

Connecting to Canada

Extending your reach to new markets

November 2019



BCE Global
A BELL CANADA COMPANY



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The Canadian opportunity

With some of the lowest marginal tax rates in the world and a strong economy built on growing industries, Canada represents a large opportunity for U.S. and international service providers. Many already have customers with Canadian offices or businesses, making it all the more attractive for them to enter the Canadian market.

Yet moving into Canada can present some challenges, especially for providers who don't have existing infrastructure in-country. Creating a service presence can be costly and time consuming, while connecting geographically diverse locations while connecting geographically diverse locations and maintaining customer requirements such as latency and data sovereignty requires standardization and the management of multiple suppliers and processes.

Many providers choose to partner with knowledgeable Canadian vendors to access advanced, established infrastructure, mitigate risk and gain the strategic advantage of local expertise.

A growing marketplace

With the fastest-growing economy in the G7 and preferential access to both the North American and European markets, Canada represents an attractive environment for global organizations looking to expand their reach.¹

According to Forbes and Bloomberg, Canada is the best choice for business among the G20 countries – and it continues to outperform its G7 peers in long-term economic growth.² Canada is home to a well-educated, ethnically diverse population with a high average income. Its biggest city, Toronto, is North America's fourth largest and growing: in 2018 it planned to spend \$720 million on more than 200 infrastructure projects³ and it has more cranes dotting its skyline than any other city in North America, as measured on the RLB Crane Index.⁴

All across the country, Canada supports robust industry in a number of sectors:

Manufacturing⁵

The manufacturing sector employs more than 1.5 million people across Canada, mainly in southern Ontario and Quebec. Driven by the food processing and machinery industries, the sector generated more than \$648 billion in sales in 2017, amounting to more than 10 percent of the country's economic activity.

Digital media^{6,7}

Employing more than 120,000 people and generating more than \$22 billion in annual sales, Canada's digital media sector is the world's third-largest producer of video games. The fast-growing video games industry contributed \$3.7 billion to the country's economy in 2017, an increase of 24 percent from 2015.

Oil and gas⁸

The oil and natural gas sector is the largest private sector investor in Canada, making approximately \$41 billion in capital investments in 2018 and supporting more than 528,000 workers. The country is the world's fifth-largest producer of natural gas and contains the planet's third-largest oil reserves.

Finance^{9,10}

The World Economic Forum has consistently named Canada's banking system as one of the soundest in the world, ranking it second behind only Finland in 2018. The financial services sector has grown by 28 percent over the past decade, representing 7.1 percent of the country's GDP and employing more than 831,000 Canadians.

Mining¹¹

Canada is the world's number-one producer of potash and among the top-five global producers of uranium, nickel, gold, diamonds and cobalt. More than 60 different metals and minerals are produced by the country's 200 mines and 7,000 quarries. Mining contributed \$72 billion to Canada's GDP in 2017, accounting for 19% of the value of all Canadian exports.

1 Government of Canada – Canadian Trade Commissioner Service.

2 Government of Canada – Invest in Canada.

3 City of Toronto Public Works and Infrastructure Committee, May 2018.

4 [RLB Crane Index, January 2019](#).

5 Government of Canada – Statistics Canada, April 2018.

6 Government of Canada – Invest in Canada.

7 Entertainment Software Association of Canada, 2018.

8 Canadian Association of Petroleum Producers, January 2019.

9 [World Economic Forum, The Global Competitiveness Report 2017–2018](#).

10 [Conference Board of Canada, December 2018](#).

11 Government of Canada – Natural Resources Canada.

The market entrant's must-haves

Entering a new market is always challenging, and Canada is no exception. Its size alone means service providers may need support to reach all their new customers – and that can mean drawing on the resources and connections of a local partner.

Because not all partners bring the same capabilities to the table, and because any service provider entering the market is bound to have its own distinct infrastructure and connectivity requirements, doing some advance research is critical. That research should involve asking the following questions:

How extensive is the network?

With more than 36 million people dispersed across 9.9 million square kilometers, Canada depends on one of the most robust, reliable and advanced telecommunications infrastructures in the world. Service providers will need a local partner who can access that infrastructure and offer valuable strategic insights into local markets.

What type of professional support is available?

An experienced team of certified professionals should be available to help implement and support services in Canada.

Can commitments for latency and speed be met?

Any Canadian partner will have to meet a U.S. and/or international service provider's existing commitments on latency and speed – and the guarantees that partner is planning to offer in Canada. Because potential customers may have businesses in both the U.S. and Canada as well as other international locations, providers will need to fully investigate any potential partner's capacity to support international connections.

How will data be transported?

Connection and transport options are critical to giving end users the services, speed and bandwidth they require. Partners should ideally be able to support a wide variety of connection and transport types, including Ethernet, wavelength and other point-to-point solutions.

