

**Price Comparisons of  
Wireline, Wireless and Internet Services in  
Canada and with Foreign Jurisdictions**

**2019 Edition**

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***Wall Communications Inc.***

**NOTE: The views expressed in this document are solely those of *Wall Communications Inc.* and do not necessarily represent the views of Innovation, Science and Economic Development Canada or any other person or agency.**

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## **EXECUTIVE SUMMARY**

This is the twelfth (2019) edition of ISED's annual telecom services price comparison study. The purpose of this Study is to provide a detailed comparative price analysis of telecommunications services in Canada relative to the United States and six other countries. The individual service categories covered by the Study are:

- 1) Mobile Wireless;
- 2) Fixed Line Broadband Internet; and
- 3) Mobile Wireless Internet.

For each individual service category, prices are measured for a series of defined "service baskets" which have been designed to reflect typical Canadian low to high telecom service usage levels and features. A middle or "average" consumption basket for a typical Canadian consumer is included in each service category. There are three to six service baskets or "levels" defined for each service category. The lowest available advertised regular prices, as offered by the surveyed service providers included in the study, are used to measure the prices of each of the defined service baskets.

For Canada, the surveyed service providers include the incumbent telephone companies (e.g., Bell and TELUS) and cable companies (e.g., Rogers, Shaw and Videotron), resellers of telephony and/or Internet access (e.g., Primus, Teksavvy and Distributel) and regional wireless market providers (e.g., Freedom, SaskTel, Videotron and EastLink). In addition, Flanker brands (offered by the national mobile wireless providers or incumbent fixed broadband providers) are included and used for separate comparisons. Prices are measured in six metropolitan areas: Halifax, Montreal, Toronto, Winnipeg, Regina and Vancouver. Aggregate Canada-wide prices are determined on a weighted average basis.

For international comparison purposes, prices have also been measured using the same methodology for the same set of service baskets for seven other countries: Australia (Sydney), France (Paris), Germany (Berlin), Italy (Rome), Japan (Tokyo), the United Kingdom (London) and the United States (Boston, Kansas City, Minneapolis and Seattle).

Key changes to this year's Study include the elimination of tracking landline telephony prices and any type of bundled service. In addition the lowest mobile wireless basket (i.e. simply 150 minutes of voice service) has been dropped.

Flanker broadband services are examined in a spotlight section. We also provide a substantive examination of recently released national MNO mobile plans.<sup>1</sup>

The highlights of this year's price comparison study update follow.

## Mobile Wireless

Five service basket levels are considered for the mobile wireless service category:

- Level 1: 450 voice minutes and 300 SMS (texts);
- Level 2: 1,200 voice minutes, 300 texts and 1 GB of data usage per month;
- Level 3: unlimited nationwide talk and text along with 2 GB of data;
- Level 4: unlimited nationwide talk and text along with 5 GB of data; and
- Level 5: Shared plan with 3 phone lines and unlimited nationwide talk and text along with 10 to 49 GB of data.

### Mobile Wireless Trends:

- *Domestic Trends:* All Canadian mobile wireless service basket prices have decreased (or remained unchanged) this year relative to last – i.e., decreased by 4.6%, 8.7%, 1.4%, (.3%) and 9.7%, respectively. Average mobile wireless prices were generally found to be lowest in the cities of Winnipeg, Montreal and Regina, consistent with previous years.
- Since 2008, when the first Telecom Pricing Study was undertaken, mobile wireless prices in Canada have generally trended downwards with CAGRs over the relevant period between roughly 4% and 5%.
- *Regionals' Prices:*<sup>2</sup> The Regionals continue to offer mobile wireless prices that are significantly lower than those of the incumbents – i.e., 34%, 45%, 31%, 28% and 12% lower for service basket Levels 1 to 5, respectively.
- *Incumbent Flanker Brand Prices:*<sup>3</sup> The differentials between the incumbents' flanker and primary brand service prices are in the range of 22% to 34% lower (with the exception of Level 5 where flanker prices are slightly higher by 3%). Flankers tend to be lower than incumbent prices both nationally and regionally (except for Level 5).
- *Reseller/Mobile Virtual Network Operator (MVNO) Prices:*<sup>4</sup> Reseller services tend to be lower than incumbents' prices in Nova Scotia, Ontario

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<sup>1</sup> The spotlight section on recently released MNO plans includes data not available during the primary data collection period of May/June 2019.

<sup>2</sup> Includes SaskTel, Bell-MTS, Eastlink, Freedom and Videotron.

<sup>3</sup> Includes Bell Virgin, Rogers Fido and TELUS Koodo.

<sup>4</sup> Includes Primus, Petro-Canada and PC Mobile.

and BC and higher in Quebec, Saskatchewan and Manitoba. On a national average basis, Reseller average prices are lower for Levels 2, Level 3 and Level 4 but slightly higher for Level 1. The differences in incumbent and reseller national average prices tend to be 5% or less (with the exception of Level 2 where resellers are 32% lower). However, price differentials in any given city/basket can exhibit extreme price differences (both higher and lower).

- *Market Observation:* Freedom Mobile in most cases offers the lowest price for each basket in regions where they offer service (i.e. BC and Ontario).
- *International Comparison:* Canada has the highest or second highest PPP-adjusted prices in all five Level baskets. Prices in France, the UK and Italy are noticeably lower than most other countries.
- *Canada – U.S. Roaming Rates:* Stand-alone roaming plans offered by the US national providers result in lower monthly charges than those provided by Canadian national providers. The average PPP adjusted monthly cost of a stand-alone roaming plan in the US is about \$50 per month compared to \$115 in Canada. Moreover, the US national providers include Canada/US roaming at no charge in their unlimited Smartphone plans – plans that have an average price of just under \$100. Pay as You Go roaming charges tend to be similar in Canada and the US, with the exception of data charges where the average price per MB is \$2.80 in the US versus \$3.71 in Canada.
- *Newly Introduced Unlimited Mobile Wireless Plans:* Due to the relatively recent introduction of significantly modified mobile plans from the national MNOs (offering unlimited data in particular), we provide a special SPOTLIGHT section on the market changes. Some of the market changes are greater standardization of national MNO pricing across the country as well as the offering of higher end data caps at reduced prices.

## Fixed Broadband Internet

Six broadband Internet service baskets are included in the study, which are primarily defined on the basis of download speed:

- Level 1: speeds of 3-9 Mbps;
- Level 2: speeds of 10 to 15 Mbps;
- Level 3: speeds of 16 to 40 Mbps;
- Level 4: speeds of 41 to 100 Mbps;
- Level 5: speeds of 101 to 250 Mbps; and
- Level 6: speeds of 251 to 500 Mbps.

Trends in fixed broadband service:

- *Domestic Trends:* The average prices of all baskets have fallen since last year (11%, 7%, 22%, 17%, 19% and 25% respectively for baskets 1 through 6). In contrast, the Level 3, 4 and 5 basket prices had all risen in 2018 relative to 2017. Over the last five years, Canadian broadband prices have trended downwards.
- *Regional Trends:* BC frequently had the lowest prices across the country, with Saskatchewan and Manitoba exhibiting the lowest prices for Level 2 and Level 1 respectively.
- *Reseller ISP Prices:*<sup>5</sup> Reseller ISP broadband service prices are consistently lower than those of the incumbents across service baskets 2 to 5 (incumbents don't offer a Level 1 service), with price discounts ranging from 4% in the case of the Level 5 basket to 27% in the case of the Level 2 basket.
- *International Comparison:* Very few of the internationally surveyed service providers continue to offer Level 1 (3-9 Mbps) or Level 2 (10 to 15 Mbps) broadband services. Those who do were found in Canada, the U.S. and the UK (Level 1) with Japan also offering a Level 2 service. Among these countries, Canada was found to have the lowest average Level 1 broadband basket price. Canada also compares favourably in the case of the Level 2 (10 – 15 Mbps) broadband service basket, where it falls in the middle of the group. Otherwise, Canada's average Level 3 to Level 6 basket prices are at the high end of the group of surveyed countries included in the study, although US PPP adjusted prices are higher than Canadian prices in all cases. France only offers Level 5 and 6 baskets but is the low price provider in each basket.

## Mobile Internet

Three mobile Internet service baskets are included in the study. Level 1 covers plans providing 2 to 5 GB, Level 2 covers plans providing 5 to 10 GB and Level 3 covers plans providing greater than 10 GB of data usage per month.

- *Domestic Trends:* This year, the Canadian average Level 1 mobile Internet service price increased by 6% relative to last year. Level 2 prices have increased by about 3% and Level 3 prices remained stable. Since 2015, prices for all three baskets have generally been stable.

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<sup>5</sup> Includes Primus and Teksavvy.

- *Regionals' Pricing:* For the Level 1 mobile Internet service basket, the Regionals' prices are roughly 31% lower than the incumbents on average. For the Level 2 and Level 3 service baskets, the differential is 19%.
- *International Comparison:* In the case of the Level 1 mobile Internet service basket, the average Canadian price of \$40.60 is slightly higher than the US, considerably lower than Japan and much higher than the UK or Germany. The pattern is roughly repeated for the Level 2 and Level 3 service basket, where the Canadian price is lower than the US and Japan but higher than all other countries.

The following table provides a summary of the 2019 price comparison results for Canada and the seven surveyed foreign jurisdictions included in the study. All reported prices for the surveyed foreign jurisdictions exclude sales taxes and are expressed in purchasing power parity (PPP) adjusted Canadian dollars.

**Summary of International Price Comparisons 2019**  
Average Monthly Price in PPP adjusted \$CDN

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
<b>Wireless Service</b>								
Level 1 (Talk and Text)	\$37.62	\$42.89	n/a	\$16.32	\$10.76	\$12.25	\$14.92	\$35.31
Level 2 (1 GB)	\$64.80	\$50.17	n/a	\$35.56	n/a	n/a	\$22.89	\$57.82
Level 3 (2 GB data)	\$74.42	\$59.50	\$22.35	\$24.72	\$33.09	\$26.80	\$41.08	\$78.42
Level 4 (5 GB data)	\$87.57	\$63.04	n/a	\$28.48	\$27.28	n/a	\$54.67	\$95.63
Level 5 (10-49 GB data)	\$205.78	\$171.41	\$67.80	\$64.36	\$49.55	\$58.30	\$91.01	\$179.31
<b>Broadband Service</b>								
Level 1 (3-9 Mbps)	\$35.98	\$62.50	n/a	\$37.52	n/a	n/a	n/a	n/a
Level 2 (10-15 Mbps)	\$53.20	\$69.35	n/a	\$40.36	n/a	n/a	n/a	\$47.76
Level 3 (16-40 Mbps)	\$55.20	\$69.02	\$62.36	\$46.11	n/a	\$49.26	\$49.15	n/a
Level 4 (41-100Mbps)	\$72.01	\$75.48	\$75.06	\$55.20	n/a	\$42.27	\$53.80	\$63.69
Level 5 (100-249 Mbps)	\$83.25	\$93.01	n/a	\$75.87	\$33.79	\$49.26	\$65.87	\$77.69
Level 6 (250-500 Mbps)	\$93.03	\$120.62	n/a	\$78.62	\$41.20	\$42.27	\$47.64	\$76.31
<b>Mobile Internet</b>								
Level 1 (2-5 GB)	\$40.60	\$39.72	n/a	\$15.12	n/a	n/a	\$20.45	\$66.43
Level 2 (5-10 GB)	\$64.04	\$62.05	\$15.03	\$21.11	\$20.73	\$10.56	\$32.81	\$69.41
Level 3 (10+ GB)	\$82.99	\$85.97	\$23.66	\$27.85	\$30.05	\$15.06	\$40.50	\$98.68

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The year over year price changes for each basket are provided below.

Summary of Canadian Prices 2019  
Average Monthly Price \$CDN (and YOY)

	2019	2018	2017	YoY% 2019/18
<b>Wireless Service</b>				
Level 1 (Talk and Text)	\$37.62	\$39.43	\$40.95	-4.59%
Level 2 (1 GB)	\$64.80	\$70.99	\$70.70	-8.72%
Level 3 (2 GB data)	\$74.42	\$75.44	\$81.61	-1.36%
Level 4 (5 GB data)	\$87.57	\$87.32	\$104.49	0.29%
Level 5 (10-49 GB data)	\$205.78	\$227.87	\$264.65	-9.69%
<b>Broadband Service</b>				
Level 1 (3-9 Mbps)	\$35.98	\$40.67	\$41.83	-11.54%
Level 2 (10-15 Mbps)	\$53.20	\$57.36	\$65.54	-7.26%
Level 3 (16-40 Mbps)	\$55.20	\$70.70	\$65.59	-21.91%
Level 4 (41-100Mbps)	\$72.01	\$87.00	\$82.54	-17.23%
Level 5 (100-249 Mbps)	\$83.25	\$102.76	\$95.10	-18.99%
Level 6 (250-400 Mbps)	\$93.03	\$123.87	n/a	-24.90%
<b>Mobile Internet</b>				
Level 1 (2-5 GB)	\$40.60	\$38.28	\$43.01	6.08%
Level 2 (5-10 GB)	\$64.04	\$61.90	\$60.79	3.45%
Level 3 (10+ GB)	\$82.99	\$83.35	\$82.28	-0.43%

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## **1.0 INTRODUCTION**

This study provides a 2019 update of the previous annual telecommunications price comparison studies conducted since 2008.<sup>6</sup>

The consumer telecom service categories covered in this study include the following categories:<sup>7</sup>

- i) Mobile wireless telephony;
- ii) Fixed line broadband Internet; and
- iii) Mobile wireless Internet.

A series of service baskets reflecting different service usage and feature levels was established for each service category in the first Study of 2008. Consistency in category characteristics over time is sought to the extent possible. However, key market changes may lead to some category revisions. Service category revisions and additions have occurred in past years and are noted where relevant. In short, the Studies attempt to balance maintaining consistent categories over time (to allow for inter-temporal comparisons) while recognizing that key technological and market changes should be reflected in the prices being tracked.

For Canada, the study provides a comparison of prices for each defined basket in each service category for the following cities: Halifax, Montreal, Toronto, Winnipeg, Regina and Vancouver. Service prices for Canada as a whole are derived as the weighted averages (according to market share and population weights) of the prices measured for each of the six surveyed cities. The prices of national service providers (i.e. MNOs), regional providers, flanker brands and resellers are reported.

The study also measures prices for the same set of service category baskets for Australia, France, Germany, Italy, Japan, the United Kingdom (U.K.) and the United States (U.S.). As a result, the study covers all G7 countries along with Australia. Major service providers in each country are surveyed. Service basket prices in these seven foreign jurisdictions are compared with those measured for Canada.

There are some notable modifications and additions to this year's Study<sup>8</sup>:

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<sup>6</sup> Wall Communications Inc. prepared the studies from 2008 to 2015 while the 2016 and 2017 studies were prepared by Nordicity. Wall Communications Inc. conducted the 2018 and 2019 Telecom Price Comparison Studies.

<sup>7</sup> The categories of wireline telephone services and bundled services have been examined in previous years but are not included in the 2019 Study.

- i) Prices for fixed (or landline) telephony are not tracked this year;
- ii) Prices for bundled service are not tracked this year (as was the case in part for the 2018 Study);
- iii) The former Level 1 service category for Mobile Wireless is not tracked;<sup>9</sup> and
- iv) Flanker brands providing fixed broadband services in Canada are examined this year and are discussed in a spotlight section.

We also note that a special Spotlight section on mobile wireless has been added to this year's edition, due to a significant change in Canadian national MNO pricing that occurred several months after the initial data collection was conducted. The intent of the Spotlight section is to provide an indication of how the new MNO pricing impacts Canadian average pricing. The Spotlight exercise is limited in scope but does provide an indication of the new pricing landscape for mobile wireless. Pricing for broadband fixed Internet and mobile Internet has not been impacted.

We note that the construction of price indices is not an exact science and there are multiple methodologies that can be employed. However, the general methodology used in all the Canadian Telecom Pricing Studies has been adopted by other agencies around the world (including the OECD) and provides a legitimate and useful snapshot of the listed prices available to consumers for various levels of telecom services.

In terms of layout, the next section of this report, Section 2, provides a brief review of the methodology used to measure and compare stand-alone and bundled service basket prices, and describes in more detail all changes made in the 2019 study relative to last year's study. The remaining three sections of the report, Sections 3 through 5, provide Canadian and international price comparison results for mobile wireless, broadband Internet and mobile Internet, respectively. A detailed summary of all service baskets and bundles included in the study is provided in Attachment 1. Historical domestic price levels for various services and baskets are provided in Attachment 2. International historical price series are provided in Attachment 3.

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<sup>8</sup> Some less significant additions and modifications also occur in the international data as companies merge, gain market prominence or otherwise alter their status relative to past years. These changes are noted in the following pages where appropriate.

<sup>9</sup> As is the case with the removal of fixed line telephony prices, the former Level 1 mobile wireless category is no longer considered a price-relevant service offering for the vast majority of Canadian consumers.

## 2.0 METHODOLOGY

### 2.1 Service Basket Design

As in previous studies, this study relies on the service basket-based price comparison methodology described in Wall Communications' 2008 methodology report.<sup>10</sup> Various modifications to the 2008 methodology have been made in successive studies primarily to reflect changes in service usage patterns or market characteristics over time.

The price comparison methodology used in this study is based on a "service basket" approach where separate telecom service baskets are defined on the basis of increasing "levels" of service usage, features and, where applicable, performance. The number of defined service basket levels for each of the stand-alone telecom services considered in this study varies from three to six in total:

- i) **Mobile Wireless:** Basket Levels 1 to 5
- ii) **Broadband Internet Access:** Basket Levels 1 to 6
- iii) **Mobile Internet Access:** Basket Levels 1 to 3.

Each of the service baskets has been designed to reflect, as applicable, low, mid, high and higher volumes, including unlimited service options that are generally intended to capture a broad range of typical Canadian consumer usage levels, including an "average" consumption basket for a typical Canadian consumer.

The specific service elements included in each service basket are described in the following sections and the associated service elements and usage assumptions in each case are also summarized in Attachment 1.

### 2.2 Canadian Price Data Collection

The Canadian price data included in the study has been collected from a variety of telecom service providers (TSPs), including incumbent telephone companies (i.e., Bell Aliant, Bell Canada, Bell-MTS and TELUS) and incumbent cable companies (i.e., Eastlink, Videotron, Rogers, Access and Shaw). Service prices from resellers Primus, Vonage, Teksavvy, Petro-Can, and PC Mobile<sup>11</sup> are also collected for the study. In addition, mobile wireless services offered by regional wireless service providers Freedom, EastLink, Videotron and SaskTel are also

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<sup>10</sup> Wall Communications Inc., *An Examination of Alternative Approaches for Conducting Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions*, prepared for the CRTC and Industry Canada, 5 May 2008.

<sup>11</sup> PC Mobile announced it would drop its post-paid service in May 2018 and move those customers to TELUS' Koodo in October 2018. The pre-paid service (reselling Bell Mobility service) will continue to operate.

taken into account. In terms of geographic coverage, price data is collected for each of the following six Canadian cities: Halifax, Montreal, Toronto, Winnipeg, Regina and Vancouver. Table 1 provides a list of the surveyed Canadian service providers in this year's study broken out by city and by service basket.

**Table 1**  
**Selected Canadian Cities and Service Providers**

City	Service Baskets	Service Providers
Halifax	Broadband Internet	Bell Aliant, Eastlink, Teksavvy and Primus
	Mobile Wireless	Bell, TELUS, Rogers, Eastlink, PC Mobile, Petro-Can, Incumbent Flanker Brands
	Mobile Internet	Bell, TELUS, Rogers, Eastlink
Montreal	Broadband Internet	Bell, Videotron, Primus, Teksavvy, Distributel, Incumbent Flanker Brands
	Mobile Wireless	Bell, TELUS, Rogers, Primus, Videotron, PC Mobile, Petro-Can, Incumbent Flanker Brands
	Mobile Internet	Bell, TELUS, Rogers, Videotron, Primus
Toronto	Broadband Internet	Bell, Rogers, Primus, Teksavvy, Distributel, Incumbent Flanker Brands
	Mobile Wireless	Bell, TELUS, Rogers, Primus, Freedom, Petro-Can, PC Mobile, Incumbent Flanker Brands
	Mobile Internet	Bell, TELUS, Rogers, Freedom, Primus
Winnipeg	Broadband Internet	Bell-MTS, Shaw, Teksavvy
	Mobile Wireless	Bell-MTS, TELUS, Rogers, PC Mobile, Petro-Can, Incumbent Flanker Brands
	Mobile Internet	MTS, Bell, TELUS, Rogers
Regina	Broadband Internet	SaskTel, Access Communications, Teksavvy
	Mobile Wireless	SaskTel, Bell, TELUS, Rogers, PC Mobile, Primus, Petro-Can, Incumbent Flanker Brands
	Mobile Internet	SaskTel, Bell, TELUS, Rogers
Vancouver	Broadband Internet	TELUS, Shaw, Primus, Teksavvy
	Mobile Wireless	Bell, TELUS, Rogers, Primus, Freedom, PC Mobile, Incumbent Flanker Brands
	Mobile Internet	Bell, TELUS, Rogers, Freedom, Primus

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City-specific prices for each of the stand-alone and bundled service baskets offered by the TSPs listed in Table 1 are determined using each service provider's respective estimated subscriber-based market share as weights.<sup>12</sup> In addition, to determine Canada-wide market prices, city-specific prices are aggregated using corresponding city population levels as weights. Weighted average prices for each surveyed city and for Canada are provided in Attachment 2 for each of the service baskets and bundles included in this study.

