

Telecommunications market developments in 2017

Topic paper

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Introduction

This Commerce Commission topic paper summarises some of the key telecommunications market developments observed in the 2017 year. It is published under s9A(1)(a) and (c) of the Telecommunications Act, which require us to monitor competition in, and the performance and development of, telecommunication markets and to make information about these matters available. Topic papers are one of the ways that we report and summarise information relevant to that function. The regulatory implications (if any) of the market developments observed in this topic paper are outside the scope of this report and not discussed here.

In prior years we have reported on market developments as part of our Annual Monitoring Report. When we published our 2017 Annual Telecommunications Monitoring Report in December 2017, we signalled that we had decided to condense that report to focus on key trends and provide an additional series of topic papers on specific areas of interest, market developments, and trends.

Our topic papers are additional to our monitoring associated with specific section 9A studies, determinations and information disclosure.

Notable market developments in 2017

Large data bundles arrive for mobile phones

During the 2017 year, mobile network operators all rolled-out various phone plan bundles that included much more data than had previously been offered. All mobile operators now offer bundles that include at least 15GB of data per month. Some of the plans are called ‘unlimited’ but are subject to fair use policies and various restrictions beyond a reasonable expectation of data usage, including throttling speed once 22GB of data is consumed. The amount of data offered in the cheapest bundles has also been increasing, with 1.25GB now being the norm for \$19 prepaid bundles.

The rapidly increasing demand for mobile data is likely to be driven by the increasing use of video on mobile phones, as well as social networking, which is becoming more media-rich. International smartphone analytics research from Analysys Mason showed social networking, including embedded video content, as the biggest contributor to data usage at 29%, with video streaming services like YouTube second at 24%.¹

Fixed wireless broadband enters the mainstream

Our 2017 Annual Telecommunications Monitoring Report showed the dramatic growth in fixed wireless resulting from market developments. With fixed wireless connections reaching 117,000 by mid-2017, fixed wireless broadband has become a mainstream broadband product for lower demand users. Over the past year, both Spark and Vodafone refocused their marketing to show fixed wireless broadband plans (using their 4G mobile

¹ <http://www.marginalia.online/social-networking-and-video-are-main-drivers-of-smartphone-data-traffic-analysys-mason-report/>

networks) as a clear option for those seeking home broadband plans with low to medium data caps (40GB to 120GB). We understand there has also been a concerted direct sales push in some areas. In addition, Skinny introduced a new low cost (\$40 per month) fixed wireless plan early in 2017.

More retailers start bundling electricity with telecommunications products

The number of retailers selling telecommunications services bundled with electricity to households has been increasing. In 2017 retailers from both telecommunications and electricity sectors, including Slingshot, Orcon and Contact, began offering bundled services. Previously Trustpower had been the only retailer to offer bundled electricity and telecommunications services. Trustpower continued to grow this segment of the market, reporting 80,000 of its 390,000 connections were receiving a telecommunications service as at 30 September 2017. Given 94,000 Trustpower customers had two or more utilities and there were only 37,000 gas connections, most customers with a telecommunications service would have also been buying electricity.

Internet of Things (IoT) networks proliferate

In 2017 mobile network operators announced the roll-out of various networks for the so called Internet of Things (IoT). These utilise different standards and types of technology, and were at various stages of completion by the end of the year. IoT networks allow connection to and collection of data from what are usually low powered sensors in various types of meters, monitors, gauges, and trackers. The proliferation of IoT network roll-outs came after one specialist IoT network (KotahiNet) commenced operations in 2016.

