

# Digital Futures Symposium 2016

## Broadband Basics & Policy Updates

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THE VAN HORNE INSTITUTE  
**DIGITAL FUTURES**

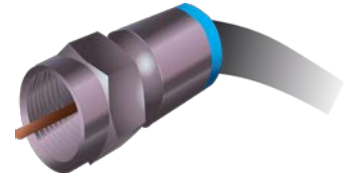
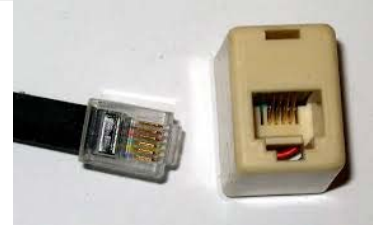
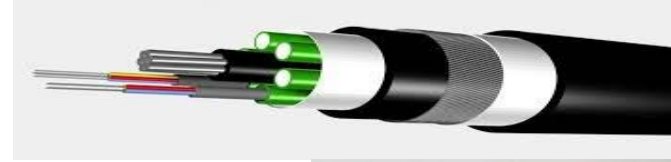
# Broadband Basics - Technology

Broadband can be either wired (wireline) or wireless

## **Wired Connection Types:**

Legacy connection types (copper phone cables and coaxial (TV) cable) have been used in the past (and present) to provide broadband

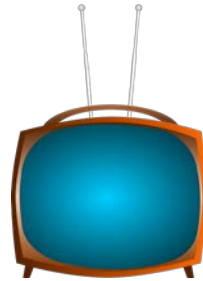
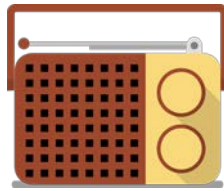
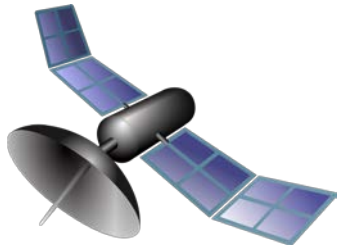
New emphasis is on fibre optic cable



# Broadband Basics - Technology

Wireless connections rely on radio-spectrum to transfer information

Radio-spectrum used for all kinds of communication (from submarine communications to TV and radio)



# Broadband Basics - Technology

3 key types of wireless broadband

Satellite



Fixed Wireless



Mobile Wireless (aka Commercial Mobile)



# Broadband Basics - Policy and Regulation

## Role of the CRTC in telecommunications

As the regulator of Canada's communications system, the CRTC aims to ensure all Canadians have **access to a world-class communications system** and that they **are able to participate in the digital economy**.

CRTC is an arm's length, quasi-judicial regulator; however, it does receive policy directions from Government.

## Role of Innovation, Science and Economic Development (ISED) (formerly Industry Canada)

Federal department in charge of telecommunications policy

Also has a regulatory role in wireless

## Role of other federal departments

# CRTC's Basic Service Objective Review

First established in 1999, the [obligation to serve](#) requires incumbents to:

provide touch-tone telephone service,

low speed Internet access at local rates,

access to long distance calling,

voicemail, enhanced calling features

....and a copy of the phonebook upon request.



# CRTC's Basic Service Objective Review



Last BSO Review was 2010/11, and culminated in CRTC [Telecom Regulatory Policy 2011-291](#)

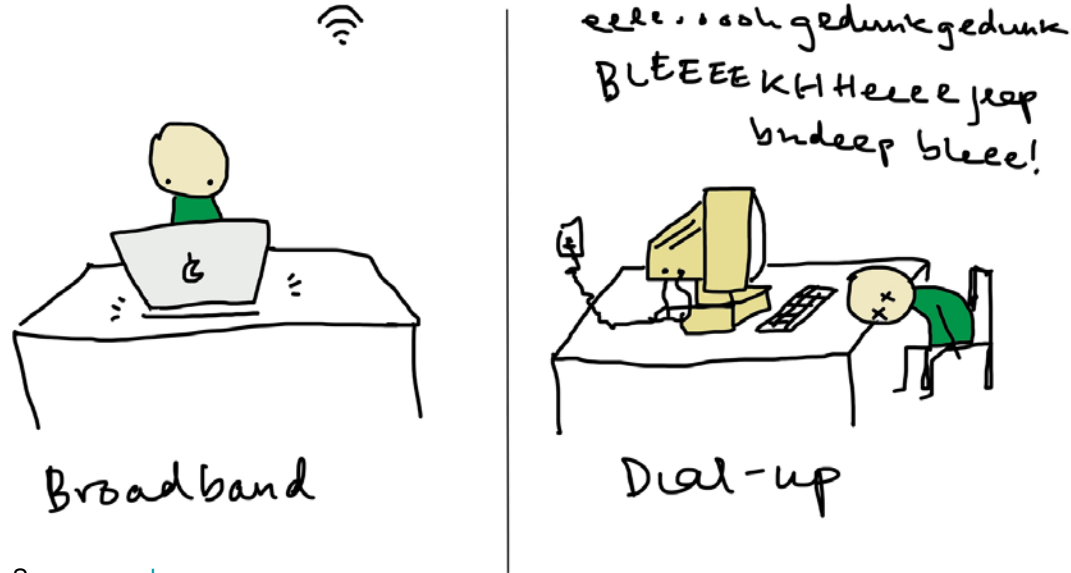
“In the Commission’s view, market forces and targeted government funding will continue to drive the rollout and improvement of broadband Internet access services in rural and remote areas.” (para. 63)