<sup>12</sup> The estimated market shares are drawn from the CRTC's most recent annual 2018 Communications Monitoring Report (CMR). In the case of mobile wireless services, estimated market shares are province-specific; and in the case of residential broadband services the estimated market shares are national in scope. Mobile Internet market shares are based on mobile wireless market shares.

In addition, for the mobile wireless service baskets, services offered by the incumbents' flanker brand services – i.e., Bell Virgin, Rogers Fido and TELUS Koodo – are also taken into account. The incumbents' flanker brand service prices are included in the calculation of the above-noted city-specific and national aggregate prices.<sup>13</sup> In Section 3.2 below, the incumbents' flanker brand prices are compared with incumbents' and regionals' mobile wireless prices as a separate analysis.

The price data collected for this study is drawn from the surveyed TSPs' websites and, where necessary, supplemented with further clarifications from customer service representatives (CSRs).<sup>14</sup> The price data reflects currently advertised prices that are generally available to new customers or existing customers changing service plans. The lowest available currently advertised price is used to determine the total price of each service basket. For this purpose, regular or “basic” prices are used – short-term promotional discounts available to new customers are not taken into account.<sup>15</sup>

In keeping with past studies, prices for baskets that include data also include the cost of a smartphone. For early years in the study, the (amortized or rental) price of a specified smartphone (such as an Apple iPhone 5 or 6) was typically included into the basket. More recently a non-standardized, lower cost smartphone has been utilized. The reasons for moving away from a standardized smartphone are numerous: the variety of smartphones today makes choosing a “standard” phone problematic, the sophistication of even low cost smartphones provides consumers with considerable functionality, and the supply of smartphones (from several manufacturers as well as including the resale market) has made the purchase price of smartphones with basic and in some cases advanced features drop to levels in the \$100 range, rendering the leasing cost (explicit or implicit) relatively low.

When choosing the basket price from each vendor in each basket, we examine prices for plans that include a smartphone, prepaid plans and bring-your-own-device plans. Where a smartphone is not included in a plan, we amortize the listed purchase price of a lower-cost smartphone over a 24 month period to derive a monthly device cost.

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<sup>13</sup> Previous editions of the Study prior to 2018 did not include flanker prices in domestic averages.

<sup>14</sup> The majority of 2019 Canadian price data was collected over the period May/June 2019 (except for the mobile wireless Spotlight section which was collected in September 2019).

<sup>15</sup> Note that current advertised prices are not necessarily reflective of the average price levels paid by a service provider's customer base as a whole since a significant number of existing customers may be on pre-established or legacy service price plans.

## 2.3 International Price Data Collection

Seven foreign jurisdictions are included in the study: Australia, France, Germany, Italy, Japan, the U.K. and the U.S. With the exception of the U.S., in each case, price data was collected for the services available in each country's largest city. For the U.S., four cities of varying size distributed across that country were used – i.e., Boston, Kansas City, Minneapolis and Seattle. The service providers surveyed by country and, as applicable by city, are summarized in Table 2.<sup>16</sup>

**Table 2**  
**Selected Foreign Jurisdictions and Service Providers**

City	Basket	Service Providers
<b>United States</b> Boston, MA	Broadband Internet Mobile Wireless Mobile Internet	Verizon, Comcast/Xfinity, RCN AT&T, Verizon, Sprint, T-Mobile, US Regionals <sup>1</sup> AT&T, Verizon, Sprint
Kansas City, MO	Broadband Internet Mobile Wireless Mobile Internet	AT&T, Time Warner, Windstream, Xfinity AT&T, Verizon, Sprint, T-Mobile, US Regionals <sup>1</sup> AT&T, Verizon, Sprint
Minneapolis, MN	Broadband Internet Mobile Wireless Mobile Internet	CenturyLink, Comcast/Xfinity AT&T, Verizon, Sprint, T-Mobile, US Regionals <sup>1</sup> AT&T, Verizon, Sprint
Seattle, WA	Broadband Internet Mobile Wireless Mobile Internet	CenturyLink, Comcast/Xfinity, Wave AT&T, Verizon, Sprint, T-Mobile, US Regionals <sup>1</sup> AT&T, Verizon, Sprint
<b>United Kingdom</b> London	Broadband Internet Mobile Wireless Mobile Internet	BT, Virgin, EE, AOL EE, Virgin, Vodafone, O2, "3" EE, Virgin, Vodafone, O2, "3"
<b>Australia</b> Sydney	Broadband Mobile Wireless/Internet	Telstra and Optus Telstra, Optus, Vodafone, Virgin
<b>France</b> Paris	Broadband Mobile Wireless/Internet	Orange (France Telecom), SFR (Neuf Cegetel), Numericable <sup>3</sup> Orange, SFR, Free, Bouygues Telecom
<b>Germany</b> Berlin	Broadband Internet Mobile Wireless/Internet	DT, KD, Vodafone DT, KD, Vodafone, E-plus (KPN), O2
<b>Italy</b>		

<sup>16</sup> The 2019 foreign jurisdiction price data was primarily collected in June/July 2019.

City	Basket	Service Providers
Rome	Broadband Mobile Wireless/Internet	Telecom Italia, FastWeb, Vodafone Telecom Italia (TIM), Vodafone, WIND, “3”
<b>Japan</b> Tokyo	Broadband Internet Mobile Wireless/Internet	NTT, J:Com, KDDI, Yahoo! BB NTT DoCoMo, Softbank <sup>5</sup> , au KDDI, Y!Mobile <sup>5</sup>

**Notes:** 1) The U.S. Regionals include: US Cellular and C-Spire Wireless. Note that Cricket Wireless was acquired by AT&T in 2014 and MetroPCS was acquired by T-Mobile in 2013.

2) EE was acquired by BT in late 2014.

3) Numericable and SFR merged in April 2014.

4) KD was acquired by Vodafone in 2013. While they continue to offer fixed broadband services under their separate brands, KD no longer provides mobile wireless or Internet services. KD formerly offered mobile services as an MVNO.

5) In previous studies, wireless service providers Willcom (formerly affiliated with J:Com) and eMobile were included in the study for Japan. Both Willcom and eMobile were acquired by Softbank. eMobile was subsequently rebranded as Y!Mobile. Softbank has also been included in the study place of Willcom.

Canadian incumbent flanker brand mobile wireless price information is included in Canadian prices. The U.S. regional brand (i.e. US Cellular and C-Spire) service prices are not included in the calculation of U.S. national aggregate prices.<sup>17</sup>

For international price comparison purposes, foreign currency prices have been converted to Canadian dollars using currency market exchange rates adjusted for purchasing power parity (PPP) differences between countries. For this study, the OECD’s latest available PPP comparative price level indexes for 2018 were used for this purpose in conjunction with average market exchange rates for the same period.<sup>18</sup>

Canadian dollar-based price comparisons between Canada and other countries can be affected significantly by year-over-year currency exchange rate fluctuations. PPP-adjusted exchange rates take into account both changes in exchange rates and PPP adjustment factors between countries and, therefore, generally provide a more appropriate economic basis for comparing price levels between countries. For this reason, all of the international price comparison results shown in the main body of this report are based on PPP-adjusted Canadian dollars. Own-currency and non-PPP-adjusted Canadian dollar price comparisons are provided in Attachment 3.

It should be noted that fluctuations in both exchange rates and PPP adjustment factors could affect international price comparisons over time. This caveat is particularly relevant to inter-temporal comparisons given the significant changes in both exchange rates and PPP adjustment factors over the last decade.

<sup>17</sup> The US Regionals reportedly have less than a 2% national market share in total. Estimating individual national market shares for regional operators was deemed too problematic and because of the low overall share of Regionals, they are not included in the indices. See <https://www.statista.com/statistics/199359/market-share-of-wireless-carriers-in-the-us-by-subscriptions>.

<sup>18</sup> See the OECD’s main economic indicators at: <https://data.oecd.org/conversion/purchasing-power-parities-ppp.htm#indicator-chart>. Currency exchange rates were obtained from: <https://data.oecd.org/conversion/exchange-rates.htm#indicator-chart>.

As well, it should also be noted that service prices in the U.K., France, Germany, Italy, Australia and Japan are typically quoted inclusive of retail value added taxes (VAT) or goods and services taxes (GST). Where appropriate, we have excluded applicable VAT or GST charges to allow cross-country comparisons of service prices excluding government sales taxes.<sup>19</sup> On the other hand, where applicable, other industry-specific regulatory fees and surcharges are included for price comparison purposes (e.g., 9-1-1 fees, universal service fees and other regulatory fees).

## **2.4 Summary of New Additions and Updates**

As noted at the outset, there are several modifications to this year's study. These include:

- i) Prices for fixed (or landline) telephony are not tracked this year;
- ii) Prices for bundled service are not tracked this year (as was the case in part for the 2018 Study);
- iii) There is a spotlight section on recently introduced Canadian large (and unlimited) data mobile wireless plans (with no data overage charges) from the national MNO providers;
- iv) The former Level 1 service category for Mobile Wireless is not tracked;<sup>20</sup>
- v) Flanker brands providing broadband services in Canada are examined this year and are discussed in a spotlight section; and
- vi) As in previous years' studies, updated market share information has been used to determine current year Canadian and international weighted average prices.<sup>21</sup>

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<sup>19</sup> The VAT rates in the U.K., France, Germany and Italy are 20%, 19.6%, 19% and 22%, respectively. The VAT rate in Japan increased from 5% to 8% as of 2014. The GST in Australia is 10%.

<sup>20</sup> As is the case with the removal of fixed line telephony prices, the former Level 1 mobile wireless category is no longer considered a price-relevant service offering for the vast majority of Canadian consumers.

<sup>21</sup> For Canada, the CRTC 2018 CMR was primarily relied on for this purpose. For the U.S., FCC market share and industry reports were used. In other cases, regulatory agency market reports, company financial and market analyst reports were also relied on, where necessary.

Since it was first conducted in 2008, each successive price comparison study update has incorporated a number of methodological and measurement changes (such as those just mentioned). Some adjustments can significantly affect comparisons of measured prices over the historical period. In general, given the ongoing methodological and measurement modifications to the study on a year-to-year basis, caution should be exercised when considering price trends over time.

## **3.0 MOBILE WIRELESS SERVICE**

### **3.1 Mobile Wireless Service Baskets**

As in previous studies, the following mobile wireless service element charges, where applicable, are considered for price comparison purposes:

- i) network access/airtime charges (taking into account defined amounts of daytime, evening and weekend minute volumes);
- ii) optional feature charges (e.g., voice mail, call display and others);
- iii) long distance charges for both domestic and international calls;
- iv) short message service (SMS) or text message charges;
- v) data service charges; and
- vi) any other applicable monthly service charges such as emergency, universal service and/or other regulatory fees.

As a general point, we note that several service elements have diminished in importance as service differentiators over the past ten years. These include distinctions in time of day or week minutes, optional features and long distance versus local minutes. On the other hand, data allotment has grown in prominence – in some cases being the key service characteristic that is marketed.

There are several notable charges or costs that are excluded from the calculation of mobile service prices in this study, including: one-time charges (such as activation fees), upfront handset or device costs and roaming charges. However, a separate comparative analysis of Canadian and U.S. roaming charges is provided in Section 3.4 below.

Five mobile wireless service baskets are included in the study. Each basket consists of the following main elements (note: Level 1 from previous studies has been eliminated):

- **Level 1:** 450 incoming & outgoing minutes per month, with 10% of outgoing minutes treated as long distance, two optional features (voice mail and call display), and 300 texts per

month.<sup>22</sup>

- **Level 2:** 1,200 incoming & outgoing minutes per month, with 15% of outgoing minutes treated as long distance, more than two optional features, 300 texts and 1 GB data usage per month.
- **Level 3:** Unlimited nationwide talk and text (no international calling included), more than two optional features, and 2 GB data usage per month.
- **Level 4:** Unlimited nationwide talk and text (no international calling included), more than two optional features, and 5 GB targeted data usage per month.
- **Level 5:** Family Basket - Unlimited nationwide talk and text (no international calling included), more than two optional features, 10 to 49 GB data usage per month and three lines.

Table A1.1 in Attachment 1 provides a more detailed summary of each of the service elements and usage assumptions included in all five mobile wireless service baskets.

Prices are measured for each of the mobile wireless service baskets based on a TSP's standard mobile service plan rates. Where applicable, both "pre-paid" and "post-paid" service options are considered. The less expensive of the two options is used to determine the service basket price.

Post-paid plans can be offered on a no-contract or term-contract basis (the most common term being 24 months in the latter case).<sup>23</sup> Term-contract service plans typically provide a means for subscribers to purchase a new handset or device at a discounted price. Such plans generally include an implicit or explicit handset cost recovery component in the service plan price. No-contract term, bring-your-own-device (BYOD) or SIM card only, service plans are also often available at lower price points given they do not include a handset cost recovery component. An implicit handset cost is added to the BYOD plans, where appropriate, for comparability. Where a particular handset is common to all carriers within a

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<sup>22</sup> This figure is consistent with the current number of monthly text messages sent by the average Canadian wireless service subscriber; see: <http://cwta.ca/facts-figures>.

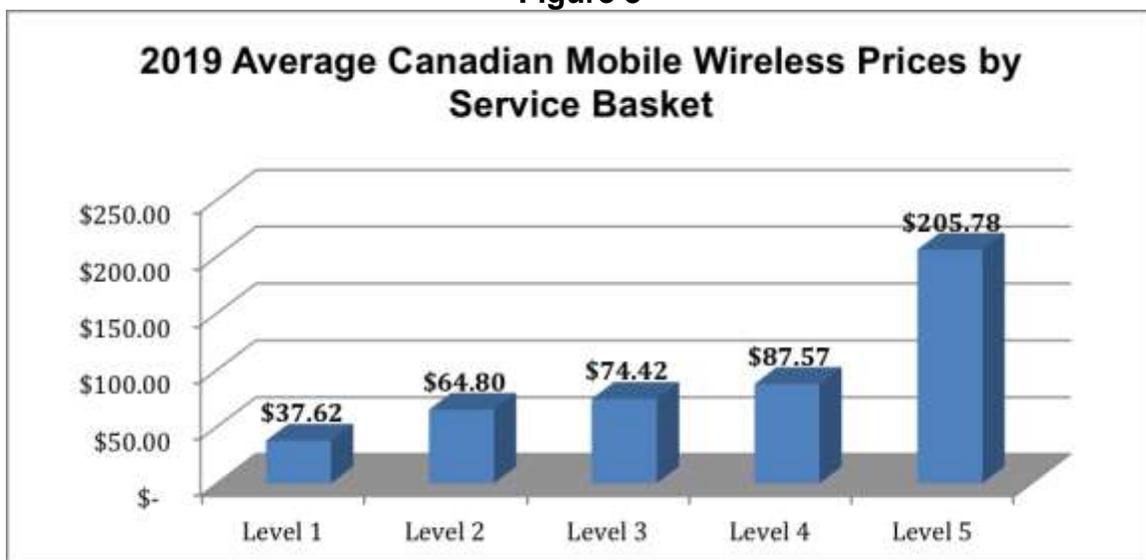
<sup>23</sup> The implementation of the CRTC's Wireless Code in December 2013 (i.e., Telecom Regulatory Policy CRTC 2013-271) had a significant impact on the terms of wireless service plans available in Canada. Under the Wireless Code, contract cancellation fees must be reduced to zero after a period of 24 months. In Canada, many TSPs' standard contract term had previously been 36 months. With the implementation of the Wireless Code, the standard contract term was reduced to 24 months. We note that currently some TSPs are offering 36 month contract periods (in addition 24 month plans) which can reduce monthly handset costs. We have not used 36 month term costs – only 24 month term costs.

country, then that handset has generally been used for pricing purposes. Entry-level handsets (amortized over 24 months) are typically used for implicit cost component pricing. Consistent with previous years' studies, as applicable, the post-paid service plan prices collected for this study are based on term-contract service plans.<sup>24</sup>

### 3.2 Canadian Mobile Wireless Prices

Figure 3 provides a summary of 2019 Canadian prices for all five mobile wireless service baskets. Weighted average prices range from \$37.62 per month for a Level 1 plan (Note: in previous years, this was the Level 2 plan with 450 minutes of talk and 300 texts) to \$205.78 per month for a Level 5 Canada-wide unlimited talk and text family plan with up to 50 GB of data.

Figure 3



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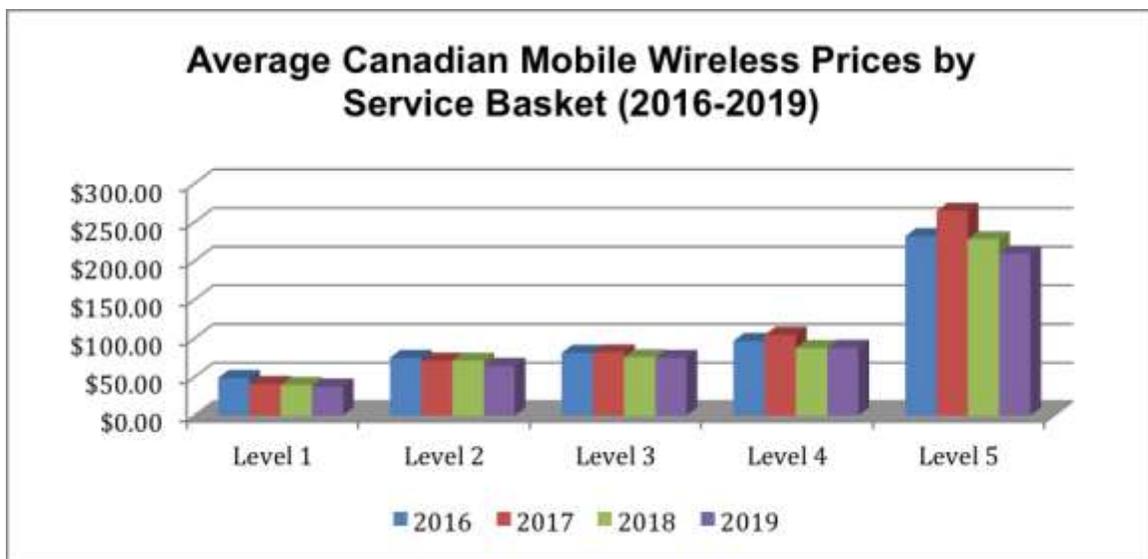
Figure 4 below provides a summary of Canadian weighted average mobile wireless prices for each service basket Levels 1 through 5 for the four-year period 2016 to 2019. More detailed historical mobile wireless price information by service basket and city is provided in Table A2.1 in Attachment 2.

- The Level 1 mobile wireless service basket price decreased from \$39.43 in 2018 to \$37.62 in 2019, a decrease of 4.6%. Average 2019 Level 1 prices varied by city, from a low of between \$27.72 in Regina to a high of \$39.77 in Halifax. Level 1 basket prices have fallen from \$48.77 in 2016 to \$37.62 today.

<sup>24</sup> It should also be noted that we have tried to use the least expensive smartphone handset available in the contract plans when such plans are the lowest priced plans available from the service provider.

- The Level 2 price decreased from \$70.99 in 2018 to \$64.80 in 2019. Average 2019 Level 2 mobile wireless prices varied from \$44.87 in Montreal to \$75.70 in Vancouver. Level 2 prices have continued to fall over the period from 2008 to 2019, reaching a new low in 2019.
- The Level 3 service basket price also fell in 2019, decreasing from \$75.44 in 2018 to \$74.42 in 2019. Average 2019 Level 3 mobile wireless prices varied widely by city, from a low of \$53.92 in Montreal to \$85.83 in Vancouver. Level 3 prices in 2019 hit a historically low point, considerably lower than the 2014 average price of \$93.99.
- The Level 4 service basket price remained stable, increasing slightly from \$87.32 in 2018 to \$87.57 in 2019. Average 2019 Level 4 mobile wireless prices also varied widely by city, from a low of \$56.66 in Regina to \$101.13 in Vancouver. Level 4 basket prices have been declining on average over the last three years.
- Level 5 “Family Basket” service basket prices also dropped significantly from the 2018 level of \$227.87 to \$205.78 in 2019, a decrease of about 10%. While Level 5 prices have only been tracked for four years, the 2019 prices are lower than the initial year (2016) average price of \$231.99. The lowest city price was found in Winnipeg at \$143.14 while the highest price was in Halifax at \$233.49.

Figure 4



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The lowest average mobile wireless prices were generally found in Winnipeg, Regina and Montreal for most mobile wireless service baskets – consistent with the past several years.

Since 2008, when the first Telecom Pricing Study was undertaken, mobile wireless prices in Canada have generally trended downwards with CAGRs over the relevant period between roughly 4% and 6%.

*Comparison of Incumbent and Regional Providers Prices*

A comparison of average mobile wireless rates for the incumbent carriers and the regional carriers is provided in Table 3 below. The comparison is provided for six cities: Vancouver and Toronto (where Freedom operates), Montreal (where Videotron operates), Winnipeg (MTS), Regina (SaskTel) and Halifax (where Eastlink operates).<sup>25</sup> For each of the cities, the incumbent carriers include Rogers, Bell and TELUS.

