

Standing Committee on  
Economic Development  
and Environment



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# Report on Telecommunications

19<sup>th</sup> Northwest Territories Legislative Assembly

Chair: Mr. Jackie Jacobson

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November 30, 2021

SPEAKER OF THE LEGISLATIVE ASSEMBLY

Mr. Speaker:

Your Standing Committee on Economic Development and Environment is pleased to provide its *Report on Telecommunications* and commends it to the House.

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke, likely representing Jackie Jacobson.

Mr. Jackie Jacobson  
Chair, Standing Committee on  
Economic Development and Environment

**STANDING COMMITTEE ON  
ECONOMIC DEVELOPMENT AND ENVIRONMENT**

**REPORT ON TELECOMMUNICATIONS**

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## **STANDING COMMITTEE ON ECONOMIC DEVELOPMENT AND ENVIRONMENT**

### **REPORT ON TELECOMMUNICATIONS**

#### **Executive Summary**

The Standing Committee on Economic Development and Environment (Committee) is concerned about the growing digital divide in the NWT, and the overall accessibility, connectivity and quality of internet service across the NWT.

The pandemic continues to highlight the growing gap between those with affordable, high speed, reliable connectivity and those without. Communities in the NWT, especially the more remote communities are suffering the most, as are the residents who can not afford it. The NWT falls below the rates of connectivity across Canada and yet also pay the highest price, for a service that can be sporadic. The NWT has witnessed over the course of the pandemic how sporadic service in a remote community limits the accessibility of essential services.

The Committee invited presentations from the Government of the Northwest Territories (GNWT) and industry. This engagement informed Committee's submission to the Canadian Radio Telecommunications Commission 2020-367 (Appendix A) and has also informed Committee's recommendations to the GNWT.

In Committee's view the GNWT has not completed a comprehensive business plan including financial costs required to provide internet access in the NWT at a comparable level of service to southern Canada. Without a complete picture of the total cost for delivering this service, the GNWT continues to fall short with federal partners and industry to achieve this end.

The following report provides a summary of what Committee heard from stakeholders and submits recommendations to the GNWT to improve accessibility, reliability and affordability of telecommunication services in the NWT.

The Standing Committee on Economic Development and Environment has provided nine recommendations for the GNWT:

1. The Standing Committee on Economic Development and Environment recommends the GNWT continue to invest in publicly owned backbone internet infrastructure in the NWT. Specifically, the GNWT should prioritize the opportunity to create fibre redundancy in the NWT.
2. The Standing Committee on Economic Development and Environment recommends the GNWT ensure fibre to the home is made available to

- Tuktoyaktuk residents at the completion of the Inuvik to Tuktoyaktuk fibre line installation.
3. The Standing Committee on Economic Development and Environment recommends the GNWT ensure all backbone Internet infrastructure in communities accommodates open wholesale access to NWT businesses, to co-locate internet services at a fair price to NWT businesses.
  4. The Standing Committee on Economic Development and Environment recommends the GNWT to advocate to the Canadian Radio Telecommunications Commission to set aside funding under its Broadband Fund for smaller service providers and Indigenous-owned businesses to help promote competition.
  5. The Standing Committee on Economic Development and Environment recommends the GNWT ensure all publicly funded internet backbone infrastructure in the NWT provide wholesale high-speed Third-Party Internet Access.
  6. The Standing Committee on Economic Development and Environment recommends the GNWT address the digital divide within the NWT by providing free access to basic internet packages through Income Assistance funding and NWT Housing Corporation public housing units.
  7. The Standing Committee on Economic Development and Environment recommends the GNWT to address the digital divide by building partnerships that can provide free wifi service in all regional centres.
  8. The Standing Committee on Economic Development and Environment recommends the GNWT encourage competition in the market by procuring internet services in smaller pieces so that local internet service providers can effectively bid on these opportunities.
  9. The Standing Committee on Economic Development and Environment recommends a response to the recommendations listed above within 120 business days.

## **INTRODUCTION**

The Standing Committee on Economic Development and Environment met in August 12-12, 2020 in Tuktoyaktuk to establish strategic priorities for the Committee to advance over the life of the assembly.

At this meeting, Committee identified a priority during the life of the Assembly to improve the accessibility, reliability and affordability of telecommunications across the NWT. The Committee also identified the opportunity to support NWT businesses in this sector.

On November 27 2020 the Canadian Radio Telecommunications Commission (CRTC) announced the [Telecom Notice of Consultation CRTC 2020-367](#). The CRTC 2020-367 process invited submissions from the public regarding the Review of the

Commission's Regulatory Framework for Northwestel Inc. and the State of Telecommunications Services in Canada's North.

Committee chose to submit an intervention to the CRTC proceeding. Engagement with industry and government to inform this submission would also be the basis for this report and recommendations to the GNWT.

## **ENGAGEMENT PROCESS**

On August 13, 2020, while in Inuvik, Committee took the opportunity to visit the facilities of local internet service provider New North Networks.

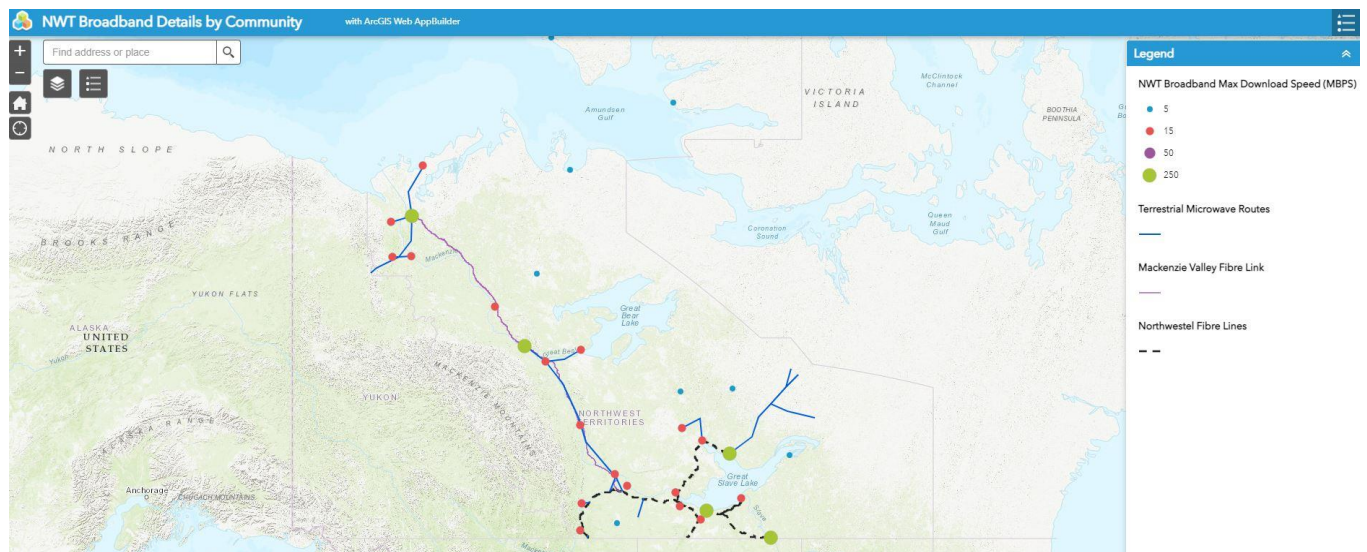
In preparation for submission to the CRTC 2020-367 process, Committee invited presentations from all internet service providers in the NWT: Katlo Tech Communications, New North Networks, SSI Canada, and Northwestel. All invitations were accepted. Committee also invited a presentation from the Department of Finance, GNWT. See Appendix B for copies of all presentations made to Committee as part of this review.

Participants were invited to discuss telecommunications services in the NWT, and specifically, regarding affordability, quality, and reliability of telecommunication services in the NWT as well as opportunities for fostering business competition in the NWT. Committee was also curious to understand the GNWT's participation in the CRTC proceedings.

## **WHAT WE HEARD**

### **Internet Infrastructure in the NWT**

A map of the NWT's broadband network was provided by the Department of Finance, it was provided as part of an information request from Committee which is also included as Appendix C.

**Figure 1: NWT Broadband by Community**

Source:

<https://nwtgeomatics.maps.arcgis.com/apps/webappviewer/index.html?id=0160eec838b540b1910fo471402bfofo>

Committee heard that in 1996 there were in excess of 20 internet service providers in the NWT. Today Northwestel is the dominant provider.

It was suggested by local internet service providers that funding and policy decisions over the years have been designed anti-competitive, which has resulted in the exclusion of northern owned companies.

Of particular note, in 2011 the [CRTC Regulatory Policy 2011-771](#) states,

*“The Commission is concerned that Northwestel’s shareholders have benefited from the price cap regulatory framework to a far greater extent than its customers. Since 2007, Northwestel has received over \$20 million in annual subsidy for the provision of service in remote communities and its annual income from operations has nearly doubled to \$69.3 million in 2010. Despite this, the company has failed to make the necessary investments in its network.”*

Committee recognizes the monopoly for internet services in the NWT. Ten years have passed since the CRTC Regulatory Policy 2011-771 yet Committee questions if anything significant has changed.

The virtual monopoly of internet service providers in the NWT was noted through a study commissioned by the CRTC on [“Research on Telecommunications Services in Northern Canada”](#). The study notes, *“only one-third of northerners with home Internet*



*access hold positive views of their provider's efforts to meet their household needs for Internet, while another three in ten describe it as average".*

Rural and remote connectivity is a national issue. The recently released report [Waiting to Connect](#), highlights the difference between internet service in rural and urban homes, and suggests that rather than focussing on a particular internet speed, having internet in rural and remote regions comparable to urban centres in terms of quality and price is a more equitable and suitable goal.

The GNWT, Department of Finance provided a list of internet service providers along the Mackenzie Valley Fibre Line (MVFL):

- Fort Simpson, NWTel
- Wrigley, NWTel
- Tulita, NWTel
- Norman Wells: NWTel; New North Networks; Ice Wireless
- Fort Good Hope, NWTel
- Inuvik: NWTel; New North Networks; Ice Wireless

Committee recognizes that the GNWT will not compete in the private market to be an internet service provider, yet the GNWT can play an integral role to advance the development of critical backbone internet infrastructure in the NWT and encourage smaller providers through its contracting practices and other methods detailed in this report.

Committee acknowledges the GNWT is developing a fibre line from Inuvik to Tuktoyaktuk and making efforts to advance a fibre line from Behchokq to Whati.

Committee applauds the GNWT's efforts to expand backbone internet infrastructure and wants to see the continued expansion of fibre line in the NWT prioritized.

Committee recognizes affordability and accessibility of service is a priority for residents of the NWT, and that redundancy in fibre network is key to achieving reliability and consistency of service.

Internet, and cellular service outages are common in the NWT. There have been several media reports over the years highlighting [challenges to consistent internet services](#).

Fibre line redundancy will support internet consistency within communities connected to fibre line infrastructure, however the recent outage in Ulukhaktok, a community serviced by satellite demonstrates how critical internet services are in northern remote communities.

On February 24, 2021 the community of Ulukhaktok experienced eight days of sporadic internet connectivity. Through this time residents were forced to pay cash for

gas, heat and food, which was nearly impossible to access due to sporadic connectivity. This put some residents in dire need of essential items, intensified by an impending blizzard expected to hit the arctic coastal community. [Mayor Joshua Oliktoak](#) stated,

*“This has been one of the worst times that I know of. We need help. We need somebody to come here and fix this situation because people are struggling to get groceries, to get heating fuel and to get gas for their snowmobiles”.*

Committee wants to see the GNWT advance initiatives that create redundancy in the fibre network to ensure consistent and reliable service to NWT residents.

Committee also wants the GNWT to prioritize initiatives that support affordability, reliability and consistency of service for satellite connected communities.

**Recommendation 1:** The Standing Committee on Economic Development and Environment recommends the GNWT continue to invest in publicly owned backbone internet infrastructure in the NWT. Specifically, the GNWT should prioritize the opportunity to create fibre redundancy in the NWT.

### **Open Access to Internet Infrastructure**

Committee acknowledges [public concern](#) that communities along the Mackenzie Valley Fibre Line (MVFL) have not benefitted from access to high-speed internet despite the completion of the Mackenzie Valley Fibre Link. The fibre line infrastructure runs past communities but does not connect communities, and there are many challenges to local businesses providing this service.

Committee is also concerned about the development of the fibre line from Inuvik to Tuktoyaktuk. Although the GNWT is extending this critical fibre line, it is uncertain how the fibre line will connect to homes. Committee is not clear who will connect homes to the fibre line, and whether the fibre line infrastructure will facilitate open access to private businesses.

**Recommendation 2:** The Standing Committee on Economic Development and Environment recommends the GNWT ensure fibre to the home is made available to Tuktoyaktuk residents at the completion of the Inuvik to Tuktoyaktuk fibre line installation.

Committee heard a significant challenge for local internet service providers to expand internet into communities was related to the accessibility of the fibre line. Open access to the fibre line is required for local companies to establish local internet service.

Internet service providers explained to Committee how without open access built into the fibre line infrastructure, local internet service providers may be required to establish a building and a tower to connect to the fibre line. Local businesses

stressed the need for open gateways to the fibre line and even to regulate these gateways to ensure no one provider has exclusive access.

In Committee's view, all public investments of fibre line infrastructure should promote competition in the market and ultimately lower internet prices for NWT residents and users.

Because open access to the MVFL was not built into the infrastructure, growth of local internet services along the MVFL has been inhibited from the financial investment required to build the necessary telecom infrastructure.

The [funding announcement of NWTel's modernization plan under Broadband Fund](#) supports NWTel to complete the last mile of the needed infrastructure, under the "fibre to the home" initiative. Fibre to the Home will create a direct connection of households in communities along the MVFL to the fibre line itself.

Committee heard [Qimirluk](#) was a model solution for internet infrastructure. The Qimirluk solution, a branch of SSI Micro in Nunavut, has enabled high quality and affordable telecom services by leveraging a shared internet backbone to southern Canada that is accessed through open gateway facilities.

The two components that make the Qimirluk solution work: shared internet backbone that makes use of new high throughput satellites; and open gateways allows service providers in the community to co-locate equipment, share tower space and access wholesale backbone capacity and pricing.

**Recommendation 3:** The Standing Committee on Economic Development and Environment recommends the GNWT ensure all backbone Internet infrastructure in communities accommodates open wholesale access to NWT businesses, to co-locate internet services at a fair price to NWT businesses.

### **Supporting Communities and Indigenous Owned Business**

Committee heard concerns about subsidizing or investing heavily in only one network to provide last mile solutions. Indigenous led projects were identified as the key to solving the "last mile" of digital divide in Canada and the north. [Clear Sky Connections](#) was noted as the largest Indigenous owned telecommunications network in Canada.

Northwestel noted [NASCo/Frontec](#) as a successful Indigenous business initiative. Northern Aboriginal Services Company (NASCo) is part of a joint venture with Atco-Frontec Services Ltd. to provide facility maintenance and logistical services across for Northwestel at 160 microwave sites across northern Alberta and British Columbia, as well as the NWT, Nunavut and Yukon. NASCo/Frontec has been providing this work for Northwestel for over twenty years.

Committee heard concerns from local internet service providers regarding transparency of telecommunications funding. Local businesses explained how the funding process appears to be pre-determined, that there is no meaningful way for local internet service providers to compete for funding opportunities. Local businesses felt that telecom regulators did not see the need for local industry to provide competition to Northwestel.

The Report [Waiting to Connect](#) also details the challenges for small businesses and Indigenous communities to access funding, *“the challenges created by a complex funding environment favour bigger companies and/or communities with the capacity and resources to benefit from government infrastructure funds”*.

Committee heard how alternatives to the ‘last mile solutions’ should be explored. Final connections, providing fibre to the home, should empower communities to gain access to broadband networks. Committee was urged to not support the status quo but to explore how the GNWT could strengthen community-based networks. The GNWT holds significant influence to build local internet service providers through its own purchasing power of internet services, and also through its submissions to the Canadian Radio Telecommunications Commission as part of regulatory proceedings.

Committee recognizes that competition in the telecom industry is key for growth and development in the NWT.

**Recommendation 4:** The Standing Committee on Economic Development and Environment recommends the GNWT advocate to the Canadian Radio Telecommunications Commission to set aside funding under its Broadband Fund for smaller service providers and Indigenous-owned businesses to help promote competition.

### **Strengthening the NWT Economy through Data Technology**

The Mackenzie Valley Fibre Line spurred local economy through the development (as well as ongoing operations and maintenance) of satellite stations in Inuvik. The Inuvik Satellite Station was made possible with connection to the MVFL and was noted by Committee as a successful example of economic development through satellite internet technology.

The establishment of the Mackenzie Valley Fibre Line directly resulted in the establishment of the Inuvik Satellite Station Facility administered by [Natural Resources Canada](#) as well as satellite technology managed by News North Networks. [Kongsberg Satellite Services](#) alone has invested close to \$20 million into the Inuvik Satellite ground station.

Minister McLeod spoke about the potential of the Inuvik Satellite Station in the Legislative Assembly on September 27, 2017,

*“As a result of the Mackenzie Valley Fibre Link, Inuvik is now positioned to be one of the leading sites for tracking and reviewing real time data from polar orbiting satellites used for scientific mapping, weather surveillance and more. The Mackenzie Valley Fibre Link will further enable growth of the remote sensing and commercial satellite industry in Inuvik. Mr. Speaker, the potential of growing Inuvik through national and international customers is very positive for our territory’s future.”*

The process to develop the Inuvik ground station started in 2007. The political vision and leadership at that time to develop the MVFL was noted as critical to the advancement of ground stations and is required for any future developments.

This type of development has already occurred in other northern regions, such as Kiruna, Sweden. Kiruna hosts the largest satellite ground station in the world which is also positioned to support polar orbiting satellites. Kiruna hosts the Swedish Institute of Space Physics, which is co-located with the Department of Space Science of the Lulea University of Technology.

A [Mission Report](#) was tabled in the house on October 28, 2013. Officials from the GNWT travelled to Kiruna, Sweden and Munich, Germany to visit other satellite receiving stations to assess the benefits of expanding the Inuvik Satellite Station. This report notes 100 full time employees in Kiruna and 60+ employees and students at the University of Lulea.

A [case study](#) of Kiruna highlights efforts to diversify the economy into tourism and the space industry as solutions to address the negative population and sole dependence on mining. Mining however still remains the primary economic driver for the region.

The [Standing Committee of Arctic Parliamentarians](#), identifies that Sweden has supported the development of the space industry and tourism as a way of economically diversifying. Local workforce readiness is a challenge, where education is noted as key to ensuring local employment. It was further noted that Sweden is doing research to identify other sectors where it can be globally competitive including research and development and data centres.

Committee notes there is no strategy or action plan to attract more investment in satellite stations or to grow the digital economy in the Inuvik Region.

Committee heard about the opportunity to strengthen the NWT economy through data technology and specifically data centres. The north is already viewed by some companies as a haven to store information, as well as to operate data centres which require cold environments. The private sector is positioning to fill this demand. The development of cloud-based services, and other technologies in data centres provide an opportunity for the NWT to grow a digital economy.

Additionally, the use of cloud-based services and the development of data technology centres requires open access to fibre line infrastructures as well as wholesale rates for the internet service.

Committee recognizes it is important to ensure there are no unreasonable delays or barriers to the development of this sector.

### **Wholesale Connection**

Committee heard that the cost of accessing the wholesale bandwidth from the backbone infrastructure was a barrier for local internet service providers to offer affordable local internet packages to NWT customers.

It was suggested that local internet service providers need to be paying the same rate for wholesale broadband access as NorthwTel. It was also noted that the cost of wholesale broadband access is much higher in the NWT than in southern Canada. [SSi Canada](#) describes the inability to purchase wholesale rates in the NWT at a comparable price to southern Canada.

While a jurisdictional comparison of wholesale access rates for local internet providers has not been done, there is significant information available on the difference in price, service, speed and quality for Internet services in the north compared to southern Canada.

The user-prise for northern communication services in the NWT remains the highest in the country<sup>1</sup>.

According to the CRTC report, [Resource on Telecommunications Services in Northern Canada](#), “*affordability, reliability and quality were the three biggest problems identified with telecommunication services, especially in respect to Internet. High prices made it an unaffordable service to many. Unreliable and poor-quality Internet service (low speeds and data caps) were also noted as detrimental to those in the North as it limited their standard of living compared to those in southern Canada*”.

Businesses also expressed concern regarding the regulatory oversight on the backbone telecommunications infrastructure in the NWT in regard to pricing and quality of service.

CRTC policy requires internet providers that own infrastructure to allow internet providers that do not own infrastructure wholesale access to their networks. While wholesale regulations have fostered competition in some rural areas most of rural and remote Canada is not served by wholesale-based competitors<sup>2</sup>.

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<sup>1</sup> Canadian Radio-television and Telecommunications Commission, Communications Monitoring Report 2018

<sup>2</sup> Council of Canadian Academies, *Waiting to Connect*, November 2021, p. 73

The CRTC is moving towards a wholesale model that will increase competition and investment. The CRTC states the [new model will enable competitors to access the fibre to the home networks](#) and encourage competitors to invest in their own network.

The [2021-181 Telecom Order](#) reflects the CRTC's desire to promote facilities-based competition, in which competitors primarily use their own telecommunications facilities and networks to compete instead of leasing them from other carriers.

Committee remains concerned about access to wholesale rates for NWT internet service providers to foster local internet solutions, to address the growing economic divide between the remote and regional centres, as well as northern Canada to southern Canada.

Residents in rural and remote areas of Canada have identified limited access to high-speed, reliable internet as their main challenge in achieving economic growth.<sup>3</sup>

Committee heard from a local internet service provider that the GNWT (through the MFVL) charges 1/100<sup>th</sup> the price that the company used to pay to Northwestel for the same wholesale access.

