

2024 Telecommunications Monitoring Report

Pūrongo Aroturuki Torotoro Waea 2024



List of defined terms | Rārangi kupu

| | |
|------------------------|---|
| Act | Telecommunications Act 2001 |
| ADSL | Asymmetric digital subscriber line – a copper-based technology that can provide basic fixed line broadband services |
| Commission | Commerce Commission |
| Commission data | This refers to the data we collect from telecommunications providers annually |
| CWC | Copper Withdrawal Code |
| CPI | Consumers price index |
| D2C | Direct to cell |
| DSLAM | The network end of an ADSL or VDSL connection – the DSLAM takes the traffic from individual connections and aggregates it onto a single backhaul route (usually an optical fibre) |
| Fixed wireless | Wireless broadband technology providing connectivity to fixed locations over various types of cellular and non-cellular networks |
| GB | Gigabyte – 1 gigabyte = 1024 megabytes |
| Gbps | Gigabits per second – 1 gigabit = 1,000 megabits |
| GEO | Geostationary orbit – satellites positioned so that they remain above the same place above the Earth, found around 35,000km above the Earth's surface |
| HD | High definition |
| HFC | Hybrid fibre-coaxial – broadband network in parts of Wellington, Kāpiti Coast and Christchurch that use fibre-optic and copper cabling |
| HHI | Herfindahl-Hirschman Index – measure of market concentration |
| LAP | Local aggregation path – the 'backhaul' route that connects DSLAMs to their central office (a telecommunications facility where all local residential and business phone lines converge) |
| Largest 3 | Spark, One NZ and 2degrees |
| Latency | The amount of time it takes for a data packet to go from one place to another, which is the delay an internet connection experiences – low latency is better than high latency |
| LEO | Low Earth orbit satellites are deployed in constellations at lower levels (generally 500–1,500km above the Earth's surface) than GEO satellites – they do not appear to be stationary to user, but when a full constellation has been deployed, there will always be at least one satellite in view |
| LFC | Local fibre company – the four companies (Northpower Fibre, Chorus, Tuatahi First Fibre and Enable) that partnered with Crown Infrastructure Partners Limited to build and provide wholesale access to the UFB fibre network |
| LINZ | Land Information New Zealand |
| LUDFAS | Large User Direct Fibre Access Service |
| M-Lab | Measurement Lab – an open-source project dedicated to providing an open, verifiable measurement platform for global network performance |
| MB | Megabyte – a multiple of the unit byte for measuring the quantity of digital information |

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|----------------|---|
| MBNZ | Measuring Broadband New Zealand – a programme run by the Commission to measure the broadband performance of New Zealand households |
| Mbps | Megabits per second – used to measure data transfer speeds |
| MBSF | Mobile Black Spot Fund |
| MNO | Mobile network operator |
| MTAS | Mobile termination access services |
| MVNO | Mobile virtual network operator – an operator that provides mobile telecommunication services but does not generally have its own licensed frequency allocation of radio spectrum or much of the infrastructure required to provide mobile telecommunication services and 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 |
| NIFF | National Infrastructure Funding and Financing Limited – a Crown-owned company formerly known as Crown Infrastructure Partners Limited |
| NPS | Net promoter score – a measure of customer loyalty by likelihood of recommending a given business |
| OECD | Organisation for Economic Co-operation and Development |
| ONT | Optical network terminal – fibre box attached to the wall |
| OTT | Over-the-top |
| 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 |
| PSTN | Public switched telephone network |
| RBI | Rural Broadband Initiative – government programme to improve and enhance broadband coverage in rural areas |
| RCG | Rural Connectivity Group – joint venture between 2degrees, Spark and One NZ |
| RCU | Rural Capacity Upgrade – a government programme to upgrade rural broadband built as part of the RBI |
| RSP | Retail service provider |
| RSQ | Retail service quality |
| SFA | Specified fibre area – a geographic area where specified fibre services are available to end users (The Commission is required to conduct an annual assessment of these areas as they are an essential prerequisite to enabling Chorus to withdraw supply of copper services to end users.) |
| STD | Standard terms determination, which sets out the terms on which wholesale telecommunications service providers must deliver their services to other telecommunications providers |
| TCF | New Zealand Telecommunications Forum |
| TDR | Telecommunications Dispute Resolution |
| Telco | Telecommunications company |
| TowerCo | Tower company – builds and maintains structures that support mobile network antennas |

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|---------------------------|--|
| Tuatahi | Tuatahi First Fibre – UFB partner operating in Waikato, Bay of Plenty, Taranaki and Whanganui |
| UBA | Unbundled bitstream access – a regulated copper-based bitstream service offered by Chorus |
| UCLF | Unbundled copper low-frequency (UCLF) – 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 |
| UFB2 | The extension of the UFB1 initiative |
| UHD | Ultra-high definition |
| VDSL | Very high-speed digital subscriber line – a copper-based technology that provides a better broadband connection than ADSL |
| VoIP | Voice over Internet Protocol |
| VoLTE | Voice over long-term evolution – a technology that allows voice calls to be made over the 4G mobile network |
| Whitebox volunteer | A participant in the MBNZ programme who uses a device (whitebox) to measure internet performance |
| WISP | Wireless internet service provider – smaller providers operating mostly in regional or rural areas, using non-cellular wireless but increasingly also selling cellular fixed wireless and fibre services |

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Foreword | Tirohanga Whānui

From the Telecommunications Commissioner

Welcome to our 18th Annual Monitoring Report – the fifth and final one during my current term as Telecommunications Commissioner.

As I reflect on the past five years, I'm proud of the progress we've made in strengthening New Zealand's telecommunications sector. Throughout this period, our work has been guided by a singular purpose: promoting competition for the long-term benefit of New Zealand consumers.

Telecommunications networks are essential national infrastructure. They support our economy, connect our communities, and provide vital lifelines in times of emergency. Over the past five years, we've laid the groundwork for a modern regulatory framework – one that encourages long-term investment while promoting competitive outcomes and safeguarding consumers.

New Zealand has long recognised competition as the primary driver of consumer and economic welfare. Competition drives firms to be efficient, to invest and innovate, and constrains prices and profits.

The Commission promotes competition across the sector, and steps in where competitive pressure is insufficient. This approach – endorsed by successive governments – has helped transform the industry and reshape the competitive landscape for the benefit of consumers.

During my term, our focus has been on delivering the four key pillars of the revised regulatory framework introduced by the 2018 amendments to the Telecommunications Act:

1. Designing and implementing a new regulatory regime for fibre, recognising the natural monopoly characteristics of this infrastructure.
2. Managing the transition from copper to fibre and other new technologies, with a strong emphasis on supporting vulnerable consumers.
3. Improving retail service quality (RSQ) by addressing persistent issues with provider performance.
4. Enhancing monitoring and reporting, empowering consumers and increasing market transparency.



Over the last five years, we've acted with purpose and made real progress in each of these areas:

- We delivered a new fibre regime, creating the certainty, predictability, and stability required for ongoing investment in critical national infrastructure.
- We developed two codes – the Copper Withdrawal Code and the 111 Contact Code – to safeguard consumers through a period of significant technological change.
- We collaborated with industry to address persistent consumer pain points in areas such as dispute resolution, mobile usage and spend tools, broadband marketing, customer service, energy-broadband bundles, and mobile coverage maps.
- We expanded our monitoring and reporting capabilities through initiatives such as Measuring Broadband New Zealand, the Rural Connectivity Study, and our regular RSQ and market performance reports.
- And we began exploring opportunities for deregulation, including our draft recommendation to remove regulation from rural copper services, in response to competitive developments.

This Annual Monitoring Report demonstrates that New Zealanders are benefiting from regulatory settings that have created a stable platform for competition. Consumers generally enjoy the ability to switch providers, access services that meet their needs, and benefit from pricing that compares well internationally.

However, while strong foundations have been laid, there is still more work to do. This year's report also reminds us that the sector remains highly concentrated – and that dealing with this concentration is an ongoing challenge.

In particular:

- Fibre remains a monopoly service in the absence of effective competitive constraint, but we see potential to refine the fibre regulatory settings ahead of the next regulatory period beginning in 2029.
- Copper is still in transition, but the focus is now shifting to rural areas, where protecting consumers during copper withdrawal will be just as important as it was in urban areas.
- Our RSQ programme is well advanced, but additional work is needed on key issues identified in the legislation – such as billing, switching, and contracts.
- And getting comparative performance information into the hands of consumers to help them make informed choices is key to strengthening the demand side of the market.

As the market develops, regulation will remain necessary in some areas, but can be wound-back in others. Over the next five years, we'll be reviewing almost every aspect of the current framework, in line with the review mechanisms built into the regime. We anticipate seeing significant deregulatory change during this period:

- Copper regulation will likely be fully retired nationwide.
- Multi-operator service regulation will be pared back to only what remains necessary.
- Our RSQ programme is expected to transition to primarily a monitoring function.
- Fibre settings will be recalibrated and ready for the next regulatory period.

However, as regulation is pared back in these areas, it remains unclear what new issues may require attention. Developments in the broader landscape are raising complex questions around resilience, scams, data rights, digital equity, and the role of digital platforms. As these issues increasingly intersect with the telecommunications sector, policymakers will need to consider whether, and to what extent, the Commission should have a role in addressing them.

The period ahead is pivotal for telecommunications in New Zealand. The foundations we've laid position us well to build a more competitive sector that drives investment, innovation, productivity and growth.

I look forward to continuing our work with industry, consumers, and government to ensure New Zealand's telecommunications sector maximises its potential for the future.



Tristan Gilbertson

Telecommunications Commissioner

Overview | Tirohanga whānui

New Zealand's telecommunications market remains highly concentrated, dominated by three key players, with competitive intensity varying across different areas. Concentration is reducing in urban and rural broadband, but mobile competition has been more resistant to change. Consumers are generally well served in terms of price and the quality of network infrastructure but there has been a notable decline in satisfaction levels.

Urban broadband at home

The three largest providers – Spark, One NZ, and 2degrees – together hold 73% of the urban broadband market. While this remains a high level of concentration, “wholesale-only” access regulation has significantly reshaped the landscape. By addressing historic vertical integration issues and enabling all retailers to access wholesale fibre on equal terms, it has unlocked stronger competition. As a result, the dominance of the top three is under sustained downward pressure.

New entrants – especially energy retailers bundling telecommunications services – are gaining traction. Mercury and Contact now rank fourth and fifth, respectively, having doubled their market share from 6% to 13% over the past five years. These bundled providers represent one of the fastest-growing segments in the market.

Urban consumers have a broad range of technology choices, but fibre remains the dominant option, now in 83% of urban households. While most fibre customers subscribe to Fibre 300, the strongest recent growth has been at the budget and premium ends – Fibre 50 and Fibre Max – driven by cost-of-living pressures and evolving household needs.

Fixed wireless broadband, especially 4G, is used by 13% of urban households and provides a viable alternative for those with lower data needs. However, uptake of 5G fixed wireless remains limited, with residential connections increasing only slightly – from 5,500 to 7,600.

Chorus continues to decommission legacy copper, with 40,000 households migrating – mostly to fibre – in the last year. Only 37,000 copper connections remain in urban areas. Chorus intends to withdraw all copper services from these areas by the end of 2026.

Broadband switching rates remain low and have worsened over the past year. Only 11% of broadband users changed plans in the past year, compared with around 19% in electricity. Of those who did switch broadband plans, 53% moved away from the biggest three providers, while 32% reported dissatisfaction with the switching process. This highlights the need for continued industry engagement to make switching easier for consumers.

Retail pricing has risen modestly above the CPI but remains broadly in line with or below OECD averages. New Zealanders pay similar broadband prices to Australian and Irish consumers, although services in places like Singapore offer more value through faster speeds and extra features.

Smaller providers tend to price below the market average, while the largest three providers tend to price above it. They also strategically price 4G wireless plans lower than fibre to encourage uptake.

New Zealand ranks 16th in the OECD for average fixed broadband download speeds (124 Mbps, up from 97 Mbps in 2023). However, customer satisfaction is declining, Net Promoter Scores are falling, and complaints to the Telecommunications Dispute Resolution scheme have increased.

Rural broadband at home

The three largest providers nationally – Spark, One NZ, and 2degrees – now collectively hold 55% of the rural market – a lower concentration than in urban areas. This shift reflects the disruptive impact of new technologies and business models.

The fastest-growing provider is Starlink, which has overtaken 2degrees to become the third-largest rural provider. Its growth illustrates how global satellite networks are reshaping rural competition.

The rural broadband landscape has improved with the expansion of the Rural Broadband Initiative, Chorus's fibre extension to an additional 10,000 homes, and regional fibre rollouts by smaller telcos. Most notably, the arrival of low Earth orbit (LEO) satellite broadband, including Starlink's deprioritised lower-cost service, has broadened access. While startup costs remain a barrier for some, LEO services now deliver speeds and reliability comparable to urban offerings. Amazon's Project Kuiper is also expected to enter the New Zealand market, promising further competition.

Without the UFB framework, rural retail competition is shaped by MNOs' cellular fixed wireless broadband, regional non-cellular wireless providers (WISPs), and satellite services. WISPs still serve 16% of rural homes, but many are losing ground to satellite competitors and are now investing in fibre to remain competitive.

Copper disconnections continue, with rural copper connections down 18% this year – now representing just 28% of total rural connections. Of those exiting copper, 40% move to LEO satellite, 40% to 4G wireless, and 20% to other wireless services. These shifts reflect active consumer choice based on speed, service continuity, and local support.

However, significant performance and pricing gaps persist between rural and urban broadband, exacerbated by generally lower household incomes in rural areas. Retail prices for rural 4G fixed wireless broadband are up to 49% higher than in urban areas, and copper plan prices can differ by as much as \$37/month – despite identical wholesale inputs. This price spread has worsened since last year.

Further, satisfaction scores are falling, with pricing and customer service drawing the most criticism. However, satisfaction varies by technology – satellite users, for example, report higher satisfaction than fibre users.

These disparities mean rural consumers often pay more for slower, less reliable services. As rural copper is phased out, we believe it will be important to have a managed withdrawal process to protect consumers and allow sufficient time for non-LEO networks to invest, expand and compete.

Mobile

The residential mobile market continues to be dominated by the three vertically-integrated providers – Spark, One NZ, and 2degrees – which together control 97.5% of the market. This dominance has proven resilient, with the combined share of the top three providers declining by only 1.1% over the past five years. Unlike fixed broadband, the mobile segment has seen minimal disruption and remains a stable three-player oligopoly.

Mobile virtual network operators (MVNOs) have made some progress. Market share grew from 1.6% to 2.5% in the past year – its highest level to date – but New Zealand remains among the bottom eight OECD countries for MVNO penetration. While network owners are incentivised to monetise unused capacity, their control over infrastructure and wholesale pricing ultimately limits MVNO growth potential.

In terms of network coverage, 5G now reaches 40% of the population, but geographic coverage remains limited at just 1.2%, highlighting ongoing service gaps in rural areas. Looking ahead, MNOs are investing in satellite partnerships to enable direct-to-cell (D2C) functionality, which will allow compatible smartphones to connect via satellite in areas without terrestrial coverage but with line of sight to the sky.

Data use is increasing, driven by the shift to “endless” data plans. Two-thirds of postpaid users are now on such plans, and average monthly data use has jumped from 8.9GB to 12.0GB. Although endless plans are also available on prepaid, only 7% of prepaid customers opt for them, and average prepaid usage remains steady at 2.9GB per month.

Despite new MVNOs entering the market, switching rates in the mobile market remain low. Only 5% of consumers changed providers this year – down from 6% last year – underscoring the persistence of inertia. This lack of movement suggests that increased choice alone has not translated into more competitive pressure. As with broadband, key switching-related metrics have worsened year-on-year, reinforcing the need for closer scrutiny of switching barriers.

Pricing among the MNOs remains largely uniform, with limited price-based competition. 2degrees was the only MNO to grow its market share, likely due to its consistently lower pricing across postpaid and prepaid plans. MVNOs generally undercut the major providers, but often with fewer inclusions.

In international terms, New Zealand's mobile pricing is mixed, with postpaid prices above and prepaid prices below the OECD average. The average cost to meet postpaid usage (\$60/month) remains high. The gap with the OECD average has narrowed, but only because international prices have increased – not because prices in New Zealand have improved. New Zealand also has the highest prices and lowest data caps for capped data plans compared to Australia, Singapore and Ireland.

Mobile networks are generally performing well, but customer satisfaction is slipping. Net Promoter Scores have dropped from +21 to -6, reflecting growing concerns about value for money, customer service, and retail service quality.

Digital Equity

Despite the increasing availability of broadband services, around 170,000 New Zealand households – approximately 9.9% – do not have a fixed broadband connection. The primary barrier is affordability, particularly in areas with lower median incomes, higher numbers of dependents, and limited service competition.

These disparities are especially pronounced in rural areas, where fewer affordable options exist. Māori are disproportionately affected, as a higher proportion live in rural communities where service options are fewer and prices higher. The pricing gap for rural broadband – particularly for copper and 4G fixed wireless services – can be significant and has shown little movement despite new, lower-cost satellite offerings entering the market.

The Digital Equity Coalition Aotearoa (DECA) has drawn attention to the compounding disadvantages faced by groups who could benefit most from digital access. These include low-income families, seniors, Māori, Pacific peoples, people with disabilities, new immigrants, and residents of remote communities. Without reliable and affordable internet access, these groups risk being excluded from essential services, education, employment, and civic participation.

Addressing digital equity will require more than infrastructure rollout. It will involve targeted affordability measures, increased support for digital literacy, and a stronger focus on equitable access in both regulatory and policy design. Ensuring that broadband services are accessible to all New Zealanders – regardless of income, geography, or background – is fundamental to closing the digital divide.

New Zealand telecommunications snapshot | Ā Aotearoa whitimamao – he hopuāhua



40,000

urban households shifted
off copper to fibre or
wireless alternatives



Over

300,000

households bundle
broadband with electricity



Satellite connections are
growing fast, reaching

58,000

making up 19% of rural
residential connections



69%

of rural consumers are
satisfied with their broadband
service – fewer than urban
consumers (77%)



24/7 download speeds
for Starlink (214Mbps) are
approximately

**four times
faster**

than the next best rural
alternative that we measure



11% of broadband users
changed plans in the past
year, and

32%

of those reported
dissatisfaction with the
switching process



Rural consumers

**pay 29%
more,**

on average, than
urban consumers for a
broadband connection



64%

of residential fibre
connections are on Fibre 300,
down from 67% in 2023



Average 5G mobile
coverage has increased to

40%

of the population – up from
27% in 2023



We estimate that around

**9.9% of
New Zealand
households**

don't have a fixed broadband connection

New Zealand telecommunications snapshot statistics | Ā Aotearoa whitimamao – tauanga hopuāhua

| Total industry metrics | 2013 /14 | 2014 /15 | 2015 /16 | 2016 /17 | 2017 /18 | 2018 /19 | 2019 /20 | 2020 /21 | 2021 /22 | 2022 /23 | 2023 /24 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Total telecommunications retail revenue (\$bn) | 5.17 | 5.11 | 5.28 | 5.37 | 5.42 | 5.32 | 5.22 | 5.17 | 5.40 | 5.63 | 5.69 |
| Total telecommunications investment (\$bn) | 1.69 | 1.77 | 1.59 | 1.58 | 1.66 | 1.71 | 1.61 | 1.62 | 1.49 | 1.59 | 1.61 |
| Fixed line metrics | | | | | | | | | | | |
| Fixed lines (mil) | 1.85 | 1.86 | 1.87 | 1.79 | 1.76 | 1.85 | 1.91 | 1.95 | 2.10 | 2.16 | 2.17 |
| Total fixed broadband connections (mil) | 1.41 | 1.45 | 1.50 | 1.58 | 1.65 | 1.70 | 1.76 | 1.80 | 1.86 | 1.95 | 1.98 |
| Fixed line broadband connections per 100 population | 31.6 | 32.0 | 32.5 | 32.9 | 33.7 | 34.4 | 34.6 | 35.2 | 36.4 | 37.3 | 37.1 |
| Fixed monthly data use per broadband connection (GB) | 32 | 48 | 69 | 117 | 172 | 207 | 284 | 332 | 414 | 432 | 481 |
| Fixed wireless connections (000s) | 24 | 20 | 27 | 122 | 165 | 191 | 221 | 276 | 315 | 370 | 390 |
| Copper broadband lines (000s) ^a | 1273 | 1270 | 1171 | 976 | 806 | 620 | 487 | 330 | 241 | 167 | 111 |
| UFB (government-sponsored fibre) lines (000s) ^b | 39 | 106 | 241 | 413 | 605 | 821 | 1004 | 1151 | 1259 | 1345 | 1395 |
| Chargeable fixed voice call minutes (bn) | 5.13 | 4.66 | 4.34 | 3.44 | 3.10 | 2.72 | 2.44 | 2.09 | 1.91 | 1.55 | 1.19 |
| Total fixed line retail revenues (\$bn) | 2.68 | 2.58 | 2.60 | 2.62 | 2.58 | 2.49 | 2.39 | 2.36 | 2.41 | 2.41 | 2.38 |
| Mobile metrics | | | | | | | | | | | |
| Mobile connections (mil) ^c | 5.6 | 5.8 | 6.1 | 6.4 | 6.4 | 6.0 | 6.2 | 5.8 | 6.0 | 6.6 | 6.8 |
| Active mobile connections per 100 population | 124 | 127 | 129 | 134 | 131 | 122 | 122 | 114 | 116 | 126 | 127 |
| Share mobile prepaid (%) | 63.6 | 62.3 | 60.7 | 60.3 | 58.1 | 52.7 | 51.8 | 45.4 | 43.4 | 45.3 | 45.8 |
| Average monthly mobile data usage (GB) | 0.32 | 0.47 | 0.72 | 1.25 | 2.04 | 2.75 | 3.29 | 4.21 | 4.84 | 6.01 | 7.36 |
| Mobile voice call minutes (bn) | 5.3 | 6.6 | 7.8 | 8.8 | 9.3 | 9.4 | 10.1 | 10.5 | 11.2 | 10.9 | 10.6 |
| Text messages sent (bn) | 12.0 | 12.1 | 11.3 | 9.2 | 8.8 | 8.1 | 7.3 | 7.3 | 6.7 | 6.2 | 5.4 |
| Total mobile retail revenues (\$bn) | 2.49 | 2.54 | 2.68 | 2.75 | 2.83 | 2.83 | 2.83 | 2.93 | 2.99 | 3.22 | 3.31 |

a Data from Chorus

b Data from National Infrastructure Funding and Financing

c Prepay connections for all years are counted as those active in the prior six months

Summary of key statistics | Ngā tino tatauranga:

Urban connectivity at home | Honotanga ā-tāone i rō kāinga

- More copper broadband connections left the network in 2024 than now remain in urban areas. A total of 40,000 urban broadband connections left the copper network over the year, with connections falling by 52%. This leaves 37,000 connections remaining on the copper broadband network in urban areas.
- MNOs continue to increase their cellular 5G fixed wireless broadband coverage with coverage doubling between 2023 and 2024. However, there has not been a substantial increase in cellular 5G fixed wireless connections.
- Fibre connections have grown by 4% over the last year. The 300 megabits per second (Mbps) fibre plan, often referred to as Fibre 300, continues to be the most popular wholesale fibre plan. However, Chorus reported that this plan dropped from 67% of total residential fibre plans in 2023 to 64% in 2024 with consumers moving to alternative plans such as Fibre 50 and Fibre Max. The average price for Fibre 300 is \$2 lower than last year.
- Broadband switching rates remain low and have worsened over the past year. Only 11% of broadband users changed plans in the past year, compared with around 19% in electricity. Of those who did switch broadband plans, 32% reported dissatisfaction with the switching process.
- Broadband/energy bundles continue to be one of the fastest-growing segments, increasing in 2024 to 304,000, up 14% compared to last year.
- We estimate 83% of urban residential connections are fibre connections, with all major RSPs offering Fibre 300 and Fibre Max plans.
- New Zealand ranked 16th in the OECD for average fixed broadband download speeds in 2024, with speeds of 124Mbps, up from 97Mbps in 2023.
- The gap between wholesale and retail prices for Fibre 300 sits at approximately \$34, based on average retail prices, or \$26 based on TechInsights' price benchmarks.
- New Zealand's urban broadband prices remain competitive internationally, with Fibre 300 pricing equal to the OECD average and Fibre Max and 4G wireless broadband pricing lower than the OECD average.
- Our survey results show that urban fibre broadband customers are more satisfied with aspects of their service than fixed wireless broadband customers or copper broadband customers.



Rural connectivity at home | Honotanga ā-tuawhenua i rō kāinga

- Cellular 5G fixed wireless coverage has increased to 12% of rural households in 2024. MNOs plan to increase this coverage significantly in the next few years through the reallocation of the 3G spectrum after the network is shut down at the end of 2025.
- Copper broadband connections in rural areas have decreased by 18% over the past year to 74,000 connections. Around 28% of rural residential consumers remain on copper-based broadband services.
- Satellite continues to be the fastest-growing technology, with satellite connections increasing nationally from 37,000 to 58,000 over the past year, up by 60%. However, after experiencing years of substantial growth, the rate of increase now appears to be slowing.
- Data caps are increasing for rural WISP and cellular 4G fixed wireless plans, reflecting consumers' increased data needs and competition from competing technologies.
- Download speeds for Starlink (214Mbps – 24/7 speed) are approximately four times faster than the next-best rural alternative that we measure (rural 4G cellular fixed wireless at 51Mbps). Our testing for Starlink's Residential Lite (deprioritised) service shows it is only 12% slower than Starlink's standard service for half the price.
- 40% of households moving off copper are switching to a LEO satellite broadband service, 40% to a 4G wireless broadband service and 20% to a non-cellular wireless (WISP) broadband service.
- 29.8% of rural copper connections experienced one or more faults between July 2022 and June 2024, with an average fault duration of 36 hours. In comparison, LEO satellite faults lasted only 2 hours on average, but 100% of LEO satellite connected households experienced them.
- Rural 4G cellular fixed wireless plans are 40% more expensive than urban plans, with an average price of \$115 per month in rural areas compared to \$69 in urban areas and more likely to have a data cap.
- Rural consumers pay 29% more than urban consumers for a broadband connection – \$113.52 on average compared to \$87.86 for urban customers.
- Survey results show that rural broadband households are less satisfied with their service than urban.



Connectivity on the move | Honotanga hāereere

- 5G coverage reached 40% of New Zealand's population in 2024, increasing from 26.8% in 2023, while geographic coverage remains low at 1.2% of New Zealand's land mass.
- Connexa and Fortysouth are expanding their tower networks. We estimate Connexa's network to comprise about 2,500 towers and Fortysouth about 1,600 towers as of June 2024.
- In the year to June 2024, the Mobile Black Spot Fund (MBSF) funded 60 new mobile tower builds, which resulted in an additional 44 tourism sites, 37 marae and 409km of state highways and local roads gaining mobile coverage.
- The market share of MVNOs grew from 1.6% to 2.5% in 2024, with the number of MVNO subscribers increasing by 61% from 106,000 in 2023 to 171,000 in 2024.
- Higher 5G download speeds increased from 254Mbps in 2023 to 313Mbps in 2024.
- Postpaid prices are above the OECD average and prepaid prices are below the OECD average. The average cost to meet postpaid usage (\$60/month) remains high.
- Pricing among MNOs remains largely uniform with minimal price-based competition, while 2degrees was the only provider to gain market share, likely due to its consistently lower postpaid and prepaid plan prices. MVNOs generally undercut the major providers, but often with fewer inclusions.
- The average data usage by postpaid consumers increased by a significant 3.1GB (from 8.8GB to 12.0GB) per month, the largest year-on-year growth seen in the last 5 years, while average data usage by prepaid users remained flat at 2.9GB per month.
- Overall, 5% of consumers said they have switched mobile providers in the last 12 months, slightly down from 6% in 2023.
- 63% of mobile consumers have been with their provider for more than 5 years, up from 60% last year.
- All three MNOs plan to switch off their 3G networks by the end of 2025.
- MNOs are investing in satellite partnerships to enable direct-to-cell (D2C) functionality, which will allow compatible smartphones to connect via satellite in areas without terrestrial coverage but with line of sight to the sky.



Introduction | Kōrero whakataki

Purpose of this report

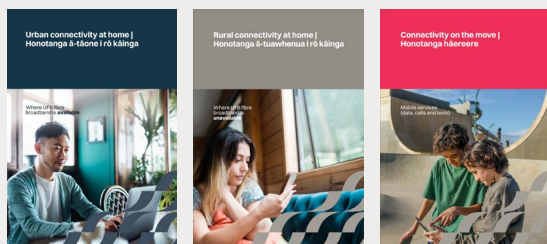
This is the Commerce Commission's (the Commission) 18th Annual Telecommunications Monitoring Report. The purpose of this report is to inform stakeholders on the state of Aotearoa New Zealand's telecommunications sector. In particular, this report provides an overview of competition and key developments in New Zealand's telecommunications markets in 2024.

This report is prepared and released under section 9A of the Telecommunications Act 2001. Section 9A requires us to monitor competition in, and the performance and development of, telecommunications markets and to monitor retail service quality in relation to telecommunications services.

Layout of this report

This report is structured around the three ways in which consumers experience telecommunications services – urban connectivity at home, rural connectivity at home and connectivity on the move.

- **Urban connectivity at home** focuses on the fixed location broadband experience within UFB areas where UFB fibre is available.
- **Rural connectivity at home** focuses on the fixed location broadband experience outside UFB areas where UFB fibre is unavailable.¹
- **Connectivity on the move** focuses on location-independent mobile service (texting, calling, data) experience.



We have continued to split broadband across two chapters to reflect that the experience of consumers (such as in choice of providers and plans) differs between areas that have access to fibre and those that do not. In addition, with the completion of the UFB fibre network, there is now an increased focus on the experience of the 13% of New Zealanders outside the fibre footprint.

We have a separate chapter for mobile services as, for the most part, text, call and mobile data services are consumed independently of fixed broadband services. As mobile networks are provided on a nationwide basis (with no rural-specific plans), we have covered mobile networks within one chapter.

Each chapter is then split into two sections – market structure and market outcomes:

- **Market structure** covers structural elements of telecommunications markets, including infrastructure availability, the type and share of wholesale and retail offerings using that infrastructure and the transparency and understanding of these offers by consumers.
- **Market outcomes** cover the performance of telecommunications infrastructure and the levels of wholesale and retail pricing through to consumer affordability and satisfaction.

¹ We have continued to split urban and rural based on fibre availability solely for the purpose of this report. This split may not align with other definitions of urban and rural.

Within each section, an end-to-end view of the telecommunications sector is provided. As such, in each section, you will come across sub-headings for infrastructure, wholesale, retail, and consumer:

- **Infrastructure** covers the physical components of telecommunications networks – for example, where networks provide coverage and what quality of service networks provide.
- **Wholesale** covers the regulated and commercial wholesale market – for example, the wholesale services are made available by infrastructure owners to RSPs and at what prices.
- **Retail** covers the retail market to end consumers – for example, the characteristics of services made available to end consumers and at what prices.
- **Consumer** covers aspects of retail service quality – for example, whether consumers can understand offers in the telecommunication market and how satisfied they are with telecommunications services.

There is also a separate special topics section that covers topics that do not fit within the main structure. This year, for example, digital equity, business performance and complaints are special topics in this report.



Interactive map

Alongside this report, we have also released an interactive map showing the coverage and connections of each broadband technology in New Zealand.

The purpose of the map is to enable geospatial economic analysis, which is included in this report, as well as to provide a useful visual tool for policy makers interested in rural connectivity.

The map allows users to investigate the connectivity options in different areas of the country and areas that lack connectivity. We encourage people to use it for that purpose, but it is not intended to be used as a consumer switching tool.

The map, as with this report, uses data provided to us by telecommunications providers as of June 2024. While we intend to update the map alongside future Annual Monitoring Reports, coverage and connections will change between reporting periods, and it therefore does not present a 'live' view of connectivity.

Our views

The primary purpose of this report is to inform. Accordingly, throughout this report, we provide observations and commentary on changes in telecommunications markets in 2023/24. These are our high-level, current views, based on the information available at the time of writing this report. Our views may shift following further analysis and/or obtaining further information.

While this report will inform our wider regulatory activities, no direct regulatory intervention will arise based solely on the analysis contained in this report.

Data sources

This report draws on data from a range of data sources.

The relevant sources for each figure and statistic are noted in the footnotes throughout the report. Unless otherwise noted, the figures and statistics are as of 30 June 2024 or for the 12 months to 30 June 2024.

We have also indicated, by way of footnotes and the addition of confidence intervals on charts, how we have treated the data and our analytical approach.

Connection-level data

In May 2023, we launched our Rural Connectivity Study with the aim of collecting more granular data so that we could build a comprehensive picture of the connectivity options for rural end users of telecommunication services and, over time, strengthen and improve the detail of our routine monitoring of rural connectivity and end-user experience.

We collected granular connection-level data nationwide, and many of our findings regarding urban connectivity also came from the data we collected for the Rural Connectivity Study.

This year, we have continued to collect connection-level data and refined our processes to take a network provider-first approach to collecting information about residential connections for consistency. With 2 years of connection-based data collected, this now enables new analysis and insights into the market such as our urban and rural address-level switching insights.

Annual Industry Questionnaire

Each year, we send a questionnaire to the industry requesting information for the financial year ending in June. This year, we issued the Annual Industry Questionnaire alongside our connection-level information requests. We thank all the respondents who submitted data as part of this information-gathering exercise.

Please note that not all results from every question contained in the Annual Industry Questionnaire are presented in this report.

Instead, aggregate results from our Annual Industry Questionnaire are published alongside this report on our website.²

² <https://comcom.govt.nz/regulated-industries/telecommunications/monitoring-the-telecommunications-market/annual-telecommunications-market-monitoring-report>

Urban connectivity at home | Honotanga ā-tāone i rō kāinga

Where UFB fibre
broadband is **available**



Market structure | Hanganga māketē

Market structure covers structural elements of telecommunications market, including infrastructure availability, the type and share of wholesale and retail offerings using that infrastructure and the transparency and understanding of these offers by consumers.

Infrastructure | Hanganga

Telecommunications infrastructure – the physical components that connect homes and businesses to voice and broadband services – provides the foundation for how the rest of the market operates in New Zealand.

The starting point for connecting Kiwi homes with high-speed internet is the infrastructure that has been deployed across New Zealand. In urban areas, there are often multiple sets of overlapping infrastructure operated by competing network operators.

2024 highlights

- Chorus's copper withdrawal in urban areas has progressed significantly in 2024, with around 52,000 initial notices being issued and 30,000 copper connections being withdrawn between June 2023 and June 2024. This is around double the connections withdrawn compared to last year.
- MNOs continue to increase their cellular 5G fixed wireless broadband coverage, with coverage doubling between 2023 and 2024.

Fibre

As of June 2024, 1,848,000 premises have access to the UFB network. The UFB programme was completed in December 2022 with small increases in the availability of UFB fibre occurring

in subsequent years with new builds within the UFB footprint (Figure 1).³ In total, 412 towns and cities and 87% of New Zealanders have access to a fibre connection.⁴

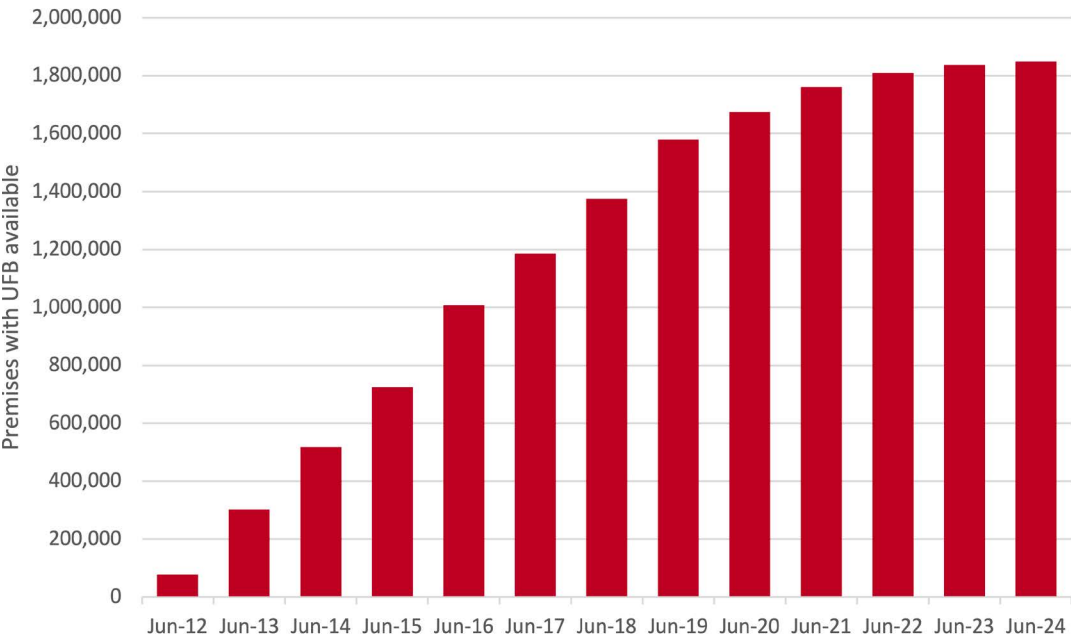
The national fibre to the premises network in New Zealand was built through a public-private partnership known as UFB. There are four fibre network operators (often referred to collectively as LFCs) who were contracted to build and operate the network in different geographic areas:

- Northpower operates in Kaipara and Whangārei. It is the smallest of the four UFB partners.
- Enable operates in the wider Christchurch area.

- Tuatahi First Fibre operates in Waikato, Bay of Plenty, Taranaki and Whanganui.
- Chorus operates in the remaining UFB areas, which cover 1.3 million homes and businesses across over 350 communities. It is the largest of the four UFB partners.

The fibre network operators completed the UFB rollout programme in December 2022. Over 1.8 million homes and businesses (87% of New Zealanders) can now access fibre.

Figure 1: Premises with UFB fibre available



Source: Commission data, National Infrastructure Funding and Financing (NIFF)

3 Commission analysis of NIFF Quarterly Connectivity Updates – <https://nationalinfrastructure.govt.nz/publications>
4 <https://nationalinfrastructure.govt.nz/fibre>

Chorus, LFCs and other providers such as WISPs have begun building fibre networks outside the UFB areas. In February 2024, Chorus announced plans to extend its fibre network to 10,000 more homes and businesses across 59 communities.⁵

Figure 2 shows fibre coverage across New Zealand in 2024. Figure 3 shows increases in coverage across the Wellington Region.

Areas coloured in light red show coverage that has not changed between 2023 and 2024. Areas in dark red such as on the eastern side of Tawa show areas of new fibre coverage in 2024. With the end of the UFB programme, there have been minimal changes in fibre coverage across the region.