Where is data transported?

National data policies are putting pressure on companies to carefully manage where they send and store their high-value data. Your customers are going to need your help to keep their data sovereign, especially in highly regulated and globally competitive sectors like oil and gas, pharmaceuticals, healthcare and defence.

What security measures are in place?

Security and privacy are generally non-negotiable for end users so it's imperative to investigate the physical and digital security offered by a potential partner. Ideally, the partner's network will be supported by a coordinated set of security controls, policies, practices and procedures that conform to multiple standards and all relevant legislation.

Is the connectivity solution certified?

Generally, the higher a potential partner's certification level the better. While every country has its own standards, an ideal partner will also meet or exceed international standards.

How easily can the service be scaled?

A service provider's needs may change as business grows or as seasonal demands cause bandwidth requirements to spike – making the ability to scale both up and down important to any infrastructure partner's offering.

Is the network adaptive?

An adaptive network allows easy transitions from Ethernet to Wavelength and makes it simple to add, change or remove services and options.

What types of SLAs are provided?

The right partner will offer robust, comprehensive service level agreements – 99.99% or higher – to ensure your business stays up and running.

What type of reporting or performance monitoring is available?

Service providers and end users are looking for high visibility and control over their services. Partners should be able to provide transparency in the form of real-time reporting through a self-service portal.

Connectivity considerations

Fortunately for service providers looking to set up in the Canadian market, the country's advanced telecommunications infrastructure offers a wide variety of connectivity options, including:

IP VPN/MPLS

Ideal for enterprises looking to connect multiple sites or offices with a fully managed, meshed WAN solution, IP VPN/MPLS is a private, secure Layer 3 network that supports multiple applications – from point-of-sale terminals to data center connectivity. An easy, cost-effective expansion option, IP VPN/MPLS can prioritize voice, data and video traffic and prevent downtime through a redundant network.

Ethernet

Ethernet is a Layer 2 solution that efficiently and cost-effectively gives end users low-latency, point-to-point access to mission-critical applications – while allowing them to maintain control over functions such as IP addressing and firewall management. A competitive Ethernet solution also offers simplified network routing and multiple classes of service and speed options for customization to user needs.

Wavelength

Wavelength is ideal for customers who need to interconnect data centers for storage and cloud applications and who require running multiple protocols on a single network. Providing ultra-high bandwidth and connectivity for local area networks (LANs), storage area networks (SANs) and wide area networks (WANs), Wavelength is a Layer 1 solution that can offer the highest possible speeds: up to 100 Gbps.

Digital Private Line Service (DPLS)

This Layer 1 service provides dedicated, high bandwidth point-to-point private line service. To stay highly reliable and economical, the best DPLS services will operate over a high performance SONET network infrastructure.

Co-location hosting

With the growth of cloud services and virtualization, having data located in a secure, accessible and highly connected data center is key. Ideally, a data center would be designed specifically to maximize the security and availability of mission-critical computing environments, monitored 24/7 and protected by video surveillance and biometric access controls. It should also offer enough capacity to meet users' needs now and into the future.

Apart from connectivity, a partner in Canada should be able to provide the support service providers need when moving into a new market. That means consulting to determine the best approach, creating an implementation plan, providing support throughout installation and initial market entry, and offering ongoing maintenance.

BCE Global delivers

A subsidiary of Bell Canada, BCE Global is part of Canada's largest communications company. The first Canadian carrier to deploy 100 Gbps connectivity, BCE Global operates an extensive, highly reliable fiber-optic network, backed by route and point-of-presence redundancy to deliver reliable enterprise-grade connectivity. What's more, Bell Canada is the the only carrier in Canada with two diverse routes that both stay 100% inside the country. In Canada, BCE Global offers all major connectivity options, including:

IP VPN

Delivered over the most extensive private IP-based network in Canada – with essentially universal reach – BCE Global's IP VPN service allows service providers to offer their end users the ability to seamlessly share voice, data and video across North America.

Flexible packages and scalable bandwidth options – with speeds up to 1 Gbps – allow providers to adjust their services as business needs change. The easy-to-use web portal helps service providers quickly and easily access detailed service and performance reports. Interconnection points in the U.S. and Europe allow for seamless connection to Canada.

Ethernet Internetworking

Fast, effective and economical, Ethernet Internetworking from BCE Global is a Metro Ethernet Forum certified solution that supports WANs for everything from Internet to voice over IP (VoIP) to real-time video streaming. Multiple mission-critical applications can operate simultaneously through the same access with no impact on speed or quality.

This connectivity solution's fully redundant core ensures security and reliability, minimizing potential points of failure. A wide variety of access speeds – from 10 Mbps to 10 Gbps and Ethernet Virtual Connection (EVC) speeds from 1 Mbps to 1 Gbps – offer flexibility and scalability, while unique Ethernet Network-to-Network Interface (ENNI) VLAN identifiers keep traffic separate in the shared network infrastructure for high security.