**Table 3**  
**2019 Canadian Mobile Wireless Service Rates**

	NS	QC	ON	MB	SK	BC	Canada
Level 1							
Incumbents	\$42.10	\$40.46	\$41.67	\$41.67	\$39.27	\$41.67	\$41.14
Regionals	\$30.55	\$34.46	\$19.00	\$40.00	\$20.94	\$19.00	\$27.33
Difference	-27.43%	-14.83%	-54.40%	-4.00%	-46.68%	-54.40%	-33.58%
Level 2							
Incumbents	\$85.43	\$50.79	\$87.50	N/A	N/A	\$87.50	\$77.81
Regionals	\$59.55	\$42.63	\$28.17	N/A	\$53.65	\$28.17	\$42.43
Difference	-30.29%	-16.07%	-67.81%	N/A	N/A	-67.81%	-45.46%
Level 3							
Incumbents	\$94.73	\$54.90	\$96.11	\$57.78	\$57.05	\$96.11	\$76.11
Regionals	\$64.55	\$53.63	\$44.17	\$57.92	N/A	\$44.17	\$52.89
Difference	-31.86%	-2.32%	-54.04%	0.25%	N/A	-54.04%	-30.51%
Level 4							
Incumbents	\$106.54	\$68.90	\$107.78	\$67.78	\$67.05	\$107.78	\$87.64
Regionals	\$79.55	\$59.63	\$54.17	\$77.92	\$53.65	\$54.17	\$63.18
Difference	-25.33%	-13.46%	-49.74%	14.97%	-19.99%	-49.74%	-27.91%
Level 5							
Incumbents	\$235.43	\$158.79	\$235.00	\$136.67	\$137.61	\$235.00	\$189.75
Regionals	\$190.55	\$155.46	\$140.00	\$200.00	\$175.94	\$140.00	\$166.99
Difference	-19.06%	-2.10%	-40.43%	46.34%	27.86%	-40.43%	-11.99%

*Unweighted averages used for incumbents and regionals. Unweighted prices can vary significantly from the weighted prices used in calculating national averages but can be suitable for comparing incumbents and regionals.*

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<sup>25</sup> Bell MTS is included in this year's Study as a Regional provider with Bell Mobility as an incumbent national wireless provider as each maintains a separate marketing and sales presence (including separate websites).

As shown in Table 3, for the Level 1 mobile wireless service basket, the prices offered by regional carriers are roughly 34% lower on average for the six cities combined. The relative price discounts (on average) available from the regionals in the case of the Level 2 service basket through Level 5 (for all cities combined) are 45%, 31%, 28% and 12% respectively.

Compared to last year's study, the differentials between the incumbents' and Regionals' mobile wireless prices have increased for the lower three baskets and decreased for the upper two baskets.

### *Incumbent Flanker Brand Prices*

Incumbent flanker brand services Bell Virgin, Rogers Fido, and TELUS Koodo are available across the country.

Table 4 below provides a summary of incumbent primary brand, incumbent flanker brand and regional mobile wireless service prices for 2019 in Halifax, Montreal, Toronto, Winnipeg, Regina and Vancouver for each of the mobile wireless service baskets. It also provides percentage rate differentials between the incumbents' primary and flanker brands as well as the incumbents' flanker brands and the regionals. Except for Level 5, flanker prices are consistently lower than incumbent prices. Flanker prices are 22% to 34% lower than incumbent prices in all Levels except for Level 5. For Level 5, incumbent prices tend to be relatively similar to flanker prices in all regions.

Flanker and incumbent prices tend to be lower in Quebec, Manitoba and Saskatchewan than in other provinces, similar to past years.

**Table 4**  
**2019 Canadian Mobile Wireless Service Rates**  
***Incumbents, Incumbent Flanker Brands and Regionals***

	NS	QC	ON	MB	SK	BC	Canada
<b>Level 1</b>							
Incumbents	\$42.10	\$40.46	\$41.67	\$41.67	\$39.27	\$41.67	\$41.14
Regionals	\$30.55	\$34.46	\$19.00	\$40.00	\$20.94	\$19.00	\$27.33
Flankers	\$33.76	\$30.46	\$33.33	\$30.00	\$30.94	\$33.33	\$31.97
Diff F/I	-19.80%	-24.72%	-20.00%	-28.00%	-21.22%	-20.00%	-22.28%
Diff F/RG	10.52%	-11.61%	75.44%	-25.00%	47.76%	75.44%	17.01%
<b>Level 2</b>							
Incumbents	\$85.43	\$50.79	\$87.50	N/A	N/A	\$87.50	\$77.81
Regionals	\$59.55	\$42.63	\$28.17	N/A	\$53.65	\$28.17	\$42.43
Flankers	\$55.14	\$40.46	\$55.00	N/A	N/A	\$55.00	\$51.40
Diff F/I	-35.45%	-20.34%	-37.14%	N/A	N/A	-37.14%	-33.94%
Diff F/RG	-7.40%	-5.09%	95.24%	N/A	N/A	95.24%	21.13%
<b>Level 3</b>							
Incumbents	\$94.73	\$54.90	\$96.11	\$57.78	\$57.05	\$96.11	\$76.11
Regionals	\$64.55	\$53.63	\$44.17	\$57.92	N/A	\$44.17	\$52.89

Flankers	\$60.00	\$49.46	\$60.00	N/A	N/A	\$60.00	\$57.37
Diff F/I	-36.66%	-9.91%	-37.57%	N/A	N/A	-37.57%	-24.63%
Diff F/RG	-7.05%	-7.78%	35.84%	N/A	N/A	35.84%	8.47%
<hr/>							
Level 4							
Incumbents	\$106.54	\$68.90	\$107.78	\$67.78	\$67.05	\$107.78	\$87.64
Regionals	\$79.55	\$59.63	\$54.17	\$77.92	\$53.65	\$54.17	\$63.18
Flankers	\$85.00	\$54.13	\$85.00	\$48.00	\$47.94	\$85.00	\$67.51
Diff F/I	-20.22%	-21.45%	-21.13%	-29.18%	-28.50%	-21.13%	-22.97%
Diff F/RG	6.85%	-9.23%	56.91%	-38.40%	-10.64%	56.91%	6.85%
<hr/>							
Level 5							
Incumbents	\$235.43	\$158.79	\$235.00	\$136.67	\$137.61	\$235.00	\$189.75
Regionals	\$190.55	\$155.46	\$140.00	\$200.00	\$175.94	\$140.00	\$166.99
Flankers	\$235.43	\$167.79	\$235.00	\$149.00	\$149.94	\$235.00	\$195.36
Diff F/I	0.00%	5.67%	0.00%	9.02%	8.96%	0.00%	2.96%
Diff F/RG	23.55%	7.93%	67.86%	-25.50%	-14.78%	67.86%	16.99%

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Table 4 also includes the regionals' average prices for the same cities and provides percentage-based price differentials between the regionals' and incumbents' flanker brand prices. The regionals' prices are consistently lower than the incumbents' flanker brand prices nationally, but can be higher in specific regions and baskets. In particular, flanker prices tend to be lower than regional prices in Quebec, Saskatchewan and Manitoba.

As has been the case over the last few years, the price differentials between regionals and incumbent flanker brand prices have generally widened. In other words, average prices offered by incumbent flanker brands rose and are now closer to those of the incumbents' primary brands. Price differentials between incumbents and their flanker brands have narrowed in Levels 3 to 5 while they have widened in the lower Levels.

#### *Reseller or MVNO Prices*

Mobile wireless service prices offered by two resellers or mobile virtual network operators (MVNO) – i.e., Primus and PC Mobile – were also collected. Table 5 provides a summary of the national-level price differentials between the incumbents' primary brands and MVNOs for each of the mobile service baskets. Note that no reseller services were available for Level 5 baskets.

**Table 5**  
**2019 Canadian Mobile Wireless Service Rates**  
***Incumbents versus Resellers/MVNOs***

Canadian and International Price Comparisons – 2019 Update

	NS	QC	ON	MB	SK	BC	Canada
Difference	N/A						
Level 1							
Incumbents	\$42.10	\$40.46	\$41.67	\$41.67	\$39.27	\$41.67	\$41.14
Resellers	\$45.84	\$40.72	\$40.42	\$45.63	\$41.04	\$40.42	\$42.34
Difference	8.89%	0.65%	-3.00%	9.50%	4.51%	-3.00%	2.93%
Level 2							
Incumbents	\$85.43	\$50.79	\$87.50	N/A	N/A	\$87.50	\$77.81
Resellers	\$49.14	\$54.82	\$54.36	\$48.71	\$55.30	\$54.36	\$52.78
Difference	-42.48%	7.92%	-37.88%	N/A	N/A	-37.88%	-32.17%
Level 3							
Incumbents	\$94.73	\$54.90	\$96.11	\$57.78	\$57.05	\$96.11	\$76.11
Resellers	\$69.14	\$74.82	\$70.36	\$68.71	\$75.30	\$74.36	\$72.11
Difference	-27.01%	36.27%	-26.80%	18.92%	31.98%	-22.64%	-5.26%
Level 4							
Incumbents	\$106.54	\$68.90	\$107.78	\$67.78	\$67.05	\$107.78	\$87.64
Resellers	\$79.14	\$87.32	\$86.86	\$78.71	\$87.80	\$86.86	\$84.45
Difference	-25.72%	26.72%	-19.41%	16.13%	30.94%	-19.41%	-3.64%
Level 5							
Incumbents	\$235.43	\$158.79	\$235.00	\$136.67	\$137.61	\$235.00	\$189.75
Resellers	N/A						
Difference	N/A						

Unweighted averages.

Resellers/MVNOs include Primus and PC Mobile.

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Reseller prices tend to be modestly lower for most Levels, with the exception of Level 2 where prices are more than 30% lower. Regional variation are significant, with reseller prices often higher than incumbent prices in Quebec, Manitoba and Saskatchewan.

*Discussion of the Canadian Market: Observations Relevant to High and Low Cost Service Provision*

Table 6 below provides the highest and lowest available prices (by region) by specific provider. We would note that Freedom Mobile in most cases offers the lowest price in regions where they offer service (i.e. BC and Ontario). It should be noted that often the prices from other vendors are only a few dollars more or less than the recorded highest or lowest price.

**Table 6**

Table 6: Canadian Wireless Plans 2019														
Lowest and Highest Offered Prices by Province and by Wireless Service Provider														
Level		BC	BC	SK	SK	MB	MB	ON	ON	QC	QC	NS	NS	Canada
		low	high	average										

Canadian and International Price Comparisons – 2019 Update

1) 450/300 Talk/Text	Price	19.00	56.25	20.94	56.25	30.00	56.25	19.00	56.25	30.46	56.25	30.43	56.25	37.62
	WSP	Freedom	Petro-Can	Sasktel	Petro-Can	Fido, Virgin	Petro-Can	Freedom	Petro-Can	Virgin, Fido, Koodo	Petro-Can	Fido, Eastlink	Petro-Can	
2) 1 GB	Price	28.17	96.25	45.94	64.65	NA	48.71	28.17	96.25	40.46	60.46	49.14	91.68	64.80
	WSP	Freedom	Rogers	Rogers	Primus	NA	PC Mobile	Freedom	Rogers	Virgin, Fido, Koodo	Primus	PC Mobile	Rogers	
3) 2 GB	Price	44.17	101.25	54.27	80.94	56.25	68.71	44.17	101.25	49.46	80.46	60.00	96.68	74.42
	WSP	Freedom	Rogers	Bell	Primus	Rogers	PC Mobile	Freedom	Rogers	Virgin, Koodo	Primus	Virgin, Fido, Koodo	Rogers	
4) 5 GB	Price	54.17	116.25	45.94	95.94	48.00	78.71	54.17	116.25	49.46	95.46	79.14	111.68	87.57
	WSP	Freedom	Rogers	Virgin	Primus	Virgin, Fido, Koodo	PC Mobile	Freedom	Rogers	Koodo	Primus	PC Mobile, Eastlink	Rogers	
5) 10-49 GB	Price	140.00	235.00	130.94	175.94	130.00	200.00	140.00	235.00	154.46	174.46	190.55	235.43	205.78
	WSP	Freedom	Virgin, Fido, Koodo, Bell, Rogers, Telus	Rogers	Sasktel	Rogers	MTS	Freedom	Virgin, Fido, Koodo, Bell, Rogers, Telus	Koodo	Virgin, Fido	Eastlink	Virgin, Fido, Koodo, Bell, Rogers, Telus	

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For Canada, the highest and lowest prices (offered by specific providers) are provided in Table 7 below. We would note that Freedom Mobile has the lowest (or equal to lowest) price offering in three of the five baskets.

**Table 7**

<b>Table 7: Canada Wireless Plans 2019 Lowest and Highest Canadian Prices</b>				
Level		Canada	Canada	Canada
		<i>low</i>	<i>high</i>	<i>average</i>
<b>1) Talk and Text</b>	<b>Price</b>	<b>\$19.00</b>	<b>\$56.25</b>	<b>\$37.62</b>
	<b>WSP</b>	Freedom (ON, BC)	Petro-Can	
<b>2) 1 GB</b>	<b>Price</b>	<b>\$28.17</b>	<b>\$96.25</b>	<b>\$64.80</b>
	<b>WSP</b>	Freedom (ON, BC)	Rogers (BC, ON)	
<b>3) 2 GB</b>	<b>Price</b>	<b>\$44.17</b>	<b>\$101.25</b>	<b>\$74.42</b>

	<b>WSP</b>	Freedom (ON, BC)	Rogers (BC, ON)	
<b>4) 5 GB</b>	<b>Price</b>	<b>\$45.94</b>	<b>\$116.25</b>	<b>\$87.57</b>
	<b>WSP</b>	Virgin (SK)	Rogers (BC, ON)	
<b>5) 10-49 GB</b>	<b>Price</b>	<b>\$130.00</b>	<b>\$235.43</b>	<b>\$205.78</b>
	<b>WSP</b>	Rogers (MB, SK)	Bell, Rogers, Telus, Fido, Virgin, Koodo (NS, ON, BC)	

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We would note that an individual vendor price that is considerably lower than the national average can be found in all baskets – as is also the case in each region.

### 3.3 International Mobile Wireless Service Prices

As noted in previous studies, there are a number of important pricing differences that should be borne in mind when comparing Canadian and foreign mobile wireless prices.<sup>26</sup>

- *Price Structure:* The pricing of mobile wireless service plans in the U.K., Germany, Italy, France, Australia and Japan differs significantly compared to Canada (as well as the U.S.). Mobile wireless prices in Europe, Australia and Japan are set on a "calling party pays" basis, under which mobile customers pay only for outgoing calls. In contrast, Canadian and U.S. pricing plans are based on a "receiving party pays" approach, under which customers pay for incoming and outgoing calls. Unlike Canada and the U.S., some mobile wireless service plans in Europe, Australia and Japan also include per call setup charges and/or different per minute call rates to landline versus mobile customers, as well as potentially different per minute rates for on-net versus off-net mobile calls. However, as in Canada, unlimited national calling plans and service add-ons that cover calls to both fixed and mobile and both on and off-net mobile lines are now commonly available.
- *Regulatory Fees:* Regulatory fees of one form or another apply in the cases of Canada, Japan and the U.S. In Canada, there is typically an explicit emergency 9-1-1 fee and, in some cases, universal service fees (as in the case of Japan). In the U.S., there are a variety of regulatory

<sup>26</sup> We would also point out that certain countries (e.g. France, Italy and Australia) offer very few wireless plans with data at less than 10 GB.

fees, federal and state USF surcharges and other fees.<sup>27</sup> We have estimated these charges based on information collected in previous pricing studies and, where applicable, updated USF fees and carrier-specific regulatory cost recovery charges.

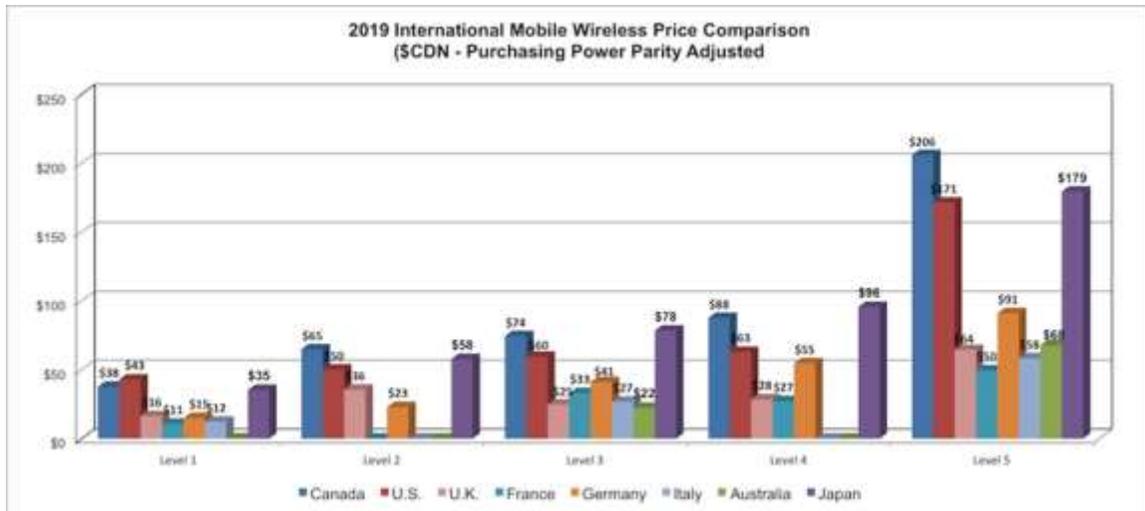
Figure 5 below provides a comparison of current mobile wireless prices for Canada and the surveyed foreign jurisdictions for each of the five wireless service baskets. All prices are expressed in PPP-adjusted Canadian dollars and exclude retail sales taxes. Table A3.2 and Figures A3.2 a, b and c in Attachment 3 provide more detailed historical international mobile wireless price information for the period 2014 to 2019, as applicable, for each country and basket.

- In the case of the Level 1 mobile wireless service basket, the Canadian average price of \$37.62 is the second highest in the group of surveyed countries, surpassed only by the U.S. at \$42.89.
- For the Level 2 service basket, the Canadian average price of \$64.80 is the highest of all surveyed jurisdictions.
- For the Level 3 wireless service basket, the average Canadian monthly rate of \$74.42 is well above the average for the group of surveyed foreign jurisdictions of roughly \$36. Canada ranks second highest among the surveyed countries, surpassed by Japan at \$78.42.
- In the case of the Level 4 basket, which includes unlimited nationwide talk and text along with 5 GB of monthly data usage, the Canadian average price of \$87.57 is second highest relative to Japan at \$95.63.
- The Level 5 (Family) Basket price in Canada is \$205.78, again higher than all other countries. Prices in Europe and Australia are significantly less.

### **Figure 5**

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<sup>27</sup> See, for instance, <http://www.fcc.gov/cgb/phonebills/WirelessPhonebill.html>.



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It is worth noting that surveyed average prices for European countries included in the study have consistently fallen below the prices in Canada for all defined mobile wireless service baskets – generally considerably lower than in Canada.

*In sum, average Canadian mobile wireless prices are the highest in 2 of the 5 baskets and are the second highest in the other 3 baskets.*

### 3.4 Canada-U.S. Roaming Prices

As a separate price comparison exercise, rate information on voice, text and data roaming services available to Canadian and American mobile wireless service consumers when traveling to the U.S. and Canada, respectively, has been collected as part of this study.

The wireless service providers surveyed for this study generally offer two types of international roaming services. The first is a "pay-as-you-go" roaming service option under which users pay per-use rates for any voice, text or data usage they incur while traveling abroad. The second is a travel or roaming add-on package option under which users can choose to pay a fixed fee for defined amounts of call minutes, texts, and/or data. Typically, roaming add-on packages remain in effect for a 30 day period of time (although some providers do offer shorter terms). With an add-on package, per unit usage rates are typically discounted significantly relative to base pay-as-you-go rates. When the usage allowance under an add-on plan is consumed, then either specific overage rates or base rates apply for any additional usage, or the service charge is capped (equal to a specified number of days).

#### *Roaming from Canadian Providers*

Canadian incumbent and, to a somewhat lesser degree, incumbent flanker brand wireless service providers offer a wide range of stand-alone U.S.-specific voice, text or data roaming add-on packages as well as bundled talk & text and talk, text & data roaming add-on packages. The Regionals now offer daily/periodic plans that directly compete with the incumbents, as well as Pay as You Go options.

The three Canadian national mobile wireless carriers generally have similar roaming plans, charging \$7 (Rogers) or \$8 (Bell and TELUS) per day for US/Canada roaming. The national providers allow unlimited Canada/US calling and texting. All three also allow the use of the monthly data allotment in your domestic plan. All three national providers cap the monthly roaming expenditure in their plans (\$120, \$105 and \$160 respectively for TELUS, Rogers and Bell).

The Regionals also offer daily plans ranging from \$5 to \$8 per day. The Freedom roaming plans are based on terms of 2, 5, 10 or 20 days while Eastlink has no term. Videotron caps its monthly maximum roaming plan charge at \$70, considerably lower than any of the national carrier plans. Neither Freedom nor Eastlink offer a monthly maximum.