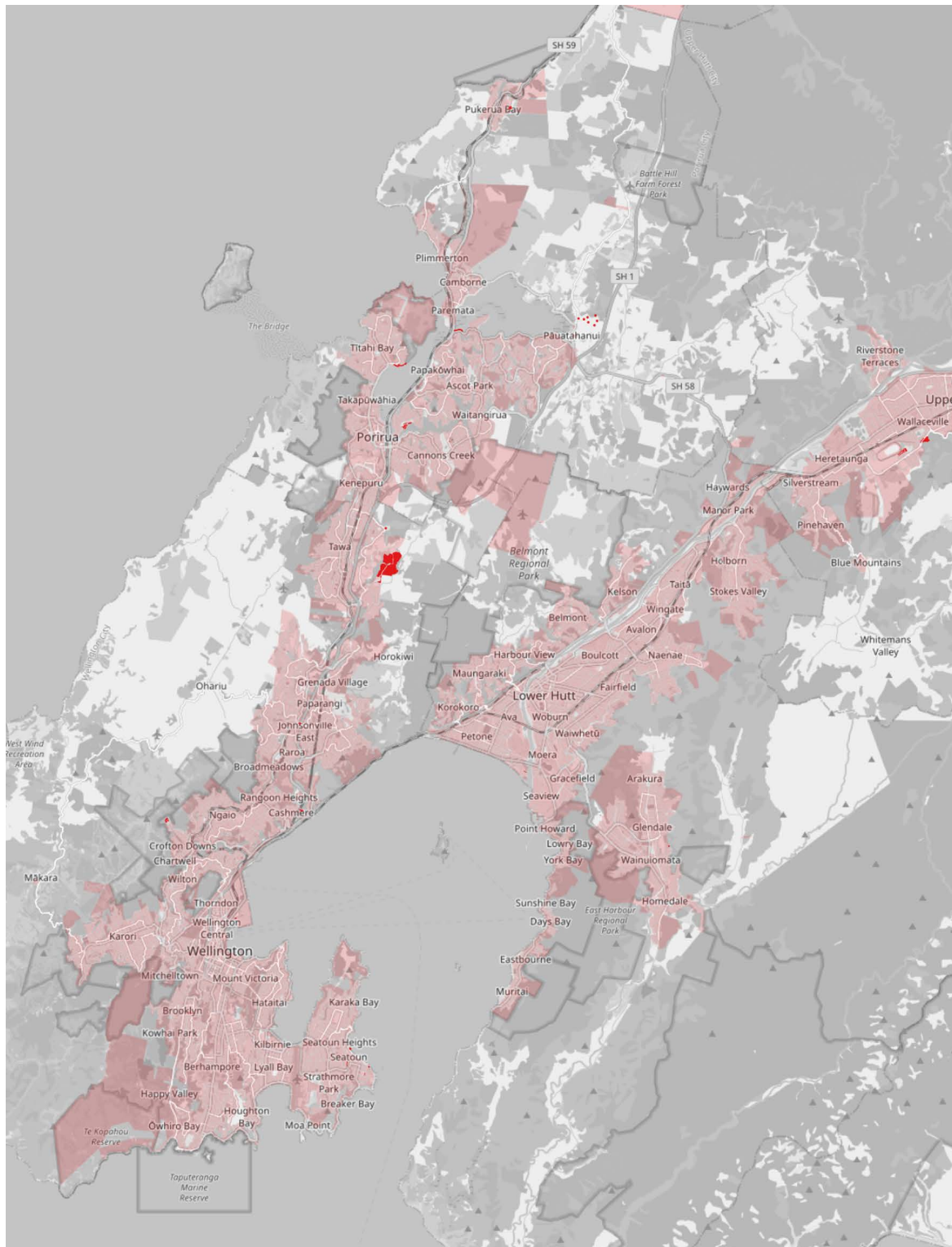
Figure 2: Fibre coverage across New Zealand



Source: Commission data

⁵ Chorus "Annual Report 2024", page 3 - <https://company.chorus.co.nz/investors/financial-reports/financial-results-presentations/2024-full-year-financial-results>

Figure 3: New fibre coverage across the Wellington Region in 2024



Source: Commission data

Cellular 4G and 5G fixed wireless broadband

As of June 2024, over 99% of urban households were within coverage of a cellular fixed wireless service from at least one MNO.⁶ Urban cellular 5G fixed wireless coverage has doubled between 2023 and 2024, with 67% of urban households being within coverage of at least one of the MNO networks. This is up from 33% in 2023.

Coverage of urban cellular 5G fixed wireless broadband will continue to expand over the next few years following the Government's direct allocation of 3.5GHz spectrum in return for faster rollout of 5G services in 2023. MNOs are also investing in standalone 5G technology, which will improve the performance of the 5G network.⁷ Spark is planning to increase 5G connectivity to all towns with a population over 1,500 by the end of FY26.⁸

Structurally, the New Zealand market allows for greater levels of fixed wireless broadband than many other countries due to lower population densities, which result in a higher MHz to subscriber ratio.

Fixed wireless broadband can be provided over cellular and non-cellular networks.

Cellular fixed wireless broadband uses much of the same infrastructure and spectrum as mobile calling, text and data services. In most cases, cellular fixed wireless broadband is restricted to a set location and is delivered via a router. The cellular fixed wireless broadband coverage offered by mobile networks is based on the type and amount of spectrum the network operator has acquired as well as the number and position of sites' (towers and masts) hosting equipment.

Topographical features such as trees, buildings and other structures can result in localised coverage gaps, and the number of people potentially using a site at any one time is also an important consideration for these operators.

In New Zealand, there are three national mobile networks, operated by 2degrees, Spark and One NZ. All three of these MNOs offer cellular fixed wireless broadband using their 4G and 5G networks. Cellular fixed wireless coverage differs from other 4G and 5G mobile services. The primary reason for the coverage difference is that cellular fixed wireless broadband requires and uses significantly more network capacity than other mobile services (such as voice and text).

6 In this year's Annual Monitoring Report, we have made a change to the methodology for calculating coverage. In last year's Annual Monitoring Report, we only counted addresses on land parcels where 100% of the parcel was in coverage of a technology. This year, we have reduced the threshold to greater than 50% of the land parcel. This aligns our methodology to other Commission reporting such as the Copper Services Investigation.

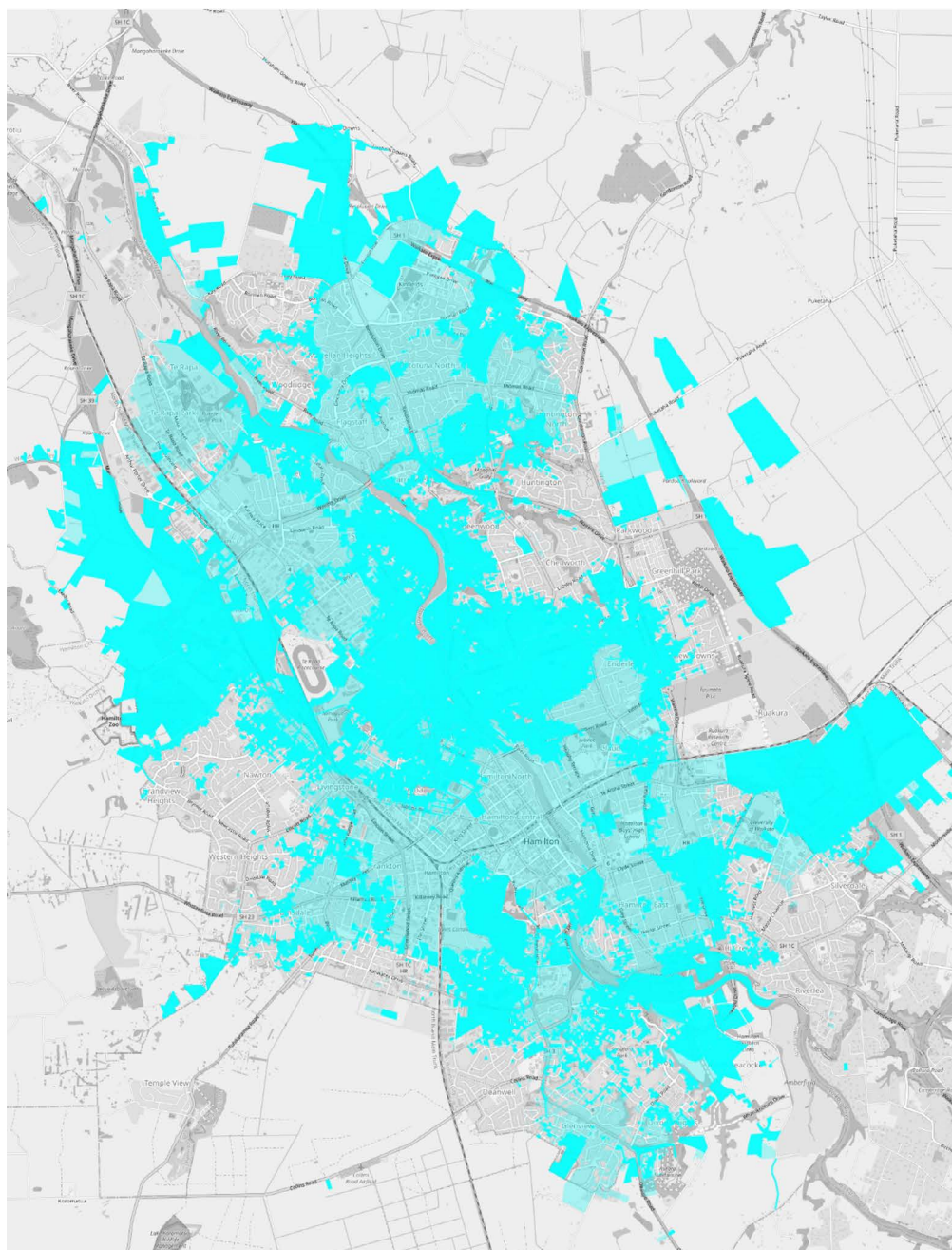
7 Spark "Spark Annual Report FY24", page 39 - https://investors.sparknz.co.nz/FormBuilder/Resource/module/gXbeer80tkeL4nEaF-kwFA/file/2024_Spark_Annual_Report.pdf

8 Ibid, page 83.

Figure 4 shows the change in cellular 5G fixed wireless coverage in Hamilton. Areas coloured in light blue show where coverage was in 2023 and areas coloured dark blue show new areas of coverage in 2024.

Areas that have seen significant increases in coverage include Chartwell in the centre of Hamilton and areas to the west of Te Rapa in the northwest of the city.

Figure 4: 2024 Cellular 5G fixed wireless broadband coverage changes in Hamilton



Source: Commission data

Copper

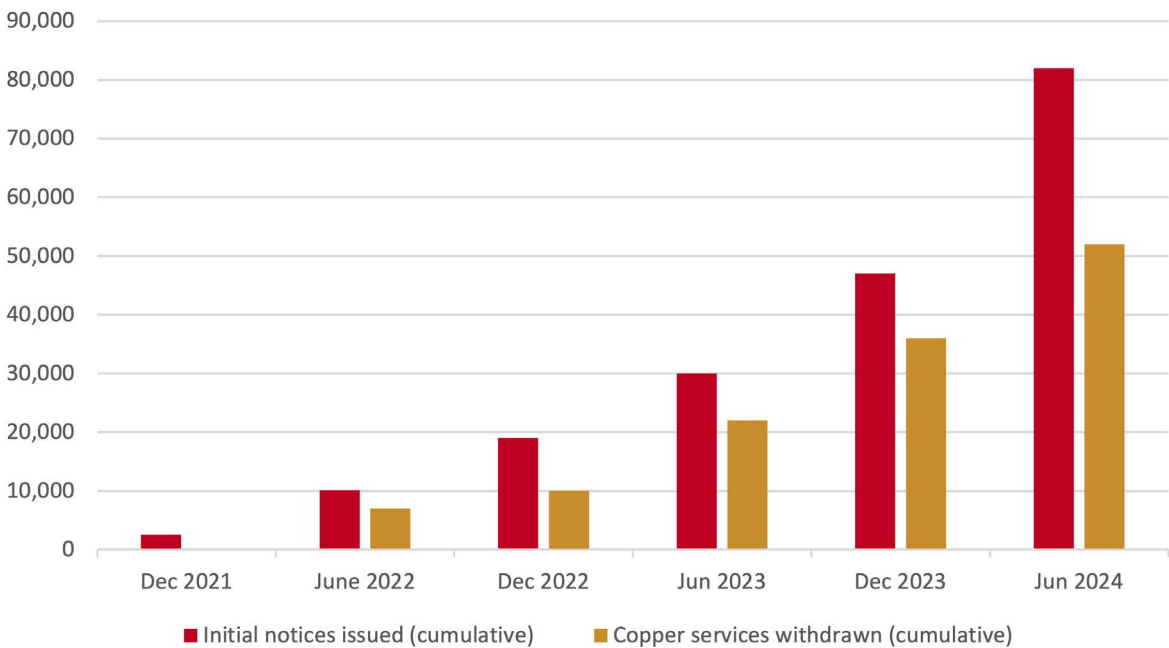
On 6 March 2023, Chorus began a 'stop sell' on new copper services in Chorus and LFC areas where fibre is available to consumers. As of 30 June 2024, 37,000 households remain on copper services in urban areas with copper services not available to new customers.⁹

Copper withdrawal

Under the CWC, Chorus is required to follow a prescribed notification process with affected consumers prior to ceasing copper services.¹⁰ Figure 5 shows the cumulative number of initial notices issued by Chorus and the number of copper services withdrawn in the period to 30 June 2024.

Chorus operates the copper network across New Zealand. At its peak, this covered 98% of the population. In March 2023, Chorus implemented a 'stop sell' on new copper connections in fibre areas. The copper network supports voice and broadband (ADSL and VDSL) services. Chorus is able to withdraw copper in areas where the Commission has declared that fibre services are available – subject to the minimum requirements set out in the Copper Withdrawal Code (CWC).

Figure 5: Initial notices issued and copper services withdrawn under the CWC (cumulative)



Source: Chorus¹¹

9 Chorus "Q4 FY24 Connections Update" (9 July 2024), slide 7 - <https://api.nzx.com/public/announcement/434157/attachment/422323/434157-422323.pdf>

10 <https://comcom.govt.nz/regulated-industries/telecommunications/telecommunications-for-consumers/copper-withdrawal-code>

11 Chorus "Q4 FY24 Connections Update" (9 July 2024), slide 8 - <https://api.nzx.com/public/announcement/434157/attachment/422323/434157-422323.pdf>

In the year to 30 June 2024, Chorus reported that it had issued around 52,000 initial notices and withdrawn 30,000 copper services. This is a steep increase on last year, with over double the number of initial notices being issued in 2024.

Chorus has reported that, of the approximately 82,000 notices issued to date, it has withdrawn approximately 52,000 copper services (or 1,253 cabinets). A further 1,416 cabinets have had notices issued but have not yet had services withdrawn.¹²

Chorus has prioritised copper withdrawal in Chorus fibre areas and plans to close the copper network in its fibre areas by the end of 2026.¹³ Chorus has begun the withdrawal process in other LFC areas, and this will increase once it has completed copper withdrawal in Chorus areas.¹⁴

HFC

HFC is a broadband network that combines fibre and coaxial cable (copper). HFC networks were commonly employed by cable television operators from the early 1990s.

The HFC network in New Zealand is owned by One NZ and was built in parts of Wellington, Kāpiti Coast and Christchurch.

One NZ has not reported any significant changes to HFC network coverage over the last year.

¹² Ibid.

¹³ Chorus "2024 Full-year Financial Results" (June 2024) - <https://company.chorus.co.nz/investors/financial-reports/financial-results-presentations/2024-full-year-financial-results>

¹⁴ <https://sp.chorus.co.nz/inflight-projects/copper-withdrawal>

The wholesale market plays an important role in shaping outcomes at the retail level for consumers. Regulation usually applies in markets with natural monopoly characteristics to ensure that access is available on reasonable terms. The wholesale market continues to play an important part in the overall market structure of telecommunications in New Zealand. Regulatory obligations to provide key inputs for connectivity in Kiwi homes and businesses have transformed the retail market.

2024 highlights

- The number of fibre connections has grown by 4% over the last year. The 300Mbps fibre plan, often referred to as Fibre 300, continues to be the most popular wholesale fibre plan. However, Chorus reported that this plan dropped from 67% of total residential fibre plans in 2023 to 64% in 2024 with consumers moving to alternative plans such as Fibre 50 and Fibre Max.
- More copper broadband connections left the network in 2024 than now remain in urban areas. Connections fell 52% to 37,000, meaning that a total of 40,000 urban broadband connections left the copper network over the year.
- Chorus and Tuatahi offer discounted Fibre 50 products, with Chorus applying a retail price cap. Connections on these discounted plans are growing fast, with Chorus noting almost 200% growth in its plan, increasing to 47,000 connections in the year to June 2024.

The fibre and copper access networks in New Zealand have historically had natural monopoly characteristics, meaning there are high fixed and sunk costs relative to the size of the market, raising barriers to entry for rivals. Accordingly, there has been regulated wholesale access in place for both networks.

The copper access network was partially deregulated in 2018 through the Telecommunications (New Regulatory Framework) Amendment Act, which deregulated copper fixed line access services in areas where fibre fixed line access services were available (urban areas). The amendments also established a new framework for the regulation of fibre fixed line access services from 2020.

Typically, the highest-volume wholesale services are those used to serve the consumer broadband market (residential connections and small business connections) and comprise the connectivity (physical cabling) from the home back to a point in the network that houses electronics. These services are referred to as bitstream and are offered on both fibre and copper networks in New Zealand.

A small wholesale market exists within the mobile sector, which supports cellular fixed wireless broadband access. This part of the market operates on commercial terms. (Wholesaling of mobile call, text and data services is covered in the mobile chapter).

Wholesale fibre bitstream connections

Fibre networks in New Zealand were built under the UFB initiative on a wholesale-only basis. This means Chorus, Northpower, Tuatahi and Enable must sell their fibre services through RSPs.

Chorus is the largest fibre wholesaler and provides approximately three-quarters of UFB fibre connections. Northpower is the smallest fibre wholesaler and holds around 2% of UFB connections. The remaining UFB connections are provided by Enable and Tuatahi.

The Telecommunications Act requires Chorus to provide an anchor fibre service if one has been declared. The purpose of the anchor service is to:

- ensure voice and basic broadband services are available to end users at reasonable prices
- act as an appropriate anchor on the price and quality of other fibre services.

In September 2021, anchor services were declared. The anchor broadband service is specified to provide a minimum download speed of 100Mbps and a minimum upload speed of 20Mbps. At the time, the commercial 100Mbps product was the most common speed tier sold.

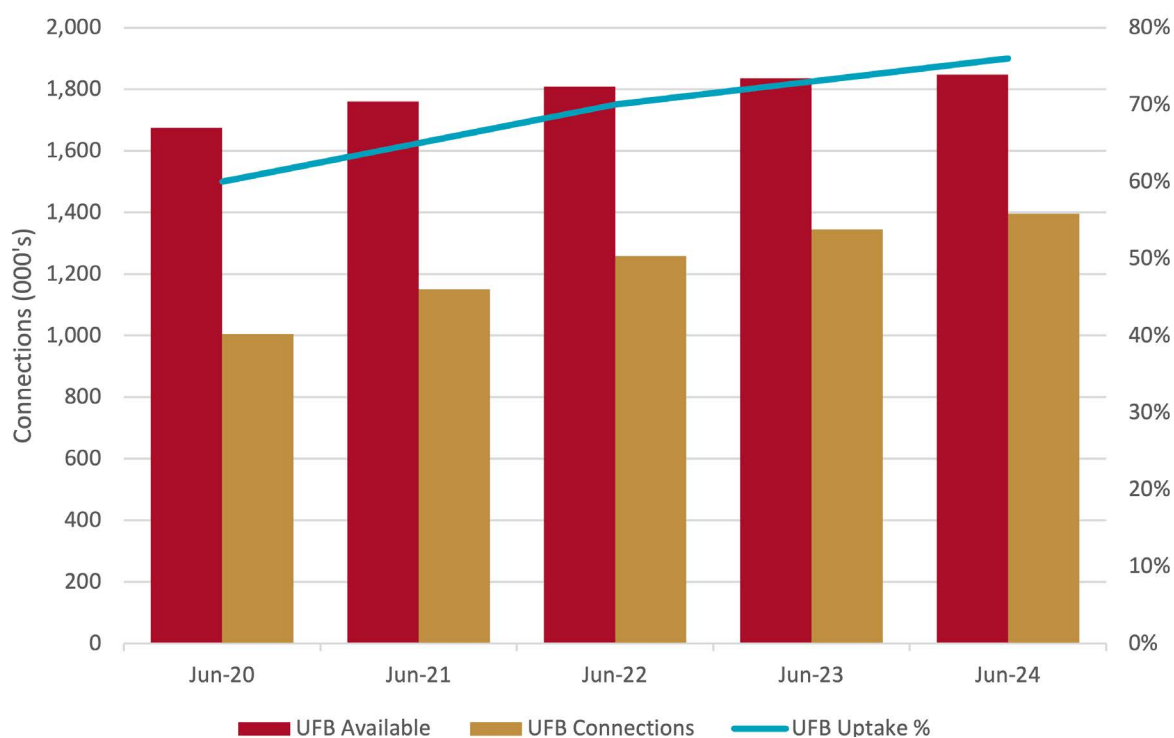
The voice anchor service can be delivered on a voice-only basis, supports New Zealand public switched telephone network (PSTN) tones and cadences and supports PSTN-compatible analogue telephony devices connected directly to the optical network terminal (ONT).

The Commission can review anchor services before each regulatory period to ensure they meet their purpose. After the review is completed, the Commission makes recommendations to the Minister regarding the service's descriptions, conditions, periods and maximum prices.

Figure 6 shows that the uptake of fibre connections has continued to increase over time. As of June 2024, around 76% of homes and businesses that had UFB available were connected to fibre. This is up from around 60% of homes and businesses in June 2020.¹⁵

Over the last year, the number of wholesale fibre connections has increased by 4%, from 1.35 million in 2023 to 1.4 million in 2024.¹⁶

Figure 6: UFB uptake across New Zealand



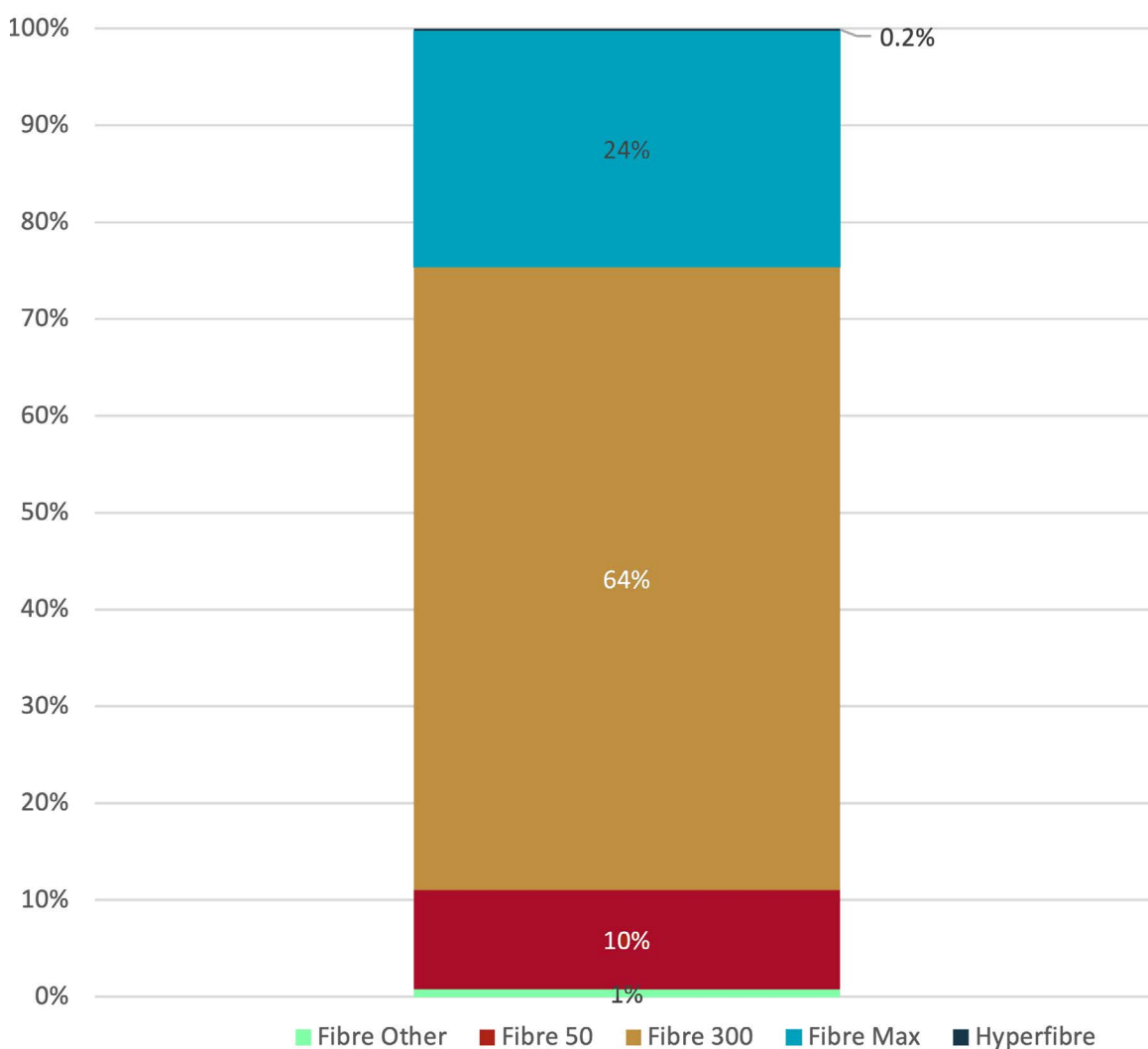
Source: NIFF¹⁷

¹⁵ Commission analysis of NIFF Quarterly Connectivity Updates (June 2020 – June 2024) – <https://nationalinfrastructure.govt.nz/publications/>

¹⁶ Ibid.
¹⁷ Ibid.

Figure 7 shows the speed composition of residential fibre connections across Chorus and LFCs. The percentage of connections on different speed tiers depends on a range of factors, including wholesale offerings, RSP take-up of these offers and consumer preferences.

Figure 7: Speed composition of residential fibre connections – June 2024



Source: Commission data

50Mbps

The 50Mbps plan remains one of the fastest-growing wholesale fibre options. In 2022, both Chorus and Tuatahi began offering discounted 50Mbps products aimed at more price-sensitive consumers. Neither Chorus nor Tuatahi has increased the price of their plans since they were introduced. This has led to a greater gap in wholesale pricing between the discounted 50Mbps and 300Mbps products.

Chorus has announced it will be increasing the wholesale price and retail cap of the plan from 1 January 2025, which will be discussed in next year's Annual Monitoring Report.¹⁸

Chorus reported that the number of Home Fibre Starter connections had grown from 16,000 in June 2023 to 47,000 in June 2024 – an increase of 31,000 (just under 200%).

100Mbps (broadband anchor service)

In December 2021, Chorus, Tuatahi and Enable upgraded consumers on fibre 100Mbps residential plans to 300Mbps free of charge. Northpower subsequently reduced the cost of its residential 300Mbps plan to match its 100Mbps service in July 2022.

Chorus continues to offer a 100Mbps wholesale product to the market consistent with its anchor service obligations.¹⁹

300Mbps

The 300Mbps plan is the most popular speed tier in New Zealand. As of 30 June 2024, 300Mbps plans made up 64% of all residential fibre plans. Chorus reported a three percentage point decrease in the plan over the previous year (where the plan made up 67% of connections), reflecting the move of households to alternative plans such as the 1Gbps and 50Mbps residential products.²⁰

Chorus has announced it will upgrade Fibre 300 to Fibre 500 and Fibre 50 to Fibre 100 in June 2025 with no increase to the wholesale price. This is discussed further in the market developments section of this report.

1Gbps (Fibre Max)

The 1Gbps plan has continued to grow in the year to June 2024. Chorus reported that 25% (up from 24%) of residential plans and 31% (up from 29%) of business plans were 1Gbps as of June 2024.²¹

Hyperfibre

Hyperfibre was launched by Chorus in 2020 and is delivered over XGS-PON technology, which can support speeds of up to 10Gbps.^{22,23} Chorus, Enable and Tuatahi all now offer Hyperfibre plans. Northpower began a trial of Hyperfibre services in April 2022 for premises in the Whangārei CBD but Hyperfibre is still not available to retail customers.²⁴

2Gbps and 4Gbps Hyperfibre services are available to more than 75% of urban New Zealanders.²⁵ However, 8Gbps Hyperfibre services are only available in parts of Auckland and Wellington.²⁶

There has not been any significant growth in Hyperfibre product since it was launched, with Hyperfibre connections currently making up around 0.2% of all residential fibre connections.²⁷

Other fibre plans (Fibre 30, 200 and 500)

As at June 2024, other fibre plans made up around 1% of residential fibre connections.

18 <https://sp.chorus.co.nz/product-offer/home-fibre-starter-50>

19 Chorus "Anchor Services and LUDFAS" – <https://sp.chorus.co.nz/product/anchor-services-and-ludfas/overview>

20 Chorus "FY24 Result Presentation", page 8 – <https://api.nzx.com/public/announcement/436788/attachment/425562/436788-425562.pdf>

21 Ibid.

22 <https://sp.chorus.co.nz/product-update/confirming-launch-dates-hyperfibre-rgw-ont-products>

23 <https://sp.chorus.co.nz/product/hyperfibre-home/tech-specs>

24 <https://www.2degrees.nz/broadband/hyperfibre>

25 Ibid.

26 8Gbps Hyperfibre is available at 60 Chorus exchanges – <https://sp.chorus.co.nz/product/hyperfibre-home/guides>

27 Based on Commission data.

Wholesale unbundled fibre connections

Since 1 January 2020, Chorus and LFCs have been obligated under their Fibre Deeds to offer a point-to-multipoint layer 1 fibre access service on their UFB1 networks, also referred to as an unbundled fibre service.²⁸

Unbundled fibre is not yet used commercially by RSPs in the provision of retail broadband services or any other retail offerings.

Wholesale copper bitstream connections

The copper broadband offered to consumers in urban areas uses a wholesale input service provided by Chorus, which continues to operate the copper network nationwide.

In the year to June 2024, copper broadband connections in urban areas fell 52% to 37,000.²⁹ Of the 37,000 copper broadband connections remaining in urban areas, 25,000 remain in Chorus areas and 12,000 remain in other LFC areas.³⁰

The rate of decline was higher in Chorus fibre areas, with Chorus reporting copper broadband connections falling by around 30,000 in the year to June 2024.³¹ Chorus has prioritised copper withdrawal in Chorus fibre areas and plans to close the copper network in its fibre areas by the end of 2026.³² Chorus has begun the copper withdrawal process in other LFCs' specified fibre areas (SFAs) but plans to increase activity in these areas once it has completed the Chorus SFA.³³

Over the last few years, the decline in copper broadband connections has outstripped the number of copper lines withdrawn by Chorus. This suggests that copper withdrawal is only currently playing a partial role in the overall decrease in connections. Other factors may be consumer preferences for faster speeds or cheaper prices on other technologies.

²⁸ Part 4AA of the Telecommunications Act required LFCs to give Deeds of Open Access Undertakings (known as the Fibre Deeds) in relation to the supply of wholesale telecommunications services using fibre networks constructed with Crown investment funding as part of the UFB initiative.

²⁹ Commission analysis of Chorus annual reports and information provided by Chorus – <https://company.chorus.co.nz/reports>
³⁰ Chorus "Q4 FY24 Connections Update" – <https://company.chorus.co.nz/reports>

³¹ Commission analysis of Chorus annual reports – <https://company.chorus.co.nz/reports>

³² Chorus "Chorus 2024 full-year financial results" (June 2024) – <https://company.chorus.co.nz/investors/financial-reports/financial-results-presentations/2024-full-year-financial-results>

³³ <https://sp.chorus.co.nz/inflight-projects/copper-withdrawal>

Wholesale cellular fixed wireless broadband connections provided by MNOs

In urban areas of New Zealand, cellular fixed wireless broadband plans are wholesaled by MNOs on commercial terms through MVNO agreements. However, not all MVNO agreements include cellular fixed wireless broadband services (discussed further in the mobile chapter).

In the year to June 2024, MNOs and WISPs wholesaled 28,000 fixed wireless broadband connections (both cellular and non-cellular) in urban and rural areas.³⁴ This is a 25% increase on 2023.

Large RSPs that resell cellular 4G fixed wireless broadband in urban areas include energy providers Mercury and Contact Energy. As well as these two major RSPs, over 25 smaller operators, including many WISPs, resell cellular 4G fixed wireless nationwide.³⁵

No MNO is currently wholesaling cellular 5G fixed wireless plans.³⁶

³⁴ Annual Industry Questionnaire.
³⁵ Commission data.
³⁶ Commission data.

Retail telecommunications markets are the markets through which consumers can purchase access to products that use the infrastructure described above. These products are packaged up by competing retailers and marketed to consumers.

Retail market structure has been significantly shaped by wholesale access regulation, the Government's UFB initiative and the three vertically integrated MNOs enhancing their networks to offer broadband connectivity to Kiwi homes and businesses.

2024 highlights

- The market share held by the Largest 3 retail telecommunication companies remains moderately concentrated at this level but has decreased to 73% this year, down from 74% in 2023.
- The urban residential broadband market is more concentrated than the rural market. The urban market is dominated by three providers compared to the rural market, with other participants such as WISPs and Starlink having greater market shares.
- 2degrees is the only major retailer offering Hyperfibre connections, as MyRepublic exited the New Zealand market in July 2023 and 2degrees acquired its customer base.
- Broadband/energy bundles continue to be one of the fastest-growing segments, increasing in 2024 to 304,000, up 14% compared to last year.
- We estimate 83% of urban residential connections are fibre connections, with all major RSPs offering Fibre 300 and Fibre Max plans.

The retail telecommunications market in New Zealand has over 100 RSPs – characterised by a few large operators and a long tail of RSPs with smaller customer bases. This market structure for retail telecommunications is common across the world. Larger providers in this setting are either legacy incumbents or entrants that have been able to invest, compete and grow.

There are two distinct types of RSPs operating in the urban broadband market:

1. Vertically integrated telcos that can offer cellular fixed wireless services using their own mobile networks as well as retailing wholesale offerings from Chorus/LFCs.
2. Players without networks that build retail products based on wholesale inputs from network providers. An increasing number of players in this category are energy retailers.

Retail market share

Nationally, Spark, One NZ and 2degrees serve 73% of the broadband market and 97.5% of the mobile market. The competition analysis throughout this report groups these three nationally significant RSPs collectively. This serves two purposes. It allows us to look at the competitive dynamics between the Largest 3 providers and other RSPs, and we can better understand the level of rivalry or competition that exists among the Largest 3.

Market concentration

Market concentration – the extent to which the distribution of the market across firms is limited to relatively few firms – is an important structural characteristic of a market.

There are several ways to look at market concentration. We have chosen to use both HHI and a simpler market concentration ratio:

- HHI analyses market shares of each firm in a market to determine a value of market concentration – an HHI between 1,500 and 2,500 indicates moderate concentration, whereas values above this indicate high concentration.
- The market concentration ratio (CR) looks at the market shares of the providers relative to the total market share. The analysis in this report uses CR3, which measures the market share of the three largest providers in a market, and CR5, which measures the five largest providers in a market.

At a national level, the broadband market (residential and business) is moderately concentrated, with the top three providers holding a combined 73% market share (CR3) and the top five accounting for 86% (CR5) and an HHI of 2,040. This represents a slight decrease from the previous year when the CR3 was 74%, indicating a small reduction in the dominance of the largest providers. This shift is largely due to the growth of energy bundlers and Starlink, which have gained market share over the past year. The urban residential broadband market has a CR3 of 75%,

CR5 of 91% and HHI of 2,148, indicating that it is more concentrated than the national market. This high concentration is driven by the dominance of three major providers that primarily offer fibre and fixed wireless services. Unlike rural areas, the urban market has limited satellite and non-cellular fixed wireless connections such as those provided by Starlink and WISPs. These types of connections are typically not available as wholesale products for the Largest 3 RSPs, reinforcing the market power of the incumbents in urban areas.

Table 1: Market concentration and HHI

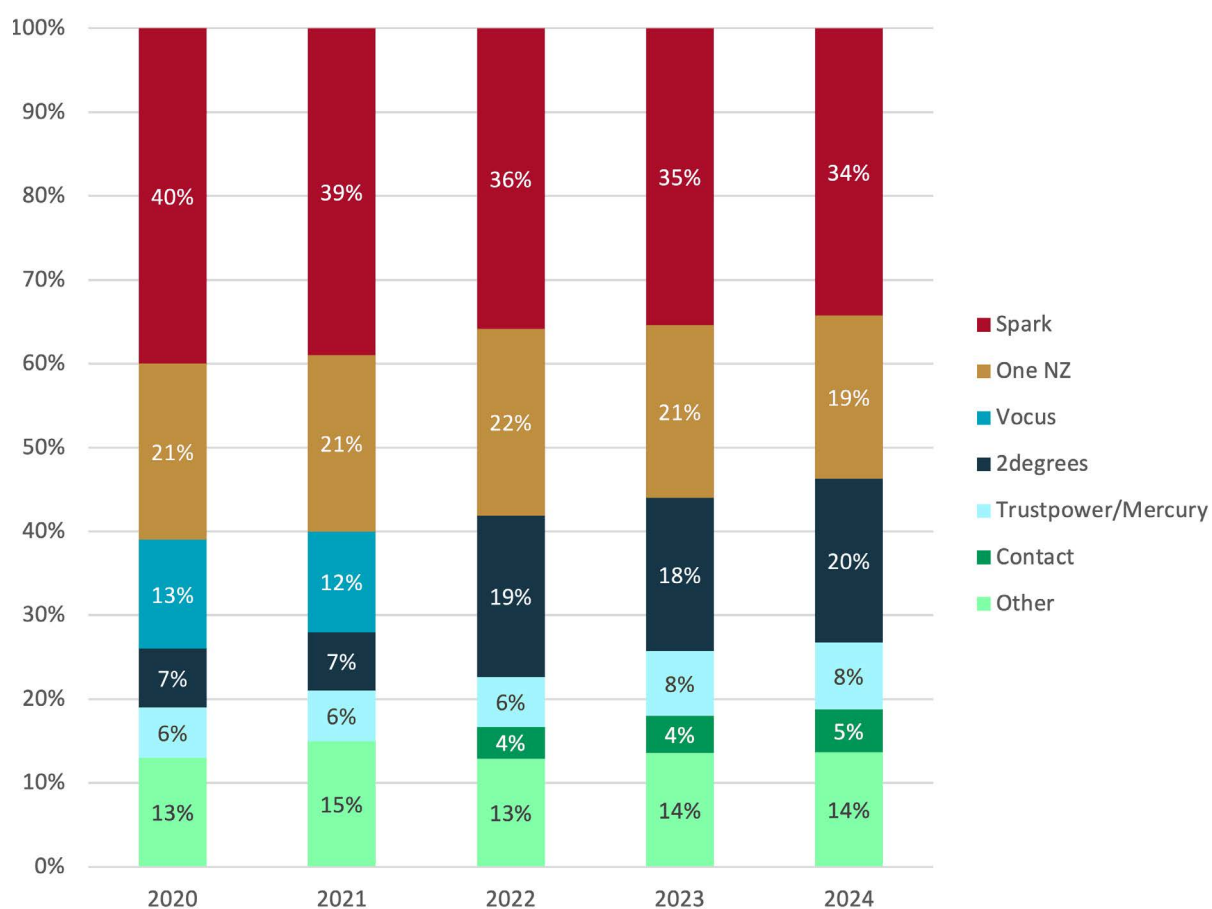
| | Urban (residential) ³⁷ | Rural (residential) | National (residential and business) |
|-----|--------------------------------------|------------------------|--|
| CR3 | 75% | 67% | 73% |
| CR5 | 91% | 77% | 86% |
| HHI | 2,148 | 1,618 | 2,040 |

37 The difference between CR3 and sum of percentages in Figure 9 is due to rounding.

National market share

Figure 8 shows the national broadband market shares over time.

Figure 8: National retail broadband market share



Source: Commission analysis of NIFF, Chorus, Annual Industry Questionnaire, Commission data

The market share of the incumbent provider, Spark, has decreased over the last 5 years. Energy bundlers such as Mercury have entered the broadband market over this period and begun to increase their market shares as consumer preference for energy bundles has increased. In the rural market, LEO satellite provider Starlink has seen considerable growth since its entry in 2021. This is discussed later in the rural chapter.

The market has been impacted by several acquisitions and divestments over the last 5 years:

- In 2022, Vocus and 2degrees merged, making the market more concentrated as the market share held by the Largest 3 providers increased significantly.³⁸
- In July 2023, 2degrees announced it had acquired MyRepublic's broadband customer base, further increasing its market share in 2024.³⁹
- Mercury acquired Trustpower's broadband business in May 2022 and rebranded Trustpower to Mercury in June 2023.⁴⁰
- Mercury acquired a minority share of Now NZ in 2021 and acquired the remaining stake in Now NZ in December 2022, which was reflected in an increase in its market share in 2023.⁴¹

Our data shows that the market share of energy bundlers Mercury (previously Trustpower) and Contact Energy has approximately doubled between 2020 and 2024 from around 6% to 13%.