Flexible network integration allows providers to offer both Internet transit and Ethernet services through the same access points, and BCE Global's international presence across enables coast-to-coast connectivity across Canada.

BCE Global offers two distinct types of Ethernet service:

- **Switched-Ethernet Virtual Private Line** is ideal for advanced applications and high bandwidth requirements, offering managed, point-to-point and point-to-multipoint services through virtual connections and providing powerful connectivity while allowing end users to maintain control of IP security, routing and configuration.
- **Switched-Ethernet Private Line** is a point-to-point service that provides both VLAN and class-of-service transparency, giving service providers more flexibility when managing their customers' networks.

Wavelength

Providing a secure, reliable, fiber optic network, Wavelength service from BCE Global is the first connectivity solution in Canada with speeds up to 100 Gbps. Ideal for bandwidth-intensive applications, Wavelength service supports a wide range of standard and non-standard connection protocols on a single wavelength, including Gigabit Ethernet, Fiber Channel and SONET. This provides flexibility and protection features without the need for expensive network builds. With low latency and comprehensive service level agreements backed by the largest support team in Canada, Wavelength service provides reliable service in the U.S., Europe and around the globe. It is also available in both managed and protected-basis options.

Digital Private Line Service (DPLS)

DPLS is a dedicated point-to-point digital solution delivered over high-bandwidth private lines with high-performance, point-to-point connectivity. Speeds from DS-0 to OC-48 provide both clear channel and channelized service options as well as multiple diversity options. Using a state-of-the-art network with SONET protected rings and four-wire configurations, DPLS delivers best-in-class transport diversity in all major on-net cities. BCE Global offers a wide variety of configuration options, including point-to-point, hub and spoke or multi-points, as well as the capacity to create a series of point-to-point clusters on a single hub.

Wholesale Co-location Services

With a national footprint of 28 highly secure, carrier-neutral data centres located in key cities across Canada, BCE Global offers the perfect solution for leasing full-scale data center services – especially for service providers looking to offer Canadian data residency to their customers. As Canada's largest data center service provider in both committed capacity and available expansion capacity, BCE Global can help design a system that meets customers' business needs today and tomorrow.

Wholesale Co-location Services from BCE Global offer:

- Fast, scalable connectivity and a range of optional network features
- Secure, bullet-resistant entrances equipped with biometric access controls to ensure only authorized BCE Global and customer personnel can enter each data center
- Optional DDoS protection services for an additional layer of security
- Flexibility to choose from cabinets and cage designs up to dedicated data halls with custom security and infrastructure features
- Operational support delivered 24/7 through control center staff who continuously monitor all critical data center systems
- Customer control panel that provides access to an array of comprehensive support tools, including real-time and historical bandwidth utilization reports

Advanced Technical Services

Offering technical support for everything from installation to ongoing maintenance and troubleshooting, Advanced Technical Services from BCE Global are delivered on-site, online or via remote technical assistance.

Delivered by Canada's largest support team, BCE Global Advanced Technical Services provide a cost-effective range of services to Bell and non-Bell networks throughout Canada, including:

- Server testing and rebooting
- Firmware upgrades
- Hardware configuration changes
- Warehousing and inventory reporting
- 24/7 appointment intervals
- End-to-end high speed copper and fiber network support

Building a powerful partnership

With more global businesses opening offices in Canada – and more Canadian companies building their presence south of the border – U.S. and international service providers have an opportunity to follow their customers into Canada and take advantage of an advanced infrastructure and growing market.

Partnering with an established local service provider can help ease entry into Canada, eliminating the need to build new networks, providing access to geographically diverse areas, and connecting providers with local third-party vendors and suppliers. BCE Global's powerful Canadian network, strong relationships with local vendors and team of certified support experts can help service providers give their customers high-quality service on either side of the border. By leveraging BCE Global's convenient "meet me" points in the U.S. and Europe, global service providers can cost-effectively and quickly extend their reach into North America without the need for major capital investment in Canada.

Why BCE Global?

BCE Global provides industry-leading broadband, IP and voice wholesale solutions across Canada and in key points in the United States and Europe.

As a Bell Canada company, BCE Global is able to extend the power of Canada's largest network, spanning across 240,000 kilometers with links to more than 28 carrier hotels and data centers in North America. With an extensive team of professional services experts and 24/7 help desk availability, BCE Global provides exceptional support to inter-exchange carriers, local exchange carriers, wireless service providers, resellers, Internet service providers, telcos and cablecos.

BCE Global's comprehensive portfolio of wholesale products and services demonstrates the company's commitment to providing solutions that help customers grow their businesses and meet the needs of their end clients.

For more information about partnering with BCE Global, visit bell.ca/bceglobal.