The value these specialist IoT networks is yet to be proven. The majority of New Zealand's machine-to-machine connections are currently electricity meters, and are served by conventional mobile networks. The IoT network developments in 2017 were:

- Both Vodafone and Spark announced they would be rolling out low power wide area networks to enable the Internet of Things. Vodafone will deploy mobile network based NarrowBand IoT (NB-IoT) technology for which there is a global standard, and was successfully tested on its network with its technology partner Nokia in September 2016. The next step was to pilot the technology with a select group of business customers in late 2017, before a network roll out in early 2018.
- The Spark network is being developed by Kordia and will operate on the low range (LoRa) network standard, another global standard for IoT. A significant proportion of the network is expected to be operational by June 2018, enabling sensors and devices to be connected. An advantage of LoRa is that it enables a long battery life on sensors and devices due to the very low power requirements.
- Spark is also advancing plans to deploy mobile network-based IoT networks (LTE-M1 and Narrow-Band LTE). It believed that there were different use cases emerging for different IoT networks, depending on the level and type of data that needs to be transmitted by IoT devices.

Reliance on single international cable system ends

For the first time since the year 2000, a new international fibre optic cable connecting New Zealand to the outside world went live. The new cable was the Tasman Global Access cable between Raglan and Sydney. Its commissioning means the country is no longer reliant of the Southern Cross Cable for the transport of almost all its international telecommunications traffic. Other new international cables are expected to be commissioned in 2018 and 2019. The Hawaiki cable system is scheduled to be ready for service in June 2018 and the new Southern Cross NEXT cable system is due to go live in 2019.

TV over the internet becomes common

While it has been possible to use broadband connections to stream selected TV shows from the websites of both TVNZ and TV3 for several years, TVNZ started live streaming all its channels from mid-2017 and Freeview announced it would be offering a full IP TV service (meaning no need for an aerial or satellite dish) in early 2018.

In mid-2017, TVNZ publicly stated that TVNZ OnDemand had an average weekly reach of 240,000 viewers and 1.5 million streams. In August, telecommunications research firm IDC New Zealand reported that New Zealand ranks very highly for those who use streaming as their primary method of watching video. According to IDC, 22% of New Zealand consumers said that streaming was their primary method of programme viewing. This was equal to the US and well above the worldwide average of 14%.

Newsroom reported in April 2017 that a Trace Research study found:²

- nearly half of people watch video online; led by millennials who watch nearly 80% of their video content online
- YouTube is the most accessed video streaming site, with 70.2% of viewers using it followed by Netflix at 32.4%
- 51.8% of people use TVNZ OnDemand and 26.2% use competitor ThreeNow
- households have an average of eight video-capable devices, and people watch an average of 3 hours of video each day
- internet TV is the most popular way of viewing online content with 35.6% of viewers watching TV online
- TV series are the most popular type of online content, with 42% of viewers choosing to watch them.

Bundling video streaming services with telecommunications services also became more common in 2017. Spark began offering bundles with Netflix in addition to its own Lightbox service and Vodafone began offering bundles with Sky's Neon service.

² <https://www.newsroom.co.nz/@screen-entertainment/2017/04/05/18082/sky-subscriptions-suffer-as-kiwis-turn-to-online-video>

Telephone exchanges won't be exchanging telephone traffic for much longer

Spark announced in April that it would be gradually turning off its publicly switched telephone network over the next 5 years and moving to a next generation IP-based network. The upgrade will see voice calls move from being connected at the local exchange to being connected at roadside cabinets. The cabinets will convert and then connect the voice calls to the new IP-based network.

The move will essentially mean the end of exchanges housing switching equipment. Spark told Computerworld that the 482 existing exchanges will be replaced with three network nodes — two in the North Island and one in the South Island. The combined mobile network already switches more calls than the fixed line network, with each mobile network operator using only a handful of switching centres to do all this switching.³

Vodafone will be gradually migrating residential landline customers to voice-over-broadband with minimal changes required by customers. Conventional phones will need to be connected to the home modem to be converted to IP.

Fibre overtook ADSL

The strong growth in new fibre connections was maintained throughout the year with total UFB connections exceeding 500,000 by the end of 2017, just overtaking ADSL (slower speed) copper broadband connections.

On Chorus' network, monthly data consumption increased from 106GB per copper broadband line in December 2016 to 141GB in December 2017 compared to an increase from 209GB to 250GB for fibre.⁴ The average connection speed increased from 19Mbps to 29Mbps over the year for copper broadband lines and from 120Mbps to 142Mbps for fibre.

