to the world. The Prince Edward Island portion of the network also has a direct connection to CANARIE.

ECN highlights for 2015-2016 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 44 years.
- The ECN partnered with the Canadian Access Federation to deploy federated identity, which allows users at member institutions to easily login to resources and services at other member institutions, including wireless networking. Former IT barriers including network restrictions and account permissions are thus greatly reduced, permitting access to consortial resources regardless of location. All ECN institutions now deploy Eduroam, a worldwide service that facilitates connection to Wi-Fi at participating and utility of federated identity.
- The NB/PEI ECN was awarded the CUCCIO Collaboration Award in June 2015. CUCCIO is Canada's national organization of university CIO's. The award recognized our unique model of providing IT services across institutional and provincial boundaries.
- UNB celebrated the grand opening of its renovated, state of the art Data Center. It features fully redundant power, modern cooling systems, networking and storage. The facility hosts not only UNB IT infrastructure, but that of several member institutions as well—virtual servers, disaster recovery services, and data backups are a few examples. The data center's capacity and robust features will ultimately result in even further cost savings for our members.
- The ECN expanded its shared services by implementing SharePoint (a Microsoft platform used for document and record management and collaboration projects) at a single ECN site. ECN now also employs a dedicated employee at the host site (UNB) who coordinates with all sites and works with other staff with SharePoint expertise to produce applications for the ECN as a whole or for individual institutions
- Finally, NBCC and CCNB have joined the Network Committee meetings and an invitation to formally join the ECN as full participating members will be extended to the colleges early in the 2016-17 year. This relationship will be fully defined in the next 5 year ECN agreement, which is due to be completed by the end of the 2016-2017 year.

Governance

Board of Directors

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

1. The President of Holland College
2. The Director of the Maritime College of Forest Technology
3. The Chief Executive Officer of the MPHEC
4. The President of Mount Allison University
5. The President of St. Thomas University
6. The President of Université de Moncton
7. The President of the University of New Brunswick
8. The President of the University of Prince Edward Island

The Chairperson, whose term is five years, renewable for a second five-year term, is elected by the Board. Quorum is five 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 secretarial duties for the Board and manages the budget on behalf of all the members.

Network Committee

The NB/PEI Educational Computer Network Committee (Network Committee) includes one voting representative nominated by each of the parties of the Agreement. An alternate representative to the Network Committee is also appointed. Members and alternates are appointed for an indefinite period of time 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.

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.

Meetings

The ECN Network Committee met six times in 2015-2016:

April 1, 2015	Mount Allison University, Sackville, NB
May 27, 2015	Université de Moncton, Moncton Campus (Planning)
October 21, 2015	Université de Moncton, Edmundston Campus
December 9, 2015	Université de Moncton, Moncton Campus
January 27, 2016	Video Conference
March 17, 2016	Maritime College of Forest Technology, Fredericton

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. The red and blue lines are leased carrier services while the green lines are owned fibre optic links. Shared Internet connections are located in Fredericton and Moncton.

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

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

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 anti-SPAM and anti-virus services, managed by UNB.

As a first step in determining the specific expansion projects to undertake as a consortium in shared IT services, the ECN hired Dell to perform an assessment of the technical infrastructure and processes both for individual member institutions and for the consortium (to identify new areas of collaboration for the group), completed in May 2013. This external assessment process benefited from a consortium RFP process and was funded by the ECN. The ECN Network Committee compared and contrasted the results, then combined them into a single set of recommendations - forming the basis of the current ECN strategy.

With the tremendous success of our first multi-year strategic plan under our belts, we are extending some initiatives and adding new components to some, specifically:

Data center consolidation and disaster recovery: The ECN contributed one-time funding of \$150,000 to the costs of renovating the UNB data center in 2015-16. This strategic investment ensured the reliability and continuity of existing ECN shared services and provides the foundation for data centre consolidation throughout the consortium. UNB now offers data center space to ECN members to house production or disaster recovery/backup systems and servers on a simple cost-recovery basis. To date, St. Thomas University, Mount Allison University, Maritime College of Forest Technology, and MPHEC have arranged to deploy equipment in the new data centre; others are planning to do so. Finally, Université de Moncton also provides space to ECN members for production or disaster recovery/backup purposes, thus further reducing the need for data center facilities at individual ECN locations.

