The challenge of digital infrastructure for Northern, rural, remote and Indigenous communities

Many rural and remote areas in Northern Ontario lack the high-speed broadband connectivity enjoyed by most of the province. Research and education networks play a critical role in unlocking Northern Ontario's economic potential.

Northern Ontario libraries often act as the de facto community hub, providing access to internet, resources, and programming specialized to local needs. The area is also home to many of the province’s First Nations Public Libraries, which act as vital centres for access to cultural activities and language revitalization. Access to critical digital services through libraries allow residents access to education, essential connectivity, digital, and government services.

With a mandate to empower innovation across Ontario, ORION seeks to address the problem of under-connectivity. As a first step towards this goal, ORION released "Connecting Northern Ontario's Research and Education Community", a report that is co-funded by the Northern Ontario Heritage Fund Corporation, which helps us understand the problem and possible solutions.

### CHALLENGES

- **Cost**
- **Availability of local expertise**
- **Geography**
- **Existing infrastructure**
- **Regional government coordination**

### RECOMMENDATIONS

- **Boost capacity and resilience of research and education network**
- **Secure funding with partners**
- **Partner with established service providers**
- **Produce plan for shared technology services**

### Spotlight on Thunder Bay

The Thunder Bay Public Library (TBPL) is transforming library branches into community hubs. Community hubs aim to provide a central access point for a range of health and social services, as well as spaces for art, culture, and recreation. They are gathering places that help communities live, build and grow together. As part of the focus on building relationships and reconciliation with Indigenous peoples, the Library has formed a partnership with Anishinabek Employment & Training Services (AETS) to relocate their administrative offices, an Indigenous school, elders and various services into the community hub at Waverley. Guided by the Library’s Indigenous Liaison and Indigenous Advisory Council, the Library has also now opened new Indigenous Knowledge Centres at every community hub.

TBPL is working with local and provincial providers to improve connectivity as they evolve into community hubs. This upgrade will support delivery of local content worldwide, while serving Indigenous youth living outside of their communities across Northwestern Ontario. It is these services and content that will make a community connectivity partnership cost effective.

### About ORION

ORION is a self-sustaining not-for-profit organization empowering innovation by providing essential digital infrastructure and shared IT services. We operate 6,000 km of private, ultra high-speed network connecting:

- Municipalities and libraries
- Hospitals
- Universities, colleges, research institutes
- K-12 Schools

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