

State of the Industry

March 29, 2023



AG Report March 26, 2023:

By 2021, the national connectivity rate was 90.9%. But for rural communities, it was only 59.5%. First Nations fared even worse, with a 42.9% connectivity rate.

Guide Hutchings, Minister of Rural Economic Development:

... <OAG report on broadband> did not consider the gains made in the past few months. "In 2014, only 79 per cent of households had access to high-speed internet," she said in a news release. "As a result of our actions, 93.5 per cent of homes have access today. Not only did we exceed our first goal of 90 per cent coverage by 2021, but we are also well on track to surpass our next goal of 98 per cent of homes having access by 2026."

<u>Auditor General finds internet connectivity lags in rural and Indigenous areas - The Wire Report</u>

Travelling

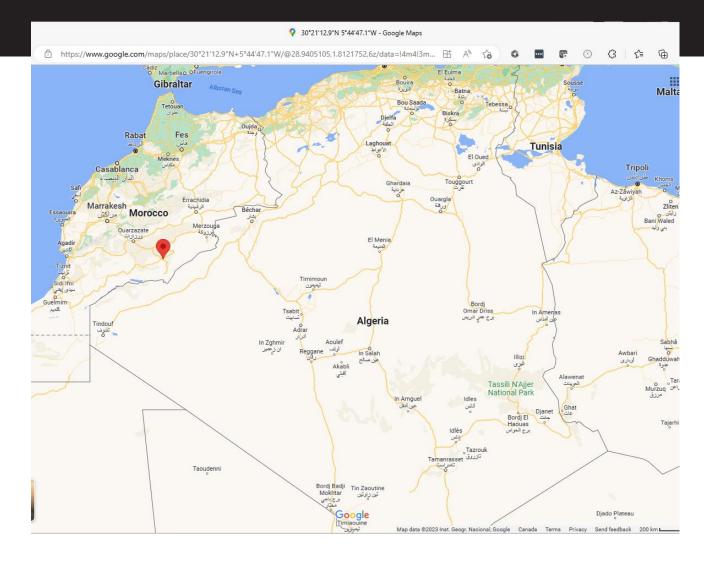




Ouarzazate – Gateway to the Sahara Desert

2:40 hour drive from Ouarzazate into the Sahara Desert

And then a 60 minute camel ride further into the desert. Yes DESERT!





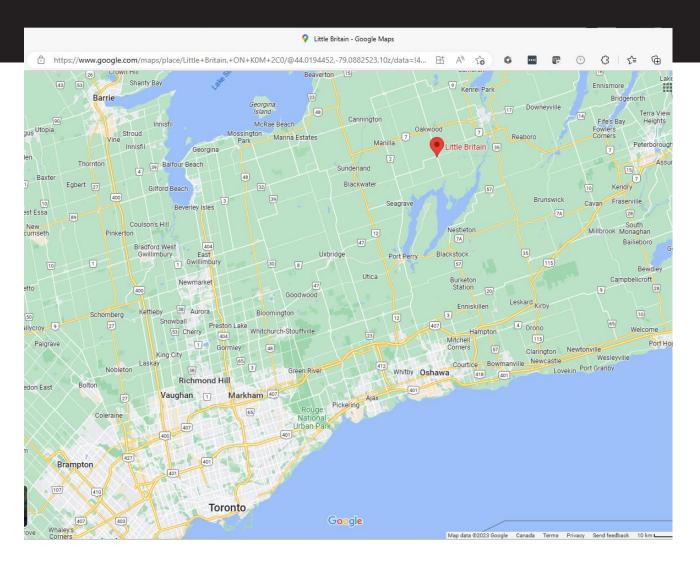








1:30 drive and no time on a Camel from the centre of downtown Toronto ... from the largest antenna in Canada









The CRTC is dedicated to ensuring that Canadians have access to a world-class communication system that promotes innovation and enriches their lives. The role of the CRTC is to implement the laws and regulations set by Parliamentarians who create legislation and departments that set policies. The Commission regulates and supervises broadcasting and telecommunications in the public interest.

Source: Minister Rodriguez announces appointments at the Canadian Radiotelevision and Telecommunications Commission (CRTC) - Canada.ca



Our job is not done.



Game of Jars

... large scale operators have commanded the attention of regulators, leading to rules and regulations geared towards the compliance of large corporations. Small-scale operators have often struggled to operate within this environment, faced with fees and administrative burdens that were disproportionate to their size and to the often-fledgling nature of their enterprises.

...

Access to investment funding for small-scale operators is also a huge challenge. Their potential is often not well-understood by investors.

• •

With local business models for access must come localised access to radio spectrum. Small-scale operators often depend on unlicensed WiFi spectrum to be able to deliver services but limitations in power output and limited amounts of license-exempt spectrum mean that they are not the ideal fit for some access challenges. We need to unlock more spectrum for local access using both license-exempt and licensed frameworks for access.

Source: Many Possibilities - In the beginner's mind there are...