It was suggested that wholesale high-speed Third-Party Internet Access needs to be established for NWT Internet backbone infrastructure. This is a position the Committee agreed with and stated in the intervention with the CRTC 2020-367 (Appendix A).

**Recommendation 5:** The Standing Committee on Economic Development and Environment recommends the GNWT ensure all publicly funded internet backbone infrastructure in the NWT provide wholesale high-speed Third-Party Internet Access.

### **Mackenzie Valley Fibre Link**

Committee was very interested to understand the financial details of the Mackenzie Valley Fibre Link. Committee recognizes that the GNWT took an important leadership role to development the MVFL to connect the territory, improve internet services and to grow the telecommunications industry potential in the NWT.

According to the Public Accounts 2019/2020, the MVFL is a \$75 M liability of the GNWT.

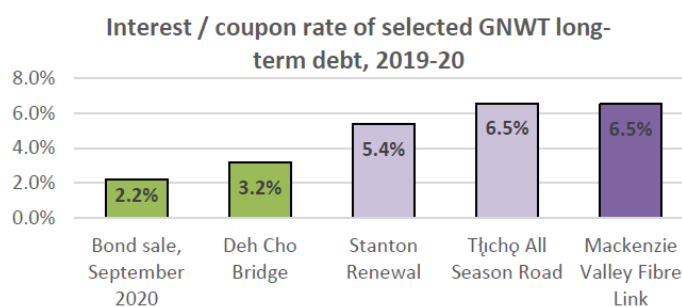
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<sup>3</sup> Infrastructure Canada. (2019). Rural Opportunity, National Prosperity: An Economic Development Strategy for Rural Canada. Ottawa (ON): Government of Canada

**Figure 1: The MVFL is a \$75 M liability to the GNWT, to be paid back by 2037**

|                                 | Future debt repayments, as of 2020 | Interest rate | Repayment date | Repayment plan                                   |
|---------------------------------|------------------------------------|---------------|----------------|--|
| The Mackenzie Valley Fibre Link | \$75 M                             | 6.5%          | 2037           | Fixed, equal monthly payments to private partner |

The MVFL is among the highest rate of debt payment of GNWT projects.

**Figure 2: The MVFL and other P3s have higher debt servicing payment rates compared with other long-term debt**

Source: GNWT Public Accounts 2019/2020

The Department of Finance provided further information to Committee that details the actual capital cost, annual operating expense and the revenues to GNWT from the MFVL.

**Table: GNWT Finances related to the Mackenzie Valley Fibre Line**

|                          |                              |                       |
|--------------------------|------------------------------|-----------------------|
| Capital Expense Cost     | \$90.9M                      |                       |
| Annual Operating Expense | \$10.92M (\$910,000 monthly) | over 23 years         |
| Annual Operating Revenue | \$1.46M                      | 2020/2021             |
|                          | \$1.2 – 1.6M                 | 2021/2022 (estimated) |

Source: Department of Finance, Information provided to Committee to be publically available, see Appendix B, GNWT Public Accounts 2017/2018

Committee acknowledges the significant investment of public funds towards this critical infrastructure and acknowledge growth in customers to the fibre line network will increase revenues over time.



## Support for Low Income Residents

There remains a significant portion of NWT residents who do not have access to the Internet.

According to the [Bureau of Statistics Home Internet Access Report](#) 16.4% of NWT residents do not have any access to home internet. The regions with the highest percentage of un-connected homes are the Dehcho at 43% and the Tlicho at 41%. By community, the highest ratio of un-connected homes in the NWT are located in Sambaa K'e (67%), Jean Marie River (65%), Fort Liard (59%), Fort McPherson (56.7%).

Levels of income directly affects a household's ability to acquire Internet services.

And for those households that can afford Internet there are still many challenges to overcome.

The gap in highspeed broadband Internet access between rural and urban areas in Canada is well documented. *Rural and remote communities in Canada have identified limited access to fast, reliable internet as their main barrier to achieve economic growth, low quality connectivity severely limits choices and opportunities for remote communities, especially related to education and health care*<sup>4</sup>.

The growing gap in affordability and accessibility of internet service between northern and southern Canada is well recognized and referred to as the 'digital divide'. Some NWT residents acknowledge this digital divide and have taken to social media to raise awareness.

Committee acknowledges that NWT residents are responding to inequitable internet service availability and accessibility in the north. Residents are being encouraged to document the disparity of the NWT's digital divide online, #NWTdigitaldivide. This organization seeks to *"to bring more attention to the internet speeds, limited bandwidth, and high costs of internet faced by internet users in rural NWT communities"*.

Committee discussed with the GNWT and industry representatives the challenges with Internet services that have been heightened through COVID-19 pandemic. Challenges are not limited to:

- residents working and schooling from home increasing demand on Internet usage;
- cost of Internet packages for a family or household;
- the expense of overcharges; and

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<sup>4</sup> Council of Canadian Academies, Waiting to Connect, 2021

- struggle to keep children and youth occupied without organized sports or other activities.

Expensive, slow and intermittent Internet impacts not only education services, but health and economic development.

To address the growing digital divide in the NWT, Committee requested the Department of Finance, to determine if:

- internet subsidy allowance could be eligible expense covered under Income assistance; and
- whether basic internet services through the NWT Housing Corporation public housing units could be made possible.

**Recommendation 6:** The Standing Committee on Economic Development and Environment recommends the GNWT address the digital divide within the NWT by providing free access to basic internet packages through Income Assistance funding and NWT Housing Corporation public housing units.

**Recommendation 7:** The Standing Committee on Economic Development and Environment recommends the GNWT to address the digital divide by building partnerships that can provide free Wi-Fi service in all regional centres.

### **GNWT Procurement of Telecom Services**

Committee heard frustrations regarding previous projects in the NWT to build fibre optic networks where local services were available but southern companies were chosen to provide the service or carry out the work.

Committee questioned how much the GNWT pays Northwestel for services annually. The Department responded that the Digital Communications Network for the GNWT includes bandwidth capacity as well as network facilities (fibre, copper, satellite) to send information between and within GNWT buildings as well as other locations. Over 2020/2021 the GNWT has committed to pay Northwestel \$9.98 million for services. The detail for the \$9.98 million is provided in Appendix C.

The GNWT is moving forward over 2021 to amalgamate internet, phone, and distance learning services which should provide cost savings over the long term based on forecasted future demand.

Additionally, by 2024 the GNWT anticipates reduced satellite bandwidth costs as a result of significant industry investment to establish low earth orbit satellites which will provide savings to satellite serviced communities.

The GNWT notes that the expected 2021/22 payment to Northwestel for amalgamated services will increase the total annual expense up to \$12.39M.

Committee recognizes although the GNWT is paying more for services overall, the cost per gigabyte of data has gone down, as the GNWT is accessing more bandwidth to accommodate the expected two to five times growth within communities.

It was suggested that if GNWT telecom services were publicly tendered and broken down by community, it would support communities to improve their services. It was further suggested that if request for proposals were limited to NWT based companies it would allow for a fairer and more competitive process. Efforts towards this end were viewed as more effectively achieving the development of northern companies and northern economy.

Committee would prefer the GNWT to break up the variety of telecom contracts and network services to incentivize business development and diversification in the NWT.

Committee acknowledges the potential risks of having multiple vendors providing shared network services such as: degrading performance network; requirements for additional hardware; increased time to coordinate multiple vendor solutions; and potential risks to traffic and data security; and potential loss of standardized hardware, software and maintenance. However, Committee still believes that the GNWT can be creative and proactive to find ways for small local internet service providers to win service contracts with the GNWT.

Committee recognizes inclusion of small internet service providers and fostering competition in the sector will take effort. Committee believes many of the concerns as noted above can be mitigated.

**Recommendation 8:** The Standing Committee on Economic Development and Environment recommends the GNWT procure internet services in smaller pieces so that local internet service providers can effectively bid on these opportunities.

### **Canadian Radio Telecommunications Commission Proceedings**

The GNWT provided to Committee a summary of the 180 interventions submitted to the CRTC since 1983.

The GNWT's CRTC Intervention Timeline as provided in Appendix C, provides further context among the GNWT, Northwestel and the CRTC.

On November 2, 2020 the CRTC opened a Review of the Commission's regulatory framework for Northwestel Inc. and the state of telecommunications services in Canada's North, [Telecom Notice of Consultation CRTC 2020-367](#).

Committee recommended the administration of CRTC funding to:

1. Encourage the development of localized community network solutions, where Indigenous communities and local businesses are prioritized in the development, operations and maintenance of local telecommunications services.
2. Set aside funds specifically to stimulate the development or expansion of NWT internet service providers to complete the last mile connections from fibre optic lines
3. Develop eligibility criteria for subsidies and funding to companies that can demonstrate proof of a local presence, through operations, employment, contracting, ownership etc.
4. Encourage diversity in the telecommunications sector by requiring Northwestel to provide Third Party Internet Access.
5. Provide funding conditional to companies who set retail and wholesale rates that are competitive with the rest of Canada regardless of the service location
6. Provide funding conditional that special consideration and financial subsidy by available to increase monthly data caps, and/or decrease overage charges in the satellite served communities.

The Committee recommends CRTC order Northwestel to:

1. Require Third Party Internet Access
2. Provide wholesale connection to competitors at reasonable and fair rates
3. Approval retail and wholesale rates that is not inflated but competitive with the rest of Canada, regardless of the location of service delivery.

On January 20, 2021 and March 23, 2021 and May 10, 2021 the GNWT made submissions to the CRTC 2020-367, which is included as Appendix D.

The future proceedings for the CRTC 2020-367 have yet to be announced.

## **CONCLUSION**

The Committee wishes to sincerely thank all those that contributed to this review of accessibility, connectivity and quality of internet service across the NWT. The residents of the NWT deserve and have come to need, affordable and reliable telecommunications services, including Internet access. We will continue to monitor this area closely throughout the remainder of the 19<sup>th</sup> Assembly.

## Recommendations

**Recommendation 1:** The Standing Committee on Economic Development and Environment recommends the GNWT continue to invest in publicly owned backbone internet infrastructure in the NWT. Specifically, the GNWT should prioritize the opportunity to create fibre redundancy in the NWT.

**Recommendation 2:** The Standing Committee on Economic Development and Environment recommends the GNWT ensure fibre to the home is made available to Tuktoyaktuk residents at the completion of the Inuvik to Tuktoyaktuk fibre line installation.

**Recommendation 3:** The Standing Committee on Economic Development and Environment recommends the GNWT ensure all backbone internet infrastructure in communities accommodates open wholesale access to NWT businesses to co-locate internet services at a fair price to NWT businesses.

**Recommendation 4:** The Standing Committee on Economic Development and Environment recommends the GNWT to advocate to the Canadian Radio Telecommunications Commission to set aside funding under its Broadband Fund for smaller service providers and Indigenous-owned businesses to help promote competition.

**Recommendation 5:** The Standing Committee on Economic Development and Environment recommends the GNWT ensure all publicly funded internet backbone infrastructure in the NWT provide wholesale high-speed Third-Party Internet Access.

**Recommendation 6:** The Standing Committee on Economic Development and Environment recommends the GNWT address the digital divide in the NWT by providing free access to basic internet packages through Income Assistance funding and NWT Housing Corporation units.

**Recommendation 7:** The Standing Committee on Economic Development and Environment recommends the GNWT to address the digital divide by building partnerships that can provide free wifi service in all regional centres.

**Recommendation 8:** The Standing Committee on Economic Development and Environment recommends the GNWT encourage competition in the market by procuring internet services in smaller pieces so that local internet service providers can effectively bid on these opportunities.

**Recommendation 9:** The Standing Committee on Economic Development and Environment recommends that the GNWT provide a response to the recommendations contained in this report within 120 days.

# **Appendix A: Committee's Submission to Canadian Radio-television and Telecommunications Commission 2020-367**

On January 19, 2021 Committee submitted the following submission to the CRTC 2020-367 proceeding.



A priority for Committee is to reduce the digital divide for NWT residents. To increase the affordability, accessibility and reliability of telecommunications services in the NWT. NWT residents should have the same telecommunication services and options as the average Canadian. Northern and Indigenous businesses need to be prioritized as service providers where there are gaps in the delivery of telecommunication services.

Committee also recognizes the mission of the [CRTC](#) to connect Canadians to quality and innovative communication services at affordable prices. And the activities of the CRTC not limited to encouraging competition in telecommunications markets to ensure Canadians have a choice of innovative and affordable services.

### **State of the NWT**

The territory covers 1,346,106 square kilometres<sup>1</sup>, the 3<sup>rd</sup> largest jurisdiction in Canada, with a population of just over 45,000 people<sup>2</sup>.

As the Commission is aware, all communities in the NWT have access to the Internet, but the northern part of the territory is still largely connected on out-dated, slow, intermittent infrastructure. The southern part of the territory, may be connected to the fibre link, lacks redundancy, and is subject to outages. While the Mackenzie Valley Fibre Link project is complete, the distribution of internet services into the communities along the route has not been significantly changed.

Some of the most remote communities in the territory are currently served by geo-stationary satellites: Sambaa K'e, Łutselk'e, Wekweètì, Gamètì, Colville Lake, Paulatuk, Ulukhaktok, Sachs Harbour.

Highways in the NWT have major gaps in cellular service, a serious safety concern for all residents and businesses. Based on the latest [highway collision](#) report, highway traffic accidents have increased 3.2% up to 97 collisions annually in the NWT. The highest number of collisions occurred during winter months, when temperatures are frequently in -20°C to -30°C range. Despite urged calls to action from indigenous leadership, [cellular service along highway 3](#) in particular remain unaddressed.

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<sup>1</sup> GNWT, Bureau of Statistics, Conserved Areas, by Province and Territory, 2019

<sup>2</sup> GNWT, Bureau of Statistics, Quarterly Population Estimate, 2020



In the NWT 16.4% of residents do not have any access to home internet. The regions with the highest percentage of un-connected homes are the Deh Cho at 43% and the Tłıchq at 41%<sup>3</sup>.

Household annual income is directly linked with household internet services. Nearly 45% of NWT households without home internet access had incomes less than \$50,000<sup>1</sup>.

The communities served by satellite are some of the highest proportioned households with 6 or more people<sup>4</sup>.

The communities served by satellite are also the most removed from basic services such as hospital or post-secondary education. Internet services are especially more critical in the more remote locations.

These communities are also among the most expensive places to live in the territory. The entire Beaufort Delta region, followed by the Sahtu region have the highest living cost differentials in the territory<sup>5</sup>.

The satellite communities are also among the lowest income brackets for the territory<sup>6</sup>. They are among some of the highest percentages of persons with annual incomes less than \$15,000<sup>7</sup>.

These factors should inform decisions around monthly data allowances and reduced overage charges.

Committee recognizes NWTel's intention to provide consistent rates across the territory.

The issue is that rates are simply too high. The user-price for northern communication services remains highest in the country<sup>8</sup>.

CRTC is aware of this from previous policy decisions and most recently from the NWT intervener submissions into Northwestel's recent [TN 1099 application](#).

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<sup>3</sup> GNWT, Bureau of Statistics, Home Internet Access Report, 2019

<sup>4</sup> GNWT, Bureau of Statistics, Households with 6 or More People, NWT 1981 - 2019

<sup>5</sup> GNWT, Bureau of Statistics, Living Cost Differentials, 2018

<sup>6</sup> GNWT, Bureau of Statistics, Average Employment Income by Community, 2009 to 2018

<sup>7</sup> GNWT, Bureau of Statistics, % Persons with Income Less than \$15,000, 2009 to 2018

<sup>8</sup> Canadian Radio-television and Telecommunications Commission, Communications Monitoring Report 2018

## **Context of the CRTC**

The [Federal Telecommunications Act](#) key objectives 7(b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada.

The [Telecom Regulatory Policy 2016-496](#) established a Universal Service Objective of the CRTC for Canadians, in urban areas as well as in rural and remote areas, to have access to voice services and broadband Internet access services, on both fixed and mobile wireless networks.

The CRTC has well documented the gap in availability of high quality broadband Internet access services, including the affordability and digital literacy skill levels across Canada and the north.

Committee recognizes there are provisions within the [Telecom Regulatory Policy CRTC 2018-377](#) to provide an opportunity for new entrants and community organizations to apply for funding.

Committee is concerned the Commission's Broadband Fund is not effectively distributing funding to telecommunication companies that can foster competition in the NWT.

## **Principle Concerns**

CRTC funds one business in the NWT that continues to expand ownership and control over telecommunications infrastructure and services for the NWT.

It is not in the interests of the NWT to have one telecommunications provider. The market needs to be open, and accessible, where competition is enabled. Special considerations, subsidies or incentives need to be introduced to diversify the NWT market and provide equitable access for business development. Funding to Northwestel should be tied to providing reasonable third-party internet access.

CRTC has the ability to amend policies and guidelines on funding programs to better align with business development in the NWT.

CRTC also has the ability to set rates for retail and wholesale customers that will foster competition in the market, support the growth of a diversified telecommunications sector, and ultimately provide options for end-users.

CRTC has the ability to order companies to avoid anti-competitive practices.

The value of local business cannot be underestimated.

Private business based in small communities is a sustainable approach to establish a point of presence and be a local internet service provider, as a community based business is better positioned to maintain service and repair local networks, respond to customer concerns, facilitate access to computers, and support the development of online literacy skills. In addition to the social and economic value a local business brings to its community.

The Committee recognizes the cost of doing business in the north is much higher as compared to southern Canada, however it is also more important to provide reasonable and fair prices for internet service in the remote regions of northern Canada where people are already marginalized and isolated.

Committee has reviewed the comments from NWT residents into the TN 1099 application by Northwestel. There was a significant outpouring of opposition to the rates as proposed by Northwestel with their unlimited packages. Residents of the NWT are not happy; they are vocalizing their concerns and organizing themselves to reduce the [NWT's digital divide](#).

The [Standing Committee on Government Operations](#) notes there is no clear plan for connecting outlying communities to the Mackenzie Valley Fibre Link. This committee further recommends the GNWT develop a digital communications plan to provide all communities with high-speed internet services.

The [Standing Committee on Economic Development and Environment](#) recommended the GNWT to develop a costed plan to provide broadband Internet connectivity comparable to the rest of Canada.

Lacking any integrated comprehensive NWT plan for internet connectivity, the proposal as presented by NWTel to the CRTC broadband fund may appear as the only viable option to proceed. However, Committee urges the CRTC to consider that there is room and capacity locally to lay broadband networks, establish local internet service providers and to provide competitive, quality, reliable and affordable telecommunication services. These companies however cannot compete with an international telecommunications corporation.

There is no NWT telecommunications plan that identifies how the NWT will have affordable and accessible internet and cellular service. Development is driven by Northwestel's Modernization Plan, funded by the CRTC and the [GNWT's Mandate](#) to support the development of fast and reliable broadband internet service. This leaves the NWT completely dependent on Northwestel to deliver all internet services with little public ownership over the base infrastructure.

### **Recommendations to CRTC**

Recognizing the CRTC is considering the affordability of telecommunications services for Canadians and whether telecommunications services in the North should be subsidized.

Committee recommends the CRTC refresh the approach to telecommunications funding and regulatory oversight in the NWT. Standing Committee recommends the CRTC incorporate the suggestions below into the current deliberations under Northwestel's TN 1099 Application.

CRTC is distributing public funding. Committee recommends the CRTC review and revise policies and guidelines of funding programs, such as the broadband fund, to ensure it is achieving the intended objectives.

Committee recommends the administration of CRTC funding in the NWT to:

1. Encourage the development of localized community network solutions, where Indigenous communities and local businesses are prioritized in the development, operations and maintenance of local telecommunication services.
2. Set aside funds specifically to stimulate the development or expansion of NWT internet service providers to complete the 'last mile' connections from fibre optic lines.

3. Develop eligibility criteria for subsidies and funding to companies that can demonstrate proof of a local presence, through operations, employment, contracting, ownership etc.
4. Encourage diversity in the telecommunications sector by requiring Northwestel to provide third-party internet access.
5. Provide funding conditional to companies who set retail and wholesale rates that are competitive with the rest of Canada regardless of the service location
6. Provide funding conditional that special consideration and financial subsidy be available to increase monthly data caps, and/or decrease overage charges in the satellite served communities.

Recognizing the Commission is considering whether additional regulatory measures are required in the North.

The Committee recommends the CRTC order Northwestel to:

1. Require Third Party Internet Access
2. Provide wholesale connection to competitors at the reasonable and fair rates
3. Approve retail and wholesales rates that are not inflated but competitive with the rest of Canada, regardless of the location of service delivery

Additionally, the regulatory regime applied to large Internet Local Exchange providers that influence pricing rates should not be the same regime applied to small Internal Local Exchange providers.

Committee recommends the CRTC to work with Government of Canada to update rural maps for the NWT, to ensure that residents of the Ingraham trail outside of Yellowknife, along with rural areas on the outskirts of NWT communities are considered in telecommunications development and services.

Committee believes that completing cellular service along primary highways in the NWT be prioritized through CRTC funding and regulatory decisions as a matter of public safety.

And finally, Committee recommends the CRTC hold public hearings in the NWT as part of this 2020-367 telecom consultation.

Thank you for the opportunity to provide comments into the Commission's review of the regulatory framework for Northwestel Inc. and the state of telecommunications services in Canada's North. Committee would be pleased to have an opportunity to present this submission in person to the Commission and would strongly encourage public hearings across the North to enable public participation in this important public debate.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jackie Jacobson', with a stylized, cursive script.