³ <https://www.computerworld.co.nz/article/617882/spark-scrap-pstn-replace-ip-network/>

⁴ Chorus revised the figure for average data usage over fibre in December 2016. This was originally reported as 197GB.

The 2017 year in review

The following is a month-by-month snapshot of New Zealand and international telecommunications market developments.

January 2017

- Skinny announced a fixed-line unlimited data broadband service. The Unlimited Broadband Plan was available for \$58 per month for the first year and \$88 per month for the second year, when customers signed up for 24-months. Alternatively, with no term it was \$68 per month, with a \$99 modem and \$49 connection fee. Skinny also introduced a \$40 fixed wireless plan with 40GB of data, allowing New Zealanders to be online for a small monthly cost.
- The Government announced UFB would be extended to target providing up to 85% of the population with access to fibre by the end of 2024 for a cost of \$300 million. Phase two of the UFB build is covered by contracts between Crown Fibre Holdings and four partner companies: Northpower, Ultrafast Fibre, Chorus and Enable. These will see fibre rolled out to 151 more towns plus 43 suburban fringe areas around the larger centres which were covered by the first phase of the programme. In total, the roll-out will provide around 423,000 additional consumers with access to fibre.

February 2017

- Spark formed a partnership with network company Unison for the installation of fibre for residential and small business customers in the Napier, Hastings, Taupo and Rotorua regions through Unison's fibre optic network subsidiary UnisonFibre. According to Spark, the network reached nearly 13,000 homes and businesses, and offers fibre network capabilities equivalent to those available via the UFB network in other parts of New Zealand. The network was built to serve larger businesses with fibre connectivity and largely overlaps the UFB network, but serves some extra homes and small businesses that did not have access to UFB.
- The US Federal Communications Commission cancelled an investigation by the previous administration into the practice of zero-rating. The new FCC, under new Republican chairman Ajit Pai, announced it would no longer investigate US operators including AT&T, Verizon, Comcast and TMobile over the practice of offering free mobile data to access content that is paid for by the content providers. Pai said the free-data plans had proven to be popular among consumers, particularly low-income Americans, and had enhanced competition in the wireless marketplace.
- Former Telstra Chief Operating Officer Kate McKenzie became the Chief Executive of Chorus. The transition coincided with Chorus reporting a doubling of its net profit after tax to \$66 million for the first half of FY17 – up from \$33 million for the corresponding half in FY16. Despite the growing earnings, the number of connections across Chorus' network continued to decline, with total fixed line connections decreasing by 49,000 to 1,678,000 as at 31 December 2016, and broadband connections decreasing by 12,000 to 1,214,000. Chorus said the decline largely reflected local fibre companies continuing to

gain market share in their UFB areas (as expected because Chorus is not the fibre supplier), as well as a marketing push from vertically integrated retailers seeking to convert their customer base to their own wireless broadband networks.

- Spark announced a year-long marketing partnership with Netflix, offering any customers who sign up to a 24-month unlimited data broadband plan a year's free access to the standard plan that usually costs \$14.99 a month (HD and access from two screens). Alternatively, the \$178.88 can be put towards another Netflix plan like 10 months access to Netflix top plan, which offers 4K (ultra HD) and access from up to four screens.
- The Commission declined to grant clearance for the proposed merger of Sky Network Television and Vodafone New Zealand. The Commission's assessment focused on the impact of the proposed merger on competition in both the broadband and mobile telecommunications markets. The Commission was not satisfied that the proposed merger would not be likely to substantially lessen competition in these markets.

