

ANNUAL TELECOMMUNICATIONS MONITORING REPORT

2018 Key facts

Date: 18 December 2018

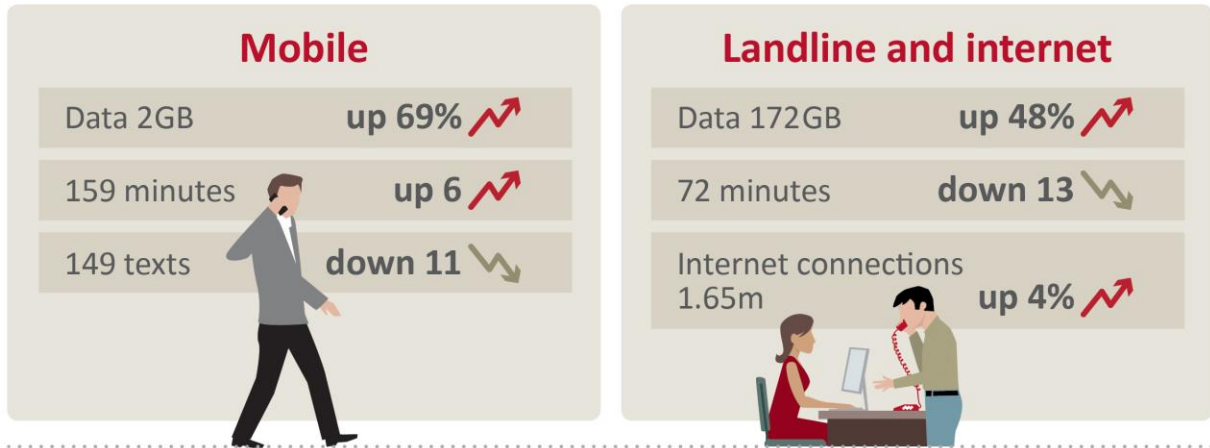


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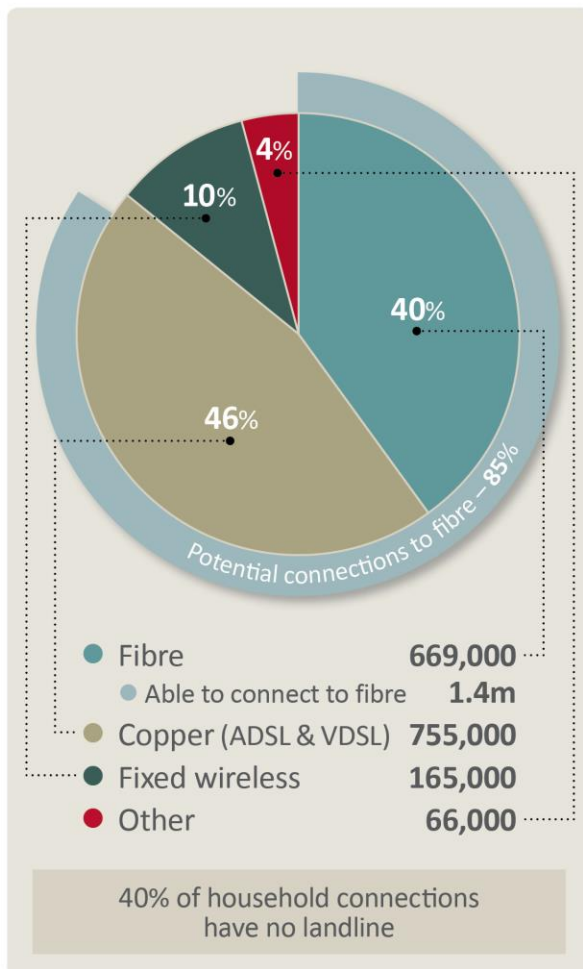
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Telco trends 2018

