

**CRTC Consultation CRTC 2012-669-1:
Review of Northwestel Inc.'s Regulatory Framework,
Modernization Plan, and related matters**

Final comments submitted on behalf of the First Mile Connectivity Consortium

1. We appreciated the opportunity to participate in this consultation, which addresses important issues affecting availability, affordability and reliability of modern telecommunications services including broadband in the Northwest Territories (NWT), Nunavut and Yukon. Such services are critical for social and economic development and well-being of Aboriginal communities. We believe that competition coupled with new approaches to subsidies can result in modernized facilities and services that are both available and affordable throughout Northwestel's service area. With appropriate policies, Northerners including Aboriginal organizations and communities can be providers as well as consumers of such services.

First Mile Connectivity Consortium:

2. First Mile Connectivity Consortium is a group of university-based researchers, First Nations regional technology organizations, and individual First Nations with membership concentrated in rural and remote regions, in particular, the 'high-cost serving areas' of northern Ontario, Quebec, British Columbia, Northwest Territories, and Atlantic Canada.
3. Our common interest is in showcasing community development projects; we also conduct research on the barriers and challenges these projects face. Our work builds on that undertaken by organizations linked to the Assembly of First Nations. For years, these organizations have developed and delivered infrastructure and services to support remote, dispersed, low-population communities.
4. Through the First Nations Innovation Project, our team has published more than 50 articles, and the First Mile.ca website showcases almost 80 community stories.¹ In 2010 we produced a comprehensive report² including interviews with 23 stakeholders from First Nations and Inuit regional technology organizations. The report's overriding message was that these diverse groups sought to re-frame broadband development policy to enable community development – thus shifting the focus of broadband development from the 'last mile' – to the First Mile.

¹ See the First Nations Innovation Project website: http://fn-innovation-pn.com/publication_listing.aspx

² *Putting the 'last-mile' first: Reframing broadband development in First Nations and Inuit communities*, available at: <http://meeting.knet.ca/mp19/file.php/106/Putting-the-Last-Mile-First-Dec-1-2010.pdf>

Benefits of Telecommunications for Remote Aboriginal Communities:

5. In our written and verbal testimony, representatives of First Nations organizations have pointed out the importance of information and communications technologies (ICTs) for Aboriginal development. As Norm Leech, Executive Director of the First Nations Technology Council, noted, Aboriginal Canadians are the fastest growing demographic in the Canadian workforce. Improved access to information and communications technology will help them to acquire the education and skills they need for employment in an increasingly information-intensive economy. He also noted that “access to information and the power of knowledge increases the ability of rural and remote northern communities to develop into active and productive participants in the broader Canadian economy.”
6. Norm Leech, Brian Beaton, Former Manager of Keewaytinook Okimakanak, Kuhkenah Network (KO-KNET), and Lyle Fabian, IT Manager of K’atl’odeeche First Nation (KFN), all noted the importance of telecommunications to remote Aboriginal communities where distances are great and travel costs are extremely high (as the CRTC commissioners and staff themselves experienced in their travels to Inuvik and Whitehorse). KO-KNET uses videoconferencing extensively to support work across the North, including health services, education programs, court sessions, meetings, and consultations. Lyle Fabian gave examples of how KFN’s community fibre network will provide benefits for health and wellness, education, economic development and government services for the community.
7. Although we appreciated the opportunity for First Mile interveners to testify by telephone, we were very disappointed that it was apparently too difficult and expensive to use videoconferencing. The lack of videoconferencing in a telecommunications hearing is both surprising and ironic. It certainly demonstrates the lack of modern and affordable communications services in Northwestel’s service area.

First Nations Organizations as Providers of Telecommunications Services

8. Our interveners pointed out that in addition to deriving benefits from access to affordable modern telecommunications, Aboriginal organizations and communities can actually be providers of communications facilities and services. Further, they demonstrate that there is substantial revenue to be generated not only from residents but also from anchor tenants including public sector agencies, businesses, and nonprofit organizations.
9. Brian Beaton stated that KO-KNET took the position that the communities needed to own and manage their local infrastructure so that they could create local employment and support local services and applications in an affordable and sustainable manner. KO-KNET worked with the First Nations to construct their own cable networks connecting all the buildings in each of the communities. “... the key with all these developments is that the communities can now plan and develop their

own services.... They also benefit from the local employment and training opportunities these initiatives provide.” He also described the strategy to serve satellite-based communities that grew to become the Northern Indigenous Community Satellite Network (NICSN), that now provides connectivity in more than 40 remote, satellite-served communities across northern Manitoba, Quebec and Ontario.