The Flanker (Fido, Koodo and Virgin) plans are virtually the same as those provided by their associated primary brand national carrier plans, with the exception of Koodo's maximum monthly charge of \$100 (versus TELUS at \$120).

Primus offers a variety of talk, text and data allowance plans, from \$20 for 25 minutes of US/Canada calling and 100 texts to \$80 for 100 minutes of US/Canada calling, unlimited texts and 200 MB of data.

**Table 8: Canadian Roaming Plan Comparison (\$Can)**

	<b>Plan</b>	<b>Price (cap if available)</b>	<b>Term/Max</b>	<b>Data</b>	<b>Calling/Text</b>
Rogers	Roam Like Home	\$7 day	Cap at \$105 per month	Use data from your Canadian plan	Consistent with domestic plan
Bell	Roam Better	\$8 day	Cap at \$160 per month	Use data from your Canadian plan	Unlimited
TELUS	Easy Roam	\$8 day	Cap at \$120 per month	Use data from your Canadian plan	Consistent with domestic plan

Freedom	Big Gig Roam	\$5/day	No maximum	Data available 2, 5, 10 and 20 day plans (\$10 to \$100)	Unlimited US/Canada talk and text
Videotron	US Daily Traveller Pass	\$7 day	Cap at \$70 per month	Use data from your Canadian plan	Unlimited
Eastlink	easyTravel	\$8 day	No term; no max	Use data from your Canadian plan	Unlimited
Koodo	Easy Roam	\$8 day	Cap at \$100 per month	Use data from your Canadian plan	Consistent with domestic plan
Fido	Fido Roam	\$7 day	Cap at \$105 per month	Use data from your Canadian plan	Consistent with domestic plan
Virgin	Roam Sweet Roam	\$8 day	Cap at \$160 per month	Use data from your Canadian plan	Unlimited
Primus	Travel Pack	\$40	30 days	0 Mb (\$1 per Mb)	100 minutes/unlimited texts
Petro Canada	NA	NA	NA	NA	NA

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The national mobile wireless providers, two Regionals and two Flankers also offer Pay as You Go roaming. Prices are once again very similar across the nationals, ranging from \$1.45 to \$1.50. Bell and Rogers charge \$0.75 per text while TELUS charges \$0.60 per text. Bell and TELUS charge \$6.00 and \$5.00 per MB of data respectively while Rogers has a package of 50 MB for \$7.99.

Freedom and Videotron have much lower per minute rates than the nationals, at \$0.50 and \$0.30 respectively. Similarly text and data charges are also much

lower at \$0.20 per text or MB for Freedom and \$0.15 per text or MB for Videotron.

The Flanker (Virgin and Fido) rates match those of their owners' primary brand service.

**Table 9: Canadian Roaming Pay as You Go (\$Can)**

	Price per minute	Price per MB	Price per Text
Rogers	\$1.45	\$7.99 50 MB	\$0.75
Bell	\$1.45	\$6.00 per MB	\$0.75
TELUS	\$1.50	\$5.00 per MB	\$0.60
Freedom	\$0.50	\$0.20 MB	\$0.20
Videotron	\$0.30	\$0.15 MB	\$0.15
Eastlink	NA	NA	NA
Fido	\$1.45	\$7.99 50 MB	\$0.75
Virgin	\$1.45	\$6.00 per MB	\$0.75
Koodo	NA	NA	NA

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### Roaming From US Providers

In the US, the national carriers all offer no charge roaming to Canada in their unlimited Smartphone plans. These unlimited data Smartphone plans are priced at US \$60 (Sprint) to US \$70 (AT&T, T-Mobile, Verizon). They provide a full Smartphone telephone, text and unlimited data service with US/Canada (as well as Mexico) roaming included in the regular monthly price.

For customers that are not on an unlimited plan from one of the four US national carriers, daily (or periodic) roaming plans are available from three of the carriers. Verizon offers an unlimited calling plan for \$5.00 per month, AT&T offers a \$10 a day plan<sup>28</sup> and Sprint offers a \$2.00 per day plan.

<sup>28</sup> AT&T offers no charge roaming to Canada not only on their unlimited Smartphone plans but also on shared plans with 10 GB of data or more. The International Day Pass is applicable to 200 countries, not just Canada.

Two regional carriers offer roaming plans. US Cellular offers a \$5.00 a month unlimited Talk plan as well as a \$10.00 per month unlimited talk and text plan. C-Spire offers a \$5.00 month unlimited talk and text plan that is limited to 10 telephone numbers.

**Table 10: US Roaming Plan Comparison (\$US)**

	<b>Plan</b>	<b>Price (cap if available)</b>	<b>Term/Max</b>	<b>Data</b>	<b>Calling/Text</b>
Verizon	Go Unlimited Smartphone plan (\$70)	Included in Smartphone Plan (\$0)	Monthly	No charge for roaming in Canada (500 MB per day allowance)	Unlimited
Verizon	Travel Pass	\$5 day	Daily	Use data from your domestic plan	Consistent with domestic plan
Verizon	Unlimited Together	\$5.00 per month	Monthly		Unlimited calling
Verizon	Mexico and Canada	\$15.00 per month	Monthly	100 MB	100 min/ 100 Text
AT&T	Unlimited and More Smartphone plan (\$70)	Included in Smartphone Plan (\$0)	Monthly	Use data from your domestic plan	Consistent with domestic plan
AT&T	International Day Pass	\$10 day	Daily	Use data from your domestic plan	Unlimited
	AT&T Passport	\$60 month	Monthly	1 GB	\$0.35 per minute and unlimited texts
Sprint	Sprint Unlimited Basic (\$60)	Included in Smartphone Plan (\$0)	Monthly	10 GB	Unlimited
Sprint	Global Roaming	\$2 day or \$5 per week	Daily/Weekly	Basic data included	\$0.20 minute and Unlimited Texts
T-Mobile	T-Mobile ONE Smartphone Plan (\$70)	Included in Smartphone Plan (\$0)	Monthly	2 GB	\$0.25 minute and Unlimited Texts
T-Mobile	Unlimited Talk and Text (\$20)	Included in Plan (\$0)	Monthly	No data (can't be added)	Unlimited Talk and Text
U. S.	Unlimited	\$5.00 month	Monthly		Unlimited Talk

Cellular	Calling Canada Plan				
U. S. Cellular	Unlimited Talk and Text to Mexico and Canada Plan	\$10.00 month	Monthly		Unlimited Talk and Text
C-Spire	Unlimited Calling Global Family	\$5.00 month (Calling is limited to 10 telephone numbers)	Monthly		Unlimited Talk and Text

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Pay as You Go roaming (post paid) is only available from two US carriers: Verizon and AT&T. Both providers charge the same rate of \$1 per minute, with data at \$2.05 MB and texts at \$0.50 each.

**Table 11: US Roaming Pay as You Go (\$US)**

	Price per minute	Price per MB	Price per Text
Verizon	\$0.99	\$2.05 MB	\$0.50
AT&T	\$1.00	\$2.05 MB	\$0.50
Sprint	NA	NA	NA
T-Mobile	NA	NA	NA
U.S. Cellular	\$0.44		
C-Spire	\$0.08		

Wall Communications Inc. 2019

A striking feature differentiating Canadian and US services is the “no charge” roaming provided by the national US providers in their unlimited Smartphone plans. These plans provide a full mobile phone service (voice, texts and unlimited data) plus (generally) unlimited roaming to Canada. There is no counterpart service in Canada.

The periodic roaming plans (including voice, texts and data) offered by Canadian national carriers, if used to their maximum allowances, have an average price of \$115 CDN per month. In the US you can purchase a similar roaming service

PLUS receive an unlimited voice, text and data service for the price of \$60 to \$70 US.

### **3.5 Spotlight on Newly Introduced “Unlimited” Canadian MNO Mobile Wireless Plans**

#### 3.5.1 Background

The bulk of the Canadian mobile wireless data collection for this Study occurred in May of 2019. After the data collection for mobile wireless plans had taken place, the Canadian national providers began to offer substantially modified plans. In particular, they introduced “unlimited data” plans for mobile wireless that did not require “overage” charges when a customer went past the plan data cap. In most cases the national MNOs also revised the pricing and service feature terms of their other plans – for the most part also dropping Level 2, 3 and 4 plans.<sup>29</sup>

In essence, two significant market shifts occurred between May and September 2019: 1) large (and “unlimited” in particular) data plans at relatively low prices were introduced by the national MNOs; and 2) the offering of lower level service plans was largely left to flanker and regional providers.<sup>30</sup>

While the new “unlimited” plans were described at the time of introduction as time-limited promotions, it became clear (by September) that the plans were more permanent in nature. Similarly, the decision by national MNOs to vacate the lower level product space was longer term in nature.

In light of the significant Canadian market shifts that occurred during 2019, this Spotlight section will examine four pricing/product developments:

- 1) Relative price changes by each of the incumbents, the flankers and the regionals between May and September in each of the five service levels;
- 2) The emergence of lower-cost data-only plans by flankers;
- 3) The change in Level 5 plans when only considering single line plans (i.e. the primary analysis and data collection entailed Level 5 plans with three lines); and
- 4) The emergence of plans with higher data allowances (e.g. up to 50 GB max speed then unlimited at slower speeds).

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<sup>29</sup> With the national MNOs dropping the middle level plans (which were typically higher priced than those of the regionals and flankers), overall average prices have fallen in those levels.

<sup>30</sup> Resellers also continued to offer lower level plans, relying on MNO networks.

It should be noted that the examination of new national MNO mobile wireless prices in this Spotlight section may not maintain exact comparability with earlier Canadian price plans as certain features within a plan may have changed.

### 3.5.2 Relative Price Changes Between May and September 2019

As noted, the national MNO incumbent providers dramatically changed their service plans over the period. The Tables below display how incumbent pricing has changed in each region (for each service level) between May and September of 2019. All price changes are decreases unless marked with upwards arrow (↑).

#### 3.5.2.1 Incumbent Price Changes

##### Level 1 (May vs. September 2019 Pricing) by Incumbents

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$42.10	\$40.46	\$41.67	\$41.67	\$39.27	\$41.67	\$41.14
Sept. 2019	\$38.76	\$37.13	\$38.33	\$38.33	\$35.94	\$38.33	\$37.81
% Change	7.9%	8.2%	8.0%	8.0%	8.5%	8.0%	8.1%

##### Level 2 (May vs. September 2019 Pricing) by Incumbents

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$85.43	\$50.79	\$87.50	N/A	N/A	\$87.50	\$77.81
Sept. 2019	N/A	\$47.79	N/A	N/A	N/A	N/A	\$47.79
% Change	N/A	5.9%	N/A	N/A	N/A	N/A	N/A

##### Level 3 (May vs. September 2019 Pricing) by Incumbents

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$94.73	\$54.90	\$96.11	\$57.78	\$57.05	\$96.11	\$76.11
Sept. 2019	\$53.76	\$53.79	\$53.33	\$53.33	\$53.33	\$53.33	\$53.48
% Change	43.2%	2.0%	44.5%	7.7%	6.5%	44.5%	29.7%

##### Level 4 (May vs. September 2019 Pricing) by Incumbents

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$106.54	\$68.90	\$107.78	\$67.78	\$67.05	\$107.78	\$87.64
Sept. 2019	\$73.76	\$61.29	\$73.33	\$58.33	\$59.27	\$73.33	\$66.55
% Change	30.8%	11.0%	32.0%	13.9%	11.6%	32.0%	24.1%

##### Level 5 (May vs. September 2019 Pricing) by Incumbents

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$235.43	\$158.79	\$235.00	\$136.67	\$137.61	\$235.00	\$189.75

## Canadian and International Price Comparisons – 2019 Update

Sept. 2019	\$195.43	\$158.79	\$190.00	\$195.00	\$195.94	\$195.00	\$188.36
% Change	17.0%	0%	19.1%	↑ 42.7%	↑ 42.4%	17.0%	0.7%

Wall Communications Inc. 2019 (% price change not calculated when N/A is in a region)

### Points Worth Noting - Incumbents

- Average “incumbent” price in each region (as well as nationally) is generally lower, in some cases because of lower pricing by all (or most) incumbents but in some cases because higher priced plans by some incumbents have been dropped (thereby leaving only existing “lower than average price” plans contributing to the “average” calculations);
- The exception is in Level 5, where less aggressive incumbent pricing in Manitoba and Saskatchewan (combined with generally lower and more uniform pricing across the country by incumbents) has led to very little change in the national average price;
- Rogers and TELUS have dropped their Level 2 and Level 3 basket plans, leaving Bell Mobility with the only incumbent Level 2 plan (in just one region) and the only incumbent with a Level 3 plan in all regions;
- Rogers has also dropped its Level 4 plans in all regions; and
- Note that the Level 1 plans do not include data (only talk and text) – all incumbents continue to offer a Level 1 plan – so that major price/service offering changes displayed in the above tables relate primarily to the data component.

### 3.5.2.2 Flanker Price Changes

#### Level 1 (May vs. September 2019 Pricing) by Flankers

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$33.76	\$30.46	\$33.33	\$30.00	\$30.94	\$33.33	\$31.97
Sep 2019	\$35.43	\$30.46	\$35.00	\$31.67	\$32.61	\$35.00	\$33.36
% Change	↑ 4.9%	0%	↑ 5.0%	↑ 5.6%	↑ 5.4%	↑ 5.0%	↑ 4.3%

#### Level 2 (May vs. September 2019 Pricing) by Flankers

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$55.14	\$40.46	\$55.00	N/A	N/A	\$55.00	\$51.40
Sep 2019	N/A	\$40.46	N/A	N/A	N/A	N/A	\$40.46
% Change	N/A	0%	N/A	N/A	N/A	N/A	N/A

Level 3 (May vs. September 2019 Pricing) by Flankers

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$60.00	\$49.46	\$60.00	N/A	N/A	\$60.00	\$57.37
Sep 2019	\$55.43	\$45.46	\$55.00	\$53.33	\$54.27	\$55.00	\$53.08
% Change	7.6%	8.1%	8.3%	N/A	N/A	8.3%	N/A

Level 4 (May vs. September 2019 Pricing) by Flankers

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$85.00	\$54.13	\$85.00	\$48.00	\$47.94	\$85.00	\$67.51
Sep 2019	\$65.43	\$55.46	\$65.00	\$63.33	\$64.27	\$65.00	\$63.08
% Change	23.0%	↑ 2.5%	23.5%	↑ 31.9%	↑ 34.1%	23.5%	6.6%

Level 5 (May vs. September 2019 Pricing) by Flankers

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$235.43	\$167.79	\$235.00	\$149.00	\$149.94	\$235.00	\$195.36
Sep 2019	\$185.43	\$155.46	\$185.00	\$180.00	\$180.94	\$185.00	\$178.64
% Change	21.2%	7.3%	21.3%	↑ 20.8%	↑ 20.7%	21.3%	8.6%

Wall Communications Inc. 2019 (Note: % price change not calculated when N/A is in a region)

Points Worth Noting – Flankers

- Flanker pricing has generally gone up in Manitoba and Saskatchewan but has generally been lowered in other regions; and
- Flanker May pricing was lowest in Quebec (except for Manitoba and Saskatchewan in Levels 4 and 5), but by September Quebec has the lowest Flanker pricing of all regions.

3.5.2.3 Regionals Price Changes

Level 1 (May vs. September 2019 Pricing) by Regionals

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$30.55	\$34.46	\$19.00	\$40.00	\$20.94	\$19.00	\$27.33
Sep 2019	\$30.55	\$34.46	\$19.00	N/A	\$20.94	\$19.00	\$24.79
% Change	0%	0%	0%	N/A	0%	0%	N/A

Level 2 (May vs. September 2019 Pricing) by Regionals

	NS	QC	ON	MB	SK	BC	Canada
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## Canadian and International Price Comparisons – 2019 Update

May 2019	\$59.55	\$42.63	\$28.17	N/A	\$53.65	\$28.17	\$42.43
Sep 2019	N/A	\$42.63	\$28.17	N/A	\$53.65	\$28.17	\$38.16
% Change	N/A	0%	0%	N/A	0%	0%	N/A

### Level 3 (May vs. September 2019 Pricing) by Regionals

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$64.55	\$53.63	\$44.17	\$57.92	N/A	\$44.17	\$52.89
Sep 2019	\$59.55	\$53.63	\$44.17	N/A	N/A	\$44.17	\$50.38
% Change	7.7%	0%	0%	N/A	N/A	0%	N/A

### Level 4 (May vs. September 2019 Pricing) by Regionals

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$79.55	\$59.63	\$54.17	\$77.92	\$53.65	\$54.17	\$63.18
Sep 2019	\$64.55	\$59.63	\$49.17	N/A	\$53.65	\$49.17	\$55.23
% Change	18.9%	0%	9.2%	N/A	0%	9.2%	N/A

### Level 5 (May vs. September 2019 Pricing) by Regionals

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$190.55	\$155.46	\$140.00	\$200.00	\$175.94	\$140.00	\$166.99
Sep 2019	\$130.55	\$138.46	\$140.00	N/A	\$175.94	\$140.00	\$144.99
% Change	31.5%	10.9%	0%	N/A	0%	0%	N/A

Wall Communications Inc. 2019 (Note: % price change not calculated when N/A is in a region)

### Points Worth Noting – Regionals

- There has been little change in price by regionals over the period with the exception of Nova Scotia (generally lower); and
- The lack of significant price changes by the Regionals is in contrast to the pronounced price changes by Incumbents and, to a lesser extent, by the Flankers.

### 3.5.2.4 National and Regional Overall Price Level Changes May to September 2019 (Incorporating Incumbents, Flankers, Regionals and Resellers)

As can be seen in the Table below, overall average prices for each basket have fallen nationally, dramatically so for some service baskets. Regional prices have stayed the same or fallen in each region in all baskets except for Level 5 (where prices are now higher in Manitoba and Saskatchewan). For Levels 2, 3 and 4 the overall average prices have been reduced most prominently in Ontario and BC.

The magnitude of price decreases varies across regions and baskets. However, caution should be used in interpreting these decreases since in some cases a decrease occurs primarily because some vendors (e.g. incumbents) have dropped “higher price plans” within a basket leaving only the same “lower price” plans” from other vendors in the calculation of the average price.<sup>31</sup>

**Average Regional and National Prices for All Baskets (May vs. Sept. 2019)**

Level 1

	NS	QC	ON	MB	SK	BC	Canada	
Before	May 2019	\$39.77	\$37.23	\$37.79	\$38.90	\$27.72	\$39.28	\$37.62
After	Sept. 2019	\$37.12	\$35.09	\$36.12	\$36.51	\$26.67	\$37.54	\$35.77

Level 2

	NS	QC	ON	MB	SK	BC	Canada	
Before	May 2019	\$69.63	\$44.87	\$74.67	\$48.71	\$53.66	\$75.70	\$64.80
After	Sept. 2019	\$44.78	\$43.74	\$32.77	\$44.57	\$53.62	\$33.06	\$37.41

Level 3

	NS	QC	ON	MB	SK	BC	Canada	
Before	May 2019	\$83.94	\$53.92	\$84.71	\$57.63	\$56.72	\$85.83	\$74.42
After	Sept. 2019	\$54.77	\$50.73	\$53.43	\$53.49	\$53.77	\$54.05	\$52.86

Level 4

	NS	QC	ON	MB	SK	BC	Canada	
Before	May 2019	\$98.62	\$64.28	\$100.21	\$65.35	\$56.66	\$101.13	\$87.57
After	Sept. 2019	\$70.96	\$59.56	\$68.40	\$59.90	\$56.26	\$69.76	\$65.51

Level 5

	NS	QC	ON	MB	SK	BC	Canada	
Before	May 2019	\$233.49	\$160.31	\$229.98	\$143.14	\$164.22	\$233.28	\$205.78
After	Sept. 2019	\$190.04	\$154.93	\$186.35	\$192.45	\$181.98	\$191.36	\$178.95

*Wall Communications Inc. 2019*

<sup>31</sup> That is, the May 2019 average price for Levels 2, 3 and 4 were calculated with a greater number of plans from all vendors (including higher priced plans from incumbents), but the September 2019 average price may be calculated with unchanged prices from flankers, regionals and resellers but not including “higher priced” incumbent plans that have been removed from the market. We would also note that prices have fallen significantly for plans with very high data allowance plans (e.g. 50 GB and greater). These very high data plans have not been formally tracked in past Studies although some data has been collected – see Spotlight section 5).

### 3.5.3 The Emergence of Lower-cost Data-only Plans by Flankers

Subsequent to a CRTC proceeding to address the lack of low-cost data-only plans available to Canadian consumers<sup>32</sup>, the national MNOs introduced several plans via their flanker brands. These plans were primarily introduced in March 2019. As they constitute a new type of service plan, such plans were previously not tracked in previous ISED Telecom Pricing studies<sup>33</sup>. However, they are described in this Spotlight section.

The following Tables describe the data-only plans currently available from the Flanker brands. Some plans include texting (e.g. FIDO unlimited on-net incoming and outgoing texts; Koodo and Chatr incoming texts). Some plans (e.g. Lucky) do not allow any texting (or calling).