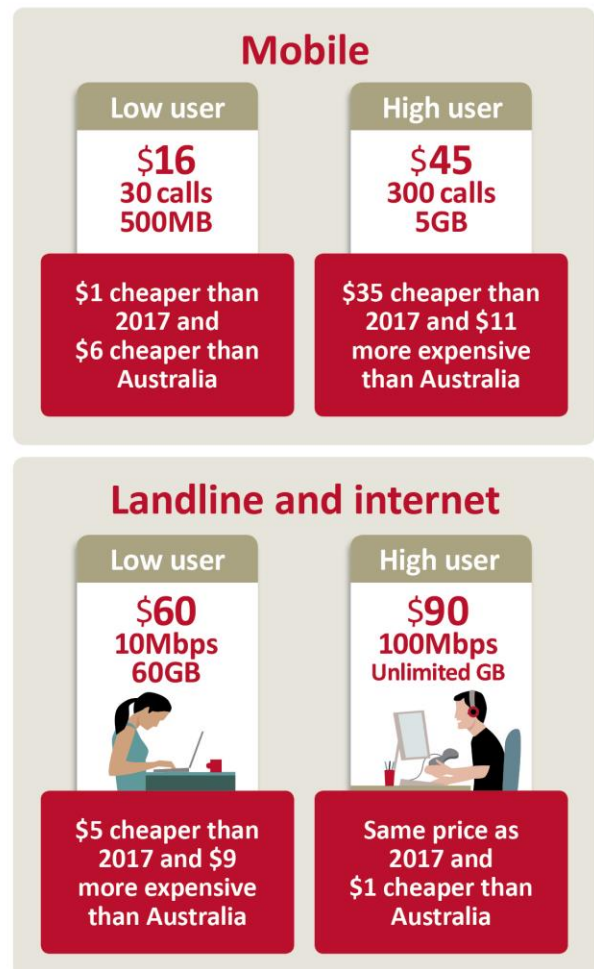
Average monthly usage compared to 2017



Internet connections



Monthly pricing



More information at www.comcom.govt.nz

New Zealand telecommunications snapshot statistics

	2008 /09	2009 /10	2010 /11	2011 /12	2012 /13	2013 /14	2014 /15	2015 /16	2016 /17	2017 /18
Total industry metrics										
Total telecommunications retail revenue (\$bn)	4.93	4.96	5.03	5.25	5.21	5.17	5.11	5.28	5.37	5.42
Total telecommunications investment (\$bn)	1.69	1.55	1.24	1.27	1.58	1.69	1.77	1.59	1.58	1.66
Average monthly household telecommunications spend (\$) ^a	-	145	-	-	142	-	-	135	-	-
Fixed line metrics										
Fixed lines (mil)	1.87	1.88	1.88	1.88	1.85	1.85	1.86	1.87	1.79	1.76
Fixed wireless (000's)	42	39	39	31	26	24	20	27	122	165
Total fixed broadband connections (mil)	0.98	1.09	1.18	1.27	1.34	1.41	1.45	1.50	1.58	1.65
Fixed line broadband connections per 100 population	22.7	25.2	27.1	29	30.4	31.6	32	32.5	32.9	33.7
Fixed monthly data use per broadband connection (GB)	-	7	10	18	26	32	48	69	117	172
Number of unbundled lines (000's)	37	67	98	116	129	127	123	107	81	53
Resold Spark phone lines (000's)	326	374	414	440	421	409	382	341	284	179
UFB (government sponsored fibre) lines (000's)	-	-	-	1	10	39	106	241	413	605
Chargeable fixed voice call minutes (bn)	6.67	6.25	6.12	5.71	5.47	5.13	4.66	4.34	3.44	3.10
Residential local fixed voice call minutes (non-chargeable) (bn)	5.06	4.65	4.45	4.29	3.5	3.13	2.7	2.10	1.48	1.19
Total fixed line retail revenues (\$bn)	2.88	2.89	2.89	2.86	2.77	2.68	2.58	2.6	2.62	2.58
Mobile metrics										
Mobile connections (mil) ^b	4.7	5	5.2	5.4	5.3	5.6	5.8	6.1	6.4	6.4
Active mobile connections per 100 population	109	115	119	122	119	124	127	129	134	131
Share mobile pre-paid (%)	66.1	67.2	65.7	64.9	63.3	63.6	62.3	60.7	60.3	58.1
Mobile voice call minutes (bn)	4.24	4.44	4.40	4.42	4.77	5.30	6.63	7.81	8.77	9.34
SMS messages sent (bn)	11.4	12.8	13.6	13.9	13	12	12.1	11.3	9.2	8.8
Total mobile retail revenues (\$bn)	2.05	2.07	2.14	2.38	2.44	2.49	2.54	2.68	2.75	2.83

^a Data collected only every 3 years.

^b Prepay connections for all years are counted as those active in the prior 6 months.

Introduction

Purpose of this report

This is the Commerce Commission's 12th annual telecommunications market monitoring report. This report presents key industry metrics and longer term telecommunications trends in New Zealand for 2018.

This report is released under section 9A of the Telecommunications Act 2001 (the Act). Section 9A requires us to monitor competition in, and the performance and development of, telecommunications markets. This monitoring report is additional to our monitoring associated with specific determinations and information disclosure.

Background and data sources

Since 2007, we have collected data from various sources to monitor and understand trends in New Zealand's telecommunications markets, and to inform the industry and the public about our findings.¹

In October each year we send a voluntary questionnaire to the industry. We request information which we expect the telecommunications operators completing the questionnaire to have for the financial year ending in June. The data collected as part of our 2018 questionnaire responses are referred to as the 2018 results in this report.²

Aggregated results from our annual industry questionnaire are published alongside this report and are available on our [website](#).³ Revenues and prices are expressed as nominal figures (not adjusted for inflation) unless otherwise indicated. Connection numbers, unless otherwise indicated, refer to both residential and business connections. Where more recent industry data is available and used, the different time period is noted.

We thank all the respondents who submitted data and look forward to their continued cooperation. We welcome any comments or feedback on the questionnaire and this report.

Upcoming topic papers

In addition to an annual telecommunications market monitoring report we are now producing topic papers that focus on specific areas of interest, market developments and trends. We anticipate publishing further topic papers in 2019.

Earlier this year we published topic papers on telecommunications market developments in 2017 and broadband performance testing in New Zealand. These topic papers can be found on our [website](#).

¹ Telecommunications Act 2001, section 9A.

² The data from the industry questionnaire is for the 12 months to 30 June 2018 when it is a measure of volume like minutes. Where the data is a snapshot in time such as subscriber numbers, it is the data as at 30 June 2018.

³ The data used in our report is sometimes revised by the respondents or the Commission when it appears inaccurate, an error has been made, or it was an estimate. Consequently, some prior year figures used in previous reports may have been revised.

Key developments in 2018

Fibre take-up continues strong growth

The number of fibre connections continued to increase rapidly with the Ultra-fast Broadband (UFB) rollout reaching 76% completion in September 2018. As at 30 September 2018 there were 668,850 fibre connections out of the 1.4 million households and businesses able to connect to the UFB network.⁴

Kiwis shifting away from copper broadband

As at 30 September 2018, total copper broadband connections dropped to 755,000, with all variants, including higher speed VDSL, now declining. Copper broadband connections have fallen about 40% from their peak in September 2014 when there were 1.3 million connections.

Although the growth in fixed wireless broadband connections over the whole year was again strong at 36%, hitting 165,000 connections, growth was slower in the final six months of the year at 5%. Fixed wireless connections now make up 10% of all broadband connections.

Minutes no longer a focus

The bulk of both fixed and mobile revenue now comes from the sale of subscriptions⁵ that often offer a bundle of services with a large or even unlimited amount of calling minutes.

For fixed-line minutes, some respondents to our questionnaire noted that they no longer record all the minutes of calling generated by their customers. Charging for calls has become a relatively minor source of revenue. In 2018, revenues from fixed network subscriptions were \$2.05 billion compared to \$264 million for calling revenue.

Strong consumer demand for data usage

Data usage by both fixed and mobile connections increased strongly over the year. The average data consumption per fixed broadband connection increased from 117GB to 172GB per month. The compound average growth rate (CAGR) for fixed data since 2010 is 49%. The average data consumption per mobile connection increased from 1.2GB to 2GB per month, the long term CAGR for mobile data since 2010 is 66%.⁶ Approximately 11% of on-account mobile subscribers now buy a bundle of mobile services with more than 8GB of data.

New Zealand mobile plan prices well below OECD average

The price of a New Zealand entry-level mobile plan giving 30 calls⁷ and 500MB of data at \$16 per month was 36% below the OECD average and well below Australia. Higher use plans

⁴ See MBIE's Broadband deployment updates available at <https://www.mbie.govt.nz/science-and-technology/it-communications-and-broadband/fast-broadband/quarterly-updates-on-broadband-deployment/>

⁵ A subscription is usually a fixed monthly amount paid for the delivery of a specified service.

⁶ To calculate average data consumption prepay subscribers are counted using the 30 day active definition.