Communication and collaboration tools: The ECN expanded its shared services by hosting SharePoint (a Microsoft software platform used for file sharing and co-editing, document and records management, and collaboration projects) at a single ECN site. After a successful trial period, ECN is providing long-term centralized SharePoint support, including a dedicated employee at the host site (to coordinate the SharePoint site for all) and other staff with SharePoint expertise at member institutions (to collaborate to produce SharePoint applications for ECN or individual institutions). Our newest members, the New Brunswick college systems (NBCC and CCNB) recently procured a video conferencing solution that could potentially be deployed consortium-wide; we will be reviewing the possibilities over the coming months.

Securing the consortium: With these initiatives well underway, ECN is ready to turn its attention to yet more collaborative activities. A common requirement among all of us is to keep our IT networks, equipment, and data secure from a host of external and internal threats. The 24/7, highly volatile nature of IT security strains the resources of all our members, and we are pressed to keep up with even minimal standards. As a consortium, we have limited ourselves to bulk purchasing of anti-spam and anti-virus solutions, but we know we can do much more. This initiative will explore the possibilities inherent in using our close relationships to further advantage, particularly as they may enhance our collective IT security posture and ability to secure the consortium right down to the desktop and individual user.

A table of strategic initiatives is in Appendix III.

Financial operations

A copy of the approved budget and actual expenditures for 2015-2016 (showing a surplus of \$160,284 NB: \$142,191; PEI: \$18,093) as well as the balance of the ECN committed funds as at March 31, 2016 is included in Appendix IV. Once again, for New Brunswick there was significant savings on Internet costs over the year thanks to discounted rates received from the provider. Hardware costs were also lower than budgeted, and while the collaborative projects are well over budget, this is largely due to timing of the projects and some of last year's budgeted costs were only realized this year. Finally, the contribution to NB Research and Education Network (REN) was lower than budgeted. In PEI, the amount budgeted for the PEI REN was funded from a different source. As a result of late invoicing the actual maintenance costs for PEI were not expended in 2015-16 and will only show as expended in the coming year.

The ECN's accumulated surplus of \$923,019 (NB: \$818,529; PE: \$104,490) has been carefully and thoughtfully planned; it will be used to fund new initiatives under the consortium's shared services function, as identified in the strategic plan.

APPENDIX I

Board Members as of March 31, 2016 were:

