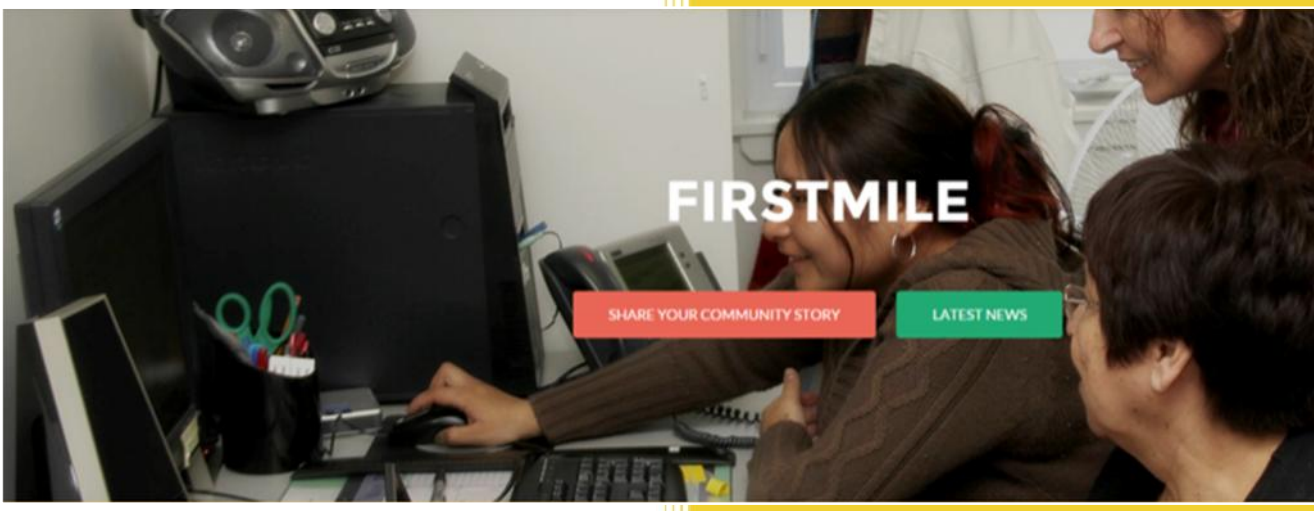
2016

A Guide to Federal Funding for Indigenous Broadband in Canada



Report Information

The views expressed in this report are those of the authors. This project was funded through a .CA Community Investment Program grant from the Canadian Internet Registration Authority (CIRA). This report is available for download on the First Mile website: http://firstmile.ca

Acknowledgments

We thank all our partners and funders for their support, in particular the First Nation regional community intermediary organizations who compose the membership of the First Mile Connectivity Consortium:

- Keewaytinook Okimakanak K-Net Services (Ontario)
- First Nations Education Council (Quebec)
- Atlantic Canada's First Nations Help Desk (Atlantic region)
- Assembly of Manitoba Chiefs
- First Nations Health and Social Secretariat of Manitoba
- First Nations Technical Services Advisory Group Inc. (Alberta)
- First Nations Technology Council (B.C.)
- Western James Bay Telecom Network (Northeastern Ontario)

The FMCC members contributed feedback on the project research, comments and corrections to earlier drafts, and suggested content to include. We also acknowledge and thank the First Nations Innovation project, based at the University of New Brunswick, for its leadership on this topic over the years. We offer our thanks as well to everyone who is working to develop and deliver digital infrastructure and services to the unique communities discussed in this report.

Suggested reference for this report:

Blake, S., McMahon, R. Williams, D. (2016). *A Guide to Federal Funding for Indigenous Broadband in Canada*. First Mile Connectivity Consortium. April. 44 pages

About FMCC

The First Mile Connectivity Consortium (FMCC) is a registered national non-profit organization in Canada. The FMCC membership and board of directors consists of First Nations technology organizations serving remote and rural areas. FMCC associates include researchers focused on broadband infrastructure and services in remote and rural communities.

The FMCC is engaged in research and public outreach initiatives focused on contributing to telecommunications policy and regulation in Canada. FMCC was recently contracted by Innovation, Science and Economic Development Canada to conduct research on digital technology adoption in northern and remote Indigenous communities. This work includes a comprehensive literature review on this topic, and exploring and testing different methodologies for remotely conducting research on digital technology adoption in remote communities. The final report is available for download at: www.firstmile.ca

The FMCC is also engaged in a regulatory proceedings held by the Canadian Radio-Television and Telecommunications Commission (CRTC). The CRTC regulates telecommunications infrastructure and services (including broadband), and is presently examining the definition of basic telecommunications services in Canada. FMCC's interventions before the CRTC stress the need to support community control and ownership of broadband infrastructure and services.

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First Mile Listserv: features news, updates and discussion about community broadband systems in Canada's rural and northern regions with a focus on remote Indigenous communities. The listserv is hosted by the University of New Brunswick. To join, send a note to Susan O'Donnell at: susanodo@unb.ca

26 April 2016

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Summary

This guide provides an overview of active and historical broadband funding mechanisms provided by government departments and funding agencies at the federal level. We are presenting this information to support the accessibility of these funds for community-based organizations, and specifically for Indigenous organizations. Many of these funds are also available to private-sector entities. While telecommunications companies have an important role to play in broadband initiatives, the FMCC advocates for community-based Indigenous organizations to take a lead role in the decision-making leading to the administration of these funds, to support economic and community development in their member communities. To this end, this review is also intended to provide an overview of current and historical federal funding programs for broadband to support coordination efforts among funding agencies and the Canadian Radio-Television and Telecommunications Commission (CRTC).

Our review illustrates the complexity of funding supports for Indigenous community-based organizations involved in delivering broadband infrastructure and services, as well as the multifaceted nature of existing funding in this area. Key findings include:

- Funding for Indigenous broadband infrastructure, ongoing operating expenses, connectivity/bandwidth, public access, education/training, and research is currently spread across a range of federal government programs.
- Overall, federal funding for Indigenous broadband encompasses a broad and complex range of large and small programs with complementary mandates across multiple departments addressing various needs and requirements.
- While some programs are well-publicized and broadband-specific, others include broadband as one aspect of a broad program, or may fund ICT development as helping to achieve other program objectives, such as socio-economic development or delivery of health applications.
- Broadband funding programs are also diffused across different points in time. Some end or change abruptly as funding priorities shift or governments change – sometimes despite positive evaluations from government funders, as was the case with the Community Access Program[1] and First Nations SchoolNet (when administered by ISED).
- Institutional memories within funding bodies are in constant flux. As employees with historical knowledge of a particular program transition into different jobs, newer

[1] Innovation, Science and Economic Development Canada. (2010). Final Evaluation of the Community Access Program. https://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03127.html#p0

recruits do not always learn the historical context of their programs. Therefore, as an Appendix we include an overview of past (inactive) federal funding programs, as well as links to funding programs administered by provincial and territorial governments.

These complex characteristics make up a funding landscape for broadband in Indigenous territories that is in flux and inadequate. The nature of the project-based funding landscape makes it difficult for Indigenous community-based organizations to engage in long-term strategic planning, thereby threatening the long-term sustainability of the services and infrastructures they manage and operate. To this end, during its interventions in the ***Review of basic telecommunications services*** (CRTC 2015-134)[2], the FMCC is advocating the CRTC to play a coordinating role in this area. The FMCC proposes that the CRTC establish a new Northern Services and Infrastructure Fund (NISF) to support the ongoing work of community-based Indigenous providers and complement other existing federal funding initiatives. The FMCC suggests that the CRTC, as an administrative tribunal with technical expertise and insight into the Canadian communications environment unavailable elsewhere in government, could play a leadership role in this area.

This guide does not discuss funding made available for development in Indigenous regions by the CRTC's deferral accounts[3] or national contribution fund.[4] This is because only incumbent telecom companies can access this funding at this time. The FMCC's proposal for the NISF aims to help address this discrepancy by making funding available to community-based Indigenous providers, and by providing residents of these regions of Canada more voice in the decision-making with regards to the administration of such funds.