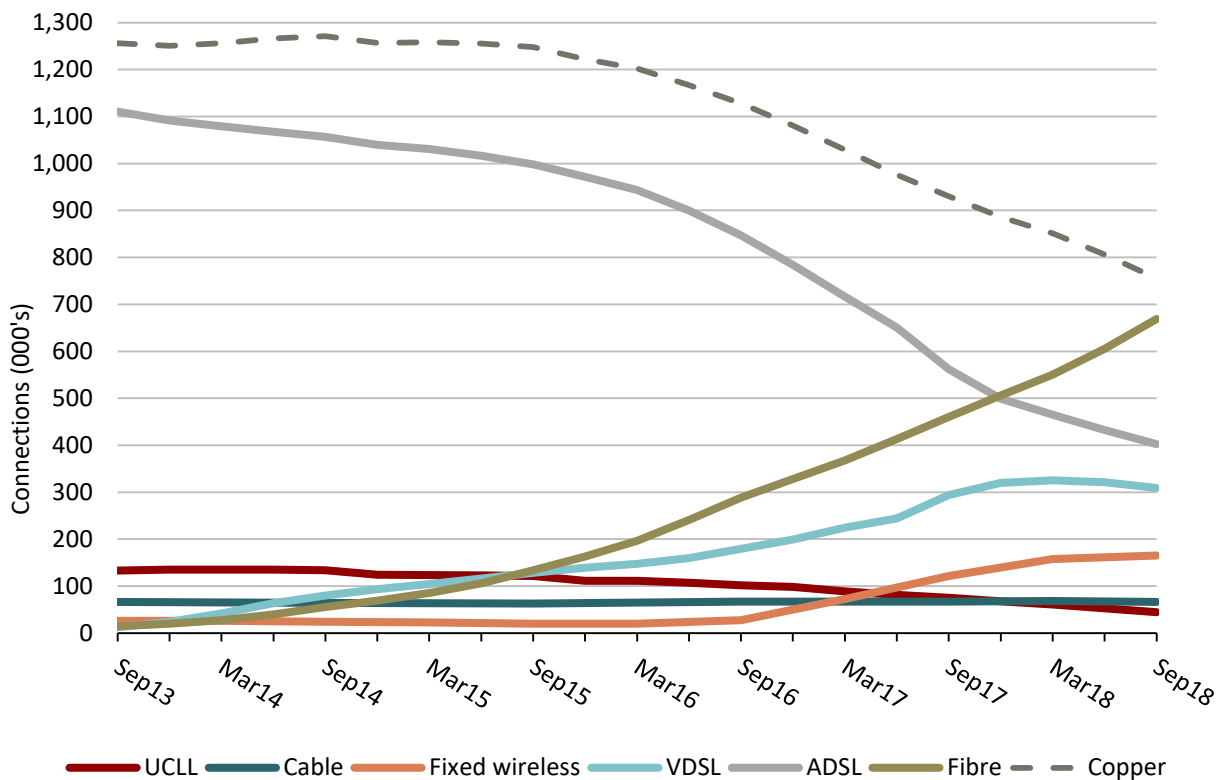
⁷ For benchmarking purposes, a mobile call is generally assumed to be just less than 2 minutes in length.

showed big price decreases and are well below the OECD averages, but still relatively more expensive than the comparable plan in Australia. A high use mobile plan with 300 calls and 5GB of data is \$35 cheaper than 2017 and now costs \$45 a month, 20% below the OECD average.

Fixed line connections

Consumers are moving away from copper and onto fibre

Figure 1: Fixed-line broadband connections by technology



Source: Chorus, MBIE, annual telecommunications questionnaire

Fibre is becoming the dominant fixed broadband technology as shown in Figure 1 with 668,850 connections as at 30 September 2018. This is an increase in connections of around 45% since September 2017. Almost 1.4 million households and businesses are now able to connect to the UFB network.

Copper broadband connections will soon be overtaken by fibre as they continue to fall. As at 30 September 2018 copper broadband connections totalled 755,000, split between 402,000 ADSL connections, 309,000 VDSL connections, and 44,000 UCLL connections.

Fixed wireless connections increased to 10% of total broadband connections at 165,000, although the rate of increase slowed in the 6 months to 30 June 2018.

The OECD compares the rate of fixed broadband penetration between countries by measuring fixed connections per 100 of population. As at 31 December 2017, New Zealand

had 33.7 fixed broadband connections per 100 of population compared with the OECD average of 30.0. This gave New Zealand a ranking of 17th out of the OECD countries, just ahead of Australia at 18th.

New Zealand ranked third highest out of the OECD countries for fixed wireless broadband connections with 3.3 subscriptions per 100 of population, behind Czech Republic at 10.4 and Slovak Republic at 5.8.

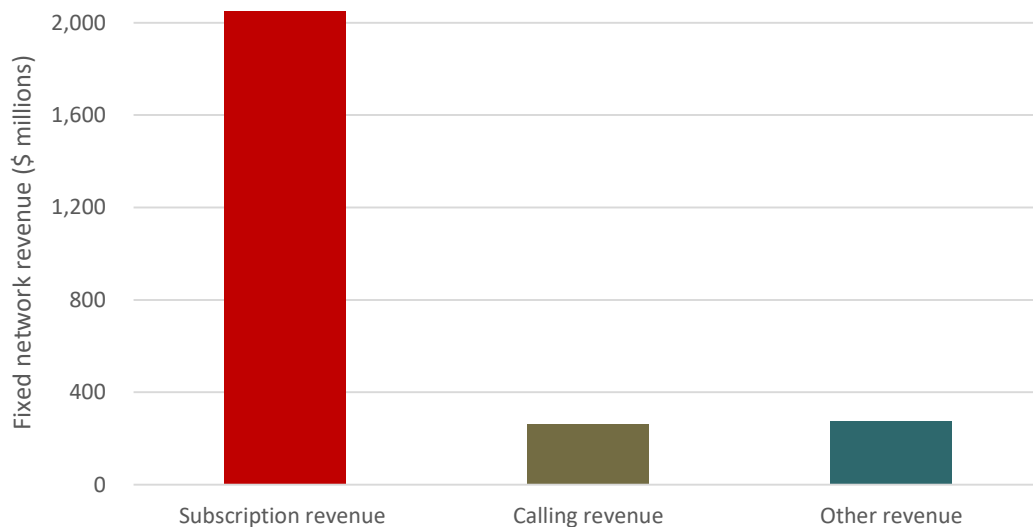
Data from the 2018 Statistics New Zealand internet service provider survey shows approximately 80% of fixed broadband connections are residential connections, with the remainder being business and government connections. The survey also indicated that the number of households with a fixed broadband connection in 2018 remained similar to last year at approximately 86%.⁸

Retail revenues

Subscription revenues dominate fixed-line revenues

Fixed network retailers now get the bulk of their revenue from subscriptions as can be seen in Figure 2. Total subscription revenue is \$2.05 billion compared to calling revenue of \$264 million and other revenue of \$272 million.

Figure 2: Subscription, calling and other revenues



During our collection of industry data, fixed-line retailers noted the move away from recording minutes. Most telecommunications services are now sold as a monthly subscription for a bundle of services that often includes a large, and sometimes unlimited, number of minutes along with data and other services. Feedback from one respondent was that minutes are now only recorded in their systems if it has been charged.

⁸ Stats NZ Internet service provider survey 2018, available at <https://www.stats.govt.nz/information-releases/internet-service-provider-survey-2018>

Consumers are moving away from traditional landline services for calling. Landline connections, including all fixed-line voice services have continued to decline in 2018. Over 40% of household fixed-line connections now have no voice service as more and more households are now opting to not have a home phone.