Jackie Jacobson, Chair  
Standing Committee on  
Economic Development and Environment

- c. Committee Members, SCEDE  
Hon. Caroline Wawzonek, Minister of Finance  
Committee Staff, SCEDE

## **Appendix B : Stakeholder Presentations**

The following public presentations were live streamed on the Legislative Assembly channels over December 2020. Presentations were delivered by GNWT Department of Finance, Katlotech, SSI Canada, New North Networks (no presentation submitted), and Northwestel.



**Canadian Radio-Television and Telecommunications  
Commission (CRTC)**

Department of Finance December 2020

Government of  
Northwest Territories



# Overview

- The CRTC
- GNWT and the CRTC
- Milestones
- Northwestel TN 1099
- CRTC TNC 2020-367 Regulatory Proceeding
- CRTC Survey
- Further Information
- Questions



## The CRTC

The CRTC is an administrative tribunal that:

1. Regulate telecommunications carriers (service providers), including major telephone companies.
2. Promote compliance with regulations.
3. Approve tariffs.
4. Encourage competition.



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- The Canadian Radio-Television and Telecommunications Committee (CRTC) is an administrative tribunal that operates at arms length from the federal government. The CRTC implements the laws and regulations set by Parliament and the policies set by Government of Canada Departments. They regulate and supervises broadcasting and telecommunications in the public interest. On their website, they say the CRTC “is dedicated to ensuring that Canadians have access to a world-class communication system that promotes innovation and enriches their lives”.
- The CRTC promotes compliance with the Unsolicited Telecommunications Rules, including the National Do Not Call List, and Canada’s anti-spam legislation .
- Approving tariffs. The CRTC approves tariffs and certain agreements for the telecommunications sector.
- The CRTC encourages competition in telecommunications markets to ensure that Canadians have a choice of innovative and affordable services. This is reflected in their role in setting tariffs for wholesale access to bandwidth .

- The NWT has a CRTC Commissioner, Nirmala Naidoo, who is responsible for representing Alberta and the NWT ;

# The CRTC

## Federal Telecommunication Act key objectives:

*"... telecommunications performs an essential role in the maintenance of Canada's identity and sovereignty and that the Canadian telecommunications policy has as its objectives*

- ***(a) to facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions;***
- ***(b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada;***
- ***(c) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications;***
- *(d) to promote the ownership and control of Canadian carriers by Canadians;*
- *(e) to promote the use of Canadian transmission facilities for telecommunications within Canada and between Canada and points outside Canada;*
- *(f) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective;*
- *(g) to stimulate research and development in Canada in the field of telecommunications and to encourage innovation in the provision of telecommunications services;*
- ***(h) to respond to the economic and social requirements of users of telecommunications services; and***
- ***(i) to contribute to the protection of the privacy of persons.***



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The CRTC is governed, in part, by the *Telecommunications Act*; The GNWT's overall objective has consistently been that Northerners should have access to a similar range of services of similar quality and at similar prices as all other Canadians.

The GNWT believes not only that this objective is the right one but also that it is supported by the federal *Telecommunications Act* which sets out, at section 7, a statement of the telecommunications policy objectives that legally guide CRTC decision-making.

While all the goals on the slide are important to Canadians here and across the country, the highlighted ones show clear alignment with the need to address challenges and concerns.

## The CRTC in the North

In 2013 the CRTC decided it would regulate, on an “exceptional basis” residential and business internet rates offered by NWTel in the North.

- NWTel is the only internet service provider whose retail rates are regulated
- NWTel is the only service provider where the CRTC will take specific service complaints from consumers.



The CRTC has recognized the unique characteristics of the North, including large geographic area, sparse and dispersed population and limited opportunities for competition relative to other parts of the country.

While most provinces still suffer from telecommunications service challenges in rural and remote locations, they typically have large urban centres that provide opportunities for economies of scale that simply don't exist across the north.

## GNWT Objectives

The GNWT's objectives in CRTC matters are to ensure:

1. The CRTC considers the interests of NWT residents and businesses in its decision making.
2. Northerners have access to affordable, competitive and reliable telecommunication services.



The GNWT's involvement has helped ensure more affordable and reliable telecommunications services for the NWT, such as Northwestel's operating area was designated as a "High Cost Serving Area" (1999) for telephone service, resulting in improved service levels and long-distance savings, ability to obtain subsidies to support improvements to basic telephone services.

The GNWT maintains contact with the NWT Association of Communities, Local Government Administrators of the NWT and the NWT Chamber of Commerce to keep them aware of proceedings and encourage their involvement. The GNWT also maintains contact with service providers (Northwestel, SSI Canada, and others) to share information and understand respective positions.

## GNWT and the CRTC

The GNWT is an intervenor in CRTC matters.

- The telecommunications area of regulatory affairs applies to telephone and data communications services provided by the many telephone companies across Canada;
- In matters involving the CRTC, the GNWT position must be in the best interests of all Northern stakeholders;
- The GNWT takes steps to inform Northerners about proceedings that may impact them by posting them on the website;
- The GNWT engages a CRTC Regulatory Consultant who is retained to provide expert advice on such matters.



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- The GNWT is an “intervenor” or a “participant” in these proceedings. A minor participant in national proceedings but an important voice in proceedings dealing specifically with the North;
- The telecommunications area of regulatory affairs applies to telephone and data communications services provided by the many telephone companies across Canada but does not include dealing with routine service problems that may be experienced by Northerners; residents deal directly with NorthwesTel on these matters.
- In matters involving the CRTC, the GNWT position must be in the best interests of all Northern stakeholders and as such, must take a balanced approach when considering the matters under review to ensure the greatest public good. This may result in a GNWT position that advocates for the greater good that is contrary to the interests of others.
- The GNWT is open to input from 3<sup>rd</sup> parties such as Northwestel and SSi ; We also take steps to inform northerners about proceedings that may impact them.

- There are two distinct areas of interest regulated by the CRTC: telecommunications and broadcasting.
- Telecommunications issues relevant to the North occur on a frequent basis
- Any interested party is free to make submissions to the CRTC to advance their own views.
- The GNWT as an intervenor has a positive track record with the CRTC – they have agreed with the majority of our positions
- The GNWT also sends Hansard excerpts and news clippings to the CRTC Commissioner for the NWT/AB, in order to keep her informed about what the NWT is saying about broadband and other matters;



## Proceedings over the Years

There has been 15 Major Regulatory Proceedings over the past 23 years and although the technology changed over the years, the themes have been remarkably consistent, largely being, Affordability, Subsidy, Competition, and Quality of Service.



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Positions have been consistent even as the scope of services has evolved and technology changes. The complexities inherent in delivering telecommunications services continue to exist.

## Progress and Key Milestones

### Local Phone Service:

- 1993 – Regulatory Consultant Hired
- 1993 – Community Service Outage Reporting
- 1995 – Extension of basic telephone service to 7 unserved communities



1993 – Regulatory Consultant hired to argue against phone rate increases and push for local service to be extended to communities without service

1993 – CRTC requires Northwestel to start reporting on community service outages

1995 – Extension of service to 7 unserved communities without basic telephone service begins and is completed 3 years later. (Lutsel k'e, Trout Lake, Jean Marie River, Nahanni Butte, Colville Lake, Umingmaktuk and Kakisa)

\*In intervening years, local service rates are regularly reviewed as part of Northwestel Regulatory Reviews. Current rates are approximately \$31-\$34 for residential and \$ 65- 71 for business, depending on factors such as location etc.

## Progress and Key Milestones

### Affordability:

- 1999 – High Cost Serving Area designation
- 1999 – CRTC determined NWTel had an “Obligation to Serve”
- 2000 – NWTel receives first subsidy from National Contribution Fund
- 2018 – 3-year phase out program of local subsidy program



1999 – High Cost Serving Area designation for Northwestel serving area– a high mark in the regulation of northern communications services. Recognition that the North relies on expensive telecommunications and subsidies for basic services are required. “Basic Service” was defined as:

- Individual line local service with touch-tone dialling, provided by a digital switch with capability to connect via low speed data transmission to the Internet at local rates;
- Enhanced calling features, including access to emergency services, Voice Message Relay service, and privacy protection features;
- Access to operator and directory assistance services;
- Access to the long distance network; and
- A copy of a current local telephone directory.

1999 – Northwestel, as incumbent carrier in the North, has “obligation to serve”; they are expected to make basic service available at a reasonable price without undue discrimination to anyone requesting service in their serving area.

2000 – NWTel receives first subsidy from National Contribution Fund for its Service Improvement Plan and local service subsidy, approximately \$20M/year until 2018. In total, about \$300M over the years has been provided by southern telcos for service improvements in the North.

2018 – CRTC establishes a 3 year phase out program of local subsidy program;

funds to be redirected to broadband funding programs.

## Progress and Key Milestones

### Competition:

- 2001 - Long distance competition permitted
- 2011 – NWTel obligation to serve continues
- 2011 - Local service competition permitted
- 2013 – Wholesale Connect obligations raised



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2001 - Long distance competition permitted in the North, with equal access facilities to be put in place in Yellowknife, Whitehorse, Iqaluit and Fort Nelson. A Carrier Access Tariff (a fee a competitor pays to interconnect with Northwestel) is approved (7c/minute), 2 cents higher than what GNWT and Northwestel proposed.

2011 – NWTel obligation to serve continues.

2011 - Local service competition permitted in the North and local number portability be allowed in major centres. Local subsidy portability (proposed by GNWT) was not approved.

2013 – Wholesale Connect raised as part of Modernization Plan follow up. Competitors continue to be dissatisfied with rates available.

## Progress and Key Milestones

### Regulatory Framework:

- 2000 NWTel quality of service standards
- 2007 Price Cap regulation
- 2007 911 Service was not part of “Obligation to Serve”
- 2011 Obligation for modernization



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2000 – NWTel quality of service standards for clearing trouble reports in remote areas is changed to allow for 90% of troubles in remote communities cleared within 5 days. The company provides quarterly quality of service reports.

2007 – Price Cap regulation (vs Rate of Return) is established for Northwestel.

2007 – CRTC decision that 911 Service is not part of the basic obligation to serve.

2011 – CRTC decides NWTel Price Cap Framework should continue, but that network modernization was required. NWTel was requested to file a Modernization Plan.

2013 – Present – Periodic Reviews of NWTel’s Regulatory Framework (It continues

## Progress and Key Milestones

### Modernization Plan:

- 2013 - NWTel Modernization Program begins
- 2018 - 4G mobile service in every NWT community



2013 - NWTel Modernization Program Review required company to make increased investment in NWTel infrastructure and services

2018 - Completed over 5 years, resulted in 4G mobile service in every NWT community along with many other improvements.

## Progress and Key Milestones

### Internet Service:

- 2011 – CRTC sets target of 5/1 Mbps
- 2013 – CRTC regulates rates for NWTel Internet services
- 2016 - Universal Service Objective
- 2019 - Broadband Fund Established



2011 –CRTC sets target of 5/1 Mbps for Internet service within 2 years.

2013 – CRTC regulates rates for NWTel Internet services in terrestrial serviced communities, and directs NWTel to file tariffs for its approval.

2016 – GNWT recommended 25/3 but CRTC set a Universal Service Objective (USO) target of 50/10 Mbps.

2019 – CRTC establishes Broadband Fund to support achievement of USO; Northwestel applies for funding and receives \$62M, which along with \$20M of its own capital will provide 50/10 mbps for terrestrial communities and eventually for satellite served communities (once LEO satellites exist).



## Northwestel TN 1099

Northwestel's tariff application to provide Unlimited Internet to four communities:

- Interim approval granted by the CRTC.
- SSI Canada has raised concerns this tariff.
- GNWT supports introduction of unlimited service.
- But GNWT wants to see fair access to transport infrastructure to support competition.



## CRTC TNC 2020 – 367

Review of the Regulatory Framework for Northwestel and the state of telecommunications services in Canada's North. The Commission will consider:

1. The affordability of telecommunications services.
2. The need for additional regulatory measures for example, to improve resiliency of Northwestel's network or to further foster competition and improve wholesale services.



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Regulatory Framework Reviews occur approximately every 4 years. This one will start in Winter 2021 – and could take up to 2 years.

Price Cap Framework – Northwestel's regulatory operating model based on a complex basket of services.

The CRTC has decided to phase out the local rate subsidy (LRS) over a three year period. The LRS makes NWT landline costs cheaper. NWTel (Northwestel) is proposing to raise the landline fees and spread the rate increases over residential, business and all communities. This will raise the rates to residential from \$ 31.33/month in Whitehorse and Yellowknife and \$33.25 and \$38.34 elsewhere. Business will also see an increase of 15-20% over 3 years. While GNWT respects that NWTel needs to at least partially replace the lost revenue as a result of cancellation of the LRS, we're concerned that ongoing subsidy may be needed.

## CRTC TNC 2020 – 367

### Key upcoming proceeding milestones:

- Initial Interventions – January 20, 2021
- CRTC Reply – March 24, 2021

### Further process details will be announced:

- Anticipated timeframes
- Public Hearings



As previously mentioned, the overall timeline for this proceeding may take up to 2 years during which time the GNWT will be active in the process asking questions, fielding inquiries and contributing information.




Survey:

<https://crtc.gc.ca/eng/consultation/northwestel-norouestel.htm>

## GNWT Priorities

- Affordability**
  - Phase out the local rate subsidy (LRS)
  - Fair pricing of service for residents and business
- Quality of Service**
  - Service Resiliency
  - Service Reliability
- Competition**
  - Fair wholesale rates
  - Third Party Internet Provider access



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### 1. Affordability

Phase out the local rate subsidy (LRS) - GNWT may continue to raise this as a concern in light of the already very high level of residential rates.

The GNWT understands local rate increase but think they are excessive and suggests a cap on any rate increase on any service in any year. The GNWT may supports Northwestel in an Internet Subsidy ;

Household annual income is directly linked with household internet services ; In 2019 about 16% , or 2,422 households in the NWT did not have access to cellular data or home internet. Nearly 45% of the households without home internet access had incomes less than \$30,000 (NWT Bureau of Statistics)

- ### 2. Significant impacts to residents , businesses and government delivery of services to NWT Communities ; In 2019 there were 2 widespread outages there have been 40 major outages, 9 in the North July 2018 - August 2019 ;



## Further Information

- [CRTC Daily Releases](#)
- [CRTC Home Page](#)
- [Past CRTC Decisions, Notices and Orders](#)
- [Statues and Regulations](#)









**KatloTech**  
COMMUNICATIONS

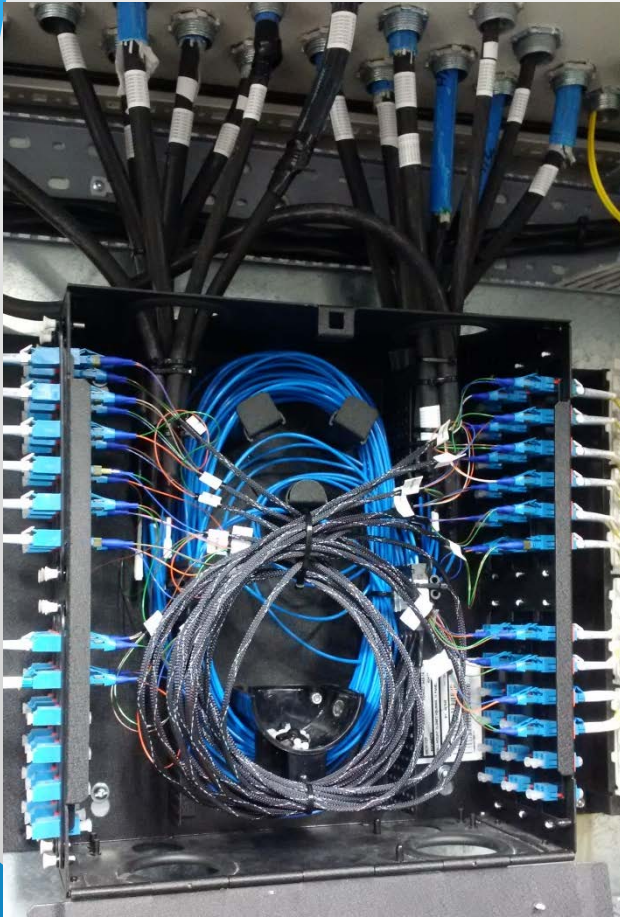
# **First Nations Future in Broadband Ownership & Data Center Technology**

**Lyle Fabian | KatloTech Communications Ltd.**

# Technology for Indigenous Communities

It has long been a wish of Indigenous peoples to both live in their communities on traditional lands, and prosper in the modern global economy. How can we contribute in the modern day economy and build stronger independent communities

# Fiber Optics



KTC's work at DeBeers Diamond Mine

- Light transmitted through glass fibers
- Delivers information 1000 times faster and 100 times further than copper-wire and satellite technology
- No interference, and delivers clear and secure signal
- Fiber optics maintenance costs are low over long runs
- Fiber is upgrade future proof, change electronics on each end of the fiber

## Short History of Fiber Optics

- In the late 50's a laser light was invented by Charles H. Townes.
- In 1988 the first Fiber optic cable was laid between US, United Kingdom, and France. Network speeds of 280 Mbit/s equivalent to 40,000 telephone circuits at a cost of \$335 Million dollars.
- Where are we today?



# Alberta Owned Network

- Alberta SuperNet 2005
  - The SuperNet initiative is to establish an IP-network infrastructure for Alberta.
    - Alberta Government Investment of \$240 Million
    - Promote competition
    - Affordability and Standard rates
    - Choice of providers
    - 4200 schools, hospitals, libraries and government and municipal offices
    - Connecting 429 Communities



- ◆ Extended Area Community
- BASE AREA COMMUNITY
- ▭ First Nation Reserve
- ▭ Metis Settlement
- Extended Area Fibre
- Base Network Fibre
- ⋯ Extended Area Wireless



# SuperNet Drives Economic Development

| Statistic   | Before SuperNet | With SuperNet |
|---|-----------------|---------------|
| Rural Alberta Residents Buying Broadband Services | 0               | 225,000       |
| Communities with Broadband Services               | 7               | 384           |
| Total Service Providers in Alberta                | 2               | 78            |

## Wholesale SuperNet Pricing Comparison

| Bandwidth Services | Current Carrier Rates MRC<br>338 Communities | SuperNet Rates 402<br>Communities | Percent Savings |
|--------------------|--|-----------------------------------|-----------------|
| 1.5 Mbps           | \$195  | \$75                              | 62%             |
| 44 Mbps            | \$1,554                                      | \$1,000                           | 36%             |
| 155 Mbps           | \$3,717                                      | \$1,904                           | 49%             |
| 622 Mbps           | \$6,202                                      | \$2,500                           | 60%             |
| 10 Gbps            | \$21,822                                     | \$5,100                           | 77%             |

# Clear Sky Connections

- Clear Sky Connections is the largest Indigenous-owned telecommunications network in Canada
- Deploy thousands of kilometers of fiber optic cable into all Manitoba First Nations (MFNs)
- Construction progress June 2019 to October 2019 for Nelson House Cree Nation
- The final construction to be completed after the thaw in spring 2020
- Katlotech was contacted as an advisor for initial materials and construction practices



# Mackenzie Valley Fiber Link

- MVFL has invested \$60 Million dollars for the design, build, and installation of a 1,154-kilometre high-speed telecommunications system from McGill Lake (approximately 80-kilometres south of Fort Simpson, NWT), to Inuvik, NWT
- MVLF Point of Presence locations are now located in Fort Simpson, Wrigley, Tulita, Norman Wells, Fort Good Hope, Inuvik, and in High Level
- Fiber Cable consists of 48 individual fibers, each capable of 88 Dense Wavelength Division Multiplexing (DWDM) channels per fiber, and 100 Gbit/s per (DWDM) channel

# MVFL CONSTRUCTION PROGRESS

FALL 2016



# Indigenous Fiber Optic Ownership

## Culture & Language Preservation

- Media storage of audio & video
- Teaching and demonstration of culture, language, history traditional practices
- Sharing this information either locally or world wide

## Economic Development

- Enabling creation of viable online business & entrepreneurial opportunities
- Attract new industries and creating new jobs
- Providing access to regional, national, and global markets.
- Owning & controlling the fiber network will keep revenues and profits generated within the region instead of flowing to outside entities
- Skilled technology jobs will be created to operate and maintain the network central office facility and outside network infrastructures

## Education

- Online learning enables both younger students and people in remote communities overcome the barriers of time and distance
- Community members with young children can continue educational pursuits while raising their families and reducing childcare costs and constraints
- Sharing of education providers in remote communities to provide quality teaching and learning resources with video streaming, zoom, teams etc.