[2] CRTC. (2015). Telecom Notice of Consultation CRTC 2015-134. http://www.crtc.gc.ca/eng/archive/2015/2015-134.htm

[3] CRTC. (2010). Telecom decision CRTC 2010-637. http://www.crtc.gc.ca/eng/archive/2010/2010-637.htm

[4] CRTC. (2008). Procedures for the operation of the National Contribution Fund. http://www.crtc.gc.ca/PartVII/eng/8638/CRTC/ncf2007a.htm

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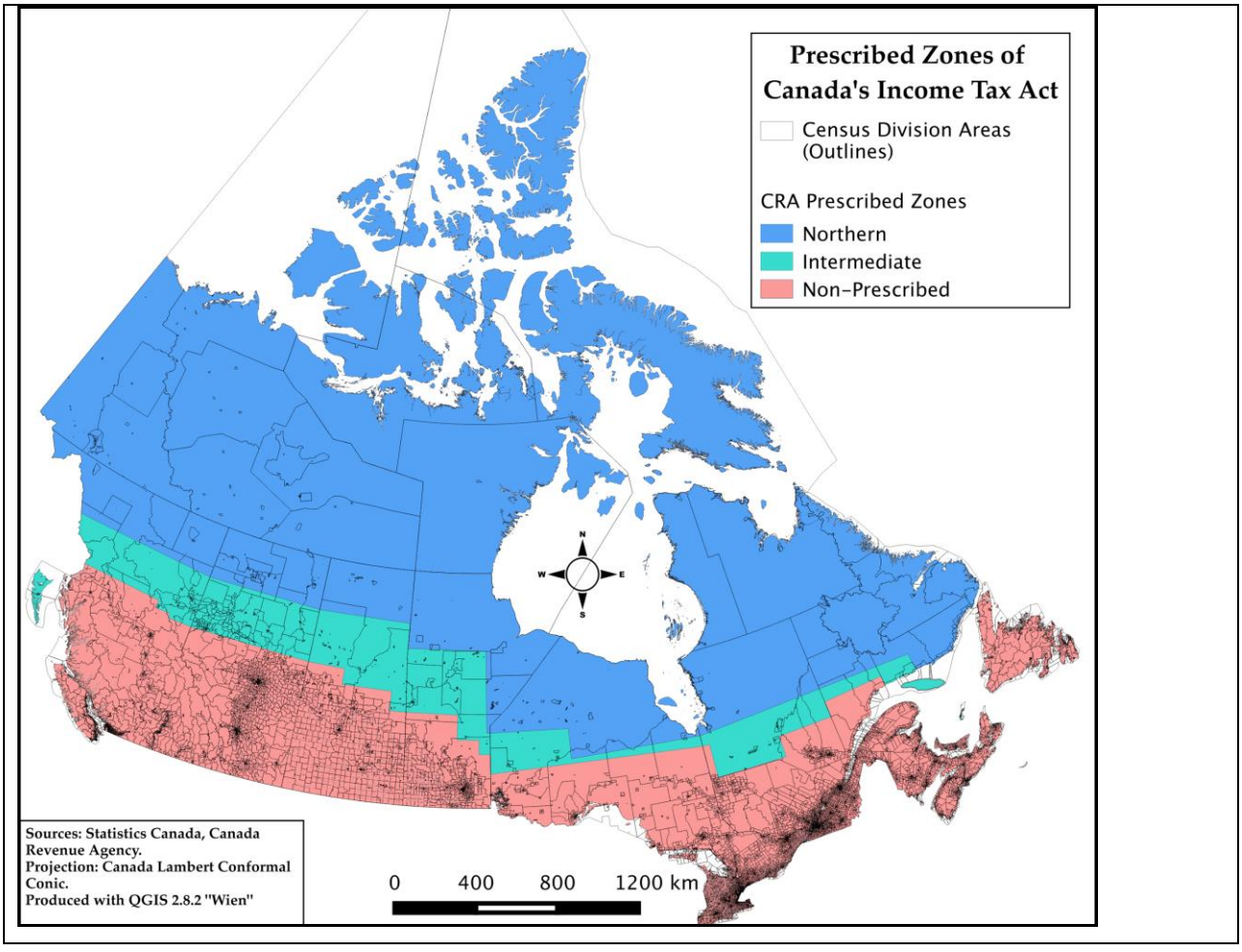
Introduction

In Canada, many rural, remote, northern and Indigenous communities face persistent digital divides of access and affordability. Many of these challenges stem from geographic factors. For example, populations in remote communities - those defined as having no road access, except in some cases winter roads that traverse frozen lakes and rivers for a few months a year - range from a few hundred to a few thousand people. These communities are accessed by plane or boat the rest of year. In many of these areas, telecommunications and digital services are very limited – particularly in comparison to the high standards of service available to communities in more populated and urban areas. Many smaller communities have no affordable high-speed broadband access. Other communities share bandwidth capacity that is often congested or otherwise limited. Further, many communities are served by satellite, which adds problems of latency as well as limited bandwidth both for household users and local public services such as telehealth and distance education that operate on the same digital infrastructure.



Despite these challenges, people living in these communities have a long history of innovation in information and communication technology (ICT). From trail HF radio networks to the latest mobile broadband applications, Indigenous peoples have long driven the diffusion of ICT – in part by necessity. In remote and isolated regions, there is a limited business case to build, maintain and provide the telecommunications infrastructure and services necessary to properly address persistent digital divides. Indigenous peoples have responded to this challenge by finding ways to develop the required digital infrastructure and broadband-enabled services to support the long-term economic and community development of their communities. Desire for increased autonomy in the administration and delivery of public services – along with self-determination more broadly – has been a fundamental driver of this activity. The work of building local and regional telecom networks that are owned and operated by Indigenous organizations reflects long-term and ongoing projects of Indigenous self-determination across a range of areas.

These initiatives include the formation of technology-focused "community intermediary organizations", which have played prominent roles in both advocating for and administering ICT infrastructures and services on behalf of their Indigenous member communities. These organizations represent and are governed by groups of communities, allowing residents to access services and benefit from economies of scale otherwise unavailable. They use ICTs to deliver public services and economic development opportunities to the residents of these communities. Acting as mediators between local communities and external entities like government funders, community intermediary organizations engage in both social and technical activities associated with the effective use of digital technologies: operating complex networks and applications while asserting self-determined development goals. Their activities also include attempts to reform policy and regulatory frameworks to address persistent digital divides in the Canadian north.

In this latter context, the First Mile Connectivity Consortium (FMCC) emerged as a national non-profit association founded by some of these Indigenous community intermediary organizations and their university-based research partners. The FMCC seeks to support Indigenous participation in public telecom initiatives and reform regulatory and policy frameworks for telecommunications in Canada. First Mile member organizations are diverse but share a common interest in showcasing how community-driven broadband policy can support community and economic development, highlight local innovation, and overcome digital divides. At present, members include organizations from B.C., Alberta, Manitoba, Ontario, Quebec and Atlantic Canada. The FMCC is also linked to a participatory action research project with a decade-long history called First Nations Innovation.

The FMCC uses the "First Mile" to frame community-driven broadband infrastructure and services as an alternative to the "last mile" link from service providers to subscribers. The First Mile concept provides language that proponents can use as shorthand in policy discussions to stress their position that rural and remote user communities should build, own and operate their own local telecommunications infrastructure and services.

The FMCC provides knowledge resources to support the advocacy efforts of Indigenous organizations, including academic research publications from the First Nations Innovation (FNI)

project, a growing repository of qualitative and quantitative data on Indigenous-led technology development, a free online course on Indigenous peoples and community-based technology development, and a Google Map illustrating more than 80 community stories showcasing success stories and challenges faced by remote and rural First Nation and Inuit communities. These materials are freely available on the FMCC website: www.firstmile.ca.

One important component of this work is exchanging information to support community-based technology development, particularly in rural, remote and Northern Indigenous communities. To this end, the FMCC produced this guide (with funding support from the Canadian Internet Registration Authority's .CA Community Investment Program). The team hopes that the information in this guide supports community-based organizations in their efforts to develop and manage sustainable broadband infrastructure and services.

Structure of this guide

This guide provides an overview of federal funding programs for broadband infrastructure and connectivity that supported capital costs for Indigenous broadband projects. There is limited federal funding currently available to support the ongoing operations and maintenance costs of these initiatives. In particular, the report offers a brief summary of funding programs, including:

- Program focus;
- Eligibility requirements for projects and applicants;
- Recent actions; and
- Links to official government websites and other sources of further information.

Appendix 1 includes historic (no longer active) federal funding programs for broadband.

Appendix 2 lists funding programs available at the regional, provincial or territorial level. More research is required to determine which of these programs are currently active.

We hope this guide will be of use to policymakers, researchers, and Indigenous organizations.

How was the guide prepared?

Information in this guide was collected in 2015-2016 through Internet and literature searches, including of academic research and government 'grey literature' including program reports, planning documents, evaluations, and program guidelines. Details about funding programs were verified through interviews with staff from government departments and community intermediary organizations.

This project was funded through a .CA Community Investment Program grant from the Canadian Internet Registration Authority (CIRA).