Mobile revenues continue to rise over fixed-line revenues

Figure 3: Telecommunications retail revenues by service

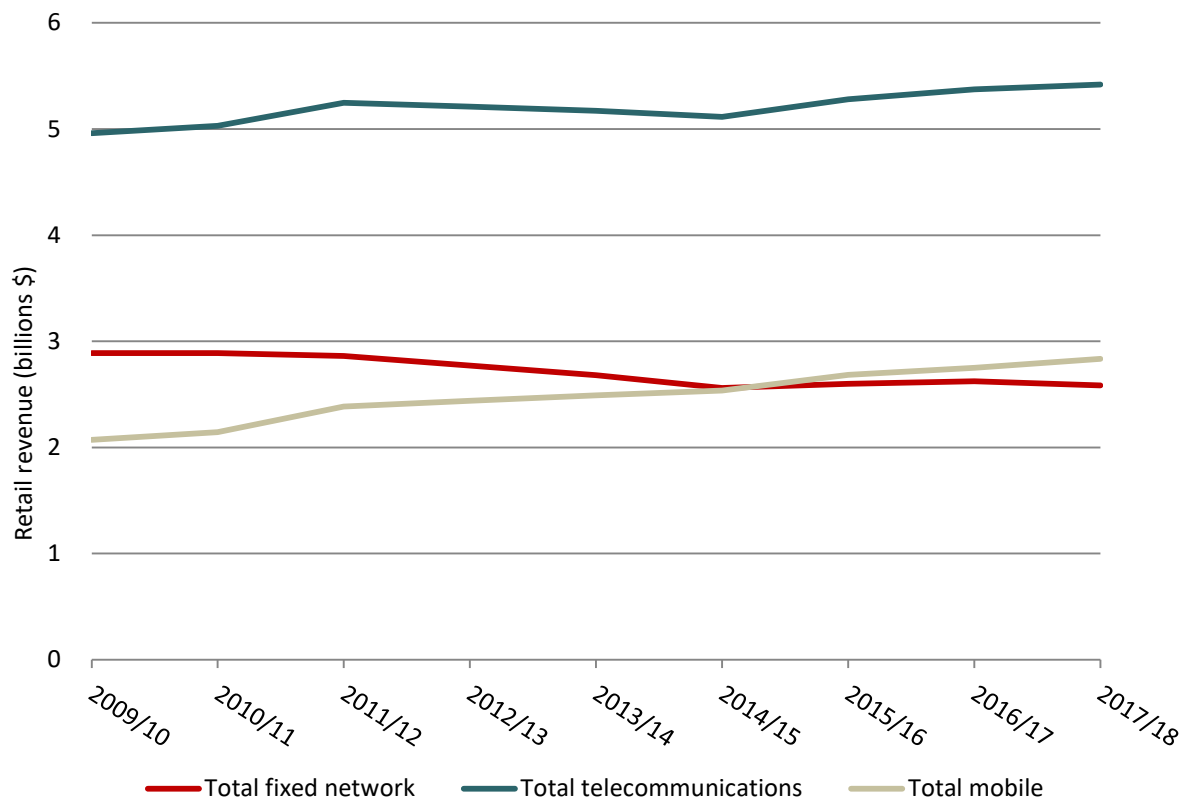


Figure 3 shows mobile revenue continuing to edge ahead of fixed network revenue. Mobile revenue continued to rise modestly, up 3%, to hit \$2.83 billion in 2018. That was more than enough to offset the small decrease in fixed network revenue which fell 1.5 % to \$2.58 billion. This resulted in total retail telecommunications revenue rising marginally (by 1%) in 2018 to reach \$5.42 billion.

Growth in data usage

Consumer data use continues to surge

Figure 4: Fixed-line broadband data consumption

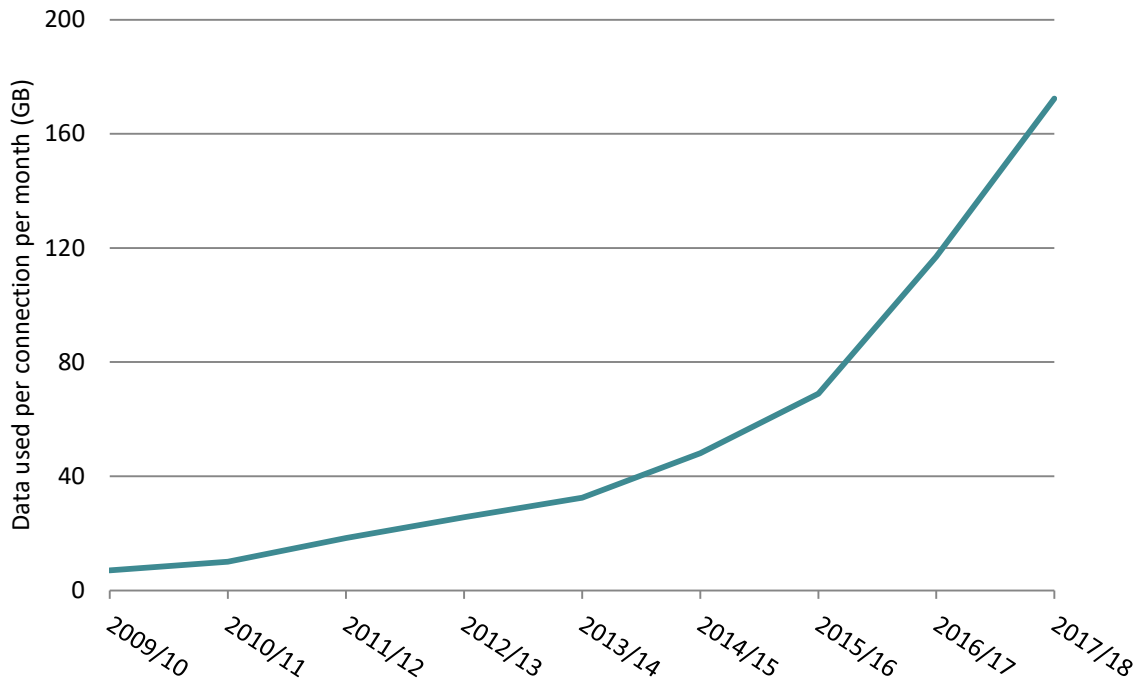
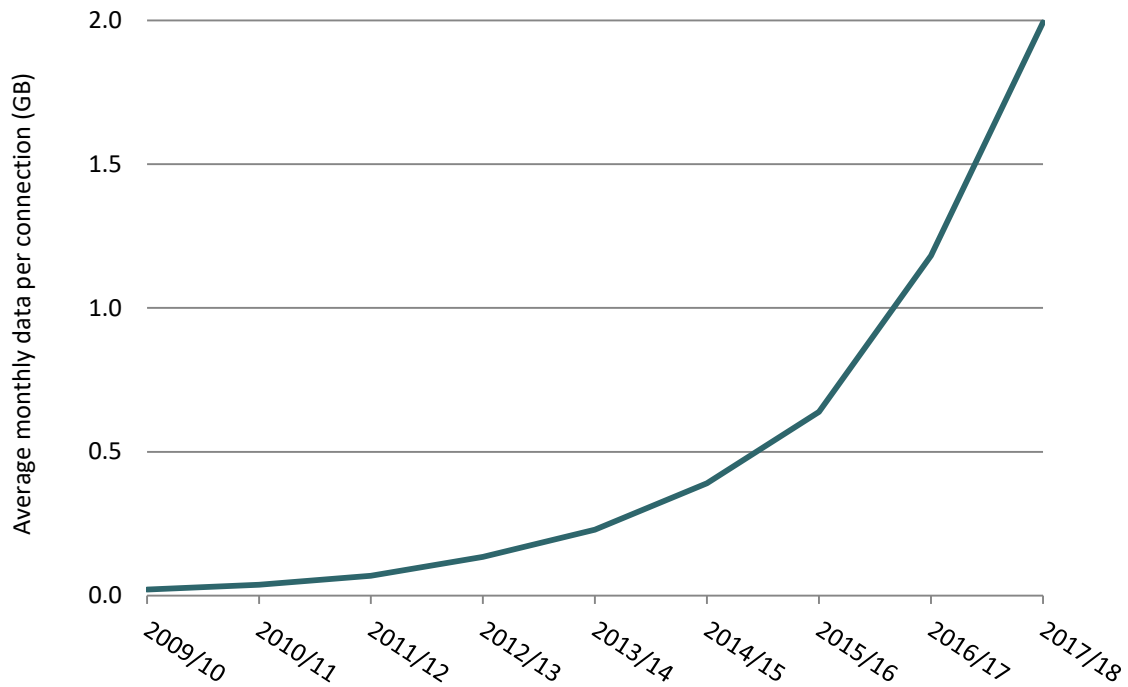