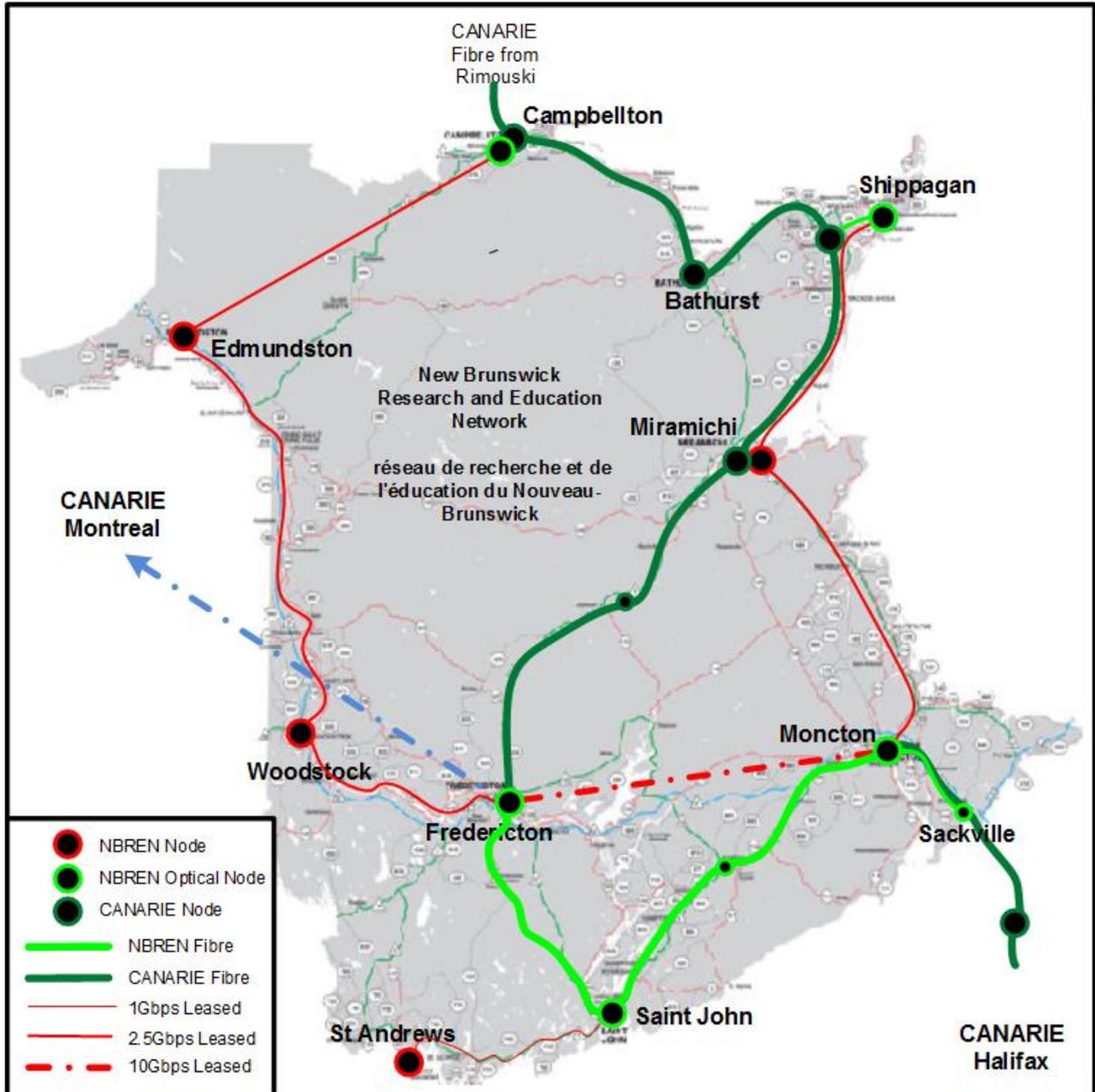
<u>Institution</u>	<u>Representative</u>
Mount Allison University	Dr. Robert Campbell (Chair)
St. Thomas University	Ms. Dawn Russell
Université de Moncton	M. Raymond Théberge
University of New Brunswick	Dr. Eddy Campbell
University of Prince Edward Island	Dr. Alaa Abd-El-Aziz
Holland College	Dr. Brian McMillan
Maritime College of Forest Technology	Mr. Gerry Redmond
MPHEC	Ms. Mireille Duguay