## Health and Wellness

- Improve the health and well being of First Nations members with increased options for Telehealth , Telemedicine and Video Health
- Remote diagnosis, treatment, monitoring, and consultations with medical specialist in major medical centres
- Reduced travel costs for remote communities

## First Nation Governance

- Controlling the Fiber can secure all sectors of business, residential, institutional, and community government
- Nation to Nation video interaction that can reduce travel costs
- Electronic government can streamline interactions with community leaders, government departments
- Secure electronic storage of sensitive data.
- Decentralize government services

## Strengthening Our Connections

- The sharing of our Indigenous interests like culture, sporting events, local meetings, research, news, history, and technology
- Connections both within our own communities and amongst other communities across the country will be strengthened
- Our social and economic prosperity will be enhanced by the development of a community owned and controlled communications infrastructure

# Our Beginnings

## 2009 – CanNor 2 year Funding Grant

- Trained and educated 2 KFN members as new network technician (Cisco Certification)
- Connect all administration building on a single robust and secure wireless network
- Computers networked to a single backup server
- Build new website and trained website developer
- Introduced video conferencing
- Feasibility study to build fiber network
- Local transfer speeds are 54Mbps over a 1 Km distance

# 2009 KFN Broadband Project

## KFN Wi-Fi Network

D-Link 2700 AP

Indian Reserve Rd

54Mbps

D-Link 2700 AP

54Mbps

D-Link 2700 AP

## **2011 – CanNor 2 year Funding Grant: \$193,250.00**

- Designing of a one kilometer 48 strand fiber optic network
- Develop ICT curriculum for delivery of Cisco Certification
- Trained 8 KFN members on heavy equipment to trench and lay conduit and fiber
- Added 2 additional servers to network
- Network speed of 1Gbps

# 2011 KFN Broadband Project

## KFN Local Fiber Optic Network



## **2013 – CanNor 2 year funding grant: \$279,000**

- One kilometer network was bottlenecked by Telco's DSL services
- Design and deploy 14km of fiber to connect off reserve
- Training of aerial fiber deployment
- Feasibility study in learning to be a local ISP, benefits, bottlenecks and pros and cons
- We wanted to enhance our community through broadband innovation
- KFN purchased their own power poles for the project



# 2013 KFN Broadband Project

## KFN 14km Aerial Build Fiber Optic Network

Northwestel  
Fiber Cable

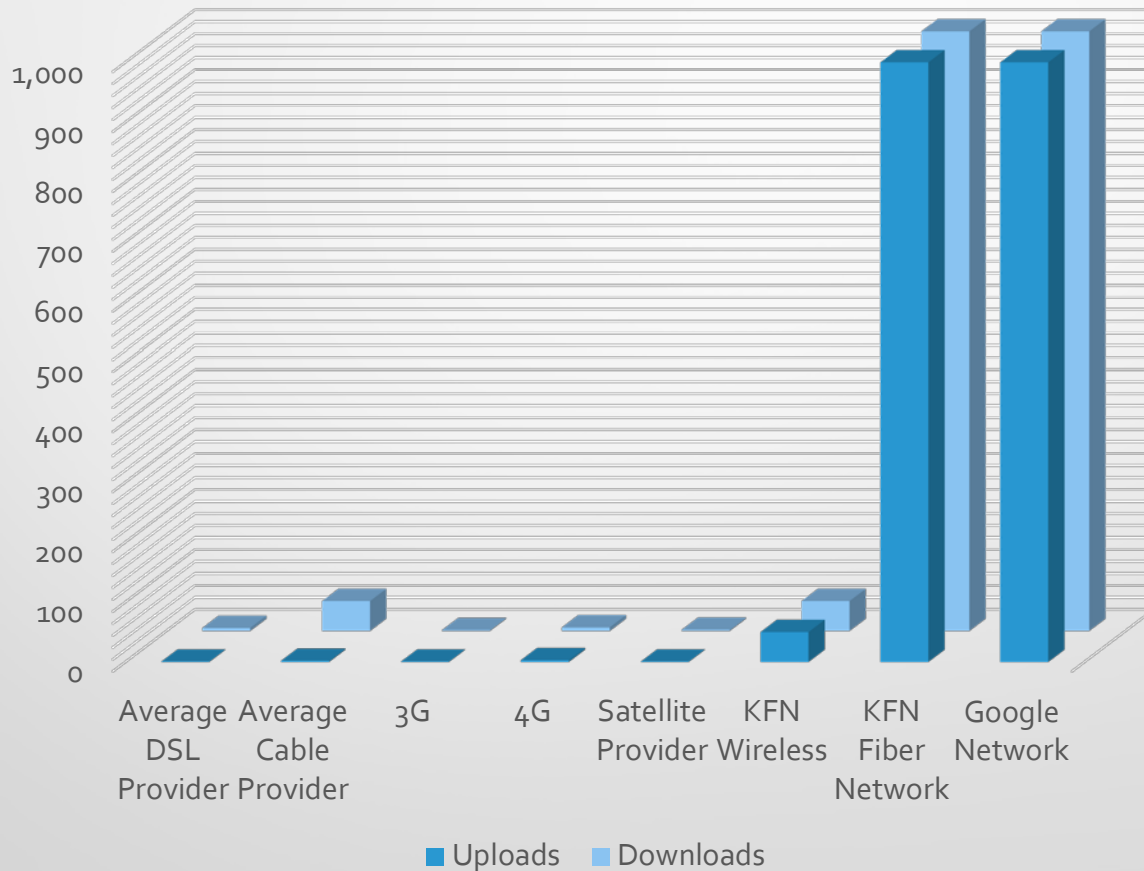
Town of Hay River

KFN  
Community

KFN Fiber Cable



# KFN estimated network speeds





# 2016 Yellowknives Dene First Nation Wi-Fi Project

## **Approved 1 year funding grant: \$48,000**

- Northwestel quoted a 1.2 million dollar project to bring better DSL services for the YKDFN
- KTC design and engineer a 12 kilometers wireless backbone 1.3 Gbps network to connect both YK Dene communities together
- Our goal was to build a robust infrastructure and bring better broadband services
- We wanted to enhance our community through broadband innovation



# 2016 YKDFN Wi-Fi Project

YKDFN  
Ndilo  
Community

1.3 Gbps

1.3 Gbps

YKDFN  
Dettah  
Community

City of Yellowknife



# Other Projects

- IT Fiber optic Wireless Infrastructure deployment for Giant Mine Remediation Project – Completed June 2015



- IT Fiber optic Infrastructure deployment throughout Gahcho Kue Diamond Mine Project – Completed June 2016



# KatloTech Communications Future?



**KatloTech**  
Fiber



## KatloTech Next Generation Fiber Optic Project

- Build & deploy an Indigenous owned next generation fiber optic network for added redundancy
- We can facilitate three layered Broadband Open Access, which provides access for industry, ISP's and local providers
- KTF is not the Service Provider but a Local Transport Provider
- KTF manages the Network and provide turnkey variety of services to ISP's
- Our approach will focus on fiber optic transport services and the delivery of higher-quality of service at a lower cost with added Modular Data Centers



# Modular Data Center REIT



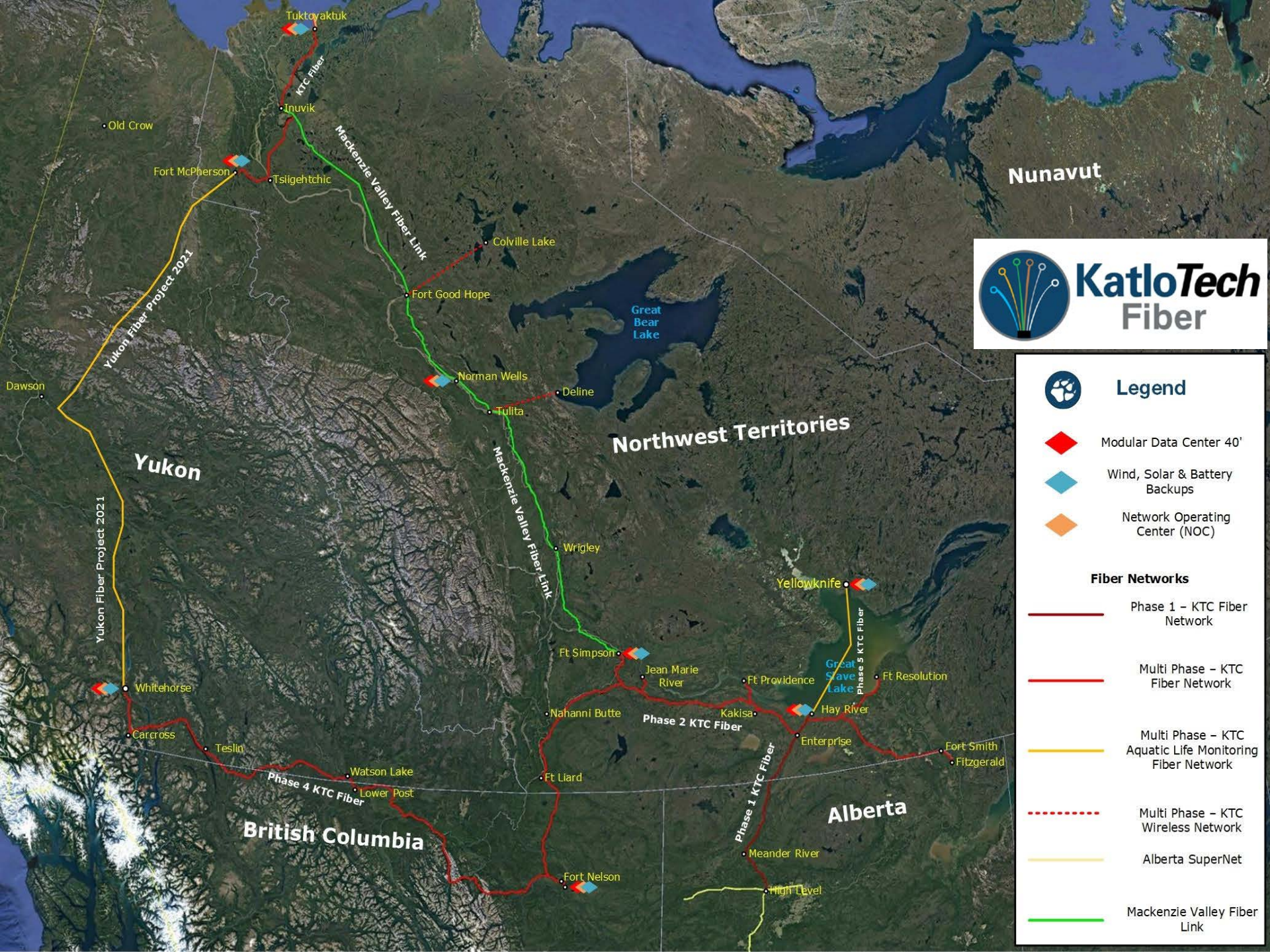
- MDC are flexible and scalable
- Small environmental footprint and real estate cost, leasing options, renting rack space etc
- We can ship our MDC anywhere on the network within weeks for deployments
- 100kw solar panels, with Xant 100kw wind generators and variable speed gen sets
- No environmental disasters such as tornados, flooding and earth quakes, our data center are kept cool 9 months out the year in northern climate
- Situated on open 13,000sq ft facility, located on Indigenous Lands






## Modular Data Centers;

- UPS Symmetra PX 100kw, 208V with Startup
- Power Distribution – APC 100kVA
- Battery type – VRLA
- Cooling – ACRD61 – Air cooled Condensing unit
- 11 Racks – 42U x 600mm(w) x 1200mm (d) housing 144 servers potentially
- Fire suppression – Novec 1230/Netobz 750 w/EcoStruxure Software











**Legend**

-  Modular Data Center 40'
-  Wind, Solar & Battery Backups
-  Network Operating Center (NOC)

**Fiber Networks**

-  Phase 1 – KTC Fiber Network
-  Multi Phase – KTC Fiber Network
-  Multi Phase – KTC Aquatic Life Monitoring Fiber Network
-  Multi Phase – KTC Wireless Network
-  Alberta SuperNet
-  Mackenzie Valley Fiber Link



## KatloTech Fiber will help build community owned Network

- KTF will leasing Indigenous owned community fiber networks and in turn lease stands to telecoms generate revenues
- Federal Government can invest up to 80% for community builds
- Community owned network still have room to operate its own local networks



**KatloTech**  
Fiber

- Leasing infrastructure creates new business, competition, innovation, and competitive rates
- Communities can take market share or reinvest into additional expansions
- Indigenous owned community network benefit economically for the life of the network
- Currently there are 663 Indigenous communities throughout Canada
- Our 20 to 30 year goal to expand to each and every community

# Project Supporters



CITY OF YELLOWKNIFE



Mahsi Cho!  
Thank you!



For more information please contact us at  
Email: [info@katlotech.ca](mailto:info@katlotech.ca)  
Phone: 867-875-2661  
Website: [katlotech.ca](http://katlotech.ca)



**Presentation to the  
Northwest Territories Legislative Assembly**

**Standing Committee on  
Economic Development and Environment**

***No Community Too Small or Too Remote:  
Competition is the key to improve affordability, quality  
and reliability of telecommunications in the North***

**Yellowknife  
December 7, 2020**



***No Community Too Small or Too Remote:  
Competition is the key to improve the affordability, quality and  
reliability of telecommunications in the Northwest Territories***

1. **[JEFF PHILIPP]** Good afternoon. My name is Jeff Philipp and I am the Co-Founder and CEO of SSi Canada.
2. I thank the Committee for the invitation to present on the topic of improving the affordability, quality and reliability of telecommunications in the NWT. SSi has been working on these challenges for, quite literally, the last 2 decades and we have achieved and learned a lot, some of which I would like to share here today.
3. And please, if I could ask one thing it is that you act on what you learn through this hearing. There is no time to wait for yet another time-consuming CRTC review of how to regulate Northwestel. The problems are well documented and remedies exist within the current regulatory framework. Frankly, this is about having the fortitude to make a decision to change course before it is too late.

### **Corporate History**

4. Before I begin my comments, I should add some background, for those not familiar with our corporate history. SSi is a Northern company. Our headquarters are in Yellowknife but our staff are spread across 2 territories and 6 provinces, and we continue to grow.

5. We specialize in remote-area connectivity and energy solutions, providing broadband and other services across Canada's North. We have also worked in Africa, Indonesia & the South Pacific with the common thread being infrastructure that transforms communities and improves socio-economic outcomes.
6. Most of you will probably not remember that back in 2004 SSi was the first company in Canada to launch a commercial broadband wireless service and we did it here, in Yellowknife. If that seems strange remember that cell phones back then were not so smart and wireless internet *did not exist. We were the first.*
7. Some of our better-known projects include QINIQ: Nunavut's award winning network which we built in 2005. Prior to our wireless system dial up did not even exist - or if it did, it was a long distance phone call. Fifteen years later, we are still the only provider offering services to all 25 communities at the same price.
8. In 2006 we did it again in 31 communities across the NWT. This was another first for most of these communities. Sadly, our NWT services met with an unfortunate demise for reasons I will attribute to a lack of "political fortitude". A disease I hope we will soon have a vaccine for.
9. Over the next decade we accomplished a number of other firsts including the provision of high-speed satellite connectivity to the Canada C3 ship during its

historic 120-day voyage from Toronto to Victoria, through the North West Passage. This was the first time any ship had navigated the NW Passage while connected to the rest of the world and it allowed the journey to be shared with 20+ Million Canadians in real time.

10. Other proud moments that stand out include 2016, when we upgraded every community in Nunavut to 4G LTE wireless, and followed that up in 2018 with the launch of SSi Mobile, bringing cellular service to the vast majority of Nunavummiut for the first time ever – with packages that rival southern Canada!

11. Given the size of the territory the challenge of this ground-breaking initiative did not go unnoticed: we were honoured to receive the national Start Up Canada award that same year.

12. Last year we celebrated another first when we co-founded a new mobile telecoms company with Eeyou Compane, a Cree investment firm, and Eeyou Communications Network. This exciting partnership is currently building out an extensive cellular network in the Eeyou Istchee James Bay region of Northern Quebec.

13. And we're not stopping there. We continue to expand our network by partnering with other First Nations to improve and extend telecoms in a number of other regions across Canada. In each case our partners will control the entity, with us investing alongside leveraging our existing systems and

expertise. This model is helping to deliver early and successful service launches with engaged local partners.

14. If it is not apparent, let me state that I firmly believe that with the right partnerships and a fair playing field we do a better job of delivering innovative broadband and mobile services in even the smallest and most remote communities. Places that the monopolies prefer not to go, unless threatened.

#### **Fort Providence: Where it all began**

15. Now that you know a bit more about the corporate Kool-aid let me take just another moment to explain why the North is personally so important.
16. My parents founded the Snowshoe Inn 55 years ago in Fort Providence, just 320 km down the road. I was born and raised there. Thirty years ago my wife Stefanie (who is also our CFO) and I started SSi Micro, which we've now rebranded SSi Canada, as the technology division of the Snowshoe companies.
17. Our mission has always been to ensure that all communities have access to quality infrastructure, including affordable, high quality telecommunications systems. To achieve this we have invested heavily in technology, in infrastructure, and most critically in the people who make it possible.
18. In Nunavut, we have invested over \$150 million in infrastructure since 2005, in a successful partnership with the federal government. To this day, we are

the only company to offer the same broadband and wireless packages, at the same price, in every market - no matter how small.

19. In addition to infrastructure investments our model also provides critical jobs that contribute over \$2M annually back into the local economies.
20. Sadly, most of our investments in the last decade have been outside the NWT despite our origins in the Northwest Territories. The truth is we haven't been able to offer the same, competitive, innovative types of services here. In fact, in the decade or so since the CRTC endorsed the idea of local competition in Northwestel's serving territory (something we initiated), there has actually been a decrease in competition, not an increase. And that is a tragedy.
21. But, enough of the history lesson, I come today with three simple messages.
  - **First**, no market is too small, or too remote, to benefit from competition. And by competition, I mean facilities-based competition, rooted in local investment, and giving back to local communities.
  - **Second**, it is not enough for governments to support the concept of competition. They have to support competitors!
  - **Third**, the GNWT can and must act on this NOW. There is no need, or time, to wait until the CRTC has completed yet another review of how it

regulates Northwestel. That may be important, but it need not delay important measures that can be taken right away.

22. In 2011, following the last Northwestel regulatory framework review, the Commission determined that: *“Canadians who reside in the North should be able to enjoy the full benefits of competition. [T]he Commission [...] decided to introduce local competition in Northwestel’s territory to provide a choice of service providers and different service options.”*<sup>1</sup>
23. That decision enabled SSI to move forward with additional investment, delivering on the goal to provide more choice and innovation to Northern consumers.
24. Unfortunately, in order to provide local services in the Northwest Territories – and the Yukon - competitors need to pay exorbitant rates for access to Northwestel’s monopoly fibre backbone services.
25. Building on the CRTC’s 2011 ruling, SSI put a lot of pressure on Northwestel – and on the regulator – to offer a wholesale service that would meet the needs of competitors at a rate that was fair.
26. After several years, what we got (and all we got) is a service called “Wholesale Connect” and, spoiler alert, it does not provide the basic

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<sup>1</sup> Telecom Regulatory Policy CRTC 2011-771, Ottawa, 14 December 2011, Northwestel Inc. – Review of regulatory framework, page 2.

connectivity requirements that we, or any other competitor, actually need. It has been intentionally crippled to make it effectively unusable.

27. In summary, there is a lack of effective access to fibre backbone, not a lack of market opportunity.

### ***Overcoming Constraint: The Role of Government***

28. For any competitor to be able to provide the service innovation competitive pressure the Commission was talking about when it referred to “the full benefits of local competition” back in 2011, we need two things.

29. First, we need a fair playing field. And this is where the Government of the Northwest Territories can make an immediate contribution.

30. There is a simple way to help: end single-source supply situations in telecoms NOW. There is no need to delay. Where there are alternatives, you should cap the share of any single supplier at a maximum of 50% of the government’s business.

31. Working with multiple suppliers is a great way to benefit from better pricing, better service, customization, and innovation. Just as consumers benefit when there is true competition, so do enterprise and public sector customers.

32. The government of the Northwest Territories is the single biggest purchaser of telecommunications in the Territory. There is no reason why competitive

telecommunications service providers, including SSi, cannot supply you with, for example, some of the mobile phone service that GNWT employees use. There is no reason why competitors should not have a share of your IT and telephone contracts, remote or separate office broadband hookups, and contribute to government service applications delivered over the internet. It used to be this way before the advent of Ardicom. But don't get me started on that fiasco.

33. Government cannot just support the concept of competition. To receive the benefits of competition, governments have to support actual competitors. Frankly, it makes no sense to rely on one supplier – especially one whose decisions are driven by its southern Canadian parent, Bell Canada – to meet all these needs.

### ***Overcoming Constraints: The Role of Policy Makers***

34. There is a second move your government can take NOW to improve telecom services in the NWT, without waiting for the CRTC to complete a lengthy policy review.
35. Northwestel has a monopoly on fibre backbone in the Northwest Territories and the Yukon. Northwestel also has a monopoly over the cable plant in Yellowknife, Whitehorse, and several other communities and refuses to allow others – including SSi – to use those facilities to provide competing services



and choice for consumers – something known as “third-party internet access” service, or TPIA, in the south.

36. And to be clear, Northwestel is the only combined incumbent phone and cable company in Canada not required to offer TPIA to its competitors. This is NOT normal. And consumers in the NWT are poorer as a result.
37. Northwestel’s high priced access to its monopoly backbone – the Wholesale Connect service – and its refusal to sell TPIA service has left competitors like SSi at a significant disadvantage for many years.
38. Now, with Northwestel’s introduction of unlimited internet packages over those same cable and fibre networks, they are making a naked attempt to crush what little competitive internet service there still is left in the NWT and the Yukon.
39. But we do have a solution. And you can help. Today we have made two separate, but very much related, filings with the CRTC.
40. First, we’re intervening to ask the Commission to fix the unjust discrimination built into the new unlimited internet packages Northwestel has introduced. Simply put, the Commission must make sure that ALL customers – including wholesale customers like SSi - benefit from the Commission’s recent Broadband Fund contribution of \$62 million. By not lowering the wholesale rates , they are blatantly discriminating against a group of customers who also

happen to be their competitors. And to be clear, this is not just about SSi and its customers, this also benefits other service providers including Katlotech, Arctech, NewNorth, Iristel & Global Storm.

41. Our second filing is an urgent application to the CRTC to require Northwestel to offer third-party internet access service, TPIA, to its competitors. This is LONG overdue and has been supported by the GNWT as a necessary measure for several years now.
42. Both filings ask the Commission to act urgently – not to wait for two years or longer to first complete a review of the regulatory framework for Northwestel. Residents of the NWT should not be denied benefits available to Canadians everywhere else.
43. We hope that the Government of the Northwest Territories will support us in both of these proceedings, and I'm happy to leave you with a copy of what we are filing today with the CRTC.