Figure 4 shows the continued strong growth in the consumption of fixed-line broadband in 2018. Our questionnaire responses indicate that the average amount of data used by each fixed-line broadband subscriber per month rose to 172GB in 2018.⁹

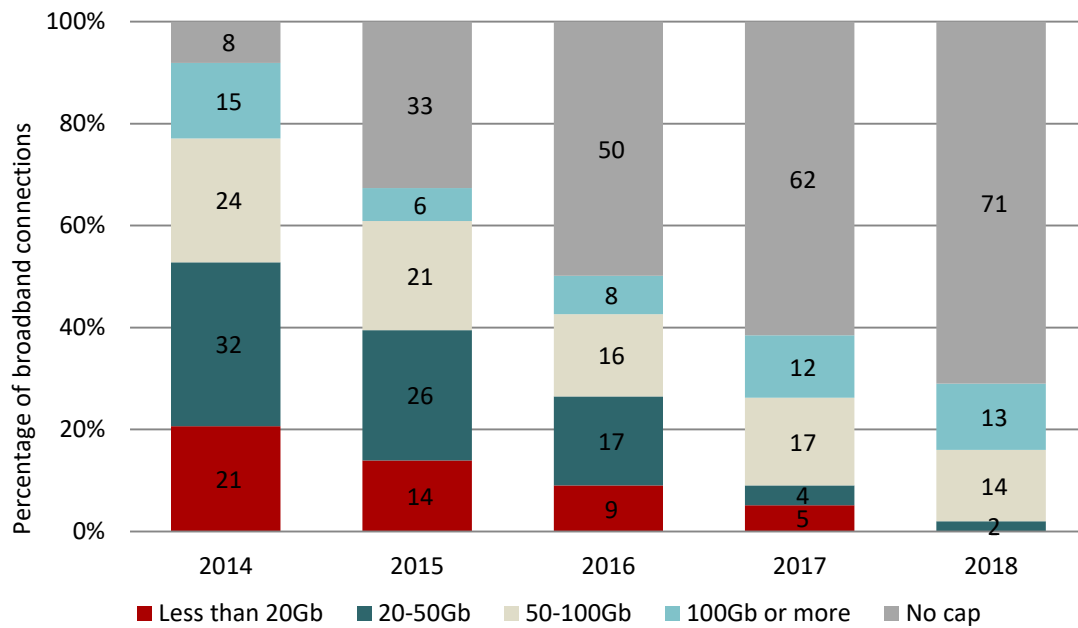
This usage is substantially up from the 117GB recorded for 2017. The CAGR for fixed-line data consumption over the period 2010 to 2018 was 49%. This shows data usage has been increasing on average by nearly half each year.

⁹ This is an average for whole year to 30 June 2018 for all fixed-line connections. This is not comparable to the monthly broadband connections averages published by Chorus.

Figure 5: Mobile data consumption

The amount of data consumed over mobile networks (excluding WiFi) by retail customers also continued to grow strongly in 2018, as shown in Figure 5. The average amount of mobile data consumed per connection is now 2GB per month. The CAGR for mobile data over the time we have been measuring it (since 2010) is 77%.

Mobile data consumption remains relatively small compared to fixed-line broadband data consumption. However, a lot of the data consumed on a mobile device typically comes from WiFi served by a fixed-line connection.

Figure 6: Household broadband internet data caps

Source: Statistics New Zealand, Internet service provider survey

Figure 6 sets out the latest data from Statistics NZ which shows that more and more fixed line broadband plans now have no data cap, with over 70% of connections being on an unlimited plan.

OECD price benchmarking

Each year we benchmark prices New Zealanders are paying for common plans for fixed-line and mobile against Australia and the OECD. We use the database that Strategy Analytics' Teligen division prepared.¹⁰

Prices for fixed-line broadband remain relatively competitive internationally

Most consumers of fixed-line telecommunications services currently still buy a bundle that includes both a voice and broadband service, although as noted above, this is rapidly declining. This year 51% of households are buying a voice and broadband bundle, compared to 40% buying only broadband and the remaining 9% buying only voice.

To get an indication of how New Zealand fixed-line broadband prices compare to those overseas, we compared the New Zealand price against an overseas average price for fixed broadband services for various levels of usage and speed.^{11,12}

¹⁰ More information about Teligen can be found <https://www.strategyanalytics.com/access-services/networks/tariffs---mobile-and-fixed>

¹¹ The countries included in calculating the average vary because not all have comparable plans. They are mostly OECD countries but some extra European countries are also included in the Teligen database <https://www.strategyanalytics.com/access-services/networks/tariffs---mobile-and-fixed/broadband/oecd-fixed-broadband/about#.WRahHGmGOBo>

The entry level home broadband plan offered by most retailers now offers 60GB to 150GB of data and many consumers are on unlimited plans, so we continued to use 60GB, 150GB and 500GB of data for the benchmarking this year. We use 500GB as a proxy for unlimited plans.

Teligen recently added fixed wireless plans into the benchmarking dataset which allowed a fixed wireless plan to meet the entry level criteria for the first time. Although the fixed-line broadband price for the entry-level category dropped by \$5 from last year to \$60 a month, the OECD average dropped further. This put the New Zealand price 6% below the OECD average as shown in Table 1 below.