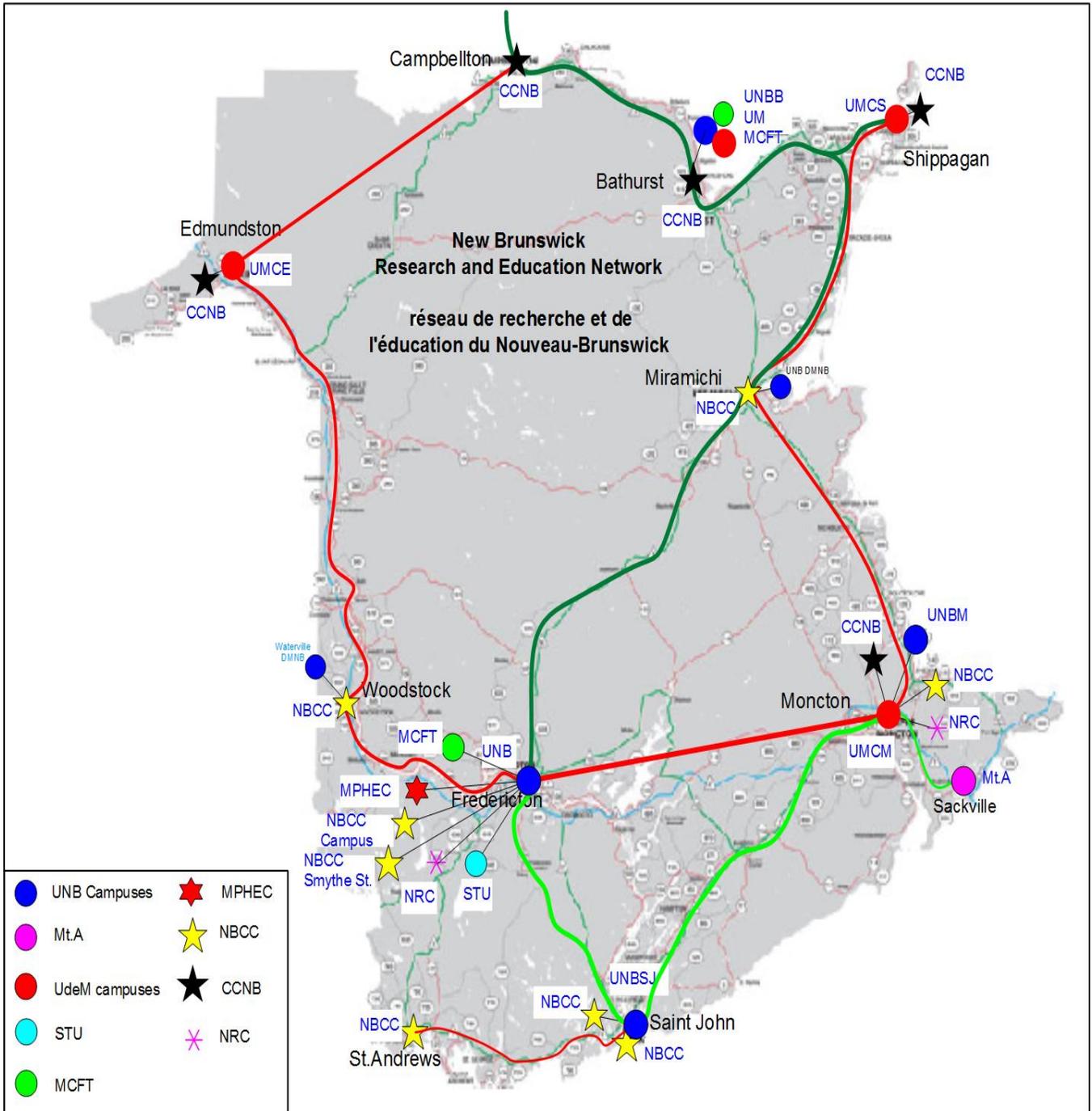
Network Committee Representatives and Alternates as of March 31, 2016 were:

<u>Institution</u>	<u>Representative</u>	<u>Alternate</u>
Mount Allison University	Mr. Helmut Becker	Mr. Peter Crawshaw
St. Thomas University	Mr. Dan Hurley	Mr. Robert Brewer
Université de Moncton	M. André Lee	Ms. Rina Robichaud
University of New Brunswick	Mr. Terry Nikkel	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
MPHEC	Ms. Rachael Anderson	Mr. Scott Stonehouse