38 <https://www.2degrees.nz/media-releases/2degrees-and-vocus-nz-merger-completes?srsId=AfmBOoqYDD73ErhEgbPxQifuKzmlMv5sRqksNI3DnRSao57c9VWQyBWMw>

39 https://www.2degrees.nz/media-releases/2degrees-agrees-to-purchase-my-republic-broadband-customers?srsId=AfmBOoqw-JN4_6sy07kc6-SM_XGEIL5ukvwvfOWz4NtefOF9khmVzOQL

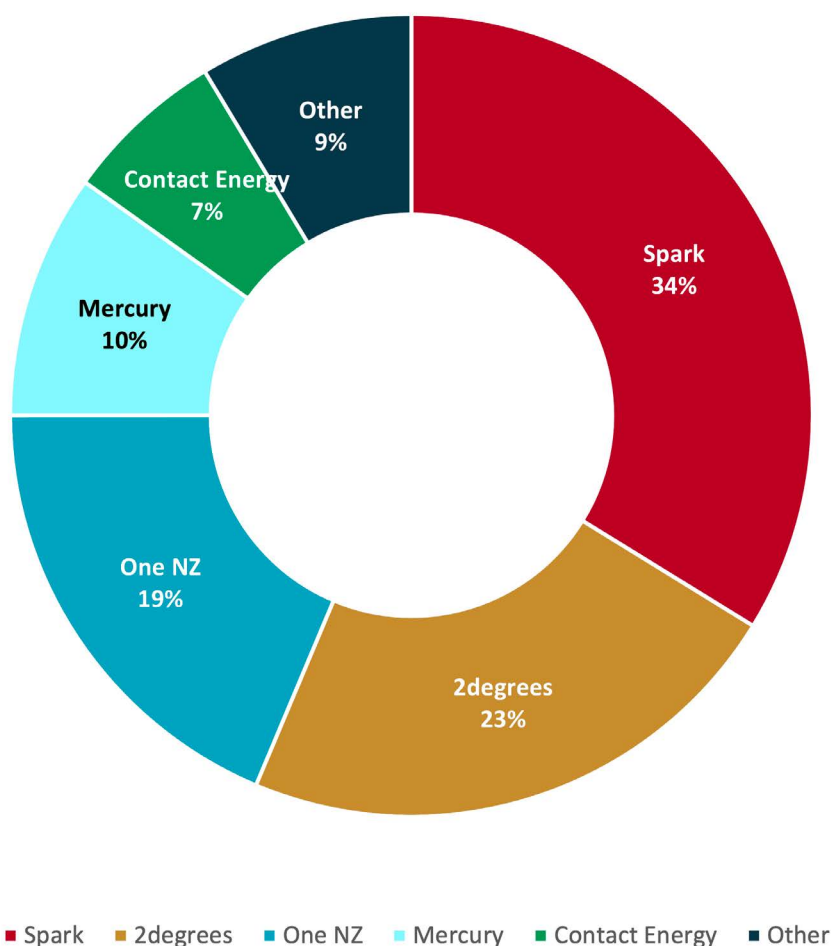
40 https://ask.mercury.co.nz/app/answers/detail/a_id/3177/-/trustpower-is-now-mercury

41 <https://www.nzx.com/announcements/405806>

Urban residential market share

Figure 9 shows that the urban residential market shares of RSPs. 2degrees, Mercury and Contact Energy have a stronger presence in urban markets than they do nationally. These RSPs have targeted urban customers, resulting in a higher proportion of fibre customers. In contrast, Spark and One NZ have a larger rural customer base, primarily using fixed wireless connections.

Figure 9: Residential broadband market share in urban areas⁴²



Source: Annual Industry Questionnaire, Commission data

⁴² We cannot make a year-on-year comparisons this year as we collected only residential connection data in 2024. We will be able to do this comparison next year with another year of residential connection data.

Size of urban RSPs

Table 2 shows the urban residential customer base of RSPs. This year, by collecting residential connection data directly from the wholesale providers, we have added more smaller providers to our dataset.

Table 2: Size of urban RSPs

| Number of urban residential retail customers | Number of providers |
|--|---------------------|
| >200,000 | 3 |
| 50,001-200,000 | 2 |
| 20,001-50,000 | 2 |
| 5,001-20,000 | 3 |
| 1,000-5,000 | 10 |
| <1,000 | >100 |

Source: Commission data (as of June 2024)

The urban retail broadband market is dominated by three larger providers with over 200,000 urban connections. However, there are also over 100 RSPs with under 1,000 urban connections that participate in the market. An example is WISPs that operate on a small scale and offer urban plans in towns around New Zealand. These providers offer benefits such as local customer service support.

Retail offers

RSP offers in the retail telecommunications market are made up of several key aspects:

- Available network infrastructure (either through ownership or wholesale regulated/commercial access terms). In urban areas, this covers fibre, copper, 4G and 5G cellular fixed wireless broadband and HFC.
- Service performance characteristics that providers offer such as download speeds, upload speeds, latency and data caps.
- Service add-ons, if any, that will be included in the offer such as subscription services or energy.

The highest retail speeds achievable by a 1Gbps wholesale product is around 940Mbps. These plans are typically marketed under other names such as Fibre Max, Gigantic Fibre and Fibre Pro. In the retail section of this report, we refer to the product as Fibre Max.

Network

In the retail section, we refer to large RSPs with over 20,000 residential connections as major RSPs. Collectively, these RSPs make up around 95% of the residential broadband market.

Table 3 shows that all major RSPs and their sub-brands offer Fibre 300 and Fibre Max plans.

Table 3: Technology offerings by major RSPs in urban areas

| RSP | Fibre | | | | Cellular fixed wireless broadband | | HFC |
|-----------------------|--------|---------|-----------|------------|-----------------------------------|----|-----|
| | 50Mbps | 300Mbps | Fibre Max | Hyperfibre | 4G | 5G | |
| Spark | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| Spark (Skinny) | | ✓ | ✓ | | ✓ | | |
| One NZ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| 2degrees | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 2degrees (Slingshot) | | ✓ | ✓ | | ✓ | | |
| Mercury | ✓ | ✓ | ✓ | | ✓ | | |
| Mercury (Now NZ) | | ✓ | ✓ | | | | |
| Contact Energy | | ✓ | ✓ | | ✓ | | |
| Sky Broadband | ✓ | ✓ | ✓ | | | | |
| Nova Energy | ✓ | ✓ | ✓ | | | | |
| Nova Energy (Megatel) | ✓ | ✓ | ✓ | | | | |

Source: Commission data (as of June 2024)

The number of major RSPs offering Fibre 50 has increased, with Mercury and Nova Energy beginning to retail the service in the last year. The three MNOs, Mercury and Contact Energy continue to offer urban cellular 4G fixed wireless services. 2degrees is the only major RSP that offers Hyperfibre, with MyRepublic exiting the New Zealand market in July 2023 and 2degrees acquiring MyRepublic’s broadband base.

Table 4 shows the number of providers offering residential services over different technologies in urban areas. Fibre Max and Fibre 300 products continue to have the greatest choice of provider with over 100 providers retailing Fibre 300 services nationwide.

Table 4: Technology offerings by RSPs in urban areas

| Technology | Plan | Number of providers |
|-------------------------|------------|---------------------|
| Fibre | Fibre 50 | >40 |
| Fibre | Fibre 300 | >100 |
| Fibre | Fibre Max | >80 |
| Fibre | Hyperfibre | >10 |
| Cellular fixed wireless | 4G | >20 |
| Cellular fixed wireless | 5G | 3 |
| Copper | ADSL/VDSL | 0 |
| HFC | HFC | 1 |

Source: Commission data (as of June 2024)

Fibre 50 has become more popular with RSPs as they choose to offer this product to compete with 4G fixed wireless plans or to offer a more cost-effective plan for consumers to access broadband with increases in the cost of living.⁴³ 5G fixed wireless and HFC continue to have the fewest providers for consumers to choose from. Only the network operators (One NZ, Spark and 2degrees for 5G fixed wireless and One NZ for HFC) currently retail these plans.

43 Chorus "FY24 Result Presentation" - <https://api.nzx.com/public/announcement/436788/attachment/425562/436788-425562.pdf>

Service characteristics – speed

As shown in Table 3 and Table 4, the 300Mbps and 1Gbps plans continue to be the core residential fibre plans retailed by RSPs.

Spark, One NZ and 2degrees currently serve the lower-cost, lower-speed segment of the market using the 50Mbps fibre plan alongside their own cellular fixed wireless broadband offers. Spark has implemented a data cap of 120GB on its Fibre 50 offering, making it not suitable for consumers with higher usage.⁴⁴

While 2degrees is now the only major RSP offering Hyperfibre plans, Table 4 shows that over 10 providers retail residential Hyperfibre services, including WISPs and smaller fibre retailers.

44 When 120GB of data usage is reached in a billing period, the speed of the plan is reduced.

Service characteristics – plan

Table 5 shows the range of download speeds, retail prices and data caps for retail plans offered in urban areas over each technology.

Table 5: Urban plan characteristics

| Technology/plan | Average download speed ⁴⁵ | Price | Data cap |
|----------------------------|--------------------------------------|-----------|--------------------|
| Fibre | 50--900Mbps | \$59-139 | 120GB to unlimited |
| Hyperfibre | 2000-8000Mbps | \$139-200 | Unlimited |
| Cellular 4G fixed wireless | ~50Mbps | \$45-140 | 40GB to unlimited |
| Cellular 5G fixed wireless | ~350Mbps | \$69-80 | Unlimited |
| HFC | ~900Mbps | \$68 | Unlimited |

Source: Commission data (as of June 2024)

4G cellular fixed wireless plans are available across over 99% of urban areas.⁴⁶ HFC is only available within One NZ's HFC network in Christchurch, Wellington and the Kāpiti Coast. 5G fixed wireless plans are available where MNOs have deployed their 5G fixed wireless networks, which are currently in metropolitan areas of cities and towns, with plans to expand this more widely in coming years.⁴⁷

Fibre plans have the largest range of speeds, from Fibre 50 starter products that have download speeds of 50Mbps to 8000Mbps Hyperfibre products. Hyperfibre is targeted at consumers with specific use cases such as gaming and content creation or with a larger number of users (such as large households or SMEs).

45 Maximum download speeds are sourced from retailer websites and Commerce Commission "Measuring Broadband New Zealand - Report20, June 2024" - https://comcom.govt.nz/_data/assets/pdf_file/0020/356501/Measuring-Broadband-New-Zealand-Report-20-June-2024.pdf
46 Commission data.
47 Spark "Spark Annual Report FY24", page 39 - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/file/2024_Spark_Annual_Report.pdf

Service characteristics – data caps

As shown in Table 6, urban cellular fixed wireless broadband data caps from major RSPs range from 40GB up to 1000GB. Over the last year, we have not seen any change with the data cap options of the major RSPs. Most RSPs offer an unlimited usage plan, apart from Mercury. Both Spark’s (40GB) and One NZ’s (60GB) lower data cap options include a phone line. These plans provide a lower-cost option for accessing a phone line compared to bundling a VoIP service with a fibre plan. Unlimited plans are the most common type of residential cellular fixed wireless plan, making up just over half (54%) of all residential plans on the technology.

Data caps are used to manage user behaviour in locations where network capacity is scarce.

Table 6: Current residential urban cellular fixed wireless broadband offers by major RSPs in urban areas

| RSP | Data cap options | Unlimited plan available? |
|----------------------|----------------------|---------------------------|
| Spark | 40GB, 120GB | ✓ |
| Spark (Skinny) | 60GB, 120GB | ✓ |
| One NZ | 60GB, 300GB | ✓ |
| 2degrees | 300GB | ✓ |
| 2degrees (Slingshot) | 300GB | ✓ |
| Mercury | 120GB, 300GB, 1000GB | |
| Contact Energy | 300GB | ✓ |

Source: Commission data (as of June 2024)

Service add-ons

In the past year, take-up of broadband/energy bundles by residential consumers has continued to increase to 304,000 in 2024, up 14% compared to last year.⁴⁸ This continues to be one of the fastest-growing broadband segments.

Energy bundlers can cross-subsidise their broadband plans against their energy plans to offer cheaper pricing than the incumbent providers. The Commission found in 2022 that, when telecommunications and energy services are bundled, the discount applying to telecommunications services is usually clear. However, energy prices can be higher under bundled deals than the prices consumers could obtain from the same provider on a standalone basis.⁴⁹ The Commission's Product Disclosure – Retail Service Bundling Guidelines address this issue – discussed later in the consumer section.

Bundling is more common in urban areas as energy bundlers mainly provide fibre broadband services. In 2023, we estimated that around 96% of all broadband and energy bundles are in urban areas and around 95% of these urban bundles are with fibre.

Providers promote bundled telecommunications services (fixed and mobile services) or bundling of telecommunications services with non-telecommunications services (video streaming subscription, energy) as offering single billing convenience and cheaper prices.

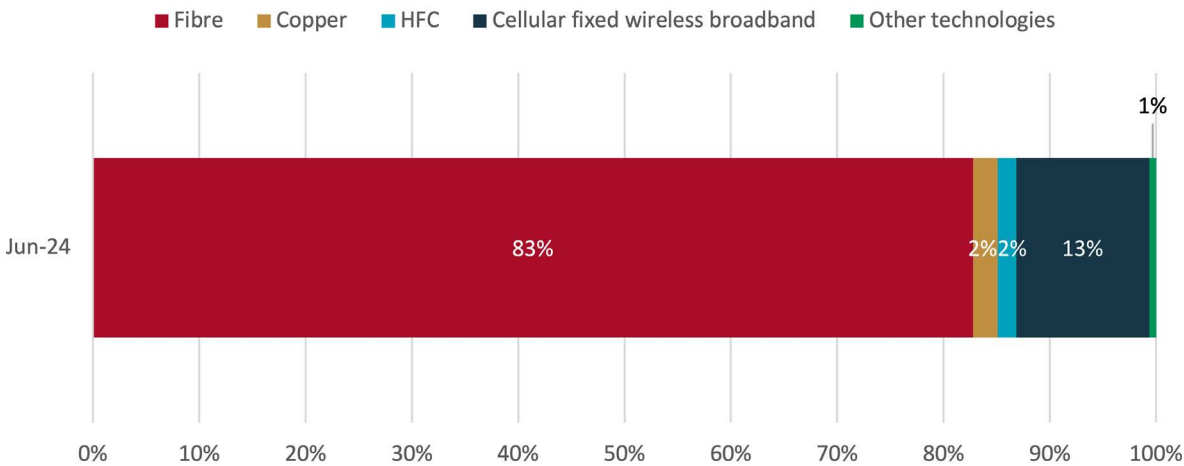
48 In the 2023 data request, we included some smaller energy bundlers operating in the New Zealand market. This number is sourced from our Annual Industry Questionnaire and only includes the four large energy bundlers (2degrees, Contact Energy, Mercury and Nova).

49 Commerce Commission "Improving Retail Service Quality: Product Disclosure – Emerging Views Paper" (October 2022), page 20 – https://comcom.govt.nz/_data/assets/pdf_file/0035/294659/Improving-retail-service-quality-Product-Disclosure-Emerging-Views-paper-12-October-2022.pdf

Retail share by technology

As of 30 June 2024, around 83% of urban residential connections were connected using fibre, with Fibre 300 being the most popular plan (Figure 10).

Figure 10: Estimated urban residential broadband connection technology⁵⁰



Source: Commission data

2% of urban residential connections use HFC. HFC connections have reduced by around 8% over the last year. Copper connections continue to decrease significantly, down 52% in urban areas, and now make up around 2% of total residential connections.⁵¹

There were around 200,000 residential cellular fixed wireless connections in urban areas as of June 2024. Nationwide fixed wireless broadband numbers increased by 5% to 390,000.^{52,53}

We are seeing slow growth in 5G fixed wireless services, with the number of residential connections increasing by 2,100 from 5,500 to 7,600 connections. Just under half of those that switched to 5G fixed wireless between 2023 and 2024 came from a fibre connection (45%). About a quarter shifted from 4G fixed wireless to 5G fixed wireless (23%), and around 15% shifted from a copper connection.

50 We have changed the methodology for how we calculate technology splits. This year, we have only used data provided at an address level from providers and have also only used residential connections, so we are unable to make any year-on-year comparisons, apart from copper. Fibre numbers may not be directly comparable to the numbers published by NIFF.

51 We have changed the methodology for how we calculate technology splits. This year, we have only used data provided at an address level from providers and have also only used residential connections, so we are unable to make any year-on-year comparisons, apart from copper. Fibre numbers may not be directly comparable to the numbers published by NIFF.

52 This number includes both residential and business as well as cellular and non-cellular fixed wireless.

53 We have added around 10 additional smaller providers who resell cellular 4G fixed wireless services to our dataset in 2024, which will account for some of this increase.

Urban satellite connections

Our analysis shows that approximately 6,000 residential satellite connections are in urban areas, accounting for 11% of total residential satellite connections. Urban areas, by our definition, have access to fibre networks, which typically offer better performance and cost-effectiveness compared to satellite connections. However, several factors may influence consumers to choose a satellite connection:

- **Resilience and reliability:** Some consumers prioritise resilience. For example, the Far North and Gisborne districts have some of the highest numbers of urban satellite customers per capita. These areas were significantly impacted by Cyclone Gabrielle, which caused breaks in fibre backhaul cables and caused the fibre and mobile networks to go down. As a result, consumers in these regions may believe satellite connections as more reliable if similar events occur in the future.
- **Avoiding end-user cost for terrestrial connections:** If the non-standard installation cost for a fibre connection is significantly higher than that for a LEO satellite dish, consumers may opt for satellite over fibre.
- **Interest in emerging technologies:** Some consumers may be interested in the developing LEO satellite technology and choose to have a connection over better-performing alternatives such as fibre.
- **Business continuity:** Businesses in urban areas might maintain a backup satellite connection to ensure continuous internet access in case of infrastructure failures.
- **Consumers unaware of better alternatives:** Consumers may not be aware of the cheaper or higher-performing alternatives available to them such as fibre. Consumer research shows that this is one of the main reasons why consumers choose not to switch providers.⁵⁴

Some homes and businesses will not have a fixed broadband connection but may instead use their phone's mobile data allowance to access the internet. While there has been an increase in unlimited mobile plans in recent years, the speed caps/fair usage restrictions on these plans mean that they are only a viable alternative for people with low usage needs. While we are unaware of any numbers quantifying the number of homes and businesses that are mobile-only in New Zealand, we discuss homes without fixed broadband in the digital equity section.

⁵⁴ Commerce Commission "NZ Telecommunications Customer Satisfaction Tracking: 6 Monthly Report – January–June 2024", page 29 – https://comcom.govt.nz/_data/assets/pdf_file/0021/362217/Telecommunications-Consumer-Satisfaction-Monitoring-Report-JanuaryJune-2024.pdf

Concentration of urban broadband technologies and plans

Alongside this report, we publish an interactive geospatial map. This map allows users to look at the concentration of broadband technologies and plans in New Zealand. For illustrative purposes, this report shows some specific areas, technologies and plans as examples. However, readers can use the map to look at any area they want. The map can be found here: <https://comcom.govt.nz/regulated-industries/telecommunications/monitoring-the-telecommunications-market/telecommunications-connectivity-map>

The maps in Figure 11 and Figure 12 show the concentration of Fibre 50 and 4G cellular fixed wireless connections, as shown by the percentage of connections in each SA2 area.⁵⁵ Fibre 50 and Cellular 4G fixed wireless are entry-level plans targeted towards consumers with lower broadband performance needs or consumers that are more price sensitive. These plans are discussed in more detail in the affordability section.

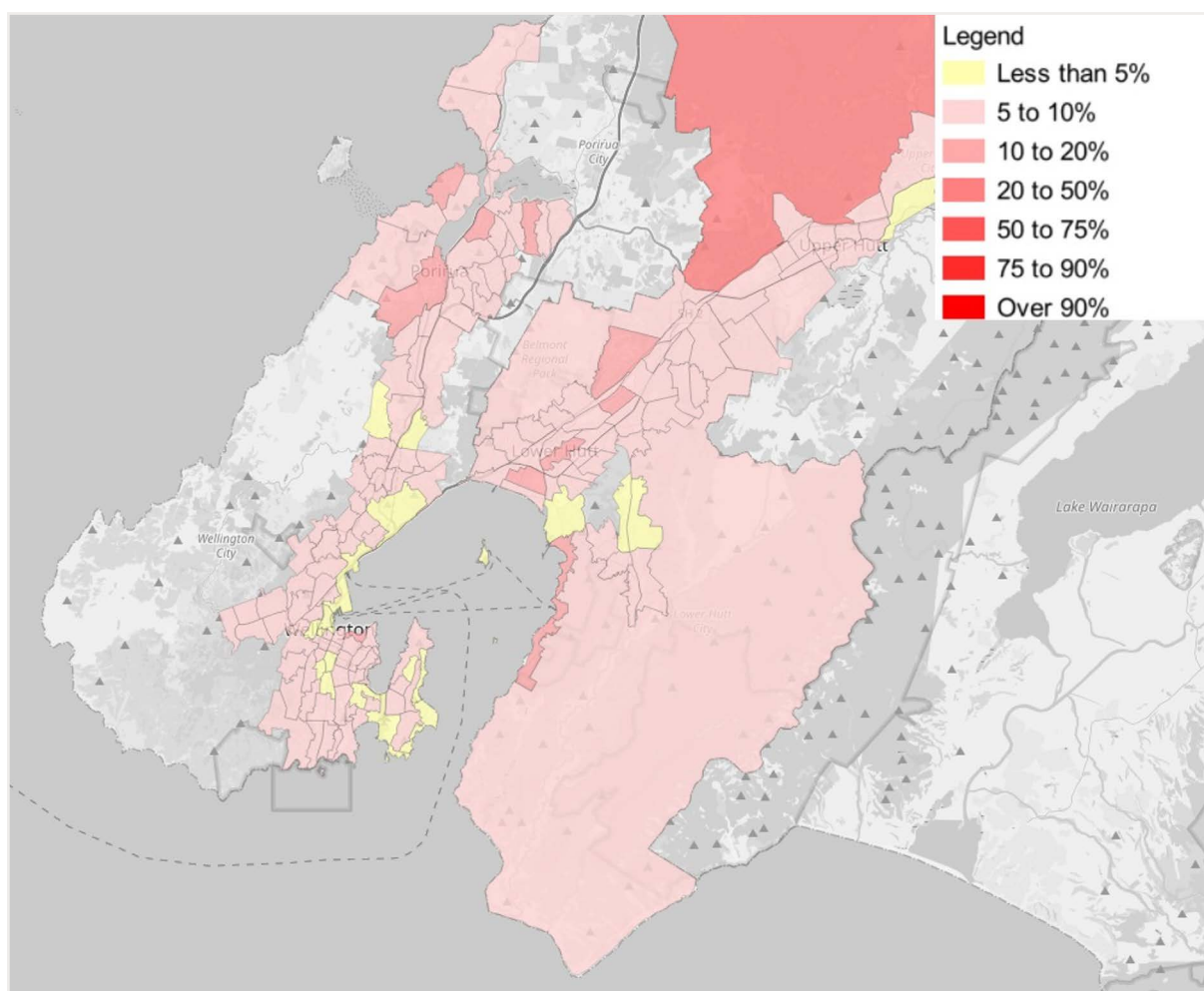
Areas coloured yellow have a low concentration of the plan, whereas areas coloured dark red show areas of higher concentration. Grey areas are where no connections exist for the plan.

⁵⁵ SA2 areas aim to reflect communities that interact together socially and economically. Urban SA2 areas generally have a population of 2,000–4,000 residents, while SA2s in rural areas generally have a population of 1,000–3,000 residents – <https://www.stats.govt.nz/assets/Methods/Statistical-standard-for-geographic-areas-2023/Statistical-standard-for-geographic-areas-2023.pdf>

Fibre 50 plans

Figure 11 shows the concentration of Fibre 50 plans in Wellington. Suburbs such as Petone East, Porirua Central, and Avalon West have over 10% of connections on Fibre 50.

Figure 11: Concentration of urban Fibre 50 connections

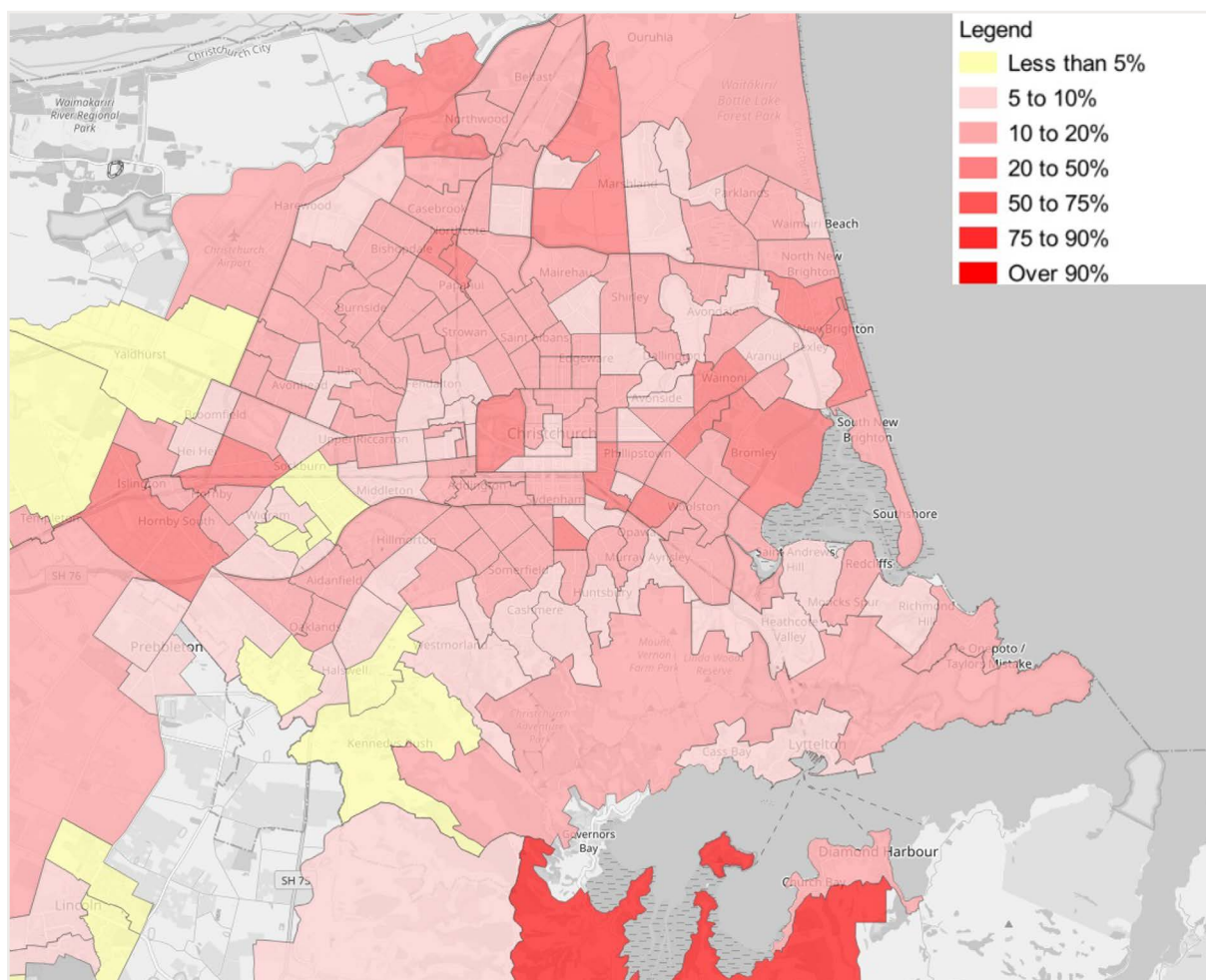


Source: Commission data

Cellular 4G fixed wireless

Figure 12 shows the concentration of cellular 4G fixed wireless plans in Christchurch. Suburbs such as Hornby Central, New Brighton and Papanui North have over 20% of connections on cellular 4G fixed wireless.

Figure 12: Concentration of urban cellular 4G fixed wireless connections



Source: Commission data

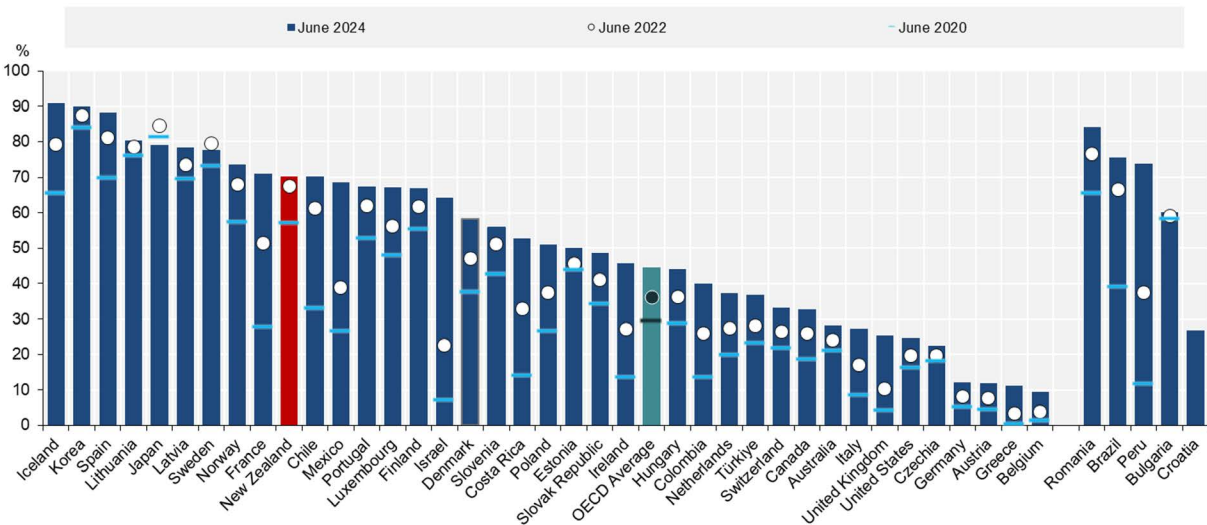
OECD technology comparisons

The following graphs are sourced from the OECD and compare New Zealand’s broadband market against other OECD members.

Figure 13 shows fibre connections as a percentage of total fixed broadband connections in OECD countries. New Zealand ranks 10th in the OECD for its uptake of fibre broadband, with around 70% of total connections (both urban and rural) being fibre, an increase of 2.8% from last year. There is a marginal change from last year, with France having a slightly higher percentage of fibre uptake.⁵⁶

While New Zealand has fibre available to around 87% of the population, countries ranking higher than New Zealand have built out their fibre networks beyond 90% of the population. For example, Iceland’s fibre network covered 91% of households and Spain’s fibre network covered 92% of households in 2023.⁵⁷ Japan and South Korea have near ubiquitous fibre coverage, with Japan reporting over 99% fibre coverage.⁵⁸

Figure 13: Percentage of fibre connections in total fixed broadband



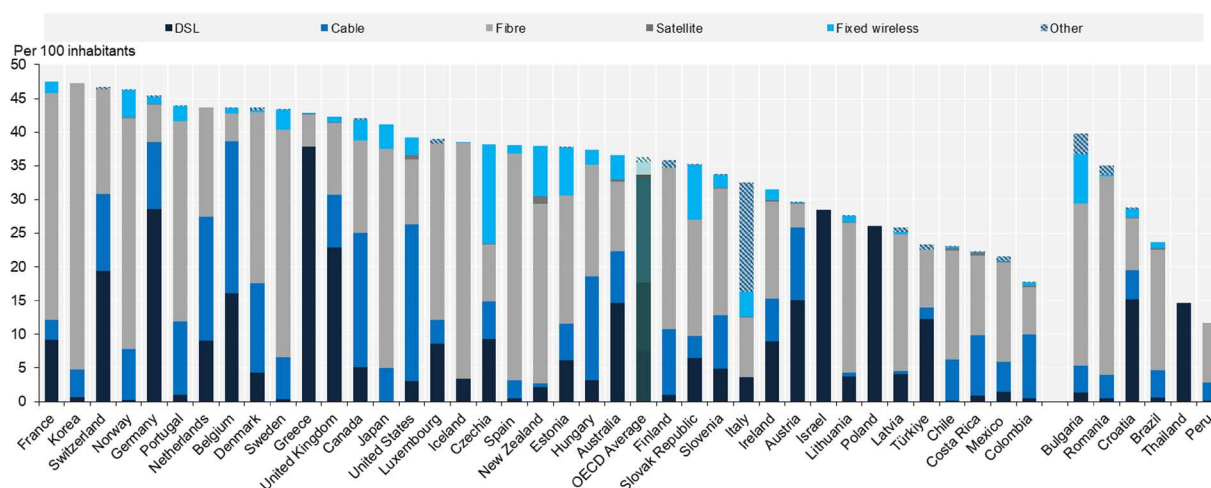
Source: OECD (June 2024)⁵⁹

⁵⁶ <https://www.oecd.org/digital/broadband/broadband-statistics/>
⁵⁷ <https://www.ftthcouncil.eu/committees/market-intelligence/2154/2024-ftth-market-panorama-report-by-country>
⁵⁸ <https://fibernetnetworkap.org/history-of-the-deployment-policy-of-fiber-optics-in-japan-and-future-plan-by-mic/>
⁵⁹ Ibid.

Over the past year, fibre connections in New Zealand have grown 3.7%, while last year, they grew 5%. New Zealand's growth rate is lower than the OECD average of 11.7%. The lower rate in New Zealand reflects a slowdown in the fibre uptake rate as the UFB rollout ended in December 2022. Greece, Israel and Belgium have the highest growth in fibre connections as their full fibre network rollout continues.

Figure 14 shows the broadband technology mix of OECD members. As well as fibre, New Zealand has a high proportion of fixed wireless broadband connections compared to other OECD countries, ranking third and first in the OECD for the number of fixed wireless connections and satellite connections per 100 inhabitants, respectively. New Zealand also has lower proportions over DSL and cable broadband compared to the OECD average.

Figure 14: OECD Fixed broadband subscriptions per 100 inhabitants, by technology



Source: OECD (June 2024)⁶⁰

60 <https://www.oecd.org/digital/broadband/broadband-statistics/> - note that not all countries had data supplied.

Consumers of telecommunications services are presented with a wide range of retail offers that are products of the underlying market structure – the network infrastructure, its capabilities, ownership, regulatory settings and competitive conditions. Whether consumers understand and act on these offers is a product of the information available to them, including through marketing, and their innate preferences and behaviours.

2024 highlights

- In 2024, 11% of broadband consumers chose not to switch providers due to bundled services, while 31% were unsure if they could get a better deal. Commission research shows that consumers are finding it challenging to make appropriate comparisons between services and fully informed choices.

Understanding

Energy bundling

In recent years, the bundling of broadband and mobile services with energy and other utilities has increased significantly because more energy providers have started offering broadband. Bundled products are popular with RSPs, as when a customer takes on multiple products bundled together, they are less likely to switch providers.⁶¹ 11% of broadband consumers stated in 2024 that they chose not to switch provider because of the bundling of other services.⁶²

As the popularity of bundled services has increased, this has raised concerns that it is more difficult for consumers to compare prices and other essential information when selecting a broadband product. In 2021, research showed that around 20% of consumers had confusion around the cost of their service because it is bundled with other services or utilities.⁶³

In November 2023, the Commission published the Product Disclosure – Retail Service Bundling Guidelines (Energy and Telecommunications Bundles).⁶⁴ These guidelines aim to ensure that consumers receive clear, accurate and complete information about bundled energy and telecommunications services. They focus on improving transparency and comparability of offers, helping consumers make informed decisions. The guidelines also promote fair competition among RSPs by standardising disclosure practices and ensuring that key details such as prices, terms and conditions are easily accessible and understandable.

Comparing plans and providers

Consumers have the choice of many different technologies, plans and providers for their telecommunications services. Commission research shows that consumers are finding it hard to be able make appropriate comparisons and fully informed choices.⁶⁵ 31% of consumers were found to have chosen not to switch in 2024 because they were not sure they could get a better deal, and 15% chose not to switch because they believed there was no difference in providers.⁶⁶ One of the reasons consumers find it hard to compare is because the plan information provided by RSPs is not always consistent. The Commission is working with industry to help make sure upfront comparisons are easier for consumers.

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- 61 Behavioural Insights Team "Addressing Inertia and Complexity in New Zealand's Telecommunications Market" (February 2022), page 18 - <https://tuanz.org.nz/wp-content/uploads/2022/02/BIT-report-Addressing-inertia-complexity-in-NZs-telecommunications-market.pdf>
- 62 Commerce Commission "NZ Telecommunications Customer Satisfaction Tracking:6 Monthly Report – January–June 2024", page 29 - https://comcom.govt.nz/_data/assets/pdf_file/0021/362217/Telecommunications-Consumer-Satisfaction-Monitoring-Report-JanuaryJune-2024.pdf
- 63 Research New Zealand "Consumer Telecommunications Survey" (July 2021), page 50 - https://comcom.govt.nz/_data/assets/pdf_file/0030/265539/Research-New-Zealand-Consumer-Telecommunications-Survey-2021-14-September-2021.pdf
- 64 https://comcom.govt.nz/_data/assets/pdf_file/0018/335232/Improving-RSQ-Product-Disclosure-Retail-Service-Bundling-Guidelines-Energy-and-Telecommunications-Bundles-22-November-2023.pdf
- 65 Commerce Commission "Improving Retail Service Quality: Final Baseline Report" (9 December 2021) - https://comcom.govt.nz/_data/assets/pdf_file/0023/272930/Improving-Retail-Service-Quality-Final-Baseline-Report-9-December-2021.pdf
- 66 Commerce Commission "NZ Telecommunications Customer Satisfaction Tracking:6 Monthly Report – January–June 2024", page 29 - https://comcom.govt.nz/_data/assets/pdf_file/0021/362217/Telecommunications-Consumer-Satisfaction-Monitoring-Report-JanuaryJune-2024.pdf

Market outcomes | Putanga māketē

Market outcomes flow from market structure and cover the performance of telecommunications infrastructure and the levels of wholesale and retail pricing through to consumer affordability and satisfaction.

Infrastructure | Hanganga

Reliable, adaptable and high-performing telecommunications infrastructure is fundamental for positive connectivity outcomes in Kiwi homes and businesses.

2024 highlights

- Fibre Max plans led urban broadband speeds with an average download speed of 884Mbps. Fixed wireless latency improved significantly from 422ms to 336ms.
- From July 2022 to June 2024, 29.8% of urban copper connections experienced one or more faults, down from 42.9% the previous year. In the same period, 6.7% of fibre connections experienced faults.
- In 2024, New Zealand ranked 16th in the OECD for average fixed broadband download speeds at 124Mbps, up from 97Mbps in 2023 when it ranked 13th.

Performance

Broadband performance is about how much and how quickly data can move between the end user and the online content they are accessing. This data is moving back and forth across telecommunications infrastructure – from the end user's device to servers around the world. We independently measure this through our Measuring Broadband New Zealand (MBNZ) programme.

Our analysis of broadband performance in urban areas covers fibre, HFC, 4G cellular fixed wireless broadband, 5G cellular fixed wireless broadband, LEO satellite, VDSL and ADSL technologies.

To undertake the analysis, we have split our MBNZ results into urban and rural areas. The results for broadband performance in rural areas can be found in the rural chapter.

Broadband speed

Download and upload speed in Mbps, as measured in our MBNZ programme, is the speed data travels between the internet and the router in the home.