10. Lyle Fabian of KFN described how KFN installed fibre infrastructure linking all its administration buildings, hired and trained local residents to install the fibre and maintain the network, partnered with another organization to develop ICT curricula, and introduced videoconferencing capabilities in the Band office. He stated that KFN is ready to lease dark fibre to Northwestel or other backbone providers.
11. Representatives of Eeyou Communications Network / Réseau de Communications Eeyou (ECN) described their regional fibre-optic network servicing the northwestern Québec area of the James Bay territory (Eeyou Istchee). ECN is a backbone service and Internet wholesaler providing broadband carrier services for the Cree communities of Eeyou Istchee and municipalities of the James Bay region. It also provides jobs for local residents and is a vehicle for advancement of technical and management skills.

Subsidy Schemes for Remote and Indigenous Regions:

12. Professor Heather Hudson described several innovative policies recently introduced in the United States that are designed to extend broadband to remote and tribal regions, as well as other subsidy programs. She noted that these programs are improving availability and affordability of broadband in remote Native villages in Alaska which are very similar to the indigenous communities in the Canadian North. The subsidies for Internet access for schools and libraries and for rural health care not only reduce costs for these services, but create anchor tenants and sources of revenue in the villages for the service providers.
13. Several other recent programs and initiatives by the Federal Communications Commission (FCC) are designed for rural and tribal regions. They include:
 - The Connect America Mobility Fund: allocates \$300 million for mobile voice and broadband in high cost areas, plus \$500 million per year ongoing support, with licences awarded by reverse auction;
 - Mobility Fund for Tribal Areas: A special allocation under the Connect America Mobility Fund is to provide \$50 million capital plus up to \$100 million per year for tribal areas;
 - Broadband Lifeline Pilot Program: The Lifeline program subsidizes voice services for low income residents, including those living on tribal lands. The FCC has allocated \$25 million for a pilot program to determine whether the Lifeline program that subsidizes voice services for low-income residents should be extended to broadband.

- **Spectrum:** A recent rulemaking proceeding is designed to improve Tribal access to spectrum and to promote greater utilization of spectrum over tribal lands. It also seeks to foster the establishment of tribally-owned wireless carriers.
- **Indigenous Participation as Providers and Consumers:** The FCC seeks to encourage tribal entities to become certified as Eligible Telecommunications Carriers (ETCs) for these programs, and is providing training for them on eligibility, opportunities for joint ventures, and the mechanics of the auction and other processes.
- **Tribal Government Engagement Obligation:** The FCC has implemented a requirement that communications providers receiving subsidies to serve tribal lands must “meaningfully engage” with the tribal governments of these lands.” In Alaska, carriers must now consult with tribal governments and Native organizations.

14. Professor Hudson also stated that universal service funds (USFs) have been established in at least 52 other countries. She noted that subsidies to “carriers of last resort” such as the model used in Canada to subsidize Northwestel have several disadvantages. The incumbent carrier may have no incentive to be efficient or innovative in its choice of technology and its installation and maintenance if these costs are directly subsidized. Second, the carrier may have little incentive to maintain adequate quality of service (QOS) if it assumes these areas are unlikely to generate significant revenue. And third, the carrier may demand special treatment or concessions in a liberalized environment because of its universal service obligations.

15. She noted that subsidy programs in the U.S. and some other countries offer several models that could be adopted in the Canadian North:

- **Competitive bids:** This approach not only creates incentives to minimize costs, but also encourages new entrants.
- **Reverse Auctions:** This approach can foster competition in unserved regions, and creates incentives to minimize subsidies.
- **Special Programs for Rural and Tribal Regions:** Subsidies can be designed to extend or upgrade facilities in unserved and underserved regions and regions with significant indigenous populations.
- **Strategies to foster tribal/Aboriginal providers:** Training programs, opportunities to become licensed carriers, and special consideration for tribal/Aboriginal organizations can help to develop indigenous providers and create skilled and sustainable local jobs.
- **Anchor Tenants:** Subsidizing of institutional users such as schools, libraries, and health services creates “anchor tenants”. With guaranteed revenues, providers may have incentives to expand into previously unserved or underserved communities.
- **Awards to the user:** Subsidies can be awarded to institutional users such as schools, libraries, or health services, as well as to disadvantaged individuals or

households. This approach can empower users as customers of the carriers, rather than supplicants.

Affordability:

16. Professor Hudson also provided an undertaking at the request of the Commission on affordability. She noted that affordability is a key issue in remote Aboriginal communities where incomes are limited and the cost of living is very high. She included data on incomes and the cost of living in remote Aboriginal communities and on the pricing of services in Northwestel's service area compared with other parts of Canada. Dr. Hudson described U.S. telecommunications policies specifically addressing affordability, and metrics developed by the OECD, ITU and others to develop benchmarks for affordability. She stated that data on incomes and cost of living in the Canadian North and pricing of Northwestel services could be used to develop a similar measure of affordability.

