

**HOUSE OF COMMONS STANDING COMMITTEE ON INDUSTRY, SCIENCE AND
TECHNOLOGY**

Study on

**ACCESSIBILITY AND AFFORDABILITY OF TELECOMMUNICATIONS
SERVICES**

Submission of

HUAWEI TECHNOLOGIES CANADA CO., LTD.

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About Huawei Canada

Huawei Technologies Canada Co., Ltd. (Huawei) has been a central player in Canada’s telecommunications infrastructure for more than 12 years. Working with telecommunications partners, Huawei equipment has covered over 2/3rds of the Canadian landscape and has helped to build the networks that Canadians rely on which are some of the world’s fastest.¹ Canada’s existing broadband infrastructure has also faced unparalleled challenges during COVID-19 and the stability demonstrated during this period is a testament to its resilience. Huawei’s consumer business sells world-class electronic devices in partnership with all major Canadian mobile carriers.

Huawei is a major job creator employing over 1,200 Canadians, and supporting 5,000 jobs indirectly with offices in seven Canadian cities (Markham, Ottawa, Waterloo, Vancouver, Edmonton, Montreal and Quebec City). In 2018, Huawei contributed \$690 million to Canada’s Gross Domestic Product.²

Huawei Canada is proud of the world leading innovative work being done in the country. In 2019, \$266 million was spent on research and development (R&D) which ranks in Canada’s Top 20 overall.

Globally, Huawei is a privately owned company with over 195,000 employees in 170 countries. It is the world’s largest telecommunications equipment manufacturer and one of the largest manufacturers of smartphones and devices. Huawei is also in the top 5 of global R&D spending.³

Huawei is a critical contributor to competition in our telecommunications sector and an important partner in delivering secure connections for rural, remote, and underserved communities with world leading technology. Over 12 years in Canada, Huawei, backed by an unblemished security record, has enabled **affordable** and **accessible** telecommunication services for Canadians while working proudly with our carrier partners and the Government of Canada.

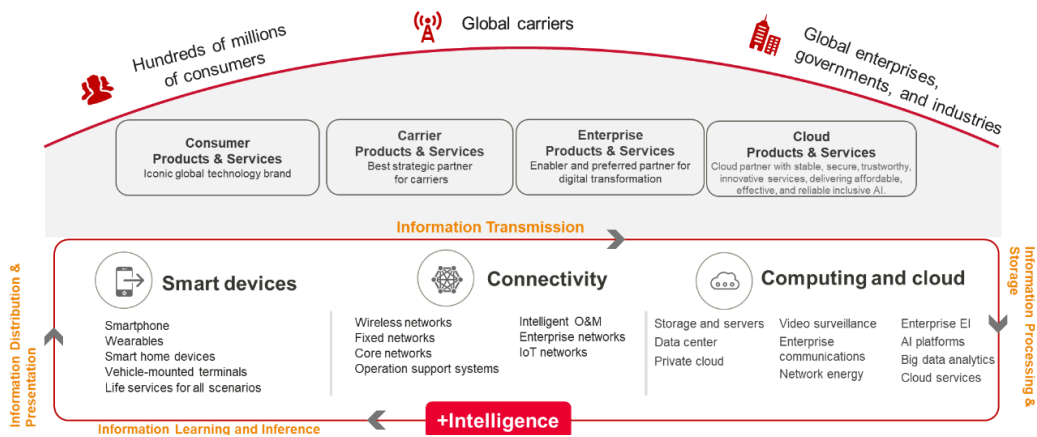


Figure 1: A summary of Huawei's Business Operations Globally

¹ In 2019 Canada had the 3rd fastest network globally according to SpeedtestGlobal Index

² <https://mobilesyrup.com/2019/11/27/huawei-canada-has-positively-helped-canadas-gdp-growth-report/>

³ \$15.3 billion USD in 2018



Rural & Remote Broadband Accessibility

As the House of Commons Standing Committee of Industry, Science and Technology noted in its March 2018 report *Broadband Connectivity in Rural Canada: Overcoming the Digital Divide*, the “digital divide” remains.

Huawei’s founding in 1987 was based on providing telecommunication services in underserved areas. In Canada, Huawei is the leading equipment provider in rural and remote areas and is proud to be known as a customer service leader for smaller telecommunications companies.

One example is our 2019 partnership with telecom providers to connect 70 communities in the Arctic and Northeastern Quebec, with more planned for areas of Newfoundland and Labrador.

This is backed by industry technical leadership, such as the third-generation MIMO (multiple-input multiple-output) antenna, which is the industry’s lightest, at 25kg, allowing installation of base stations in under two hours with no cranes or helicopters.

Huawei’ RuralStar has been put into use in over 50 countries. This innovative LTE relay solution removes requirements for cabinets, ground foundation, and fencing and is instead mounted on poles with the steel-frame foundation filled with soil. This allows quicker and cheaper deployment of networks and coverage for ultra-remote areas with 500 to 1,000 residents.⁴ When cabinets are required, or when legacy cabinets are being replaced in upgrades, to house digital and transmission units and power supply systems, Huawei’s newest solution reduces the footprint and volumes of new cabinets by 41% and 56% respectively.

