# rapidlynx **TELECOMMUNICATIONS**

Project Update

# Updated as of October 6, 2021





Sections in green represent completed fibre-optic cable backbone placement to date.



Ekwan James Bay Attawapiskat Fort Albany Moosonee Hearst Kapuskasing

Esri, USGS | Province of Ontario, Esri Canada, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NRCan, Parks Canada

The Rapid Lynx network will connect the five remote Matawa First Nations communities to the internet in the first phase of construction. The network will be expanded to the four MFN road-access communities in a second phase as additional grant funds are awarded.

To date, 57% of the Phase 1 fiber-optic backbone network running from Aroland to Nibinamik has been placed. The Rapid Lynx backbone network consists of ninety-six (96) strands of glass fiber encased within a specialized armored cable jacket, which is being buried underground to protect it from damage. Prefabricated equipment shelters, known as Points of Presence or PoP shelters, are currently being placed and set up in each of the five remote communities and Aroland at sites approved by the Chiefs and Band Councils.

Vhat we are doin A PoP shelter requires installation of power, generator, batteries, heating and air conditioning system, monitoring and alarm system, and other equipment to power, secure and protect the optical equipment that will "light" the fiber optic network for service. Training of community members to operate and maintain equipment and systems in the PoPs will be essential to operation of the Rapid Lynx network. Powerful optical switching and distribution equipment will be installed and tested in each of the community PoP shelters. The optical equipment will generate laser beams that travel in hair-thin strands of fiber inside the fiber-optic cable running through the backbone network. The laser beams will transmit Internet data, voice, images, video, audio, games, and other applications at near light speed.

From each PoP, a fiber-optic community distribution network will connect homes, businesses, school, nursing station, public safety and police facilities, band offices, and economic development sites and other sites important to the community. The community distribution networks will interconnect at the PoP sites to the Rapid Lynx fiber-optic backbone and the Internet.



Once the backbone network and community distribution networks are complete and fibers in the network are connected to optical switches in the community PoPs, the network will be connected from Aroland to an "Internet Gateway" at Ginoogaming. The Internet Gateway is an interconnection point with a national telecommunications carrier who will connect Rapid Lynx over fiber-optic cable to the global Internet backbone running through Canada at a network access point in Toronto. This will position Rapid Lynx only one "hop" off of the global Internet backbone allowing Rapid Lynx to purchase wholesale Internet service from any of hundreds of carriers interconnected in Toronto and obtain competitively priced service for Rapid Lynx communities, as well as positioning the Matawa First Nations to utilize their connection to the global Internet backbone to promote economic development and job creation.



When complete, the Matawa First Nations will have access to healthcare, mental health and other medical and health services from remote hospitals and medical specialists. Access to education will be available from colleges and universities anywhere in the world. The Matawa First Nations communities can be connected to the Matawa First Nations Health Cooperative, the Matawa Education and Care Centre, and training and certification programs from KKETS, the training and jobs placement program supported by Matawa First Nations Management. Access to these services can be provided over the Internet to First Nations members in their homes.



Subscribers to the network will be able to access online marketplaces to buy and sell products and services, as well as to access opportunities to work from home for remote employers. They'll be able to browse the Internet, stream video entertainment, news, sports and music, make video calls at no cost, play online games, and access thousands of other applications and services of nearly every imaginable kind that will be available to connected Matawa First Nations.

The Rapid Lynx network is classified as a "Next Generation Network" that will serve the current and future needs of Matawa First Nations People for multiple generations. Optical fiber technology has the longest lifespan of any other communications technology and offers virtually unlimited capacity to carry Internet traffic of all kinds.





## Section 5 Nibinamik to Webequie

# **Section 1 Aroland to Marten Falls**

- Falls
- be copmleted by November 2022

#### Section 2 Marten Falls to Eabametoong

## Section 3 Eabametoong to Neskantaga

# Section 4 Neskantaga to Webequie

• Project construction summer of 2022

 48% complete, approximately 86 km of fibre placed Completion projected for November 2021

• Partially complete from far north boundary to Marten

• This section from Aroland to the far north boundary will

• 92% complete, approximately 167 km of fibre placed • Final completion scheduled for April 2022

• 46% complete, approximately 57 km of fibre placed • Final completion scheduled for summer of 2022

# **Continution of Pop Placement and Set Up**

## AROLAND

PoP shelter has been placed, still needs power and to be connected to the longhaul network

#### MARTEN FALLS

PoP shelter placement pending community provided cost estimate for site prep work and shelter site

#### **NIBINAMIK**

PoP shelter placement pending community provided cost estimate for site prep work and shelter site

PoP shelter placement pending community provided cost estimate for site prep work and shelter site

#### **NESKANTAGA**

Community needs to finalize permanent location for PoP shelter, including site location and cost estimate for site work of shelter site.

#### **WEBEQUIE**

Community needs to finalize permanent location for PoP shelter, including site location and cost estimate for site prep work and shelter site



#### EABAMETOONG

# **Electronics will be procured and installed** BEGINNING IN OCTOBER 2022

# **Distribution networks will be constructed** BEGINNING IN SEPTEMBER 2022 AND COMPLETED BY NOVEMBER 2022

Connection to the Internet Gateway is expected to be completed and Internet service available to the remote Matawa First Nation communities BY MARCH 31, 2023