Note about departmental name changes

Some governmental departments experienced name changes within the timeline covered in this guide. In particular, Indian and Northern Affairs Canada (INAC) was renamed to Aboriginal Affairs and Northern Development Canada (AANDC) in recent years, and at the time of writing was subsequently renamed a second time to Indigenous and Northern Affairs Canada (INAC). Industry Canada (IC) was recently renamed Innovation, Science and Economic Development Canada (ISEDC). This guide refers to government departments by their current titles, even when referring to events that occurred prior to the name change; for example, the Broadband for Rural and Northern Development Program (BRAND) is listed as a program of ISEDC, even

though ISEDC would have been titled Industry Canada at the time of the program. We have done this provide our readers with greater consistency and referential simplicity.

Summary of active funding programs

The following broadband funding programs are currently active. Note that some, but not all, will be accepting new applications in 2016-2017. We focus on programs that provide priority funding for broadband. Therefore, we do not include initiatives that prioritize other pressing infrastructure needs, such as INAC's Capital Facilities and Maintenance Program, and Infrastructure Canada's New Building Canada Fund and Canadian Strategic Infrastructure Fund. For more information and assistance on these programs, contact staff directly.

Federal Department	**Program**	**Website**
Innovation, Science and Economic Development Canada	Connecting Canadians	http://www.ic.gc.ca/eic/site/028.nsf/eng/h_00587.html
Indigenous and Northern Affairs Canada	First Nation Infrastructure Fund	https://www.aadnc-aandc.gc.ca/eng/1100100010656/1100100010657
Indigenous and Northern Affairs Canada	New Paths of Education – SchoolNet/ First Nations Schoolnet	http://www.aadnc-aandc.gc.ca/eng/1314212864451/1314212959509
CanNor	Strategic Investments in Northern Economic Development	http://www.cannor.gc.ca/eng/1385477070180/1385477215760#q1
First Nations and Inuit Health Branch (FNIHB)	E-Health Infostructure	http://hc-sc.gc.ca/fniah-spnia/services/ehealth-esante/index-eng.php
FedNor	Northern Ontario Development Program (NODP)	http://fednor.gc.ca/eic/site/fednor-fednor.nsf/eng/fn02348.html

Active Federal Funding Programs

The following federal departments currently provide funding for broadband development and/or connectivity in Indigenous communities. This includes funding provided to a variety of entities, including Indigenous organizations, private sector telcos, and non-profits. Given the range of initiatives, organizations and partnerships that have received funding through these initiatives, it is challenging to parse out the amount of funding specifically received by Indigenous community-based organizations. However, our research and the CRTC's determinations suggest that a majority of overall broadband funding has been delegated to private sector telecos providing services in these regions.

At present, there is a lack of dedicated, ongoing funding available for Indigenous service providers, particularly in the area of ongoing operations and maintenance. Instead, these under-resourced organizations must apply for funding on an annual basis, which results in challenges to their ongoing sustainability and strategic planning. The experience of FMCC member organizations has been that the majority of federal funding is a one-time allocation for capital infrastructure. But there is also a need for ongoing funding for sustainability: to maintain and upgrade these networks and train people to manage them. Also, in the past there has been little continuity to government funding, so these providers do not know when funding will be available and over what time period, and what criteria will apply. As is clear from our review, funding is spread across a range of federal departments and programs, which makes it very difficult to track the different deadlines, application requirements and funding opportunities.

For an overview of historic funding programs that are no longer active, see Appendix 1.

	Infrastructure development	Operating expenses	Connectivity - Bandwidth	Public computer access	Education (training)	Research	**Page**
Innovation, Science and Economic Development (ISED - formerly Industry Canada)							
Connecting Canadians	X						**12**
INAC							
First Nation Infrastructure Fund	X						**14**
New Paths for Education		X	X	X	X		**16**

(continued on next page)

Canadian Northern Economic Development Agency (CanNor)							
3.1 Strategic Investments in Northern Economic Development (SINED)	X	X	X	X	X	X	**19**
Health Canada First Nations, Inuit and Aboriginal Health							
eHealth Infostructure (eHIP), 2010-present	X	X	X	X	X	X	**21**
FedNor							
Northern Ontario Development Program (NODP)			X		X	X	**24**

1. Innovation, Science and Economic Development (ISED - formerly Industry Canada)

1.1. Connecting Canadians

$305 million, 2014-2019

Focus:

The Connecting Canadians program subsidizes the up-front costs of telecommunications infrastructure in rural, remote and northern areas. The program is divided into a "northern component," which provides $50 million in support of satellite connectivity projects in Nunavut and Nunavik, and a "rural component," which as of early 2016 provides $240 million for projects in the rest of Canada. The program aims to extend or enhance coverage to an additional 280,000 households, with speeds up to 5 Mbps (down) and 1 Mbps (up) in rural areas and 3 Mbps (down) and 1 Mbps (up) in northern regions.

Note that the Connecting Canadians program includes elements from both the former Broadband for Rural and Northern Development (BRAND) and National Satellite Initiative programs in that the Northern component of this project supports infrastructure development and the purchase of satellite capacity.

Eligibility requirements:

For Projects:

- Serves eligible areas, as determined by Connecting Canadians. These include areas where household coverage is slower than 5 Mbps (down) and 1 Mbps (up)
- Extends or enhances coverage to at least 5 Mbps (down) and 1 Mbps (up) in rural areas or at least 3 Mbps (down) and 1 Mbps (up) in northern areas

- Identifies how many households the project will serve
- Projects will be completed no later than March 31st, 2019. For the northern component, projects will be completed before the current satellite service agreements expire.

For Recipients:

Eligible internet service providers are legal entities that are incorporated in Canada and operate broadband infrastructure meeting the program's assessment criteria. This includes:

- Private companies;
- Provincial, territorial, and municipal entities;
- Not-for-profit organizations; and
- Inuit and First Nations ISPs.

Projects serving communities deemed as highly remote are eligible for additional funding up to 75% of eligible costs, with total federal stacking available up to 100% of eligible costs.

Recent actions:

In summer 2014, Connecting Canadians released a series of maps indicating which regions in the country would be eligible for funding, based on areas where households had slow or no internet access. The program's first application window was open from October 15th 2014 until January 12th, 2015, and the first successful projects announced in spring 2015. At the time of writing, approximately $40 million in funding remains available, which will be used to fund further projects. Projects are expected to be completed in 2019.

A list of funded projects can be found on the Digital Canada 150 website. At the time of writing, most of the projects listed did not include any funding for Indigenous organizations.

Links:

- Connecting Canadians home page: http://www.ic.gc.ca/eic/site/028.nsf/eng/h_00587.html
- Application guide: https://www.ic.gc.ca/eic/site/028.nsf/vwapj/CCB-CCP_Application_Guide-eng.pdf/$FILE/CCB-CCP_Application_Guide-eng.pdf
- Maps of eligible underserved areas: http://www.ic.gc.ca/eic/site/028.nsf/eng/50016.html

2. Indigenous and Northern Affairs Canada (INAC, formerly AANDC)

2.1. First Nation Infrastructure Fund (FNIF)

$272 million between 2007 and 2013

$139 million (from the Federal Gas Tax allocation) budgeted for 2014-2019; renewable (amounts determined by census)

$155 million (from the National Infrastructure Component of the New Building Canada Fund) budgeted for 2014-2024 (will sunset in 2024)

Focus:

The First Nation Infrastructure Fund (FNIF) was launched in October 2007, with funding pooled from three existing federal sources: Infrastructure Canada's Municipal Rural Infrastructure Fund (MRIF), the Gas Tax Fund (GTF) and the Capital Facilities and Maintenance Program (CFMP). It operates in conjunction with the CFMP), but is exempt from the CFMP's priority ranking framework. The FNIF's mandate is to improve the environment and quality of life for First Nation communities on reserve by increasing and improving public infrastructure in six main areas:

- Planning and skills development
- Solid waste management
- Roads and bridges
- Energy systems
- Connectivity
- Disaster mitigation

Funding for connectivity includes support for high-speed backbone (transport) networks, broadband points of presence, local access networks, and satellite capacity. There is no specific allocation of funds any of the six main areas in a given year. INAC allocates FINF funding based on the quality and feasibility of proposals submitted from various regions, and a community's stated priorities in its First Nations Infrastructure Investment Plan.[5]

Communities applying for FNIF funding often receive assistance from INAC regional offices in completing their applications and setting priorities for funding requests. The extent of the relationship between the INAC regional office and communities applying for assistance varies depending on community needs and expert capacity. In general, the funding process is

[5] See the First Nations Infrastructure Investment Plan website: https://www.aadnc-aandc.gc.ca/eng/1440084290678/1440085334473

developed to provide ensure fairness in project selection and allow for flexibility to meet the needs of diverse First Nations communities.

Eligibility requirements:

Applications are completed with assistance from and are submitted by INAC regional offices. Projects must serve communities on reserve.