***Setting Policy for the Future: Endorsing Competition in the Northwest Territories***

44. But I know you're also interested in hearing about that long review of Northwestel's regulatory framework so let me close with these last comments.
45. I believe that the reason for a lack of competition in the NWT has to do with a regulatory system still focused on keeping one business – and one business

model – alive and well, at the expense of Northwestel’s competitors and, ultimately, of its customers.

46. I also believe the reason for the focus on protecting Northwestel is that the CRTC really does not believe that competition – true competitors, not just “arbitragers” as CRTC Chairperson Ian Scott recently dismissed telecoms competitors – is feasible up here.
47. We reject these assertions based on the simple fact that SSi, not Northwestel, was first to the broadband market in these communities.
48. We also propose that technology, ingenuity, and homegrown entrepreneurship has enabled broadband to thrive where the regulator has allowed that to happen.
49. We urge you to recommend to the Government that it support competition, and competitors, through the power of its purchasing decisions as well as its persuasion in regulatory proceedings.
50. People living in remote and outlying communities, and the businesses, governments and other organizations that serve these communities, must have access to affordable communications services and competitive choice.
51. We also believe that Canada can be a global showcase, where broadband overcomes the barriers of distance, and where all regions of the country – no matter how remote – benefit from and participate fully in the digital economy.



52. Thank you for having allowed us the opportunity to present today. I would be pleased to answer any questions you may have.

**\*\*\* End of Document \*\*\***

# Investing in NWT telecommunications

Curtis Shaw, President  
December 16, 2020



# Acknowledging the North's Indigenous people

Northwestel operates on the traditional territories of First Nations, Métis and Inuit peoples. We are grateful for the many Indigenous partnerships over 41 years that have helped build a strong northern network.

We acknowledge the Indigenous government support we have received as we take this next step. We commit to moving forward in consultation and collaboration with local communities and governments.



# Northern Community Advisory Council



**Megan Pizzo-Lyall**



**Darrell Beaulieu**



**Jordan Peterson**

# Investing in Northern jobs



500+ employees living and working in North



NWT's largest tech employer with 140+ employees in territory



25+ technicians in communities





# Investing in Northern infrastructure

**\$57 million** contribution to NWT economy per year

**\$40 million+** per year in capital improvements across North

Fibre-to-the-home in **Hay River and Inuvik** with zero public financing



# Investing in Northern communities



## Stanton Territorial Hospital Foundation



## Inuvik Sunrise Festival



## National Indigenous Peoples Day

Northwestel invested over \$230,000 in NWT community partnerships in 2019

# A trusted partner in delivering for the North

Won through competitive process

Mackenzie Valley Fibre Link

Canada North Fibre Loop

Nunavut's Tamarmik Nunaliit

CRTC Broadband Fund (4 projects)



# COVID-19 response measures

- **Temporary Internet usage relief:** removed data usage overage charges on residential cable and fibre plans, and increased data usage on residential DSL and Satellite plans
- **Assisted Self-Installation and Repair program:** technicians can now safely perform service installations and repairs from outside the home, while guiding customers remotely through the necessary steps if work inside the home is required.
- **Permanent Internet usage increase:** permanently increased data usage on most residential Internet plans
- **Retail store changes:** enhanced safety precautions to ensure safety of employees and customers including health prescreening, masks, extra sanitization and store capacity limits






# Every Community project

“Our Northern strength lies in our communities – each with their own stories and culture to share. When we erase distance and bring our communities together, our potential becomes... **unlimited.**”

Northwestel's Every Community Project will bring high speed, unlimited Internet to households across Yukon and the NWT. With funding from the CRTC and our own investments, we will harness world-leading Fibre-to-the-home and Low-earth-orbit satellite technology to make these territories among the most connected jurisdictions in Canada.

# Every community connected

-  Fibre-to-the-home (FTTH)
-  Low-earth-orbit satellite (LEO)
-  Hybrid fibre-coax (HFC)



# Closing the fibre gap

Old legacy technology within communities limits our ability to bring high-speed Internet to customers' homes.

We'll solve that by laying fibre-optic cable right to the home – either along poles or buried underground.



## Copper phone wires

Limited capacity  
Deteriorates over time  
Not designed for Internet

## Fibre optics

Massive capacity  
Durable & reliable  
Designed for modern broadband

# Connecting to fibre

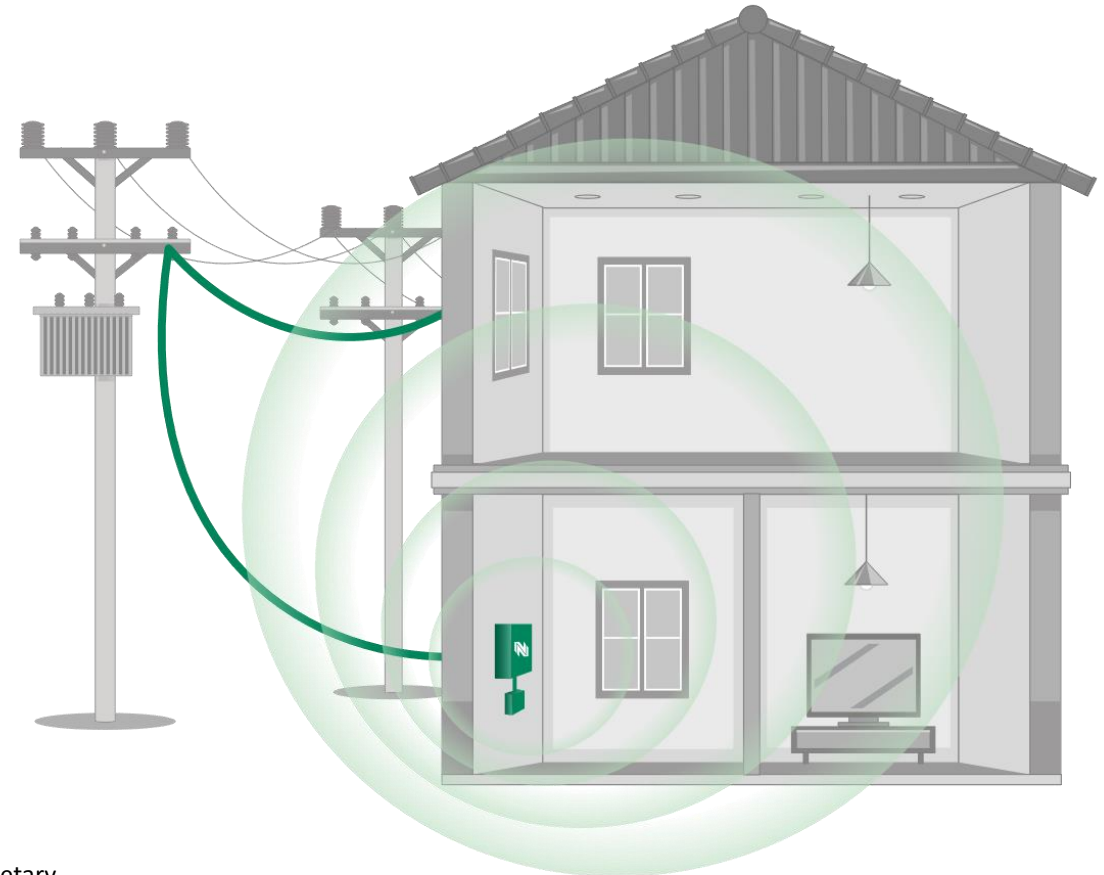


## Extending our fibre backbone

We're adding even more fibre-optic cable to our transport network to strengthen connections for our customers in Faro, Ross River, Mayo and Dettah.

## Bringing fibre to the home

We attach fibre-optic cable directly to our customer's homes through an overhead utility line. By connecting fibre directly from our network to customer's homes, we improve their Internet service.





# Closing the satellite gap

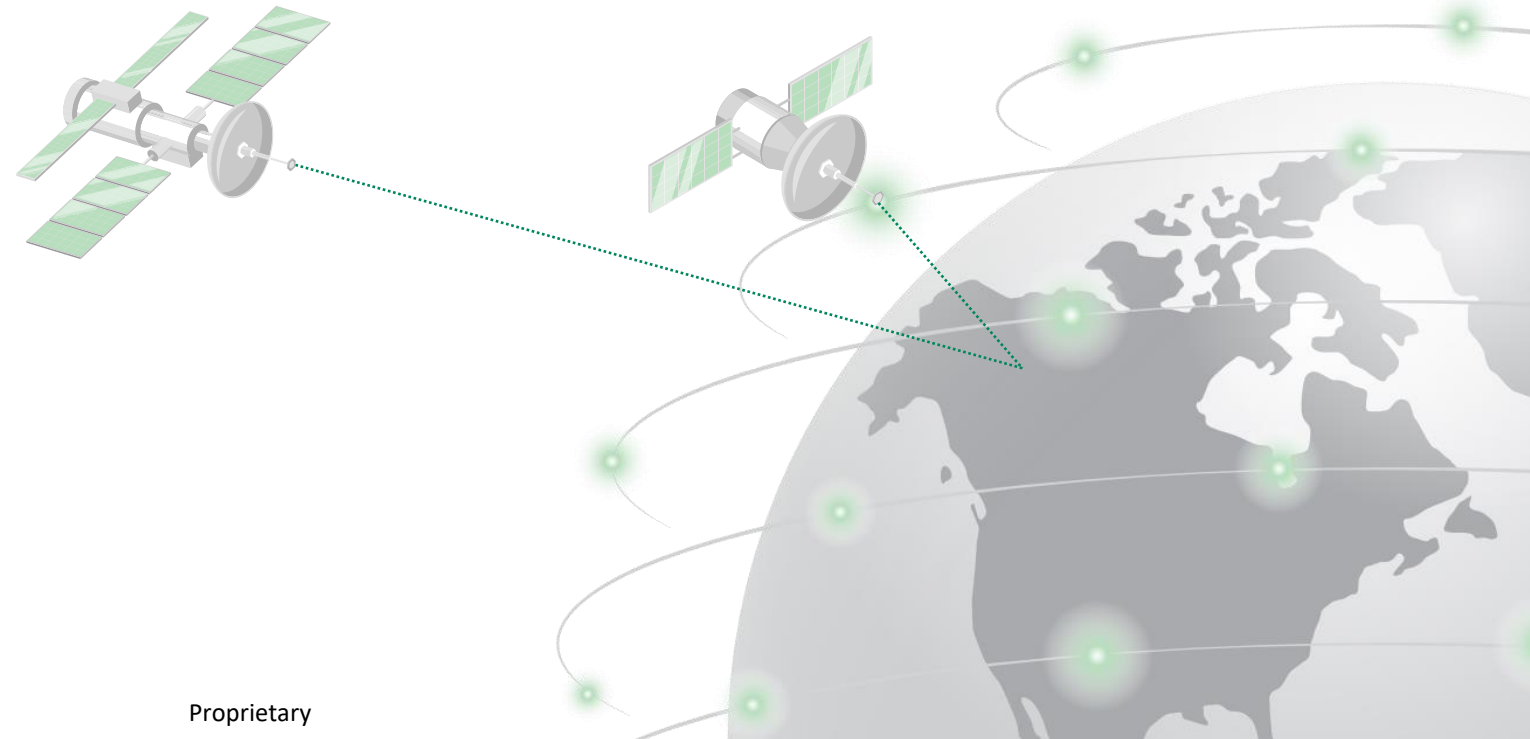
The long distances and limited capacity of geo-stationary satellites limit Internet speeds in remote areas of the North.

We'll solve that by harnessing Telesat's Low-earth-orbit satellite constellation, projected to launch by 2022. We'll also invest in next generation wireless to the home technology to bring fast speeds to the doorstep.

## Low-earth-orbit (LEO) satellite

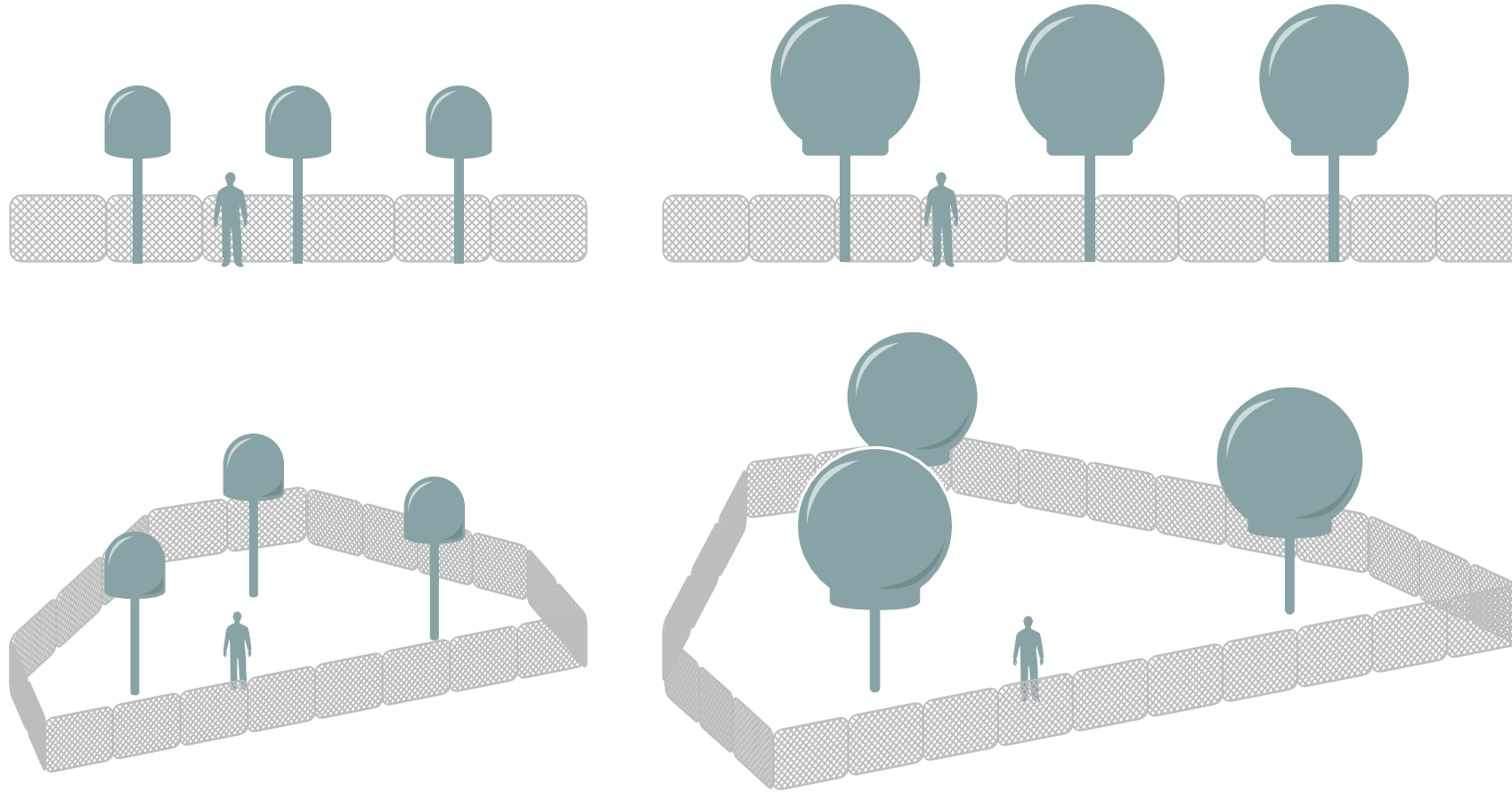
35x closer

Fibre-like performance

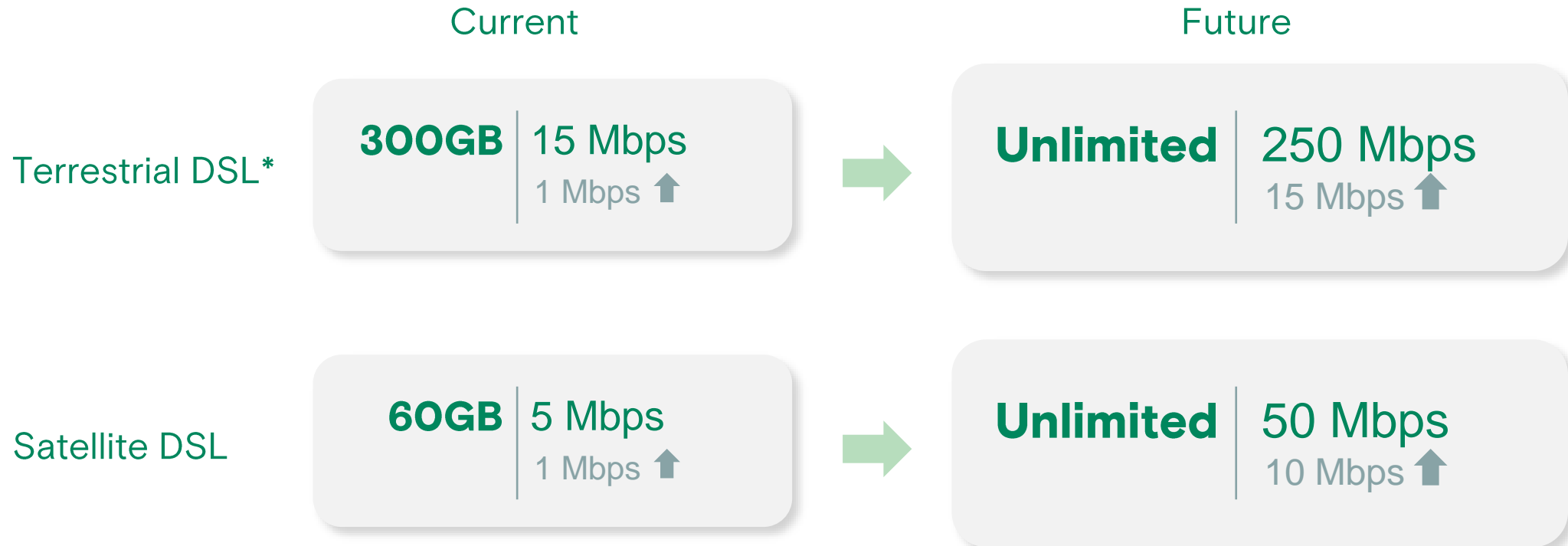


# Connecting to low-earth-orbit satellites

Conceptual equipment in communities to connect to LEO satellites



# A new level of connection in NWT



No standalone Internet surcharge on fibre and wireless home Internet.

No rate increases for 5 years on Internet 50.

Same rates in communities as in northern city centres.

# Social and economic benefit



**Local service.** Customers will be served by technicians and customer support living and working in Northern Canada. Local Community Service Technicians in the communities will receive skills re-training so they can resolve issues on the new network within their home community.



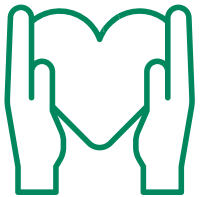
**Economic development.** During construction, Northwestel will seek to use qualified local and northern services, contractors and suppliers where possible, unless specialized skills are required to complete the project.



# Social and economic benefit



**Healthcare and education.** International studies have shown that rural broadband access has a positive impact on healthcare and education outcomes. This project will reduce barriers to accessing quality government and social services, wherever you live.



**Quality of life.** More data and faster speeds mean more choice for families and community members, whether they use the Internet to boost their small business, stream their favourite content or share with the world. And Internet rates will always compare to what's available in the North's larger cities.



# Project timelines

## 2020

- Stakeholder consultation phase
- Detailed plan submitted to CRTC
- Unlimited Internet in HFC communities

## 2021

- Permits and applications submitted for phase 1 construction
- Construction and home installations begins
- 5 communities upgraded

## 2022

- 4 communities upgraded

## 2023

- Low Earth Orbit satellite network projected to be available
- Fibre to Dettah completed
- 17 communities upgraded
- High-speed unlimited Internet available in NWT communities



Fibre technology



Low-earth-orbit satellite (LEO)



Hybrid fibre-coax



# Fibre Transport

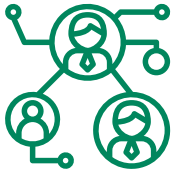
- Northwestel Fibre Network
- Dempster Fibre  
*(Expected completion 2025)*
- Mackenzie Valley Fibre Link
- Northwestel Planned Fibre Builds  
*(Expected completion 2021)*



# Moving forward together



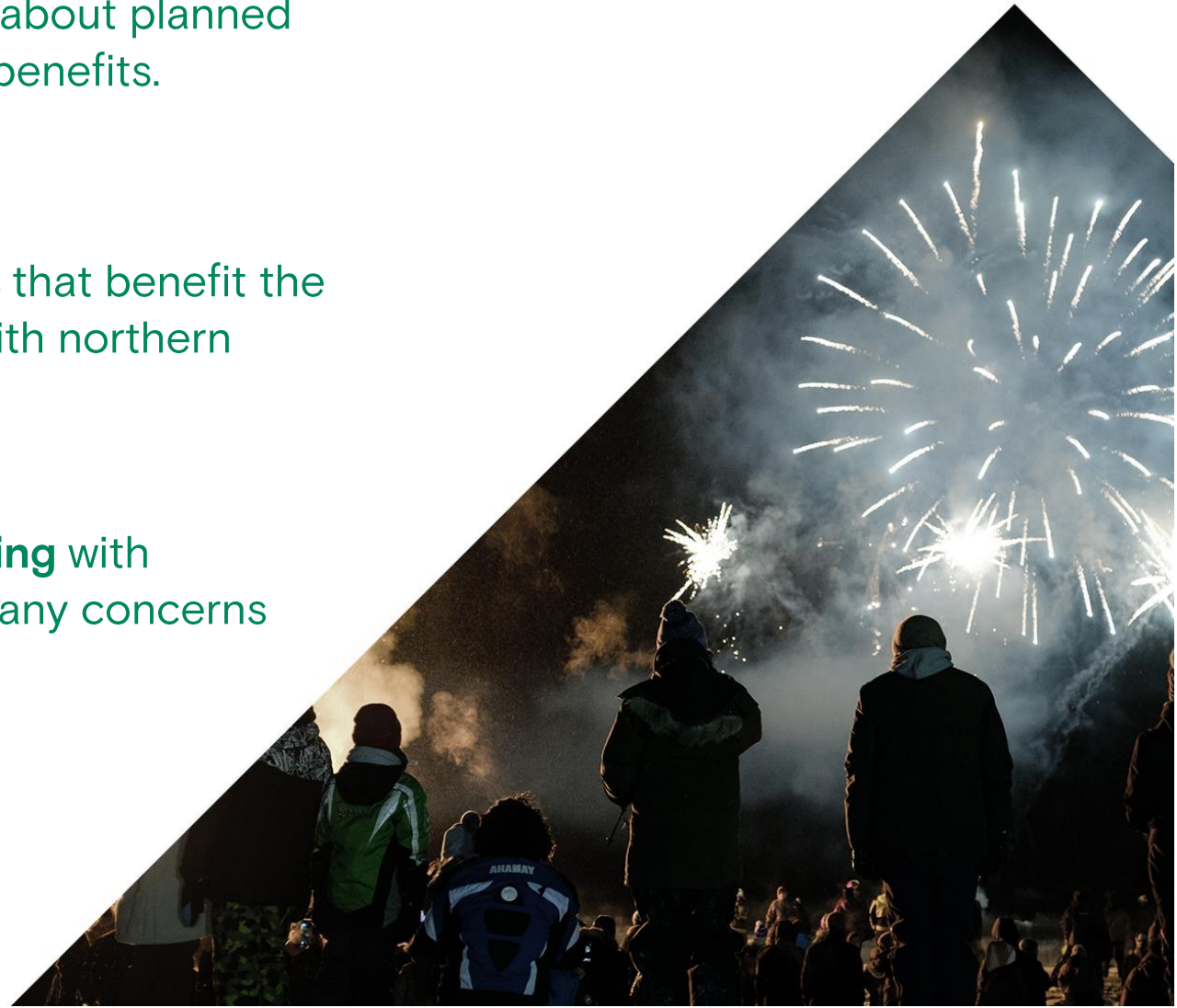
We're committed to **sharing information** about planned improvements, timelines and community benefits.