Table 1: Fixed-line broadband and voice benchmarking

Broadband + voice	NZ rank in OECD	Price in NZD (PPP) Sep 2018			% difference from NZ	
		NZ	Aust.	OECD Average	Aust.	OECD Average
<i>Entry level</i> 60GB 10Mbps	18/34	\$60	\$51	\$64	18%	-6%
<i>Medium user</i> 150GB 30Mbps	19/34	\$75	\$71	\$76	6%	-2%
<i>High user</i> Unlimited (500GB) 100Mbps	16/33	\$90	\$91	\$99	-1%	-9%

Source: Teligen

The medium user category was filled with a \$75 fibre plan. The comparable Australian plan was the National Broadband Network (NBN) 50 Mbps fibre service. The New Zealand price was just 2% below the OECD average. New Zealand ranked slightly better in the high user category with a \$90 a month fibre service, priced the same as it was last year.

To make the benchmarking more directly comparable, this year we adjusted the Teligen benchmarking results for Australia to include the NBN 100Mbps fibre plan (which includes a voice line) priced at AU\$89.99 a month (NZ\$91). Teligen had originally excluded this plan on the basis that advertising for the plan clearly states its average speed at peak times is below 100Mbps.

¹² We have used the same benchmarking approach and similar baskets as were described in our report, 'International Price Comparison for Retail Fixed-line Telecommunications Services 2013'. See <http://www.comcom.govt.nz/regulated-industries/telecommunications/monitoring-reports-and-studies/monitoring-reports/>

Table 2: Fixed-line broadband-only benchmarking

Broadband only	NZ rank in OECD	Price in NZD (PPP) Sep 2018			% difference from NZ	
		NZ	Aust.	OECD Average	Aust.	OECD Average
<i>Entry level</i> 60GB 10Mbps	21/41	\$50	\$41	\$51	23%	-3%
<i>Medium user</i> 150GB 30Mbps	26/41	\$70	\$71	\$64	-1%	10%
<i>High user</i> Unlimited 100Mbps (500GB)	26/40	\$80	\$91	\$81	-12%	-2%

Source: Teligen

Table 2 shows that New Zealand's prices for broadband-only plans are relatively less competitive than prices for a broadband and voice bundle. A fixed wireless plan met the entry level criteria, with New Zealand just 3% below the OECD average. We note that Skinny currently offer a \$39 plan which was not included in the Teligen dataset this year.

This year the New Zealand plan for the high user category was a cable broadband plan priced at \$79.99. However, we note that comparable fibre plans are also commonly available at this price. We again adjusted the results for Australia to include the NBN 100Mbps fibre plan priced at AU\$89.99 a month (there appears to be no discount for not using the voice line).

New Zealand mobile plan prices well below OECD average

The amount of data in the standard OECD plan categories has increased substantially this year because of the increasing data consumption by mobile phone users worldwide. Kiwi mobile phone users are now consuming an average of 2GB of data per connection per month along with 159 minutes of voice. Consumers buying on-account plans have the highest average data usage at 3.2GB per month.

A significant number of on-account consumers buy plans with more than 8GB of data. Our questionnaire results indicate about 290,000 or 11%, so we included in our mobile benchmarking an 'ultra-high' category with unlimited minutes and 20GB of data this year.

Table 3: Mobile phone services benchmarking

Mobile phone services	NZ rank in OECD	Price in NZD (PPP) Aug 2018			% difference from NZ	
		NZ	Aust.	OECD Average	Aust.	OECD Average
<i>Entry level</i> 30 calls + 500MB	8/36	\$16	\$22	\$26	-27%	-36%
<i>Average user</i> 100 calls + 2GB	15/36	\$28	\$22	\$41	23%	-32%
<i>High user</i> 300 calls + 5GB	17/36	\$45	\$34	\$56	34%	-20%
<i>Ultra-high user</i> Unlimited calls + 20GB	16/31	\$65	\$53	\$109	23%	-40%

Source: Teligen

Table 3 shows that New Zealand's benchmarked mobile prices were well below the OECD average for all the OECD plan types we measure, although prices were above Australia for all but the entry level plan.

Vodafone's MyFlex Prepay plan was again the cheapest for low users. The plan gives customers the flexibility to significantly adjust the amount of data, minutes and texts in their prepay bundle and therefore the price. The price changed since last year, with the cost of 100 calls and 2GB average user category dropping from \$33 to \$28. The two higher usage categories were met by Skinny Direct plans. However, we note that Skinny Direct recently stopped selling any plans to new customers.¹³

¹³ See Skinny Direct FAQs available at <https://www.skinydirect.co.nz/faqs>

Telecommunications industry investment

Telecommunications industry investment continues to be dominated by the large ongoing investment by Chorus and Local Fibre Companies (LFCs), as shown in Figure 7. As well as the ongoing UFB fibre roll-out, investment was also driven by continuing technology upgrades in the rest of the industry. Overall investment was \$1.66 billion in 2018; up 4.7% after remaining relatively flat in 2017.