Most plans allow calling on a pay-per-use basis although Chatr allows free incoming calls but charges for outgoing calls. Lucky does not allow the customer to make or receive any calls on its data-only plans. Talk is available on most plans on a per-use basis (e.g. Virgin at \$0.60 per minute; FIDO at \$0.50 per minute).

#### FIDO (from Rogers)

Price	Data	Text	Talk	Data Overage	Other
\$15	250 MB	Unlimited Canada	PPU at \$0.50 per min. in Canada	\$10/100 MB	FIDO network only
\$25	500 MB	Unlimited Canada	PPU at \$0.50 per min. in Canada	\$10/100 MB	FIDO network only
\$30	1 GB	Unlimited Canada	PPU at \$0.50 per min. in Canada	\$10/100 MB	FIDO network only

Wall Communications Inc. 2019

#### Virgin (from Bell)

Price	Data	Text	Talk	Data Overage	Other
\$28	1 GB	\$0.30 per text (in and out)	PPU \$0.60 per min.	\$10/100 MB	BYOD

Wall Communications Inc. 2019

<sup>32</sup> See <https://crtc.gc.ca/eng/phone/mobile/dat.htm>

<sup>33</sup> Previous studies have examined lower end talk and text plans, but not data-only plans.

Koodo (from TELUS)

Price	Data	Text	Talk	Data Overage	Other
\$30	1 GB	Free incoming; \$0.60 per text (outgoing)	PPU \$0.60 per min.	\$10/100 MB	BYOD; post-paid
\$15	250 MB	Unlimited international Texting	“Booster” service at various – e.g. \$10 for 100 min Canada wide	“Booster” service at various – e.g. \$10 for 100 MB Canada wide	Pre-paid
\$25	500 MB	Unlimited international Texting	“Booster” service at various – e.g. \$10 for 100 min Canada wide	“Booster” service at various – e.g. \$10 for 100 MB Canada wide	Pre-paid

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Public Mobile (from TELUS)

Price	Data	Text	Talk	Data Overage	Other
\$30	1 GB	No PPU listed	No PPU listed; \$5 for 500 Canada minutes	\$10/200 MB Add-on	BYOD; 4G LTE; pre-paid

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Chatr (from Rogers)

Price	Data	Text	Talk	Data Overage	Other
\$25	500 MB	Free incoming Canada and Int.; \$0.40 outgoing	\$0.40 per outgoing Canada call	\$10/100 MB; possible to get Data Plus at \$5 for 500 MB	BYOD; Bonus of 500 MB no longer listed; 3G; pre-paid

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Lucky (from Bell)

Price	Data	Text	Talk	Data Overage	Other
\$15	500 MB	Not available	Not available	Unlimited at 128 Kbps; no Data Add-ons available	BYOD; 3G; 250 MB bonus with Auto Top Up

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Points Worth Noting – Data Only Plans

- Data only plans are typically offered by the flanker brands of the national MNOs (rather than by the national MNO);

- Pricing is very similar across all flankers with data allotments of 250 MB, 500 MB and 1 GB; and
- The pricing for the data only plans is similar to the lower end (Level 1) service plans available in the market.

### 3.5.4 Single Line Level 5 Plans by Incumbents

The Level 5 plans<sup>34</sup> tracked in the main Telecom Pricing Study are based on the cost for 3 lines. However, escalating data requirements from single users and the introduction of larger (including unlimited) data plans has introduced a new element into the market. Consequently, in this section of the Spotlight, we examine the prices for Level 5 plans from incumbents (i.e. national MNOs) when only a single user takes the plan.<sup>35</sup>

The data collection format allows us to compare Level 5 plans by removing the charges for second and third lines. We compare Level 5 regional and national prices for a single line user below. We note that most previous (i.e. May 2019) Level 5 national MNO plans were generally offered with a 10 GB cap (although bonus GBs might be included under certain conditions).

#### Level 5 (May vs. September 2019 Pricing) for Single Line by Incumbents

	NS	QC	ON	MB	SK	BC	Canada
May 2019	\$132.10	\$88.79	\$131.67	\$73.33	\$74.27	\$131.67	<b>\$105.31</b>
Sept. 2019	\$75.00	\$65.00	\$73.33	\$75.00	\$75.00	\$75.00	<b>\$73.06</b>
% Change	43.2%	26.8%	44.3%	↑ 2.3%	↑ 1.0%	43.0 %	<b>30.6%</b>

*Wall Communications Inc. 2019 Note: unweighted averages.*

We note that prices for a single line user Level 5 plan have decreased substantially in each region (and nationally) except for Manitoba and Saskatchewan where there have been modest price increases. In addition to the price decreases there has also been an important “quantity” change between May 2019 and September 2019: the national MNOs have stopped charging for data overages. Instead, usage when the cap is exceeded will be subject to slower speeds – but no extra charge.

The September 2019 Level 5 plans have generally continued with similar “listed” data allotments (i.e. between 10 GB and 15 GB as noted on national MNO websites). However, several new plans have also been introduced such that the

<sup>34</sup> Level 5 has a category range of 10 GB to 49 GB but is typically provided with a cap of 10 GB in Canada.

<sup>35</sup> Since individual vendor prices can vary substantially on the pricing of additional and/or multiple lines, pricing Level 5 plans for a single line user may reveal unique market characteristics.

Level 5 plans with 10 GB are the lowest “unlimited” data allotment plans now offered. These plans are described in the next section.

*Points Worth Noting – Single Line Level 5 Plans by Incumbents*

- Since May 2019 the incumbents have lowered their prices in most regions to roughly the same price level as they were charging in both Manitoba and Saskatchewan;
- Consequently the average national price has fallen considerably (30.6%);
- Incumbent prices are now standardized across the country (whereas they were notably lower in Quebec, Manitoba and Saskatchewan); and
- Not only are prices lower on average but the plans come with no overage charges for data used beyond the cap.

3.5.5 Higher Data Allotment Plans Introduced

Until the introduction of “unlimited” plans in Spring 2019 by the national MNOs, the largest offerings were 10 GB, with one exception: Rogers and TELUS each offered 80 GB plans in Nova Scotia, Ontario and BC. Newer plans now offer up to 50 GB but with unlimited data use (at lower speeds) above the cap in all regions.

	Data	Price (per month)	Notes
Rogers	10 GB	\$75	Speed up to 512 Kbps after cap; BYOD; Unlimited Canada calling and text
	20 GB	\$95	Speed up to 512 Kbps after cap; BYOD; Unlimited Canada calling and text
	50 GB	\$125	Speed up to 512 Kbps after cap; BYOD; Unlimited Canada calling and text
Bell	10 GB	\$75	Speed up to 512 Kbps after cap; BYOD; Unlimited Canada calling and text
	20 GB	\$90	Speed up to 512 Kbps after cap; BYOD; Unlimited Canada calling and text
	50 GB	\$115	Speed up to 512 Kbps after cap; BYOD; Unlimited Canada calling and text
TELUS	10 GB	\$75	Speed up to 512 Kbps after cap; BYOD; Unlimited Canada calling and text

*Canadian and International Price Comparisons – 2019 Update*

	20 GB	\$90	Speed up to 512 Kbps after cap; BYOD; Unlimited Canada calling and text
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Prices from incumbents on larger (e.g. 50 GB or greater) plans May vs. Sept. 2019 are displayed below.<sup>36</sup>

	May 2019 Price	September 2019 Price
50 GB (only in Saskatchewan from SaskTel)	\$170.94	\$170.94
50 GB from incumbents (Rogers and Bell)	Not Offered	\$120
80 GB (in NS, Ont. and BC) from Rogers and TELUS	\$412.50	Not Offered

*Wall Communications Inc. 2019*

*Points Worth Noting – Introduction of 50 GB and Other Unlimited Plans*

- The newly introduced higher allotment data plans are provided at maximum available speed up to the data allotment but slow to 512 Kbps after the cap is reached;
- Most plans also include unlimited Canada-wide calling and text;
- Pricing by the incumbents is generally very similar; and
- 50 GB plans were not available from the national MNOs in May 2019 but an 80 GB plan was selectively available from Rogers and TELUS at more than \$400 per month; 50 GB unlimited plans from Rogers and Bell are now available for \$125 and \$115 respectively – a massive price drop.

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<sup>36</sup> While 50 GB plans and higher were not formally examined in previous Telecom Pricing Studies, data was however collected for these plans in May 2019.

## 4.0 BROADBAND INTERNET SERVICE

### 4.1 Broadband Internet Service Baskets

The six broadband service baskets included in the study are defined in terms of broadband service speed and monthly data usage:

- **Level 1:**      *Speed:* "basic" Internet service with advertised<sup>37</sup> download speed of up to **3 to 9 Mbps**.  
  
                    *Data usage per month: 10 GB.*
  
- **Level 2:**      *Speed:* Internet service with advertised download speed of **10 to 15 Mbps** (targeted speed in the upper end of the range).  
  
                    *Data usage per month: 50 GB.*
  
- **Level 3:**      *Speed:* high-speed Internet service with advertised download speed of **16 to 40 Mbps** (targeted speed in the middle of the range).  
  
                    *Data usage per month: 100 GB.*
  
- **Level 4:**      *Speed:* high-speed Internet service with advertised download speed of **41 to 100 Mbps** (targeted speed in the middle of the range).  
  
                    *Data usage per month: 150 GB.*
  
- **Level 5:**      *Speed:* high-speed Internet service with advertised download speed of **101 to 250 Mbps** (targeted speed in the middle of the range).  
  
                    *Data usage per month: 500 GB*

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<sup>37</sup> It should be noted that "advertised" speeds can differ from "actual" speeds for a variety of reasons and that the range of any such differences can vary by technology and geographic location. For the purpose of this study, any such variations are assumed to be roughly equal on a relative basis across the broadband services included in this study. The CRTC 2018 CMR noted that the average weighted download speed for Canadians was 68 Mbps.

- **Level 6:** Speed: high-speed Internet service with advertised download speed of **251 to 500 Mbps** (targeted speed in the upper end of the range).

*Data usage per month: 500 GB or Unlimited*

It should be noted that broadband speeds have increased dramatically over the past decade and the baskets used in the Telecom Pricing Reports have accordingly been adjusted.

#### Changes to Broadband Baskets Criteria 2010 to 2018

<b>Basket</b>	<b>2010</b>	<b>2011</b>	<b>2012 - 2015</b>	<b>2016-2017</b>	<b>2018-2019</b>
Level 1	< 1.5 Mbps	< 1.5 Mbps	< 3 Mbps	3 - 9 Mbps	3 - 9 Mbps
Level 2	2 – 9 Mbps	2 – 9 Mbps	4 – 15 Mbps	10 – 15 Mbps	10 – 15 Mbps
Level 3	10 – 19 Mbps	10 – 19 Mbps	16 – 40 Mbps	16 – 40 Mbps	16 – 40 Mbps
Level 4	-	> 20 Mbps	> 40 Mbps	41– 100 Mbps	41- 100 Mbps
Level 5	-	-	-	> 100 Mbps	101-250 Mbps
Level 6					251-500 Mbps

Modem rental fees are taken into account since they are mandatory in some instances. In other cases, where the modem is not included but must be purchased by the customer, the cost of the required equipment is amortized over 24 months. One-time installation or activation fees are generally not included.

Some Internet service providers (ISPs) apply monthly data usage caps to their broadband service plans. Where they are applied, they are typically set on the basis of a monthly data allowance (GB/month), with overage fees applied when the data allowance is exceeded. Overage or additional data fees are included in the study if assumed usage levels exceed any applicable data caps. In virtually all cases, the applicable data caps were high enough that no overage fees are likely incurred given the data usage assumptions adopted for the defined broadband service baskets.

**Table 12: Broadband Download/Upload Mbps Speeds (Cap if not unlimited) Canada 2019**

	<b>B1</b>	<b>B2</b>	<b>B3</b>	<b>B4</b>	<b>B5</b>	<b>B6</b>
<b>Halifax</b>						
Bell				100/100		1,000/940
Eastlink				100/10	150/10 (1TB)	300/10 (1TB)
TekSavvy	7/6					
<b>Montreal</b>						
Bell		15/10 (50G)	25/10 (300G)	50/10		500/500
Videotron		15/10 (50G)	30/10 (250G)	100/30		400/50
Primus	7/1	15/1	25/10	50/10		

Canadian and International Price Comparisons – 2019 Update

TekSavvy	5/1 (200G)	15/10 (200G)	30/10 (200G)	100/30		400/50
Distributel		15/10	25/10	75/10	250/20	
Virgin	5/1 (50G)	15/10 (200G)	25/10 (200G)	50/10		
<b>Toronto</b>						
Bell		10/1 (100G)		50/10	150/150	500/500
Rogers		10/na (100G)		75/na	150/15	300/20
Primus	7/1		25/10	75/10	150/20	
TekSavvy	5/1 (200G)	15/10 (200G)	30/5 (200G)	75/10 (200G)	250/20 (200G)	
Distributel	6/1	15/10	25/10	75/10	250/20	
Virgin	5/1 (50G)	15/10 (200G)	25/10 (200G)	50/10		
Fido	5/na (50G)		30/na	75/na (200G)		
<b>Winnipeg</b>						
Bell MTS		10/3	25/3	50/5		300/300
Shaw		15/1.5 (150G)		100/7.5 (500G)		300/na
TekSavvy	5/5 (400G)		25/2.5 (400G)	75/7.5 (400G)	150/15	
<b>Regina</b>						
SaskTel		10/2	40/10	80/15	175/25	300/40
Access		10/2	25/3	100/7		
<b>Vancouver</b>						
TELUS		15/1 (200G)	25/5 (300G)	75/15 (550G)	150/30 (1,000G)	
Shaw		15/1.5 (150G)		100/7.5 (500G)		300/na
Primus	5/5		25/2.5	75/7.5	150/15	
TekSavvy	5/5 (400G)		25/2.5 (400G)	75/7.5 (400G)	150/15	300/20
<b>Can. Av.</b>	5.6/.8	13.6/5.5	26.9/7.3	75.2/14.5	177.1/29.6	408/243

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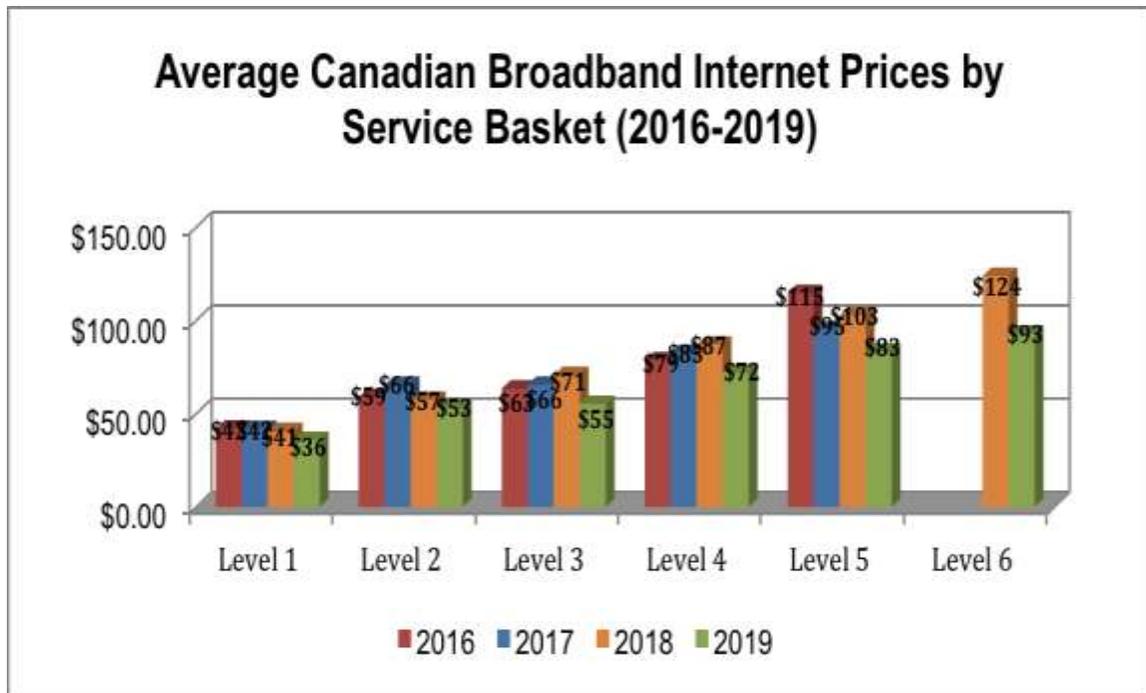
## 4.2 Canadian Broadband Service Prices

Figure 6 below provides a summary of Canadian weighted average broadband Internet access service prices for the Levels 1 to 6 service baskets for the period 2016 to 2019. More detailed historical broadband price information by city is

provided in Table A2.2 in Attachment 2. Table 13 displays average regional broadband prices.

- The Level 1 national average broadband price fell from \$40.67 in 2018 to \$35.98 in 2019, a decrease of almost 12%. Average 2019 Level 1 prices varied from \$28.61 in Winnipeg to \$57.95 in Halifax. Level 1 prices generally increased from 2008 to 2014 but have been falling gradually since then. As noted, our criteria for Level 1 has evolved over time such that the “quality” of the basket has also been improving as speeds have been increased.
- The 2019 Level 2 basket price fell from \$57.36 to \$53.20. Average 2019 Level 2 prices varied from a low of \$49.95 in Regina to \$68.58 in Winnipeg. This is the second year in a row where Level 2 prices have fallen.
- The 2019 Level 3 national average price fell sharply to \$55.20 from \$70.70 in 2018 – a drop of almost 22%. Winnipeg had the highest price at \$77.90 while the lowest price was found in Vancouver at \$40.39.
- The Level 4 national price of \$87.00 in 2018 fell to \$72.01 (an 17% decrease). Average 2019 Level 4 prices varied from \$62.34 in Vancouver to \$96.65 in Regina.
- The Level 5 national average price also fell from 2018 to 2019, going from \$102.76 to \$83.25 (about 20% lower). Regina had the highest price (\$104.95) while the lowest price was found in Vancouver (\$59.31).
- Level 6 prices (introduced in 2018), fell by about 25% from \$123.87 in 2018 to \$93.03 in 2019. Prices varied from \$144.95 (Regina) to \$78.30 (Montreal).
- Every broadband Canadian basket had lower average prices in 2019 relative to 2018.

**Figure 6: Average Canadian Broadband Rates 2016-2019**



**NOTE:** Broadband service basket definitions have been periodically revised to reflect the general availability of faster broadband service speeds; consequently, inter-temporal price comparisons should be made with caution.

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Vancouver had the lowest average prices in 3 of the 6 baskets while Regina had the highest prices in three baskets.

**Table 13: Canadian Regional Broadband Prices 2019**

	NS	QC	ON	MB	SK	BC	Canada
Level 1	\$57.95	\$37.64	\$35.09	\$28.61	n/a	\$33.51	\$35.98
Level 2	n/a	\$55.38	\$50.95	\$68.58	\$49.95	\$52.61	\$53.20
Level 3	n/a	\$65.24	\$51.54	\$77.90	\$66.19	\$40.39	\$55.20
Level 4	\$86.27	\$73.63	\$70.42	\$83.71	\$96.65	\$62.34	\$72.01
Level 5	\$103.95	\$87.00	\$87.11	\$74.53	\$104.95	\$59.31	\$83.25
Level 6	\$112.13	\$78.30	\$96.74	\$98.19	\$144.95	\$89.94	\$93.03

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Price variations in the case of broadband services can be affected by differences in service speeds offered by ISPs. Although we target a specific speed for those baskets with ranges in order to achieve better comparability, the actual speeds for surveyed services can vary – sometimes significantly. In such cases, price comparisons need to be interpreted with caution.

Canadian broadband service plans also span a range of data caps.<sup>38</sup> For Level 1, the lowest posted data cap was 50 GB (with a high of 400 GB). For Level 2, data caps ranged from 50 GB to unlimited GB. For Level 3 caps varied from 200 GB to unlimited. For Level 4, the lowest data cap was 400 GB but higher caps and unlimited are typical. Level 5 and Level 6 data caps are generally, as expected, much higher (with most unlimited). Over time, data cap upper limits have been increasing steadily.

We would note that speeds of 100 Mbps or higher are common across the country – in contrast to even three years ago. We would also note that 1 Gbps service is now offered in several regions.

### Reseller ISP Prices

Broadband service prices offered by two reseller ISPs (Primus and Teksavvy) were once again surveyed this year (along with Distributel where warranted). These ISPs rely on wholesale broadband access services (acquired from the incumbent telephone and cable companies) to provide retail broadband services.

Table 14 provides a summary of the national-level differentials between the incumbents' and reseller ISPs' prices for each of the broadband service baskets. As shown in the table, reseller ISP broadband service prices are consistently lower than those of the incumbents across all service baskets. Only resellers offer a Level 1 service and this year for the first time resellers are offering a Level 6 service in some regions.