Huawei equipment also has an industry leading outer shell technology with better weather-proof capabilities to withstand harsh weather conditions, including some of the coldest temperatures on Earth. Other areas like energy efficiency aggregated with some of the aforementioned technologies critically improve investment economics for service providers.

Huawei Canada with its partners has brought fast, reliable, networks to rural and remote communities - even in areas where it is not economical to do so. The federal government has set a goal of ensuring that all Canadians have access to high-speed Internet by 2030 and Huawei has been and will continue to be a committed partner in reaching this goal.

Recommendation: The Government continues to close the “digital divide” by supporting deployment of telecommunication services to rural, remote and underserved communities in partnership with the leading, experienced and technically proven equipment partners that currently exist globally.

⁴ <https://carrier.huawei.com/en/trends-and-insights/energizing-b2c-growth/connect-the-unconnected>



Telecommunications Infrastructure Equipment and Affordability

Competitive options in procuring the necessary equipment for the carriers to deploy equipment is an important policy area when looking at offering affordable and accessible services.

The telecommunications network equipment industry is highly globalized and concentrated in a handful of major players. Open and fair competition in equipment options should be sought after and encouraged.

A recent Oxford Economics Report found that restricting a major participant from Canada's 5G rollout would increase the average annual investment cost over the next decade by 8 to 24%.⁵

Capital expenditure on equipment is the number one cost for all carriers. Canada's carriers small and large, and their customers, benefit from an option to partner with Huawei as the global leader in providing efficient and technologically advanced equipment for their networks.

Recommendation: The Government of Canada supports and maintains an open and fair, rules based, telecommunications network equipment sector to provide competitive and affordable options for carriers and their customers.

5G Accessibility Enabling Economic Growth

The deployment of 5G networks across Canada will usher in an age of new possibilities for economic and social development with increased speeds of data transmission and reduced latency, making possible developments like self-driving transportation, long distance surgeries, and smart manufacturing.

With a first-mover advantage, Canada would also be well-positioned to attract talent and investment in automation and AI capabilities ahead of other countries.

However, Canada is currently falling behind in its deployment and should quickly move ahead with our telecommunication carriers and their trusted equipment partners.

Huawei is a global leader in 5G technology with numerous key patents and over 91 commercial contracts. A 2019 article quoted a Western executive who operates a major national network - "From a technology point of view, our view is that specifically in [radio access networks] we see Huawei with a big advantage, a couple of years ahead of any other providers". Huawei is also the leading contributor to global 5G standards.⁶

⁵ https://resources.oxfordeconomics.com/hubfs/Huawei_5G_2019_report_V10.pdf

⁶ <https://foreignpolicy.com/2019/04/03/the-improbable-rise-of-huawei-5g-global-network-china/>



Reports have suggested that a permanent loss in GDP of \$1.0 billion to \$6.7 billion due to a delayed roll out of 5G that would result from restrictions on a major participant like Huawei.⁷

Without Huawei, the competitive landscape of Canada's 5G network could be dramatically weakened leaving Canada at a disadvantage and hindering accessible and affordable telecommunications services for Canadians.

Recommendation: The Government of Canada support all carriers in deploying 5G with their proven, trusted and chosen telecommunications network equipment providers to improve adorability and accessibility.

Data Privacy and Security in Telecommunication Services

There is no company as heavily scrutinized as Huawei in regards to data privacy and security, and this is why it is at the forefront of innovation work and investment.

It should be noted, Huawei supplies Canadian telecom companies with equipment to operate wireless networks. Huawei has no access - and no way to access - the personal data of Canadians.

The company participates in the Communications Security Establishment's Security Review Process, with our carrier partners, to prove to Canadians that their data is safe, and has a flawless security record across 3G and 4G LTE networks over 12 years.

Nonetheless, as technology becomes further integrated into our lives, concerns increase about the need for strong online security and robust data and privacy protection and Canadians are seeking assurances that their information is protected. Huawei is supportive of any laws, regulations, testing and others measures requested by the Government. This would require establishing an industry-wide prerequisite that all telecom equipment companies who have core activities, such as research and development, manufacturing, and other aspects of the supply chain in the same regions as Huawei, are subject to equal standards and reviews.

Public policy has a key role to play in ensuring that the information of Canadians is secure. The European Union has shown an example with the establishment of open, transparent, and globally leading data and privacy protection standards such as the *General Data Protection Regulation*.

⁷ https://resources.oxfordeconomics.com/hubfs/Huawei_5G_2019_report_V10.pdf



Strict government oversight, third-party testing, and fair and transparent industry regulations, regardless of the equipment source, best ensures data security.

Recommendation: The Government of Canada protect Canadians data by working with international partners to establish global open, fair and transparent data and privacy protection industry standards while domestically supporting these initiatives with the necessary security reviews, regulations, and legislation applied equally among all telecommunication network equipment providers.