“the Commission considers that the appropriate target speeds for broadband Internet access service are a minimum of 5 Mbps download and 1 Mbps upload.” (para. 76)

“With respect to the [date](#) for achieving the target speeds, the Commission considers that, based on the record of this proceeding, the end of 2015 is appropriate.” (para. 79)

In January 2015, the Federal Communication Commission (FCC) in the U.S. adopted a [new definition of broadband](#) as 25 Mbps download and 1 Mbps upload

# CRTC's Basic Service Objective Review



The BSO Review asks which basic telecommunications services Canadians “require to participate meaningfully in the digital economy?”

Should broadband be considered a basic telecommunications service?

If so, what constitutes a broadband connection? What should the speed target be and why?



# CRTC's Basic Service Objective Review

Strong focus on rural and remote connectivity

Given lack of business case how should rural and remote infrastructure and services be subsidized?

What does this mean for community broadband?

Some respondents have submitted that community and non-profit telecom service providers should be eligible for subsidization to provide basic broadband service. Others have suggested subsidies for consumers (set rates )



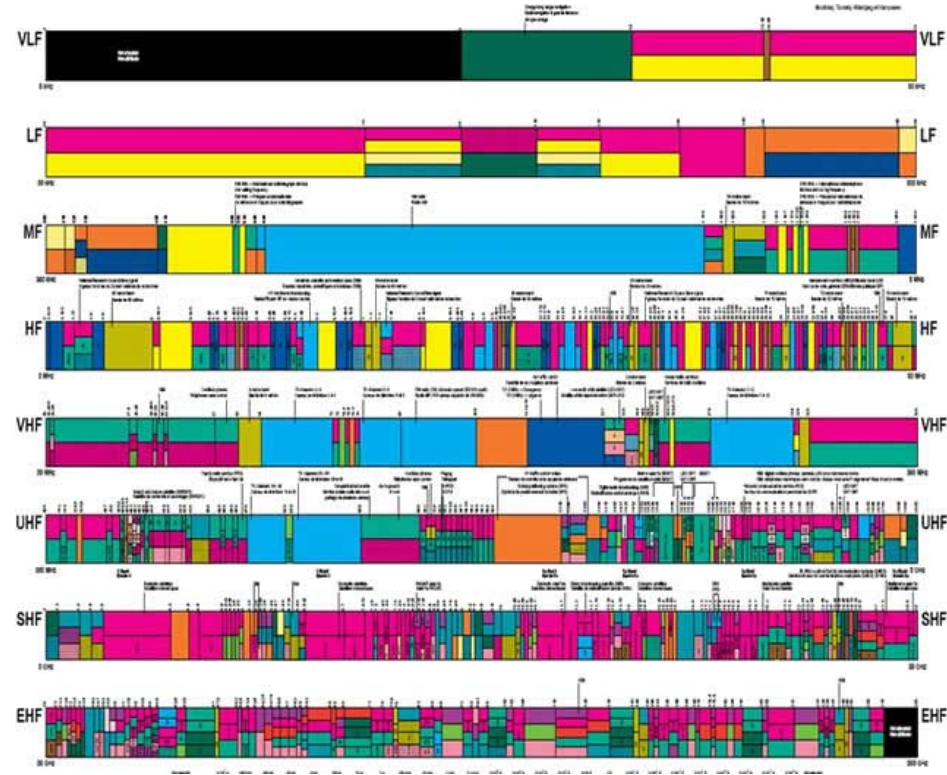
Source: [Telegraph.co.uk](https://www.telegraph.co.uk)

# Wireless Policy

Wireless policy governed by [Spectrum Policy Framework for Canada](#) (2007)

**Policy Objective:** To maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource.

**First enabling guideline:** Market forces should be relied upon to the maximum extent feasible.



Source: [Innovation, Science and Economic Development - Radio-Frequency Allocation Table](#)