We're committed to **advancing solutions** that benefit the North and seek to **work in partnership** with northern governments to do so.



We're committed to **listening and engaging** with government partners so we can address any concerns productively and proactively





Northwestel's Every Community project.  
Unlimited northern potential.

## **Appendix C: Additional Information from the Department of Finance**

As follow up to Committee's questions, the Department of Finance provided the following information for public distribution.

## INFORMATION AVAILABLE TO BE MADE PUBLIC

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### 1. Provide a summary of CRTC proceedings and GNWT filings.

The Government of the Northwest Territories (GNWT) has submitted over 180 interventions and submission to the Canadian Radio-Television and Telecommunications Commission (CRTC) since 1983. These interventions can be grouped into six thematic areas:

- Internet;
- Modernization Plan;
- Regulatory;
- Competition;
- Affordability; and
- Local Phone Service.

A high-level summary timeline of the GNWT's interventions is attached as 'Appendix A'.

### 2. Provide a map of broadband infrastructure and identify available speeds, cost of available internet packages, and available service providers by NWT community.

A map containing the following information:

- Number of Service Providers in the community
- Names of the Service Providers in the community
- Number of Packages available to consumers (not business)
- Max Available Download Speed
- Max Available Upload Speed
- Max Available Bandwidth Cap
- Link to a webpage that provides more detail for each community (in lieu of PDFs)

has been created for Committee's information and can be access online at the following link:

<https://nwtgeomatics.maps.arcgis.com/apps/webappviewer/index.html?id=0160eec838b540b1910f0471402bf0f0>

Information specific to the cost of available internet package for residents and businesses in NWT communities can be found on the Department of Finance website at the following links:

Consumer - <https://www.fin.gov.nt.ca/en/internet-pricing-nwt-consumer>

Business - <https://www.fin.gov.nt.ca/en/internet-pricing-nwt-business>

These figures have been collected from publicly available information on each service provider's website.

**3. Confirm if Behchoko is connected via fibre, and if not, explain why.**

Northwestel (NWTel) does have fibre to Behchokò but the only packages available from NWTel (the only provider) as of January 2021 are Digital Subscriber Line (DSL) packages. NWTel's Every Community project plans to have Fibre-to-the-Home available in Behchokò in 2021.

**4. Look at "in-filling" as a potential project under the Universal Broadband Fund.**

The department of Finance will engage with service providers to explore options and feasibility for providing service to residents living outside of communities where possible.

**5. Connect with the NWT Housing Corporate to explore providing internet access in public housing.**

The Department of Finance will work with the NWT Housing Corporation to explore the feasibility of including basic internet services within our public housing programs. Should there be a feasible option, recommendations will be brought forward through the GNWT business planning process.

**6. Explore the provision of subsidies for the NWT's low-income residents.**

The Department of Finance will work with the Department of Education, Culture, and Employment (ECE) to explore costs and administration implications of expanding income support to include internet subsidies for low-income families. Should there be a feasible option, recommendations will be brought forward through the GNWT business planning process.

**7. Provide information about how much the GNWT pays Northwestel for telecom, networking and internet services.**

The Digital Communications Network (DCN) includes the bandwidth capacity and types of network facilities (fiber, copper, satellite) that the GNWT uses to send data within the NWT. This includes the data traffic that runs between and within GNWT locations and that which runs to other NWT locations and the south using the internet.

In 2020-2021, the GNWT will pay NWTel for the following services (approximation, per year):

- \$1.8 million - Internet - this includes \$1.08M shared department cost and \$720K community schools' internet which is paid wholly by ECE

- \$720,000 - Internet – this is a separate internet access paid wholly by ECE's Distance Learning program in several communities
- \$275,000 - Internet – shared department cost for Video Conferencing connections to a third-party provider, using NWTel facilities
- \$5.232 million - DCN traffic between GNWT offices in all 33 NWT communities
- \$1.752 million - Municipal Area Network (MAN) traffic within all 33 NWT communities
- \$200,000 - Telecom connections for the GNWT Voice Over Internet Protocol (IP) telephone system
- *Total current NWTel commitments = \$9.98 million per year*

In 2021, the Technology Service Centre (TSC) is issuing a Request for Proposals (RFP) for an amalgamation of Internet, DCN, and Distance Learning bandwidth capacity which will reduce the cost per megabit of bandwidth. By 2024, the GNWT anticipates leveraging low earth orbit satellite technology that will provide reduced satellite bandwidth costs.

Costs related to NWTel services in 2021-2022 are estimated to be as follows:

- \$9.912 million - Amalgamated internet, DCN and Distance Education (includes expected growth of 2-5x across all communities)
- \$2 million – Increased MAN costs to accommodate growth in traffic within communities
- \$275,000 - Video Conferencing costs – unchanged
- \$200,000 - Telecom connection costs – unchanged
- *Total Network Services Estimated Cost for 2021-22 = \$12.39 million (\$2.41M increase)*

All network contracts are awarded through a competitive process. While there were enquiries from other Northern companies in several cases, only NWTel and Ardicom bid on the DCN contract.

MVFL Costs paid to NWTel: \$72,400/month or \$868,800/year for 20gbps.

**8. Confirm whether the contracts for telecom and network services can be broken up to give more businesses an opportunity to provide services to the GNWT.**

The DCN network is an extremely large and complex network. It relies on hundreds of hardware and software connections to ensure that business, education and healthcare data traffic travels securely between the 33 NWT communities. The design of the network requires a single vendor to build and support it. The risks of having multiple vendors provide a shared network include:

1. With multiple DCN providers, the GNWT network would not be fully “meshed”: this would require 32 unique connection points back to Yellowknife instead of an integrated point-to-point community network. This would degrade the performance of the network and require more hardware/costs.
2. Deploying and migrating the existing network to multiple vendors would take longer and cost more to coordinate multiple vendors’ solutions.
3. It is often difficult to diagnose the root cause of network issues with GNWT infrastructure and a single vendor’s infrastructure; adding multiple vendors only increases the time and difficulty to resolve issues.
4. GNWT will lose the benefit of standardized hardware, software and maintenance processes across the network as they will have to work with multiple vendors’ equipment and processes. This would no doubt drive costs as well.
5. TSC resource time to manage multiple financial and maintenance contracts, process invoices and coordinate network reports would be increased.

**9. Provide information about how the rate for connection to the Mackenzie Valley Fibre Line (MVFL) determined and confirm whether there is anything preventing the GNWT from lowering those rates.**

MVFL rates vary depending on the following factors:

- Customer Segment (Internet Service Provider, Commercial Service Provider, and Satellite Ground Station Provider)
- Bandwidth: MVFL Services are priced based on the bandwidth of service
- Contract Duration: Customers are offered 1-, 3-, 5-year terms

The GNWT recognized a key policy objective was to offer high speed telecommunication services, to a vital class of users along the Mackenzie Valley, comparable to availability and affordability benchmarks of southern Canada.

The GNWT introduced a “Designated Class of End-User” within the MVFL project Agreement. An ISP servicing this designation must provide rates no greater than 20% (of the southern Canada benchmark of major providers) to the designated class of end-user.

The Designated Community market is comprised of all Designated Class of End Users. These include one or more of the following:

1. All individuals and families residing in a non-business private residence within the service area, including any principal private residence (as defined under the Income Tax Act (Canada), in each case seeking Designated End User Plan(s) for primarily personal use.
2. All charitable or religious organizations (registered as a charitable organization under the Income Tax Act (Canada) operating within the service area and all aboriginal persons and organizations fulfilling charitable or religious purposes (whether or not registered under the Income Tax Act (Canada) within the service area;
3. Any Local Governmental Authority (including any aboriginal Local Governmental Authorities, band councils and tribal councils), including, to the extent they are subject to the jurisdiction of such Local Governmental Authority, schools, colleges, universities, police services, fire services, paramedic or ambulance services, clinics and hospitals.
4. Any small business owner, being any person operating for profit within the service area with assets held within the service area with not more than 100 self-employed and paid employees and gross annual revenues of not more than \$500,000.

This does pose challenges as NWTel is regulated by the CRTC and there are other very small ISP’s working to compete in the market. We are pleased to say all parties have worked together to find solutions and improved package offerings.

As an example, for ISP’s outside of MVFL purchasing a Gbps of data or more the rate is \$5/Mbps per month. For NWTel, because they are regulated by the CRTC, purchase is \$8/Mbps per month.

**10. Provide details on the MVFL’s cash flow (revenue/expense or P/L).**

Revenue received for the MVFL in 2020 was \$1.46 million and is currently projected to be between \$1.2 million to \$1.6 million for 2021. The 2021-22 Main Estimates identify a conservative estimate of \$1.2 million.

The MVFL has experienced steady grow from the ISP revenue stream as it has demonstrated competitive packages and pricing for ISP’s of any size.

The MVFL continues to work closely with the satellite ground segment of the project as well as our two partners in Inuvik. COVID-19 pandemic and travel restrictions did play a role for growth of the facility in 2020 however we continue to work closely with current and future clients and their interest in Inuvik.

The GNWT entered into a 23-year agreement with Northern Lights General Partnership to design, build, finance, operate, and maintain the MVFL. NLGP is expected to meet monthly, quarterly and annual performance requirements which have financial implications to their monthly payment. At the moment the monthly payment is approximately \$910,000.

**11. Review the Tuk Highway for subsidence as the GNWT expands fibre into Tuk.**

The GNWT is currently working with the Federal Government in pursuit of 75/25 capital sharing to extend the MVFL from Inuvik to Tuktoyaktuk.

The GNWT Department of Finance has committed, as part of this process, to pursuing Federal dollars for a Climate Lens / Green House Gas Emissions Assessment for the project.

The GNWT will work with the respective government departments and organizations to ensure subsidence of the ITH is studied, evaluated, and applied to the Inuvik-Tuk Fibre project.

Timing of the project will depend on the approval from Canada for funding, as well as if the project will need environmental assessment.

**12. Provide information about which communities are receiving service from the MVFL and which companies are providing it.**

Communities served by MVFL:

- Fort Simpson – NWTel
- Wrigley – NWTel
- Tulita – NWTel
- Norman Wells – NWTel, New North Networks, Ice Wireless
- Fort Good Hope – NWTel
- Inuvik - NWTel, New North Networks, Ice Wireless



## Appendix A: GNWT Canadian Radio and Television Commission (CRTC) Intervention Timeline

### Theme Legend:

Internet   **Modernization Plan**   Regulatory   Competition   Affordability   Local Phone Service

|    | Title   | Year | Topic   | Outcome  | Additional Information   |
|----|---|------|---|--|--|
| 1. | Telecom Notice of Consultation (TNC) 2020-367 Review of The Commission's Regulatory Framework for Northwestel Inc. and the State of Telecommunications Services in Canada's North | 2021 | Affordability, Resilience, Competition and Internet Subsidy                     | TBD  | With regards to Affordability the GNWT is concerned about the phase out of the Local Rate Subsidy (LRS) because of affordable pricing of service is required for residents and business. In terms of Quality of Service, (QoS) the GNWT would like to see service resiliency and reliability; in terms of Competition, the GNWT would like to see fair wholesale access rates and Third-Party Internet Access (TPIA) as is permitted in southern Canada. |
| 2. | Tariff Notice (TN)1099 – Northwestel Unlimited Internet   | 2020 | Northwestel's tariff application to provide Unlimited Internet to 4 communities | CRTC approved Unlimited but SSI has raised concerns. |  |

|    | Title              | Year | Topic   | Outcome   | Additional Information   |
|----|--------------------|------|---|---|--|
| 3. | Broadband Fund     | 2019 | As part of the move to a more broadband centric universe the CRTC, in Telecom Regulatory Policy (TRP) 2016-496, announced that it would put in place a new 5 year \$750 million broadband service extension subsidy to facilitate the extension of high speed Internet service to unserved and underserved areas. | Broadband Fund established. Northwestel successful recipient of approximately \$20M in funding for two NWT projects: \$4.1M for eight satellite communities and \$16.8M for another 18 terrestrial communities. This funding will assist Northwestel in meeting the 50/10 Universal Service Objective in every NWT community save for the satellite served. | A proceeding to examine this matter was then initiated in TNC 2017-112, which laid out a series of issues to be addressed and in many cases the CRTC's preliminary views with respect to those issues. The GNWT participated actively in this proceeding through the posing of and responding to interrogatories and the filing of an intervention and final submission. |
| 4. | Modernization Plan | 2018 | As part of their Modernization Plan, Northwestel had to install 4G mobile service in every NWT community, plus make various additional improvements over 5 years (2013-18)  | 4G mobile service in every NWT community  |  |

|    | Title  | Year | Topic  | Outcome   | Additional Information |
|----|--|------|--|---|------------------------|
| 5. | CRTC 2018-377, Development of The Commission's Broadband Fund                                | 2018 | 3-year phase out of local subsidy program  | The GNWT argued that a substantial portion of the subsidy fund should be set aside for the North in light of its special needs. The CRTC rejected this and other proposals for geographically subdividing the fund but did state, at para 260, that "when selecting projects for funding from the identified high-quality projects, it may give special consideration to selecting projects in multiple regions of Canada." Moreover, at para 353 it maintained a 10% of total funding set aside for satellite communities and at para 364 set satellite service pricing and speed comparable to Iqaluit as project requirements. |                        |
| 6. | Universal Service Objective  | 2016 | The GNWT argued that the existing basic service objective (established in Decision (D)99-16) of providing single line telephone service with a variety of features to all Canadians should be expanded to include universal access to high speed Internet service. The same position was adopted by most parties to the proceeding and was accepted by the Commission in TRP 2016-496. | The specific objective adopted by the Commission is that "Canadians, in urban areas as well as in rural and remote areas, have access to voice services and broadband Internet access services, on both fixed and mobile wireless networks."  |                        |
| 7. | TRP CRTC 2013-711, Northwestel-Regulatory Framework, Modernization Plan, And Related Matters | 2013 | CRTC Regulates Rates for Northwestel Internet Service  | In its decision the CRTC retained the existing regulatory framework but agreed that Northwestel's terrestrial Internet services should be regulated.  |                        |

|     | Title  | Year  | Topic   | Outcome  | Additional Information |
|-----|--|-------|---|--|------------------------|
| 8.  | Modernization Plan Begins (TRP 2011-771)   | 2013M | In TRP 2011-771, following submissions from the GNWT and others on the matter, the CRTC found that Northwestel had failed to adequately invest in its network and that it would be required to file a comprehensive network modernization plan to remedy this defect. A revised Modernization Plan was filed in January 2013, and minor updates were made in February 2013 (in the remainder of this note the February plan version will be referred to as the Modernization Plan). | The first plan was filed in July 2013 and involved \$273M in expenditures over 5 years. \$40M of this was contingent on the CRTC approving a payment from BCE of that amount as a “public benefit” in connection with its proposed purchase of Astral Broadcasting. While the GNWT made a submission supporting this \$40M benefit it also proposed these funds be made available to competitors as well. Ultimately, as expected, the CRTC determined that the \$40M public benefit did not meet the criteria used to assess such payments and denied that funding in its entirety. |                        |
| 9.  | Regulatory Policy CRTC 2013-711, Northwestel Inc. – Regulatory Framework, Modernization Plan | 2013  | Wholesale Connect obligations raised  | In Order 2013-93 the CRTC approved the tariff subject to some modifications. The most significant of these was a dramatic lowering of access rates based on costing evidence provided by SSi.  |                        |
| 10. | Regulatory Policy CRTC 2013-711, Northwestel Inc. – Regulatory Framework, Modernization Plan | 2011  | CRTC sets target of 5/1 Mbps  | The plan provides for the availability of a minimum of 5 Mbps download and 1 Mbps upload speeds in terrestrial communities and of 1.5 Mbps download and .384 Mbps upload in satellite communities. The lower proposed satellite community speeds were the result of high costs for satellite bandwidth.  |                        |

|     | <b>Title</b>   | <b>Year</b> | <b>Topic</b>                                | <b>Outcome</b>   | <b>Additional Information</b> |
|-----|--|-------------|---|--|-------------------------------|
| 11. | Regulatory Policy CRTC 2013-711, Northwestel Inc. – Regulatory Framework, Modernization Plan | 2011        | Obligation for Modernization                | The CRTC found that Northwestel had failed to adequately invest in its network and that it would be required to file a comprehensive network modernization plan to remedy this defect.   |                               |
| 12. | CRTC 2011-291, Obligation to Serve And Other Matters   | 2011        | Local Service Competition Permitted         | The GNWT had long supported the introduction of local competition in the North. In RP2011-771, the Commission finally determined that local competition would now be allowed throughout Northwestel's operating territory.   |                               |
| 13. | CRTC 2011-291, Obligation to Serve And Other Matters   | 2011        | Northwestel obligation to serve continues   | The GNWT argued that the obligation to serve, i.e. to provide residential local service on a non-discriminatory basis should be retained where there is insufficient competition. As local competition is not permitted in Northwestel's territory this entailed retention of the obligation to serve throughout Northwestel's serving territory. The CRTC supported GNWT in its decision. |                               |
| 14. | CRTC 2007-5, Price Cap Regulation for Northwestel Inc  | 2007        | 911 service not part of obligation to serve | The CRTC rejected the City of Yellowknife's proposal and stated that 911 service is not part of the basic service objective- a position that it still maintains. It did however encourage all parties to work together to address the issue of 911 service.  |                               |
| 15. | CRTC 2007-5, Price Cap Regulation for Northwestel Inc  | 2007        | Price Cap Regulation                        | For the duration of the price cap period Northwestel sought permission to further periodically increase local rates by the rate of inflation. The GNWT argued for no increases. The CRTC sided with the GNWT with respect to no future residential local rate increases and with Northwestel with respect to allowing business local rate increases.                                       |                               |

|     | <b>Title</b>   | <b>Year</b> | <b>Topic</b>   | <b>Outcome</b>   | <b>Additional Information</b>  |
|-----|--|-------------|--|--|--|
| 16. | Decision CRTC 2000-746, Long-Distance Competition and Improved Service for Northwestel Customers | 2001        | Long Distance Competition Permitted                            | The CRTC provided for the introduction of long-distance competition effective 1 January 2001, with equal access facilities to be put in place by then in Yellowknife, Whitehorse, Iqaluit and Fort Nelson. |  |
| 17. | Decision CRTC 2000-746, Long-Distance Competition and Improved Service for Northwestel Customers | 2000        | Northwestel Quality of Service Standards                       | In its Decision the CRTC went with a standard that in remote communities 90% of troubles (tickets) should be cleared within five days.   |  |
| 18. | National Contribution Fund   | 2000        | National Contribution Fund                                     | Northwestel receives first subsidy from the National Contribution Fund.  |  |
| 19. | CRTC 99-16, Telephone Service to High-Cost Serving Areas   | 1999        | CRTC determines Northwestel has an obligation to serve         | As recommended by the GNWT the CRTC found that incumbent carriers would retain the obligation to serve whereby they are expected to make basic service available at a reasonable price.                    | GNWT's submissions stated that the same characteristics that render the North uniquely reliant on telecommunications also make the provision of telecommunications in the North extremely costly, and a national subsidy mechanism should be introduced that would allow for the maintenance and expansion of affordable high quality telecommunications in the North. |
| 20. | Telecom Decision (TD) CRTC 93-20 Northwestel Revenue Requirement for 1993                        | 1993        | Extension of basic telephone service to 7 unserved communities | The CRTC directed that by June 1994 Northwestel should submit a service extension plan for these communities.  |  |
| 21. | TD- CRTC 93-20 Northwestel Revenue Requirement for 1993  | 1993        | Community Service Outage Reporting                             | The CRTC agreed with the GNWT that there were many quality-of-service problems in the North.   |  |

|     | Title                                     | Year | Topic                       | Outcome | Additional Information  |
|-----|---|------|-----------------------------|---------|---|
| 22. | Hiring GNWT's CRTC Regulatory Consultant. | 1993 | Regulatory Consultant hired | N/A     | In May 1993 Northwestel filed an application with the CRTC for a general increase in rates. The GNWT was concerned about the level of these increases, ongoing problems with Northwestel's service quality, and Northwestel's repeated failure to extend service to seven NWT communities. The GNWT accordingly hired an external consultant to assist them in mounting a major challenge to Northwestel. |

## **Appendix D: GNWT Submission to the Canadian Radio-television and Telecommunications Commission 2020-367**

On January 20, 2021 the GNWT submitted the following submission to the CRTC 2020-367 proceeding. The GNWT further submitted a reply to the CRTC on March 23, 2021, and a response to the procedural request on May 10, 2021.