The table below provides a guide on what activities various download speeds allow. Note that other factors such as latency and the location of hosted content will impact the online experience.

| Download speed | Online experience |
|----------------|---|
| 0-5Mbps | Browse the internet, use search engines, use email, watch videos in lower resolutions (up to 720p). Individual large files take a long time to download (1GB at 5Mbps takes over 25 minutes). |
| 5-40Mbps | Possibly able to stream up to UHD on one device or stream HD (1080p) on multiple devices. Able to download large individual files in a reasonable amount of time (1GB at 40Mbps takes just over 3 minutes). |
| 40-100Mbps | Comfortably able to stream UHD without interruption, and have multiple people use streaming services. Able to download larger files (such as smaller modern game releases) in a reasonable amount of time (20GB at 100Mbps takes just over 25 minutes). |
| 100-500Mbps | Multiple users can stream UHD video without interruption. Large files download very quickly (1GB at 500Mbps takes 16 seconds). Larger game releases download in a reasonable amount of time (80GB at 500Mbps takes just under 22 minutes). |
| 500-1000Mbps | Able to download even the largest video games quickly (120GB at 1000Mbps takes 16 minutes). |
| 1000-8000Mbps | 6-25 times faster download speeds than the most common fibre plan (Fibre 300). Able to download large games very quickly (120GB at 4000Mbps takes around 4 minutes). |

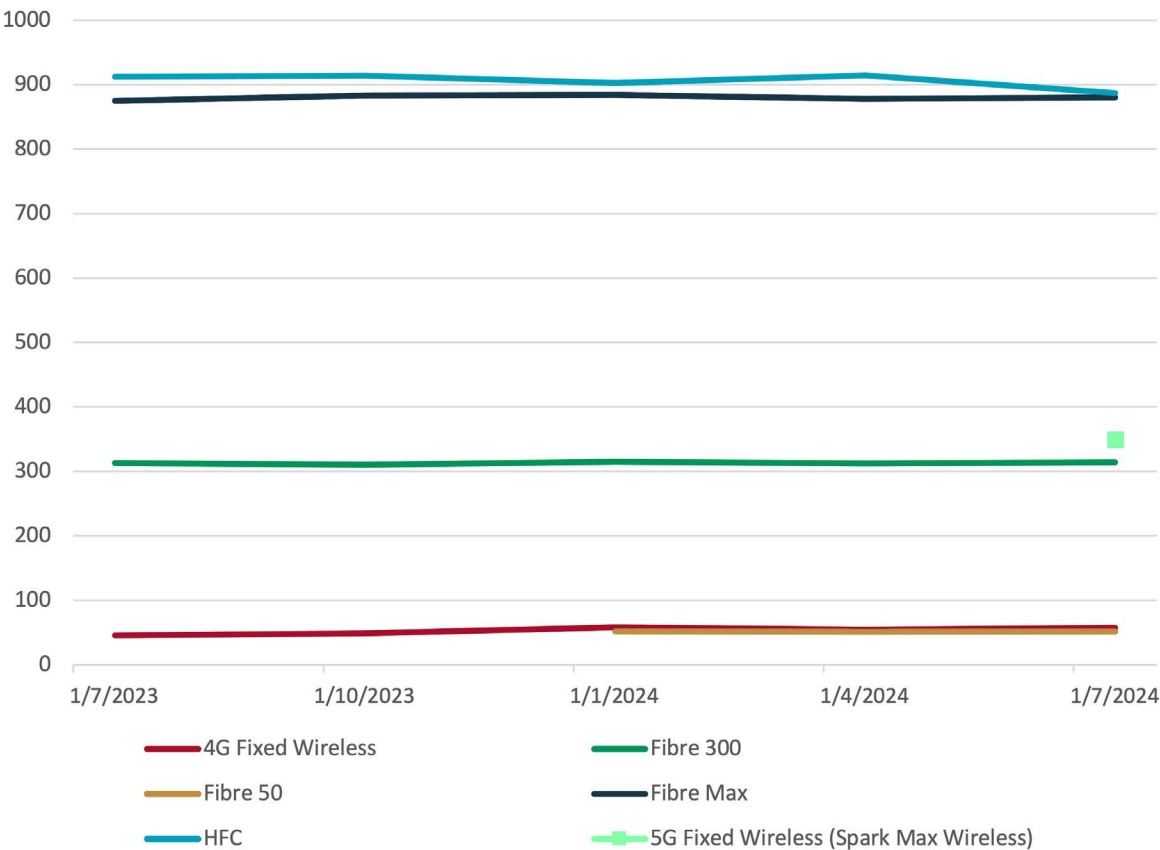
Upload speeds should be considered alongside download speeds. The main applications where the impact of upload speed is apparent are file transfers and video conferencing. For example, a lower upload speed will mean that it takes longer for files to sync or email attachments to be applied.

Figure 15 and Figure 16 show the average urban download and upload speeds for the technologies measured by the MBNZ programme between July 2023 and July 2024.

Average download speeds across urban technologies measured remained stable throughout the year (Figure 15). From January 2024, we have introduced Fibre 50 into the programme.

Its download speeds are performing as expected, just over 50Mbps, which is a similar speed to 4G fixed wireless. We've also introduced 5G fixed wireless download and upload speeds in July 2024, with the launch of Spark's embedded testing on its Max Wireless plan. Its download speeds are slightly higher than Fibre 300 download speeds.

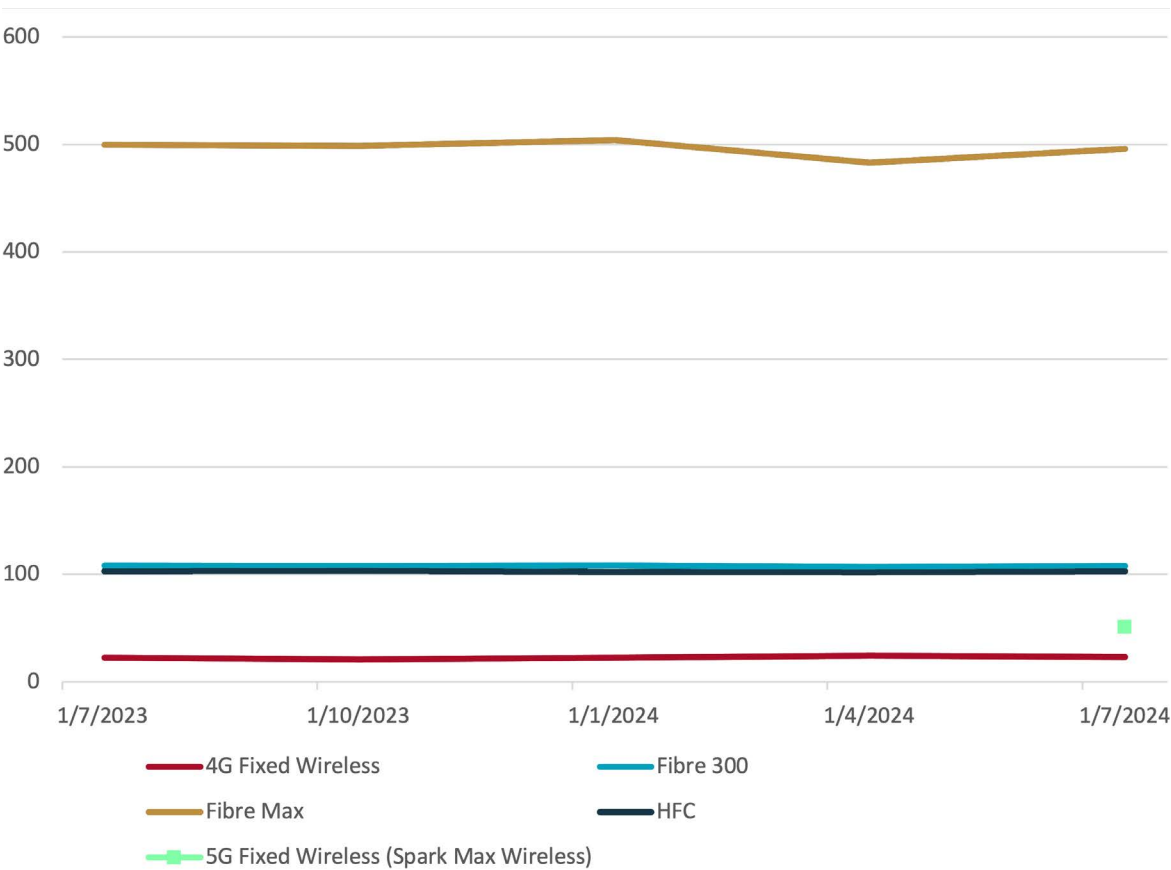
Figure 15: Average urban download speeds (24h)



Source: Commission analysis of MBNZ data

Average upload speeds across urban technologies measured have also remained stable in the last year (Figure 16). Fibre Max has significantly higher upload speeds than the other plans tested. Higher upload speeds help ensure a consistent experience, particularly for video conferencing and for smooth gameplay for gamers. 5G wireless upload speed is around half that of Fibre 300.

Figure 16: Average urban upload speeds (24h)



Source: Commission analysis of MBNZ data

Latency

Latency is the delay an internet connection experiences. In this metric, lower values are better than higher values.

For someone playing an online game, higher latency introduces more delay between the time that they press a button and that action being registered by other players. Higher latency can also cause video calls to jump or drop out more often.

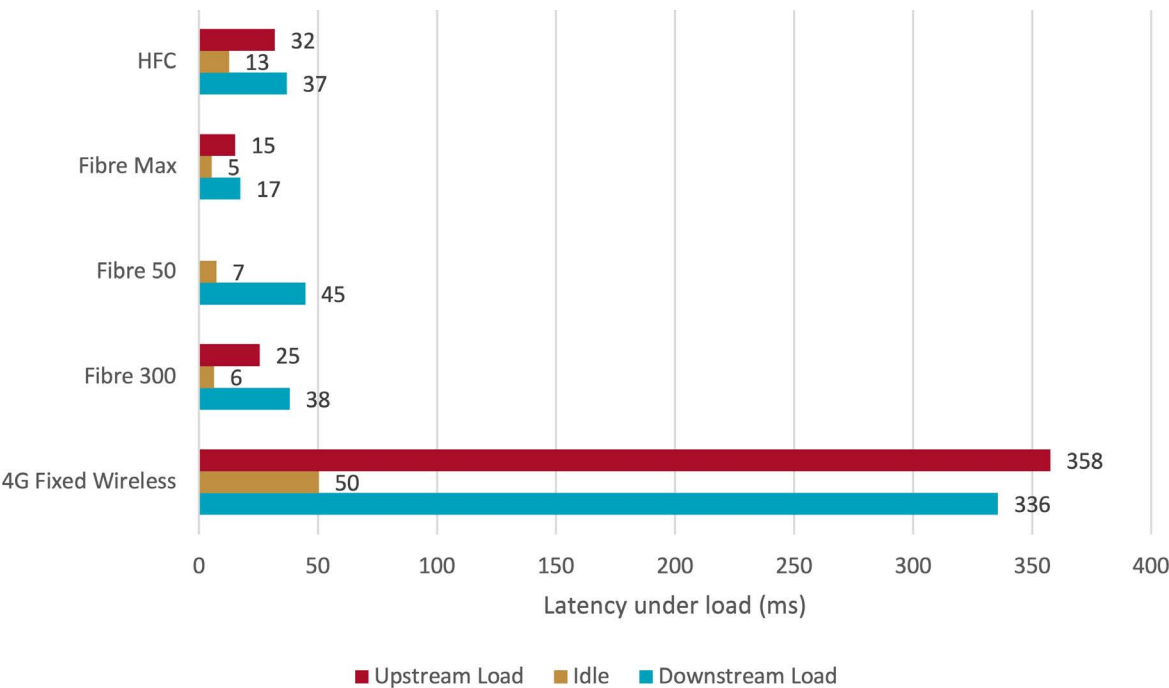
Latency under load

Latency under load refers to the end-to-end latency of an internet connection when the network is loaded with traffic for a period. In our MBNZ testing, we run multiple speed tests in parallel as a proxy for a more heavily utilised network connection. This test is more indicative of real-world usage – where multiple devices in the home compete for bandwidth.

Figure 17 shows the average urban latency under load for the technologies measured by the MBNZ programme between July 2023 and July 2024.

Figure 17 shows urban 4G broadband connections are more affected by high latency under load than Fibre or HFC connections. Urban 4G cellular fixed wireless latency improved last year, from 422ms to 336ms downstream. However, this level of latency under load will still degrade the performance of internet activities such as video conferencing and gaming.

Figure 17: Average urban latency under load (24/7)



Source: Commission analysis of MBNZ data

Netflix⁶⁷

Netflix is the most popular subscription streaming service in New Zealand, with 38% of Kiwis aged 15 and older using the service in 2024. As such, the ability to stream Netflix in ultra-high definition (UHD) is something our MBNZ programme measures.

Our MBNZ results reflect not just the performance of the infrastructure and RSPs but also any changes Netflix makes in the background – in particular, video and audio encoding, which is the process of compressing files (making them smaller to download) without compromising the quality.

Our testing between July 2023 and July 2024 found that 100% of connections tested on Fibre Max, Fibre 300 and HFC plans could stream four UHD streams concurrently. These plans are more suitable for multi-user households (Figure 18).

Figure 18: Netflix – ability to stream UHD streams in urban areas

| | 1 UHD Stream | 2 Simultaneous UHD Streams | 3 Simultaneous UHD Streams | 4 Simultaneous UHD Streams | |
|--------------------------------------|--------------------------------|--------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| 4G Fixed Wireless¹ | | | | | |
| Fibre Areas, n = 23 | <div>UHD</div> <div>87%</div> | <div>UHD</div> <div>70%</div> | <div>NETFLIX</div> <div>43%</div> | <div>NETFLIX</div> <div>26%</div> | 1-2 simultaneous UHD video streams |
| | <div>HD</div> <div>100%</div> | <div>HD</div> <div>91%</div> | <div>HD</div> <div>91%</div> | <div>HD</div> <div>87%</div> | 4+ simultaneous HD video streams |
| Fibre 50² | | | | | |
| Fibre Areas, n = 25 | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | <div>NETFLIX</div> <div>0%</div> | 2-3 simultaneous UHD video streams |
| Fibre 300 | | | | | |
| Fibre Areas, n = 351 | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | 4+ simultaneous UHD video streams |
| Fibre Max | | | | | |
| Fibre Areas, n = 413 | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | 4+ simultaneous UHD video streams |
| HFC³ | | | | | |
| Fibre Areas, n = 23 | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | <div>UHD</div> <div>100%</div> | 4+ simultaneous UHD video streams |

Source: Commission analysis of MBNZ data (faded out icons indicate a lower samples size – treat with caution)

67 <https://www.nzonair.govt.nz/news/where-are-the-audiences-2024/>

Early testing shows 100% of Fibre 50 connections can stream three UHD streams. We anticipate that this capability may be a relevant factor for consumers looking to downgrade from higher-speed fibre services.

70% of households tested with a 4G fixed wireless connection could reliably support two UHD streams concurrently. This is a slightly lower range than the previous year. The results suggest that Fibre 50 may be the better choice for streaming performance for households with fewer residents.

Remote working

Lower latency is important for a good experience using video conferencing services, including when working remotely.

For someone on a video call, higher latency will result in a longer delay between users receiving audio or video from the person or people at the other end of the call. Higher latency can also cause video calls to jump or drop out more often.

Server location is another factor that affects the latency of video conferencing services. Services that use servers geographically further away from users will experience higher latency as traffic travels further between the server and the user.

InternetNZ research showed that, in 2024, 52% of employed New Zealanders do the type of work that allows them to work from home. Of these workers, 73% worked from home all or some of the time.⁶⁸

Our MBNZ programme tests performance across technologies for different video conferencing services. Figure 19 shows the average latency of different technologies to the most popular video conferencing services, on free accounts only. Fibre plans (Fibre 50, Fibre 300 and Fibre Max) have the lowest latency across all services except Zoom, where fixed wireless had the lowest latency. In some cases, a paid account will result in a lower latency (better). For example, Zoom provides paid subscribers with access to servers geographically nearer to the users than for unpaid subscribers. This results in lower latency for paid subscribers. The data suggests that all technologies would be suitable for remote office working that requires video conferencing.

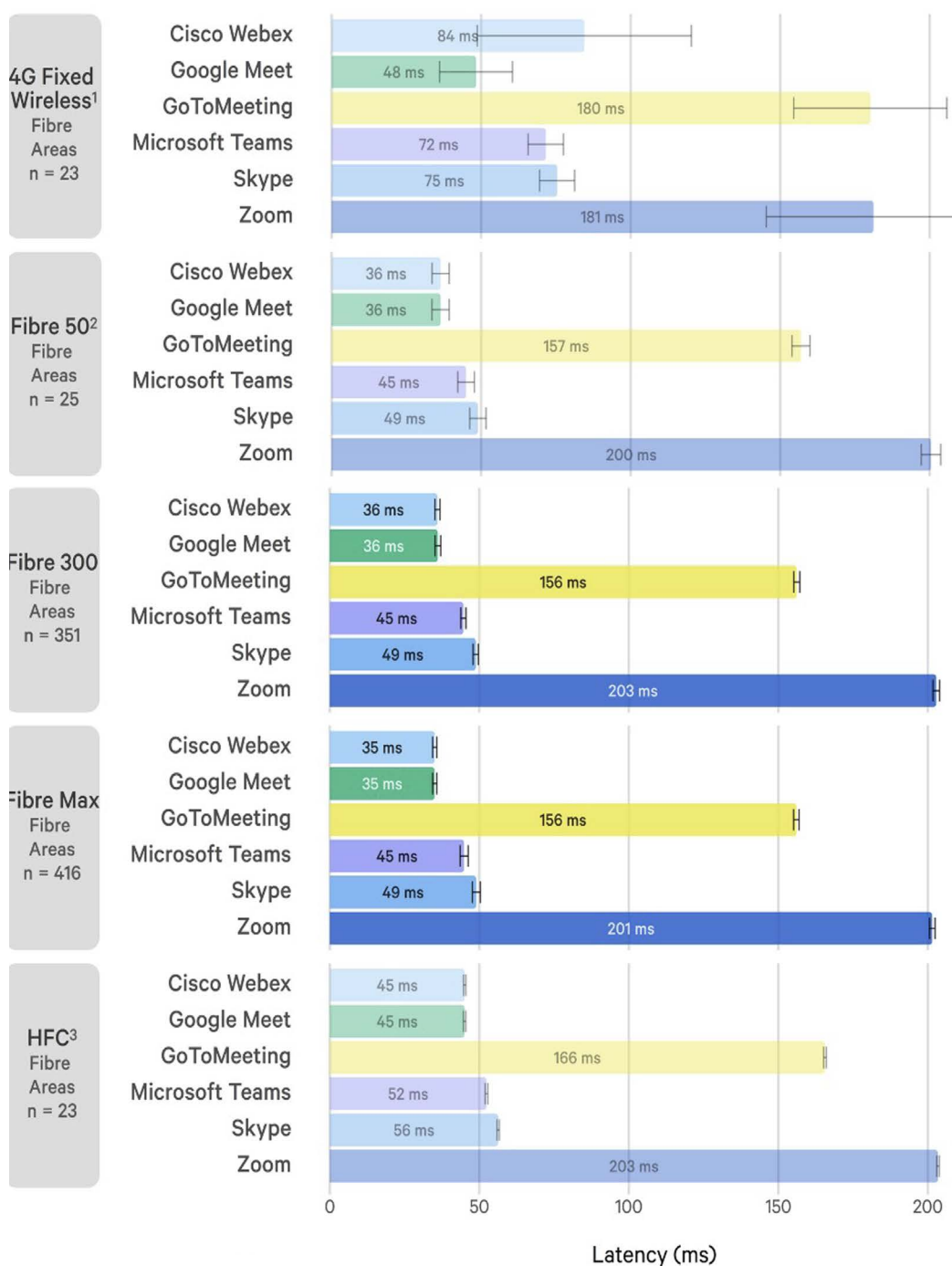
⁶⁸ Internet NZ | Ipurangi Aotearoa "New Zealand's Internet Insights: 2024 Survey Findings", page 40 – <https://internetnz.nz/assets/Archives/New-Zealands-Internet-Insights-2024.pdf>

Figure 19: Latency to servers of different video conferencing services by plan (free accounts only)

Fibre Areas only. Results are using free accounts only.

Average of household average latency, lower is better.

The number of Whiteboxes contributing to each result is shown under each plan name (eg n = 23).



Source: SamKnows analysis for the Commission

In-home router performance

A router distributes broadband signal to and from the modem and connected devices such as laptops, smartphones and gaming consoles. Consumers can connect devices to the router wirelessly (using Wi-Fi) or wired (using an ethernet cable). The router also manages bandwidth, optimises speed and provides security features. In a fibre household, the router gets plugged into the ONT which is the fibre box attached to the wall.

Each broadband connection needs a router. Consumers usually obtain a router by buying, renting or receiving an included router when signing up to a broadband plan or buying a router from a consumer electronics retailer.

While there is little data in this area, we expect that many households have older routers. With most RSPs no longer including routers with the plan, we expect the average age of household routers is increasing. Because router technology and device technology⁶⁹ evolves over time, having an older router could cause performance problems. Older routers may not receive firmware updates or security updates. An old device is less likely to enable the best performance from newer devices. Chorus recommends replacing a router every 2-3 years,⁷⁰ while Consumer NZ says to replace it when its “holding you back”.⁷¹ Internationally, CNET says replacement should be every 5 years at a minimum.⁷²

⁶⁹ For example, laptops, mobile phones, tablets and gaming consoles.

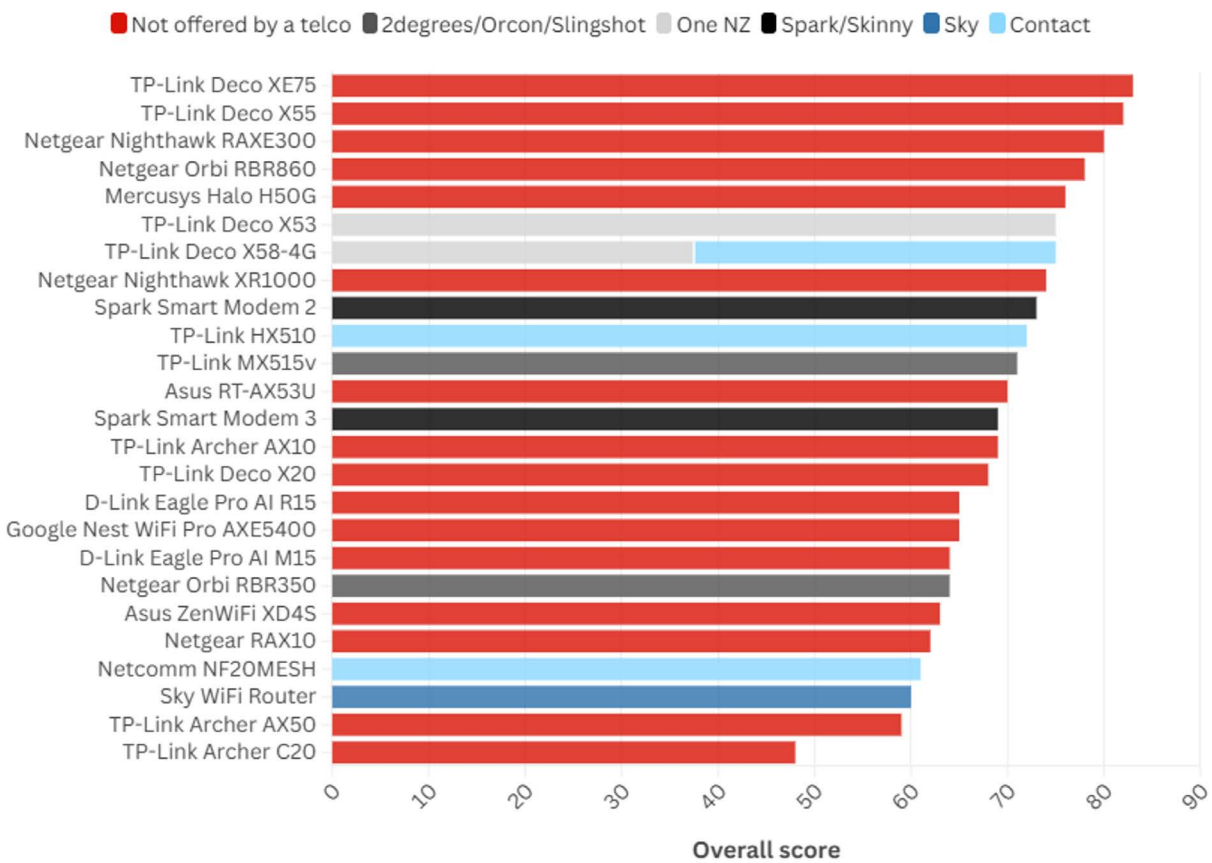
⁷⁰ <https://www.chorus.co.nz/get-better-internet/should-you-buy-your-own-modem>

⁷¹ <https://www.consumer.org.nz/products/wifi-routers-and-mesh-networks/guide#article-wait-do-you-actually-need-a-new-router>

⁷² <https://www.cnet.com/home/internet/router-issues-signs-its-time-for-an-upgrade-and-how-to-decide/>

Last year, our RealSpeed testing showed drops in speeds between the router and the device across all technologies on home Wi-Fi networks – with the greatest drops observed for high-speed plans such as Fibre Max and HFC. This year, we partnered with Consumer NZ to test the performance of commonly available fibre broadband routers and some fixed wireless routers. The tests showed a wide range of results for performance, ease of use and security (Figure 20).

Figure 20: Tested routers relative performance



Source: Consumer NZ

What the testing found:

- **Not all routers are the same:** There is a wide range of performance across fibre routers. Telco-provided routers generally performed in the top half of the total routers, except for the router provider by Sky and the one provided by Contact, which were close to the bottom of the table.
- **You get what you pay for, mostly:** There was a moderate correlation between price and overall performance score.
- **Lots of features, but security often lacking:** In 2024, most common routers come with a plethora of features and functions such as default band steering, QoS, set up guest networks and a mobile app. However, the testing showed that most routers lacked security functions: 13 out of 26 modems scored 30 (or less) out of 100 for security.
- **Few telcos give routers away:** Those that do include Sky, Nova and Skinny.⁷³ It is common in 2024 to rent out routers to consumers for \$4-5 a month, and a couple of the larger telcos offer their routers to purchase, for example, Spark and Electric Kiwi, which both charge \$150 to buy a router.

⁷³ Information from operator websites (as at June 2024).

OECD speed comparison

In 2024, New Zealand ranked 16th in the OECD, with average fixed broadband download speeds of 124Mbps, up from 97Mbps in 2023.⁷⁴ This reflects the increasing number of households opting for higher-speed plans such as Fibre Max.⁷⁵

Figure 21 compares New Zealand against a subset of OECD countries. New Zealand sits middle of the pack, marginally above the overall OECD average speed. New Zealand's average fixed broadband download speeds exceed average speeds in Australia, Ireland, Germany, the United Kingdom and the OECD average of 118Mbps.

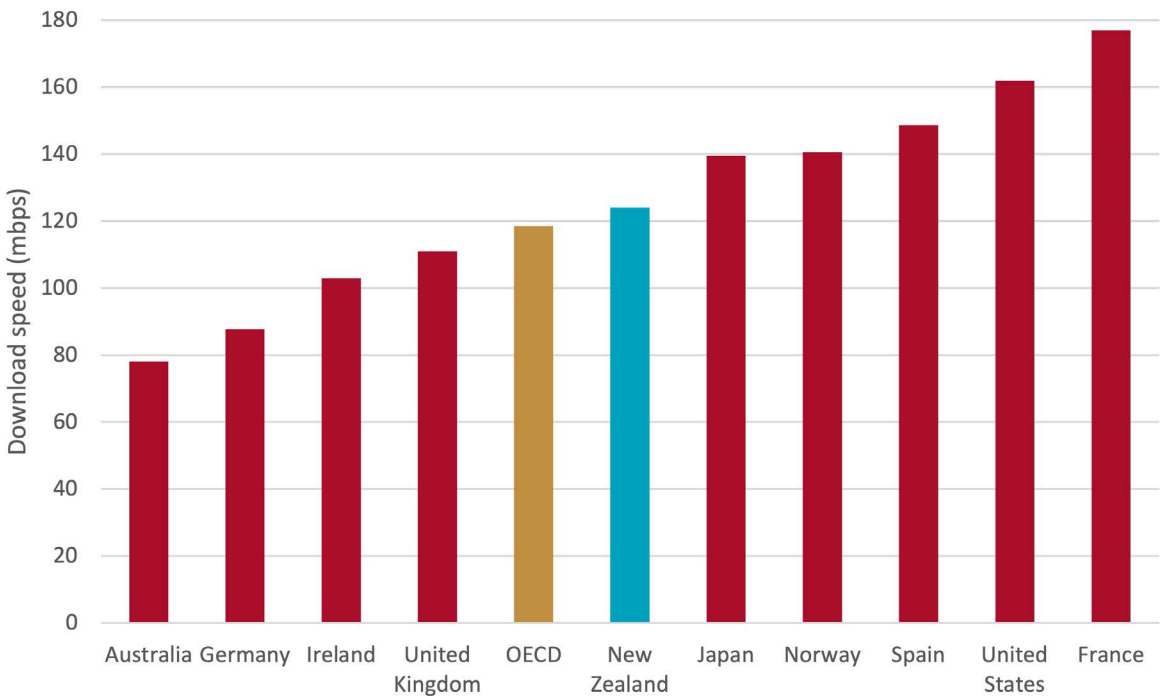
Cable.co.uk's methodology is technology neutral. This means the remaining copper connections on the network will negatively impact our overall speed results, but we expect to move up the rankings as households move to faster broadband alternatives.

The website Cable.co.uk creates a yearly worldwide broadband speed league based on data gathered internationally by Measurement Lab (M-Lab). The league ranks the average download speed recorded by devices on fixed broadband connections available in each country. Accordingly, countries with higher fibre penetration rank higher than those with more copper connections.

⁷⁴ <https://www.cable.co.uk/broadband/speed/worldwide-speed-league/>

⁷⁵ It will also reflect the quick growth of Starlink connections in rural areas with significantly higher speeds than other rural broadband alternatives.

Figure 21: M-Lab average national broadband download speed (all technologies)



Source: Cable.co.uk worldwide broadband speed league

M-Lab data is a measure of the speed available to a device via the router. The speeds shown for New Zealand are slower than those recorded in our main MBNZ programme, which measures speeds to the router and reports those by each technology.⁷⁶ Speed drop-off between the router and the device is a common phenomenon, particularly when a device is connected via Wi-Fi.

⁷⁶ Methodology for the speed league, including an explanation of why results differ from router-based testing such as MBNZ, can be found at https://www.cable.co.uk/broadband/worldwide-speed-league/2023/worldwide_speed_league_methodology.pdf

Resilience

New Zealand's telecommunications infrastructure has faced some tests recently due to severe weather events such as Cyclone Gabrielle. These events exposed vulnerabilities in the networks, including related infrastructure such as the electricity grid and roading and bridge infrastructure.

The industry invests approximately \$1.6 billion annually in fibre access, mobile, core and backhaul networks.⁷⁷ This substantial investment is crucial for maintaining and improving the robustness of the telecommunications infrastructure.

Copper networks are more prone to damage than fibre or cellular networks. Chorus reported that, during Cyclone Gabrielle, copper network customers were up to 10 times more likely to lose service than those on fibre. Chorus also said it restored fibre services twice as fast as copper services.⁷⁸

Insights from these events have led to a commitment from the industry to improve response capabilities during disasters. The New Zealand Telecommunications Forum (TCF) has published detailed plans and reports on telecommunications resilience, outlining investment strategies and collaborative efforts with the Government.⁷⁹

In Australia, network resiliency has been a hot topic since the 2019/20 bushfires that resulted in outages to around 150 mobile base stations. It noted that limited network redundancy in some regional and remote locations makes residents more vulnerable during extreme weather events. The Australian Government recognises the problem with economics of investment in rural areas. It has taken some novel approaches to encourage competition such as a reverse auction model for its Mobile Black Spot Program, where competitive bids resulted in commitments to build 499 new mobile base stations.⁸⁰

⁷⁷ Annual Industry Questionnaire.

⁷⁸ Chorus "Annual Report 2023" - <https://company.chorus.co.nz/investors/financial-reports/financial-results-presentations/2023-full-year-financial-results>

⁷⁹ <https://www.tcf.org.nz/news/2023-telecommunications-resilience-plan>

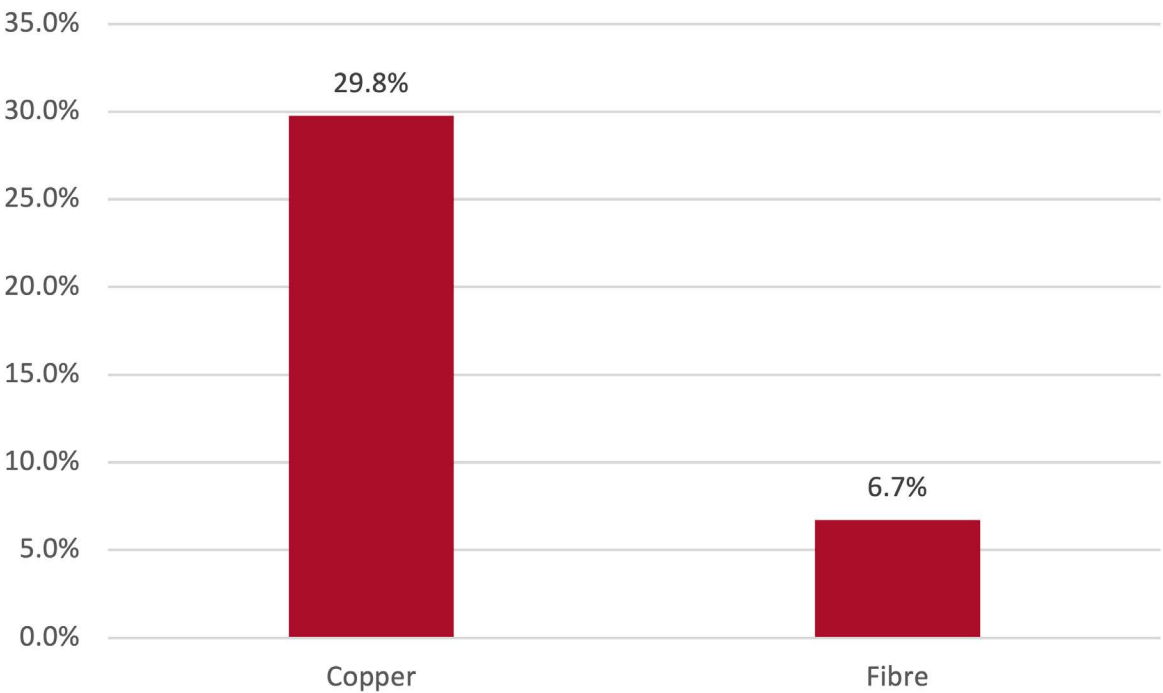
⁸⁰ <https://www.anao.gov.au/work/performance-audit/award-funding-under-the-mobile-black-spot-programme>

Reliability

We receive data on the number of and duration of faults (defined as a service interruption to a broadband connection that is not due to customer premises equipment such as the router) for fibre, copper and LEO satellite connections. We received limited data on cellular fixed wireless cell site faults. We are consulting with industry on better ways to gather consistent information about terrestrial wireless network service interruptions.

Figure 22 shows the average number of service-interrupting faults per urban fibre or copper connection in the 2 years from July 2022 to June 2024.

Figure 22: Percentage of urban connections experiencing one or more faults between July 2022 and June 2024



Source: Commerce Commission

6.7% of fibre connections nationwide experienced a fault in that period, slightly up on 5.8% reported last year, and 29.8% of urban copper connections experienced one or more faults in the same period. This was down from 42.9% reported the previous year. This may suggest that there were fewer adverse weather events in the year to June 2024, which commonly affect copper lines, but we do not have enough data to confirm this.

Some towers had no outages or just one or two outages, but others incurred more than 30 outages in a 2-year period. There was also a wide range of outage durations, with outages lasting from a few minutes to several days.⁸¹

Anecdotally, providers said that up to two-thirds of equipment outages are due to power outages. It is also important to note that some customers may not experience an outage from a nearby tower if they have overlapping coverage from another tower. Also of note, overlapping tower coverage makes it hard to determine the exact number of affected customers.

Our metric remains the same this year but we received faults data from a larger number of network providers. This means we can't exclude improved data collection as a factor in the year-on-year changes because some providers' data was not present last year. We expect to provide a more robust trend analysis in next year's report.

⁸¹ We are continuing to work with MNOs to improve the data they can provide about the reliability of their networks. While one MNO provided data as requested, another MNO could only partially comply and a third was unable to comply at all.

Wholesale-level pricing plays an important part in shaping retail-level pricing for consumers. Regulatory oversight or obligations commonly apply at the wholesale level of the market.

2024 highlights

- There are small differences between Chorus and LFC pricing on key bitstream products.
- Chorus pricing changes are higher than the prior year but remain in line with the regulation.
- Chorus and Tuatahi continue to offer discounted 50Mbps products.

The regulatory regime for fibre networks requires Chorus and LFCs to offer several wholesale products. However, with a few exceptions, they have freedom to offer and price products on a commercial basis.

Telcos subject to price-quality regulation (currently Chorus) must ensure geographically consistent pricing. This means that prices for services must be uniform across different regions, ensuring fairness in service costs throughout the country.

Telcos subject to information disclosure regulation (currently Chorus and LFCs) are required to periodically publish information about their performance. This includes requirements to publish data on pricing, current and future expenditure, quality performance and financial statements.

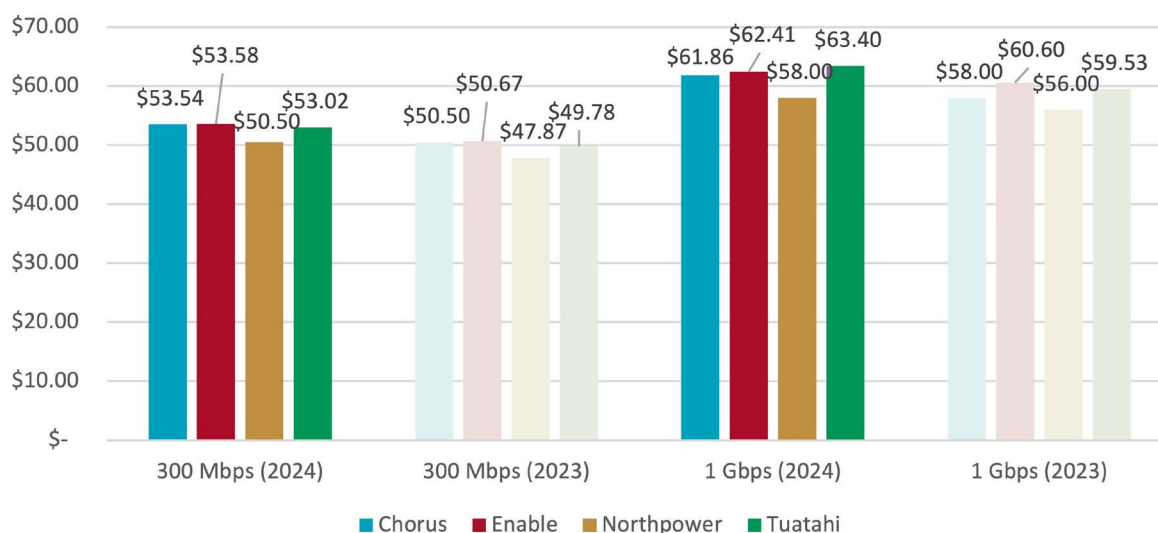
Spark, One NZ and 2degrees are the largest wholesale customers of Chorus and the other LFCs. These MNOs also offer cellular fixed wireless broadband services over their cellular networks.

There is a degree of competitive tension between wireless and fixed broadband services that is reflected in the prices of these services.

Fibre service pricing

As shown in Figure 23, Chorus and LFC pricing for Fibre 300 and Fibre Max are fairly similar, although Northpower's prices are lower than the others.