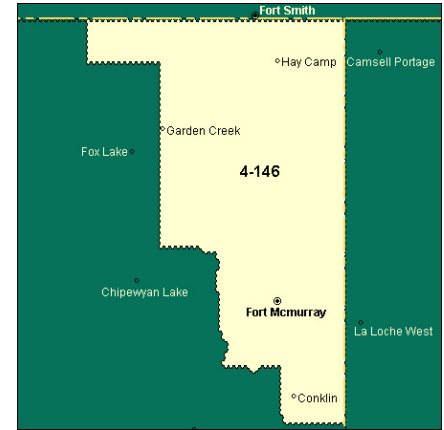
# Wireless Policy

- Since 2012, Industry Canada (and now Innovation, Science and Economic Development) has pursued three objectives:
- ***Sustained competition***
- ***Robust investment and innovation***
- ***Timely availability of advanced services for all Canadians including those living in rural areas***



# Wireless Policy

- 3500 MHz decision – reallocation but no geographic differentiation
- Commercial Mobile outlook
- 700 Mhz and 2500 MHz auctions and new entrants
- AWS-3 Auction and increased deployment requirements

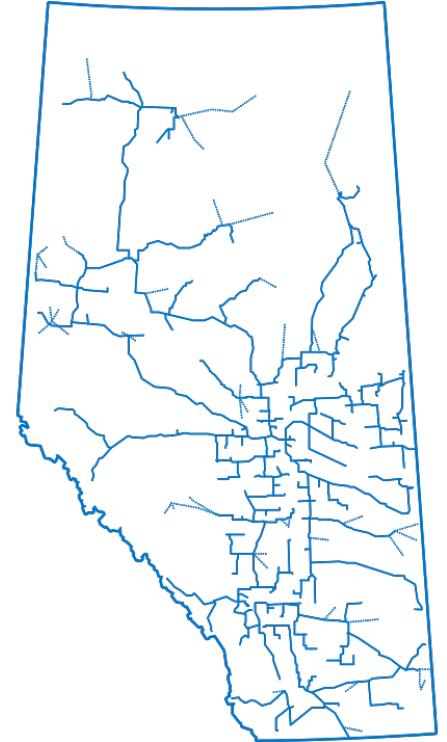


# Alberta SuperNet

A network comprised of fibre-optic cables and wireless connections reaching into 429 Alberta communities

Built by the Alberta gov't to connect public institutions in communities across both rural and urban Alberta and to create opportunities for small ISPs to provide service to rural residents

Governed by the Government of Alberta through the ministry of Service Alberta, which operates the SuperNet through agreements with the private corporations Bell Canada and Axia NetMedia



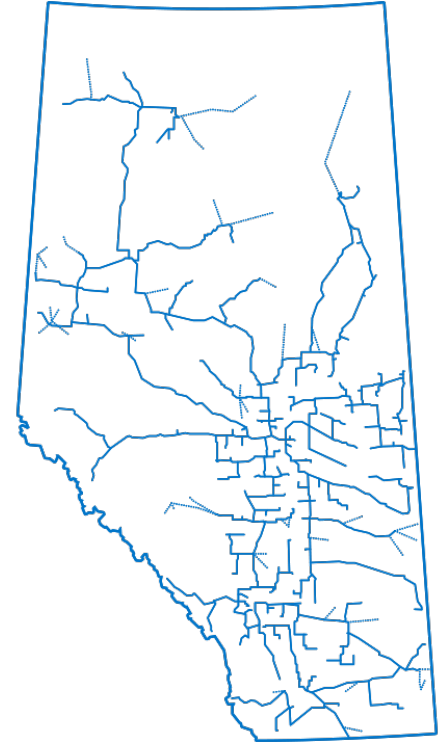
Source: [Axia Fibrenet](#)

# Alberta SuperNet continued

The contract for operation of the SuperNet is coming up for renewal in 2018. Service Alberta is currently conducting a “pre-qualification request” to select 4 pre-qualified respondents that will be invited to participate in the subsequent phases of the Provincial Broadband Procurement process

Contract scheduled to be awarded for March 2017 for operation beginning in 2018.

Service Alberta also issued an RFP for a “fairness monitor” to oversee the for the Provincial Broadband Services procurement process.



[Source: Axia Fibrenet](#)

## Next Steps: Focus Groups

Late morning: *Five Broadband Business Models – Which is Best for Your Community?*

After lunch: *Group Discussions on Five Community Broadband Strategic Business Models*

Late afternoon: *Roundtable Discussion on the Digital Communities – Portal and Research Project*

# Informed Consent

Participation in focus groups

Digitally audio-recorded; transcribed

REMO review: Participation, privacy and confidentiality

Outcomes: DF report; academic papers; inform portal development

Any questions?