For Projects:

A potential project is evaluated based on how its business case meets the objectives set out in the applicable project category. Projects must first satisfy all mandatory screening criteria, and are then measured against the selection criteria for the selected project category in consideration of local needs and priorities.

The mandatory screening criteria require projects to be:

- Supported by Band Council Resolution, Tribal Council Resolution, or other documentation from Self-governing First Nations;
- Consistent with a sound strategy and/or community plan;
- Consistent with Canada's objectives for sustainable growth, competitiveness, and climate change;
- Consistent with all applicable Federal and provincial regulatory obligations and standards;
- Accurately and realistically budgeted; and
- Supportive of deliverables that are measurable and achievable.

Projects can receive a maximum of $10 million per recipient per year. The FNIF cannot fund feasibility studies or project costs usually delivered through other means (e.g.: ongoing salaries or employee benefits). The FNIF may fund planning activities.

For Recipients:

Eligible recipients for FNIF funding include:

- A First Nation government, including a Band or Tribal Council;
- The agent of a First Nation government, including its wholly owned corporation, on the condition that the First Nation, through a Band or Tribal Council resolution or other document, indicates support for: 1) the project; and 2) the legally designed representative to act as Applicant; and
- Innu communities where the applicant is on reserve or Crown Land in the provinces.

Recent actions:

Between 2007 and 2012, the Department launched three calls for proposals and funded a total of 408 projects. Sixteen of these funded projects focused on building or improving infrastructure for connectivity.

Starting in 2014-2015, the FNIF will provide $155 million over ten years from the New Building Canada Fund and approximately $139 million over five years from the Gas Tax Fund.

Links:

- First Nation Infrastructure Fund website: https://www.aadnc-aandc.gc.ca/eng/1100100010656/1100100010657
- National First Nations Infrastructure Investment Plan 2016-2016: http://www.aadnc-aandc.gc.ca/eng/1445952911321/1445952967748
- First Nation Infrastructure Fund Activity Report, 2007-2012: https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ-IH/STAGING/texte-text/fNIF_activity_report2007_2012_1363970334826_eng.pdf
- Implementation evaluation of the First Nation Infrastructure Fund (2010): http://publications.gc.ca/collections/collection_2015/aadnc-aandc/R5-62-2010-eng.pdf
- Support for First Nations Infrastructure (information on extension of FNIF, as of 2014): http://www.infrastructure.gc.ca/alt-format/pdf/NBCP-NPCC-FN-PN-20140521-eng.pdf

2.2. New Paths for Education

~$50 million per year for the whole program; allocation for connectivity varies by region. Broadband mandate from 2011- present

Focus:

The SchoolNet: First Nations SchoolNet program was amalgamated into the New Paths for Education program in 2011.

The goals of the New Paths for Education program are to:[6]

- Strengthen First Nations education management and governance capacity through local capacity and educational institutional development
- Improve the effectiveness of classroom instruction through curriculum and language development, improvements to instructional techniques, school activities and technological knowledge

[6] Quoted from the New Paths for Education website: http://www.aadnc-aandc.gc.ca/eng/1314212864451/1314212959509

- Support community and parental involvement in the education of children and youth that is conducive to a supportive learning environment
- Assist band-operated schools to recruit and retain qualified teachers and educators, and to provide them with professional development opportunities
- Enhance technological knowledge in schools

Funding is distributed through INAC regional offices, and is available on a proposal basis.

New Paths and ICTs

This summary focuses on the Information and Communications Technology (ICT) pillar as this program's key funding stream for broadband development.

Under INAC's New Paths program, First Nation Regional Technology Organizations (RTOs) have access to annual project-based funding to support internet connections in First Nation schools. However, there have been a number of significant cuts to the FNS budget since the early 2000s and there have been no increases in funding since the transfer of FNS to INAC. There are currently six organizations that have taken on roles as RTOs:

- Mi'kmaw Kina'matneway / Atlantic Canada's First Nation Help Desk (Membertou, Nova Scotia);
- The First Nations Education Council (CEPN-FNEC, Wendake, Quebec);
- Keewaytinook Okimakanak (KNET, Sioux Lookout, Ontario);
- Keewatin Tribal Council (Thompson, Manitoba);
- First Nations Technical Services Advisory Group (TSAG (Alberta);
- First Nations Education Steering Committee (FNESC, Vancouver, British Columbia).

Eligibility requirements: [7]

For Projects

Projects receiving funding under the Information and Communications Technology (ICT) pillar of the New Paths program include a range of activities that enhance classroom instruction through the development and enhancement of technical knowledge in the school. These activities might include purchasing new hardware and software, paying Internet service provider fees, purchasing new equipment, training staff, providing help desk services or other IT services, and/or managing local area networks (LANs).

Proposals are evaluated based on: the recipient's capability to perform the project; the consultation and commitment from relevant schools/ communities; implementation activities;

[7] Quoted from the New Paths for Education National Program Guidelines 2015-2016: http://www.aadnc-aandc.gc.ca/eng/1419006207889/1419006231696

project management; and project costs. Organizations are encouraged to leverage resources through partnerships and demonstrate economies of scale.

For Recipients:

Under the broader umbrella of New Paths, eligible applicants are band councils or organizations designated by band councils, such as tribal councils, education organizations, political/ treaty organization, public or private organizations engaged by, or on behalf of Indian bands, provincial ministries of education, provincial school boards/ districts, or private educations institutions, to provide education services.

Organizations designated by band councils must submit documented support from the designating First Nations with their proposal, such as Band Council Resolutions or formal letters of support.

In order to be funded to provide school-board-type services or ICT services, an eligible applicant must be designated as a Regional Technology Organization (RTO). There is only one RTO designed per province or region. The 2015/2016 eligible requirements state the criteria to qualify as an RTO as follows:[8]

- Have a documented management framework outlining the organization's governance structure;
- Have documented support from member First Nations (Band Council Resolutions, or other documentation such as formal letters of support);
- Have documented and publicly available policy guidelines;
- Demonstrate economies of scale;
- Undertake, as a key function, second and/or third level elementary and secondary education supports for groups of First Nation communities/schools (with the exception of First Nation Regional Education/Management Organizations funded under the ICT component); and
- Be in a sound financial position.

In addition, the following guidelines apply:

- Flow-through organizations do not qualify as a technology management organization;
- Where such an organization is in place, no other such organization will be funded to provide the same services to a First Nation that is currently being served by the existing organization; and
- Initiatives promoting the aggregation of services and related to the development of future technology managing organizations may be considered for support.

[8] See: https://www.aadnc-aandc.gc.ca/eng/1419006207889/1419006231696

Recent actions:

In 2011, the New Paths for Education program was consolidated to include SchoolNet: First Nations SchoolNet, Parental and Community Engagement, and Teacher Recruitment and Retention. Designed funding for SchoolNet has not changed since the transfer, and there is generally greater need for funding than funds available.

Links:

- New Paths for Education website: http://www.aadnc-aandc.gc.ca/eng/1314212864451/1314212959509
- New Paths for Education National Program Guidelines 2015-2016: http://www.aadnc-aandc.gc.ca/eng/1419006207889/1419006231696
- New Paths for Education National Program Guidelines 2014-2015: http://www.aadnc-aandc.gc.ca/eng/1386129248923/1386129315190
- New Paths for Education National Program Guidelines 2013-2014: http://publications.gc.ca/collections/collection_2013/aadnc-aandc/R41-14-2013-eng.pdf

3. CanNor

3.1 Strategic Investments in Northern Economic Development (SINED) *2004 –present.*

- ***$90 million from 2009-2014***
- ***$40 million from 2014-2015***

Focus:

The Strategic Investments in Northern Economic Development program strengthens key economic drivers and encourages people living in Northern regions to participate in the economy. The program has four streams: the Targeted Investment Program, the Innovation and Knowledge Fund, the Partnership and Advisory Forums, and a Pan-Territorial Fund.

While the SINED program's broad mandate is not focused on telecommunications development, projects supporting broadband and connectivity development may be eligible for funding under its programs.

Eligibility requirements:

For Projects:

Targeted Investment Program:

- This is the SINED's broadest program. In telecommunications, it will support investments that fill gaps not covered by other federal programming, and small-scale capital investments tied to economic diversification (eg: technological enhancements).

Innovation and Knowledge Fund:

- Supports research and consultation, innovation (eg: feasibility studies, business cases, minor equipment purchases) and capacity-building.

Partnership and advisory forums:

- Supports research and consultation, innovation, capacity-building and core functions for organizations. Focus is on knowledge and skills-building to foster innovation and participation in the new economy.

Pan-Territorial Fund:

- Supports projects promoting inter-jurisdictional cooperation including multiple territories or a territory and one or more provinces.