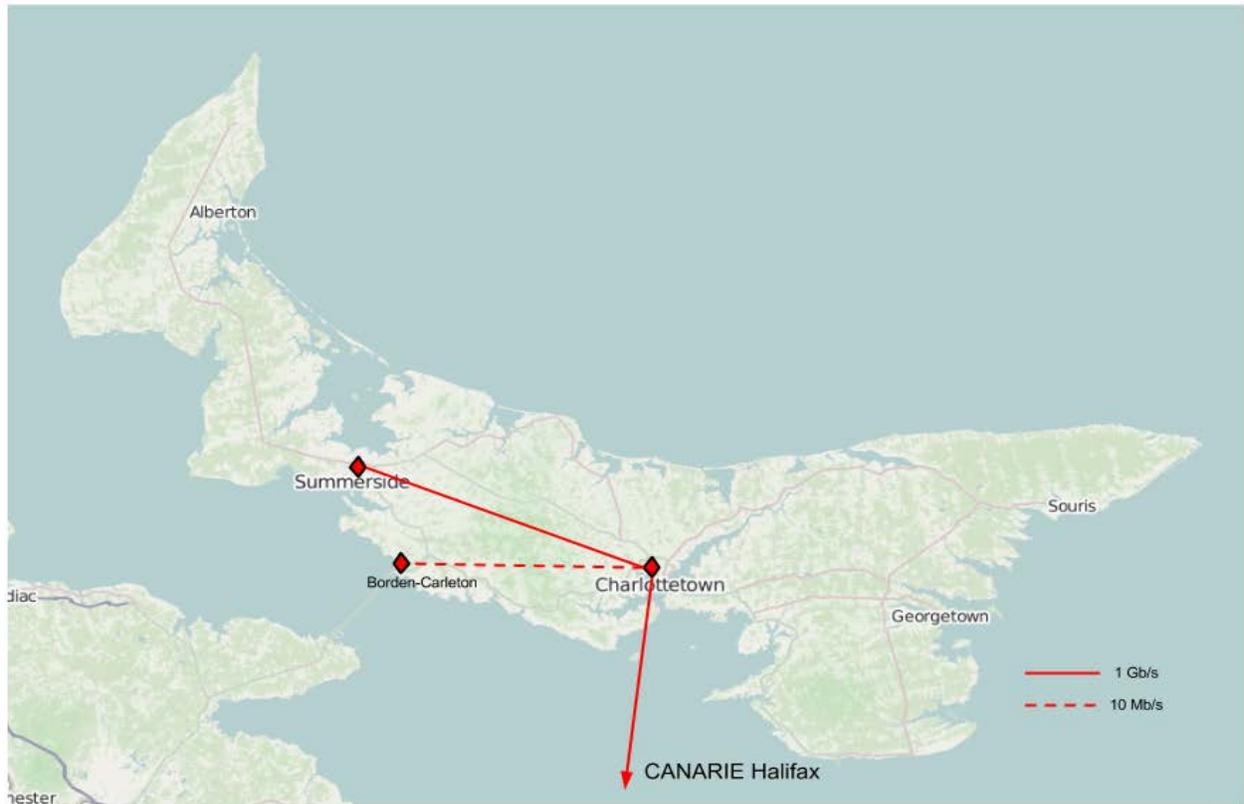
The Chair of the Network Committee was Rina Robichaud.

NB REN – Research and Education Network





Prince Edward Island Research and Education Network



Appendix III

ECN Service Area / Project	Objectives 2015/16	Objectives 2016/17	Objectives 2017/18
Connectivity	Partner with CANARIE in northern NB Internet Services contract renewal (expires: April 2016); 3 year agreement	NBCC/CCNB to implement Federated Identity	
Shared Services	Data Center Consolidation and Disaster Recovery project - Phase II - Hosting agreements Messaging and Collaboration project - Phase II - SharePoint expansion	Data Center Consolidation and Disaster Recovery project - Phase III – Expansion Messaging and Collaboration project - Phase II - SharePoint expansion cont'd ECN security initiatives: protect the network; build user awareness	ECN security initiatives: protect the network; build user awareness - Phase II
Joint Purchasing	Anti-SPAM contract renewal (expires: September 2018)	Anti-virus contract renewal (expires: July 2017)	Anti-SPAM contract renewal (expires: September 2018)
Professional Development	CANHEIT/AUCTC ECN Workshop	AUCTC ECN Workshop	AUCTC ECN Workshop
National Representation and Sharing of Information and Best Practices	NREN GC CIO Advisory Committee	NREN GC CIO Advisory Committee	
Organizational	Develop indicators	ECN contract renewal Telling our story	