Figure 23: Wholesale fibre prices



Source: LFC price lists (June 2024)⁸²

Chorus price increases to its Broadband Anchor, Voice Anchor and Large User Direct Fibre Access Service (LUDFAS) services are subject to annual consumers price index (CPI)-adjusted price caps.⁸³ Chorus increased the price of its 300Mbps product by 6.0%, more than the 5.5% increase the prior year, which it has chosen to tether to the price of the Broadband Anchor service. Chorus increased the 1Gbps product by 6.7%, a marked increase on 3.6% the prior year. Both increases were under the March 2023 annual CPI increase of 6.7%.⁸⁴

⁸² Wholesale price lists are available on each LFC's website.

⁸³ The maximum price increases or decreases (as appropriate) is by an annual CPI adjustment on 1 July each year. In July 2023, this increase was 6.0%.

⁸⁴ Subject to the Commission's regulation, Chorus adjusts prices for certain services annually based on movements in the CPI.

50Mbps service

Chorus and Tuatahi continue to offer a discounted 50Mbps Fibre Starter wholesale product and have held their pricing from 2023 at \$35.00 per month and \$38.00 per month respectively (Table 7).

Table 7: Fibre 50 wholesale fibre prices (as of June 2024)

| LFC | Fibre 50/10 (Fibre Starter) | Fibre 50/20 |
|---------------------|-----------------------------|-------------|
| Chorus | \$35.00/\$50.43 | |
| Tuatahi First Fibre | \$38.00 | \$48.98 |
| Enable | | \$49.51 |
| Northpower | | \$55.69 |

Source: LFC price lists (June 2024)⁸⁵

Chorus introduced its Home Fibre Starter 50 wholesale product in April 2022 and restricts its offer to RSPs that retail the service at or below \$60.00 (including GST) per month. As of June 2024, RSPs that charge above \$60.00 per month for the service to end consumers are charged the standard wholesale fee of \$50.43 by Chorus.

The Fibre 50 wholesale product competes on speed with MNOs’ 4G cellular fixed wireless plans, which target price-sensitive consumers. MNOs have continued to reduce the cost of their plans over the last few years. This may be the reason Chorus has chosen not to adjust pricing for its Fibre 50 product this year but it will have increased by our next report for 2025. It also creates a larger price difference between Fibre 50 and higher-priced copper broadband, which may encourage urban customers still on copper connections to move to fibre.

Tuatahi introduced a similar discounted 50Mbps Fibre Starter product for \$38.00 per month wholesale in September 2022, and it remains at this price as at June 2024. Tuatahi does not impose a fixed retail price cap for its offer but has a target retail price of \$60.00 (including GST) per month. Tuatahi reserves the right to revert to the standard charge for the service if retailers do not pass on the benefit to consumers.⁸⁶

Enable and Northpower no longer offer a discounted 50Mbps wholesale product. These digital equity discounts commenced to support a Ministry of Education initiative during COVID-19 lockdowns that has now ceased. As of June 2024, Enable⁸⁷ and Northpower⁸⁸ price their standard 50/20Mbps product at \$49.51 and \$55.69, respectively.

⁸⁵ Wholesale price lists are available on each LFC’s website.
⁸⁶ <https://www.tuatahifibre.co.nz/articles/fibre-starter-repositioned>
⁸⁷ <https://www.enable.net.nz/assets/Reference-Offers/Enable-UFB-Price-List-Jul-2023-v1.15.pdf>
⁸⁸ <https://northpower.nz/for-home/fibre-connections/agreements-and-disclosures/>

Retail pricing outcomes are based on the underlying infrastructure or wholesale costs but also take into account competitive dynamics, relativities between offers and consumer demand.

2024 highlights

- The Fibre 300 plan continues to dominate the urban market with 64% of urban fibre consumers opting for this plan. Retail prices range from \$74 to \$106 per month.
- Larger RSPs have passed through wholesale price increases of around \$5 per month for Fibre 300 plans. Smaller brands have also adjusted their pricing, with some offering prices below the average.
- New Zealand's urban broadband prices remain competitive internationally, with Fibre 300 pricing equal to the OECD average and Fibre Max and 4G wireless broadband pricing lower than the OECD average.

The urban retail market is characterised by the three MNOs, who are also the largest RSPs for fibre broadband, balancing higher margins on their own cellular fixed wireless networks with wholesale fibre deployed across the customer base. There is a long tail of smaller broadband RSPs in the market, including energy retailers that bundle broadband with energy services.

Prices

We use two indicators for retail pricing (Table 8):

- 1. TechInsights' global price benchmarking looks at the lowest available prices across incumbent providers that combined make up at least 70% of customers in each country. TechInsights includes Spark, One NZ, 2degrees and Slingshot for New Zealand.
- 2. We also use the average price of a larger selection of New Zealand providers across multiple technologies, including fibre, copper, HFC, WISP networks and satellite. We collect these prices periodically from retailers' websites.

Table 8: Most common urban plans per technology

| Technology | Average price of all plans on this technology June 2024 ⁸⁹ | Average price of all plans on this technology June 2023 ⁹⁰ | Most common plan on this technology 2023 ⁹¹ |
|----------------------------|---|---|--|
| Fibre | \$87 | \$89 | Fibre 300 unlimited ⁹² |
| 4G cellular fixed wireless | \$71 | \$68 | 40GB capped |
| Cellular 5G fixed wireless | \$76 | \$83 | Unlimited |
| Copper | \$87 | \$87 | VDSL unlimited |
| HFC | \$68 | \$63 | Unlimited |

⁸⁹ For all residential retail plans by access technology. For fibre, only Fibre 300 plans were included.
⁹⁰ For all residential retail plans by access technology. For fibre, only Fibre 300 plans were included.
⁹¹ We last collected granular data on plans by connections in 2023 and expect this to remain unchanged in 2024.
⁹² Commission data (2024).

Fibre

Fibre 300 is the most common urban fibre plan, with 64% of fibre consumers opting for this plan as of June 2024.⁹³

Fibre 300 retail pricing ranges from \$74 per month to \$106 per month. Smaller retailers tend to offer prices below the average, and Largest 3 retailer pricing sits just above the average, ranging from \$91 to \$93 per month. The average price for Fibre 300 is \$2 lower than last year.

5G cellular fixed wireless

The average price for a 5G fixed wireless plan is \$76, down from \$83 last year. Only the three MNOs offer 5G wireless plans. All the plans have unlimited data.

4G cellular fixed wireless

Urban consumers can choose between 10 unlimited 4G fixed wireless plans from nine providers, including the Largest 3 providers. The prices for these range from \$55 per month to \$109 per month with the Largest 3. Largest 3 sub-brands such as Skinny offer the lowest pricing, while MVNO pricing tends to be higher.

There are nine urban plans from seven providers with a data cap between 120GB and 300GB per month and prices averaging \$62 per month. There are another four plans from three providers with a data cap of over 300GB and up to 1000GB and prices averaging \$87 per month.

Spark offers an urban 4G fixed wireless plan with a cap of 60GB or less at a cost of \$45.

Copper

In urban areas, copper customers are more likely to be on a VDSL connection than an ADSL connection, and it is likely it would be an unlimited data plan.⁹⁴ The average price remains the same as last year at \$87. Since March 2023, Chorus has placed a 'stop sell' on new copper services in areas where UFB fibre is available through Chorus or one of the LFCs. This is because Chorus is withdrawing copper services in urban areas. Interestingly, Chorus has not made a significant price increase to copper broadband in the last year, with prices shifting from \$48.35 to \$51.08 per month.

HFC

One NZ is the network provider and sole retailer of broadband services on the HFC network, available in parts of the Wellington region, Kāpiti Coast and parts of Christchurch. There is one current plan, which has around 900Mbps download speed and unlimited data. As of June 2024, the price was \$68 per month.

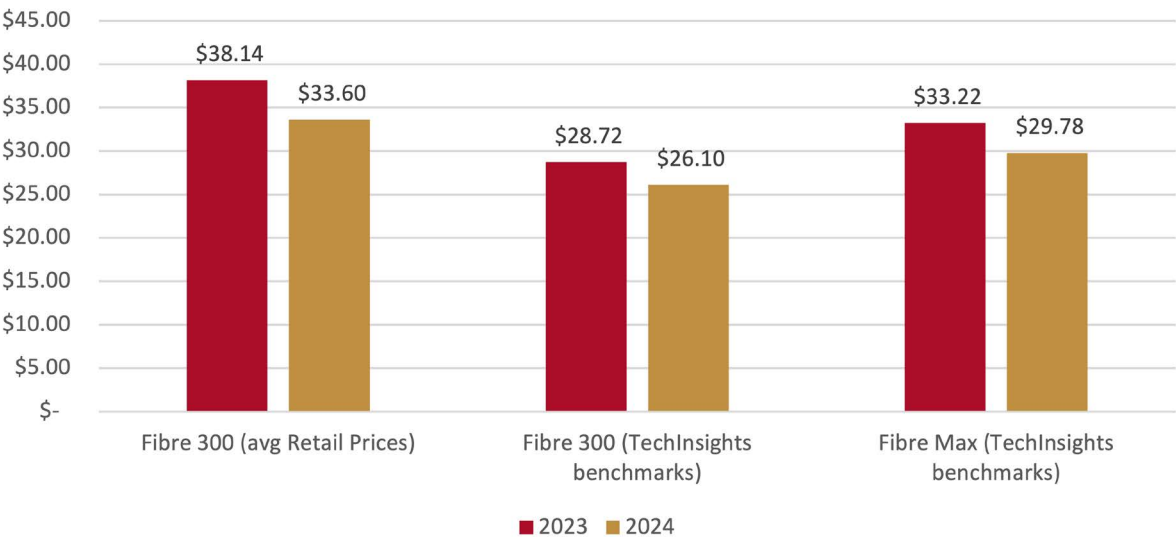
⁹³ Commission data.

⁹⁴ Commission data 2024 for most popular technology, Commission data 2023 for most popular plan.

Wholesale flow-through to retail pricing

During the year, Chorus increased its wholesale price for Fibre 300 by 6% and its wholesale price for Fibre Max by 6.7%. Overall, the gap between wholesale and retail prices has reduced in 2024 compared to 2023 (Figure 24).

Figure 24: Wholesale to retail price gap



Source: Operator websites, TechInsights

The gap between wholesale and retail prices for Fibre 300 sits at approximately \$34 based on average retail prices or \$26 based on TechInsights' price benchmarks.⁹⁵ This is a slightly narrower gap than 2023 when the price gap was approximately \$38. For Fibre 300, the retail providers with the largest margins between the wholesale price and retail price are Mercury, Zeronet, Orcon, Pulse, Vetta, Inspirenet, Nova and Voyager.

The gap between wholesale and retail prices for Fibre Max (TechInsights) sits at approximately \$30, down from last year's price gap of \$33. For Fibre Max, the retail providers with the largest margins between the wholesale price and retail price are Wireless Dynamics, Mercury, Inspirenet, Vetta, Full Flavour and Amuri.

⁹⁵ These use a lowest price per basket methodology rather than an average price across providers.

The retail price differential between Fibre 300 and Fibre Max sits at \$12, the same as 2023 (Table 9). While Fibre Max offers faster speeds, our MBNZ testing has shown that Fibre 300 will support all modern internet applications and the needs of most multi-user households.⁹⁶ As such, the price premium for Fibre Max is most likely to be justified in cases where a household or business is frequently uploading or downloading large files or in larger households with significant concurrent use. A growing price gap between Fibre 300 and Fibre Max may prompt more Fibre Max users to switch to Fibre 300 for savings.

Table 9: TechInsights retail fibre price benchmarks⁹⁷

| Plan | June 2022 | June 2023 | June 2024 |
|-----------|-----------|-----------|-----------|
| Fibre 300 | \$85 | \$79 | \$80 |
| Fibre Max | \$99 | \$91 | \$92 |

Source: OECD Price Performance Benchmarking, provided by TechInsights

96 Commerce Commission “Measuring Broadband New Zealand – Spring Report, October 2022”, page 5 - https://comcom.govt.nz/_data/assets/pdf_file/0028/295804/MBNZ-Spring-Report-2022-27-October-2022.pdf
97 Lowest price across four incumbent providers.

MNO cellular fixed wireless broadband pricing

The retail prices for the most common 4G wireless broadband plans offered by MNOs have mostly held steady in the past year (Table 10). For cost-conscious consumers, the price gap between Fibre 300 and fixed wireless is relevant given the potential for savings. The average price gap between an unlimited 4G fixed wireless plan and a Fibre 300 plan decreased from around \$19 as of December 2023 to \$17 as of June 2024.

Table 10: MNO 4G cellular fixed wireless broadband monthly retail prices in urban areas

| Plan | December 2022 | December 2023 | June 2024 |
|------------------|---------------|---------------|-----------|
| 40-60GB data cap | \$40-50 | \$45 | \$45 |
| 300GB data cap | \$55 | \$55 | \$55 |
| Unlimited data | \$55-65 | \$55-65 | \$60-65 |

Source: MNO websites

The premium for a 5G fixed wireless plan over a 4G plan ranges from \$9 (2degrees) up to \$20 (Spark). This is the same range as in 2023. Uptake of 5G fixed wireless so far has been minimal, with just 7,600 total connections in 2024, an increase of 2,100 connections since 2023. Our observations are that MNOs haven't used price changes to stimulate uptake or migration.

Our MBNZ results show that fibre outperforms 4G wireless broadband on metrics such as speed and latency, but consumers are willing, in some cases, to accept lower performance for a lower price where it does not impact their usage experience and ease of installation in properties that do not yet have a fibre ONT installed. Our data about plan changes found that two-thirds of households that changed to a 4G wireless plan were previously on a fibre plan (mostly Fibre 300). This suggests that the cost of living crisis is incentivising consumers to find cheaper alternatives.

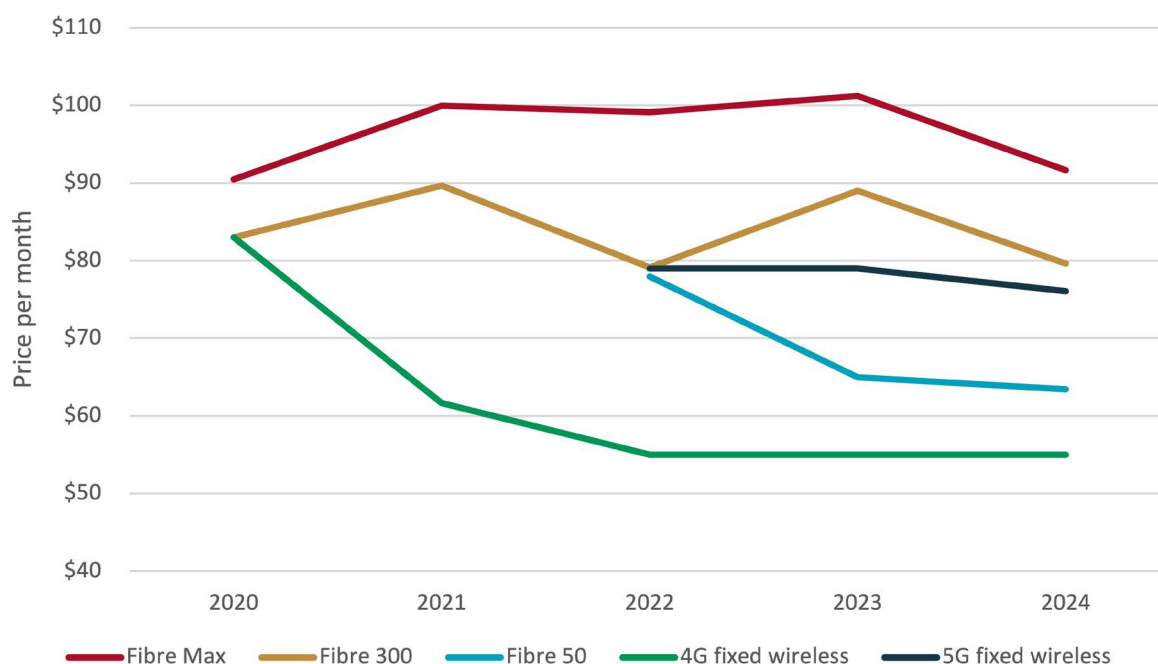
Fibre and fixed wireless broadband pricing trends

As shown in Figure 25, TechInsights' Fibre 300 and Fibre Max benchmarks have mostly remained stable between 2023 and 2024:

- The smaller RSPs had the larger shifts in Fibre 300 pricing, with some decreasing prices by \$20.
- A mixed bag of pricing shifts results in a flat line for the average Fibre Max price between 2023 and 2024.

→ For Fibre 50, more providers are offering the service and at varying price points depending on whether they are retailing Fibre Starter (with the retail price cap) or standard Fibre 50 (no retail price cap). We can see that prices have levelled out between 2023 and 2024, suggesting they have hit the sweet spot for generating uptake.

Figure 25: TechInsights fibre vs 4G and 5G cellular fixed wireless broadband benchmark retail prices in New Zealand⁹⁸



Source: OECD Price Performance Benchmarking provided by TechInsights

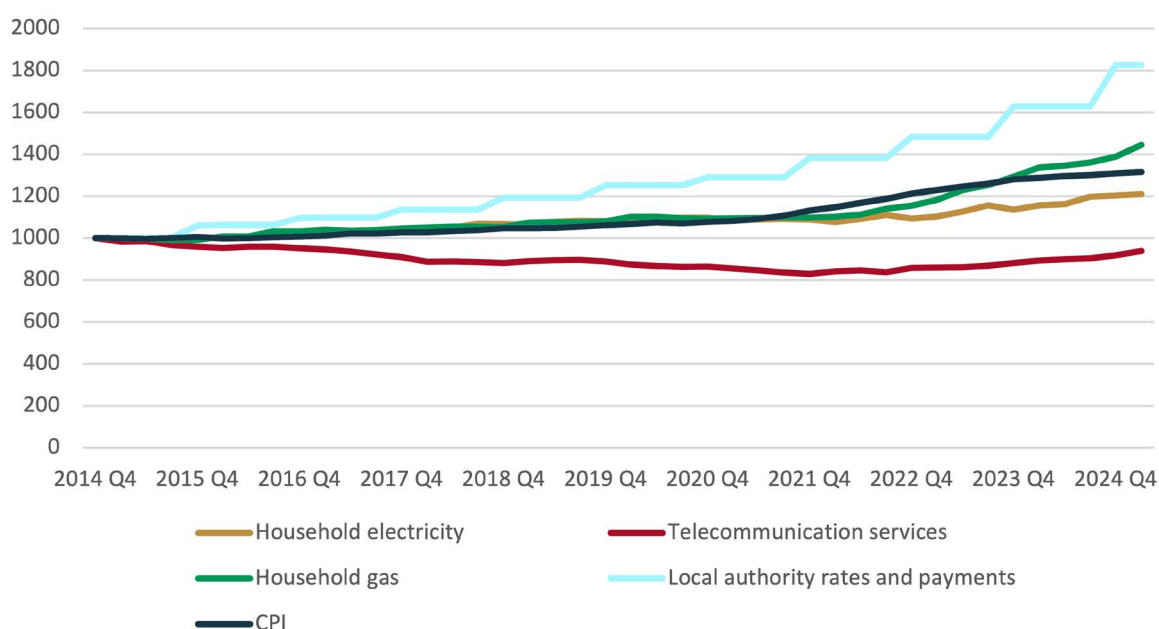
⁹⁸ Fibre price reflects the most common fibre plans (Fibre 50, 300 and Max). 4G cellular fixed wireless broadband price reflects a 4G 300GB plan.

Consumers price index

Over the past 10 years, prices in the telecoms sector have been declining in real and absolute terms. Figure 26 is based on Stats NZ CPI data and shows the telecoms index decreasing by a total of -5% over the last 10 years,

while CPI overall has increased by a total of +32%. The exception is in the most recent year, where the data suggests that telco prices have trended upwards.

Figure 26: CPI vs selected utilities



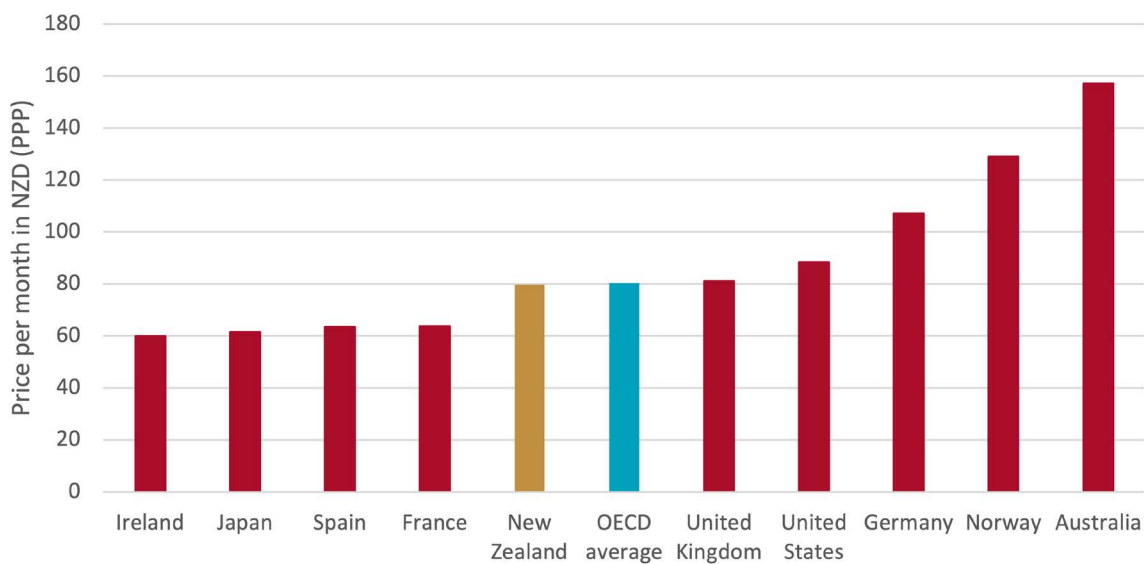
Source: Stats NZ

The CPI and its sub-indices (for example, telecommunications services) is a constant quality index. This means that better-quality services and plans are reflected as price decreases. For example, the speed upgrade applied to the 100Mbps plan – making it 300Mbps – without a resulting price increase is treated in the CPI calculation as a quality improvement, which shows up as a price decrease to hold quality (in this case speed) constant.

International price comparison

To get an indication of how New Zealand broadband prices compare to prices overseas, we use TechInsights benchmarking to compare the price of the cheapest benchmark plan available in New Zealand against the cheapest benchmark plan available in OECD countries. The benchmarking covers four categories that represent the most common urban broadband plans in New Zealand (Figure 27-Figure 30).⁹⁹

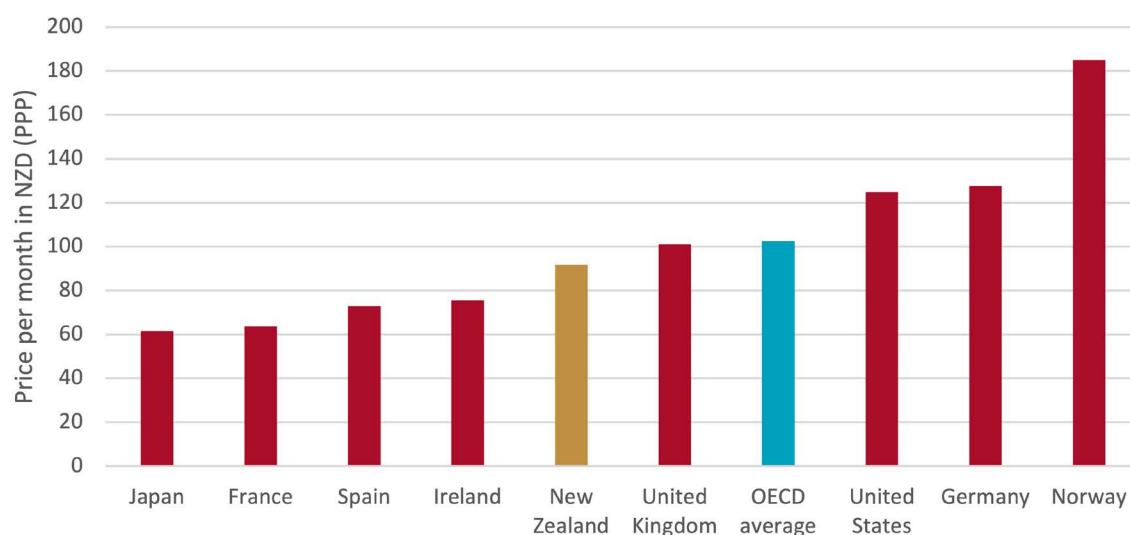
Figure 27: TechInsights price for Fibre 300 (or equivalent) – June 2024¹⁰⁰



Source: OECD Price Performance Benchmarking provided by TechInsights

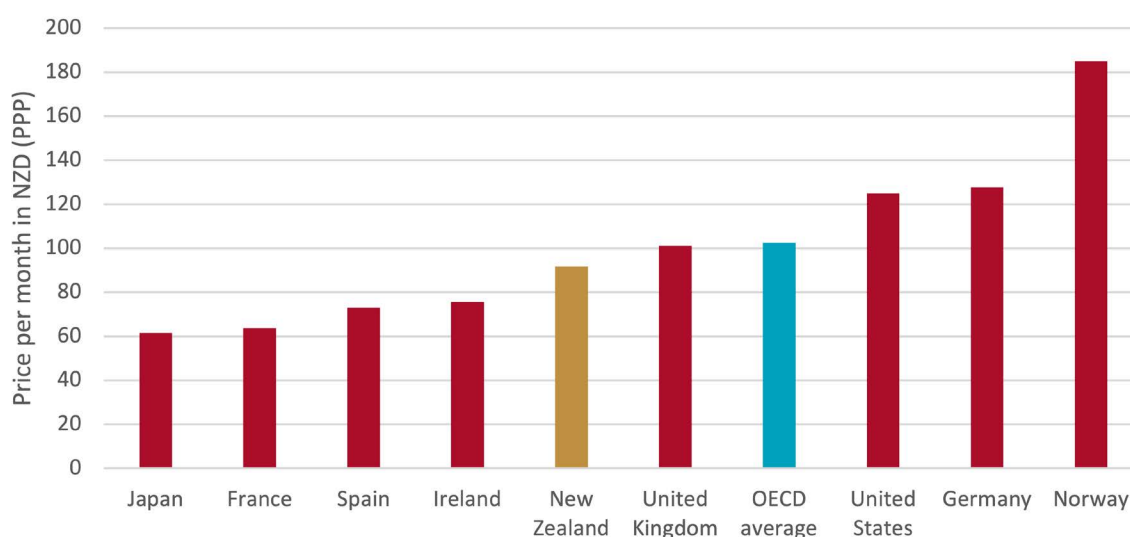
⁹⁹ The price of the plans used in the benchmarking analysis is adjusted to take into account whether the plan requires a consumer to purchase or rent a router.
¹⁰⁰ Price for unlimited broadband-only fibre service delivering a minimum of 300Mbps speeds.

Figure 28: TechInsights price for Fibre Max (or equivalent) – June 2024¹⁰¹



Source: OECD Price Performance Benchmarking provided by TechInsights

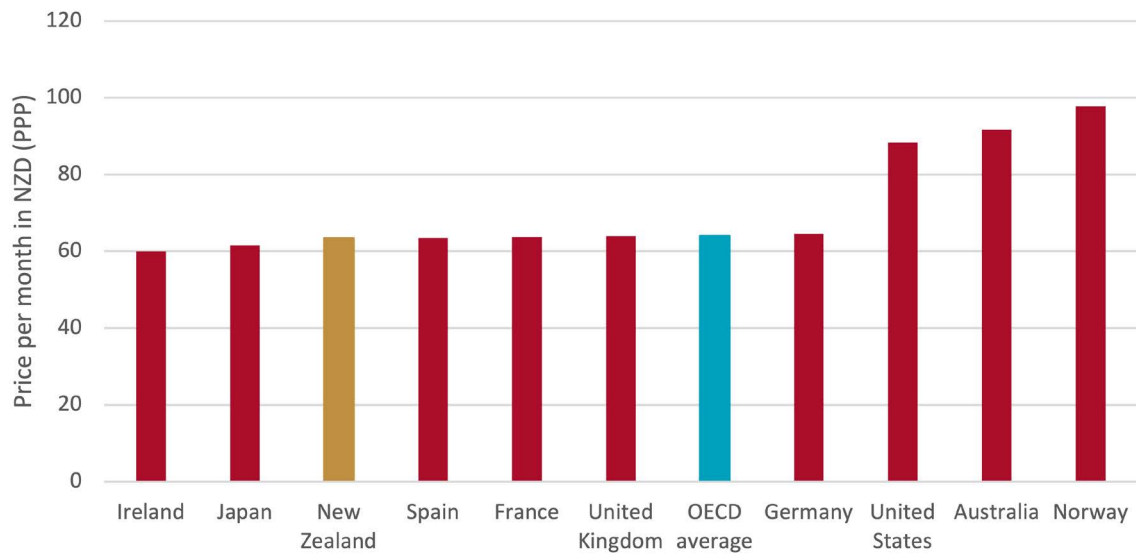
Figure 29: TechInsights 4G wireless broadband, 300GB (or equivalent) – June 2024¹⁰²



Source: OECD Price Performance Benchmarking provided by TechInsights

¹⁰¹ Price for unlimited broadband-only fibre service delivering a minimum of 800Mbps speeds. Australia is not displayed as no Fibre Max products are offered.
¹⁰² Price for broadband-only service (any technology) providing at a minimum 300GB of data and 20Mbps speeds.

Figure 30: TechInsights price for Fibre 50 (or equivalent) – June 2024¹⁰³



Source: OECD Price Performance Benchmarking provided by TechInsights

Overall, relative to other OECD countries, the price of our broadband plans (Fibre 300, Fibre Max, Fibre 50 and 4G wireless broadband) places us middle of the pack and slightly under the OECD average across all three types of plans:

- Fibre 300 pricing in New Zealand is equal to the OECD average, the same as last year.
- Fibre Max is \$11 lower in New Zealand than the OECD average. It was \$14 lower last year.
- 4G wireless broadband in New Zealand is \$4 lower than the OECD average. It was \$6 lower last year.
- Fibre 50 pricing is just below the OECD average. This is the first year we have reported on it.

103 Price for unlimited broadband-only fibre service delivering a minimum of 50Mbps speeds.

International price comparison – deeper dive

This year, we compared average broadband plan prices between New Zealand, Australia, Singapore and Ireland to understand the value for money that New Zealand consumers can get relative to these comparator countries. We chose Australia for its economic and geographic proximity, Ireland for its similar population size and Singapore for its high fibre broadband uptake, which parallels New Zealand.

Figure 31 shows that broadband prices in New Zealand for speeds under 1Gbps are higher than in Ireland and similar to Australia. Recent speed increases in Australia mean that both Australian and New Zealand consumers get similar value for their money. In Ireland, prices for sub-1Gbps plans often increase after the first year, averaging around US\$67 per month, which is closer to New Zealand and Australian prices.

Figure 31: Broadband plan prices in New Zealand vs comparator countries (NZD)



Source: Largest 3 retailers' website prices for each market, converted to NZD¹⁰⁴ – websites accessed April 2025, plans of <100Mbps not included¹⁰⁵

In Singapore, consumers can get 3-10Gbps plans with many add-ons such as a free router, home phone line and subscriptions to services like Disney+ Premium, Amazon Prime and Spotify. These plans cost more than what consumers in New Zealand, Australia and Ireland pay for plans under 1Gbps.

Overall, New Zealanders pay higher prices than in Ireland but on par with Australian prices (for plans under 1Gbps). Singaporeans get more add-ons and much higher speeds, which they may or may not need.

104 Currency conversions via Morningstar (as at 28 April 2025).
105 New Zealand Fibre Max plans and Australian Ultrafast plans are counted in the 'under 1Gbps' category because their actual speeds are around 800Mbps for Australia and 876Mbps for New Zealand (Commerce Commission "Measuring Broadband New Zealand - Report 23, March 2025" - https://comcom.govt.nz/_data/assets/pdf_file/0026/365066/Measuring-Broadband-New-Zealand-Report-23-March-2025.pdf)

Lower-price/digital equity urban broadband plans

Fibre Starter

As noted in the wholesale section above, Chorus and Tuatahi each offer a discounted wholesale Fibre 50 Fibre Starter service, which is intended to make broadband more affordable for low-income consumers.¹⁰⁶

In last year's Annual Monitoring Report, we found around five retailers offering the plan at or below the price cap, including the top three. This year, at least 11¹⁰⁷ providers offer the plan at or below the price cap. Spark continues to be the only retailer that has added a data cap (120GB) to its Fibre 50 product.

Skinny Jump

Spark launched Skinny Jump in 2020 as a 4G cellular fixed wireless broadband service for people who do not have a broadband connection at home due to the cost.

As of June 2024, around 32,000 households have an active connection under Skinny Jump and around 34,000 had used the service in the last 90 days.¹⁰⁸ This compares to around 27,000 active connections last year.

Skinny Jump is prepaid with no contract or credit checks. Households are supplied with a modem and can buy 35GB blocks of data for \$5, up to a maximum of 210GB (\$30) of data per month. The first 15GB per month is included.

Skinny Jump prices are substantially cheaper than Skinny's current standard 4G fixed wireless plans. 225GB of data will cost households \$30 per month with Skinny Jump.¹⁰⁹ This compares to \$50 for 120GB with Skinny's standard plan.

Households eligible for Skinny Jump include some of the groups most at risk of digital exclusion, as identified in the Government's digital inclusion blueprint.¹¹⁰ These include:¹¹¹

- families with children
- job seekers
- seniors
- people with disabilities
- refugees and migrant communities
- those in social housing.

¹⁰⁶ Chorus mandates RSPs to charge no more than \$60/month for a discounted wholesale rate. Tuatahi's Fibre 50 has no price cap but may revert to standard pricing if retailers do not pass on the savings to consumers.

¹⁰⁷ While our pricing analysis captures the vast majority of the market by market share, it is not exhaustive and retailers we do not track may also offer the service.

¹⁰⁸ Spark "Spark Annual Report FY24", page 58 - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/file/2024_Spark_Annual_Report.pdf

¹⁰⁹ 210GB paid for and 15GB included.

¹¹⁰ <https://www.digital.govt.nz/digital-government/programmes-and-projects/digital-inclusion/governments-vision-the-digital-inclusion-blueprint/>

¹¹¹ Department of Internal Affairs "The Digital Inclusion Blueprint" (March 2019) - <https://www.digital.govt.nz/assets/Documents/113Digital-Inclusion-BlueprintTe-Mahere-mo-te-Whakaurunga-Matihiko.pdf>

Tuatahi digital equity offer

In July 2022, Tuatahi launched its digital equity offer¹¹² – a discounted Fibre 200 plan available until June 2024 to certain customers identified by Tuatahi. This is for households within Tuatahi's original UFB1 area that have not connected to the fibre network and are believed to have barriers to access that involve affordability or technology inertia.

The wholesale price of Tuatahi's digital equity offer is \$19.50 with a retail price cap of \$50. This makes the offer significantly lower cost than Tuatahi's discounted Fibre Starter plan and its Fibre 300 plan (Table 11). The offer ended in June 2024.

Table 11: Tuatahi wholesale price comparison

| | Digital equity offer (Fibre 200) | Fibre Starter (Fibre 50) | Fibre 300 |
|-------------------------------------|----------------------------------|--------------------------|-----------|
| Tuatahi wholesale price (June 2024) | \$19.50 | \$38.00 | \$53.02 |

Northpower digital equity offer

Northpower continued the digital equity offer it launched in early 2023 into mid-2024.¹¹³ This offer was a discounted Fibre 300 plan available to previously unconnected properties within Northpower's fibre area that had been identified as at risk of digital exclusion. The wholesale price was \$25.25 with a price cap of \$50 (including GST). This made it significantly cheaper than its regular Fibre 300 product (Table 12).

Table 12: Northpower wholesale price comparison

| | Digital equity offer (Fibre 300) | Fibre 300 |
|--|----------------------------------|-----------|
| Northpower wholesale price (June 2024) | \$25.25 | \$50.50 |

112 <https://www.tuatahifibre.co.nz/articles/digital-equity>
113 <https://northpower.nz/about-us/publications-and-disclosures/>

The market outcomes produced through infrastructure, wholesale and retail ultimately come down to consumers' usage and their overall satisfaction with the connectivity provided.

2024 highlights

- The average urban price for broadband was \$87.86 per month, equating to 1.6% of median household income. In areas of lower median incomes such as Northland, Manawatū-Whanganui and Gisborne householders, spend a higher percentage of their income on broadband, up to 2.3%.
- Our survey results show that urban fibre broadband customers are more satisfied with aspects of their service than fixed wireless broadband customers or copper broadband customers.
- Just over half of urban customers (53%) that switched providers went to a provider that is not one of the Largest 3 providers, indicating that market share is shifting away from the Largest 3.

Affordability

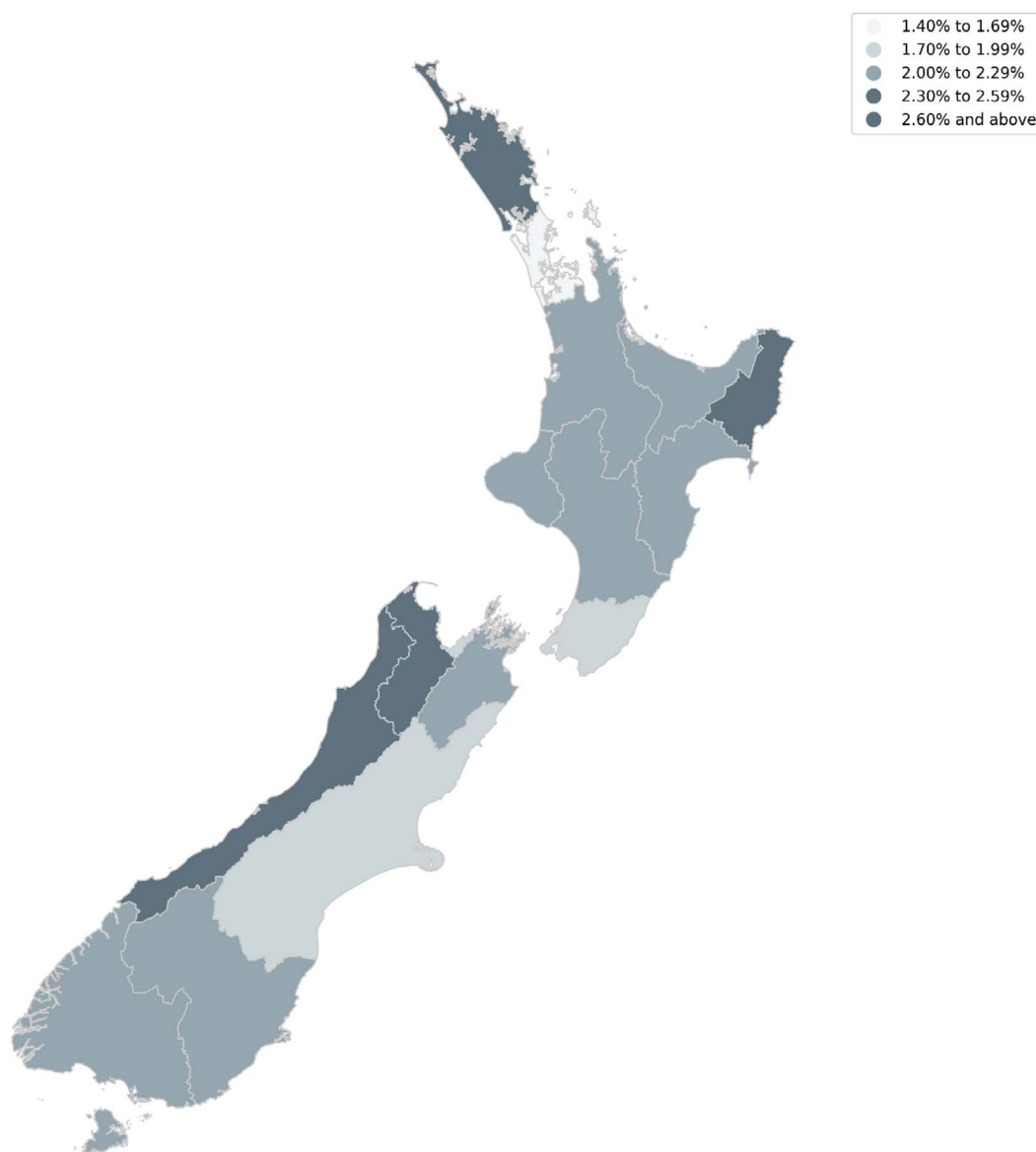
Affordability is a relative concept that does not lend itself to precise indicators. Affordability depends not only on price and income but also on other competing spending choices available.