March 2017

- Some 50,000 Slingshot customers were offered power to go along with their broadband this month as the company branched into new territory. Vocus, which owns Slingshot, Flip and Orcon had purchased a small power company, Switch Utilities, in December 2016 so it could offer customers internet and energy on the same bill. The aim was to test everything was working as planned, assess the uptake and then extend the offer nationwide. Pricing structures were still being finalised but Vocus said they would have to give customers a reason to take up the offer.
- Roy Morgan research indicated that by the end of 2016 an estimated 1,066,000 New Zealanders aged 14+ had access to Netflix – up 56% compared with 684,000 in December 2015. However, the number with access to Lightbox more than doubled over the period, from 285,000 to 630,000. The New Zealand market has also seen an upswing in the number of people with multiple services. Altogether 1.4 million New Zealanders (37%) had access to one or more of the four main streaming video on-demand services in the home, up from 900,000 at the close of 2015.
- The Commission released the final decision in its review of the non-price features of UBA. The main change was that a standard was added that requires Chorus to keep its UBA service free of congestion as traffic usage grows. Around 19,000 lines in Chorus' remote legacy networks were exempted from the new service standards until it is clear how much the service to these consumers will be upgraded through the second phase of the RBI.
- The Government announced that it had met its target to provide 90% of the population with 4G mobile service 2 years ahead of schedule. In 2013 the Government committed to reaching the target by 2019 under the umbrella of its \$360 million programme to improve the country's broadband capacity and extend it into regional areas through the first phase of its Rural Broadband Initiative (RBI1).

In 2011 Vodafone and Telecom (later to separate into Spark and Chorus) were the primary beneficiaries of the RBI fund, having jointly won the rural broadband tender

which required them to roll-out broadband in rural areas and provide wholesale access on non-discriminatory terms. As a part of the programme, the Government set aside \$50 million to assist the private operators to build new towers to fill in regional mobile blackspots that would otherwise not be commercially viable for them. Vodafone and Spark mutually co-located their 4G equipment on the towers to extend their service.

- Spark networks GM Colin Brown said that while the company was happy with the achievement, it had started pushing ahead with plans to develop 4.5G (enhanced 4G to provide significantly higher data speeds). Spark had already begun using 4.5G at sites in central Christchurch and Silverdale and planned to extend it to more sites.
- Vodafone ran a promotion to give away a year's free subscription to Sky's Neon internet television entertainment service to customers who signed up or renewed a contract to buy unlimited broadband for a minimum term of a year.

April 2017

- 2degrees launched an open ended mobile data plan offering 'unlimited' mobile data (subject to fair use and other restrictions), unlimited calling and unlimited texts for \$129 per month. The data is for personal use on a customer's eligible mobile phone only with the phone not being allowed to be used as a mobile Wi-Fi hotspot, a tether to other devices or for machine-to-machine communications.
- Spark followed 2degrees and launched its own version of an 'unlimited' mobile plan for \$130 a month. It had all the same restrictions as the 2degrees plan but was more specific about fair use and said that after you download 22GB of data within a month (which is about 11 hours on Netflix), user speed could be throttled.
- 2degrees launched Data Clock, an app that allows prepay customers to purchase unlimited data on a time basis in New Zealand. Pricing is dynamic and could vary from day-to-day but introductory pricing started from as little as 50 cents for 5 minutes. An example could be buying 15 minutes worth of data to allow Google Maps to be used when finding a destination.
- Vocus said it planned to contact customers who appear to be experiencing poor broadband performance before they complain or switch provider. Vocus, which owns the Slingshot, Orcon, Flip and CallPlus brands, said it was trialling a service that could detect if there was interference on a line, if a modem was frequently reconnecting, whether a customer had too many devices hanging off a Wi-Fi router, or if they were frequently doing line speed tests.
- A small-town newspaper reported Spark was encouraging residents to abandon old copper-based fixed-line connections for its wireless alternative. It was reported that instead of connecting the home phone via the telephone jacks wired into the house, Spark encouraged residents connect to the landline to a jack on the supplied wireless modem. Spark also mentioned the wireless modem would allow use of Wi-Fi devices in the home.