Intervention of the  
GOVERNMENT OF THE NORTHWEST TERRITORIES

re

**Telecom Notice of Consultation CRTC 2020-367, Call for comments –  
Review of the Commission’s regulatory framework for  
Northwestel Inc. and the state of telecommunications  
services in Canada’s North**

“Those living in Canada’s North have far fewer choices of telecommunications service providers than those of us elsewhere. They almost always pay higher prices and lack access to broadband networks that meet the CRTC’s universal service objective. The pandemic has caused us to look closely at the services being provided in the North, and particularly those offered by Northwestel—the incumbent carrier in the Yukon, Northwest Territories, Nunavut, northern British Columbia and northern Alberta. Just yesterday, we launched a public consultation with a view of better understanding the state of telecom services in Northern Canada, and determining what else can be done to ensure Canadians in the North have access to high-quality services at reasonable rates.”

Remarks by CRTC Chairperson Ian Scott on November 3, 2020 to the 2020 Canadian ISP Summit.

Participants across all seven focus groups agreed that good Internet and cell phone service is a necessity, and in their opinion, should be a basic right for all Canadians regardless of their location in Canada. Without affordable and reliable Internet service, many participants expressed the fear of an ever increasing “digital divide” where northern residents would continue to fall behind those with better access. The concern is not simply about lower technological literacy, but about the negative impacts of a lack of access (versus other Canadians) to education, health care, government services and more broadly, the benefits of participation in the digital economy.

Research on Telecommunications Services in Northern Canada, Environics Research 2020

## **BACKGROUND AND SUMMARY**

1. The GNWT has actively participated in CRTC telecommunications proceedings concerning the North for over 25 years. The GNWT is a major consumer of telecommunications services, but more importantly, in participating in such proceedings, it has sought to represent the broad interests of the residents of the Northwest Territories and in particular, to ensure that Northerners are, pursuant to section 7 of the Telecommunications Act, provided with a full range of services at affordable prices. We also want to ensure competition is fully encouraged in the provision of such services. CRTC initiatives, such as the local voice service subsidy, the 2001-2005 Service Improvement Program, the 2013-2018 Northwestel Network Modernization Program, and the mandating of wholesale service provision to ISPs are among those initiatives contributing to these objectives. The very high cost of providing service, arising from the challenging geography and dispersed population of the North, will always result in the need for CRTC intervention to ensure that Northerners have access to telecommunications services that are comparable in scope and price to what is available in the South. At no time, is this more true than today, when the COVID crisis has both in the immediate present, and we expect for the long term, heightened the reliance of Canadians on telecommunication services for social, economic, and political purposes.

2. For the above reasons the GNWT strongly supports the CRTC's decision to initiate this proceeding to undertake a broad review of telecommunications services in the North and ascertain the steps that now need to be taken to ensure that the existing digital divide is not widened.

3. The GNWT expects to actively participate in all stages of this proceeding and in this first stage will, in the material that follows, address the questions posed by the CRTC in TNC 2020-367. The GNWT expects to supplement and expand upon our initial submission in selective areas as the proceeding progresses, and detailed evidence and proposals are put forward by Northwestel and competitive service providers.

4. The single most important theme running through our response to the CRTC questions is further Commission action is required if Northerners are to have access to Internet services on terms comparable to southern Canada. Specific actions the Commission should take to further this objective are to: regulate the rates for Internet services in satellite communities; provide ongoing portable subsidies to lower the rates for both residential and business Internet

services; and, review the terms and conditions of wholesale access by competing service providers. Additionally, some action, including through a subsidy, is required to limit future local rate increases. Network improvements are also required to provide further redundancy and limit service outages. Finally, while no expiry date should be placed on the price cap regulatory framework, regular proceedings should be instituted to consider network modernization plans.

## **RESPONSE TO CRTC QUESTIONS**

**Q1 How should the Commission calculate any potential shortfall related to the elimination of the local service subsidy, given the Commission's view that any calculation should take into account the costs and revenues of other services using the same infrastructure?**

5. A1. The calculation of the loss of revenue to Northwestel from elimination of the subsidy is straightforward and requires measuring the difference between the existing subsidy payment, if any, and the subsidy that would have been received under the formula used before the subsidy phase out began. The more difficult question is whether and to what extent Northwestel requires alternative subsidy funding, rate adjustments or other actions to offset this loss in whole or part. In the absence of detailed financial information for Northwestel, the GNWT is not in a position to address this question in large measure. We would caution attributing additional costs to other services, and most specifically Internet services, is problematic given the very high prices that already exist for such services in the North. Also, Northwestel already has in place a \$20 a month surcharge for standalone residential DSL service outside of Yellowknife and Whitehorse<sup>1</sup> that assists in recovering local line costs when customers don't subscribe to local phone service.

**Q2 Provide your views on the current rates for residential and business local voice services, as well as for the rates for residential and business terrestrial retail Internet access services. Are the current rates appropriate, or should they be adjusted?**

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<sup>1</sup> (See Tariff CRTC3001, Item 1735 4 (3).)

6. A2. With respect to local rates the GNWT believes that existing rates for both residential and business services are reasonable and in line with rates in the rest of Canada. Going forward business rates are constrained by the same price cap rule as in the rest of Canada i.e., that average rates may rise annually at up to the rate of inflation with a 5% rate increase constraint applying to individual rate elements. In the case of residential rates, there is a 5% rate increase constraint also both for Northwestel and the southern ILECS, but while no overall increase is permitted for the residential local rates of southern ILECS, Northwestel's residential rates are allowed to increase on average by up to the rate of inflation. In the long term the GNWT suggests that the CRTC consider applying the same residential rate increase rules to Northwestel as apply in southern Canada. In the immediate term, further increases to local rates may be unavoidable unless some replacement funding is put in place for revenues lost through phasing out the local subsidy.

7. With respect to Internet rates the situation is more dire. Whereas the local voice service subsidy provided for reasonable uniformity of local rates across Canada, no such mechanism has been employed vis Internet rates. The result is that, despite the critical and increasingly pervasive importance of Internet service, rates are dramatically higher in the North than in the South. While differences in service offering details and availability make exact comparisons problematic the general pattern is that residents of the NWT must pay considerably more to receive considerably less. In the case of businesses, the differential is even starker.

8. Residential unlimited Internet can be as much as 133% more expensive in the North than in southern Canada. Business Unlimited in southern Canada is almost double the speed for less than half the cost. Please see end note for illustration of cost comparisons described in the following paragraphs<sup>i</sup>.

9. For example, in the case of residential Internet service in Northwestel DSL communities the highest speed package available offers 300Gb monthly usage at a 15/4 speed for a rate of \$83.97 a month plus a further \$20 a month if home phone service is not subscribed to. For business customers the same service with a 325Gb monthly usage allowance costs an astonishing \$299.95 a month. In communities with cable or FTTP facilities the rate for 50/4 service (which has Universal Service Objective (USO) download speed) with a 300Gb monthly usage allowance is \$110.95 a month for residence customers, and for business customers for 80/6 service the rate with a 375Gb allowance is \$309.95 a month. Pursuant to tariff notice 1099, approved on an interim basis in Order 2020-378, for residential customers 50/10 service with unlimited usage will cost \$160.95 monthly and for business services will cost \$299.95

monthly.<sup>2</sup> In NWT satellite communities the rates for DSL 5/1 service with 60Gb a month usage are \$79.95 a month and additional usage is priced at \$3 per Gb.

10. In contrast to the Northwestel rate of \$160.95 per month for unlimited usage at USO speeds, the average reported price (2019) for this service in Canada was \$69.10 a month and the highest average price in southern Canada was in Saskatchewan at a level of \$85.46 that being barely over half the price charged by Northwestel. In urban communities to the south, Bell and Rogers both offer unlimited service to residential customers at USO speeds or better for approximately \$85 a month. And for business services with unlimited usage on a three year contract a typical example of an available service offering is Rogers' 150/20 service with unlimited usage for \$104.99 a month. And when the offerings of smaller ISPs are considered then rates can be even lower. Kitchener based Start Communications for example offers cable based 30/5 service with unlimited usage for \$55 a month and Business VDSL unlimited service at download speeds of 25Mbps for \$60 a month.<sup>3</sup>

11. Among the interventions received from the general public as many as half strongly complained about high Internet prices in the North and discussed issues such as affordability and the impact of these prices on income available for other essential items. The Environics Research report (2020), commissioned by the CRTC, confirmed at pages iii and 6 that there is a high level of dissatisfaction among Northerners regarding Internet prices and that among concerns regarding Internet service, high prices ranked highest. One intervenor went so far as to state that poor Internet and its high price was the reason he had left the North. The GNWT believes in order for northern businesses to compete with their southern counterparts, and for customers to have something approaching equivalent access to services, major reductions in costs are required.

**Q3 Discuss any other matter related to Northwestel's price cap regime that the Commission should consider in this proceeding. Further, provide your views as to whether and when the price cap regime should expire.**

12. A3. At this time the GNWT does not have any specific comments on changes to the price cap regime. We feel, as is the case for all other large and small ILECs, there does not

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<sup>2</sup> Monthly rates in MVFL communities are slightly lower. Rates cited in this and the following paragraph were in effect December 2020 and were taken from Northwestel tariffs or the website of the referenced service provider. 2019 rate averages were taken from the 2020 CRTC Communications monitoring report.

<sup>3</sup> Ibid

remain any need to have an automatic expiry date for Northwestel's price cap regulatory framework. The regime has proved workable to date, and to the extent that future adjustments are required, these can be made on an ad hoc basis as needed rather than through a regular review process. This is not to say, however, that the GNWT does not believe that a regular review of Northwestel and of telecommunication services in the North is not required. Given the limited presence of competition in the North, the high costs of providing service in the North, and the relative underdevelopment of telecommunications networks in the North the GNWT strongly believes and would urge the CRTC to institute a regular review process of these larger issues and to maintain it until such time as new technologies or other factors have obviated the need for such special attention.

**Q4 Provide your views on recent and forthcoming developments with respect to technology, the number of suppliers of satellite transport services, or other developments, and their influence on satellite retail Internet access services in Northwestel's operating territory. Provide your views as to whether developments in the satellite industry will improve the quality and affordability of Internet services in satellite-dependent communities in the coming years.**

**Q5 Will these developments be sufficient on their own to improve Internet services in satellite-dependent communities, or are additional regulatory measures required?**

13. A 4/5. In Decision 2020-57, *Broadband Fund – Project funding approval for Northwestel Inc.'s Northwest Territories satellite project*, the Commission approved broadband funding to allow Northwestel to build earth stations and terminals in eight NWT communities to connect to low earth orbit (LEO) satellites. The Commission stated at paragraphs 5 and 6 of the Decision that *"..the Commission finds that the proposed project is technically sound and capable of delivering speeds and capacity that are consistent with the universal service objective. The project includes redundant satellite connections and redundant network hardware and software, as well as backup power and continuous monitoring of the network, to ensure that the network is resilient. While the project relies on the eventual availability of a LEO satellite network to provide transport capacity, the Commission considers that dependency to be a low risk, given the current state of development for LEO technology, the positive testing results on this emerging technology, and the high level of support it has received from the Government of Canada."*

14. The GNWT shares the hope that the emergence of LEO networks together with the broadband funding provided, will substantially improve the speed, quality, and affordability of Internet services in NWT satellite dependent communities. As the CRTC well knows, satellite projects have not always performed as well as planned.<sup>4</sup> Furthermore, the GNWT is not privy to the detailed financial and other projections surrounding Northwestel's rollout of LEO based Internet service and thus cannot provide concrete comments as to how affordability will be affected. We note that even in a best-case scenario, the issue of affordability will remain a serious one until rollout occurs.

**Q6 Provide your views on the current level of competition in the market for satellite retail Internet access services in Northwestel's operating territory. Is the current level of competition in the market for retail Internet access services sufficient to warrant the Commission's continued forbearance from the regulation of satellite retail Internet access services?**

15. A6. At paragraph 214 of Regulatory Policy 2013-711, the CRTC, while determining to begin regulating terrestrial Internet rates, stated *"With regard to Northwestel's satellite retail Internet services, the Commission finds that, based on the record of this proceeding, the circumstances that justified its original forbearance determinations have not changed sufficiently to warrant a reversal of forbearance. In this regard, the Commission notes that the presence of a competitor in the satellite retail Internet services market indicates that customers have an alternative to Northwestel. The Commission also notes that Northwestel does not control the facilities that competitors require to provide satellite retail Internet services. Therefore, the Commission considers that Northwestel does not have market power in the satellite retail Internet services market and determines that these services will continue to be forborne from regulation."*

16. In the NWT, Northwestel is the sole supplier of satellite retail Internet services. Even if multiple suppliers were to actually or potentially exist, while this would limit the ability of Northwestel to charge rates in excess of its costs, it would not provide a guarantee the resultant rates would be affordable. Current rates are not affordable. Not only are charges high, but usage allowances are low and additional usage charges high. For 5/1 service, as noted above,

<sup>4</sup> An interesting discussion of issues surrounding the rollout of LEO networks is contained in McKinsey & Company, "Large LEO satellite constellations: Will it be different this time", May 2020 available at the mckinsey.com website.

the monthly rate is \$79.95 including a usage allowance of only 60Gb. Additional usage is charged at \$3 per Gb, thus severely deterring increased usage despite COVID and other factors that are increasing our reliance upon this service. Some form of CRTC intervention to reduce prices is accordingly required.

**Q7 Provide your views on the frequency and duration of network outages in the North and discuss any economic or safety concerns.**

17. In 2021, the use of telecommunications services underlies so much of our activity the possibility of service outages must be eliminated to the maximum extent possible.

18. In this proceeding, a review of the submissions from the general public to the CRTC reveals there is widespread concern among subscribers as to the instability of services and the number of outages in the North.<sup>5</sup> Formerly, Northwestel was required to include in its periodic quality of service reports information concerning outages leading to community isolation but this requirement was unfortunately dropped in Decision 2008-105 and TRP 2009-304. In 2019, the CRTC did however issue an information request to Northwestel concerning outages and was advised, in Northwestel's written response of September 16, that there had been 40 outages in the North since July 2018, including five considered "major." Fifteen outages were in the Yukon, nine in the Northwest Territories, 11 in Nunavut, and five in northern British Columbia.

19. Such outages can have significant impacts upon residents and businesses and upon government delivery of services to affected communities. When outages occur, some impacts are primarily ones of inconvenience such as being unable to access Internet entertainment service or chat with friends. Other impacts are of a primarily economic nature such as when a business or government office that relies upon telecommunications is unable to undertake core activities. Other impacts can be of a life and death nature such as could arise when calls to police, fire, or medical emergency services cannot be made or emergency alerts transmitted. The Environics Research report commissioned by the CRTC found, at pages 11 to 15, that while many Northerners had become fatalistic as to ongoing service stability and outage problems, these nonetheless had serious consequences that need to be addressed.

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<sup>5</sup> After the two outages in 2019, the RCMP wrote to the GNWT regarding their concerns. Also, the CBC interviewed the Yellowknife Chamber of Commerce who estimated the outages cost businesses \$10 M.



**Q8 What network upgrades or improvements might the Commission consider as part of any network improvement plan?**

20. The GNWT looks forward to assessing the proposal that it anticipates Northwestel will put forward in this proceeding to upgrade its network including to address the issues of outages and instability. The GNWT believes, on an ongoing basis, the issue of modernising the northern telecommunications network should be included in the periodic reviews we recommended in our response to question 3.

21. One immediate issue that needs to be addressed is the absence of redundancy in the network connecting Yellowknife to the south. In this regard we would note that Northwestel stated in a letter to the CRTC dated 8 October 2020: *“... the most effective means of providing network redundancy for Yellowknife would be to install a submarine fibre cable running across Great Slave Lake to Fort Resolution, to connect to our existing fibre network there and thus form a redundant fibre ring. We estimate that construction of this facility would cost approximately \$20 million to \$25 million.”*

22. Other important network upgrade issues include those that allow for the extension of mobile service along major highways, the provision of wholesale access to competitors, and the origination of NG911 calls.

**Q9 Provide your views on the overall level of competition in the North. How might the Commission foster competition in the North?**

23. A9. Competition in services in the Northwest Territories is extremely limited with Northwestel being either the only supplier or the overwhelmingly dominant supplier in all markets, other than the wireless market, where its operations were taken over by Bell Mobility. With existing technology, the small and dispersed population of the NWT, combined with its immense size and diverse geography, the reality is in most parts of the network, it would be uneconomic for multiple competitors to operate independent sets of facilities. Competition must instead rely to a great extent on the willingness of Northwestel to provide competitors with wholesale access to its facilities. This inevitably involves a degree of conflict as competitors will seek access on the most favorable terms possible while Northwestel has a strong incentive to limit access and to charge excessive prices for it. Accordingly, there is an ongoing need for the Commission to establish terms and conditions for access. The starting point for so doing should always be to listen to the proposals of competitors to obtain such access.

24. As noted in our response to question 17, the GNWT also believes fair competition requires any subsidies to reduce Internet rates or other services should be made available to competitors on the same terms as to Northwestel.

**Q10 Provide your views on Northwestel's Wholesale Connect service. What modifications, if any, should be made to the service?**

**Q11 Provide your views on any other existing wholesale services provided by Northwestel. What modifications, if any, should be made to those services?**

**Q12 Should Northwestel be required to provide wholesale services in addition to the ones that it already provides?**

25. A10/11/12. In light of its support of competition in the provision of telecommunications services, the GNWT was a strong supporter of SSi's initial part 1 application wherein it sought, and in Decision 2012-4 was granted, tariffed access to Northwestel backbone connectivity to provide Internet services. This subsequently led to the development of the Wholesale Connect tariff and a series of proceedings with regard to the features and rates for that service.

26. The GNWT also supported a January 2015 SSi application to require Northwestel to provide it with Third Party Internet Access service that would allow SSi to offer Internet service through Northwestel CATV facilities. Unfortunately, in Decision 2015-320 this application was denied by the CRTC as being premature. TPIA has now been raised again by SSi through a part 1 application made following the CRTC's interim approval of Northwestel tariff notice 1099 introducing selected unlimited use Internet packages.

27. The GNWT anticipates that in the current proceeding, SSi and other parties will make further submissions regarding both the technical and financial aspects of their access to Northwestel facilities. The GNWT urges to the maximum extent possible, all requested services should be made available to these competitors and at rates, while compensatory to Northwestel, do not stifle the emergence of competition.

**Q13 Provide your views on whether and to what extent the Commission's regulatory framework for wholesale services, as established in Telecom Regulatory Policy 2015-326, should apply to Northwestel.**

28. A13 The GNWT believes the framework should apply equally to Northwestel except if and where a compelling case is made to the contrary.

**Q14 Provide your views on the affordability of telecommunications services for residents and businesses in Canada's North.**

29. As noted in our response to question 2, Internet rates in the North are currently much higher than in southern Canada for both residential and business customers. As well, while local rates are currently only slightly higher than in the South, if the local subsidy continues to be phased out, significant rate increase pressures may emerge. If affordability is judged in terms of the relative level of rates in the North versus those in the South, as we believe it should be, then it is clear the affordability of telecommunications services in the North is a serious problem<sup>6</sup>. And while this problem is a serious one throughout the territory, it is arguably most problematic in the satellite-served communities where high overage charges and low monthly usage allowances inevitably seriously constrain the use of Internet services. At current prices, as set out in response to question 2, it would cost a user in a satellite served community close to \$700 a month for 5/1 service when using the amount of data used by an average Canadian household in 2019.<sup>7</sup>

**Q15 Are there unique circumstances or characteristics with respect to living or operating a business in the North that the Commission should take into consideration in its assessment of affordability?**

30. As the Commission is well aware, the small and highly dispersed population of the North, together with its remoteness, vast terrain and harsh climate make northern living uniquely challenging. Nowhere is this more true than in those small communities where there may exist

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<sup>6</sup> The Environics Research report commissioned by the CRTC, in discussing the Northern focus groups it held, states at p.16 that "Participants clearly identified affordability as the top problem with their telecommunications services, followed by reliability and quality (speed) of service. They felt these three problems put them and others in their communities at disadvantages compared to the rest of the country.... Most, if not all, focus group participants believed they are paying too much for Internet, especially compared to rates in southern Canada. They emphasized these high costs are detrimental to individuals in their communities, who are excluded from accessing education, health care and government services available to other Canadians."

<sup>7</sup> This calculation is based on a rate of \$79.95 a month for 60 Gb with additional data charged at \$3 gb at the average 2019 usage level of 265.3 Gb as reported at p.50 of the 2020 Communications Report. Given that average use has been rising over time and was likely significantly increased as a result of Covid impacts the \$700 a month calculation is likely a significant underestimate relative to a calculation based on current average usage amounts.

no road access or winter only road access. Ironically these same factors, which increase the costs of providing telecommunications services, also serve to increase the reliance of Northerners on telecommunications services to engage in activities such as education, medical treatment, entertainment, banking, shopping, etc.. Reliance on telecommunications services in turn implies that affordability has a heightened importance.