Our affordability analysis examines the retail prices of urban broadband connection, using our Commission quarterly pricing data for each connection price. This is then compared to the household average net income distribution across New Zealand regions.

The data shows the actual price consumers would pay for their connection if they subscribed on 30 June 2024. It considers the provider, connection technology and speed tier for each household. This affordability analysis reflects relative affordability based on consumer choices and the options that are available for consumers to choose from. This section should be read in conjunction with the corresponding rural section where we see higher prices and lower incomes affecting affordability more.

Figure 32 shows a heat map of where the price of the connection requires a higher or lower percentage of average household income. In lighter areas on the map such as Auckland and Wellington, a lower percentage of income is required to purchase an urban broadband connection than in darker-shaded areas such as Gisborne and the West Coast.

Figure 32: Percentage of average household income required to purchase broadband by region



Source: Commission analysis of Stats NZ data

The urban areas (where fibre is available) in which consumers pay the lowest percentage of household income towards broadband services are Wellington, Auckland (both 1.4%) and Canterbury (1.5%). Urban households that spend the highest percentage of household income towards broadband services are in Manawatū-Whanganui, Gisborne (both 2.1%) and Northland (2.3%). The average price for broadband was \$87.86 per month, equating to 1.6% of median household income. Across the regions the average price varied little, from \$84.88 in the urban areas of the West Coast region to \$89.51 in the urban areas of the Auckland region. We expect that factors in the variation will relate to how many copper connections had been withdrawn in urban areas as at June 2024, where consumers may have been paying higher than average for broadband, and variations in uptake of the different fibre speed tiers.

We see that, in areas of lower median incomes such as Northland, Manawatū-Whanganui and Gisborne (under \$50,000 household income), householders end up spending a higher percentage of their income on broadband – 2.1–2.3% compared to the national urban average of 1.6%.

As part of our wider monitoring work, we intend to further develop our understanding of the impact of connectivity and whether there are accessibility and/or affordability challenges that need to be highlighted.

As part of the Household Economic Survey, Stats NZ publishes annual mean household income by quintile (Table 13).

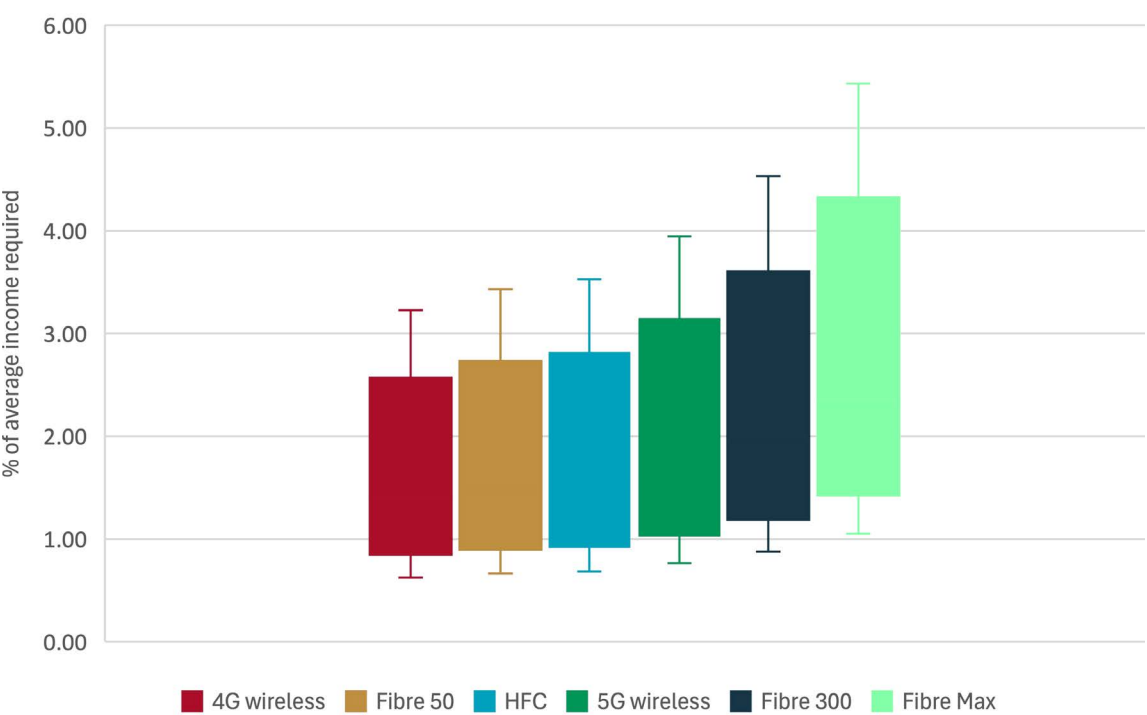
Table 13: Average household income by income quintile (nationwide)

| Quintile | Average household income |
|----------|--------------------------|
| 1 | \$23,117 |
| 2 | \$39,058 |
| 3 | \$53,480 |
| 4 | \$70,152 |
| 5 | \$119,091 |

Source: Commission analysis of Stats NZ's Household Economic Survey data

We then looked at the percentage of income required for urban broadband technologies based on each income quintile (Figure 33). This shows that Fibre Max, in particular, is much less affordable for households in the lowest income quintile given it requires 5.4% of average household income. The data indicates that 4G wireless, Fibre 50 and HFC (where it is available) may be more affordable options for households in the lowest income quintile.

Figure 33: Relative affordability of urban broadband by income quintiles



Source: Commission data, Stats NZ – income quintiles are nationwide figures, prices for broadband are urban prices

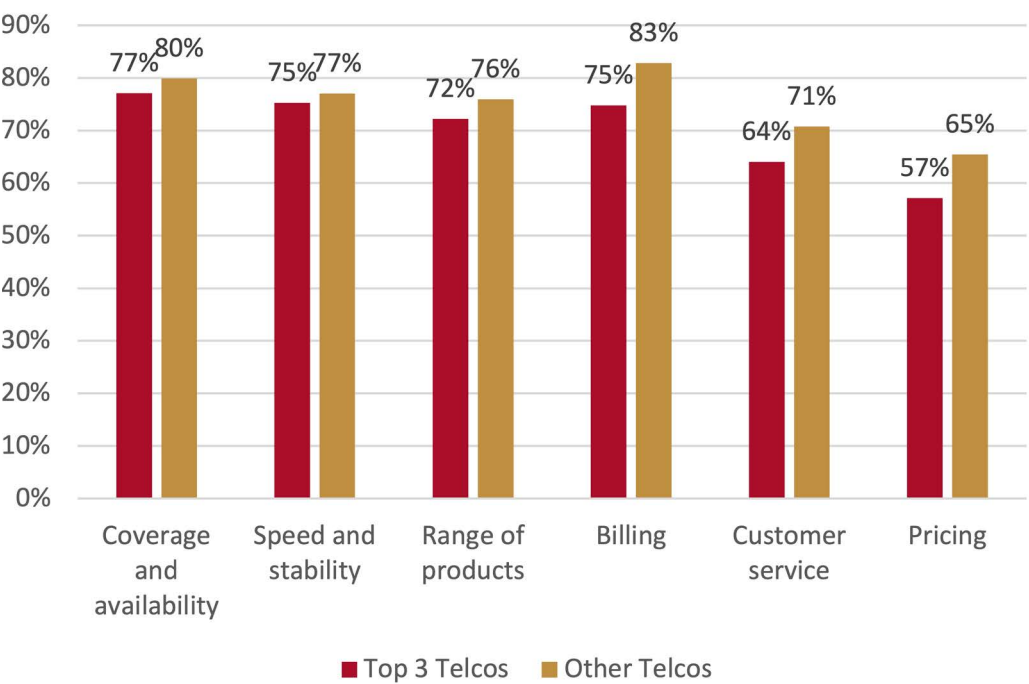
Satisfaction

The results below come from our monthly Telecommunications Consumer Satisfaction Monitoring Report. In May 2024, we switched survey providers, leading to improved data collection methods but limiting our ability to match older data with newer data. This year, we are using data from January to June 2024 for the satisfaction section, which includes responses from 2,419 residential broadband consumers.

Our Telecommunications Consumer Satisfaction Monitoring Report shows that 77% of urban broadband consumers are satisfied with their broadband service over the reporting period. This compares to 78% in last year’s 2023 Telecommunications Annual Monitoring Report. The benchmark for good performance is 80%. The survey asks urban broadband consumers to rate their satisfaction with various service aspects. Currently, none of the monitored satisfaction areas meet the benchmark for good performance.

In Figure 34, we compare the aspects of satisfaction for the Largest 3 providers against other providers measured in our customer satisfaction rankings. Smaller telcos performed better when it comes to billing and customer service. This could be due to better or newer IT systems, and we may also be seeing the results of smaller telcos maintaining better relationships with their smaller customer bases.

Figure 34: Satisfaction levels of urban consumers with fibre broadband split by telco size



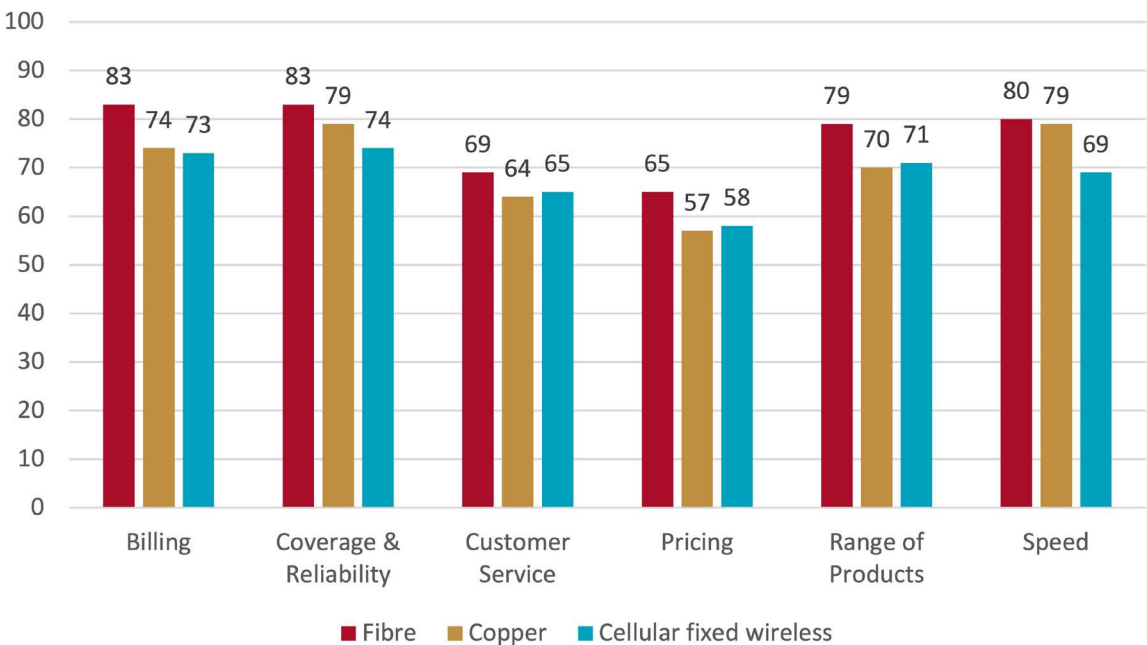
Source: Telecommunications Consumer Satisfaction Monitoring Report – January–June 2024

None of the telcos are performing well in satisfaction with pricing. Larger telcos are underperforming compared to smaller ones. Last year, the Largest 3 telcos had a satisfaction rate of 62% in this aspect. This year, it dropped to 57%. Smaller telcos maintained their satisfaction rate at 65% year on year. Our analysis showed that, for Fibre 300, prices dropped between 2023 and 2024 on average and that, in 2024, Largest 3 providers' average price for Fibre 300 was lower than the rest of the market at an average of \$87.97 for the Largest 3 compared to \$91.67. We suggest that the dissatisfaction with pricing is coming from existing customers of the Largest 3 telcos that are paying a higher price than the price available to new customers for the same service.

Dissatisfaction with pricing is contributing to lower overall satisfaction and NPS.

Our data allows us to split satisfaction by technology type in urban areas (Figure 35).

Figure 35: Satisfaction levels of urban consumers with fibre, copper and 4G cellular fixed wireless broadband



Source: Telecommunications Consumer Satisfaction Monitoring Report - January-June 2024

Fibre broadband continues to lead in terms of overall satisfaction. Consumers rated fibre relatively highly in coverage and reliability (83%) and speed (80%), reflecting fibre's solid infrastructure that can provide consistent and dependable service. Consumers also rated billing (83%) and range of products (79%) highly, which may reflect work the telcos have done over the years around billing transparency and may reflect the range of speed tiers and price points available from Fibre 50 up to Fibre 8000.

However, there are areas for improvement, particularly in customer service, which scored 69%, and pricing, which scored 65%. These figures indicate that, while fibre is the preferred choice for its performance, addressing customer service and pricing could further enhance consumer satisfaction.

Cellular fixed wireless broadband presented a mixed picture. It performed better in billing (73%) and coverage and reliability (74%) than it did in customer service (65%) and pricing (58%). The range of products (71%) and speed (69%) were also below the benchmark, indicating that, while it remains a competitive option, it faces challenges in meeting consumer expectations.

Pricing and customer service are lowlights across the board. Many New Zealand households have been impacted by rising cost of living and inflation, which has heightened sensitivity to broadband pricing.

Additionally, customer service satisfaction is low across the board, with long wait times being a major factor. These extended wait times often result from insufficient staffing in call centres, which is likely due to budget constraints faced by telcos. The lack of adequate personnel to handle customer enquiries efficiently creates a drag on overall satisfaction with customer service.

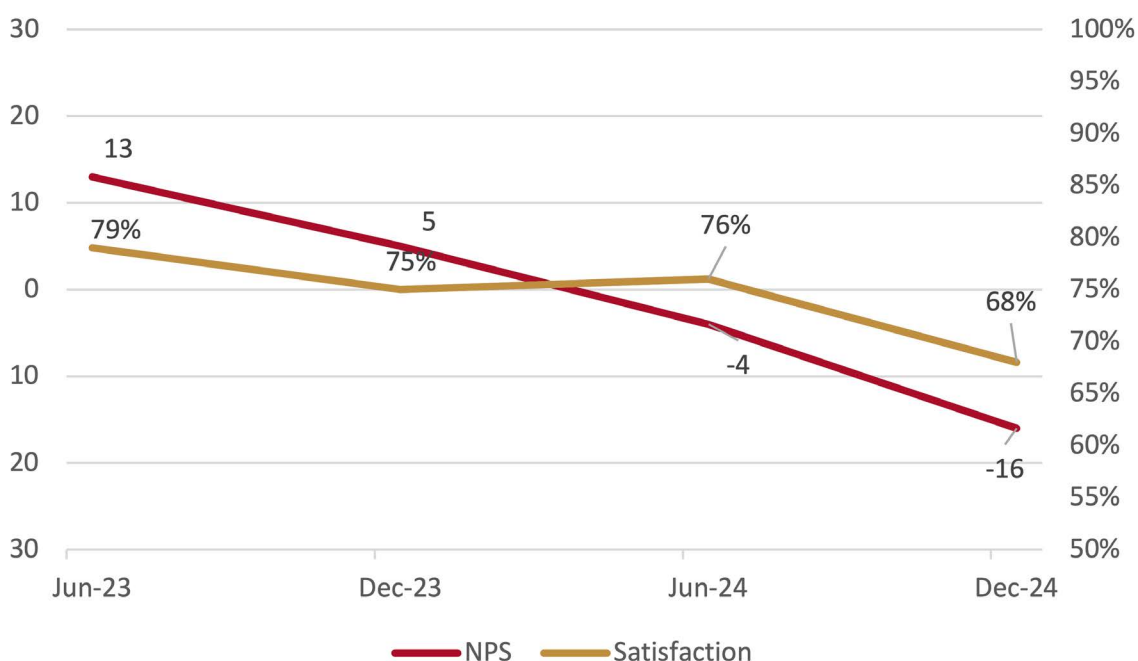
Satisfaction and NPS over time

Trended data shows there is a significant decrease in both satisfaction and NPS over time.

Satisfaction has declined across all aspects, no longer meeting the benchmark for good performance in the second half of the year. Data from respondents suggests that dissatisfaction with pricing and customer service plays a part in the decrease over time.

Figure 36 shows a time series of the percentage of urban consumers satisfied with their broadband provider (satisfaction) and willing to recommend their provider (NPS).

Figure 36: Broadband NPS and satisfaction trended

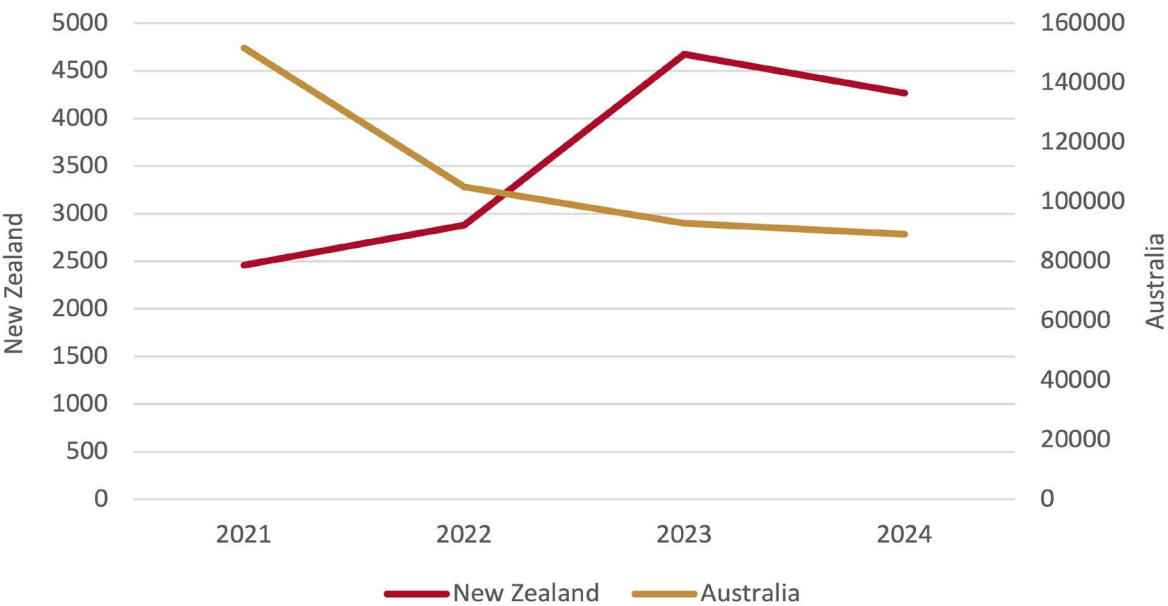


Source: Telecommunications Consumer Satisfaction Monitoring Report - July-December 2024

Complaints

We've also seen complaints to Telecommunications Dispute Resolution (TDR) increase in in the last 2 years (Figure 37).

Figure 37: Telecommunications complaints trends - New Zealand vs Australia



Source: Commission data,¹¹⁴ Telecommunications Industry Ombudsman data

The top three primary reasons for these complaints are billing issues, contractual issues and service quality. Historically, a high number of complaints was a key reason for the introduction of Part 7 of the Telecommunications Act aimed at improving retail service quality.

The recent increase in complaint volumes along with the drop-off in satisfaction and NPS is an indicator of concern that consumers are dissatisfied with their services and could be looking to move plans or providers. To do that, there must be choice in the market, and switching must be easy for consumers to do.

¹¹⁴ 'New Zealand' includes all telecommunications complaints to the Commission and all telecommunications complaints to TDR (data is not split by urban/rural).

Choice

Most urban customers have multiple choices when it comes to accessing broadband technology. Almost 100% can access at least two options – 100% of urban households have fibre available and above 90% have access to 4G cellular fixed wireless.¹¹⁵ As copper is withdrawn in fibre areas, this is no longer a choice for new connections.

Household broadband plan changes

The level of plan changing observed in a market may be indicative of the ability of consumers to act and take advantage of competing offers. It may also indicate the presence of behavioural preferences towards the existing and familiar.

There is no fixed proportion of the market that should be expected to change plans. Consumers not changing provider, technology or speed tier is not necessarily a concern if those consumers are satisfied with their provider and/or do not face significant barriers to switching.

During the 6 months to June 2024, our Telecommunications Consumer Satisfaction Monitoring Report indicates that 11% of households switched their broadband provider.

Urban Plan Changes

The detailed address-level data we collect from telcos allows us to make year-on-year comparisons of each connection's broadband technology, speed tier and provider. Where one or more of these has changed, this indicates a switch. Our data picks up two scenarios:

- Where households have changed plan with the same or different provider
- Where the householders have moved out and new householders have connected to a broadband plan.

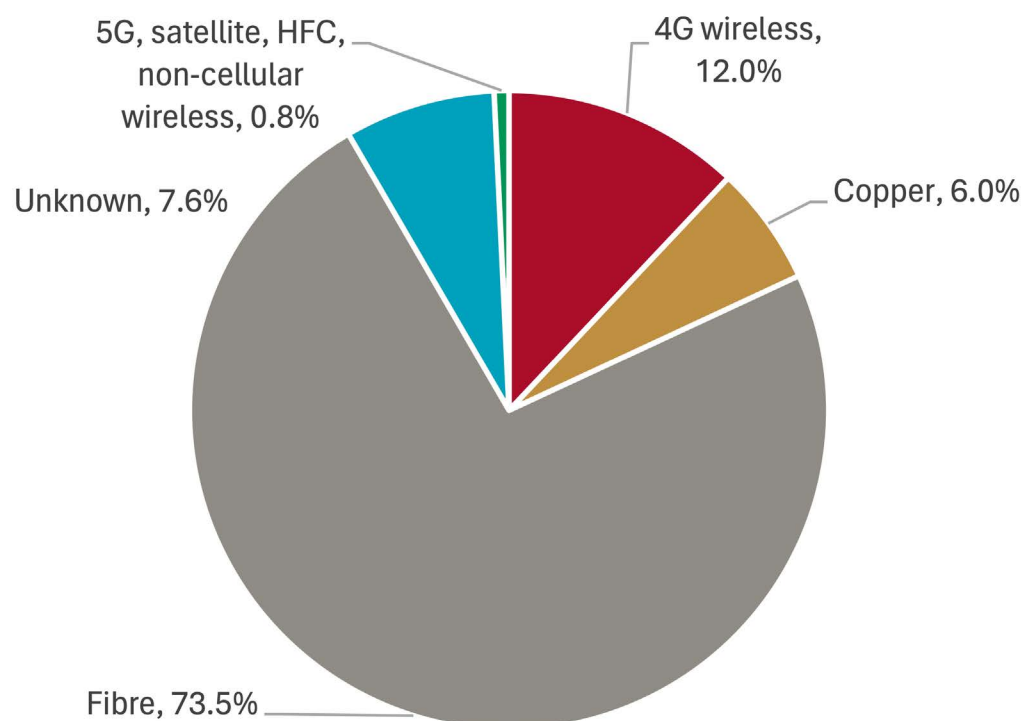
Our dataset on connections currently cannot determine the difference between these scenarios but we are looking at whether we can improve this for next year.

¹¹⁵ Our definition of urban is areas where UFB fibre is available.

Fibre 50

In urban areas, we looked at which technologies households were using before switching to a Fibre 50 product to understand where Fibre 50 customers come from (Figure 38).

Figure 38: Technologies households switched from when moving to Fibre 50



Source: Commission data

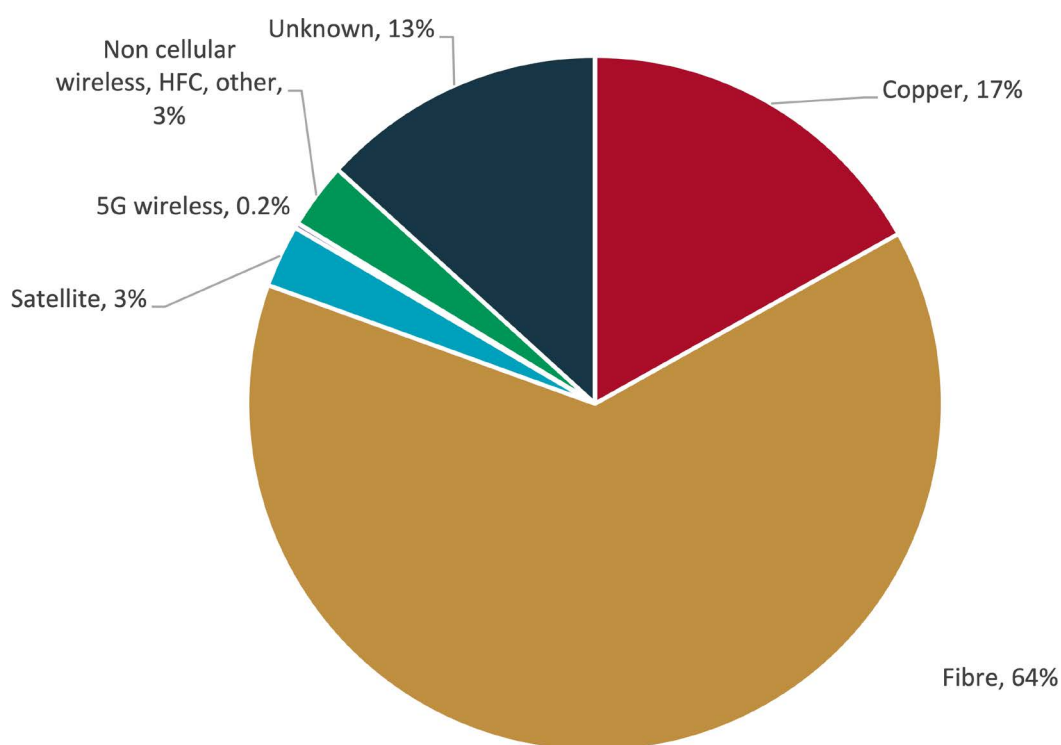
We found that three-quarters of households that moved to a Fibre 50 plan in the year from July 2023 to June 2024 moved from another fibre product such as Fibre 300 or Fibre Max or swapped Fibre 50 plans during the year.

This suggests that a significant proportion of households taking up Fibre 50 are downgrading from other fibre products. We expect that, in many cases, this is to save money while still maintaining an acceptable broadband experience. Switches from cellular fixed wireless accounted for 12.1% of switches to Fibre 50 (12% from 4G fixed wireless and 0.1% from 5G fixed wireless.)

4G wireless

Our connection data indicates that around two-thirds of households that move to 4G fixed wireless have moved from a fibre connection (Figure 39). The largest proportion of these shift from Fibre 300, followed by Fibre Max. Only 7% shift to fixed wireless from Fibre 50.

Figure 39: Technologies households switched from when moving to 4G fixed wireless



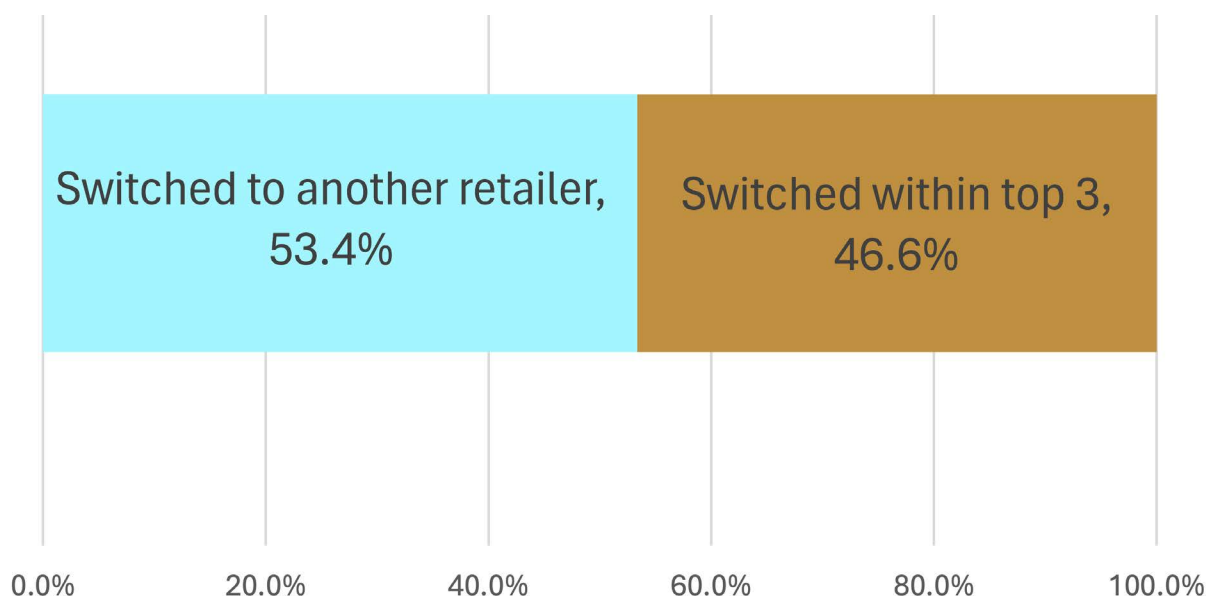
Source: Commission data

Changing plans between providers

Broadband switching rates remain low and have worsened over the past year. Only 11% of broadband users changed plans in the past year, compared with around 19% in electricity. Of those who did switch broadband plans, 32% reported dissatisfaction with the switching process.

For urban areas, we also wanted to understand what is occurring in terms of switching between providers. We looked at households that switched from a Largest 3 provider to see if they switched to another Largest 3 provider or to a smaller provider (Figure 40).

Figure 40: Households switching from a Largest 3 provider



Source: Commission data

Less than half of those switching from a Largest 3 telco stayed with a top three telco. Just over half moved to a telco that is not in the Largest 3. Smaller providers, including energy bundlers such as Contact or Mercury, are gaining the lion's share of switched connections.

On the flipside, we can say that there are more than 100 retailer providers that these consumers can choose from yet almost half of them decide on a Largest 3 provider.

If this trend continues, we would expect to see a reduction in the HHI measure as the market becomes less concentrated. Our analysis suggests that, for the urban broadband HHI to move out of the moderate category and into the low category (a score of under 1,500), this would likely require the Largest 3 market share to shift from its current 75% to under 60%.

Reasons for switching

The Telecommunications Consumer Satisfaction Monitoring Report captures respondents' primary reasons for switching:

- I wanted to pay less – 52%.
- I wanted faster speed – 21%.
- I saw an advert/offer from a new provider – 19%.¹¹⁶

We have seen the outcomes of wanting to pay less in terms of significant growth on Fibre 50 connections and also an increase in Skinny Jump connections in the last year.

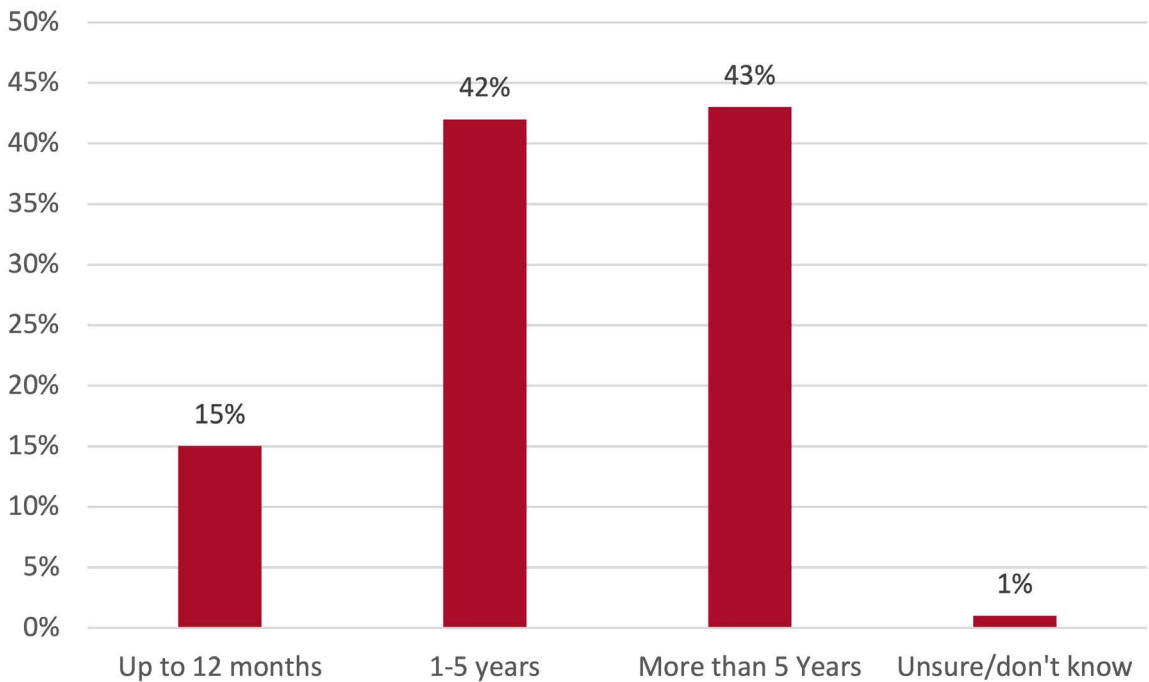
We could expect that much of the advertising or offers are coming from the Largest 3's marketing efforts, which may be a reason why we see nearly half of people switching staying within the Largest 3.

¹¹⁶ Commerce Commission "NZ Telecommunications Customer Satisfaction Tracking: 6 Monthly Report – January–June 2024" – https://comcom.govt.nz/_data/assets/pdf_file/0021/362217/Telecommunications-Consumer-Satisfaction-Monitoring-Report-JanuaryJune-2024.pdf

Time spent with current provider

The results shown in Figure 41 come from our monthly Telecommunications Consumer Satisfaction Monitoring Report. This year, we are using data from January to June 2024 for the satisfaction section, which includes responses from 2,419 residential broadband customers.

Figure 41: Time spent with current broadband provider (January to June 2024)



Source: Telecommunications Consumer Satisfaction Monitoring Report¹¹⁷

The results show that 43% of broadband consumers surveyed have been with their current provider for more than 5 years. This is an increase on last year at 40%.

Our data shows that consumers over the age of 55 are the least likely age group to switch providers or plans.¹¹⁸ We expect some people in this age group prefer a trusted provider rather than the lowest cost and others may be unsure or unwilling to go through the switching process.

117 Rounded numbers can generate a difference to total numbers in the report. 95% confidence interval for up to 12 months is 4–7%, 1–2 years is 9–14%, 3–5 years is 21–28%, more than 5 years is 54–62%.
118 Commerce Commission “NZ Telecommunications Customer Satisfaction Tracking: 6 Monthly Report – January–June 2024” – https://comcom.govt.nz/_data/assets/pdf_file/0021/362217/Telecommunications-Consumer-Satisfaction-Monitoring-Report-JanuaryJune-2024.pdf

Issues with switching providers

The Telecommunications Consumer Satisfaction Monitoring Report indicates that 32% of broadband consumers who switched were unsatisfied with the switching process.¹¹⁹

Common issues include poor instructions, poor communication and unsatisfactory instructions on setting up or using provided equipment.

Complaints to the Commission and to TDR about switching highlight several issues, including long service interruptions, double billing, lack of communication about notice periods, unauthorised switching and installation delays.

The Commission is currently engaging with industry on improvements that can be made to the switching process for consumers.¹²⁰

119 Ibid.

120 Commerce Commission "Improving Retail Service Quality: Switching" (20 March 2025) – https://comcom.govt.nz/_data/assets/pdf_file/0016/365011/Switching-Issues-Paper-20-March-2025.pdf

Concluding remarks

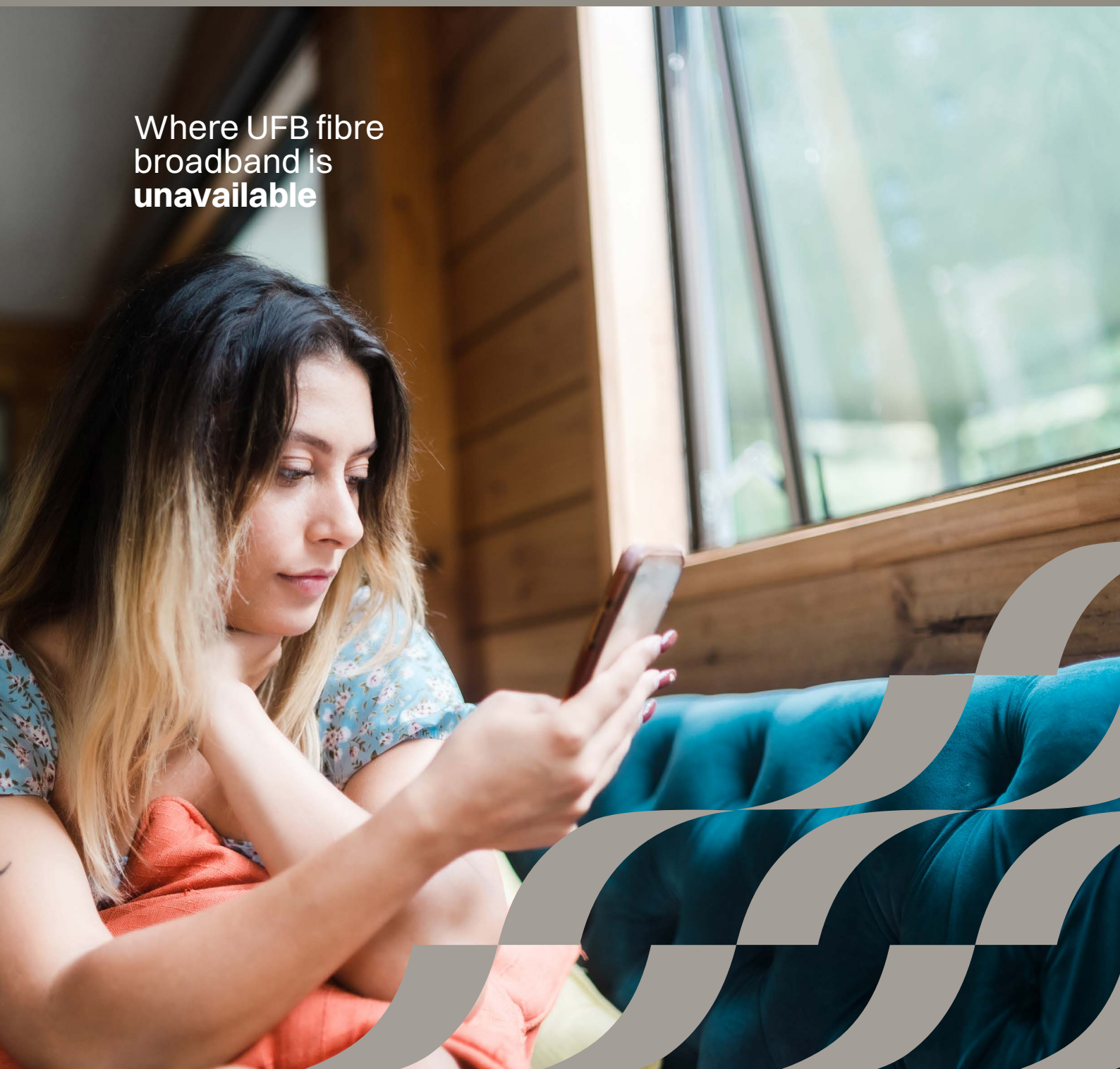
Urban connectivity is defined by the widespread adoption of fibre technology, complemented by wireless options. Chorus's ongoing withdrawal of its copper networks is pushing more households towards modern and reliable connectivity. This year, we've seen some consumers downgrade to Fibre 50 plans, reflecting cost-of-living pressures. Fixed wireless broadband continues to grow, offering flexible solutions, though 5G uptake is slow.