May 2017

- Sky TV made changes to its FANPASS sports streaming service, axing the \$15 per day and \$20 per week options and raising the monthly price from \$55.99 to \$99.99. It also introduced a \$320 6-month pass. The lower monthly price might have caused Sky to lose satellite customers who otherwise had to buy the Sky Basic service for around \$50 a month before being able to add Sky Sport for another \$30 per month.
- The Government announced a new caller location system for 111 mobile phone calls that will automatically provide emergency services with a probable location of a caller when they dial 111. It will still be important for 111 callers to tell emergency services operators where they are. However, if the caller doesn't know their address or exact whereabouts, the new system will automatically provide emergency services with a more precise location of a 111 caller than is currently the case. The level of location accuracy will still vary depending on a number of factors such as the type of mobile phone and the location source available. New Zealand is the first country outside of Europe to go live with Google's Android Emergency Location service. To deal with concerns around privacy the phone's location services are switched on only when the 111 call is made and then returned to the caller's original settings within 25 seconds. All location data will only be held for 60 minutes and will then be deleted.
- 2degrees announced its first ever profit for the year ending 31 December 2016. 2degrees Chief Executive Stewart Sherriff said the result was an important milestone for the 7 year-old challenger, which grew its post-paid mobile customer base by 19% over the year. Total revenue grew while network costs reduced, and a mobile network extension programme was completed. It was the first full year of 2degrees' broadband, with customer numbers more than doubling. The company's Telecommunications as a Service (TaaS) offering attracted large government organisations such as the Ministry for Primary Industries.
- Chorus reported that Vocus' fibre broadband customers with unlimited data plans download an average of 430GB of data a month. Taryn Hamilton, Vocus Group's general manager of consumer for Orcon and Slingshot said customers with unlimited VDSL plans download an average of 288GB, and those on ADSL download 225GB. The average monthly download for all Vocus broadband customers was 288GB for those on unlimited plans and 230GB for all customers.

June 2017

- The Commission released a study showing that 90% of the December 2015 reductions in Chorus' regulated wholesale broadband prices had flowed through to consumers.
- Spark acquired Ubiquity, which helps clients communicate with customers across multiple channels using data and marketing automation, and merged it with its data analytics company Qrious.
- PriceWaterhouseCoopers forecast that internet streaming would become the largest source of global recorded music sales in 2017 as revenues from services including Spotify and Apple Music surpassed sales of CDs and vinyl records for the first time. Streaming

revenues would rise 37% to US\$9.1 billion in 2017, while sales of physical formats would drop 10% to US\$7.7 billion.

- The Commission issued a request for proposals for enhanced measurement and reporting on the quality of residential broadband for a 3 year period.

July 2017

- Warehouse Mobile extended the maximum life of prepay credit from 31 to 90 days from top-up. Customer data was also allowed to be rolled over for up to 90 days if another data pack was purchased prior to expiry. It introduced two new data packs – 1GB for \$8 and 4GB for \$30.

August 2017

- The Government introduced the Telecommunication (New Regulatory Framework) Amendment Bill to Parliament. The Bill passed its first reading on 16 August with support across the house. The Bill was referred to the Economic Development, Science and Innovation Select Committee.
- The Commission released its first quick guide in its Beginners Guide to Broadband series to help demystify the often complex world of telecommunications. The guide focused on how to choose your broadband and encouraged consumers to think about how their household uses the internet before deciding how much data and what speed they might need from their plan. It also outlined the different technologies available. More quick guides were subsequently released on how to improve your broadband performance and how to resolve an issue with your broadband provider.
- Spark announced improved international roaming packs that offered 7 days of roaming across 33 destinations for \$20 (for 500MB of data, 200 incoming and 200 outgoing minutes, and 200 texts) or \$15 (for 500MB of data). They were available to all mobile customers.
- 2degrees announced it had selected Chorus to be its primary provider of national backhaul connecting customers all around the country. Scalable capacity and capability were offered as part of a multi-year contract.
- 2degrees confirmed it would no longer lock any of its prepay mobiles but would remove any handset subsidies. Spark and Vodafone generally charge \$30 to unlock their lower priced handsets if customers want to change networks within 9 months.
- IDC New Zealand reported that New Zealand is a top performer in adoption and usage of digital services. A higher proportion of New Zealand consumers pay for premium services including paid online music streaming, paid cloud services, and premium console gaming compared to the worldwide average. Streaming has grown strongly in adoption in New Zealand over the last year as Netflix, Lightbox and other services have grown in popularity. While the US led the way in percentage of consumers who pay for streaming services, New Zealand ranked very highly for those who use it as their primary method of watching video. 22% of New Zealand consumers said that streaming was

their primary method of program viewing. This was equal to the US and well above the worldwide average of 14%.

