RURAL CONNECTIVITY TASK FORCE

December 2020

Too many people in rural Saskatchewan experience poor internet service. That's why the Agricultural Producers Association of Saskatchewan (APAS) launched the Rural Connectivity Task Force in September 2020.

The Task Force is meeting with experts, service providers and regulators to learn more about the barriers to improving rural internet, plus identify ways to fix the problem.

APAS has also developed an Internet Speed Test. It's a fast and easy way to calculate your internet speed, and will give us a clearer understanding of service levels across Saskatchewan.

The Task Force will release its final recommendations in early 2021. Here's what we've learned so far:

Impacts of Poor Rural Connectivity

Poor internet results in barriers to economic growth in rural communities.

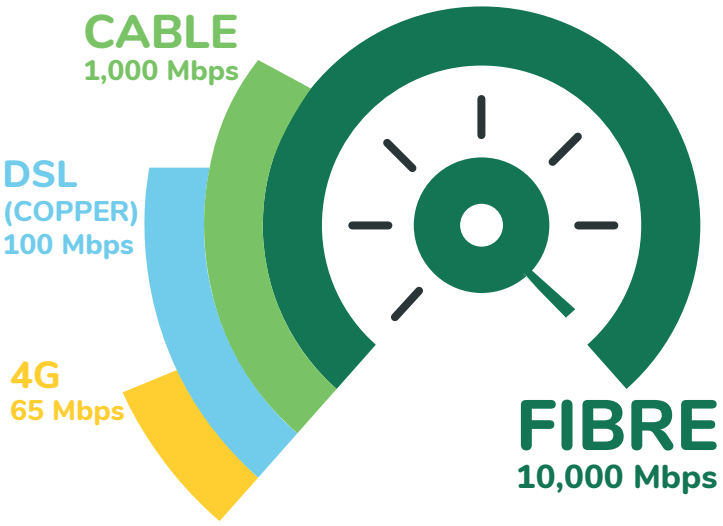
It is estimated that the value of connecting rural Saskatchewan could increase the provincial GDP by up to $1.2 billion.

APAS has also identified the social costs of poor connectivity, including impacts on health, education, safety and the environment.

The COVID-19 pandemic has brought these issues into sharp focus and has highlighed the inequalities between rural and urban communities.

Our internet service is so slow on the farm that our children could not participate in any interactive online learning. Videos won't load, Zoom meetings won't work. Our cell phone service has been a problem for our business for years, but while we were on quarantine after traveling last winter we had to get in our vehicle and drive miles in order to download email or texts.

- APAS survey respondent



Data provided by Michael McNally, University of Alberta

Service Standards

In 2018 the Canadian Radio-Television and Telecommunications Commission (CRTC) set out national internet service standards for Canadians: 50 Mbps for downloads and 10 Mbps for uploads by 2026.

"50/10" is fast enough to use streaming services and cloud-based applications, and for multiple users to use the internet at the same time.

Wireline Versus Wireless

There are two ways to connect to the internet: **wireline** and **wireless**.

Wireline systems use wire to connect devices to the internet. The two main types of wireline are **fibre optic** and **copper**.

Fibre optic cables use light to transfer data 200,000 kilometres per second.

Copper wire is much slower and cheaper. Most Saskatchewan households still use copper to get "last mile" service directly to their homes. Copper wireline is generally linked to a larger fibre optic network.

Wireless systems use radio waves (known as **spectrum**) to connect devices to the internet.

Spectrum sends signals between wireless devices and connecting points like cellular towers, satellites, or modems. From there the signals continue on through the fibre optic network.

Several factors limit the use of spectrum. For example, radio waves can easily be blocked by physical objects, weather conditions, and other electromagnetic waves.

Internet Policy and Regulation

Canadian telecommunications are regulated federally by *The Radiocommunications Act* and *The Telecommunications Act*. Both Acts are currently under review.

Innovation, Science and Economic Development Canada (ISED) and the CRTC share authority over Canadian telecommunications. This overlapping authority makes the responsibility for solutions more complex.

Regulation of Spectrum

Spectrum is a necessary component of connecting rural Canadians. It is also a finite resource.

The federal government allocates spectrum by auctioning it to Internet Service Providers (ISPs) based on geographic area.

It is estimated that since the 1980s the federal government has generated $17 billion in spectrum auctions and fees.

In some cases ISPs leave spectrum unused, which can leave communities without service.

Regulation of Wholesale Rates

Some internet service is provided to customers directly by large ISPs. In other cases smaller ISPs pay a "wholesale" fee to access infrastructure and provide service on a smaller scale. This wholesale fee can be the difference between having a business case for connecting an area or not.

In 2015 the federal government began investigating the wholesale rate that large ISPs charge to smaller providers. As a result, the CRTC set a new rate and required large ISPs to repay smaller providers they had overcharged.

The large ISPs appealed the decision, and the question of wholesale rates has now reached the Supreme Court of Canada.

Funding

To date the federal government has committed just under $7 billion towards meeting its universal internet access targets:

- Connect to Innovate ($500 million, ended 2019)
- Universal Broadband Fund ($1.7 billion)
- Rural and Northern Stream of the Investing in Canada Infrastructure Program ($2 billion)
- Canadian Infrastructure Bank ($2 billion)
- Broadband Fund ($750 million over five years)

Take Action on Rural Connectivity

1. **Take the Internet Speed Test** at **apas.ca/speedtest** and let your ISP know if you're not getting the service you're paying for.
2. **Encourage friends, family, and neighbours to take the Internet Speed Test.**
3. **Subscribe to the APAS newsletter** and follow us on social media to stay up to date with this and other APAS projects.
4. **If your RM doesn't currently participate in APAS, join for only $2,021 in 2021.** We'll put your membership fee directly towards the work of the Rural Connectivity Task Force.

For more information about the Rural Connectivity Task Force, visit apas.ca/connectivity.

APAS
Agricultural Producers Association of Saskatchewan