31. Furthermore, most NWT communities, particularly outside the major centers such as Yellowknife, have a large Indigenous population and the level of poverty within such Indigenous populations is well above average, again raising the necessity for affordable rates.

**Q16 Should the Commission continue to permit the local service subsidy to phase out, as intended in Telecom Regulatory Policy 2018-213, or should local voice services in Canada's North continue to be subsidized?**

32. Northwestel was uniquely reliant upon the local service subsidy to hold its local rates down to an affordable level. Adding to the financial pressures arising from the phase-out of this subsidy at the end of 2020, Northwestel also stopped receiving its annual SIP subsidy of just over \$10 million a year. However, they continue to be responsible to deliver services and features supported by the SIP program. As noted in our response to question 2, we are not privy to detailed financial information from Northwestel but are concerned that in the absence of an ongoing local subsidy, there will be inexorable pressures for significant increases to local rates in the NWT that will bring them well above rate levels in southern Canada. While we will await Northwestel's submission in this proceeding to better ascertain what, if any, subsidy is needed, we note that the per line cost based subsidy Northwestel was receiving in high cost areas at the time that the subsidy phase out began was \$46.38. (Telecom Decision 2018-441). Collecting this amount through increases to rates in these areas would lead to more than a doubling of such rates and by any criteria would be excessive. So, subsidy is definitely required, and the question is what the source of this subsidy is to be: Northwestel? Other Northwestel subscribers? Or the CRTC central fund?

**Q17 Should the Commission introduce a subsidy mechanism for other telecommunications services in Canada's North? If so, which services should be subsidized?**

33. As noted in our response to question 2, Internet rates in Canada are far above the level of rates in southern Canada. We strongly urge the CRTC to immediately introduce a new subsidy, funded from its Central Fund, to address this problem in both the residential and business markets. We further submit this subsidy should be competitively neutral and thus be made available to all competitors on a per customer basis. While we support a similar approach in the case of a local service subsidy, we believe subsidy portability to be of even greater importance in the case of an Internet service subsidy given the relatively early stage of development of the Internet market and the greater immediate potential for competitive supply.

34. Initially the subsidy should be made available for all Internet services but in the longer term could be limited to only packages meeting USO criteria.

\*\*\*End of Document \*\*\*

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|                             | Usage GB              | Speed Mbps | Cost/ month | Unlimited             | Canada Unlimited                  |
|-----------------------------|-----------------------|------------|-------------|-----------------------|-----------------------------------|
| <b>NWT Residential DSL</b>  | 300                   | 15/4       | \$83.97     |                       |                                   |
| <b>NWT Business DSL</b>     | 325                   | 15/4       | \$299.95    |                       |                                   |
| <b>NWT FTTP Residential</b> | 300                   | 50/4       | \$110.95    | \$160.95              | 50/10<br>\$ 69.10                 |
| <b>NWT Business FTTP</b>    | 375                   | 80/6       | \$309.95    | \$299.95 <sup>i</sup> | 150/20<br>\$ 104.99 <sup>i/</sup> |
| <b>NWT Satellite Served</b> | 60 (\$3 per GB extra) | 5/1        | \$79.95     |                       |                                   |



1011-NOC2020-0367

March 23, 2021

Mr. Claude Doucet  
Secretary General  
CANADIAN RADIO-TELEVISION AND TELECOMMUNICATIONS COMMISSION  
OTTAWA, ONTARIO K1A 0N2

Dear Mr. Doucet:

**Government of the Northwest Territories Reply Comments re Telecom Notice of Consultation CRTC 2020-367, Call for comments – Review of the Commission’s regulatory framework for Northwestel Inc. and the state of telecommunications services in Canada’s North**

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**OVERVIEW**

1. Having reviewed the various interventions and comments filed in the current stage of the proceeding the Government of the Northwest Territories (GNWT) believes that the wide range of issues raised and views expressed confirm the need for holding a public hearing to further examine all such issues with a view to ensuring that Northerners have access to a comparable range of services of similar quality and price as are available in the South.
2. This proceeding is important to Northerners. In total 266 submissions were received, the vast majority of which were from individuals which, given the small population of Northwestel’s service area and the absence of any organized campaigns to solicit such submissions, represents an astonishing extent of response to the CRTC’s notice of consultation.
3. The submissions themselves, together with the information collected through the public opinion survey commissioned by the CRTC provide the reasons for this extensive response. Northerners are dissatisfied by the high prices they pay for telecommunications services, particularly high-speed Internet. Northerners are dissatisfied by the wide range of service problems they experience ranging from widespread network outages to poor service quality and reliability. Many Northerners feel that more must be done to allow competition to take root in the North.
4. The appropriate steps that need to be taken to address these concerns were not however universally agreed upon and in some cases the proposals put forward were diametrically opposed. The GNWT believes a full public hearing process is best suited to resolve such matters. The GNWT would suggest that prior to this hearing Northwestel, competing service providers and other parties should be required to file detailed evidence as to the specific proposals they wish to put forward in the proceeding, parties should then be permitted to address information requests to those filing evidence and to file further comments on those.

5. The four principal areas which such evidence should, in the GNWT's view, address are: (i) affordability issues and associated subsidy proposals, (ii) competition and wholesale access, (iii) service quality and reliability, and (iv) the regulatory framework to be applied to Northwestel. In the following paragraphs the GNWT provides selected comments regarding these issues and the positions taken on them by other parties in their interventions.

## **AFFORDABILITY**

6. In the numerous comments received from the public in this proceeding the most commonly cited area of concern was the high level of rates for telecommunications services in the North, and most particularly for Internet services. While some parties such as Telus<sup>1</sup> suggested in the current proceeding that affordability was not an issue that should be addressed by the CRTC, the requirement for affordability is clearly stated in the policy objectives section of the *Telecommunications Act*. In the case of local telephone service, affordability was historically addressed through subsidies, initially from long distance service and subsequently through the CRTC central fund that held the rates for service below their cost. While initially the local service subsidy was broadly based to all local telephone service subscribers, with the development of the CRTC central fund it was targeted at high-cost areas and designed to keep rates at a level similar to rates obtaining in non high-cost areas. The GNWT believes that a similar approach now needs to be developed for Internet services in the North to hold rates to levels comparable to rates in southern Canada.
7. On this matter Northwestel argues that its current Internet rates are affordable.<sup>2</sup> It states that while its high-speed residential services are more costly in the North they are not unduly so and that its entry level packages are actually cheaper than in the South. The company also argues that the percent of income Northerners would be required to spend on an entry level package is acceptably low. The GNWT believes this analysis is seriously flawed by its reliance on what Northwestel refers to as entry level packages. The CRTC basic service objective is not that all Canadians should have access to low speed limited use entry packages, but that they should have access to Internet service with speeds of 50/10 and with unlimited usage. For these packages the current monthly rate charged by Northwestel is \$160.95. The average rate for such service cited for southern provinces in the CRTC 2020 Communications Monitoring Report for 2019 was \$69.10 with the highest charges being significantly below the Northwestel rate and service in some cases being available for as little as \$40 monthly.<sup>3</sup>
8. The GNWT also notes that Northwestel's rates for business Internet service are many multiples higher than in the South and thus that the CRTC should consider extending any Internet subsidy to the business sector<sup>4</sup>. This position was also explicitly supported by the Government of the Yukon<sup>5</sup> and many other parties spoke to their concerns re the affordability of Internet service for businesses.<sup>6</sup>

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<sup>1</sup> Telus intervention pp. 2 to 3 and p.10.

<sup>2</sup> Northwestel intervention section 8.

<sup>3</sup> 2020 CRTC Communications Monitoring Report pp 131 and 135 to 138.

<sup>4</sup> GNWT Intervention paragraphs 9 to 10 and 29.

<sup>5</sup> Government of the Yukon intervention paragraphs 36 to 38.

<sup>6</sup> See for example Kwanlin Dun First Nation intervention paragraph 25 and Yukon Council of First Nations intervention paragraphs 27 to 33.

9. With respect to local telephone service, the CRTC determined to phase out this subsidy in light of the redefinition of basic service to focus on broadband service and determined in TRP 2020-40 that for the large telephone companies elimination of the subsidy could be achieved without the need for any associated local rate increases. However, the CRTC recognised in that TRP and in the notice of consultation in this proceeding that in Northwestel's territory some continuing subsidy support could be required to avoid undue increases to local rates. While the movement to broadband service is widespread, many Northerners continue to rely on local telephone service and the GNWT believes that some continuation of this subsidy will likely be necessary in the North.<sup>7</sup> Detailed financial evidence from Northwestel will be necessary to confirm this position.

## **COMPETITION**

10. The extent of competition in the North is far less than in southern Canada and in their comments many individual Northerners expressed a desire for additional competitive options and a belief that such competition would help address high prices and poor service quality. Existing service providers including Iristel, NewNorth Networks, and SSi Canada all filed interventions containing suggested steps the Commission could take to enhance competition. These included reduced wholesale connect rates<sup>8</sup>, new service guarantees and the removal of service restrictions<sup>9</sup>, the provision of new service arrangements including Third Party Internet Access (TPIA)<sup>10</sup>, regulation of wholesale access to satellite facilities<sup>11</sup>, and revisions to Northwestel's Carrier Access Tariff<sup>12</sup>.

11. Northwestel argued that its existing wholesale connect service satisfies most legitimate competitor requirements and that the costs involved in developing and extending services for competitors are, in the context of the North, often well in excess of any resulting benefit.<sup>13</sup>

12. Others taking a position on this issue included Teksavy<sup>14</sup> and Telus<sup>15</sup> who argued that the wholesale access obligations existing in the South should apply equally to Northwestel<sup>16</sup>. By contrast Rogers<sup>17</sup> stated that no expansion of wholesale access requirements was appropriate.

13. The GNWT's position<sup>18</sup> remains as stated in its intervention that Northwestel should provide competitors with requested services but that competitors should be required to fully compensate Northwestel for the costs it incurs in providing such services. As to the specific services to be provided,

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<sup>7</sup> PIAC in its intervention at paragraphs 92 to 96 cogently lays out its position that the local service subsidy should not be phased out at this time.

<sup>8</sup> SSi intervention paragraphs 23 and 51. Iristel intervention section 2.1.

<sup>9</sup> SSi intervention paragraphs 23, 44 and 51. Iristel intervention sections 2.2 and 2.3.

<sup>10</sup> SSi intervention paragraph 53. Iristel intervention sections 3 and 4.

<sup>11</sup> SSi intervention paragraphs 40 to 43. Iristel intervention section 5.

<sup>12</sup> Iristel intervention section 6. See also Telus intervention section 6.

<sup>13</sup> Northwestel intervention section 7.

<sup>14</sup> Teksavy intervention paragraphs 8 to 16.

<sup>15</sup> Telus intervention pp 7 to 8.

<sup>16</sup> Iristel in section 4 of its intervention and SSi at paragraphs 24, 49 and 55 also advocate for bringing Northwestel wholesale access arrangements in line with those mandated in the South.

<sup>17</sup> Rogers intervention paragraphs E6 and 37 to 57

<sup>18</sup> GNWT intervention paragraphs 23 to 27.



the GNWT stated that the wholesale service framework established in TRP 2015-326 should apply to Northwestel “except if and where a compelling case is made to the contrary”. One example of such a compelling case would be if it could be demonstrated with a high degree of certainty that it would not be possible in the foreseeable future to recover the bulk of the costs of extending the service.

14. A further matter that arises with respect to competition is the access of competitors to any subsidies provided to Northwestel to hold down the price of local or Internet services. The GNWT wholly concurs that where such subsidies are provided, they should be fully portable as between competitors.<sup>19</sup>
15. Finally, in light of the fragility of competition in the North the GNWT believes, as suggested by PIAC<sup>20</sup>, that it is necessary to introduce service standards and more intensive monitoring of service quality provided to competitors.

### **QUALITY OF SERVICE**

16. In addition to affordability and competition a consistent theme that ran through many public comments was a concern as to the service quality of Northwestel’s offerings including failure to achieve advertised Internet speeds, unstable service, and network outages. The GNWT fully shares these concerns and believes that it would be appropriate to introduce quality of service standards and reporting for Northwestel Internet services.<sup>21</sup>
17. The GNWT would also support the requirement for expanded monitoring and reporting of network outages. The GNWT notes that formerly the quality of service regime for Northwestel did require some monitoring and reporting of network outages resulting in community isolation. This requirement appears to have been eliminated when the quality of service reporting regime established in Decisions 97-16 and 2000-24 was downsized in Decision 2008-105 and TRP 2009-304. Given the frequency of network outages and the severity of the problems they cause, the GNWT would endorse the proposals of parties such as the Federation of Canadian Municipalities<sup>22</sup>, First Mile Connectivity Consortium<sup>23</sup>, and the NWT Association of Communities<sup>24</sup>, for expanded monitoring and reporting of network outages.
18. The GNWT notes that with respect to reducing network outages, Northwestel acknowledges in its intervention that a major deficiency in its network is the absence of fibre redundancy connecting to Yellowknife, resulting in Yellowknife being “particularly vulnerable to outages”<sup>25</sup>. Northwestel

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<sup>19</sup> Other parties explicitly supporting portability of any subsidies included the Government of the Yukon at paragraph 9 of its intervention, Ice Wireless at paragraphs 115 to 118 of its intervention, the Yukon Council of First Nations at paragraph 26 of its intervention, PIAC at paragraphs 97 to 101 of its intervention with respect to a new Internet subsidy,

<sup>20</sup> PIAC intervention paragraph 75.

<sup>21</sup> See proposal of the First Mile Connectivity Consortium at paragraphs 7 to 9 of its intervention

<sup>22</sup> Federation of Canadian Municipalities intervention paragraph 7.

<sup>23</sup> First Mile Connectivity Consortium intervention paragraph 7.

<sup>24</sup> Northwestel Association of Communities intervention paragraph 14.

<sup>25</sup> Northwestel intervention paragraph 140.

indicated that while it will file a detailed proposal to address this in the next stage of the proceeding<sup>26</sup>, because the project will produce no additional revenues the project will only be possible if funding from the Commission or government sources is made available<sup>27</sup>. While the GNWT would agree that some financial support from this project from the CRTC might well be appropriate, it cannot accept the position of Northwestel that such projects are not warranted in the absence of a subsidy because of the lack of additional revenues they would yield. Northwestel is regulated by the CRTC because of its dominant market presence and the essential nature of the services it provides. Part of the Regulator's job is to ensure that an adequate quality of service is provided even where the Company would otherwise be able to improve its profitability by providing a lesser standard of service.

19. The GNWT will consider this matter further once a detailed proposal is filed. At this time, we would point out that Northwestel's position on the matter highlights the ongoing need for the CRTC to oversee Northwestel service performance and investment activity. The GNWT has already proposed that there should be a regular review process for Northwestel's capital program<sup>28</sup> and notes that some parties have advocated adoption of a new service improvement program to deal with such matters as reduced network outages and instability<sup>29</sup>. The absence of cell service along major highway links is another issue that was raised by numerous parties and could be addressed through a service improvement program.<sup>30</sup>

## **REGULATORY FRAMEWORK**

20. While Northwestel in its intervention discusses its regulatory framework at length it does not provide specific rate proposals. And though it discusses elements of the framework it would like to see changed for the most part it does not detail the specific changes it would like to be made. Instead Northwestel has indicated that its more detailed proposal will be made in the second stage of the proceeding and the GNWT anticipates that, other than those matters dealt with in its intervention or in these reply comments, it will await that time to provide further comments on the regulatory framework except with respect to the matter of the regulation of satellite rates.

21. The GNWT argued in its intervention that in light of their very high level and the limited extent of actual retail competition Northwestel's Internet satellite rates should be regulated<sup>31</sup>. As against this, Northwestel suggests in section 5 of its intervention that given changes currently underway in the satellite market "it is premature for the Commission to consider any changes to the regulatory treatment for satellite-based services in our serving territory."<sup>32</sup>

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<sup>26</sup> Ibid

<sup>27</sup> Northwestel intervention paragraph 161.

<sup>28</sup> Kwanlin Dun First Nation states at paragraph 29 of its intervention that "... the CRTC should have ongoing involvement in the oversight of the telecommunications infrastructure in Canada's North, because in the absence of competition, the incumbent has little or no incentive to make strategic investments which would yield longer term benefits which satisfy telecommunications policy objectives, but may not demonstrate positive business cases in the short term." This point is also made at paragraph 44 of the intervention of the Yukon Council of First Nations.

<sup>29</sup> PIAC intervention at paragraphs 53 to 58.

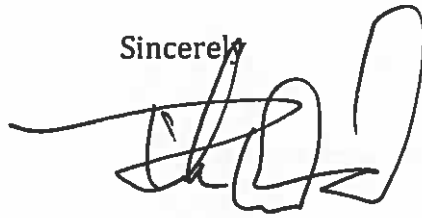
<sup>30</sup> See interventions of Fort Nelson & District Chamber of Commerce at paragraph 2, Government of the Yukon at paragraph 24, NWT Association of communities paragraph 15, Yukon Council of First Nations paragraph 37.

<sup>31</sup> Others taking a similar position include PIAC at paragraphs 50 to 51 of its intervention.

<sup>32</sup> Northwestel intervention paragraph 136.

22. The GNWT would suggest that major changes in the satellite landscape in Canada has been a feature of this marketplace for many years. Much has changed and much will change. However, the current situation is that rates for satellite-based Internet service are extraordinarily high except at the lowest speeds and at monthly usage levels that are far below the Canadian norm. The GNWT submits that now is the time for the regulator to meaningfully address this issue.

Sincerely

A handwritten signature in black ink, appearing to read 'Rick Wind', with a large, stylized flourish extending to the right.

Rick Wind  
Government Chief Information Officer  
Department of Finance



May 10, 2021

Mr. Claude Doucet  
Secretary General  
Canadian Radio-television and Telecommunications Commission  
Les Terrasses de la chaudière  
1 Promenade du Portage  
Gatineau, Quebec K1A 0N2

Dear Mr. Doucet:

**RE: Government of the Northwest Territories—Reply to procedural request**

***Call for comments – Review of the Commission’s regulatory framework for Northwestel Inc. and the state of telecommunications services in Canada’s North, Telecom Notice of Consultation CRTC 2020-367, 2 November 2020***

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I am writing to express the GNWT’s concern with Northwestel’s request to delay the 2020-367 proceeding for potentially two to three years.

1. In our January 20, 2021 comments and March 24, 2021 reply, the GNWT has stressed:
  - the importance of this proceeding to undertake a broad review of telecommunications services in the North, and ascertain the steps that now need to be taken to ensure that the existing digital divide does not grow deeper; and
  - the need for holding a public hearing to further all such issues with a view to ensuring that Northerners have access to a comparable range of services of similar quality and price as are available in the South.

2. We are aware of the following procedural request embedded in Northwestel’s 24 March 2021 reply comments in this proceeding that state:

to ensure that the Commission’s regulatory framework review is comprehensive and considers all relevant factors, we request that the Commission launch the next phase of this proceeding after such time as Starlink has been widely available in northern Canada for six months to a year,<sup>1</sup>

on the basis that LEO-based providers signify “massive competitive change [that] can come about extremely quickly”, such that

any significant regulatory change at this point, before the impact of Starlink and other LEO-based providers is known, could lock-in a regulatory framework that could imminently become obsolete or inappropriate, but which cannot be quickly changed to reflect the new

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<sup>1</sup> Intervener #319, 24 March 2021, paragraph 49.

reality of LEO-based competition.<sup>2</sup>

3. This procedural request is distinct from the substantive matters raised in the GNWT's reply, which are not addressed here. The GNWT asks that the Commission ensure that before it rules on such request, other parties have had an opportunity to address it. In all cases, however, we respectfully oppose the request for a delay in this proceeding, for three reasons.
4. First, the entry of LEO-based providers is not an unforeseen or surprising development to any party to this proceeding. Newspapers have talked about it for months. The Commission's submission to the Broadcasting & Telecommunications Legislative Panel canvassed it expressly. The Notice devotes multiple questions to it.
5. Telecommunications markets have evolved, and will continue to evolve, for many years to come. The promise and delivery of promised and early-stage satellite solutions as a component of this evolution is perpetually one of its features. Northwestel has the ability, in these proceedings, to provide its vision of a regulatory framework that will be resilient to any "massive competitive change".
6. Second, from a practical standpoint, the current proceeding is already a lengthy one divided into phases, each with voluminous filings which will no doubt be subject to updating even under the current plan.
7. There is little danger that this proceeding will proceed swiftly through to a rapid decision. Further delay could doom this proceeding to irrelevance, potentially forcing a restart, and the loss of the resources already invested that this implies.
8. Third, and most importantly, further delay would waste not only the resources of interveners, many of whom are individuals affected Northerners who have invested an enthusiasm that should not be encouraged to wither. It would also waste the time and resources of the people of the North who depend on affordable, available communications as an essential lifeline, and are entitled to know what regulatory backstops and market regulatory position the CRTC, on whose responsible stewardship we depend as against highly concentrated markets within which market forces have limited ability to influence.
9. This proceeding is important to Northerners. It is being widely covered and much discussed. An astonishing number of individuals, municipal representatives, service providers, and grassroots groups, given the small population of Northwestel's service area, are continuing to engage with it. The CRTC should continue to meet them in these efforts.

Yours sincerely,

*[submitted electronically]*

Rick Wind  
Government Chief Information Officer  
Department of Finance

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<sup>2</sup> *Ibid.*, paragraph 47.