The market concentration remains stable, with the Largest 3 providers holding 73% of the market share, indicating a competitive yet concentrated environment. Over 100 smaller players, including energy bundlers, have been gaining traction over recent years. Despite this, most households continue to opt for one of the Largest 3 providers, highlighting their market influence.

The urban broadband market offers a variety of technologies, speeds and prices to suit all types of users, from casual emailers to heavy data consumers. As the telecommunications landscape evolves, maintaining a balance between technological advancements, competitive pricing and high service quality will be essential in meeting the needs of urban consumers.

Rural connectivity at home | Honotanga ā-tuawhenua i rō kāinga

Where UFB fibre
broadband is
unavailable



Market structure | Hanganga māketē

Market structure covers structural elements of telecommunications markets, including infrastructure availability, the type and share of wholesale and retail offerings using that infrastructure and the transparency and understanding of these offers by consumers.

Infrastructure | Hanganga

Telecommunications infrastructure – the physical components that connect homes and businesses to voice and broadband services – provides the foundation for how the rest of the market operates in New Zealand.

The starting point for connecting Kiwi homes with high-speed internet is the infrastructure that has been deployed throughout communities and neighbourhoods across New Zealand. In rural areas, infrastructure overlap is increasing, particularly that delivering high-speed connectivity. Much of the infrastructure in rural areas has been funded (in whole or in part) by government, including through the RBI and Rural Capacity Upgrade (RCU) programme.

Copper

Chorus operates the copper network across New Zealand, covering 98% of the population at its peak. The copper network supports voice and broadband (ADSL and VDSL) services.

2024 highlights

- Cellular 5G fixed wireless coverage has increased to 12% of rural households in 2024. MNOs plan to increase this coverage significantly in the next few years through the reallocation of the 3G spectrum after the network is shut down at the end of 2025.
- Government programmes have continued to fund the rollout and upgrade of higher-speed rural broadband services, with the RBI being completed by the end of 2024.

Our data indicates that just over half (around 52%) of rural properties can access copper broadband in 2024.¹²¹ The remaining rural properties:

- may be too far from the local exchange or cabinet to receive basic ADSL services
- may require a field technician to assess whether Chorus can provide a copper broadband service
- may have never had a copper line to the property (very remote properties, some new builds).

The proportion of properties in rural areas that can access a copper broadband connection is reducing over time as new properties built in rural areas are unable to connect to the existing copper network.

¹²¹ This coverage number is for either an ADSL or VDSL connection. Additional properties may be in coverage for an unbundled copper low-frequency landline.

Rural Capacity Upgrade programme

In April 2020, the Government launched the RCU programme. The RCU builds on RBI1, an earlier programme completed in June 2016 that delivered cellular fixed wireless and copper improvements for the urban fringe. RCU initially upgraded 70 rural cellular fixed wireless towers at the start of the first COVID-19 lockdown to ease network congestion. The RCU has subsequently expanded to include upgrades for other technology types, including fibre, copper and non-cellular fixed wireless.

Chorus was awarded funding in late 2022 and early 2023 under the RCU programme to upgrade 73 rural cabinets to VDSL broadband. 3,400 additional rural households will have access to VDSL by the end of the programme. Chorus plans to have all cabinets completed by January 2025.¹²² This will improve copper services available to those households and slightly expand the copper footprint for a short period of time. However, Chorus states that it wants to withdraw all copper by 2030.

¹²² <https://sp.chorus.co.nz/product-update/rural-broadband-additional-copper-service-upgrades>

Cellular 4G and 5G fixed wireless broadband

Fixed wireless can be provided over various types of networks, including cellular, non-cellular fixed wireless and satellite. In the cellular case, fixed wireless uses much of the same infrastructure and spectrum as mobile calling, text and data services. In most cases, cellular fixed wireless is restricted to a set location and is delivered via a router.

The cellular fixed wireless coverage offered by mobile networks is based on the type and amount of spectrum the network operator has acquired as well as the number and position of sites' (towers and masts) hosting equipment.

Topographic features such as trees, buildings and other structures, can result in localised coverage gaps, and the number of people potentially using a site at any one time is also an important consideration for these operators.

In New Zealand, there are three national mobile networks operated by 2degrees, Spark and One NZ. All three of these MNOs offer cellular fixed wireless in rural areas using their 4G and 5G networks, but coverage differs from other mobile services. The primary reason for the coverage difference is that cellular fixed wireless requires and uses significantly more network capacity than mobile.

As of June 2024, 95% of rural households are within the coverage area of at least one MNO 4G cellular fixed wireless network, increasing from 91% in 2023 (Figure 42).¹²³ 12% of rural households have access to at least one MNO 5G cellular fixed wireless network. This has increased significantly from 2023 when around 2.5% of rural households had access.

As cellular fixed wireless coverage in rural areas is impacted by topographic features such as trees, hills and valleys, more remote rural areas may lack coverage. MNOs prioritise population coverage to maximise network usage, often resulting in rural areas lagging behind urban areas in the deployment of new mobile technologies.

Areas that lack cellular fixed wireless coverage include remote areas around the east coast of the North Island and more remote areas of the West Coast of the South Island.

5G cellular fixed wireless coverage in rural areas will continue to increase in the next few years following the Government's direct allocation of 3.5GHz spectrum in return for faster rollout of 5G services in 2023 and as MNOs reallocate 3G spectrum to the 5G network after the 3G network shutdown at the end of 2025.^{124,125,126} Spark is planning to increase 5G connectivity to all towns with a population over 1,500 by end of FY26.¹²⁷ While most of these towns will have fibre, the surrounding rural areas will see increased coverage.

123 In this year's Annual Monitoring Report, we have made a change to the methodology for calculating coverage. In last year's Annual Monitoring Report, we only counted addresses on land parcels where 100% of the parcel was in coverage of a technology. This year, we have reduced the threshold to greater than 50% of the land parcel. This aligns our methodology to other Commission reporting such as the Copper Services Investigation.

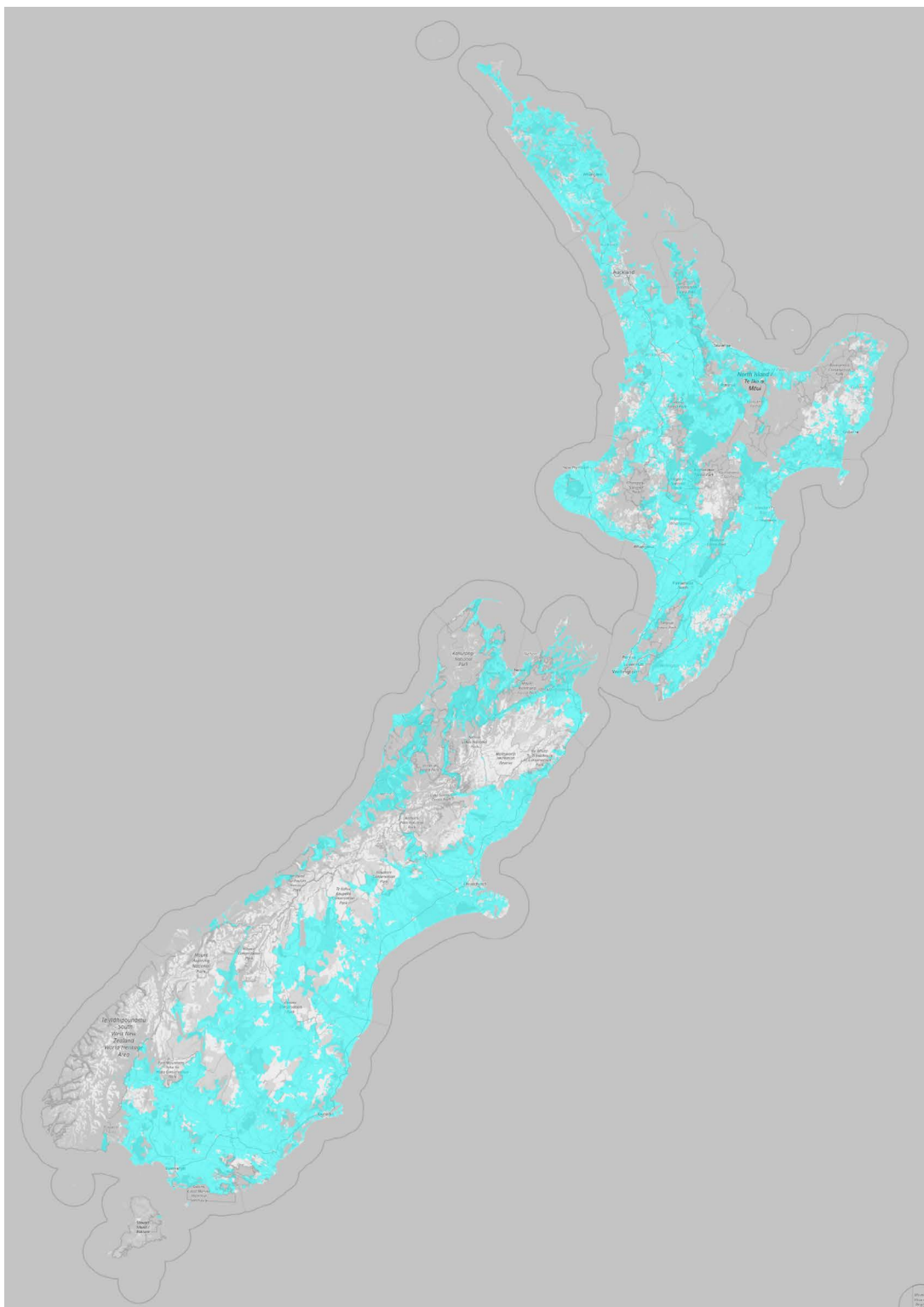
124 <https://www.beehive.govt.nz/release/govt-speed-5g-rollout-regional-towns>

125 Spark "Spark Annual Report FY24", page 45 - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/file/2024_Spark_Annual_Report.pdf

126 As MNOs replace 3G coverage with 4G coverage before the 3G shutdown at the end of 2025, the number of households that can access 4G fixed wireless broadband may also increase.

127 Spark "Spark Annual Report FY24", page 83 - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/file/2024_Spark_Annual_Report.pdf

Figure 42: Rural cellular 4G coverage across New Zealand



Source: Commission data

RBI2¹²⁸

The RBI aimed to provide faster internet to hundreds of thousands of rural homes and businesses outside UFB areas, funded through the Telecommunications Development Levy.

RBI1 was completed in June 2016 and provided new or improved broadband to over 300,000 rural households and businesses.

In 2017, Crown Infrastructure Partners found that 90,000 rural premises were unable to access broadband services of 20Mbps download or higher. The Government launched its RBI2 programme to reduce this number. RBI2 extended geographically beyond RBI1 and RCU into more rural areas best served by wireless technologies.

The Rural Connectivity Group (RCG) is an independent entity established by New Zealand's three MNOs to deliver cellular fixed wireless and mobile services to rural New Zealand.

The RCG network uses 4G multi-operator core network technology, which involves all three MNOs using the same radio spectrum band for the first time. This means all three providers will share one piece of infrastructure, including the pole, antenna, power and backhaul.

Spark, One NZ and 2degrees allocated 700MHz spectrum to the RCG to enable the 4G LTE with VoLTE (or HD calling) rural network.

RCG used funding from the government's RBI2 and the MBSF as well as contributions from Spark, One NZ and 2degrees. Accordingly, each RCG site was required to meet government targets of providing fast cellular fixed wireless connectivity to a tourist location and/or coverage to rural state highways.

15 WISPs were contracted alongside RCG to deliver the RBI2 programme.

RBI2 was completed in 2024 with a total of 85,000 rural households and businesses now able to connect to high-speed broadband as a result of the programme.

Additionally, RCG infrastructure can accommodate equipment from at least one WISP.

In the year to 30 June 2024, an additional 3,700 rural premises gained access to improved broadband through RBI2.¹²⁹ The rural broadband programme is now completed. Overall, 9.8% of New Zealand's land area was covered through the programme and 539 mobile towers were funded.¹³⁰

¹²⁸ <https://nationalinfrastructure.govt.nz/rural-broadband/>

¹²⁹ Commission analysis of NIFF Quarterly Connectivity Updates (June 2023 and June 2024) - <https://www.nationalinfrastructure.govt.nz/about/publications/>

¹³⁰ <https://nationalinfrastructure.govt.nz/rural-broadband/>

Non-cellular fixed wireless

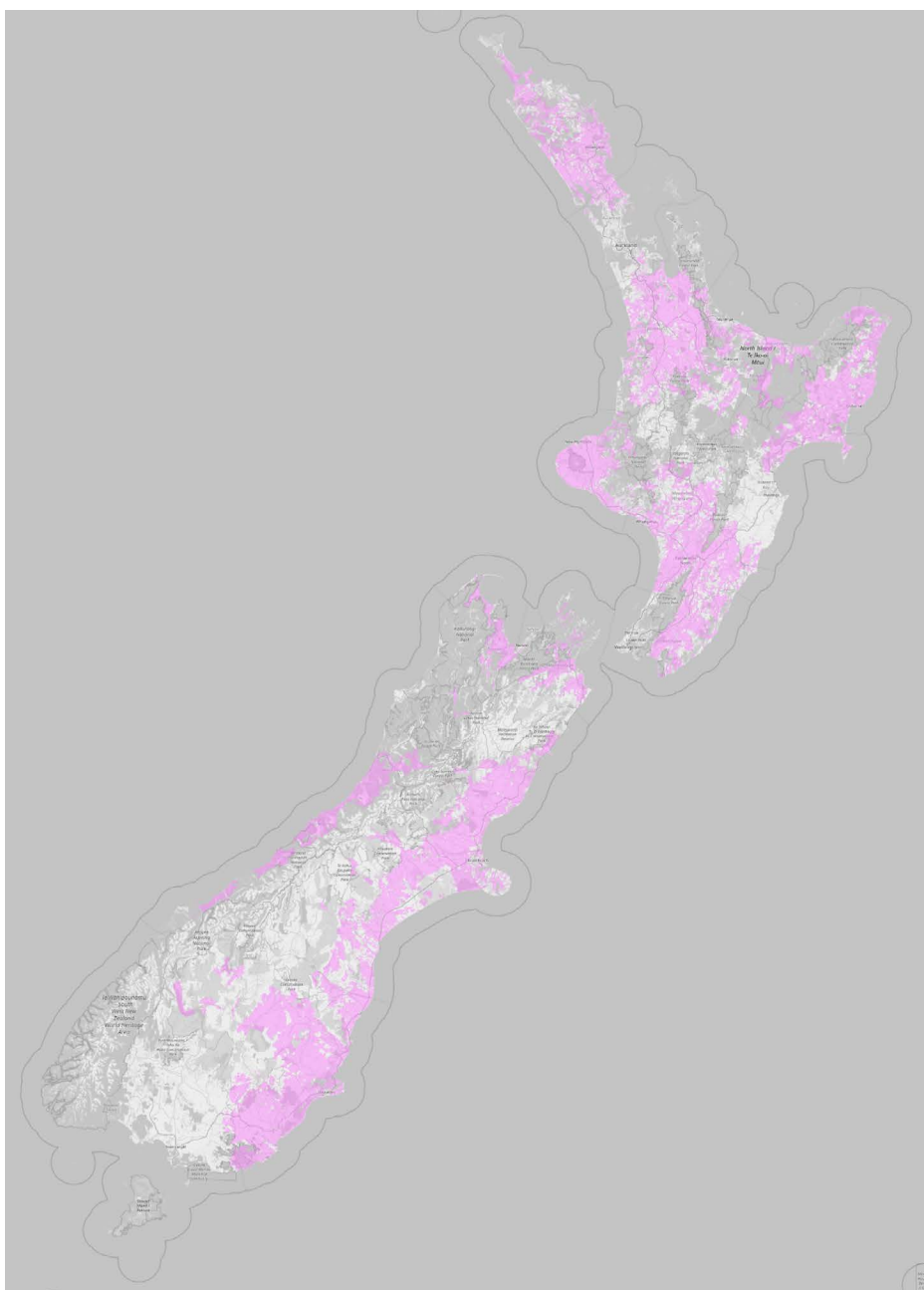
Non-cellular fixed wireless is a telecommunications technology aimed at providing wireless data over long distances in a variety of ways. Non-cellular fixed wireless is like long-range Wi-Fi, but it can enable usage at much greater distances.

WISPs typically use non-cellular fixed wireless networks to deliver their broadband service. They do this by installing a series of wireless receivers and transmitters, usually on high ground, connected to fibre at a central point, which deliver services to a set of users in mostly rural areas where fibre is not available.

There are around 30 WISPs operating in New Zealand. Many operate in a single region and there is limited overlap between their networks.

As of June 2024, 69% of rural households are within the coverage area of at least one WISP network (Figure 43).¹³¹

Figure 43: Rural non-cellular fixed wireless coverage across New Zealand



Source: Commission data

¹³¹ WISP coverage has been calculated using the 21 coverage maps provided through the Commission's data request. Some WISPs do not have coverage maps available. Therefore, actual WISP coverage will be higher than the stated coverage figure.

GEO satellite

Geostationary orbit (GEO) satellites operate approximately 35,000km above the Earth's surface and provide coverage to a specific area. GEO satellites orbit along a path parallel to the Earth's rotation at the same rate as the Earth to provide this fixed coverage.

While there are hundreds of GEO satellites orbiting the Earth, there are two operators with satellites oriented towards New Zealand that can offer broadband services – Optus and Kacific. Optus has been providing satellite coverage to New Zealand for many years, while Kacific is a newer operator that has been operating in New Zealand for over 5 years and partners with RSPs such as Gravity and Brdy.

A household antenna receiving satellite services must have a clear view of the sky to connect to the satellite overhead. Topographic features such as trees, buildings and other structures can result in localised coverage gaps not visible or known to the satellite provider.

As of June 2024, Optus and Kacific provide service to all parts of New Zealand capable of receiving a satellite signal, including Stewart Island and the Chatham Islands. Optus and Kacific operate purely as wholesalers, and consumers need to purchase a service through a retail partner.

LEO satellite

LEO satellites orbit close to the Earth's surface at altitudes ranging from 160–2,000km (99–1,240 miles). LEO satellites have shorter orbital periods, typically ranging from 90 minutes to a few hours. This means they complete one orbit around the Earth quickly compared to satellites at higher altitude. Due to their lower altitude and faster orbital periods, LEO satellites can provide global coverage by forming large constellations of satellites. Starlink is a constellation of just over 5,000 satellites that orbit at about 550km and cover the entire globe. At present, Starlink is the only LEO satellite constellation providing broadband coverage to New Zealand.

A household antenna receiving satellite services must have a clear view of the sky to connect to the satellites overhead. Topographical features such as trees, buildings and other structures can result in localised coverage gaps not visible or known to the satellite provider.

As of June 2024, Starlink is still the only LEO provider with commercial operations in New Zealand. Amazon's Project Kuiper will offer a similar LEO satellite experience that Amazon expects to launch in late 2025, offering a competitor to Starlink.¹³² Starlink provides service to all parts of New Zealand capable of receiving a satellite signal, including Stewart Island and the Chatham Islands.

132 <https://www.aboutamazon.com/news/innovation-at-amazon/what-is-amazon-project-kuiper>

Fibre

The UFB programme provided the option of fibre connectivity to 87% of households and businesses nationwide. However, independent of UFB, WISPs have begun to invest in deploying their own small-scale fibre networks:

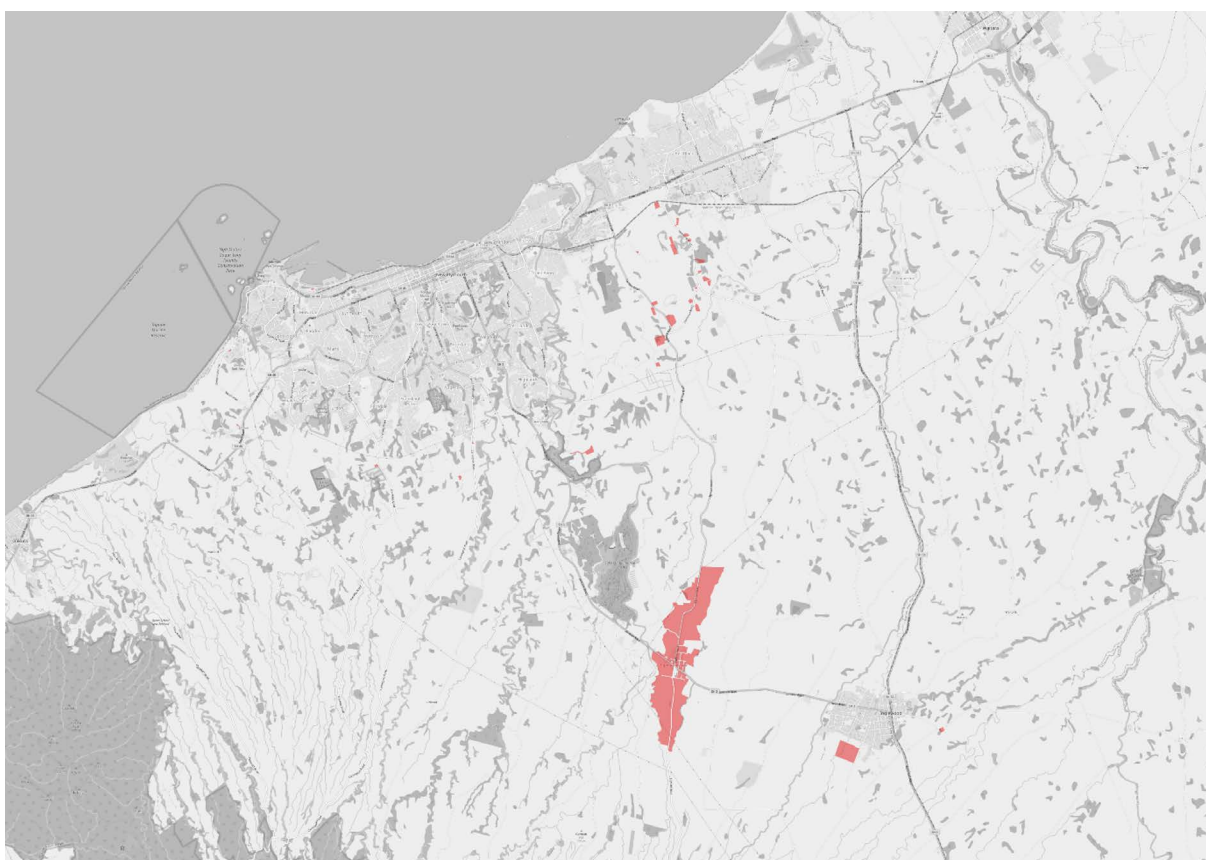
- Amuri.net is currently rolling out fibre to Ohoka/Mandeville in the Canterbury region.
- AoNet has built and operates fibre networks in Paritu and Matarua Farm Parks in the Hawke's Bay region.
- Inspire Net has built and operates its own fibre network around Palmerston North.
- Lightwire has built and operates its own fibre network in Gordonton in the Waikato region.
- Primo built and owns the fibre network in Egmont Village in Taranaki. Phase 1 of the fibre build was completed in 2023, phase 2 was completed in 2024 and phase 3 will begin in 2025.
- Velocity Net has built and operates fibre networks in multiple subdivisions in the lower South Island.

Other WISPs advertise being able to provide fibre for rural subdivisions or private fibre installations such as Full Flavour and Yrless.

Currently, WISPs have around 2,000 fibre connections over their own networks, and this is expected to increase in future years with more planned fibre builds.

Figure 44 shows rural fibre coverage outside of New Plymouth in the settlement of Egmont Village. This fibre network has been built by Primo, a WISP that operates across the Taranaki Region.

Figure 44: Rural fibre coverage near New Plymouth



Source: Commission data

The wholesale market plays an important role in shaping outcomes at the retail level for consumers. Regulation usually applies where there is insufficient competition to result in access to key infrastructure or access on sufficiently competitive terms absent that regulation. The wholesale market continues to play an important part in the overall market structure of telecommunications in New Zealand. Rural areas have benefited more recently from Crown investment initiatives with associated wholesale obligations.

2024 highlights

- Copper broadband connections in rural areas have decreased by 18% over the past year to 74,000 connections.
- The Largest 3 RSPs all have partnerships with international LEO providers to resell business services.
- The number of providers offering GEO satellite services has reduced with the growth of Starlink's LEO service.

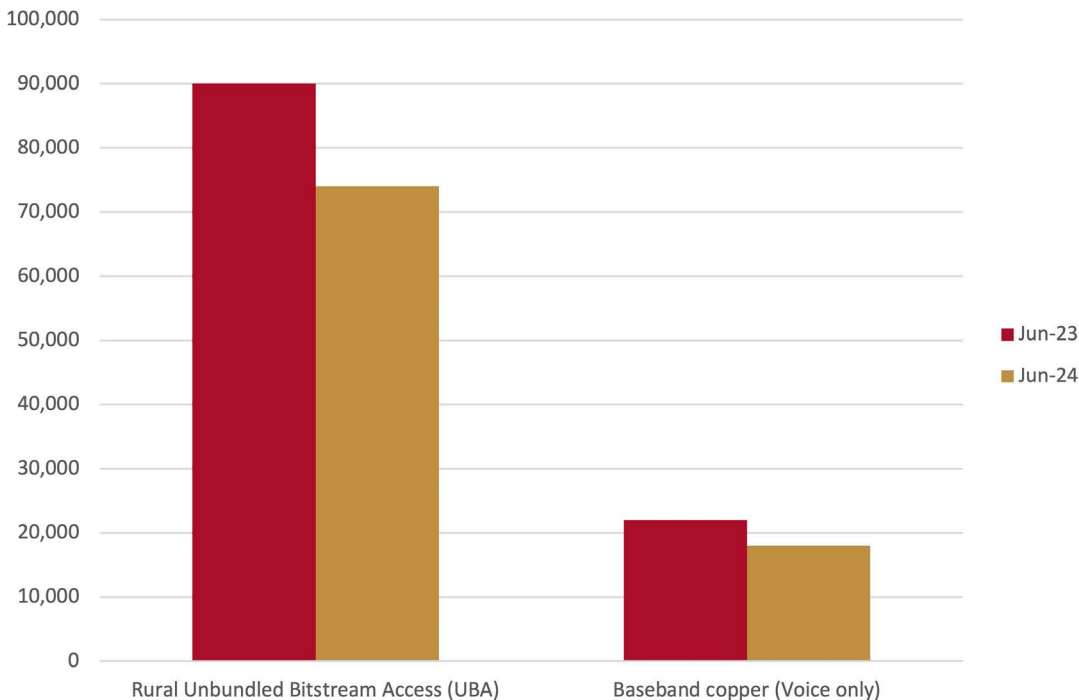
The most popular wholesale services in rural areas are delivered over the copper network to serve the residential broadband market – connecting the home back to a point in the network that houses electronics. However, competition from satellite technology is resulting in connection growth at both the wholesale and retail levels – bypassing the rural copper network completely.

Wholesale copper connections

As the owner of the copper network, Chorus is required by regulation to offer copper-based bitstream and voice services in rural areas – these wholesale services are respectively known as the unbundled bitstream access (UBA) service and the unbundled copper low-frequency (UCLF) service. These wholesale services can be purchased by RSPs who use them as inputs to retail broadband and voice offers.

As of 30 June 2024, Chorus wholesaled 74,000 UBA connections in rural areas, down 18% from a year earlier (90,000 connections) (Figure 45). During the same period, Chorus wholesaled 18,000 rural Baseband copper (Voice only) connections, which is a commercial variant to the UCLF service. This is down 18% from a year earlier (22,000 connections).

Figure 45: UBA and Baseband copper connections in rural areas



Source: Chorus

Wholesale copper connections across New Zealand have continued to drop in 2024, with the rate of decline being stable over the last 2 years. This is due to several factors such as the availability of alternatives and RSP marketing choices alongside their commercial decisions

to not provide new connections in some cases. UBA connections in urban areas, where copper withdrawal is under way, dropped by 40,000 (around 52%) in the year up to June 2024 compared to a drop of 16,000 (around 18%) in rural areas.

Wholesale cellular fixed wireless broadband connections

We discuss wholesale cellular fixed wireless broadband connections at a national level in the urban connectivity chapter.

Wholesale satellite connections

Kacific and Optus have operated as wholesale-only companies and provide GEO wholesale satellite services to RSPs. Satellite services are wholesaled on commercial terms. In recent years, with the introduction of Starlink’s LEO satellite service, which provides faster speeds and lower latency than GEO satellite services, we have seen several retailers exit the GEO satellite market. Both Farmside and Wireless Nation, who previously offered GEO satellite services using the Optus satellite, no longer offer GEO satellite services to new customers.¹³³ Current retailers wholesaling GEO satellite services are shown in Table 14.

Table 14: Wholesale satellite agreements¹³⁴

| Retailer | Satellite operator |
|----------|--------------------|
| Brdy | Kacific |
| Gravity | Kacific |

Source: RSP websites

LEO satellite service Starlink operates mostly on a direct retail basis. However, the company has set up partnerships with 2degrees, One NZ and Spark to be authorised commercial resellers in New Zealand.¹³⁵ Noel Leeming announced a partnership with Starlink in December 2022, focusing on consumer sales. Starlink hardware can now be purchased from many other providers such as Bunnings Warehouse, JB Hi-Fi and Harvey Norman.

All three MNOs have announced agreements with LEO satellite operators to provide D2C services. One NZ has an agreement with Starlink, and 2degrees and Spark have agreements with Lynk.

These partnerships will enable MNOs to offer some cellular-based services such as voice calls and text messages in some areas where terrestrial services do not reach by using non-terrestrial satellite connectivity that can work with a standard mobile phone. One NZ began rolling out its Satellite TXT service in December 2024.¹³⁶ This is discussed in more detail in the mobile section.

2degrees also partners with AST SpaceMobile. This partnership will bring non-terrestrial broadband services to 2degrees customers’ mobile phones when they are outside terrestrial cellular coverage areas in the future.¹³⁷

133 Based on provider websites.
134 It is unclear whether Woi is still retailing GEO satellite services.
135 <https://www.starlink.com/nz/support/article/9b7746f8-e2ee-0fd4-7ffb-3bbe0ab35cbc>
136 <https://media.one.nz/onenzsatellite>
137 https://www.2degrees.nz/mobile-plans/satellite?srsId=AfmBOoqFujF5xdYLw593Ub7_T0GyKcHhbGhLBlqOOokEIDKm1p_UJM-

Retail telecommunications markets are the markets through which consumers can purchase access to products that use the infrastructure described above. These products are packaged up by competing firms/ brands and marketed to consumers.

The rural retail market structure has been shaped significantly by past wholesale access regulation and, more recently, government rural broadband programmes, spectrum allocation decisions and the emergence of new satellite offerings.

2024 highlights

- Copper broadband connections continue to reduce. We estimate around 28% of rural residential consumers remain on copper-based broadband services.
- Satellite continues to be the fastest-growing technology, following the entry of Starlink's LEO satellite service in 2021 and the introduction of its Residential Lite plan targeted at more price-sensitive consumers in February 2024. Satellite connections have increased from 37,000 to 58,000 over the past year, up by 60%. However, after experiencing years of substantial growth, the rate of increase now appears to be slowing.
- The rural broadband market is less concentrated than the urban market, reflecting non-cellular fixed wireless operating in rural areas and the growth of LEO satellite services. Starlink has continued to increase its market share in rural areas, rapidly shifting the traditional market concentrations in rural.
- Data caps are increasing for rural WISP and 4G cellular fixed wireless plans, reflecting consumers' increased data needs and competition from competing technologies.

There are two distinct types of RSPs operating in the rural broadband market:

1. Vertically integrated players that can utilise their own networks to offer services. They may also sell services based on wholesale offerings from Chorus and satellite operators.
2. RSPs that only buy wholesale inputs from Chorus, satellite operators or MNOs through the RBI and individual MNO towers.

Retail market share

Nationally, Spark, One NZ and 2degrees serve 73% of the broadband market and 97.5% of the mobile market. The competition analysis throughout this report groups these three nationally significant RSPs collectively. This serves two purposes. It allows us to look at the competitive dynamics between the Largest 3 providers and other RSPs, and we can better understand the level of rivalry or competition that exists among the Largest 3.

Market concentration

Market concentration – or the extent to which a market is dominated by a few firms – is a key structural characteristic that influences competition and consumer choice.

There are several ways to look at market concentration. We have chosen to use both HHI and a simpler market concentration ratio:

- HHI analyses market shares of each firm in a market to determine a value of market concentration – an HHI between 1,500 and 2,500 indicates moderate concentration, whereas values above this indicate high concentration.
- The market concentration ratio (CR) looks at the market shares of the providers relative to the total market share. The analysis in this report uses CR3, which measures the market share of the three largest providers in a market, and CR5, which measures the five largest providers in a market.

We estimate that the residential fixed broadband market in rural areas is moderately concentrated with a CR3 of 67%, a CR5 of 77% and an HHI of 1,618 (Table 15). It is important to note this level of concentration can vary across different rural regions as WISPs often operate regional networks, leading to greater competition in some areas.

Table 15: Market concentration and HHI

| | Urban (residential) ¹³⁸ | Rural (residential) | National (residential and business) |
|---|---------------------------------------|------------------------|--|
| Largest 3 national providers % ¹³⁹ | 75% | 55% | 73% |
| CR3 | 75% | 67% | 73% |
| CR5 | 91% | 77% | 86% |
| HHI | 2,148 | 1,618 | 2,040 |

Source: Commission analysis of NIFF, Chorus, Annual Industry Questionnaire, Commission data

While both rural and urban broadband markets fall into the same general category of moderate concentration, there is a significant gap. The urban residential broadband market is more concentrated, with a CR3 of 75%, a CR5 of 91% and a higher HHI of 2,148, indicating a stronger dominance by the largest providers.

Historically, Spark held a large share of the rural market through its copper network.¹⁴⁰ While fibre remains unavailable to most rural consumers, alternative technologies such as fixed wireless and satellite have gained ground as consumers look shift away from copper services and demand for copper reduces in rural regions.

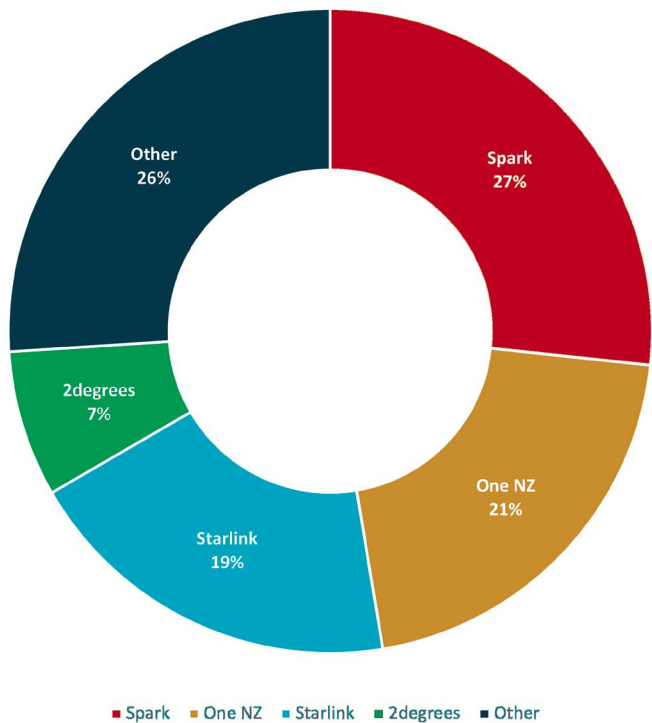
The three large national providers now rely more heavily on their cellular fixed wireless networks in rural areas and compete with non-cellular fixed wireless and satellite technologies provided by established regional providers and Starlink.

138 The difference between the Largest 3 providers and sum of percentages in Figure 9 is due to rounding.
139 This is the percentage market share of the Largest 3 national providers. In rural areas this is not the Largest 3 providers by market share.
140 Telecom originally owned and operated the national copper network before its separation into Spark and Chorus. Following the split, this infrastructure was transferred to Chorus, while Spark retained a customer base that continues to receive services over the copper network.

Rural residential market share

Figure 46 shows the residential retail broadband market in rural areas is made up of several large RSPs, including Spark, One NZ and Starlink. The other category, making up 26% of the rural residential broadband market, consists of many smaller providers such as WISPs that operate non-cellular wireless networks regionally.

Figure 46: Retail broadband market share in rural areas¹⁴¹



Source: Annual Industry Questionnaire, Commission data

Starlink is the third-largest provider in rural areas, with the growth of LEO satellite connections in recent years. Starlink has the potential to overtake the two traditional rural fixed wireless and copper RSPs, Spark and One NZ, with its current growth path. Despite the shifts in market share and the introduction of Starlink’s \$79 plan,

we continue to see MNOs pricing high on alternatives such as copper and fixed wireless.

However, Starlink will face competition with the introduction of Amazon’s LEO satellite service Project Kuiper, which is expected to launch later in 2025.

141 We cannot make a year-on-year comparisons this year as we collected only residential connection data in 2024. We will be able to do this comparison next year with another year of residential connection data.

Size of rural RSPs

Table 16 shows the customer base for the rural providers covered in our reporting. The rural retail broadband market is characterised by several large incumbent providers with over 10,000 customers offering services over copper and cellular fixed wireless networks. Starlink has also seen significant LEO satellite connection growth in recent years to compete with the traditional incumbent providers. New Zealand ranks first in the OECD for satellite broadband, with 1.1% adoption per 100 inhabitants.¹⁴²

Table 16: Size of rural RSPs

| Number of rural residential retail customers | Number of providers |
|--|---------------------|
| >50,000 | 2 |
| 10,001-50,000 | 2 |
| 5,001-10,000 | 3 |
| 1,000-5,000 | 15 |
| <1,000 | >30 |

Source: Commission data (as of June 2024)

142 <https://www.oecd.org/en/topics/sub-issues/broadband-statistics.html>

Retail offers

RSP offers in the retail telecommunications market are made up of several key aspects:

- Available network infrastructure (either through ownership or wholesale regulated/commercial access terms). In rural areas, this covers rural fibre, copper, 4G cellular fixed wireless broadband, non-cellular fixed wireless and satellite.
- Service performance characteristics such as download speeds, upload speeds, latency and data caps.
- Service add-ons such as subscription services or energy.

Network

As shown in Table 17, most major RSPs offer a 4G cellular fixed wireless service. These services cover some rural customers, mainly those closer to the urban fringe. Spark, One NZ (through its Farmside brand) and 2degrees offer rural cellular 4G fixed wireless plans, which have greater availability in rural areas and utilise the RCG towers funded through the RBI. However, these rural fixed wireless plans cost more than the urban equivalent plans. Some RSPs still offer copper broadband connections, while other RSPs do not offer any copper plans or only offer copper in limited cases.

In the retail section, we refer to large RSPs with over 20,000 residential connections as major RSPs. Collectively, these RSPs make up around 95% of the residential broadband market.

Table 17: Technology offerings in rural areas by major RSPs with a national presence

| RSP | Copper | 4G cellular fixed wireless | 4G cellular fixed wireless (rural) | LEO satellite |
|----------------------|------------------------|----------------------------|------------------------------------|---------------|
| Spark | ✓ | ✓ | ✓ | |
| Spark (Skinny) | ✓ | ✓ | | |
| One NZ | ✓ | ✓ | | |
| One NZ (Farmside) | ✓ | ✓ | ✓ | |
| 2degrees | ✓ | ✓ | ✓ | |
| 2degrees (Slingshot) | ✓ | ✓ | | |
| Mercury | | ✓ | | |
| Contact Energy | Unclear ¹⁴³ | ✓ | | |
| Starlink | | | | ✓ |

Source: Commission data (as of June 2024)

143 Availability of copper (ADSL and VDSL) services for new customers can only be confirmed after customers call Contact Energy.

