

Broadband: An Investment in Innovation

1 Position Statement

Universal and equitable access to high-speed broadband networks is critical to enabling innovation, accessing education, health care and government, and economic growth.

2 Purpose of this Position Paper

SouthWestern Integrated Fibre Technology Inc. (SWIFT) has developed this position paper to give prominence to Ontario's increasing digital divide and provide an evidence-based case for continued investment in equitable access to ultra-high-speed broadband networks. The perspectives and recommendations outlined in this paper highlight broadband as a catalyst for innovation, economic prosperity, and global competitiveness. In advance of the upcoming provincial election, SWIFT is asking for a commitment to acknowledging the integral role that broadband plays in supporting all aspects of modern society and addressing the longstanding broadband infrastructure gaps that our province faces.

3 Background

Canada is struggling to remain competitive in the global economy and lags substantially behind its national peers in many essential areas. While our nation ranked 14th overall in the World Economic Forum's *2017-2018 Global Competitiveness Report*, it trails behind in technological readiness, business sophistication, and innovation, ranking 23rd in all three categories.ⁱ To regain its competitiveness, Canada and by extension Ontario, must focus on overcoming key policy and regulatory barriers that are preventing the development of advanced and innovative economies.

One of the greatest impediments to technological readiness, business sophistication, and innovation is the lack of ubiquitous access to affordable, ultra-high-speed Internet connectivity. Today, a fast, reliable internet connection serves as more than just a convenience. Broadband has become an essential piece of community infrastructure that is necessary to enable economic growth and stability, modernize and streamline the delivery of health and social services, provide greater educational opportunities, increase capacity to administer and govern institutions, modernize and create a more efficient agricultural sector, and create fairness and opportunity for everyone. Despite this fact, many Canadians, in rural, remote, and First Nation communities, still have no access, limited access, or overpriced access to broadband communication technologies.

The broadband gap is growing at an increasing rate. While large cities are seeing substantial investments in fibre-to-the-premises (FTTP) with 1 Gbps service,ⁱⁱ rural communities struggle to reach the minimum 50 Mbps download / 10 Mbps upload speeds that have been mandated by the CRTCⁱⁱⁱ. By virtue of geography, rural, remote, and First Nation communities are placed at a considerable disadvantage. According to the CRTC's *Communications Monitoring Report 2017*, "the availability varies greatly between urban and rural areas, with only 39% of rural households having access to this kind of service, versus 96% in urban areas."^{iv}

To ensure that all Canadians, whether they be in rural or urban areas, are well positioned to take advantage of the opportunities afforded by the digital age, it is critical that all levels of government work more closely together to create a national broadband infrastructure plan.

4 Current Situation

In Ontario, and across Canada, rural, remote, and First Nation communities encounter substantial barriers to building and expanding broadband infrastructure networks. Telecom Service Providers (TSPs) have little to no interest in extending services into these areas because there are significant up-front costs and marginal to non-existent rates of return. As a result, much of rural Ontario's current Internet infrastructure networks are sparse, ineffective, and built on outdated technology. This situation also breeds a near-monopoly in the market that triggers higher prices, fewer choices and less innovation. While both the federal and provincial governments have acknowledged that this is a serious issue and have been supportive through funding programs, broadband infrastructure gaps continue to grow rapidly. Government broadband funding tends to be focused around short-term and reactive programs that are developed and administered by various levels of government that are working in silos. These are inefficient and have led to a patchwork quilt of Internet infrastructure that is not accessible, equitable, reliable, nor scalable. If we are to truly build a nation of innovators, our provincial government must follow through on their plan to develop a broadband strategy that is "aligned with federal, regional, municipal and Indigenous partners."^v This plan should leverage the collective voice of projects like SWIFT – which address the needs of 3.5 million residents in Southwestern Ontario, Caledon and the Niagara Region to maximize broadband infrastructure investments in order to create equitable, evidence-based provision of services.