Steve Song, Fellow in Residence at the Mozilla Foundation



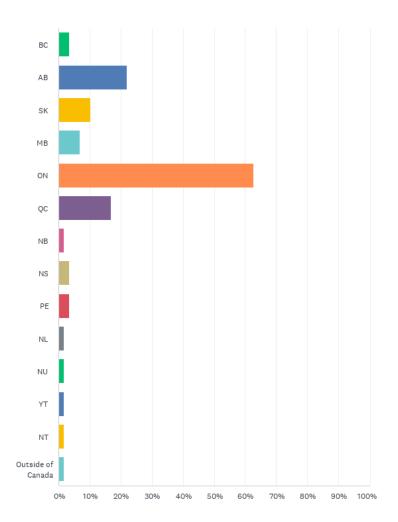
Survey Data



Survey Data

- 200 companies
- 47 responses

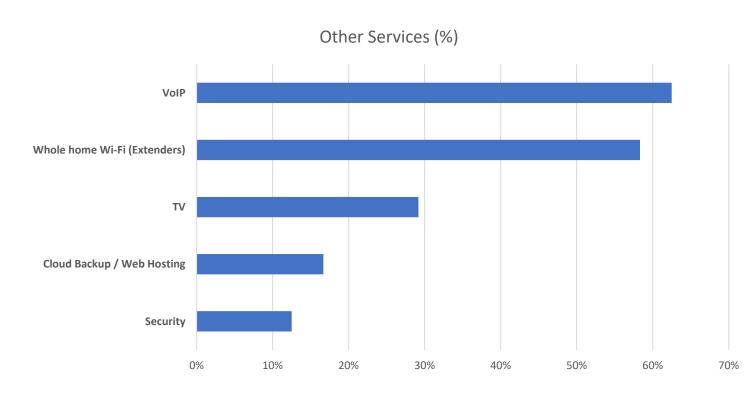
Q1 In which provinces / territories do you offer access service?



79% of respondents say - our networks are 89% RURAL

We are RURAL



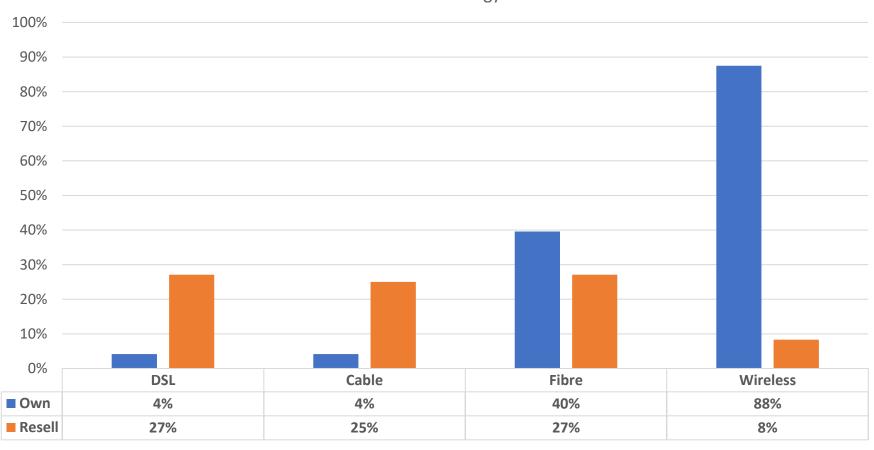


	2023	2022
VoIP	63%	57%
Whole home Wi-Fi (Extenders)	58%	61%
TV	29%	29%
None of the above	17%	
Cloud Backup / Web Hosting	17%	3%
Security	13%	10%

Other: managed firewall, MSP, Network B&D&O, consulting, negotiating security, ptp links, Video surveillance



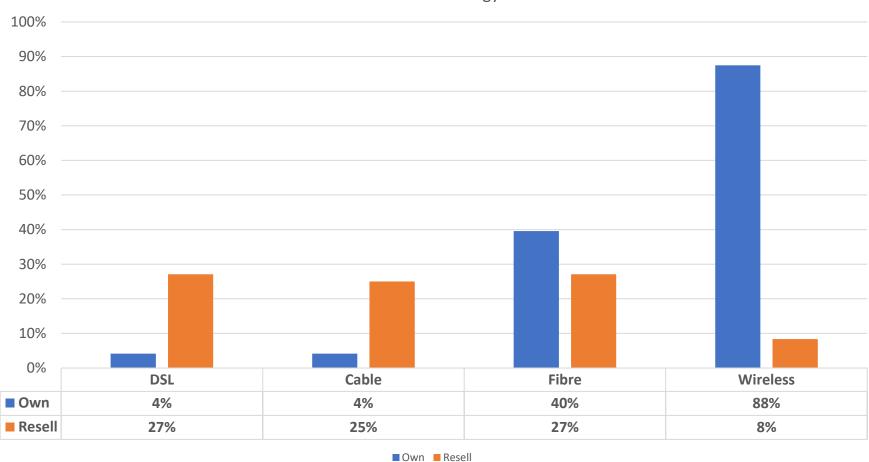
Last Mile Technology %



■ Own ■ Resell



Last Mile Technology %



Plans	Fibre	Wireless
New	10%	46%
Expansion	6%	31%



- Rural Canadians have poorer access to high-speed internet than urban Canadians.
- There are over 200 ISPs in Canada that are utilizing fixed wireless technology to deliver broadband internet services.
- Small ISP's use fixed wireless to serve internet to hundreds of thousands of rural Canadian homes and businesses.
- Canada needs more telecom competition.
- Incumbents have not served rural Canadians well.





Where does this leave us?

- 1) We are going to continue with our messaging adding:
 - Rural ISPs are investors, builders, operators of networks
- 2) We are going to continue for:
 - ISED to accept fixed wireless coverage data.
 - Resolution of the 3.65 Reverse Robin Hood
 - Support Use-It or Lose-It
 - Encourage Subordination / Sharing
 - Open Access for government funded infrastructure
- 3) Continue to investigate funding solutions