

Enabling an Inuit-Led Telecommunications Solution for Canada's Arctic

Written Submission to the Standing Committee on Finance in Advance
of the 2021 Budget
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PanArctic Communications Consortium

PANARCTIC COMMUNICATIONS CONSORTIUM



Recommendation: That the Government commit, as a very high priority, to the long-term funding of an Inuit-led solution to the broadband connectivity gap constraining social, security and economic development in the Arctic.

The Challenge: To Resolve the Digital Divide between Northern and Southern Canada

Unlike most parts of Southern Canada, the remote communities of Canada's Arctic continue to live without reliable, affordable and robust broadband connectivity. The COVID-19 crisis, and the new reality of self-isolating, working and educating from home, make the need for reliable connectivity more urgent than ever. This places tremendous pressure on telecommunications networks that were already highly constrained.

Limited satellite backbone capacity and no fibre links translate into real constraints on access to adequate bandwidth – and much higher retail prices than in the rest of the country. All 25 communities in Nunavut rely on satellite backbone connections that cannot provide broadband internet access at the level of the Universal Service Obligation (USO). The USO, defined by the Canadian Radio-television and Telecommunications Commission (CRTC) in 2016, is an internet access service that provides 50 Mbps download and 10 Mbps upload speed with no data caps.

Without adequate broadband connectivity, residents, businesses and governments in underserved communities face severe and growing challenges:

- Families, students and workers struggle to stay connected;
- Essential institutions such as education, health, justice, environmental monitoring and public security struggle and often fail to deliver critical public services;
- Inadequate communications infrastructure impedes the ability of key industries to advance at the normal pace of business; and
- Economic and social development are impeded by high cost, capacity shortfalls, and lack of competitive choice.

To address this situation effectively will require significant and long-term public investment. Past and current federal funding initiatives have not addressed broadband needs in the Arctic.

Most recently, in 2017 ISED's Connect to Innovate (CTI) program provided \$49.9 million to the southern-based telecommunications giant BCE Inc. (Bell):

- This in turn permitted Bell's wholly owned subsidiaries Northwestel Inc. and Bell Mobility Inc. to roll out broadband service using Telesat Canada's Telstar 19 Ka-band satellite for backbone connectivity.
- Despite ISED's stated commitment to open access to CTI-funded facilities, Bell has offered inadequate (and often unusable) wholesale access to its subsidized T19 satellite backbone capacity.¹
- Instead, CTI-funded backbone facilities are being used by Bell to build market dominance in Nunavut, to the detriment of competition, while providing no appreciable

¹ See <https://www.cbc.ca/news/canada/north/northwestel-data-problems-outages-1.5269317>

improvement to the accessibility and affordability of broadband service for Nunavummiut.

- Moreover, Nunavummiut have no input in service design, construction, or long-term decisions about service offerings – indeed, the 65% of Nunavut's population that relies on the alternative QINIQ service for broadband have been denied any benefit from this most recent CTI funding. Community input is absolutely vital.

The CRTC's Broadband Fund is insufficiently capitalized to resolve the digital divide: the Fund will provide a maximum of \$750 million in assistance over 5 years for all underserved regions of Canada, but only up to \$75 million has been earmarked for satellite dependent areas. No public funding decisions have yet to be made concerning applications from either of the Fund's first or second calls, which closed on October 3, 2019 and June 1, 2020, respectively.

Although federal infrastructure funding programs, such as the Universal Broadband Fund originally announced in Budget 2019, could provide additional assistance, they have yet to be implemented.

Broadband assistance programs will address the real issues only when they are adequately funded for the long-term, and are structured to invest in local Indigenous people, competition and choice. And time is of the essence: delayed investment will only serve to slow the Arctic region's capacity to recover from the recession and adapt to the new realities occasioned by the COVID-19 pandemic.

An Inuit-led Solution to the Broadband Deficit

The PanArctic Communications Consortium proposes an Inuit-led solution to the broadband deficit that holds back Nunavut's communities. The initiative combines the strengths of PanArctic Communications Inc., a recently created and wholly owned subsidiary of Qikiqtaaluk Corporation (QC), Nunavut's largest Inuit birthright development corporation, wholly owned by the Qikiqtani Inuit Association, and SSi Canada (SSi), the company that delivers QINIQ broadband and SSi Mobile service across Nunavut.

The PanArctic Communications Consortium builds on existing, comprehensive local network infrastructure to develop an Inuit-owned, controlled and operated telecommunications utility in the Arctic, beginning in Nunavut.

