



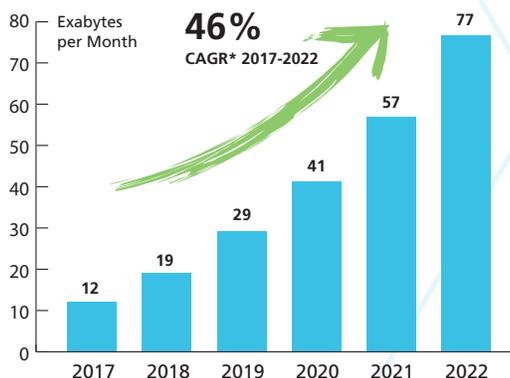
Improving Mobile Broadband services in Eastern Ontario: The Business Case

Eastern Ontario and indeed all of Canada can only thrive if all residents, both urban and rural, have the tools to succeed. Today, that includes access to high-speed internet, whether at home, work or on the road.

That is why the Eastern Ontario Regional Network (EORN) and the Eastern Ontario Wardens' Caucus (EOWC) are proposing a \$213 million public-private project to improve cellular services, including calling and mobile broadband, across the region.

Growing Demand and Urban-Rural Divide

Worldwide, demand for mobile data is skyrocketing. By 2022, overall mobile data traffic is expected to increase sevenfold over 2017. But telecommunications companies alone are unable to meet rural needs. There's just not enough revenue for companies to justify large capital investments to serve few customers over a large area. The result is market failure. Without a creative solution, Eastern Ontario will be left behind.



Global Mobile Data Traffic, 2017 to 2022
(Source: Cisco VNI Mobile Forecast, Feb 18, 2019)

The Canadian Radio-television and Telecommunications Commission (CRTC) has designated both mobile and fixed broadband access as a basic service for all Canadians:

“... fixed and mobile wireless broadband Internet access services are catalysts for innovation and underpin a vibrant, creative, interactive world that connects Canadians across vast distances and with the rest of the world.”

Modern telecommunications services – The path forward for Canada's digital economy, CRTC, December 2016

Current Gaps

There are currently significant gaps in both the reach and capacity of mobile broadband networks across areas of rural Eastern Ontario where people **live, work or travel**:

- 35% of the area does not have access to High Definition services that allows streaming HD movies.
- 20% of the area does not have access to standard definition video, typical mobile app use and video app calling.
- 10% has no cell coverage at all.

Well-Researched Project Design

EORN has developed a solution to address these gaps and help improve mobile services in Eastern Ontario.

EORN is an innovative public-private partnership that helped expand high-speed internet access across the region beginning in 2010. Its 5,500-kilometre fibre backhaul network provides the foundation for this solution, thus leveraging previous investments in the region.

The project is based on four different studies, including an engineering cell gap analysis, costing study, cell market analysis and economic impact study. In 2019, the initial cell gap analysis was updated with additional information from both major carriers, and updated household data. Based on this comprehensive evaluation, EORN has designed a cellular expansion project that, on a region-wide basis, aims to improve coverage where people live, work and travel. Its goals are to:

1. **Achieve 99% coverage of the Eastern Ontario Region with cellular calling service level.**
2. **Achieve 95% coverage of the Eastern Ontario Region with SD (Standard Definition) service level, such as video-app calls, basic app usage and SD video.**
3. **Achieve 85% coverage of the Eastern Ontario Region with HD (High Definition) service, such as streaming HD video.**
4. **Invest \$34 million to increase capacity in high-density, high-usage areas.**

These goals are based on a conceptual design. An open, competitive RFP process will determine the final project design and outcomes. Service levels in an area can also be impacted by weather, and high levels of users or data usage.

A Public-Private Solution with High Returns

EORN is proposing a public-private funding model to close cellular gaps in Eastern Ontario, creating a network that will support:

Jobs, business growth and economic development

- More than 3,000 full-time job equivalents over 10 years.
- More than \$420 million in private sector business revenues.
- Supporting regional economic development by enabling innovations like intelligent transportation systems and other technology integration.

Stronger, more connected communities.

- Improving public services online and making them easier to access.
- Improving public safety by expanding the reach of cellular calling services.
- Allowing people to connect with friends, families and community organizations whether they are down the street, or around the world.

Project Cost

EORN envisions a public-private project, built in phases to respond to changes in the marketplace and evolving technology. In addition to public financing, cell carriers would contribute about one-third of the costs.

Cellular Project Cost Table	
Cellular Network Improvements	\$202, 823, 759
EORN Admin Costs (5%)	\$10, 141, 188
Total	\$212, 964, 947

About EORN

EORN, a non-profit created by the Eastern Ontario Wardens' Caucus, is helping to improve fixed broadband access across Eastern Ontario through projects and partnerships with federal, provincial and municipal governments and the private sector service providers. It works with governments and community organizations to improve and leverage broadband access to fuel economic development and growth across the region. To date EORN's efforts have helped bring more than \$300 million in high speed infrastructure investments to the region.