For Recipients:[9]

- An organization or association whose mandate includes work that advances northern economic development;
- Another level of government and other non-federal entity, public or private, that has an interest in economic development in the North
- An individual or small- and medium-sized enterprise.

Recent actions:

Between 2007 and 2012, SINED invested $3.4 million in improvements to communications technology and broadband across the territories. This included:

- $1.2 million for a case study including training, infrastructure planning, feasibility studies, and investments in information technologies and broadband infrastructure. The case study featured: Nunavut Broadband Development Corporation, the Department of Finance from the Government of Northwest Territories, Northern Native Broadcast Corporation and Katlodeeche First Nation in the Northwest Territories
- 2010: Funding for the *Arctic Communication Infrastructure Assessment Report* supporting development of a reliable communications network in the North

[9] Quoted from the SINED website. See: www.cannor.gc.ca/eng/1385477070180/1385477215760#chp1

- 2011: Funding for the Nunavut Broadband Development Corporation for two studies related to improving broadband access: the first attempted to quantify the social and economic benefits of high speed internet infrastructure to help build a strong case for further investment; the second was a feasibility study and cost estimate for fibre-optic connectivity in Nunavut.
- Funding for the Katlodeeche First Nation (Northwest Territories) to install a mixed network of fibre-optic cable and Wi-Fi.

In 2009, the program was renewed for five years as part of Canada's Economic Action Plan. In 2014, the program received a 2-year renewal. It is not yet clear if the program will continue.

Links:

- Strategic Investments in Northern Economic Development (SINED) website: http://www.cannor.gc.ca/eng/1385477070180/1385477215760#q1
- 2013 evaluation of the SINED: http://www.cannor.gc.ca/DAM/DAM-CANNOR-CANNOR/STAGING/texte-text/ev_sined_1393874514503_eng.pdf

4. eHealth, First Nations and Inuit Health Branch (FNIHB), Health Canada

4.1. eHealth Infostructure (eHIP),

2010-present
$26.7 million per year, 2015-2018

Previous:

- ***1999-2002: First Nations and Inuit Health Information System (FNIHIS)***
- ***2002-2010: e-Health Solutions Unit (e-HSU)***

Focus:

The eHealth Infostructure program is a sub-sub program of the Health Infrastructure Support for First Nations and Inuit program and a sub-program of the First Nations and Inuit Health System Transformation Program.

The health infostructure refers to the "*development and adoption of modern systems of ICT's in the Canadian health care system."*[10] The program's focus is to better define, collect,

[10] Health infostructure strategic action plan, p. 4

communicate, manage, disseminate, and use data to support better quality, access, and productivity in First Nations health and health care.

Note that since October 1st, 2013, the province of British Columbia has not been under the mandate of the First Nations and Inuit and Health Branch; BC is now managed under the First Nations Health Authority (FNHA). The FNIHB also does not provide services to those living North of the 60th parallel.

The eHIP program "supports the combination of information, electronic health applications, technology and people with the intent to:

- Provide optimal health services delivery;
- Provide optimal health surveillance;
- Provide effective health reporting, planning and decision making; and
- Provide integration/compatibility with other health services delivery systems."[11]

In order to achieve these goals, the eHIP focuses on three main areas:

- Building the **Foundation** components that reflect the base requirements of the eHIP, without which eServices will not operate;
- Implementing **eServices** that reflect the key application component areas; and
- **Supportive** services that provide good governance and management of the eHIP.[12]

The *eHealth Infostructure* program enables the following community e-Services:

- Public health surveillance (Panorama)
- Telehealth / mHealth
- EHR Viewer and client registries
- Continuing education and training
- Email, Internet and portals
- eReporting (finance, agreements, program)
- EMR

The FNIHB acknowledges that community needs outstrip funding available. In 2012, the top three priorities based on national program funding were telehealth services, Panorama (public health surveillance systems), and broadband connectivity.[13]

[11] Health Canada. (2012). *Guidelines for the FNIHB eHealth Infostructure Program (eHIP).*
[12] Ibid., p. 6.

The *Panorama* public health system was designed to provide a unified public health system to improve Canada's management of communicable disease outbreaks and immunization programs following the SARS outbreak in 2003. Panorama has been implemented in British Columbia (now under the mandate of the FNHA), Saskatchewan, Manitoba, Ontario and Quebec. A 2015 BC Auditor General report[14] critiqued the project for lacking strong project leadership, chronic system defects, inability to stay on schedule, cost overruns, and use of technology that would be out of date by the time the program launched.[15]

Eligibility requirements:

Funding applications and contributions agreements are managed through regional offices. Applicants work closely with regional offices in preparing contribution requests. The application process may vary by region.

Recent actions:

FNIHB planned the following initiatives for 2015-2016:[16]

- Continue to collaboratively fund and advance the deployment and use of interoperable emerging technologies in clinical and public health services and management, including implementing eHealth tools, such as electronic health records, integrated client medical records and the deployment of Panorama, a public health surveillance system.
- Expand telehealth sites to support existing health centers with electronic medical records sites and continue to pilot electronic medical records rollout in operative nursing stations.
- Work with First Nations and Inuit to identify opportunities to invest in data and infrastructure that are interoperable with provincial systems, including increasing support for data collection and analysis to better inform decision-making and priorities.

Links:

- Health Canada – First Nations and Inuit Health, "EHealth" webpage: http://hc-sc.gc.ca/fniah-spnia/services/ehealth-esante/index-eng.php
- Health Canada – First Nations and Inuit Health Programs: programs funded by set contribution funding 2015-2016. See: section 3.3.2.2, "e-Health Infostructure." http://hc-sc.gc.ca/ahc-asc/performance/estim-previs/plans-prior/2015-2016/report-rapport-eng.php

[13] *Guidelines for the FNIHB eHealth Infostructure Program (eHIP),* p. 2.
[14] Note that while BC was not under the FNIHB's mandate at the time of the release of the BC Auditor General report, many of the concerns cited in the report refer to the period prior to the launch of the FNHA in BC on October 1st, 2013.
[15] From "An Audit of the Panorama Public Health System," p. 3. http://www.bcauditor.com/sites/default/files/publications/reports/OAGBC_PanoramaReport_FINAL.pdf
[16] Health Canada 2015-2016 Report on Plans and Priorities

- eHealth Infostructure Program Evaluation 2012 http://www.hc-sc.gc.ca/ahc-asc/performance/eval/2012/fni-evaluation-pni-table-eng.php
- BC Auditor report on Panorama Public Health IT System: http://www.bcauditor.com/pubs/2015/audit-panorama-public-health-it-system

5. FedNor

5.1. Northern Ontario Development Program (NODP)

Connectivity component from late 1990s- present; currently ~$31 million/ yr

Focus:

The Northern Ontario Development Program invests in community economic development, business growth and competitiveness, and innovation in Northern Ontario. Its objective is to encourage economic growth, diversification, job creation and community self-reliance in Northern Ontario.

The NODP supports a range of areas and project types, including infrastructure investment, public services, ICT development, innovation, and local amenities to attract high-skill industries and tourism.

Broadband and connectivity fall under the NODP's "community economic development" funding priority.

Note that the intent of the NODP is to fill in funding gaps, rather than to be a primary contributor to a project. Because the NODP's budget is relatively small, applicants are strongly encouraged to access multiple sources of funding.

Eligibility requirements:

Applications are completed online, and are accepted continually on a rolling basis. Applicants are encouraged to contact their local project officer prior to submitting a phase-one application. Applicants will be contacted within five business days of submitting a phase-one application to inform them or whether they are eligible to submit a more detailed phase-two application.

For Projects:

Eligible projects must have a clearly articulated project governance structure, and must address a need identified by end users that will not duplicate existing efforts.

Required program objectives for the Community Economic Development objective are summarized as follows:[17]

- Increased community mobilization to identify and prioritize viable economic opportunities through enhanced decision-making and planning;
- Strengthened community economic competitiveness through implementation of identified priorities to diversify and stimulate business investment and growth in the short to medium-term (up to five years);
- Enhanced collaboration among stakeholders to achieve shared regional economic development goals in the short-to medium-term (up to five years).

For Recipients:

Eligible recipients include municipalities, municipal organizations, First Nations, and not-for-profit organizations in Northern Ontario. Not-for-profit organizations include community economic development, Indigenous and Francophone organizations, industry and business associations, networks, or alliances.

Applicants must have a demonstrated track record in delivery of projects, and the necessary expertise to compete the project. Applicants applying on behalf of a sector or industry must represent key project stakeholders.

Recent actions:

Since 2006, the NODP has invested $329 million in 1600 projects. As of its 2011 performance review, the NODP reported that it had invested the majority of its funding in not-for-profit organizations (57 percent) and municipalities (25 percent), with only 3 percent directly supporting for-profit businesses.