- 2degrees launched a new 10GB for \$55 mobile phone plan and a 15GB for \$70 plan.
- A Spark, Vodafone and 2degrees joint venture (the Rural Connectivity Group) was awarded a \$250 million contract for RBI2 to extend wireless broadband and mobile coverage, with an additional \$8 million in funding allocated to regional Wireless Internet Service Providers.
- A \$130 million extension of the UFB fibre rollout was announced with the bulk of the funding going to Chorus. By 2022, 87% of New Zealanders will have access to UFB and 99% will have access to high speed internet.
- The Commission sent warning letters to MyRepublic, 2degrees, Spark and Vodafone about specific conduct that the Commission considered breached the Fair Trading Act by potentially misleading consumers.

September 2017

- 2degrees increased the data on its \$70 monthly mobile phone plan to 25GB. The plan doesn't have any hot spot or speed restrictions.
- Vodafone deployed a 400 gigabit per wavelength optical system to increase capacity over its fibre optic transport network. The data transport system has been deployed in partnership with Vodafone's optical partner Ciena and test equipment experts, EXFO. It represents some of the most advanced technology in Vodafone's network, capable of carrying 44 x 400 gigabits (or 17 terabits) of capacity across a single fibre pair – enough to allow over 700,000 channels of 4K TV streaming at the same time or more than 100 million simultaneous phone calls.
- Spark's new mobile Prepaid packs and Pay Monthly plans started allowing customers to roll over up to a total of 3.5GB and 500 minutes at the end of the billing period for use at a future time. Spark also reduced the price of its 'Unlimited' mobile plan to \$79.99 per month.
- Vodafone introduced a 22GB monthly plan for mobiles for \$79.99 with no hot spot or tethering restrictions.
- 2degrees launched automatic no cost roaming for qualifying business customers visiting Australia, removing the need for them to buy a roaming pack or worry about bill shock. The company's top two plans in its new business line-up come standard with Aussie Carry On allowing business customers to call, text and use data while in Australia using their New Zealand plan allocation.
- Spark introduced a \$10 charge that allowed mobile phones on its 'unlimited' monthly plan to be tethered and used as mobile hot spots. The speed is throttled once 22GB of data has been used for the month.

- The Commission released its 2016/17 Consumer Issues Report which showed that telecommunications continued to be the most complained about industry, with the number of complaints increasing by nearly a third on the prior year.

October 2017

- Clare Curran was appointed as Minister of Broadcasting, Communications and Digital Media in the 52nd Parliament.
- The Commission started a study of mobile markets in New Zealand, under section 9A of the Telecommunications Act, to better understand how mobile markets are developing and performing. The intention is to develop a common understanding of the forward looking competitive landscape for mobile markets and identify any emerging competition issues.
- Telecommunications research firm IDC expected the local market to expand to \$5.8 billion in 2021 from \$5.4 billion in 2017, propped up by sales of mobile handsets. IDC New Zealand research manager Monica Collier said retailers faced skinnier margins as the level of competition saw them offer more perks to attract customers, and she anticipated there will be some consolidation in the market over the coming year. While price increases from regulated wholesale broadband price changes caused growth in the past, and mobile handset revenues will continue to prop up the market in the future, overall ARPUs (average revenue per user) are either flat or declining in both broadband and mobile.
- Chorus reported that a majority of its fibre broadband connections were for plans with speeds of 100Mbps or higher. Of all mass-market fibre plans, 73% had speeds of 100Mbps or more, with the proportion of 50Mbps plans was reducing after plans offering close to gigabit in speed were first introduced in the prior year.
- Vodafone revamped its retail line-up of fixed broadband plans, adding new features and introducing cheaper 'no frills' and fixed wireless services. Ultimate Home has unlimited data and comes with an Ultra Hub modem with two Wi-Fi extenders and a 12 month Neon subscription. The price is \$94.99 per month for naked and \$104.99 per month with a voice 'line' with 'free' national calls for up to 2 hours. Everyday Home comes with 100GB of data for \$69.99 per month for naked and \$10 extra for voice. Basic Home is a fixed wireless plan suitable for lighter users providing 40GB of data and priced at \$49.99 per month for naked only. Smart Connect is a no frills fixed-line broadband option, with service via online chat, priced at \$89.99 per month with voice and \$79.99 for naked.
- Sydney-based Vocus announced that it was selling its New Zealand assets and hoped to have the sale wrapped up by 30 June 2018.
- Vodafone announced it was going to start offering Vodafone TV, essentially the MySky satellite TV service delivered as IP TV over broadband using a small set-top box to control the TV connection. Recorded content is stored in the cloud rather than the box. Vodafone TV is available only as part of a bundle with a Vodafone unlimited fibre or cable broadband plan, with pricing starting at \$139.99 for naked broadband with Sky Basic and the ability to record up to 200 hours of content.