Why the CRTC should act in this Consultation:

17. As noted by many interveners, residents of Northwestel's territory face discrimination in terms of service availability, quality of service, and pricing compared to residents in many other parts of Canada. There is also discrimination *within* Northwestel's territory, notably between services and prices offered to residents of communities served only by satellite and communities connected to terrestrial networks.

18. Proactive regulatory responses can also be justified also on the grounds that Northwestel's territory is unique in the remoteness of a majority of the communities it serves. While there are areas in territories served by carriers in other parts of Canada that include small and/or isolated communities, Northwestel's *entire* service area consists of isolated and remote communities.

19. The Commission has questioned whether they are being asked to adopt regulations to address social policies rather than telecommunications policies. As noted in our Reply Comments, we reject this arbitrary distinction. The CRTC is simply being asked to fulfill its mandate under the Telecommunications Act by implementing regulations that would contribute to achieving the objectives of the *Act* as they apply in Northwestel's service area, namely to "facilitate the development of a telecommunications system that serves to:

- a) "safeguard, enrich, and strengthen the social and economic fabric of Canada and its regions";
- b) "render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada";
- c) "enhance the efficiency and competitiveness...of Canadian telecommunications";... and
- h) "respond to the economic and social requirements of users of telecommunications services".

20. Some interveners have suggested that action, or perhaps even discussion, on changes to subsidy schemes and requirements for broadband services should be deferred to a national policy review. Some have suggested that any changes could delay or derail implementation of Northwestel's modernization plan. We reject this argument and agree with Nunavut Broadcasting Development Corporation (NBDC), the Yukon Government, and others that addressing critical issues needs to begin now as part of this hearing. Northerners should not be forced to wait any longer.
21. Several commissioners have pointed out that other federal government agencies need to be involved in a long term strategy for financing investment and addressing needs for operating subsidies across the remote North. We agree. We don't expect the CRTC alone to solve all of the funding problems. But we do believe the CRTC has a mandate and opportunity to tackle some of these issues by implementing incentives for investment, efficiency, and innovation and instituting competitive subsidy programs available to all qualified providers.
22. This consultation provides an opportunity to begin necessary reforms. Addressing issues clearly within the scope of this consultation does not preclude addressing national subsidy policies and obligations of providers at a future forum.

How the CRTC can address these issues in this Consultation:

23. We provided this testimony not simply to point out how modern telecommunications are critical for development of remote Aboriginal communities and how Aboriginal communities and organizations can be providers as well as consumers of these services, but to identify specific steps the CRTC could take to address these issues in the context of this hearing on Northwestel and its service area. To expand the model of Aboriginal provision of telecommunications services described in our testimony, Aboriginal providers need the opportunity to compete and access to the subsidies currently available only to Northwestel. They also require access to existing transport infrastructure that has been built using public and subsidized funds.
24. **Open the NCF:** As a first step, the CRTC should open the National Contribution Fund (NCF) in Northwestel's territory to competition from any provider able to provide the required services, including Aboriginal providers. A mechanism of competitive bids for least-cost subsidies could be used. To prevent the potential problem of excluding some very small communities, the bids should be structured for subregions including a group of communities.
25. **Guarantee Open Access:** The CRTC should guarantee Open Access to transport infrastructure. We note the Commission's recent decision on tariffed rates for 'Wholesale Connect' service, and our concern that Northwestel's response to the Commission's decision may impact the availability of infrastructure in remote regions and communities. It is our opinion that a regulatory framework that

encourages open access to publicly subsidized transport facilities is in the best interest of local communities.

26. **Require Consultation:** Meaningful and documented consultation with Aboriginal communities should be required as a condition for approval of any revised version of Northwestel's plan. We draw attention to the FCC's requirements in the US that providers receiving subsidies to serve tribal lands must "meaningfully engage" with tribal governments. It was clear from written and verbal testimony during this consultation that many northern residents did not understand Northwestel's modernization plan, including what services they would or would not receive, in what time frame, and at what price.
27. **Broadband Availability:** The CRTC should require that Northwestel meet the Commission's national requirements of providing *actual* download speeds of 5 mbps and upload speeds of 1 mbps by the end of 2014 in all the communities in its service area including those served by satellite.
28. **Quality of Service:** The CRTC should require more thorough monitoring of Northwestel's quality of service. There have been many complaints from interveners that the service provided does not reach even minimum advertised speeds. Regular monitoring of actual upload and download speeds and services outages should be required.
29. **Develop Pricing Benchmarks:** Rates for telecommunications services in Northwestel's service area should be reasonably comparable to national averages. The CRTC should designate one or more baskets of services to be used for comparing prices between Northwestel's service area and other regions.
30. **External Review:** In addition to requiring an annual progress report from Northwestel on its modernization activities, the CRTC should require an annual external review or audit to document progress on the plan and specifics on how NCF subsidies have been spent.

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