Between 2006 and 2010, the NODP invested $21.8 million, about 15 percent of its budget, in ICT development. Investments included infrastructure development installation of broadband and satellite) and applications (e.g.: strategic plans and developing multimedia centres).

FedNor has planned an upcoming evaluation of the NODP, which will include 6 to 12-month reviews of initiatives to ensure effectiveness in program delivery.

Demand for NODP funding has increased considerably over recent years, while the NODP's grants/ contributions budget has not significantly increased. As a result, requests for contribution agreements often outstrip availability of funds.

Links:

- FedNor 2015-2016 priorities: http://fednor.gc.ca/eic/site/fednor-fednor.nsf/eng/fn04351.html

[17] Quoted directly from the project's Standard Applications Instructions. See: http://fednor.gc.ca/eic/site/fednor-fednor.nsf/eng/h_fn04416.html

- Northern Ontario Development Program website: http://fednor.gc.ca/eic/site/fednor-fednor.nsf/eng/fn02348.html
- Standard applications instructions: http://fednor.gc.ca/eic/site/fednor-fednor.nsf/eng/h_fn04416.html
- 2011 evaluation of the Northern Ontario Development Program: http://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03334.html

Appendix 1: Inactive Federal Funding Programs

The following chart illustrates historic funding programs for broadband development and/or connectivity in Indigenous communities. As of 2016, these programs are no longer active and so this information is presented for reference purposes only.

	Infrastructure development	Operating expenses	Connectivity - Bandwidth	Public computer access	Education (training)	Research	**Page**
Innovation, Science and Economic Development (ISED - formerly Industry Canada)							
Broadband Canada: Connecting rural Canadians	X						**28**
Broadband for Rural and Northern Development (BRAND)	X						**29**
SchoolNet: First Nations SchoolNet		X	X	X	X		**31**
Community Access Program (CAP) (1994-2012) and the Community Access Program Youth Initiative (CAP YI), 1994-present		X	X	X	X		**32**
Francommunautés virtuelles				X	X		**34**
Smart Communities (Demonstration Projects)	X		X		X		**35**
National Satellite Initiative (Partnership with ISED, Infrastructure Canada and the Canadian Space Agency)		X	X		X		**37**

6. Innovation, Science and Economic Development Canada: Programs that are no longer active

6.1. Broadband Canada: Connecting rural Canadians

$225 million from 2009-2012

Focus:

The Broadband Canada: Connecting Rural Canadians program subsidized the up-front costs of building or improving telecommunications infrastructure in designated remote and rural areas that were considered unserved (no access to Internet or dial-up service only) or underserved (broadband speeds slower than 1.5 Mbps). The program provided funding of up to 50 percent of eligible project costs, with the remainder paid by the service provider. First Nations projects were eligible for funding up to 100 percent of project costs.

Eligibility requirements:

For Projects:

- Served eligible Geographic Service Areas, as determined by ISED's mapping exercise

For Recipients:

Eligible applicants were those that build and operate broadband infrastructure, including:

- Private companies;
- Provincial, territorial, and municipal entities;
- Not-for-profit organizations;
- Cooperatives; and
- Other entities that could build and operate broadband infrastructure.

Recent actions:

The Broadband Canada program concluded on March 31st, 2012, with all projects scheduled for completion by fall 2012. In total, the program funded 84 projects to improve service for 218,000 households.

Links:

- Connecting Rural Canadians homepage (archived): http://borderactionplan.gc.ca/en/initiative/broadband-canada-connecting-rural-canadians

6.2. Broadband for Rural and Northern Development (BRAND)

$105 million from 2002-2007

Round One: Initial applications due October 31, 2002

Round Two: Initial applications due January 2003

Focus:

The BRAND program's goal was to build broadband infrastructure in underserved Canadian communities, with priority given to First Nations, Inuit, and Métis communities that were northern, rural and/or remote. Part of the program's goal was to demonstrate the social, cultural and economic benefits of broadband access and improve communities' participation in national and global economies.

BRAND had a unique structure which emphasized learning and information sharing among recipient communities. The program identified communities across the country that did not have broadband access, and released a call for "community champions" that would work within their communities to build awareness about the purposes and role of the Internet, aggregate community demand, and seek a service provider to build and implement the network.

Community champions could apply for $30,000 in seed funding to conduct research and prepare a business plan for a larger infrastructure development project. The completed business plans formed the basis of an application for further project funding, which would support the implementation of the business plan. Successful applications were selected by a National Selection Committee, which was comprised of experts from the private and public sectors from across the country.

In remote areas, the BRAND program worked in conjunction with the National Satellite Initiative (NSI). In this partnership, the NSI provided assistance to communities in accessing satellite capacity, while the BRAND supported the development of complementary on–the-ground infrastructure.

Eligibility requirements:

For Projects:

- Community must have had no publicly available broadband infrastructure capable of meeting the its broadband needs
- In most cases, eligible communities lacked public access to Digital Subscriber Line (DSL) or cable modem access

- Priority given to First Nations, northern, rural and remote communities.

For Recipients:

- Governments, Indian Bands, or legally incorporated not-for-profit Canadian organizations that committed themselves to acting as the community champion on behalf of the eligible community(ies).
    - The community champion was accountable for the successful development and implementation of the project, and must have the legal authority to enter into contracts with the federal government.
- Only one community champion was permitted per community.
- Provincial and territorial governments could receive funding to implement business plans, but not to develop business plans.

Recent actions:

The program was divided into two competitive rounds, each of which consisted of three phases. In phase one, interested communities submitted proposals to receive seed funding to assist in developing detailed business plans for their projects. Successful applicants were invited to partake in phase two, in which they were provided support of up to $30,000 or 50 percent of eligible costs (whichever was less) to assist in developing business plans for the proposed project. This funding was provided directly to "community champions" – not-for profit community organizations that acted as sponsors to organize and develop the business plans on behalf of eligible communities.

Business plans were evaluated by an arm's length selection committee (the National Selection Committee). Successful applicants received the specific funding assistance required to implement their business plans, totaling up to 50 percent of eligible cost to build the broadband infrastructure.

In total for both rounds, 154 projects representing 2,285 communities received support for business plan development, for a total of $2.4 million. Of these, 63 projects representing nearly 900 communities (including 142 First Nations reserves) received support to implement their business plans in phase two, for a total investment of $80.3 million. Overall, the program's reach was more than double its original goal, serving nearly 900 communities rather than the originally anticipated 400.

Links:

- Broadband for Rural and Northern Development Pilot Program guide http://publications.gc.ca/collections/Collection/Iu4-14-2003E.pdf
- Formative Evaluation of the Broadband for Rural & Northern Development Pilot: http://www.bureaudelaconcurrence.gc.ca/eic/site/ae-ve.nsf/vwapj/BroadbandFinalReport.pdf/$file/BroadbandFinalReport.pdf

6.3. SchoolNet: First Nations SchoolNet

$243 million from 1996 – 2007 under Innovation, Science and Economic Development (ISED - formerly Industry Canada)

Limited support from 2007-2009 under INAC

Focus:

SchoolNet was launched in 1996 as a subsidiary of the original Connecting Canadians program. It was designed as a partnership between governments, schools, NGOs, and the private sector, with the objective of ensuring affordable access to computers and the Internet in schools across the country.

The program included five components: computers for schools (still in operation), Library Net, First Nations SchoolNet, and Canada's Digital Collections. This summary focuses on First Nations SchoolNet as the key funding stream for the purposes of this guide.

Note – this program is now administered under INAC New Paths for Education

First Nations SchoolNet (FNS)

The goal of the FNS program was to connect all First Nations schools under federal jurisdiction to the Internet. The program's first goal – to connect and maintain all First Nations schools under federal jurisdiction by providing telecommunications infrastructure and promoting ICT – was achieved in March 2001. Its second mandate was to provide high speed Internet access to First Nations schools.

In 2002, FNS shifted from a central management structure within ISED to an arrangement of Contribution Agreements with six locally-based not-for-profit organizations, known as Regional Management Organizations (RMOs). RMOs, which were experienced working in their regions and were familiar with connectivity issues, facilitated the delivery of the First Nations SchoolNet program regionally. RMO responsibilities included aggregating demand for bandwidth (determining the extent and location of needs), delivering the program regionally, and putting in place local service contracts required to meet the schools' connectivity needs.

An interim report completed in 2005 found that the FNS program achieved the intended impact among schools, teachers and learners, and had made substantial progress towards its goals. At that time, the program was described as "relevant and necessary," providing an "efficient and effective method of program delivery".[18]

[18] Malatest & Associates Ltd. (2005). Mid-term evaluation First Nations SchoolNet Program. https://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/01438.html

Eligibility requirements:

For Projects:

Applications were accepted on a proposal basis, and managed through designated regional organizations.