November 2017

- Vodafone announced that, following Spark's decision to shut down its PSTN by 2022, it would be progressively upgrading all customers with home phones on the PSTN to voice calling over broadband (technically voice over internet protocol (VoIP)). For businesses, Vodafone launched a refreshed voice calling and internet solution designed to future-proof communications.
- Chorus announced a proof of concept trial to potentially resolve the issue of students unable to access high-quality broadband from home. The proposed solution uses Chorus' existing street and network infrastructure. Chorus will start an initial trial with Haeata Community Campus and Crown company Network for Learning (N4L) to provide Wi-Fi access into the homes of the school community, free of charge. If successful, Chorus will look to expand the trial to other streets in the area. Once the Wi-Fi network is up and running, students will be able to log-in from home using a school-provided device. Students will have unlimited internet access without having to worry about data caps and can stay safe in an online environment provided by the school and N4L.
- Spark announced it was purchasing Digital Island, a small New Zealand-based business telecommunications provider. Spark stated the acquisition would further improve its offering to small and medium-sized business customers. Spark intends to run Digital Island as a standalone business with it operationally reporting into the Spark Ventures and Wholesale unit. Digital Island said the change in ownership would allow it to continue its successful data, mobile and cloud bundle for business, while further innovating and growing with the backing of Spark.
- Contact Energy entered the broadband market, selling copper-based and fibre broadband. Contact Energy is offering broadband customers a free modem without the requirement to enter into a fixed-term contract but initially only to its existing electricity customers. The strategy was to target customers who prefer bundled services and the convenience of dealing with one service provider.
- Vodafone launched Vodafone Pass that for a fixed price lets customers connect and consume an unlimited amount of a particular type of content without using up their mobile data allowance.
 - Chat allows the use of instant messaging apps including WhatsApp, Messenger and Viber (\$1 for 1 day, \$3 for 7 days, \$5 for 28 days).
 - Social allows the use of social network apps, including Facebook, Instagram, Snapchat and Twitter (\$2 for 1 day, \$5 for 7 days, \$10 for 28 days).
 - Music allows the use of music streaming apps, including Spotify, iHeartRadio, Apple Music (\$2 for 1 day, \$5 for 7 days, \$10 for 28 days).
 - Video allows the use of video streaming services, including Netflix, Neon and Vodafone TV (\$5 for 1 day, \$10 for 7 days, \$20 for 28 days).

- 2degrees started offering Wi-Fi calling that will allow customers with the right phones to be able to make and receive calls over Wi-Fi. This is useful if they are in a mobile blackspot but with access to the internet. The technology can also save customers money when travelling overseas. Carrier-based Wi-Fi calling has been offered by many mobile operators overseas for several years, but 2degrees is the first to offer it in New Zealand.