**Table 14: 2019 Canadian Broadband Internet Service Rates  
Incumbent versus Reseller ISPs**

Baskets	Incumbents	Resellers	Differential
Level 1	n/a	\$38.84	n/a
Level 2	\$55.42	\$40.21	-27.45%
Level 3	\$64.00	\$47.52	-25.74%
Level 4	\$78.95	\$63.02	-20.17%
Level 5	\$87.69	\$83.88	-4.34%
Level 6	\$103.49	\$84.32	-18.52%

*Unweighted averages. Resellers include Primus, TekSavvy and Distributel. Data caps and speeds may not match exactly between resellers and incumbents.  
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<sup>38</sup> In some lower speed plans there is no data cap (or no data cap listed) but it should be noted that unlimited data at low speeds is not the same quality of service as unlimited data at higher speeds.

### **SPOTLIGHT SECTION on Broadband Flankers**

While flanker brands have been a fixture in the mobile wireless market for more than a decade, they are new to the broadband market. Currently flankers operate in two provinces, Quebec and Ontario.

In Quebec, Bell Virgin offers a broadband service. Virgin prices are similar to those of the resellers (Primus, Teksavvy and Distributel) but generally lower than those of Bell or Videotron. Neither Virgin nor Fido offer a service with a speed greater than 100 Mbps.

In Ontario, Virgin pricing is the same as their Quebec pricing and again similar to the resellers. Rogers' Fido prices are similar to those of Virgin. Fido and Rogers tend to not offer the same baskets (e.g. Fido offers Level 1 and Level 3 baskets but Rogers does not; Rogers offers a Level 2 basket, but Fido does not). Fido pricing is lower than Rogers pricing for Level 4 (although the Fido plan is capped at 200 GB while the Rogers plan has no cap). Virgin and Bell both offer Level 2 and Level 4 baskets with the Virgin pricing being lower.

## **4.3 International Fixed Broadband Service Prices**

As with the other service categories, there are a number of notable differences in the way in which broadband services are provisioned in some of the surveyed countries compared to Canada:

- In some of the surveyed European countries, to obtain a DSL broadband Internet service on a stand-alone basis, the customer must in some cases also lease a landline connection (which adds an additional access line charge).
- Fibre and/or DSL-based broadband services offered in the U.K., France, Germany and Italy generally include VoIP and/or IPTV services for a single bundled price. The option of a pure stand-alone broadband Internet service is not available in some cases.
- In Japan, broadband Internet service typically consists of two separate service elements: (i) a network access facility (fibre or ADSL), often obtained from NTT and (ii) an Internet access service provided by a third-party ISP. Therefore, there are two fees involved: the broadband access fee and ISP fee.

Table 15 below provides a summary of the unweighted average "advertised" download and upload service speeds of the surveyed broadband services included in each of the six specified broadband service baskets for Canada and

the surveyed foreign jurisdictions.<sup>39</sup> Data caps are typically no longer listed in most countries (with the exception of Canada and Australia) – either because the vendor has chosen not to state the cap or (more likely) because the plans do not have data caps.

**Table 15**  
**2019 International Broadband Internet Services**  
**Average Advertised Speeds Mbps**

	<b>L1</b>	<b>L2</b>	<b>L3</b>	<b>L4</b>	<b>L5</b>	<b>L6</b>
<b>Can. Av.</b>	5.6/8	13.6/5.5	26.9/7.3	75.2/14.5	177.1/29.6	408/243
<b>US Av.</b>	2.2/1	12/1	32/3	76/9	232/NA	380/NA
<b>UK Av.</b>	9/1	10.5/na	36/na	65/na	127/NA	NA
<b>AU Av</b>	NA	NA	22.5/na	75/NA	NA	NA
<b>FR Av</b>	NA	NA	NA	NA	200/100	350/350
<b>JA Av</b>	NA	12/2	NA	75/na	160/na	660/na
<b>GM Av</b>	NA	NA	16/1.7	100/28	225/60	400/NA
<b>IT Av</b>	NA	NA	20/1	100/20	200/20	1000/na
International average (exc. Canada)	5.6/1	11.5/1.5	25.3/1.9	81.8/19	190/60	558/NA

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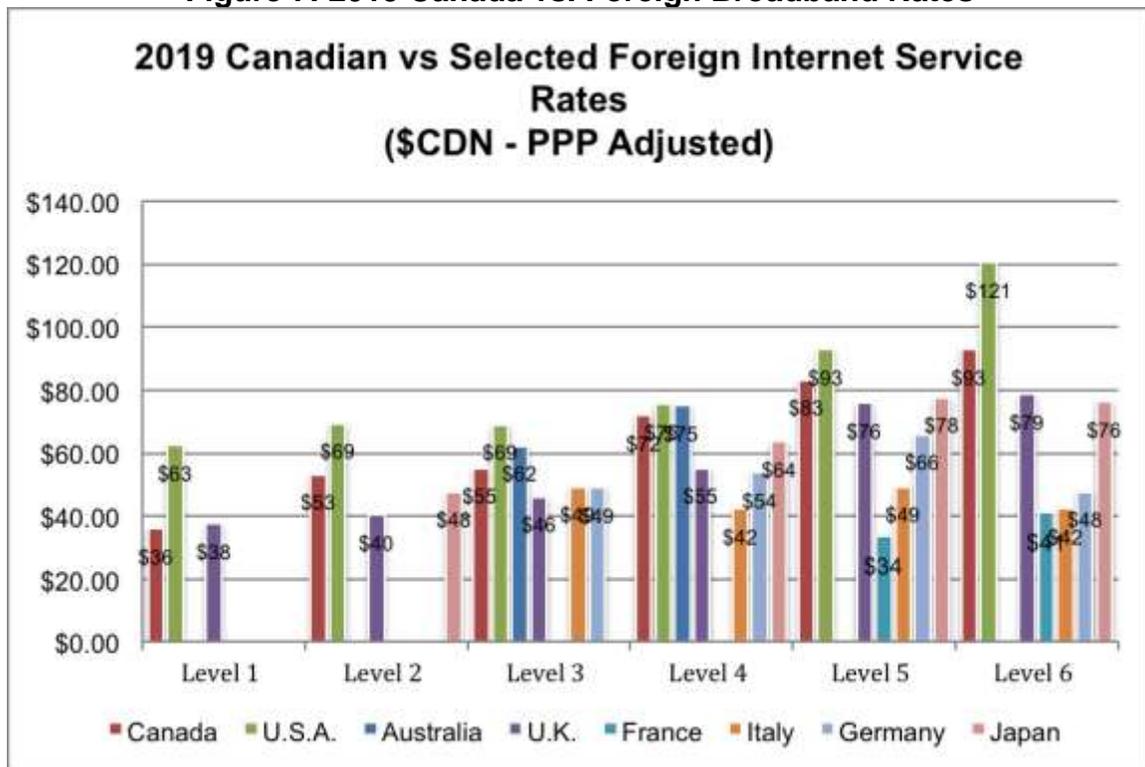
Figure 7 below provides a comparison of current weighted average broadband service prices for Canada and the seven surveyed foreign jurisdictions for each of the four broadband service level baskets. Table A3.2 in Attachment 3 provides more detailed historical broadband Internet service price results for the period 2008 to 2019, as applicable, for each of the six broadband service baskets.

- Level 1 broadband services were only available from surveyed ISPs in three of the eight countries included in the study – i.e., Canada, the U.S., and the UK. Canada's average monthly price of \$35.98 is considerably lower than the measured average prices for the U.S. (\$62.50) and similar to the UK (\$37.52).
- In the case of the Level 2 basket, again only three countries provide this level of service (Canada, the US and the UK). Canada's average monthly price of \$53.20 falls in the middle of the group of countries offering Level 2 Broadband service.

<sup>39</sup> While advertised download speeds are readily available, the same is not true for upload speeds. Consequently, the average upload speeds are based on a somewhat lower number of observations compared to average download speeds.

- For the Level 3 basket, Canada's average monthly price of \$55.20 falls in the middle of the average price for the six surveyed countries offering this service level.
- For the Level 4 basket, Canada's average monthly price of \$72.01 is lower than the US and Australia but higher than the UK, Italy, Germany and Japan. The lowest average price is found in Italy at \$42.27.
- The average Canadian price for Level 5 broadband is \$83.25, higher than all other countries except for the US (with a price of \$93.01).<sup>40</sup> The lowest prices of about \$34 can be found in France.
- The Canadian Level 6 broadband price of \$93.03 is highest among the surveyed countries, save for the US price of \$120.62.<sup>41</sup> The lowest prices of about \$42 are found in France and Italy<sup>42</sup>.

Figure 7: 2019 Canada vs. Foreign Broadband Rates



<sup>40</sup> It should be noted that the surveyed download speed can vary considerably since the range is 100 to 249 Mbps. The speeds of the surveyed US providers tend to be higher than those of surveyed Canadian providers.

<sup>41</sup> See Footnote 31. The range of speeds for Level 6 is 249 Mbps to 500 Mbps. US speeds tend to be considerable higher for surveyed providers in the Level 6 basket than those offered in Canada. Advertised speeds of 1 Gbps are fairly common in the US.

<sup>42</sup> In Italy, Fastweb provides a low-priced service (€ 30) but the speed can vary from 20 Mbps to much higher depending on the location.

Canada's broadband service price ranking has remained relatively consistent since the study was first conducted in 2008. The measured prices for the European countries included in the study (U.K., France, Italy and Germany) have consistently been lower than those in Canada – in some cases, by a wide margin.

Relative to last year, all countries (including Canada) have lower prices in most baskets.

*In sum, Canadian broadband Internet service prices compare reasonably favourably with the other surveyed countries in the case of the Levels 1 and 2 – although most countries no longer provide these lower level service baskets. However, Canadian Level 3 and higher basket prices tend to be higher than the prices measured in the surveyed countries, with the exception of the U.S. and Australia.*

## 5.0 MOBILE INTERNET SERVICE

### 5.1 Mobile Internet Service Baskets

There are three mobile Internet service levels included in the study, categorized by the data allowance of the service. They consist of the following usage-based service elements and characteristics:

- Technology                    3rd or 4th generation (e.g., 3G, 3G+, 4G or 4G LTE)
- Service speed:                Advertised download speed<sup>43</sup>
- Equipment:                    USB modem key (included with service on a no-charge, rental or purchase basis)
- Data usage:                    **Level 1:** 2 to 5 GB per month  
**Level 2:** 5 to 10 GB per month  
**Level 3:** Greater than 10 GB per month

One-time charges (such as activation fees) are generally excluded.

### 5.2 Canadian Mobile Internet Service Prices

Figure 8 below provides a summary of Canadian Level 1 through 3 mobile Internet service basket prices for the periods 2016 to 2019. More detailed price information by city is provided in Table A2.5 of Attachment 2.

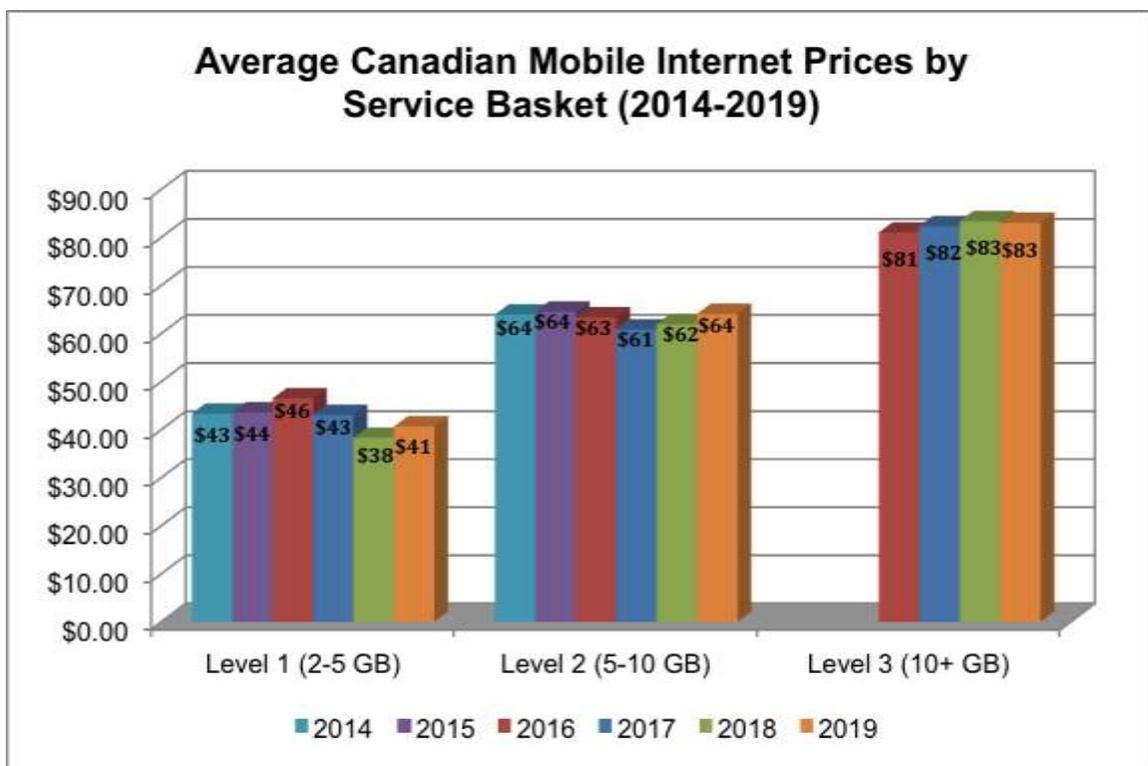
- Level 1 mobile Internet service price increased from \$38.28 in 2018 to \$40.60 in 2019. Level 1 prices remained fairly consistent across the country, ranging from a low of \$40.01 in BC to \$42.99 in Nova Scotia. Most Level 1 service plans included 2 or 3 GB of data allowance per month, with Freedom offering 4 GB. Download speeds were consistent across the country from all providers at 150 Mbps. Prices have generally trended downwards for the Level 1 basket since 2010.

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<sup>43</sup> Advertised versus actual average speeds can vary significantly in the case of mobile wireless Internet services. Actual average speeds are sensitive to local network usage levels and user locations, among other factors. Some wireless service providers include theoretical maximum speeds in their advertising, while others use or least also note expected average speeds in their advertising. Consequently, comparing service speeds across service providers and countries is not straightforward even when the same mobile wireless technology is in use.

- The Level 2 price increased from \$61.90 in 2018 to \$64.04 this year. Level 2 prices had very little variation from province to province with the exception of Saskatchewan, who offered a plan at \$47.75 (in contrast to all other plans in the low to mid \$60s). The Level 2 plans mostly included data allowances of 5 or 6 GB per month and were typically offered with a speed of 150 Mbps.
- The Level 3 national price of remained steady this year at \$82.99 versus \$83.35 in 2018. Once again, Saskatchewan was significantly lower than other provinces with a price of \$60.40 (versus prices in other regions in the \$80 to \$85 range).

Figure 8



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The advertised download speed of the mobile Internet services included in this year's study is typically 150 Mbps.

A comparison of the mobile Internet service rates offered by the incumbents (Rogers, Bell and TELUS) and Regionals (SaskTel, MTS, Freedom, Videotron and Eastlink), as applicable, in the cities of Vancouver, Toronto, Montreal, Winnipeg, Regina and Halifax is provided in Table 17. The Incumbents offer the same price in each province/city and therefore the average price is consistent across the country.

For the Level 1 mobile Internet service basket, the Regionals' prices are roughly 31% lower than the incumbents on average. For the Level 2 and Level 3 service baskets, the differential is 19%. No comparison with resellers was conducted due to the very few number of reseller offerings (i.e. only a few instances in Level 1).

**Table 16  
Incumbents versus Regionals Broadband Pricing 2019**

	NS	QC	ON	MB	SK	BC	Canada
Level 1							
Incumbents	\$41.53	\$41.53	\$41.53	\$41.53	\$41.53	\$41.53	\$41.53
Regionals	n/a	\$39.16	\$15.00	\$45.00	N/A	\$15.00	\$28.54
Differential	n/a	-5.69%	-63.88%	8.36%	n/a	-63.88%	-31.27%
Level 2							
Incumbents	\$64.86	\$64.86	\$64.86	\$64.86	\$64.86	\$64.86	\$64.86
Regionals	n/a	\$59.16	n/a	\$60.00	\$39.17	n/a	\$52.78
Differential	n/a	-8.78%	n/a	-7.49%	-39.62%	n/a	-18.63%
Level 3							
Incumbents	\$83.19	\$83.19	\$83.19	\$83.19	\$83.19	\$83.19	\$83.19
Regionals	n/a	\$79.16	n/a	\$75.00	\$49.17	n/a	\$67.78
Differential	n/a	-4.84%	n/a	-9.85%	-40.90%	n/a	-18.53%

*Unweighted averages*

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Mobile Internet prices have remained relatively steady for the last several years. Regionals continue to offer lower prices than the incumbents. Depending on the region the price difference between regional providers and incumbents can be significant (e.g. Ontario and BC).

### 5.3 International Mobile Internet Service Prices

Table 18 provides a summary of the average Level 1 to Level 3 advertised download speeds and data caps for Canada and each of the seven surveyed foreign jurisdictions. Upload speeds are often not advertised by wireless service providers and, therefore, are not included in the table.

**Table 17  
2018 International Mobile Internet Services  
Average Advertised Speeds and Data Caps**

	B1	B2	B3
<b>Canada Average</b>	150 mbps (2.3 G)	150 mbps (5.3 G)	150 mbps (10 G)
<b>US Av.</b>	150 mbps (2.5 G)	150 mbps (7 G)	150mbps (30 G)
<b>UK Av.</b>	15 mbps (2.5 G)	20 mbps (8 G)	20 mbps (8 G)

<b>AUS Av</b>	NA	150 mbps (10 G)	150 mbps (18 G)
<b>FR Av</b>	NA	100 mbps (10 G)	125 mbps (20 G)
<b>JP Av</b>	220 mbps (2.5 G)	185 mbps (5.5 G)	220 mbps (25 G)
<b>GR Av</b>	291 mbps (2.6G)	261 mbps (9 G)	500 mbps (16 G)
<b>IT Av</b>	NA	70 mbps (10 G)	98 mbps (22 G)

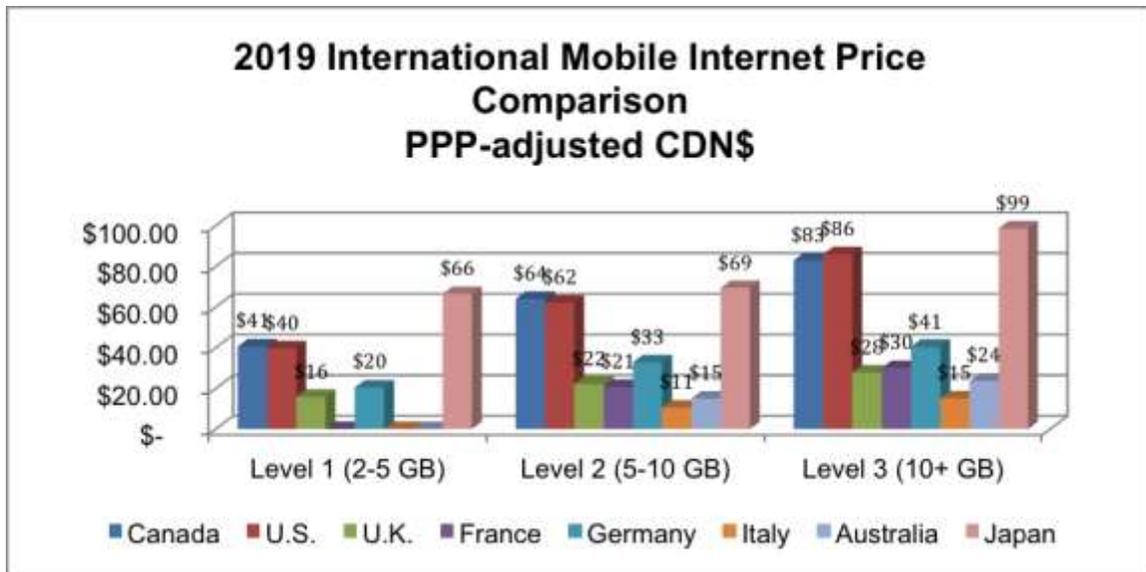
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Canada is similar to the US and Australia in average download speed in each basket but tends to have lower data allowances. Canada generally compares favorably against most other countries (with the exception of Germany and Japan).

Figure 9 below provides a comparison of Level 1 to Level 3 mobile Internet service basket prices for Canada and the surveyed foreign jurisdictions. Table A3.4 and Figures A3.4 (a and b) in Attachment 3 provide detailed historical mobile Internet price results.

- In the case of the Level 1 mobile Internet service basket, the average Canadian price of \$40.60 is comparable to the US average price and considerably below the Japanese price of \$66.43. Prices in the UK and Germany are considerably lower than Canada. We also note that Australia, France and Italy do not offer these lower data allotment mobile Internet services.
- For the Level 2 service basket, the average Canadian mobile Internet price of \$64.04 is slightly higher than the US price of \$62.05 and lower than the Japanese price of \$69.41. Prices in the European countries are generally much lower, ranging from roughly \$10 to \$33.
- In Level 3, the narrative is similar, with Canada being on the high price end (\$82.99) – but with both the US and Japan higher than Canada while the European countries (and Australia) are much lower.

**Figure 9**



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Relative to previous years' studies, Canada's mobile Internet service basket rankings have largely remained stable. Canada has ranked on the high side of the group, generally close to or slightly below the U.S. and Japan. On the other hand, Australia and the European countries included in the study have consistently had lower prices for all baskets compared to Canada – by a substantial margin in many cases.