Band / tribal councils and organizations designed by band councils (such as education organizations) were eligible for funding. Organizations designated by band councils were required to submit documents demonstrating support from the designating First Nations, such as Band Council resolutions or formal letters of support.

Recent actions:

In 2011, FNS was consolidated into INAC's

New Paths for Education program encompassing SchoolNet, Parental and Community Engagement, and Teacher Recruitment and Retention. Under INAC's New Paths program, First Nation Regional Technology Organizations (RTOs) have access to annual project-based funding to support internet connections in First Nation schools. However, there have been a number of significant cuts to the FNS budget since the early 2000s and there have been no increases in funding since the transfer of FNS to INAC.

Links:

- Mid-term evaluation: https://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/01438.html

6.4. Community Access Program (CAP) (1994-2012) and the Community Access Program Youth Initiative (CAP YI), 1994-present

CAP 1994 – 2007: ~$337 million. After 2007, the program was funded through Broadband Canada and cost breakdowns are unknown.

CAP YI: $41 million from 1996-2007, provided by Employment and Social Development Canada

Focus:

The Community Access Program established public sites where community members could use computers connected to the Internet, with a goal of stimulating economic growth and facilitating participation in the knowledge economy. The program's core deliverables included facilitating affordable public internet access, skills training, and access to related services. CAP sites operated through partnerships between provincial / territorial and federal governments, and are most were located in libraries, schools, community centers, and friendship centers. The

program began in 1994 as an initiative to support rural communities; in 1998, the program was expanded to establish public access sites in urban areas.

CAP sites were run by volunteers and employees of its sister program, the CAP Youth Initiative (CAP YI). The CAP YI employed Canadians between the ages of 15 and 30 at CAP sites across Canada. Employment was in the form of short-term internships, in which youth delivered ICT training and provide technical and web site development support.

Eligibility requirements:

For Projects:

- Served rural and remote communities. In 1999, the program expanded to serve low-income urban communities.

For CAP YI candidates:

- Canadians between ages 15 and 30
- Priority given to students, recent graduates, the underemployed and the unemployed

Recent actions:

Funding for CAP reached a high of $64 million in 1999-2000, and at its peak (2003-2004) supported 8,800 access sites.

The CAP program was originally scheduled to sunset in 2004, but received a series of short-term renewals due to high public demand for the program. In 2008, the CAP was moved from ISED's Spectrum, Information Technologies and Telecommunications (SITT) branch to the Regional Operations branch, and its 2009-2010 funding was drawn from the Connecting Rural Canadians program budget. Federal funding for the CAP ended alongside the end of the *Connecting Rural Canadians* program in March 31st, 2012. Some CAP sites have secured alternate funding sources and remain open.

While the CAP's final evaluation noted the persistence of a digital divide among certain groups,[19] the report cited changing government and ISEDC priorities as well as improved broadband access to Canadian households in its conclusion that the program "may have outlived its usefulness." [20] In particular, the report notes a new government / ISEDC emphasis on private sector development and household (rather than public) access to broadband, leading to a situation in which CAP priorities no longer aligned with government priorities.

[19] In particular, the report notes that the digital divide impacts rural and remote communities, low income earners, those with low levels of literacy and education, francophones over 50 years of age, seniors and others.
[20]Innovation, Science and Economic Development Canada. (2010). Final evaluation of the Community Access Program. Accessed 19 January 2016, from: https://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03127.html#p0

The CAP YI program continues to receive federal support for up to 1300 youth internships at community internet sites each year. CAP sites that are still in operation are eligible for this funding.

Links:

- CAP YI website: http://www.ic.gc.ca/eic/site/cap-pac.nsf/eng/home
- Frequently asked questions about the CAP program: http://www.ic.gc.ca/eic/site/cap-pac.nsf/eng/00023.html
- Final evaluation of the CAP program (archived): https://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03127.html#p0

6.5. Francommunautés virtuelles

1998 – March 31, 2008, ~$16 million

Focus:

The Francommunautés Virtuelles program was established in 1998 to fill gaps in French-language content on the Internet and improve access to and use of ICTs by Francophone and Acadian communities (CFAs). The program's ultimate goals were to improve quality of life and economic growth among CFAs through inclusion in the knowledge economy, foster knowledge and resource sharing among communities, and bridge the digital divide. This was to be achieved in part by creating and promoting networks among CFAs and supporting the development of French-language web applications, content, and services.

Successful applicants could receive funding up to 50 percent or $75,000 for project costs for projects nine months or shorter (component A) or up 50 percent or $250,000 for national projects 14 months or shorter (component B).

Eligibility requirements:

For Projects:

Eligible projects varied widely in project themes, including projects supporting trade, education, economics, tourism, health, current events, and media. However, competition for funding was extremely high. Broad eligibility criteria included:

- Thorough business plan and communications plan, including planning for human resources and infrastructure;
- Ability to form financial partnerships and/or establish community networks by sharing knowledge and skills with the target clientele; and

- Fostering socio-economic development for the community it served.

For Recipients:

Applicants were Canadian not-for-profit organizations that:

- Had been operating for at least one year; and
- Possessed the abilities and skills required to manage and deliver the project.

Recent actions:

The Francommunautés virtuelles Program ended on March 31, 2008. Some of the program's outcomes included:

- Support for 203 projects;
- Contributed to the creation of at least 46 websites;
- Supported creation of French-language content on 203 websites; and
- Provided ICT training for more than 3000 people.

During the FV's operation, the digital divide between residents of Quebec and the rest of Canada decreased considerably. However, while the program's final evaluation notes its positive impact for Francophone communities, it also notes that the program's broad mandate contributed to confusion and inconsistencies in clearly defining its mandate.[21]

Furthermore, some regions were underrepresented in project funding, and a highly competitive competition process disadvantaged smaller organizations that lacked personnel and expertise to commit to completing complex funding applications.

Links:

- Final evaluation of the Francommunautés Virtuelles program: http://corporationscanada.ic.gc.ca/eic/site/ae-ve.nsf/eng/02974.html

6.6. Smart Communities (Demonstration Projects)

$60 million from 1999 – 2002

Focus:

[21] ISEDC. (2011). Final Evalution of the Francommunautés Virtuelles Program. http://corporationscanada.ic.gc.ca/eic/site/ae-ve.nsf/eng/02974.html

The objective of the Smart Communities program was to help establish a number of demonstration "smart communities" across the country, characterized by skilled and adaptable human resources, advanced infrastructure, and a high quality of life. Smart communities would make the best use of technologies for a variety of community development and public service delivery functions, such as improvement of health care delivery, education, training, and business development.

Potential demonstration communities could apply for funding for a range of activities that would improve technical connectedness to the Internet for underserved areas, developing skilled and adaptable human resources, improving quality of live, and advancing infrastructure.

Eligibility requirements:[22]

The Smart Communities Demonstration Projects program was extremely competitive, with very high standards for eligibility.

Before applying, eligible communities were required to demonstrate that they had brought together a coalition of key community leaders and potential beneficiaries to determine community needs and develop a vision and mission for the program. This included assessing existing infrastructure to identify gaps that would need to be filled to deliver the services and applications, and developing a detailed business strategy and implementation plan.

For Projects:

Project proposals were assessed by their ability to achieve outcomes in following five strategic areas:

- Community engagement
- Smart services
- Smart infrastructure
- Organization
- Smart results

Detailed descriptions of each of these target areas can be found in *Smart Communities: Report of the Panel on Smart Communities.*[23]

For Recipients:

Eligible recipients included cities, groups of geographically adjacent communities, or geographically separated communities (especially those sharing a common culture).

[22] Quoted directly from: The Panel on Smart Communities. (1998). *Smart Communities: Report of the Panel on Smart Communities*. Ottawa: Industry Canada.
[23] Ibid.

Recent actions:

In total, the program funded 12 demonstration Smart Communities over three years: one in each province, one in the Canadian North, and one Indigenous community.

Links:

- Guide for creating a smart community, 2002: http://publications.gc.ca/collections/Collection/C2-395-2003E.pdf

Other key sources:

- The Panel on Smart Communities. (1998). *Smart Communities: Report of the Panel on Smart Communities*. Ottawa: Industry Canada.

6.7. National Satellite Initiative

Round 1, 2002-2003, $155 million, funding primarily from Innovation, Science and Economic Development (ISED - formerly Industry Canada)

Round 2, 2006 - 2008, $85 million + $35.48 million + in 2008, an additional $36.4 million, funding through Infrastructure Canada / the Canada Strategic Infrastructure Fund.