4.1.1 ECONOMIC DEVELOPMENT AND EMPLOYMENT

In the Premier's mandate letter to the Minister of Economic Development and Growth, the Premier directs the Minister to, "work with the Minister of Infrastructure on expanding broadband infrastructure and improving connectivity in communities across the province." In the Ministry of Infrastructure's *Building Better Lives: Ontario's Long-Term Infrastructure Plan 2017*,^{vi} Minister Duguid states, "the plan is about building roads and highways and modernizing transit to ease the stresses of everyday travel; it is about providing essential services such as water, gas, and broadband Internet to homes in a safe, reliable and timely manner. And it is about ensuring that Ontarians have access to modern, world-class health care, education and community services."

Indeed, equitable access to the Internet for all Ontario residents and businesses will yield positive impacts on all of these utilities and services and increase Ontario's prosperity

Broadband enables the innovation that leads to economic development and prosperity. From agriculture to manufacturing, it is the platform on which businesses thrive. However, small urban, rural and remote communities across the province are struggling to attract, retain and expand job-creating businesses due to inadequate or full-out lack of access to high-speed networks. Companies are reluctant to start-up, or relocate to, these unsupported areas of Ontario. They are limited by the technology they can use to grow their businesses; isolated from their potential customer base; prevented from accessing the government programs and services that have been established to support them, and; unable to access an appropriately skilled workforce.

In today's digital society, job opportunities are predominately posted online, resumes are sent electronically, interviews are held over Skype, offer letters are sent by email, and training programs are increasingly being delivered online, reliable and accessible broadband has become the mortar that binds businesses together.

4.1.2 EDUCATION AND YOUTH

While broadband has altered traditional teaching methods by delivering on-demand education to more students at a much lower price point, this educational infrastructure is not easily accessed by everyone. Interestingly, there is also no mention of the importance of broadband Internet access in the Ministry of Education's, *Achieving Excellence: A Renewed Vision for Education in Ontario*, report despite the frequent platitudes highlighting connecting students for success.

Youth, without access to sufficient Internet speeds and bandwidth, are not able to access the courses or cloud-based systems that have become integral to Ontario's curriculum. Students are forced to leave their homes, in search of high-speed Internet, just to complete daily homework assignments. These same McDonald's Millennials^{vii} are also not able to easily access the many post-secondary courses that are offered online. This is further compounded by the Ministry investing in high-speed Internet in the classroom. This forces them to shoulder additional expenses to travel to distant locations to further their education. In order to make every Ontarian innovation ready, the province must continue to invest in ultra high-speed broadband networks as a means to "equip our young people with the right skill sets for the economy of the future."^{viii}

4.1.3 LOW-INCOME CITIZENS

As more government services move online, the ever-increasing digital divide is widening. Ironically, those that would benefit most from the delivery of digital services are often least likely to have access to the required infrastructure. According to the CRTC's 2016 *Communications Monitoring Report*, "...lower-income households are spending three times more on broadband expenditures, as a percentage of their annual income, than the average Canadian household."^{ix} This causes additional hardship for the economically disadvantaged and forces them to sacrifice

other necessities to order to access the technology they require to help them improve their situation. To further exacerbate the issue, welfare and social assistance programs do not cover expenses related to broadband services.

4.1.4 HEALTH CARE AND SENIORS

Ontario is investing heavily into home care and telemedicine networks to alleviate the strain on the hospital and clinical systems. At the same time, Ontario seniors, without reliable internet, have limited access to the health care providers and social services they require to enable them to age in place. This issue will only get worse over the next two decades as Ontario is facing a demographic shift that will result in the doubling of our seniors' population. In order to address this issue, Ontario must start using our health care resources, which continue to consume over forty percent of the provincial budget, more efficiently. To create greater integration among health care providers and provide patients with remote access to health services, we need to continue to invest in scalable broadband infrastructure with a near-term goal of achieving ubiquitous equitable access to health care for all. Broadband enables family physicians and health care providers to better collaborate and consult with not only their patients but also other practitioners. It provides the necessary bandwidth for accessing tele-medicine and transferring large files such as test results, ultrasound images and x-rays to other physicians and health facilities. This also extends TeleHeath Ontario's network and reach to these underserved communities.