Figure 7: Telecommunications investment

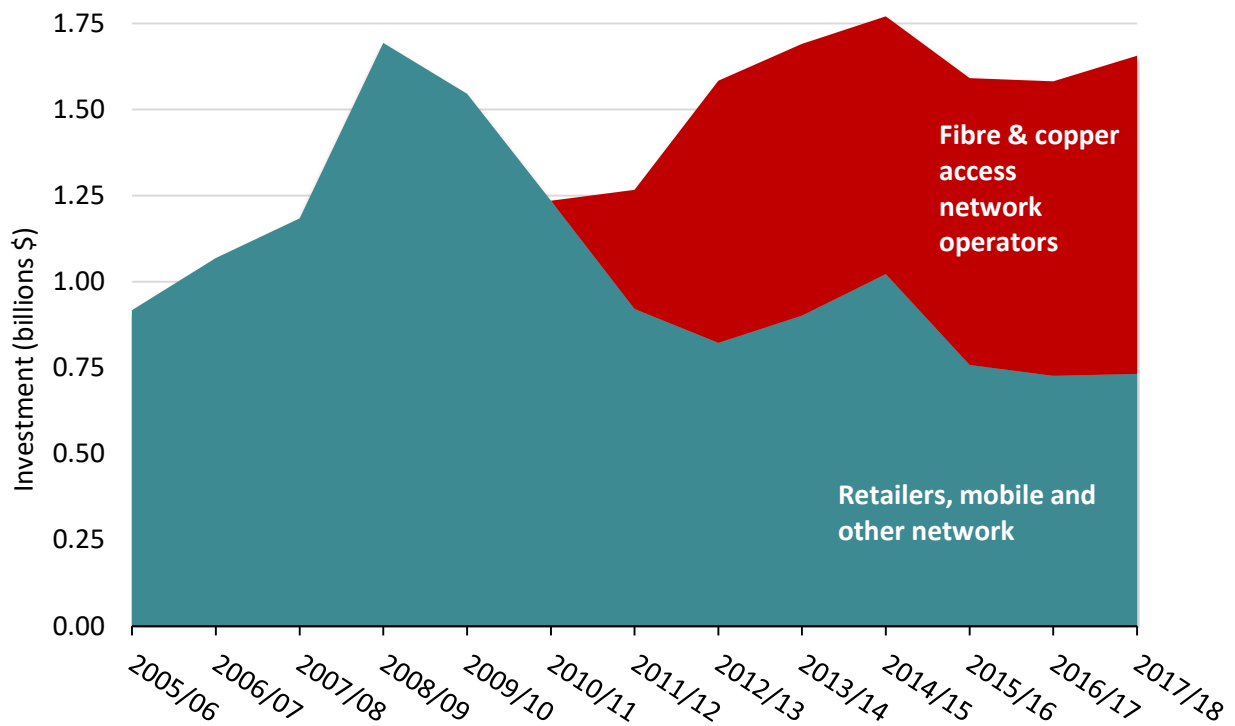
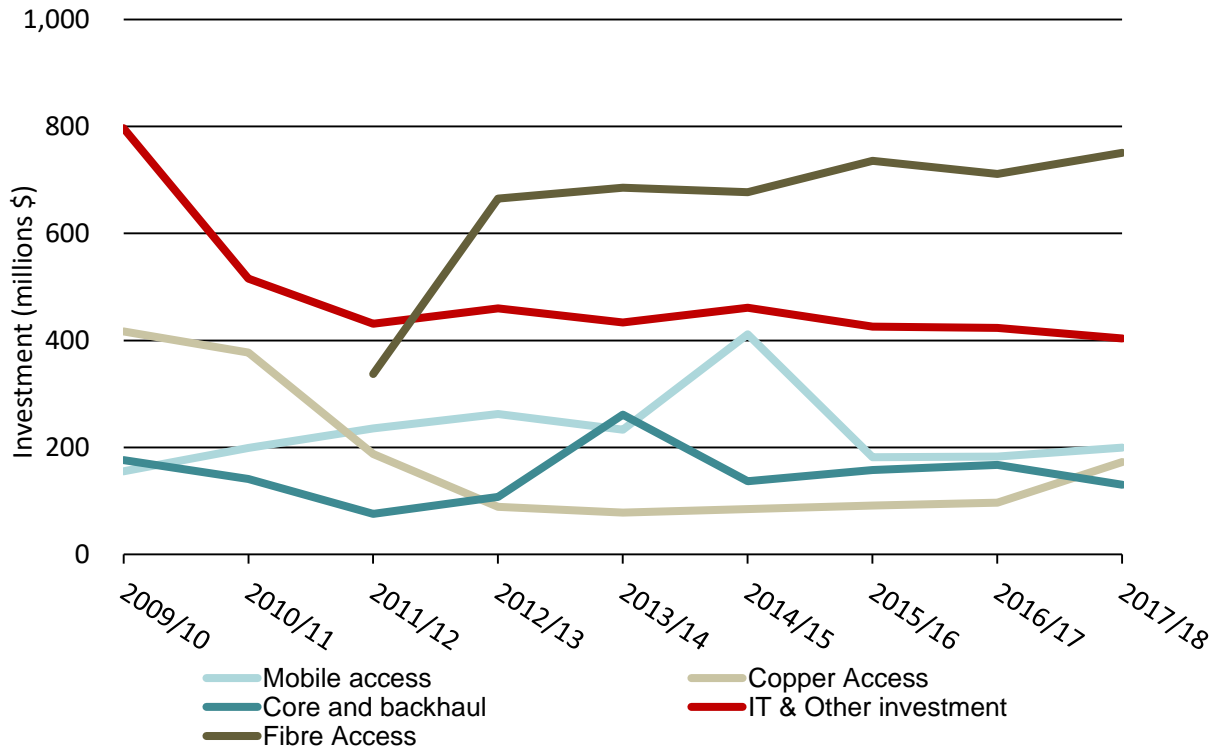


Figure 8 shows investment broken down by component. In 2018, investment in the fibre access network increased 6% to \$751 million. All other components remained relatively stable. Investment in copper access was up but this was largely driven by Chorus capitalising expenditure on customer retention.

Figure 8: Investment by component



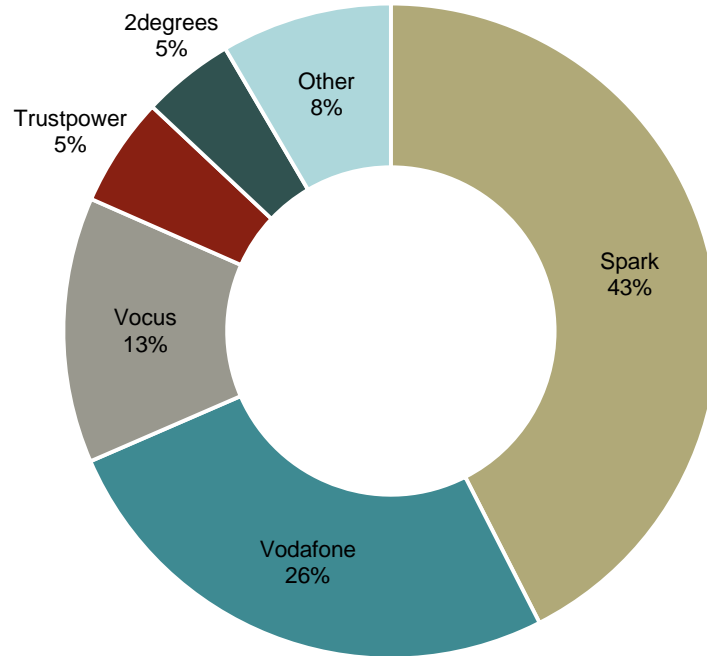
Market shares

Smaller providers continue to grow market shares

We have estimated the main retailers' fixed-network broadband market shares by number of connections using public reports as shown in Figure 9.

The smaller retailers have continued to grow their share of market connections with the combined share of Trustpower, 2degrees and 'Other' providers increasing from 16% in 2017 to 18% this year.

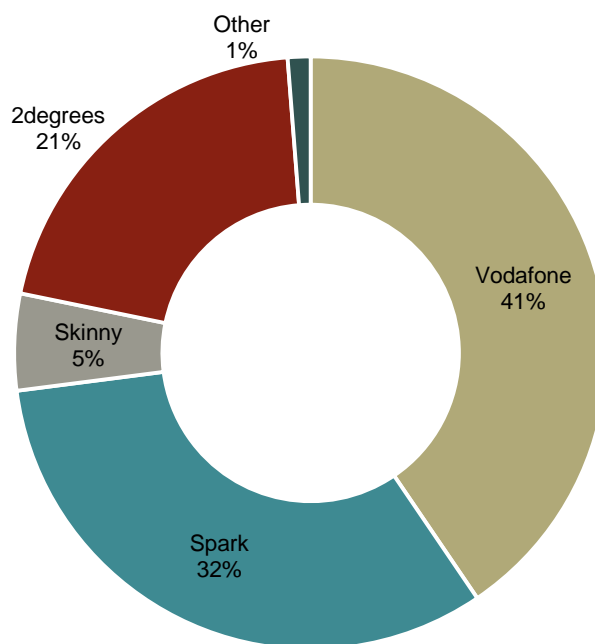
Figure 9: Estimated fixed broadband retailer market share by connections



Mobile market shares relatively stable

Figure 10 shows the 2018 market shares of the main mobile market retailers. This year 'Other' includes MVNO subscribers.