APPENDIX IV

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

PERIOD ENDED: 3/31/2016

Account Description	<u>Budget</u> 2015-2016	<u>Actual</u> 2015-2016
Revenue		
Provincial Transfers	946,548	946,538
Direct Funding from institutions	26,476	26,476
Committed Funds	0.00	0.00
Total Revenue	<u>973,024</u>	<u>973,014</u>
Expenditures		
Network Shared Services		
UNB as the designated installation (service provider)	210,984	210,984
Total Network Shared Services	<u>210,984</u>	<u>210,984</u>
Telecommunications		
PEI Provincial Lines & Internet Access	257,047	222,047
NB Internet Access	150,000	23,830
Advanced Network Connection	24,000	13,000
Total Telecommunications	<u>431,047</u>	<u>258,877</u>
Hardware, software, maintenance		
Hardware	73,532	9,614
Software	85,548	99,019
Maintenance	59,157	45,328
Total Hardware, Software, Maintenance	<u>218,237</u>	<u>153,961</u>
Meetings		
Network Committee	15,000	8,047
Collaborative Projects	97,756	180,861
Total Meetings	<u>112,756</u>	<u>188,908</u>
Total Expenditures	<u>973,024</u>	<u>812,730</u>
Net revenue (net loss)	<u>0</u>	<u>160,284</u>
NB & PEI Committed Funds Balance as at March 31, 2016:		
Balance, April 1, 2015		762,735
Net revenue (loss) for the year		160,284
Balance, March 31, 2016		<u>923,019</u>

*as per MPHEC audited financial statements

**EDUCATIONAL COMPUTER NETWORK
NEW BRUNSWICK
STATEMENT OF REVENUE AND EXPENDITURES***

PERIOD ENDED: 3/31/2016

Account Description	Budget 2015-2016	Actual 2015-2016
Revenue		
Provincial Transfers	860,948	860,938
Committed Funds	0.00	0.00
Total Revenue	860,948	860,938
Expenditures		
Network Shared Services		
UNB as the designated installation (service provider)	200,436	200,435
Total Network Shared Services	200,436	200,435
Telecommunications		
NB REN contribution	200,000	165,000
Internet Access	150,000	23,830
Advanced Network Connection (CA*Net4)	24,000	13,000
Total Telecommunications	374,000	201,830
Hardware, software, maintenance		
Hardware	68,532	9,614
Software	67,823	78,893
Maintenance	45,157	45,328
Total Hardware, software, maintenance	181,512	133,835
Meetings		
Network Committee	12,000	6,542
Collaborative Projects	93,000	176,105
Total Meetings	105,000	182,647
Total Expenditures	860,948	718,747
Net revenue (net loss)	0	142,191
 NB Committed Funds Balance as at March 31, 2016:		
Balance, April 1, 2015		676,338
Net revenue (loss) for the year		142,191
Balance, March 31, 2016		818,529

*as per MPHEC audited financial statements

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

PERIOD ENDED: 3/31/2016

Account Description	Budget 2015-2016	Actual 2015-2016
Revenue		
Provincial Transfers	85,600	85,600
Direct HC/UPEI Transfer	26,476	26,476
Committed funds	0	0
Total Revenue	112,076	112,076
Expenditures		
Network Shared Services		
UNB as the designated installation (service provider)	10,548	10,549
Total Network Shared Services	10,548	10,549
Telecommunications		
Provincial Lines & Internet Access	57,047	57,047
Advanced Network Connection	0	0
Total Telecommunications	57,047	57,047
Hardware, software, maintenance		
Hardware	5,000	0
Software	17,725	20,126
Maintenance	14,000	0
Total Hardware, software, maintenance	36,725	20,126
Meetings		
Network Committee	3,000	1,504
Collaborative Projects	4,756	4,756
Total Meetings	7,756	6260
Total Expenditures	112,076	93,983
Net revenue (net loss)	0	18,093
PEI Committed Funds Balance as at March 31, 2016:		
Balance, April 1, 2015		86,397
Net revenue (loss) for the year		18,093
Balance, March 31, 2016		104,490

*as per MPHEC audited financial statements