While delivering in-home and out-of-hospital health care is a cornerstone strategy of the Ministry of Health and Long-Term Care's, *Patients First: Action Plan for Health Care*,^x this document does not address how advanced health care technology and telemedicine will reach these communities.

4.1.5 THE SWIFT SOLUTION

SouthWestern Integrated Fibre Technology Inc. (SWIFT) is a not-for-profit, collective broadband initiative that is funding the construction of an affordable, open-access, ultra high-speed fibre-optic regional broadband network for everyone in Southwestern Ontario, Caledon and the Niagara Region. Our evidence-based solution to overcoming the region's longstanding broadband infrastructure gaps will foster economic growth and empower our region to compete, connect and keep pace in a changing digital world. By drawing on the strength of our membership and the collective voice of 3.5 million Ontarians, SWIFT will provide ongoing subsidies to TSPs to incent them to upgrade and expand fibre optic infrastructure until ubiquity is achieved across our 45 thousand square kilometer coverage area. Game changing models, like SWIFT, need to be funded and developed, based on best-practices, and rolled out across the province to meet the unique needs of each community.

5 Conclusion and Recommendations

In summary, equitable access to broadband Internet is critical to innovation. Broadband has become an essential service that is necessary to encourage economic growth and stability, modernize and streamline the delivery of health and social services, provide greater educational opportunities, increase capacity to administer and govern institutions, improve the environment, and create fairness and opportunity for everyone. To ensure that all Ontarians, whether they be in rural or urban areas, have access to the services they need to participate in the digital economy SWIFT calls on the Government of Ontario to:

- 1) Develop and implement a provincial broadband plan that is aligned with federal, regional, municipal and Indigenous partners. This plan should leverage the collective voice of the 3.5 million residents in SWIFT's region (and voices from other funded community projects and unfunded communities) to maximize broadband infrastructure investments in order to create equitable, evidence-based provision of services;
- 2) Provide long-term, predictable funding to models like SWIFT which are overcoming Ontario's connectivity barriers and meeting the unique needs of each community;
- 3) Help Ontario to realize the CRTC's universal service objective and SWIFT to achieve its goal of "broadband for everyone" by continuing to invest in the expansion of broadband infrastructure;
- 4) Facilitate the deployment of communications infrastructure by introducing a Broadband Conduit Deployment Act,^{xi} like that of the United States, to facilitate the faster and lower cost deployment of fibre optic infrastructure by municipalities and TSPs;
- 5) Unlock the tremendous potential of our province and create a safety net for individuals who cannot currently access Internet services due to remoteness of location or financial hardships by declaring broadband internet an essential utility.

ⁱ <http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf>

ⁱⁱ <http://www.bce.ca/news-and-media/releases/show/Bell-Gigabit-Fibe-bringing-the-fastest-Internet-to-Toronto-residents-with-a-billion-dollar-network-investment-creation-of-2-400-direct-jobs-1>.

ⁱⁱⁱ <https://www.crtc.gc.ca/eng/archive/2016/2016-496.htm>

^{iv} <https://crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2017/cmr2017.pdf>

^v <https://www.ontario.ca/document/building-better-lives-ontarios-long-term-infrastructure-plan-2017/chapter-1-setting-foundation>

^{vi} https://files.ontario.ca/ltip_narrative_aoda.pdf

^{vii} *McDonald's Millennials – A term coined by SWIFT to highlight the increasing number of rural, remote and First Nation millennials that must travel to local restaurants or stores in order to access the high-speed Internet that they cannot access from home.*

^{viii} https://www.ic.gc.ca/eic/site/062.nsf/eng/h_00009.html

^{ix} <http://www.crtc.gc.ca/eng/publications/reports/rp161221/rp161221.htm>

^x http://www.health.gov.on.ca/en/ms/ecfa/healthy_change/

^{xi} <https://www.congress.gov/bill/114th-congress/house-bill/3805/text>