Figure 10: Estimated mobile market shares by subscribers



Overall, the mobile market remained stable with changes in subscribers not necessarily being indicative of changes in revenue. 2degrees' subscribers dropped slightly from last year, but this drop was largely due to the closing of its 2G network and the separate reporting of Warehouse Mobile subscribers. MVNOs, including Warehouse Mobile, showed some growth in 2018.

Market monitoring updates

Updates on section 9A studies

Mobile study

We have continued to progress our mobile market study, under section 9A of the Act. The study will help us to better understand how mobile markets are performing and developing, identify any current or potential barriers to competition, and explore how the mobile landscape may evolve in the future.

We recently engaged with a range of interested stakeholders on our Issues Paper, receiving submissions on a range of aspects and areas of interest in the mobile market. We expect to issue our Preliminary Findings from the study in April 2018, and anticipate concluding the study before October 2019.

More information about our mobile market study can be found on our [website](#).

Backhaul study

In January 2018 we recommenced our section 9A study of domestic backhaul services. The study was suspended in February 2017 pending the finalisation of the Telecommunications Act Review, given likely interdependencies between the current regulation of backhaul and its future regulation under Part 6 of the Act.

The submissions we had already received helped us to better understand the market. Based on issues raised in submissions and cross-submissions, we decided to focus the remainder of the study on the intra-regional backhaul market. We continue to actively monitor the market and to gather information from parties and will publish our findings in early 2019. More information about our domestic backhaul services study can also be found on our [website](#).

Study of fibre services

In April 2018 we commenced a study of fibre services under section 9A of the Act. The purpose of the study was to improve our understanding of the nature of fibre networks and operations in New Zealand, allowing us to prepare for the regulation of fibre networks in the future.¹⁴

¹⁴ Commerce Commission "Section 9A Fibre Services Study in New Zealand – Terms of reference" (27 April 2018), <https://comcom.govt.nz/regulated-industries/telecommunications/regulated-services/fibre-regulation/fibre-services-study>.

We concluded our study this month and published a summary of our main findings. The final report can be found on our [website](#).

Focus on telecommunications retail service quality

The Telecommunications (New Regulatory Framework) Amendment Act 2018 introduced a number of new consumer provisions aimed at improving retail service quality (RSQ) through increased information and added consumer protections.

The new consumer provisions give specific direction to the Commission to monitor RSQ and make available information in a way that informs consumer choice.

In early 2019 we will publish a Retail Service Quality Monitoring – Process and Issues paper, which will be an important part of the monitoring stage of our RSQ framework. The paper will outline how we plan to engage with consumer and industry stakeholders to set up routine collection of RSQ data from telecommunications service providers that we intend to present to inform consumer choice. The paper will also provide our initial thinking on metrics we consider could be good indicators of RSQ.

We also intend to conduct our own consumer survey in 2019, which will combine repeatable questions that will provide useful information that could be published to inform consumer choice, as well as specific questions to aid our understanding of key issues we identify.

Broadband performance monitoring

We have partnered with SamKnows to track and monitor how broadband technologies (e.g. VDSL, Fibre, ADSL) are performing to help New Zealanders choose the best broadband for their homes.

We expect to publish our initial findings report from our enhanced Measuring Broadband New Zealand programme before Christmas. The report will be available on our Measuring Broadband New Zealand [website](#).

We have had more than 4000 people sign up to be a broadband volunteer, and independent testing partner SamKnows has dispatched more than 1000 Whiteboxes to volunteers. Our aim is to have 3000 Whiteboxes included in the sample. However, it is taking time to find the right mix of volunteers in the areas and on the plans and technologies needed. We are working with retail service providers to promote the programme directly to under-represented customer groups.

To volunteer go to at www.measuringbroadbandnewzealand.com.

The first report will give us a benchmark of how broadband technologies are performing. Once we have a larger sample, we will be able to give consumers independent information across broadband technologies, plans and providers to help them choose the best broadband for their homes. We are also exploring how to make this information available to as many consumers as possible.

List of defined terms

ADSL	Asymmetric Digital Subscriber Line – a type of DSL
CAGR	Compound annual growth rate – used to describe the average annual growth rate of something over a period of time
DSL	Digital Subscriber Line – method of transmitting high-speed data and, if necessary, voice simultaneously over a copper phone line
GB	Gigabyte. 1 gigabyte = 1024 megabytes
ISP	Internet Services Provider. Most ISPs have now morphed into retailers of a full suite of telecommunications services
LFC	Local Fibre Company. These are the four companies contracted with government agency Crown Fibre Holdings to deploy Ultra-Fast Broadband to 75% of the population by rolling out fibre optic access networks
MB	Megabyte – a multiple of the unit byte for measuring the quantity of digital information
Mbps	Megabits per second – used to measure data transfer speeds of high bandwidth connections, such as fibre, Ethernet and cable modems
MVNO	Mobile virtual network operator – an operator that provides mobile phone services but does not generally have its own licensed frequency allocation of radio spectrum or much of the infrastructure required to provide mobile telephone service. It therefore relies on buying services from an operator with a full mobile network. The amount of control it has over the services it offers will vary according to the nature of its agreement
NBN	National Broadband Network is the Australian national wholesale open-access data network being rolled out and operated by the government owned NBN Co Limited
OECD	Organisation for Economic Co-operation and Development
PPP	Purchasing Power Parity – an exchange rate designed to equalise standard-of-living differences between countries, and generally accepted as an appropriate conversion method for non-tradable goods and services
RSQ	Retail service quality as defined by the Telecommunications Act 2001
SMS	Short Message Service – commonly known as a text messaging, is a service for sending short messages between mobile devices
The Act	The Telecommunications Act 2001
UCLL	Unbundled Copper Local Loop – a Chorus copper line that connects a phone user to the local exchange that can be accessed by retail telecommunications providers to provide a voice and broadband service
UFB	Ultra-Fast Broadband – the name given to the Government’s initiative to roll out a fibre-to-the-premises access network to give households and businesses access to very high-speed broadband
VDSL	Very High Bitrate (high-speed) DSL
WiFi	Wireless Fidelity Standard – a series of standards for a popular technology that allows electronic devices to exchange data wirelessly (using radio waves), including allowing mobile devices to connect to high-speed internet connections. The distance over which a WiFi connection will operate can vary from 20 metres indoors to tens of kilometres outdoors