As a point of interest, the major US mobile wireless providers have begun offering widely available “hotspot” service across their wireless networks. The “hotspot” services essentially are a substitute for a mobile wireless Internet service for laptops and related devices. These added services are typically free when a customer purchases an “unlimited data” plan from the operator. Separate mobile data services are also available for lower level plans for a cost.

**Table 18: 2019 International Mobile Internet Prices**

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
L1 (2-5 GB)	\$40.60	\$39.72	n/a	\$15.88	n/a	n/a	\$20.45	\$66.43
L2 (5-10 GB)	\$64.04	\$62.05	\$15.03	\$22.18	\$20.73	\$10.56	\$32.81	\$69.41
L3 (10+ GB)	\$82.99	\$85.97	\$23.66	\$27.85	\$30.05	\$15.06	\$40.50	\$98.68

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*In sum, Canada's average mobile Internet service prices fall on the high side (along with the US and Japan) of the group of surveyed countries.*

## ATTACHMENT 1 – SERVICE BASKETS

**TABLE A1.1  
MOBILE WIRELESS SERVICE BASKETS**

Minutes of Use/Month	Level 1	Level 2	Level 3	Level 4	Level 5
Outgoing (60%) Incoming (40%) <b>Total</b>	270 180 <b>450</b>	720 480 <b>1,200</b>	<b>Unlimited Nationwide (to fixed and mobile)</b>	<b>Unlimited Nationwide (to fixed and mobile)</b>	<b>Shared Family Plan (3 phones) 10 to 49 GB</b>
<b>Time of Day/Week</b> Peak (40%) Off-Peak (60%)	180 270	480 720	NA	NA	NA
<b>Outgoing LD</b> National US Other Total	10% of total 21 6 27	15% of total 90 18 108	NA (zero International calling)	NA (zero International calling)	NA (zero International calling)
<b>Outgoing to Mobile</b> On-net (2/3) Off-net (1/3) Total	50% of total 90 45 135	50% of total 240 120 360	NA	NA	NA
<b>Average Call Length</b>	3 min.	3 min.	NA	NA	NA
<b>Features</b> Voice Mail Caller ID Other	Yes Yes	Yes Yes Yes	Yes Yes	Yes Yes	Yes Yes Yes
<b>SMS</b>	300	300	Unlimited	Unlimited	Unlimited
<b>Data</b>		1 GB target	2 GB target	5 to 9 GB	10 to 49 GB

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**TABLE A1.2  
BROADBAND INTERNET SERVICE BASKETS**

Elements	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Transmission Speed	Basic Services 3 to 9 Mbps	10 – 15 Mbps (highest available)	16 – 40 Mbps (highest available)	41 to 100 Mbps (highest available in target range of 41 to 100 Mbps)	101 to 250 Mbps	251 to 500 Mbps
Monthly Usage	10 GB	50 GB	100 GB	150 GB	500 GB	500 GB to Unlimited
	Modem rental cost or 24 month amortization	Modem rental cost or 24 month amortization	Modem rental cost or 24 month amortization			

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**TABLE A1.3  
MOBILE INTERNET SERVICE BASKETS**

<b>Elements</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Monthly Usage	2 to 5 GB	5 to 10 GB	> 10 GB
Transmission Speed	(3G technology or higher)		(3G technology or higher)
USB Modem	No cost with contract or rental / 24 month amortization		No cost with contract or rental / 24 month amortization

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## ATTACHMENT 2 – CANADIAN PRICE COMPARISONS

**Table A2.1 - Canadian Mobile Wireless Prices**  
Based on Incumbent Primary Brand, Flanker, Regional and Reseller Prices

### Mobile Wireless Level 1

	NS	QC	ON	MB	SK	BC	Canada	YoY%
2008	\$53.14	\$62.62	\$63.37	\$51.91	\$61.20	\$58.34	\$60.81	
2009	\$48.73	\$59.17	\$59.20	\$50.49	\$44.44	\$59.30	\$57.78	-5.00%
2010	\$48.05	\$54.34	\$53.56	n/a	\$44.77	\$53.74	\$53.49	-7.40%
2011	\$47.39	\$51.50	\$49.99	n/a	\$48.19	\$50.86	\$50.51	-5.60%
2012	\$47.22	\$51.04	\$51.97	n/a	\$42.54	\$51.61	\$51.31	1.60%
2013	\$43.44	\$44.78	\$45.40	n/a	\$44.86	\$43.93	\$44.86	-12.60%
2014	\$45.40	\$45.59	\$44.29	n/a	\$54.29	\$46.20	\$45.26	0.90%
2015	\$48.45	\$49.04	\$48.15	\$46.65	\$56.70	\$49.28	\$48.68	7.60%
2016	\$49.56	\$44.39	\$50.96	\$46.98	\$49.38	\$50.89	\$48.77	0.20%
2017	\$41.03	\$38.62	\$41.85	\$36.40	\$35.91	\$44.40	\$40.95	-16.00%
2018	\$42.39	\$36.69	\$40.42	\$39.25	\$36.71	\$41.28	\$39.43	-3.72%
2019	\$39.77	\$37.23	\$37.79	\$38.90	\$27.72	\$39.28	\$37.62	-4.59%
<b>CAGR</b>	<b>-2.60%</b>	<b>-4.62%</b>	<b>-4.59%</b>	<b>-2.59%</b>	<b>-6.95%</b>	<b>-3.53%</b>	<b>-4.27%</b>	

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### Mobile Wireless Level 2

	NS	QC	ON	MB	SK	BC	Canada	YoY%
2008	\$121.04	\$113.21	\$111.51	\$111.51	\$113.67	\$109.68	\$112.34	
2009	\$105.61	\$104.38	\$102.20	\$112.82	\$94.64	\$101.24	\$103.24	-8.10%
2010	\$101.44	\$108.37	\$112.63	n/a	\$94.97	\$107.27	\$109.59	6.20%
2011	\$96.73	\$98.73	\$100.76	n/a	\$96.69	\$99.61	\$99.69	-9.00%
2012	\$96.44	\$98.92	\$98.26	n/a	\$96.42	\$98.22	\$98.37	-1.30%
2013	\$94.40	\$93.78	\$93.89	n/a	\$77.07	\$93.96	\$93.59	-4.90%
2014	\$86.91	\$73.59	\$81.00	n/a	\$65.33	\$86.46	\$79.69	-14.90%
2015	\$86.76	\$82.96	\$87.36	\$73.54	\$72.56	\$88.32	\$85.22	6.90%
2016	\$79.29	\$62.98	\$80.48	\$69.86	\$71.59	\$80.48	\$74.67	-6.30%
2017	\$80.73	\$59.05	\$75.63	\$58.18	\$62.88	\$80.43	\$70.70	-5.30%
2018	\$83.13	\$45.91	\$84.76	\$50.42	\$61.35	\$83.67	\$70.99	0.41%
2019	\$69.63	\$44.87	\$74.67	\$48.71	\$53.66	\$75.70	\$64.80	-8.72%
<b>CAGR</b>	<b>-4.90%</b>	<b>-8.07%</b>	<b>-3.58%</b>	<b>-7.25%</b>	<b>-6.60%</b>	<b>-3.31%</b>	<b>-4.88%</b>	

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Mobile Wireless Level 3

	NS	QC	ON	MB	SK	BC	Canada	YoY%
2014	\$89.23	\$92.29	\$92.81	n/a	\$65.62	\$97.69	\$92.99	
2015	\$91.23	\$76.22	\$87.83	\$61.82	\$64.43	\$89.78	\$83.08	-10.70%
2016	\$88.73	\$69.98	\$87.69	\$63.69	\$68.15	\$88.24	\$81.05	-2.40%
2017	\$93.98	\$68.26	\$87.45	\$67.04	\$56.43	\$93.74	\$81.61	0.70%
2018	\$86.48	\$57.95	\$85.23	\$52.77	\$78.48	\$85.09	\$75.44	-7.56%
2019	\$83.94	\$53.92	\$84.71	\$57.63	\$56.72	\$85.83	\$74.42	-1.36%
CAGR	-1.22%	-10.19%	-1.81%	-1.74%	-2.87%	-2.56%	-4.36%	

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Mobile Wireless Level 4

	NS	QC	ON	MB	SK	BC	Canada	YoY%
2015	\$122.21	\$94.67	\$117.93	\$65.76	\$65.62	\$117.65	\$107.50	
2016	\$109.64	\$79.44	\$105.81	\$70.38	\$82.15	\$109.11	\$96.55	-10.20%
2017	\$105.89	\$87.09	\$113.95	\$74.71	\$74.06	\$121.49	\$104.49	8.20%
2018	\$101.67	\$65.27	\$99.69	\$61.56	\$66.68	\$100.76	\$87.32	-16.43%
2019	\$98.62	\$64.28	\$100.21	\$65.35	\$56.66	\$101.13	\$87.57	0.29%
CAGR	-5.22%	-9.23%	-3.99%	-0.16%	-3.61%	-3.71%	-5.00%	

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Mobile Wireless Level 5

	NS	QC	ON	MB	SK	BC	Canada	YoY%
2016	\$250.18	\$190.40	\$257.18	\$180.00	\$182.44	\$256.00	\$231.99	
2017	\$265.33	\$216.56	\$288.55	\$257.38	\$194.98	\$292.34	\$264.65	14.10%
2018	\$280.81	\$164.28	\$265.86	\$123.60	\$177.52	\$267.69	\$227.87	-13.90%
2019	\$233.49	\$160.31	\$229.98	\$143.14	\$164.22	\$233.28	\$205.78	-9.69%
CAGR	-2.27%	-5.57%	-3.66%	-7.35%	-3.45%	-3.05%	-3.92%	

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**Table A2.2 - Canadian Fixed Broadband Internet Service Prices**

Fixed Broadband Level 1 (3-9 Mbps)

	NS	QC	ON	MB	SK	BC	Canada	YoY
2008	\$34.95	\$32.45	\$38.95	\$29.95	\$30.45	\$23.45	\$32.88	
2009	\$35.95	\$28.43	\$35.45	\$30.95	\$30.45	\$24.95	\$30.98	-5.79%
2010	\$36.95	\$29.43	\$33.45	n/a	\$30.95	\$29.00	\$31.44	1.49%
2011	\$36.15	\$36.90	\$34.15	n/a	\$32.52	\$33.00	\$34.85	10.86%
2012	\$39.15	\$33.35	\$45.37	n/a	\$31.95	\$35.40	\$39.37	12.98%
2013	\$42.15	n/a	n/a	n/a	\$31.95	\$39.00	\$38.91	-1.19%
2014	\$40.15	n/a	\$50.95	n/a	\$42.95	n/a	\$50.00	28.50%
2015	\$55.13	n/a	n/a	n/a	\$34.10	n/a	\$47.51	-4.96%
2016	\$88.73	\$41.07	\$33.63	\$55.80	\$46.95	\$51.00	\$41.94	-11.74%
2017	\$50.27	\$41.47	\$32.52	\$59.00	\$49.75	\$57.58	\$41.83	-0.25%
2018	\$39.40	\$45.19	\$39.11	\$30.61	\$46.17	\$40.01	\$40.67	-2.78%
2019	\$57.95	\$37.64	\$35.09	\$28.61	n/a	\$33.51	\$35.98	-11.54%
<b>CAGR</b>	<b>4.70%</b>	<b>1.36%</b>	<b>-0.94%</b>	<b>-0.42%</b>	<b>n/a</b>	<b>3.30%</b>	<b>0.82%</b>	

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BB Level 2 (10-15 Mbps)

	NS	QC	ON	MB	SK	BC	Canada	YoY
2008	\$47.45	\$48.95	\$48.95	\$41.95	\$45.45	\$40.95	\$46.58	
2009	\$48.45	\$50.43	\$50.95	\$42.95	\$45.45	\$38.45	\$47.26	1.47%
2010	\$49.45	\$51.43	\$47.95	n/a	\$45.95	\$40.00	\$47.60	0.71%
2011	\$50.75	\$52.83	\$49.33	n/a	\$48.52	\$45.65	\$49.79	4.61%
2012	\$57.75	\$60.92	\$52.79	n/a	\$54.95	\$46.40	\$54.31	9.07%
2013	\$51.15	\$55.60	\$47.18	n/a	\$54.95	\$53.51	\$51.20	-5.72%
2014	\$54.95	\$53.91	\$55.25	n/a	\$54.95	\$56.68	\$55.10	7.61%
2015	\$74.45	\$54.83	\$55.17	\$59.17	\$52.88	\$59.90	\$56.66	2.84%
2016	n/a	\$51.75	\$61.92	\$62.60	\$56.95	\$62.00	\$58.88	3.91%
2017	n/a	\$53.26	\$72.14	\$66.70	\$59.75	\$69.29	\$65.54	11.31%
2018	n/a	\$56.61	\$48.33	\$76.52	\$55.34	\$74.77	\$57.36	-12.48%
2019	n/a	\$55.38	\$50.95	\$68.58	\$49.95	\$52.61	\$53.20	-7.26%
<b>CAGR</b>	<b>n/a</b>	<b>1.13%</b>	<b>0.36%</b>	<b>4.57%</b>	<b>0.86%</b>	<b>2.30%</b>	<b>1.21%</b>	

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Canadian and International Price Comparisons – 2019 Update

BB Level 3 (16-40 Mbps)

	NS	QC	ON	MB	SK	BC	Canada	YoY
2008	\$57.45	\$83.45	\$73.95	\$52.95	\$55.95	\$50.95	\$68.74	
2009	\$58.45	\$64.40	\$62.45	\$52.95	\$55.95	\$53.45	\$60.08	-12.60%
2010	\$59.45	\$65.40	\$62.45	n/a	\$56.45	\$55.48	\$61.88	3.00%
2011	\$60.75	\$66.33	\$65.35	n/a	\$56.75	\$55.00	\$63.44	2.52%
2012	\$88.95	\$66.95	\$72.17	n/a	\$79.95	\$54.60	\$67.94	7.09%
2013	\$77.95	\$67.05	\$64.35	n/a	\$79.95	\$60.69	\$65.18	-4.07%
2014	\$87.95	\$67.15	\$70.87	n/a	\$70.95	\$62.00	\$68.60	5.25%
2015	\$92.95	\$59.93	\$71.39	\$67.93	\$62.88	\$68.17	\$67.81	-1.15%
2016	n/a	\$56.09	\$65.20	\$70.60	\$62.95	\$69.06	\$63.48	-6.39%
2017	n/a	\$50.80	\$70.89	\$73.35	\$73.95	\$73.09	\$65.59	3.32%
2018	\$82.50	\$55.62	\$79.15	\$76.82	\$66.19	\$71.16	\$70.70	7.78%
2019	n/a	\$65.24	\$51.54	\$77.90	\$66.19	\$40.39	\$55.20	-21.91%
<b>CAGR</b>	n/a	-2.21%	-3.23%	3.57%	1.54%	-2.09%	-1.97%	

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BB Level 4 (41-100 Mbps)

	NS	QC	ON	MB	SK	BC	Canada	YoY
2011	\$84.75	\$73.30	\$73.75	n/a	\$99.95	\$91.40	\$77.71	
2012	\$138.95	\$82.95	\$106.98	n/a	n/a	\$74.90	\$94.39	21.47%
2013	\$102.75	\$82.95	\$80.57	n/a	\$99.95	\$85.00	\$82.88	-12.19%
2014	\$99.55	\$84.75	\$86.87	n/a	\$105.95	\$86.00	\$86.46	4.31%
2015	\$99.26	\$74.51	\$79.68	\$87.10	\$105.80	\$89.79	\$80.63	-6.74%
2016	\$84.17	\$72.21	\$76.80	\$89.80	\$85.95	\$89.16	\$78.77	-2.30%
2017	\$87.22	\$78.06	\$85.51	\$90.00	\$83.95	\$79.18	\$82.54	4.79%
2018	\$95.69	\$71.14	\$95.84	\$94.14	\$96.65	\$86.67	\$87.00	5.41%
2019	\$86.27	\$73.63	\$70.42	\$83.71	\$96.65	\$62.34	\$72.01	-17.23%
<b>CAGR</b>	0.22%	0.06%	-0.58%	-0.99%	-0.42%	-4.67%	-0.95%	

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BB Level 5 (101 – 250 Mbps)

	NS	QC	ON	MB	SK	BC	Canada	YoY
2016	\$133.10	\$138.80	\$92.91	\$123.00	n/a	\$123.00	\$114.65	
2017	\$113.55	\$79.15	\$100.08	\$122.01	\$139.95	\$92.50	\$95.10	-17.06%

Canadian and International Price Comparisons – 2019 Update

2018	\$108.62	\$87.22	\$108.90	\$116.44	\$104.95	\$107.61	\$102.76	8.06%
2019	\$103.95	\$87.00	\$87.11	\$74.53	\$104.95	\$59.31	\$83.25	-18.99%
<b>CAGR</b>	<b>-7.91%</b>	<b>-14.42%</b>	<b>-2.12%</b>	<b>-15.38%</b>	<b>-13.40%</b>	<b>-21.59%</b>	<b>-10.12%</b>	

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BB Level 6 (251 – 400 Mbps)

	NS	QC	ON	MB	SK	BC	Canada	YoY
2018	\$125.69	\$105.45	\$135.23	n/a	\$144.95	n/a	\$123.87	
2019	\$112.13	\$78.30	\$96.74	\$98.19	\$144.95	\$89.94	\$93.03	-24.90%
<b>CAGR</b>	<b>-10.8%</b>	<b>-25.7%</b>	<b>-28.5%</b>	<b>n/a</b>	<b>0%</b>	<b>n/a</b>	<b>-24.90%</b>	

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**Table A2.3 - Canadian Mobile Internet Prices**

Canadian and International Price Comparisons – 2019 Update

Level 1 (2-5 GB)

	NS	QC	ON	MB	SK	BC	Canada	YoY%
2010	\$54.15	\$54.15	\$54.15	n/a	\$56.23	\$54.16	\$54.19	
2011	\$52.32	\$52.76	\$52.17	n/a	\$53.98	\$52.22	\$52.41	-3.29%
2012	\$53.05	\$52.56	\$52.51	n/a	\$53.05	\$52.51	\$52.55	0.27%
2013	\$45.12	\$44.52	\$44.37	n/a	\$48.99	\$44.52	\$44.55	-15.22%
2014	\$43.75	\$43.22	\$43.19	n/a	\$47.08	\$43.30	\$43.30	-2.80%
2015	\$43.06	\$43.63	\$43.19	\$44.88	\$50.38	\$43.30	\$43.55	0.56%
2016	\$46.07	\$45.72	\$46.53	\$48.00	\$52.56	\$46.53	\$46.47	6.71%
2017	\$42.93	\$42.32	\$43.92	\$44.65	\$27.68	\$42.86	\$43.01	-7.44%
2018	\$41.96	\$39.43	\$37.38	\$39.10	\$41.77	\$37.36	\$38.28	-11.01%
2019	\$42.99	\$41.10	\$40.06	\$41.95	\$42.85	\$40.01	\$40.60	6.08%
CAGR	-2.53%	-3.02%	-3.29%	-1.67%	-2.98%	-3.31%	-3.16%	

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Level 2 (5-10 GB)

	NS	QC	ON	MB	SK	BC	Canada	YoY%
2012	\$66.38	\$60.94	\$65.59	n/a	\$69.55	\$70.22	\$65.11	
2013	\$66.79	\$59.22	\$65.21	n/a	\$70.11	\$71.28	\$64.67	-0.67%
2014	\$67.08	\$59.49	\$65.60	n/a	\$68.75	\$65.90	\$63.90	-1.19%
2015	\$65.73	\$60.57	\$65.60	\$68.63	\$71.88	\$65.90	\$64.48	0.91%
2016	\$62.47	\$62.62	\$63.19	\$66.00	\$71.31	\$63.19	\$63.30	-1.82%
2017	\$61.01	\$60.71	\$61.08	\$62.78	\$33.99	\$62.14	\$60.79	-3.98%
2018	\$62.39	\$61.98	\$62.38	\$62.80	\$37.63	\$62.52	\$61.90	1.83%
2019	\$63.41	\$63.65	\$65.21	\$63.35	\$47.75	\$65.37	\$64.04	3.45%
CAGR	-0.65%	0.62%	-0.08%	-1.98%	-5.23%	-1.02%	-0.24%	

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Level 3 (10+ GB)

	NS	QC	ON	MB	SK	BC	Canada	YoY%
2016	\$78.89	\$81.07	\$80.70	\$84.50	\$81.41	\$80.70	\$80.98	
2017	\$83.85	\$80.86	\$85.00	\$81.36	\$47.83	\$81.25	\$82.28	1.60%
2018	\$85.02	\$83.77	\$83.94	\$83.25	\$51.98	\$83.94	\$83.35	1.30%
2019	\$80.78	\$82.42	\$84.85	\$80.60	\$60.40	\$84.85	\$82.99	-0.43%
CAGR	0.79%	0.55%	1.68%	-1.56%	-9.47%	1.68%	0.82%	