Calls made over Wi-Fi in New Zealand will be charged in the same way as if they had been placed through 2degrees' mobile network. 2degrees needs the cooperation of cellphone manufacturers to offer its service, as it requires a software update. Wi-Fi calling is first being offered to about 30,000 customers who have Samsung S8 and S8+ handsets. 2degrees expected it would support a wide-range of mid-range to high-end smartphones by the middle of 2018.

- Vodafone closed down its Vodafone and Paradise email services but offered a free auto-forwarding service to forward on any email continuing to go to old email addresses. It offered to help customers set up a new account with email experts such as Google Gmail and Microsoft Outlook.

December 2017

- Stuff Fibre announced it would be launching a movie streaming service, Stuff Pix, in early 2018. It will offer a catalogue of about 600 movies that can be watched online for \$1 to \$7 each. The movies will not be exclusive to Stuff Pix, but their prices are intended to be the cheapest on offer. Stuff Pix intends to serve the market previously served by video stores.
- Stuff Fibre was warned by the Commission for claiming it is “Probably NZ’s fastest internet.” The Commission’s investigation found Stuff Fibre was likely to have breached the Fair Trading Act because it did not have reasonable grounds for making the claim. Stuff Fibre had not done any broadband speed comparisons with competitors and admitted it did not know if its broadband services were actually faster than its competitors. The Commission took the view that the caveat “probably” was not effective to prevent customers from being misled.
- The Commission released its final decision on how much 16 telecommunications providers will each pay towards the Government’s \$50 million Telecommunications Development Levy (TDL) for 2016/17. Collectively Spark, Vodafone, Chorus and 2degrees Mobile pay more than 90% of the \$50 million levy.
- Chorus announced it was undertaking a proof of concept trial for a Long Range Wide Area Network (LoRaWAN) IoT network. It makes use of Chorus' existing street network assets to provide localised, deep network coverage which enables sensors to communicate with the IoT network from what might typically be hard-to-access locations, such as underground wastewater or sewage pumping stations. It caters for IoT sensors that send regular, small amounts of data. Typically, an IoT access point in an urban area will give network coverage out to between 1.5km and 3km.

List of defined terms

ADSL	Asymmetric Digital Subscriber Line – a type of DSL with download speeds up to 24Mbps
App	Application – an app is a standardised piece of software that runs on a computing platform. The term ‘app’ originally referred only to applications for mobile devices and tablets, but is now also used when referring to a wide range of devices including desktop computers
ARPU	Average revenue per month per user/subscriber
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. Roughly 5 hours of streaming video.
GSM	Global System for Mobile communications – a widely used digital second-generation mobile phone standard
IoT	Internet-of-Things – the network of physical and virtual objects accessed through the internet
IP	Internet Protocol – a method that devices use to communicate across a transmission medium using digital signals
IPTV	Internet Protocol television – the process of transmitting and broadcasting television programs through the internet using IP
LFC	Local Fibre Company – there are the four companies contracted with government agency Crown Infrastructure Partners 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
Naked broadband	A fixed-line broadband service provided without a traditional analogue voice service also being provided over the same line
OTT	Over-the-top – refers to content and applications provided from a third party and delivered to an end-user device, leaving the retailer responsible only for transporting IP packets
RBI	Rural Broadband Initiative – an initiative where the government partners with private sector telecommunications operators to upgrade or extend telecommunications networks in rural areas
SVOD	Subscription (or streaming) video on demand – refers to services which allow users to watch video content such as movies when they choose to, by streaming the content to a device usually via a broadband connection. If it is a subscription service then it will give the user unlimited access to a range of programs for a flat monthly fee
UBA	Unbundled Bitstream Access – a regulated wholesale service that gives access to a full-speed DSL broadband service on copper lines on Chorus’ access network
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-premise access network to give households and businesses access to very high-speed broadband
VoIP	Voice over Internet Protocol – a way to send voice calls over a data connection such as a broadband connection
VDSL	Very High Bitrate (high-speed) DSL with speeds up to 70Mbps
Wi-Fi	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 Wi-Fi connection will operate can vary from 20 metres indoors to potentially tens of kilometres outdoors