Round 3: 2008 – 2015, funding through the Canadian Space Agency (CSA): $50 million

Focus:

The NSI's focus was to launch affordable broadband services in far- and mid-north communities and other areas that lacked adequate internet access and in which satellite may be the only option for broadband connectivity. It operated in conjunction with the Broadband for Rural and Northern Development (BRAND) program, under the recognition that the high cost of satellite capacity was a major cost barrier associated with delivering broadband services in these regions.

The NSI supported not-for-profit organizations in accessing the Public Benefit space segment on the satellite Anik F2, which is provided by Telesat as a condition of the license associated with Anik F3. This capacity is allocated for public benefit purposes that do not compete with commercial services.

Further to facilitating access to public benefit space, the NSI rounds 1 and 2 provided selected recipients with funding to purchase satellite capacity from Telesat. In round 1, the NSI helped to cover the costs of satellite capacity, while the BRAND program funded the requisite on-the-

ground infrastructure to support connectivity. In round 2, the NSI was funded through Infrastructure Canada, while ISEDC continued to run the program.

The NSI Round 3 was run through the Canadian Space Agency, and is separate from rounds 1 and 2. This program was associated with new technology and technology trials. The first commercialized high throughput satellite using KA band was launched in 2004, necessitating the development of new on-the-ground technology. This program is associated with service credit for KA band capacity across the North.

Eligibility requirements:

For Projects and recipients:

Communities applying for satellite capacity were required to develop a viable plan that would be of interest to a service provider. Applicants were required to identify their needs and the technologies currently available to them. They were also required to demonstrate their ability to contribute to installing network components and maintain the network once created.

Recent actions (information from Innovation, Science and Economic Development Canada):

Round 1 (ISEDC): Round 1 funding enabled First Nations and Inuit communities to access satellite-based infrastructure and connectivity services from satellite capacity on Telesat Canada's public benefit transponder. Four community-based candidates representing 52 communities received a total of 28 MHz of satellite capacity. The successful candidates were the British Columbia Satellite Network (British Columbia), the Sustainable Northern Connectivity Strategy (Manitoba), Asubpeeschoseewagong Netum Anishnabek Broadband (Ontario) and Kativik Regional Government (Quebec).

Round 2 (Infrastructure Canada / Canada Strategic Infrastructure Fund): Round 2 was managed by Infrastructure Canada, and was designed to acquire satellite capacity and common ground infrastructure for underserved rural and remote communities. Funds were provided on a cost-share basis, with CSIF contributing a maximum of 50 per cent of total eligible costs.

Round 3 (Canadian Space Agency): Round 3 provided a $50 million credit of satellite capacity from Telesat's Anik F2 satellite for the development of broadband in northern communities. This capacity was available until 2015.

Links:

- Industry Canada, *Broadband: The Programs:*

http://web.archive.org/web/20070820172822/http:/broadband.gc.ca/pub/program/nsi/aboutus.html

Appendix 2: Provincial and Territorial Programs

In many cases, individual provinces and territories also offer funding programs to support development in broadband infrastructure and ongoing connectivity in Indigenous regions and communities. A detailed assessment of these programs is beyond the scope of this guide; however, this section assists in further research into this area by providing an introductory list of some of the programs that are available at the provincial / territorial level. **Further research is required to determine which of these programs are currently active.**

Alberta

Department	Program	Links
Government of Alberta	Alberta SuperNet	http://www.servicealberta.gov.ab.ca/supernet.cfm
Government of Alberta	Alberta Rural Connections: Community Broadband Infrastructure Project	http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/csi12826
Government of Alberta	Rural Community Adaption Grant Program	http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/csi12825
Service Alberta and Agriculture and Rural Development	Alberta Final Mile Rural Community Initiative (FMRCI)	http://www.servicealberta.ca/FMRCI.cfm
Government of Alberta	Central Alberta Satellite Solution (phase 2 of the FMRCI)	http://www.servicealberta.ca/CASS_Search.cfm

British Columbia

Department	Program	Links
Government of British Columbia	Pathways to Technology	http://www.pathwaystotechnology.ca/about-the-project
Government of British Columbia	NetWork BC – Connecting Communities	http://www2.gov.bc.ca/gov/content/governments/services-for-government/information-technology/internet-in-bc/network-bc-connectivity-map
Government of British Columbia	Connecting Communities Agreement (CCA)	http://about.telus.com/community/english/about_us/for_our_customers/connecting_bc_program/partnership_details
BC Ministry of Labour	Connecting Citizens Grant Program	https://archive.news.gov.bc.ca/releases/news_releases_2009-2013/2010CITZ0007-000383.htm
Government of British Columbia	Connecting British Columbia Agreement (CBCA)	http://www.northerndevelopment.bc.ca/funding-programs/business-development/connecting-british-columbia/
Government of British Columbia	BC Broadband Satellite Initiative	http://www2.gov.bc.ca/gov/content/governments/services-for-government/information-technology/internet-in-bc/collaboration-and-programs/bc-broadband-satellite-initiative
Government of British Columbia and Government of Canada	First Nations Connectivity and Capacity Building	Funding to the All Nations Trust Company
Government of British Columbia	Community Network Infrastructure Grants Program	(program completed)

Manitoba

Department	Program	Links
Government of Manitoba	Canada-Manitoba Infrastructure Program; Municipal Rural Infrastructure Fund (MRIF)	http://www.infrastructure.mb.ca/cmipprojects/news04_0519.html

New Brunswick

Department	Program	Links
Government of New Brunswick; Canada	New Brunswick Broadband Initiative	http://www.gnb.ca/cnb/news/bnb/2006e0861bn.htm
Government of New Brunswick	Partnership with Barrett Xplore Inc.	http://www.newswire.ca/en/story/709111/rural-broadband-gets-new-55-million-infusion
Government of New Brunswick	Broadband Access Project	http://www.gnb.ca/cnb/news/enb/2003e1078en.htm

Newfoundland

Department	Program	Links
Government of Newfoundland ; Government of Canada	Broadband Internet Connectivity Project	http://www.releases.gov.nl.ca/releases/2005/edu/0915n07.htm
Government of Newfoundland	Rural Broadband Initiative	http://www.releases.gov.nl.ca/releases/2011/intrd/0629n01.htm
Government of Newfoundland	Government Broadband Initiative (GBI)	http://www.telecompaper.com/news/axia-broadband-project-in-newfoundland-labrador-cancelled--719384

Nova Scotia

Department	Program	Links
Government of Nova Scotia	Broadband for Rural Nova Scotia	http://nslegislature.ca/index.php/committees/committee_hansard/c7/pa_20110420

Northwest Territories

Department	Program	Links
Northwest Territories	Mackenzie Valley Fiber Link	http://mvflproject.com/

Nunavut

Department	Program	Links
Nunavut	Nunavut Broadband Development Corporation	**http://www.nunavut-broadband.ca/**
Government of Nunavut, ISED	Nunavut Community Access Program (N-CAP)	http://www.cbc.ca/news/canada/north/nunavut-takes-over-community-internet-access-funding-1.1232917

Ontario

Department	Program	Links
Ministry of Enterprise, Opportunity and Innovation; Management Board Secretariat; SuperBuild	Connect Ontario: Broadband Regional Access (CORBA) Cancelled	http://www.countyofrenfrew.on.ca/_documents/press releases/2004/ProvinceCancelsRuralBroadbandProgram.pdf
Ministry of Agriculture, Food and Rural Affairs	Rural Connections Broadband Program	https://news.ontario.ca/omafra/en/2008/06/rural-connections-broadband-program.html
Government of Ontario	Northern Ontario Heritage Fund Corporation	http://nohfc.ca/en/programs/strategic-economic-infrastructure-program
Government of Ontario and Industry Canada	Building Broadband in Rural and Northern Ontario Program	http://omafra.gov.on.ca/english/rural/ruralconnections/bbrno.htm

Prince Edward Island

Department	Program	Links
Government of Prince Edward Island	Rural Broadband Fund	http://www.gov.pe.ca/photos/original/FARD_REDS.pdf

Québec

Department	Program	Links
Gouvernement du Québec	Fonds pour la réalisation d'initiatives régionales et locales	http://www.krg.ca/images/stories/docs/Communiques_en/05_30_Broadband_3_eng.pdf
Gouvernement du Québec	Communautés rurales branchées	http://www.mamot.gouv.qc.ca/pub/developpement_territorial/ruralite/groupes_travail/rapport_collectivites_rurales_branchees.pdf

Saskatchewan

Department	Program	Links
Government of Saskatchewan	Investment in SaskTel	http://www.sasktel.com/wps/wcm/connect/content/home/about-sasktel/news/2015-news-releases/sasktel-announces-saskatchewan-network-investment

Yukon Territories

(none listed)