The project will build high capacity satellite and fibre backbone infrastructure across the Arctic. It will support local competition by developing open gateway facilities in each community we reach, beginning with all 25 Nunavut communities.

As a telecommunications utility, the PanArctic network will ensure open and fair access for all service providers to compete locally. The mistakes of the past should be overcome through a made-in-the-North solution – one that is led by Inuit organizations and experts in northern broadband delivery.

Connecting to multiple satellite networks, including to low-earth orbit (LEO) systems and fibre optic facilities as they become available, PanArctic will contribute significantly to backbone capacity, diversity and redundancy. In each community, PanArctic will develop critical community infrastructure, including:

- Open gateway facilities, where all service providers benefit from all available backbone access, tower space and secure co-location facilities for hardware, provided on the same terms to all comers;
- Clean energy backup power at all sites;
- Municipal area networks (MANs) that provide local connections for homes, businesses and government operations; and
- FM radio and video broadcast systems to distribute community events, emergency notifications and web streaming of cultural and Inuit language content.

Nunavummiut and eventually all residents of Canada's Arctic will benefit directly and immediately from Canada's investment in PanArctic. Building upon \$153 million invested since 2005 by SSi and federal investment programs such as ISED's Connecting Canadians, with the additional required investment PanArctic will:

- Commit to investment in backbone upgrades and capacity, including satellite and other backbone hardware, installation, and transmission capacity;
- Commit to building open gateway facilities in Nunavut, including new gateway infrastructure, towers, radio access network (RAN), local fibre and site development, emphasizing capacity building in the territory's 16 smallest communities;
- Invest in training and long-term job creation in Nunavut; and
- Invest in operational expenses over the long-term, including wages, power, repairs and maintenance.

Due to the highly competitive and commercially sensitive nature of public funding processes, PanArctic would prefer to share details of our well-developed financial model with the Committee *in camera* and at the Committee's convenience, instead of providing these in a publicly available document.

Benefits of an Inuit-led Solution

The lengthy experience of the PanArctic Consortium members in Nunavut emphasizes a simple message: No market is too small, or too remote, to benefit from local competition – and ensuring there is local competition remains the best way to deliver affordable and accessible telecommunications services to all.

To achieve local competition in small and remote markets, our regulators, policymakers and co-investors need to commit to enabling the full participation of local Indigenous and private sector stakeholders. It is not reasonable to expect that large southern telecom companies will do the right thing for every small and remote market. Naturally, and left to their own interests,

the large incumbent telcos will focus their best efforts on the huge southern and urban markets.

This recommended shift by PanArctic embodies a commitment to indigenous leadership that rethinks traditional ways of financing and building telecommunications infrastructure. Currently federal funding is too often allocated to the very incumbent phone companies that have consigned many Canadians to the wrong side of a digital divide. Clearly this process has not worked. It needs to change.

Open Access to Support Competitive Service Offerings

The key to local stakeholder participation and competitive access in Canada's North is the open gateway facility. Only with guaranteed access to gateway facilities can competition thrive – and only with competition will Northerners gain the benefits of service innovation, choice, and pricing that Canadians in the South take for granted.

Inuit Ownership and Commitment Delivers Local Employment

QC's engagement in PanArctic as a founding member of the Consortium and the ability for other Inuit organizations to participate ensure the solution to Nunavut's digital divide respects Inuit objectives for birthright lands and resources while ensuring that Inuit derive the economic, social and cultural benefits of the PanArctic solution.

Inuit leadership ensures decisions about telecommunications in Canada's North are made with the best interests of Nunavummiut in mind. In addition to the economic and security benefits this will deliver, Inuit engagement ensures that the development of sustainable employment in all of Nunavut's communities remains a high priority. Training will lead to skilled, local jobs in logistics, shipping and receiving, tower maintenance and support, satellite systems maintenance and support, installation and technical support for fibre facilities, and field technicians for remote travel. Inuit engagement in local radio and broadcast systems will also support local content creation and publishing activities.

Superior Broadband Delivers Future Growth

Inuit-led PanArctic will ensure that Nunavut households have access to affordable, high quality broadband so that the people of Nunavut can pursue their social, cultural, and economic objectives unencumbered by poor connectivity. Households will have easier access to educational resources. Inuit organizations, territorial, municipal and federal governments will be able to improve the efficiency and delivery of a wide range of public programs, from education to health care and access to justice. The priority that PanArctic attaches to training and job creation in Arctic communities will contribute to the long-term sustainability of the project.