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## ATTACHMENT 3 – INTERNATIONAL PRICE COMPARISONS

**Table A3.1 – International Mobile Wireless Service Prices**

Level 1

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2008	\$60.81	\$64.54	\$32.90	\$53.98	\$56.30	n/a	n/a	n/a
2009	\$57.78	\$66.38	\$36.67	\$44.73	\$61.51	n/a	n/a	n/a
2010	\$53.49	\$60.60	\$35.65	\$37.27	\$68.70	n/a	n/a	\$44.34
2011	\$50.51	\$68.69	\$36.97	\$32.75	\$74.86	n/a	n/a	\$49.14
2012	\$51.31	\$72.94	\$34.56	\$38.43	\$61.13	n/a	n/a	\$49.28
2013	\$44.86	\$76.14	\$35.04	\$38.85	\$44.08	n/a	n/a	\$44.36
2014	\$45.26	\$55.91	\$38.69	\$41.17	\$37.55	\$33.61	\$36.48	\$50.98
2015	\$48.68	\$57.59	\$38.98	\$33.62	\$40.87	\$22.48	\$35.35	\$54.81
2016	\$48.77	\$51.64	n/a	\$25.79	\$24.17	\$24.41	\$28.28	\$48.78
2017	\$40.95	\$49.48	\$27.36	\$22.58	\$23.88	n/a	n/a	\$45.38
2018	\$39.43	\$44.29	n/a	\$16.68	n/a	\$11.86	\$15.06	n/a
2019	\$37.62	\$42.89	n/a	\$16.32	\$10.76	\$12.25	\$14.92	\$35.31

Level 2

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2008	\$112.34	\$135.72	\$96.75	\$90.23	\$110.46	n/a	n/a	n/a
2009	\$103.24	\$132.58	\$93.13	\$76.36	\$109.08	n/a	n/a	n/a
2010	\$109.59	\$124.01	\$91.93	\$69.49	\$109.37	n/a	n/a	\$117.19
2011	\$99.69	\$139.03	\$73.87	\$64.27	\$100.75	n/a	n/a	\$120.21
2012	\$98.37	\$141.80	\$52.35	\$69.30	\$84.77	n/a	n/a	\$118.51
2013	\$93.59	\$145.79	\$49.54	\$63.52	\$58.90	n/a	n/a	\$125.24
2014	\$79.69	\$91.52	\$72.10	\$72.14	\$63.68	\$67.06	\$71.15	\$139.90
2015	\$85.22	\$85.65	\$69.97	\$68.03	\$61.50	\$53.94	\$71.91	\$88.96
2016	\$74.67	\$73.00	\$30.91	\$30.13	\$38.08	\$34.79	\$56.20	\$89.72
2017	\$70.70	\$54.17	\$39.08	\$28.65	\$30.24	\$20.51	\$64.03	n/a
2018	\$70.99	\$62.48	\$19.40	\$32.40	n/a	n/a	\$30.10	n/a

2019	\$64.80	\$50.17	n/a	\$35.56	n/a	n/a	\$22.89	\$57.82
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Level 3

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2014	\$92.99	\$109.28	\$84.85	\$58.37	\$50.14	\$61.52	\$80.63	n/a
2015	\$83.08	\$92.23	\$77.80	\$62.03	\$48.24	\$63.47	\$71.56	n/a
2016	\$81.05	\$89.50	\$44.78	\$35.55	\$61.60	\$49.42	\$68.12	n/a
2017	\$81.61	\$67.20	\$54.29	\$34.26	\$31.86	\$41.22	\$72.41	\$60.11
2018	\$75.44	\$61.26	\$24.70	\$26.56	\$30.91	\$21.11	\$45.80	\$81.52
2019	\$74.42	\$59.50	\$22.35	\$24.72	\$33.09	\$26.80	\$41.08	\$78.42

Level 4

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2015	\$107.50	\$131.12	\$97.43	\$68.93	\$60.96	\$77.44	\$102.74	n/a
2016	\$96.55	\$117.33	\$66.67	\$42.22	\$70.12	\$61.02	\$88.23	n/a
2017	\$104.49	\$75.06	\$67.04	\$39.20	\$46.45	\$53.22	\$82.21	\$74.12
2018	\$87.32	\$97.88	\$27.27	\$31.26	\$34.31	\$29.55	\$64.89	\$103.07
2019	\$87.57	\$63.04	NA	\$28.48	\$27.28	NA	\$54.67	\$95.63

Level 5

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2016	\$231.99	\$206.19	\$198.50	\$99.31	n/a	n/a	\$284.12	n/a
2017	\$264.65	\$244.64	n/a	\$91.42	\$157.80	n/a	\$291.53	n/a
2018	\$227.87	\$206.57	\$98.96	\$84.77	\$66.32	\$75.39	\$120.88	\$222.66
2019	\$205.78	\$171.41	\$67.80	\$64.36	\$49.55	\$58.30	\$91.01	\$179.31

**Table A3.2 - International Fixed Broadband Internet Service Prices**

Level 1

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2008	\$32.88	\$33.77	\$42.79	\$29.93	\$42.23	n/a	n/a	n/a
2009	\$30.98	\$40.19	\$41.31	n/a	\$44.87	n/a	n/a	n/a
2010	\$31.44	\$39.61	\$34.91	n/a	n/a	n/a	n/a	\$39.73
2011	\$34.85	\$51.06	\$29.84	n/a	\$28.33	n/a	n/a	\$43.13
2012	\$39.37	\$57.24	n/a	n/a	n/a	n/a	n/a	\$50.48
2013	\$38.91	\$52.38	n/a	n/a	n/a	n/a	n/a	\$45.55
2014	\$50.00	\$62.53	n/a	n/a	n/a	n/a	n/a	\$56.55

Canadian and International Price Comparisons – 2019 Update

2015	\$47.51	\$54.54	n/a	n/a	n/a	n/a	n/a	\$57.83
2016	\$41.94	\$79.64	\$58.38	n/a	n/a	n/a	\$28.28	n/a
2017	\$41.83	\$63.92	\$54.72	n/a	n/a	\$41.18	n/a	\$59.49
2018	\$40.67	\$63.32	n/a	n/a	n/a	\$60.53	n/a	\$40.56
2019	\$35.98	\$62.50	n/a	\$37.52	n/a	n/a	n/a	n/a

Level 2

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2008	\$46.58	\$55.97	\$62.56	\$44.05	\$45.82	n/a	n/a	n/a
2009	\$47.26	\$57.92	\$63.76	\$30.22	\$48.69	n/a	n/a	n/a
2010	\$47.60	\$58.97	\$52.01	\$40.57	\$44.03	n/a	n/a	\$49.55
2011	\$49.79	\$65.14	\$56.74	\$40.72	\$47.41	n/a	n/a	\$53.79
2012	\$54.31	\$78.84	\$59.81	\$30.50	\$46.97	n/a	n/a	\$55.70
2013	\$51.20	\$81.42	\$58.15	\$32.85	n/a	n/a	n/a	\$52.53
2014	\$55.10	\$72.91	\$50.67	\$30.22	n/a	\$52.26	\$26.09	\$60.65
2015	\$56.66	\$67.66	\$53.75	n/a	\$67.78	\$54.31	\$29.08	\$61.03
2016	\$58.88	\$83.85	\$54.49	n/a	\$73.83	\$64.29	n/a	\$51.75
2017	\$65.54	\$82.43	\$46.90	n/a	\$39.81	n/a	\$27.77	\$54.39
2018	\$57.36	\$75.56	n/a	\$54.13	\$48.83	n/a	n/a	\$61.14
2019	\$53.20	\$69.35	n/a	\$40.36	n/a	n/a	n/a	\$47.76

Level 3

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2008	\$68.74	\$67.40	\$76.47	\$52.72	\$49.41	n/a	n/a	n/a
2009	\$60.08	\$70.41	\$77.98	\$35.93	\$47.73	n/a	n/a	n/a
2010	\$61.88	\$75.26	\$74.32	\$46.24	\$57.45	n/a	n/a	\$72.15
2011	\$63.44	\$79.60	\$59.72	\$40.09	\$66.37	n/a	n/a	\$54.52
2012	\$67.94	\$97.00	\$61.69	\$40.88	\$46.07	n/a	n/a	\$59.37
2013	\$65.18	\$99.10	\$57.10	\$43.01	\$49.34	n/a	n/a	\$61.52
2014	\$68.60	\$79.76	\$67.44	\$46.89	\$51.15	\$52.92	\$38.30	\$63.88
2015	\$67.81	\$91.55	\$69.64	\$41.25	\$51.68	\$52.28	\$47.08	\$64.50
2016	\$63.48	\$97.53	\$57.41	\$40.43	n/a	\$41.77	\$49.75	\$71.52
2017	\$65.59	\$99.64	\$70.35	\$55.67	\$50.43	n/a	\$46.80	\$68.32
2018	\$70.70	\$84.33	\$66.74	\$49.42	\$38.15	\$45.45	\$50.18	\$71.77
2019	\$55.20	\$69.02	\$62.36	\$46.11	n/a	\$49.26	\$49.15	n/a

Level 4

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2011	\$77.71	\$95.07	\$67.19	\$50.07	\$49.79	n/a	n/a	\$59.76
2012	\$94.39	\$160.97	\$82.25	\$58.66	\$62.36	n/a	n/a	\$62.65
2013	\$82.88	\$123.27	\$72.69	\$53.31	\$54.58	n/a	n/a	\$64.89

2014	\$86.46	\$103.17	\$70.33	\$47.76	\$55.98	\$61.79	\$58.52	\$67.73
2015	\$80.63	\$105.90	\$72.66	\$50.75	\$57.95	\$60.45	\$59.32	\$65.32
2016	\$78.77	\$112.30	\$71.03	\$54.20	\$63.80	\$53.02	\$61.78	\$49.78
2017	\$82.54	\$114.81	\$89.98	\$59.38	\$42.47	n/a	\$54.45	\$69.58
2018	\$87.00	\$105.34	\$88.74	\$67.69	\$53.14	\$65.20	\$64.84	\$84.43
2019	\$72.01	\$75.48	\$75.06	\$55.20	n/a	\$42.27	\$53.80	\$63.69

Level 5

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2016	\$114.65	\$127.69	n/a	\$57.56	\$70.54	n/a	\$56.57	\$71.36
2017	\$95.10	\$145.15	n/a	\$70.67	\$50.19	\$60.39	\$58.33	\$65.64
2018	\$102.76	\$131.06	n/a	\$64.86	\$60.86	n/a	\$72.45	\$79.90
2019	\$83.25	\$93.01	n/a	\$75.87	\$33.79	\$49.26	\$65.87	\$77.69

Level 6

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2018	\$123.87	\$160.08	n/a	\$78.96	\$70.18	\$46.33	\$94.33	\$72.23
2019	\$93.03	\$120.62	n/a	\$78.62	\$41.20	\$42.27	\$47.64	\$76.31

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**Table A3.3 - Mobile Internet Service Prices**

Level 1  
(2-5 GB)

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2010	\$54.19	\$73.26	\$33.89	\$24.86	\$46.29	n/a	n/a	\$76.00
2011	\$52.41	\$71.50	\$27.18	\$23.51	\$43.30	n/a	n/a	\$69.38
2012	\$52.55	\$52.29	\$31.38	\$27.42	\$39.36	n/a	n/a	\$54.89
2013	\$44.55	\$54.61	\$28.80	\$23.71	\$34.98	n/a	n/a	\$57.54
2014	\$43.30	\$63.74	\$25.67	\$21.90	\$18.47	\$17.56	\$34.37	\$50.05
2015	\$43.55	\$63.02	\$28.15	\$21.44	\$17.60	\$15.87	\$25.96	\$55.49
2016	\$46.47	\$50.68	\$15.57	\$17.61	\$14.98	\$14.35	\$23.56	\$51.81

Canadian and International Price Comparisons – 2019 Update

2017	\$43.01	\$38.73	\$11.73	\$15.33	\$12.11	\$14.81	\$20.40	\$37.22
2018	\$38.28	\$43.49	\$15.56	\$15.45	\$15.74	\$12.71	\$22.52	\$70.31
2019	\$40.60	\$39.72	n/a	\$15.88	n/a	n/a	\$20.45	\$66.43

Level 2  
(5-10 GB)

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2012	\$65.11	\$69.51	\$44.85	\$39.11	\$100.15	n/a	n/a	\$56.77
2013	\$64.67	\$59.82	\$35.13	\$62.01	\$44.65	n/a	n/a	\$58.24
2014	\$63.90	\$69.05	\$36.80	\$45.93	\$43.04	\$25.86	\$49.70	\$62.04
2015	\$64.48	\$77.72	\$41.69	\$30.60	\$29.18	\$27.05	\$37.17	\$63.82
2016	\$63.30	\$76.93	\$29.67	\$21.07	\$28.11	\$21.71	\$37.31	\$73.74
2017	\$60.79	\$72.44	\$30.84	\$20.54	\$18.59	\$20.87	\$29.67	\$54.81
2018	\$61.90	\$64.59	\$26.24	\$19.78	n/a	\$17.22	\$35.56	\$75.49
2019	\$64.04	\$62.05	\$15.03	\$22.18	\$20.73	\$10.56	\$32.81	\$69.41

Level 3  
(10+ GB)

	Canada	U.S.A.	Australia	U.K.	France	Italy	Germany	Japan
2016	\$80.98	\$110.38	\$48.17	\$24.47	\$63.45	\$31.58	n/a	\$87.09
2017	\$82.28	\$92.46	\$36.62	\$28.48	\$39.09	\$28.80	\$35.98	\$64.28
2018	\$83.35	\$87.30	\$39.35	\$28.19	\$33.53	\$38.73	\$38.38	\$105.94
2019	\$82.99	\$85.97	\$23.66	\$27.85	\$30.05	\$15.06	\$40.50	\$98.68

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## ATTACHMENT 4 – CANADIAN ROAMING RATES

(Data collected August 2019)

### Rogers (Roam Like Home)

Postpaid:

	Price	Talk	Text	Data	Other
Roam Like Home	\$7 per day	US and Canada	Canada and US	From your monthly plan	15 day max. (\$105)

Prepaid:

	Price	Talk	Text	Data	Other
	\$7.99 per day (Data only)			US and Canada	Up to 50 MB per day
	\$1.45 per minute	US and Canada			
	\$0.75 per message		US and Canada		

### Bell (Roam Better)

Postpaid:

	Price	Talk	Text	Data	Other
Roam Better	\$8 per day	Unlimited US and Canada	Unlimited Canada and US	From your monthly plan	15 day max. (\$120)

Pay-as-you-go/Prepaid:

	Price	Talk	Text	Data	Other
	\$40 per 30 days	200 minutes US and Canada	Unlimited US and Canada	200 MB US and Canada	
	\$80 per 30 days	1,000 minutes US and Canada		1 GB US and Canada	
	\$20 per 30 days			200 MB US and Canada	Data only

*Canadian and International Price Comparisons – 2019 Update*

	\$50 per 30 days			1 GB US and Canada	Data only
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**TELUS (Easy Roam)**

Postpaid:

	Price	Talk	Text	Data	Other
Easy Roam	\$8 per day	Unlimited US and Canada	Unlimited Canada and US	From your monthly plan	15 day max. (\$120)

Pay-as-you-go/Prepaid:

	Price	Talk	Text	Data	Other
	\$5.00 per MB (Data only)			US and Canada	
	\$1.50 per minute	US and Canada			
	\$0.60 per message		US and Canada		

**Freedom (Big Gig Roam Extra)**

Postpaid:

	Price	Talk	Text	Data	Other
Big Gig	\$5 per day	Unlimited US and Canada	Unlimited Canada and US		No max.
Big Gig	\$10 for 2 days			150 MB	Data only
Big Gig	\$25 for 5 days			1 GB	Data only
Big Gig	\$50 for 10 days			3 GB	Data only
Big Gig	\$100 for 20 days			10 GB	Data only

Pay-as-you-go/Prepaid:

	Price	Talk	Text	Data	Other
	\$0.20 per MB			US and	

Canadian and International Price Comparisons – 2019 Update

				Canada	
	\$0.50 per minute	US and Canada			
	\$0.20 per message		US and Canada		

**Videotron (Traveller Pass/Without Borders)**

Postpaid:

	Price	Talk	Text	Data	Other
Traveller Pass	\$7 per day	Unlimited US and Canada	Unlimited Canada and US	From your monthly plan	10 day max. (\$70)
Without Borders	\$80 per month	Unlimited US and Canada	Unlimited Canada and US	8 GB	
Without Borders	\$90 per month	Unlimited US and Canada	Unlimited Canada and US	9 GB	
Without Borders	\$100 per month	Unlimited US and Canada	Unlimited Canada and US	10 GB	

Pay-as-you-go/Prepaid:

	Price	Talk	Text	Data	Other
	\$0.15 per MB			US and Canada	
	\$.30 per minute (local)	US and Canada			
	\$0.15 per message (outgoing)		US and Canada		

**EastLink (easyTravel)**

Postpaid:

	Price	Talk	Text	Data	Other
EasyTravel	\$8 per day	Unlimited US and Canada	Unlimited Canada and US	From your monthly plan	No max.
Combo Pack	\$15 per 3 days	Unlimited US and Canada	Unlimited Canada and US	300 MB	

*Canadian and International Price Comparisons – 2019 Update*

Combo Pack	\$35 per 7 days	Unlimited US and Canada	Unlimited Canada and US	750 MB	
Combo Pack	\$35 per month	Unlimited US and Canada	Unlimited Canada and US	None	
Combo Pack	\$50 per 10 days	Unlimited US and Canada	Unlimited Canada and US	1 GB	
Combo Pack	\$80 per month	Unlimited US and Canada	Unlimited Canada and US	1 GB	

**Pay-as-you-go/Prepaid:**

	Price	Talk	Text	Data	Other
	\$1.00 per MB			US and Canada	
	\$.50 per minute (local)	US and Canada			
	\$0.50 per message (outgoing)		US and Canada		

**Fido (Fido Roam)**

**Postpaid:**

	Price	Talk	Text	Data	Other
Roam Like Home	\$7 per day	From your monthly plan	From your monthly plan	From your monthly plan	15 day max. (\$105)

**Pay-as-you-go/Prepaid:**

	Price	Talk	Text	Data	Other
	\$7.99 per day (Data only)			US and Canada	Up to 50 MB per day
Postpaid Pay-as-you-go	\$1.45 per minute	US and Canada			
Postpaid Pay-as-you-go	\$0.75 per message		US and Canada		
Postpaid Pay-as-you-	\$7.99 for 50 MB				

Canadian and International Price Comparisons – 2019 Update

go					
Prepaid Pay-as-you-go	\$2.00 per minute	US and Canada			
Prepaid Pay-as-you-go	\$0.75 per message		US and Canada		
					No data plan available for PAYG prepaid

**Virgin (Roam Sweet Roam)**

Postpaid:

	Price	Talk	Text	Data	Other
Roam Sweet Roam with Home Data	\$8 per day	Unlimited US and Canada	Unlimited Canada and US	From your monthly plan	20 day max. (\$160)
Roam Sweet Roam with 100 MB	\$7 per day	Unlimited US and Canada	Unlimited Canada and US	100 MB	
50 MB Travel Pass	\$10 per 30 days			50 MB	Data only
100 MB Travel Pass	\$20 per 30 days			100 MB	Data only

Pay-as-you-go/Prepaid:

	Price	Talk	Text	Data	Other
Travel Pass	\$40 per 30 days	200 minutes US and Canada	Unlimited US and Canada	200 MB US and Canada	
Travel Pass	\$80 per 30 days	1,000 minutes US and Canada		1 GB US and Canada	
Travel Pass	\$20 per 30 days			200 MB US and Canada	Data only
Travel Pass	\$50 per 30 days			1 GB US and Canada	Data only
	\$1.45	Per minute			
	\$0.75		Per text		

**Koodo (Easy Roam)**

Postpaid:

	Price	Talk	Text	Data	Other
Easy Roam	\$8 per day	Unlimited US and Canada	Unlimited Canada and US	From your monthly plan	\$100 max.

Pay-as-you-go/Prepaid:

	Price	Talk	Text	Data	Other
	\$10.00 for 50 MB data			US and Canada	
	\$1.50 per minute	US to Canada			
	\$0.60 per minute	Canada to US			
	\$10 for 100 sent texts		US and Canada		

**Primus**

Postpaid:

	Price	Talk	Text	Data	Other
	\$20 per month	25 minutes US and Canada	100 texts		
	\$40 per month	100 minutes US and Canada	Unlimited texts		
	\$40 per month	50 minutes US and Canada	Unlimited texts	200 MB	
	\$80 per month	100 minutes US and Canada	Unlimited texts	500 MB	
	\$40 per month	150 total minutes (in either US or Canada)	Unlimited Canada and US	None	

*Canadian and International Price Comparisons – 2019 Update*

	\$60 per month	200 total minutes (in either US or Canada)	Unlimited Canada and US	500 MB	
	\$80 per month	500 total minutes (in either US or Canada)	Unlimited Canada and US	1 GB	Data only
				100 MB	Data only

Pay-as-you-go/Prepaid:

	Price	Talk	Text	Data	Other
	\$1.45	Per minute			
	\$0.75		Per text		
	\$1.00			Per MB	

**Petro-Canada Mobility**

Pay-as-you-go/Prepaid:

	Price	Talk	Text	Data	Other
	\$.55	Per minute to US			
	\$0.15 per text		Per text sent to the US		