Along with these national brands, some specialist rural providers offer a range of technology options, including the WISPs (Table 18). As well as operating their own regional networks, WISPs also tend to resell cellular fixed wireless, copper and fibre services. WISPs are also starting to build and operate their own rural fibre networks.

Table 18: WISP non-cellular fixed wireless networks by region

| Region | WISPs |
|-------------------------|--|
| Northland | Stratanet, Uber |
| Auckland | Stratanet, Uber |
| Waikato and Coromandel | Aonet, Full Flavour, Lightwire, Purelink, Wireless Dynamics |
| Bay of Plenty | Evolution Network, Full Flavour, Lightwire, RexNetworks, Wifi Connect |
| Gisborne and East Coast | Evolution Wireless, Gisborne.net |
| Taranaki | Primo |
| Hawke’s Bay | Aonet, Engage Technology, Evolution Wireless, Gisborne.net, InspireNet |
| Whanganui and Manawātū | Aonet, InspireNet, WIZ wireless |
| Wellington | InspireNet, WIZ wireless |
| Tasman | Kiwi Wifi, Thepacific.net |
| Marlborough | Accelerate Wireless, Kiwi Wifi, Thepacific.net |
| Canterbury | Amuri, Matnet, Netspeed, Ultimate Broadband, Vetta, Yonder Wireless |
| West Coast | Kiwi Wifi, Wifi Connect |
| Otago | CountryNet, NetSpeed, Unifone, Yrless |
| Southland | VelocityNet, Yrless |

Source: WISPA, Commission data (as of June 2024)

Table 19 shows the number of providers offering services over different technologies in rural areas. Consumers have a larger choice of providers for cellular fixed wireless (mostly RBI plans) and legacy copper services. Non-cellular fixed wireless services are offered by WISPs that operate regionally. This means that, while there are around 25 WISPs operating in rural areas, consumers may only have one WISP option available.

Table 19: Technology offerings by RSPs in rural areas

| Technology | Number of RSPs |
|-----------------------------|----------------|
| 4G cellular fixed wireless | Around 20 |
| Non-cellular fixed wireless | Around 25 |
| ADSL/VDSL copper | Around 40 |
| GEO satellite | 2 |
| LEO satellite | 1 |

Source: Commission data (as of June 2024)

Service characteristics – speed

Speed differentiation on broadband plans is something that RSPs can market and sell in cases where the underlying technology has the headroom. In such cases, the RSP can create different speed tiers to enable price differentiation across consumer segments depending on their online needs.

While we see speed differentiation for fibre in urban areas, most of the technologies available in rural areas are simply marketed as full speed – reflecting the speed limitations of most of the underlying technologies (Table 20).

Table 20: Speed tiers by technology

| Technology | Speed tiers |
|-----------------------------|---|
| Copper | No – although, where available, VDSL is faster than ADSL |
| Cellular 4G fixed wireless | No |
| Cellular 5G Fixed wireless | No |
| Non-cellular fixed wireless | Some providers |
| GEO satellite | Some providers |
| LEO satellite | No – deprioritised plans are available that may see slower speeds during peak hours |

Source: Commission data (as of June 2024)

Service characteristics – data caps

Data caps are used to manage end-user behaviour in locations where the technology and/or network capacity is more limited.

As shown in Table 21, data caps are a common feature of 4G cellular fixed wireless and non-cellular fixed wireless. Non-cellular fixed wireless providers often choose to provide unlimited data but use speed tiers to provide different plans.

Table 21: Data caps by technology

| Technology | Data caps imposed |
|-----------------------------|--|
| Copper | No ¹⁴⁴ |
| 4G cellular fixed wireless | Yes |
| Non-cellular fixed wireless | Yes |
| GEO satellite | Varies – many providers use progressive speed shaping ¹⁴⁵ |
| LEO satellite | No |

Source: Commission data (as of June 2024)

144 While some caps on data caps exist, these plans are uncommon.

145 Progressive speed shaping is used by some satellite providers to manage network traffic and ensure fair usage among all users. It involves gradually reducing the internet speed of users who exceed a certain data threshold within a billing cycle to prevent any single user from consuming excessive bandwidth, which could negatively impact the overall network performance for others.

Table 22 demonstrates that rural providers offer a variety of data caps to cater to consumers' different internet needs. The availability of rural unlimited data plans is becoming more common across the three MNOs and the larger WISPs, reflecting consumers' increased data needs and competition from competing technologies. 2degrees is the only MNO not providing an unlimited rural wireless plan.

Table 22: Cellular and non-cellular fixed wireless data caps in rural areas by RSP

| RSP | Technology | Data cap options | Unlimited plan available? |
|--------------------|-----------------------------|----------------------|---------------------------|
| Spark | Cellular fixed wireless | 60GB, 200GB | ✓ |
| One NZ (Farmside) | Cellular fixed wireless | 200GB, 400GB | ✓ |
| 2degrees | Cellular fixed wireless | 170GB | |
| AoNet | Non-cellular fixed wireless | | ✓ |
| Evolution Wireless | Non-cellular fixed wireless | 80GB, 120GB | ✓ |
| Gisborne.net | Non-cellular fixed wireless | | ✓ |
| InspireNet | Non-cellular fixed wireless | 150GB, 300GB, 1000GB | ✓ |
| Lightwire | Non-cellular fixed wireless | 150GB | ✓ |
| Primo | Non-cellular fixed wireless | 100GB, 250GB, 500GB | ✓ |
| Uber | Non-cellular fixed wireless | 20GB, 120GB | ✓ |
| Ultimate Broadband | Non-cellular fixed wireless | | ✓ |
| Unifone | Non-cellular fixed wireless | | ✓ |
| Yrless | Non-cellular fixed wireless | | ✓ |

Source: Commission data (as of June 2024)

Table 23 shows the different data caps offered by GEO satellite providers. Starlink does not use data caps on its plans but does offer a deprioritised plan (Residential Lite) that may provide lower speeds in peak periods.

Table 23: Satellite data caps by RSP

| RSP | Technology | Data cap options | Unlimited plan available? |
|----------|------------|------------------|---------------------------|
| Starlink | LEO | | ✓ |
| Gravity | GEO | 120GB, 180GB | ✓ |
| Brdy | GEO | 30GB, 50GB | ✓ |

Source: Commission data (as of June 2024)

Service add-ons

Bundling of telecommunications services (fixed and mobile services) or bundling of telecommunications services with non-telecommunications services (video streaming subscription, energy) is promoted by providers as offering single billing convenience and cheaper prices.

In our Rural Connectivity Study in 2023, we found that 3.5% of households in rural areas subscribed to a broadband/energy bundle. This is significantly lower than in urban areas, where 12.5% of households subscribe to an urban broadband/energy bundle. Bundling options are more limited outside urban areas as the large energy bundlers have chosen to focus on retailing fibre. Satellite and non-cellular wireless providers also do not tend to offer energy bundling options.

Landlines

Consumers are continuing to move away from traditional landlines. In 2024, the number of residential landlines nationwide decreased by 14% to 457,000.^{146,147}

The number of residential landlines using the old PSTN has decreased at an even higher rate, down 33% to 45,000.¹⁴⁸ Spark began decommissioning the PSTN in 2017 and had originally planned to have the network completely decommissioned in 2024. However, this was delayed due to factors such as COVID-19. As at June 2024, around 65% of PSTN switches had been decommissioned.^{149,150} Consumers who still wanted to have a landline were required to switch to an alternative broadband and voice service such as VoIP.¹⁵¹

Our data shows that, while more landlines exist in urban areas, rural consumers are more likely to still have a landline. This may be due to factors such as poorer mobile coverage in rural areas and the higher proportion of legacy copper connections in rural areas.

146 The numbers of voice connections have been sourced from our Annual Industry Questionnaire. These numbers may not be directly comparable with the numbers published in the 2023 Annual Monitoring Report, which were sourced through the Rural Connectivity Study data request.

147 This includes both powered voice services (for example, those using the PSTN) and non-line powered voice services (for example, VoIP).

148 Annual Industry Questionnaire.

149 Spark "Spark Annual Report FY24", page 45 - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/file/2024_Spark_Annual_Report.pdf

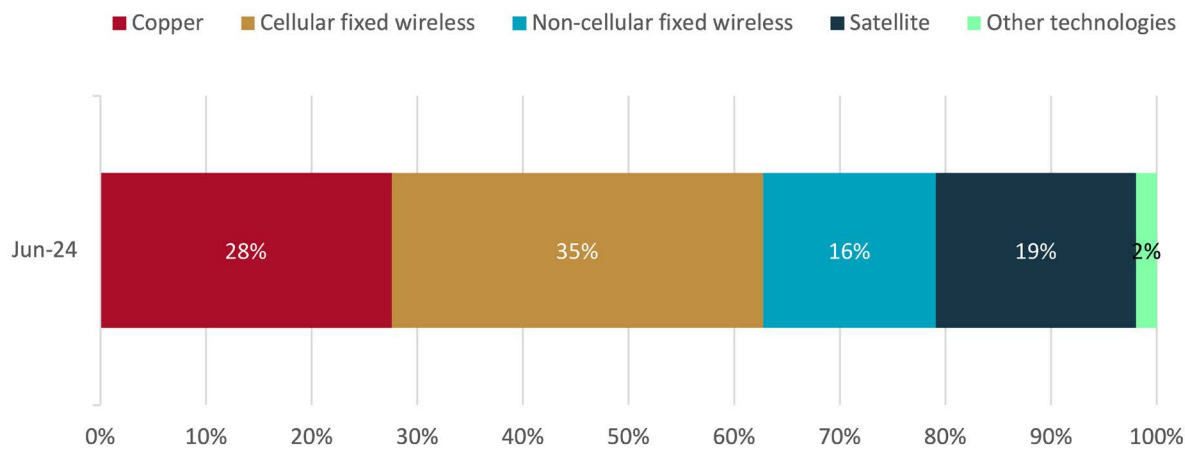
150 <https://one.nz/help/broadband/beyond-spark-pstn-closure/>

151 Ibid.

Retail share by technology

Figure 47 shows the split of technology across rural residential connections.

Figure 47: Estimated rural residential broadband connections by technology type



Source: Commission analysis of Crown Infrastructure Partners, Chorus, Commission data¹⁵²

Copper broadband connections have continued to reduce over the past year as consumers shift to fixed wireless and satellite alternatives. The number of copper broadband connections declined from 90,000 in June 2023 to 74,000 in June 2024.¹⁵³

Satellite continues to be the fastest-growing broadband technology following the entry of Starlink, with connections (both business and residential) increasing nationally from 37,000 to 58,000 over the past year, up by 60%. New Zealand continues to have the highest number of satellite connections per capita in the OECD.¹⁵⁴ Around 50,000 of these connections are residential connections in rural areas, making up around 19% of active rural residential connections. At current rates, satellite connections will overtake copper connections in rural areas within the next year.

Some homes and businesses will not have a fixed broadband connection but may instead use their phone's mobile data allowance to access the internet. While there has been an increase in unlimited mobile plans in recent years, the speed caps/fair usage restrictions on these plans mean that they are only a viable alternative for people with low usage needs. We are currently unaware of any data on the number of homes and businesses that are mobile-only in New Zealand.

152 We have changed the methodology for how we calculate technology splits. This year, we have only used data provided at an address level from providers and have also only used residential connections, so we are unable to make any year-on-year comparisons, apart from copper. Copper connections are based on Chorus public reporting. Cellular, non-cellular and satellite connections are based on the Annual Monitoring Report data request.

153 Chorus Quarterly Connections Updates - <https://company.chorus.co.nz/investors/financial-reports/quarterly-connection-updates>

154 Fixed and mobile subscriptions per 100 inhabitants - <https://www.oecd.org/en/topics/sub-issues/broadband-statistics.html>

Concentration of rural technologies and plans

Alongside this report, we publish an interactive geospatial map. This map allows users to look at the concentration of broadband technologies and plans in New Zealand. For illustrative purposes, this report shows some specific areas, technologies and plans as examples. However, readers can use the map to look at any area they want. The map can be found [here](#).

The maps in Figure 48 and Figure 49 show the concentration of rural non-cellular fixed wireless and satellite connections, as shown by the percentage of connections in each SA2 area.¹⁵⁵

Areas coloured yellow have a low concentration of the plan, whereas areas coloured dark red show areas of higher concentration. Grey areas are where no connections exist for the plan.

¹⁵⁵ SA2 areas aim to reflect communities that interact together socially and economically. Urban SA2 areas generally have a population of 2,000–4,000 residents, while SA2s in rural areas generally have a population of 1,000–3,000 residents – <https://www.stats.govt.nz/assets/Methods/Statistical-standard-for-geographic-areas-2023/Statistical-standard-for-geographic-areas-2023.pdf>

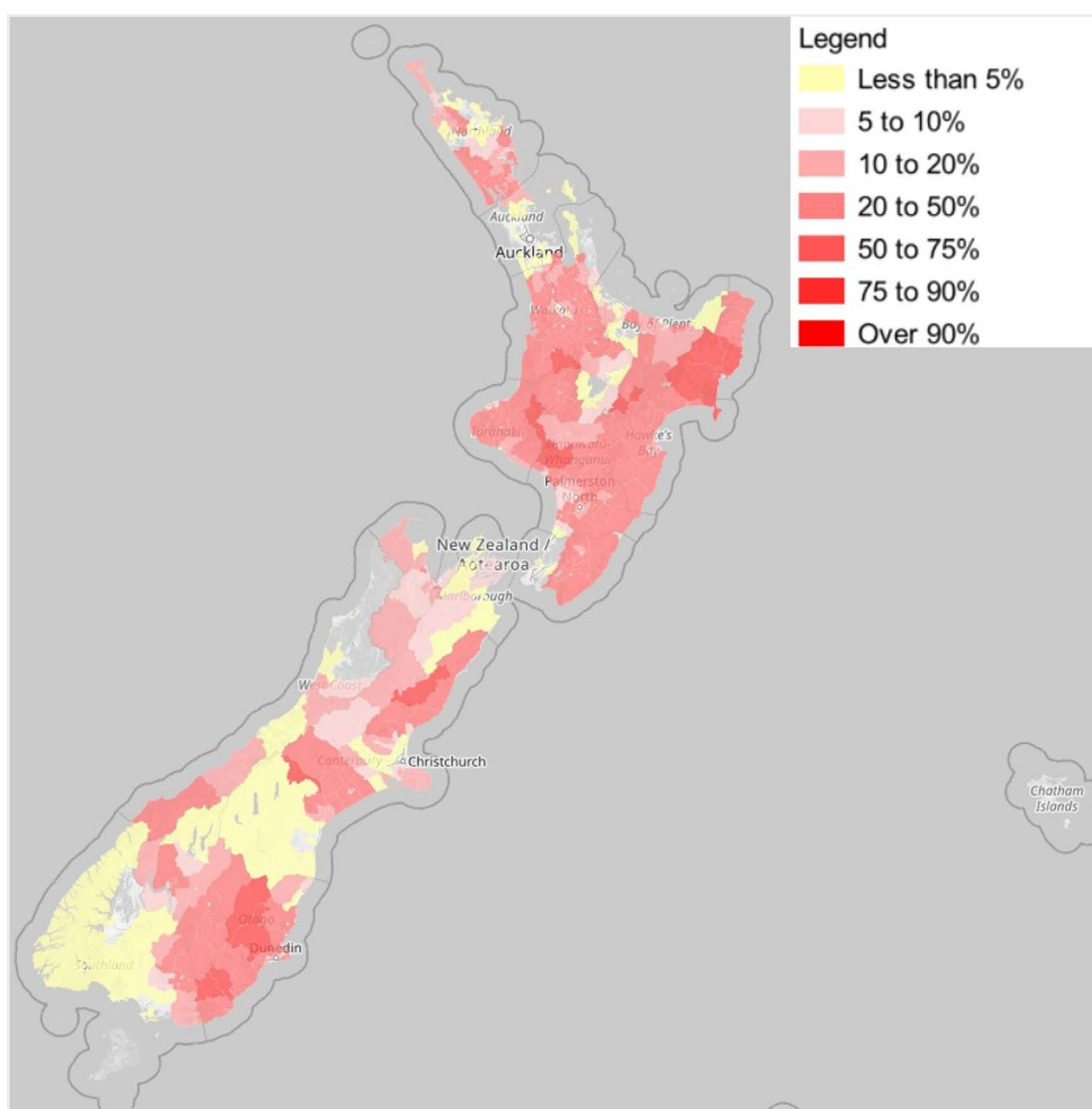
Non-cellular fixed wireless

Non-cellular fixed wireless networks are operated by WISPs in specific regional areas. WISP networks cover a majority of rural areas making a significant collective contribution to rural connectivity.¹⁵⁶ As some areas do not have a non-cellular fixed wireless network available,

there are pockets of lower concentration of connections across rural areas of New Zealand.

Figure 48 shows the concentration of non-cellular fixed wireless plans across New Zealand. Regions with higher concentrations of connections on non-cellular fixed wireless include Otago and Gisborne.

Figure 48: Concentration of rural non-cellular fixed wireless connections



Source: Commission data

¹⁵⁶ Commission data.

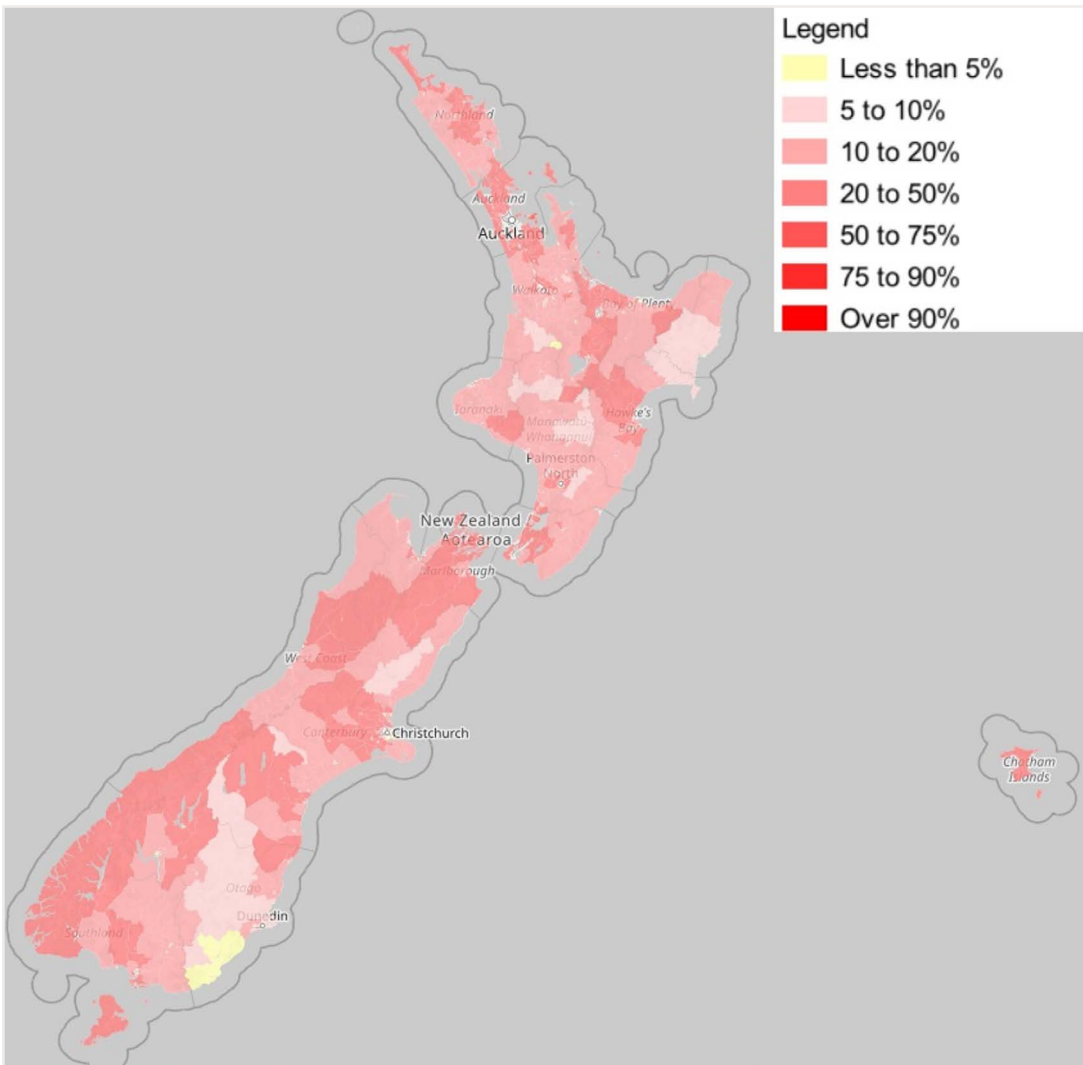
Satellite

Satellite broadband is available to service all parts of New Zealand capable of receiving a satellite signal. LEO satellite broadband can provide higher download speeds than other competing rural technologies but is typically more expensive than fixed wireless.¹⁵⁷ Higher concentrations of satellite connections may

show areas that lack alternative technologies or areas of higher income.

Figure 49 shows the concentration of satellite plans across New Zealand. Areas with higher concentrations of connections on satellite include the rural areas surrounding Auckland, Wellington and Christchurch.

Figure 49: Concentration of rural satellite connections



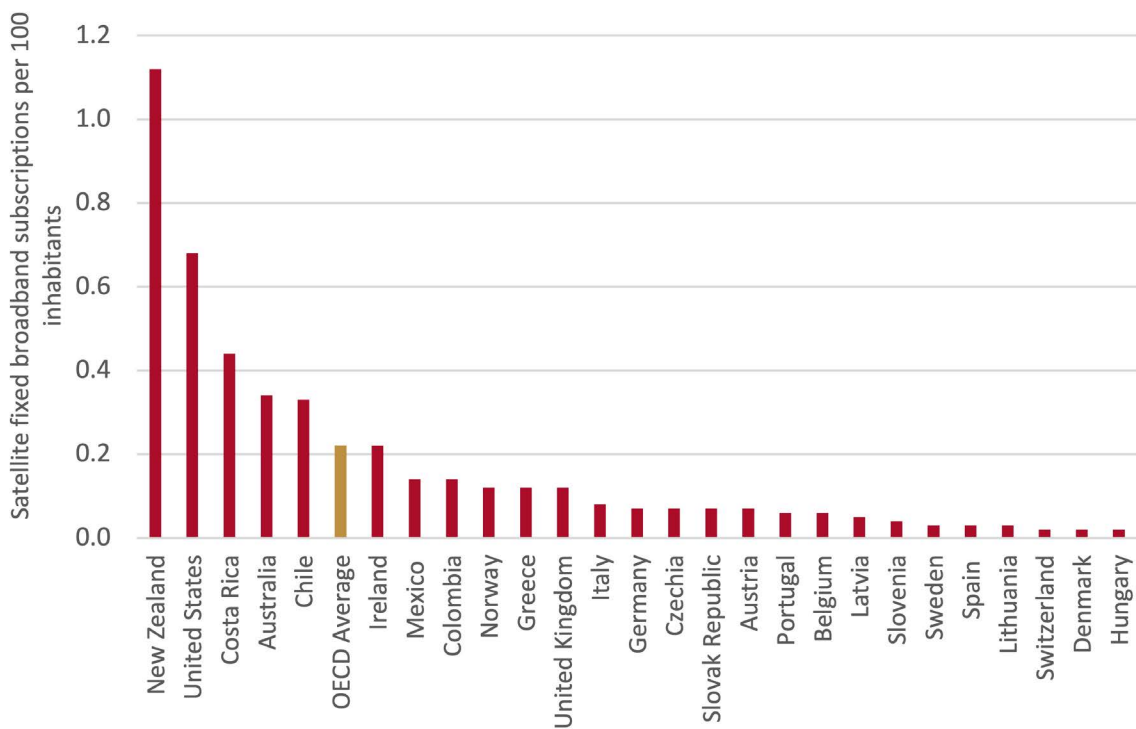
Source: Commission data

157 While Starlink's Residential Lite plan may have a cheaper monthly cost than some rural fixed wireless plans, satellite connections tend to have higher equipment and set-up costs.

OECD satellite connections

Figure 50 shows that New Zealand has the highest number of satellite connections per 100 inhabitants of any OECD country as of June 2024.¹⁵⁸

Figure 50: OECD satellite fixed broadband subscriptions per 100 inhabitants (June 2024)



Source: OECD¹⁵⁹

Satellite connections have continued to grow significantly since the entry of Starlink into the New Zealand market in 2021, with around 58,000 connections (both residential and business) as of June 2024, up 60% on last year. This growth has occurred mainly in rural areas where consumers previously had limited choice of high-speed broadband options. Consumers have begun to transition away from lower-performing technologies such as ADSL copper connections.

While most satellite broadband connections are in rural areas, there are around 6,000 urban residential connections in 2024, up from around 3,000 in 2023. The vast majority of these are LEO satellite connections. GEO satellite connections have reduced over the last few years as consumers move to higher-performing technologies.

¹⁵⁸ <https://www.oecd.org/digital/broadband/broadband-statistics/>
¹⁵⁹ <https://www.oecd.org/digital/broadband/broadband-statistics/> - note that not all countries had data supplied.

Consumers of telecommunications services are presented with a wide range of retail offers that are products of the underlying market structure – the network infrastructure, its capabilities, ownership and regulatory settings.

Whether consumers understand and act on these offers is a product of the information available to them, including through marketing, and their innate preferences and behaviours.

2024 highlights

- Rural consumers could benefit from switching to an alternative technology. Multiple factors such as the understanding of alternative technologies, the ability to compare plans, unclear usage information and coverage maps and trust in the copper network may be impacting the decision of rural consumers not to switch.

Understanding

The understanding of different technologies available to rural consumers has been a large driver in rural consumers not switching to better-performing alternative technologies. Many rural consumers may not be fully aware of the alternative technologies available that may provide better performance at a lower price than their current services.

Commission research found that the marketing of new technologies can be inconsistent and unclear for consumers.¹⁶⁰ This can lead to confusion about what new technologies can offer, making it difficult for consumers to compare providers and make informed decisions. This may impact rural consumers' decisions on whether to switch broadband technology.

Another issue found was difficulty in comparing plans.¹⁶¹ Broadband plans can be complex, including several add-ons and bundled offers, making it hard for consumers to determine which plan best suits their needs.

Usage information provided to consumers is also sometimes inadequate to assess what technology and plan would best suit consumers' needs.¹⁶² Clear and comprehensive usage data is important for consumers to identify plans that offer the best value for their specific needs – for example, deciding whether to take a capped or uncapped plan.

Coverage maps also play a crucial role in consumer decision making in rural areas. This is especially important for wireless technologies where geography can impact coverage. It was found that these maps can be inconsistent, inaccurate or difficult to interpret, leading to confusion about the actual availability and performance of different broadband services in the area.¹⁶³

Despite the decline in copper broadband connections in rural areas, which currently make up around 28% of rural residential broadband connections, many consumers continue to use copper services.¹⁶⁴ This is despite the availability of higher-performing alternatives such as LEO satellite and fixed wireless networks, which are accessible to around 97% of copper connections as of 2023.¹⁶⁵ In many cases, consumers may be paying more for their copper service than they would for these alternatives.

Trust in copper technology may also be a factor in why some rural consumers are not switching to alternative technologies. Many rural consumers have relied on copper connections for many years and may be reluctant to switch to newer technologies due to concerns about reliability and performance. Additionally, some consumers may choose to retain a copper landline for voice services instead of switching to VoIP services bundled with broadband connections.

¹⁶⁰ Commerce Commission "Improving Retail Service Quality: Final Baseline Report" (9 December 2021), page 17 – https://comcom.govt.nz/_data/assets/pdf_file/0023/272930/Improving-Retail-Service-Quality-Final-Baseline-Report-9-December-2021.pdf

¹⁶¹ Ibid, page 17.

¹⁶² Ibid, page 18.

¹⁶³ Ibid, page 17.

¹⁶⁴ Commission data.

¹⁶⁵ Commission data.

Market outcomes | Putanga māketete

Market outcomes flow from market structure and cover the performance of telecommunications infrastructure and the levels of wholesale and retail pricing through to consumer affordability and satisfaction.

Infrastructure | Hanganga

Reliable, adaptable, and high-performing telecommunications infrastructure is fundamental for positive connectivity outcomes in Kiwi homes and businesses.

2024 highlights

- Download speeds for Starlink (214Mbps – 24/7 speed) are approximately four times faster than the next-best alternative that we measure (rural 4G cellular fixed wireless 51Mbps).
- Our testing for Starlink's Residential Lite (deprioritised) service shows that the service is around 12% slower than Starlink's main service during peak times, clocking 157Mbps compared to 176Mbps.¹⁶⁶

¹⁶⁶ Starlink launched its Residential Lite service in February 2024. The service is half the price of the standard service, costing \$79 per month, and Starlink may deprioritise traffic on this service at busy times.

Performance

Broadband performance is about how much and how quickly data can move between the end user and the online content they are accessing. This data is moving back and forth across telecommunications infrastructure – from the end user’s device to servers around the world. We independently measure this through our MBNZ programme.

Our analysis of broadband performance in rural areas covers ADSL, VDSL, 4G cellular fixed wireless and LEO satellite (Starlink). At this stage, we do not have sufficient performance data on non-cellular fixed wireless in rural areas.

International speed comparisons and commentary on router performance can be found in the urban chapter.

Broadband speed

Download and upload speed in Mbps, as measured in our MBNZ programme, is the speed data travels between the internet and the router in the home.

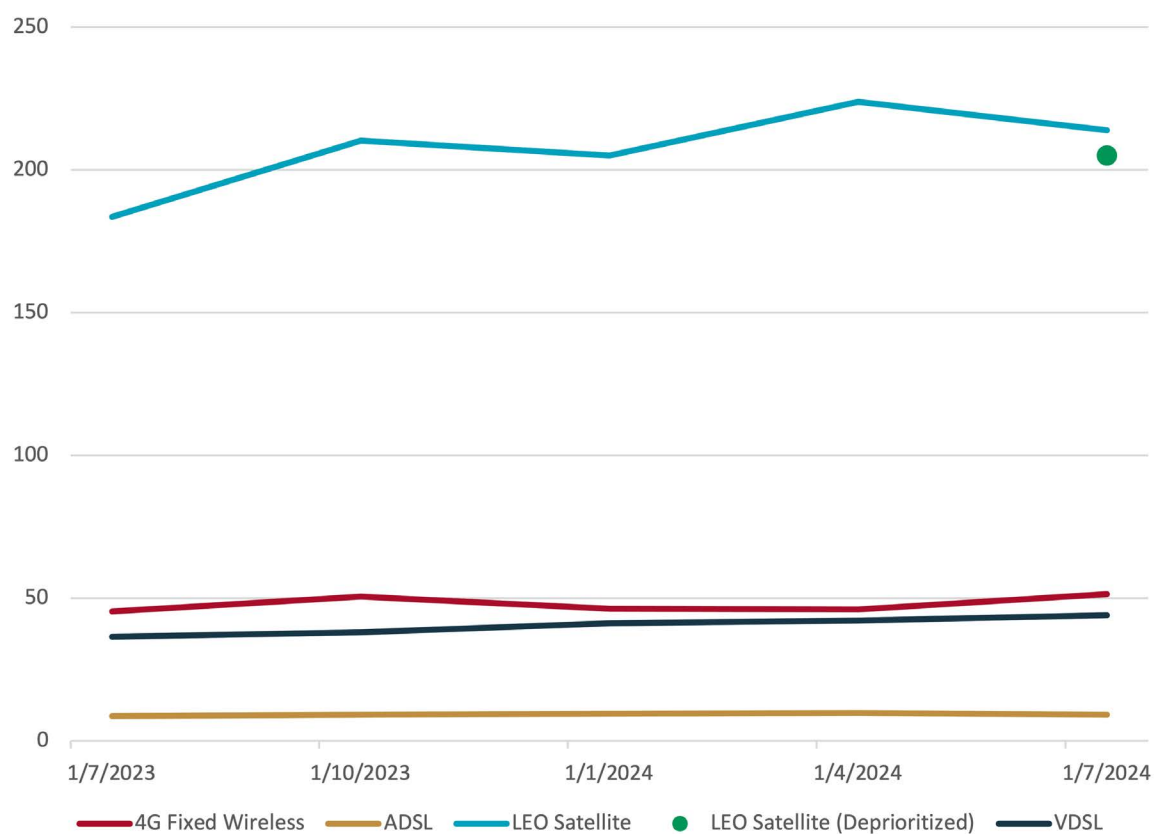
The table below provides a guide on what activities various download speeds allow. Note that other factors such as latency and the location of hosted content will impact the online experience.

| Download speed | Online experience |
|----------------|---|
| 0–5Mbps | Browse the internet, use search engines, use email, watch videos in lower resolutions (up to 720p). Individual large files take a long time to download (1GB at 5Mbps takes over 25 minutes). |
| 5–40Mbps | Possibly able to stream up to UHD on one device or stream HD (1080p) on multiple devices. Able to download large individual files in a reasonable amount of time (1GB at 40Mbps takes just over 3 minutes). |
| 40–100Mbps | Comfortably able to stream UHD without interruption, and have multiple people use streaming services. Able to download larger files (such as smaller modern game releases) in a reasonable amount of time (20GB at 100Mbps takes just over 25 minutes). |
| 100–500Mbps | Multiple users can stream UHD video without interruption. Large files download very quickly (1GB at 500Mbps takes 16 seconds). Larger game releases download in a reasonable amount of time (80GB at 500Mbps takes just under 22 minutes). |
| 500–1,000Mbps | Able to download even the largest video games very quickly (120GB at 1000Mbps takes 16 minutes). |

Upload speeds should be considered alongside download speeds. The main applications where the impact of upload speed is apparent are file transfers and video conferencing. For example, a lower upload speed will mean that it takes longer for files to sync or email attachments to be applied.

Figure 51 shows the average rural download speeds for the technologies measured by the MBNZ programme over the year to July 2024.

Figure 51: Average rural download speed (24/7)



Source: Commission analysis of MBNZ data

Based on July 2024 testing, download speeds for rural fixed wireless broadband (51Mbps) are around 10% slower than the same in urban areas (57Mbps). VDSL connections tend to achieve similar download speeds to 4G wireless.

ADSL customers averaged 9Mbps, which restricts the user experience for data-hungry applications such as streaming, video conferencing and gaming. % of the remaining ~37,000 ADSL households or premises have access to at least one terrestrial wireless broadband alternative.¹⁶⁷

July 2024 testing shows that LEO satellite rural download speeds (214Mbps) are 320% higher than the next-best alternative (rural 4G fixed wireless 51Mbps) that we measure.

The download speed of the cheaper Starlink Residential Lite LEO satellite service (205Mbps) is 302% faster than rural 4G fixed wireless. Starlink launched its deprioritised service in February 2024, and we began testing the service in July 2024.

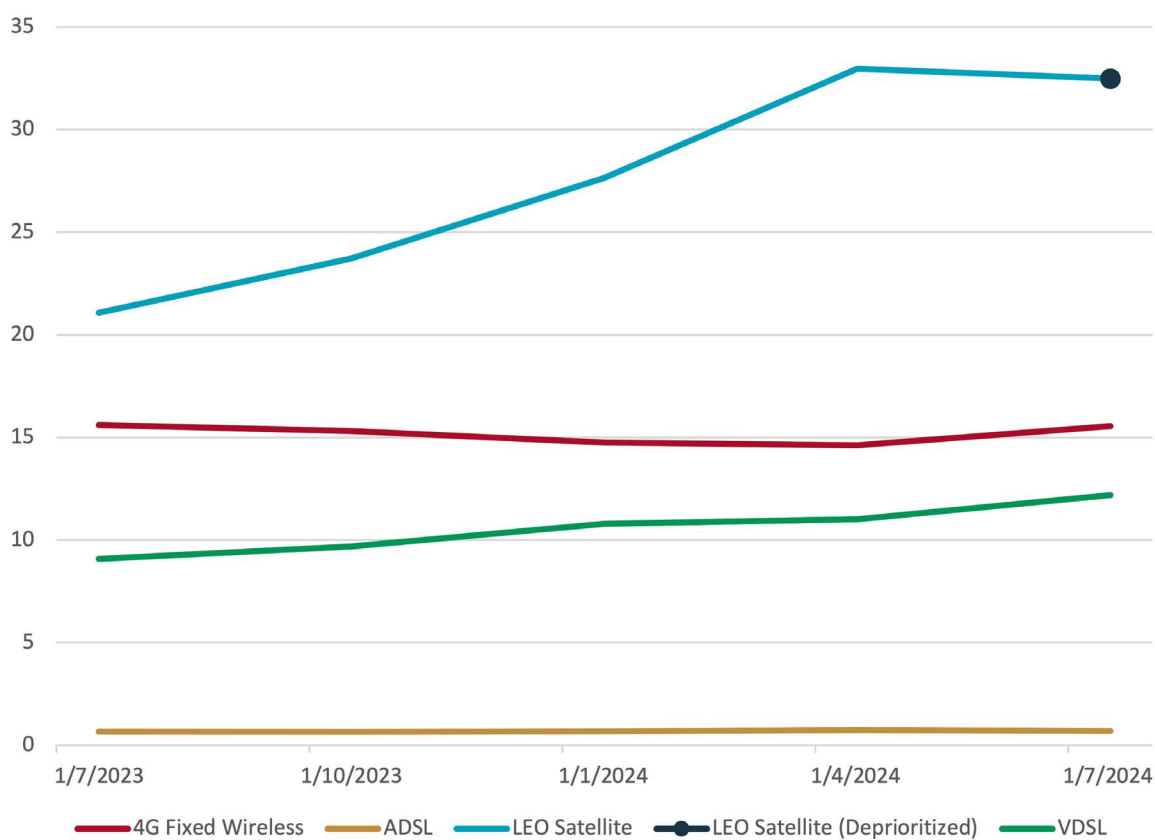
LEO satellite peak time speeds are slightly more differentiated – 157Mbps for the Residential Lite service and 176Mbps for the standard residential service.¹⁶⁸ As more users connect to Starlink's service, we may see more differentiation in its speeds, prioritising full-price-paying customers as the network gets busier. However, at the current time, consumers are unlikely to experience any noticeable effects from this differential in speeds.

¹⁶⁷ Commerce Commission "Copper Services Investigation Under Section 69AH of the Telecommunications Act: Report to the Minister for Media and Communications on whether Schedule 1 should be altered in respect of regulation of the relevant copper services" (12 March 2025) - https://comcom.govt.nz/_data/assets/pdf_file/0036/364788/Copper-Services-Investigation-Draft-recommendation-report-12-March-2025.pdf

¹⁶⁸ We define peak hours as 7pm to 11pm daily.

Figure 52 shows the average rural upload speeds for the technologies measured by the MBNZ programme over the year to July 2024.

Figure 52: Average rural upload speed (24/7)



Source: Commission analysis of MBNZ data

Based on July 2024 testing, average rural upload speeds for ADSL (1Mbps) are consistent with last year's results. VDSL upload speed has increased from 9Mbps in July 2023 to 12Mbps in 2024. Factors could include network improvements and users with worse than average experiences shifting to an alternative broadband technology.

Upload speeds for rural cellular 4G fixed wireless (16Mbps) are slower than in urban areas (23Mbps) but consistent with 2023 results. LEO satellite upload speeds have improved from 21Mbps in 2023 to 32Mbps in 2024 for both the standard service and the Residential Lite service, with no drop-off in performance for the Residential Lite service. LEO satellite upload speeds performed better than copper and cellular 4G fixed wireless in rural areas.

Overall, ADSL, VDSL and cellular 4G fixed wireless speeds have remained steady across our reporting periods, with the minor changes for VDSL and cellular 4G fixed wireless unlikely to be noticeable by consumers. Our MBNZ programme shows the order of magnitude improvement in Starlink performance relative to the existing rural technologies we measure.

The results indicate that consumers on ADSL are unlikely to be able to do much more than basic browsing, whereas VDSL and cellular 4G fixed wireless support a fuller online experience for a smaller household. LEO satellite represents a significant step up to support the online experience of larger households.

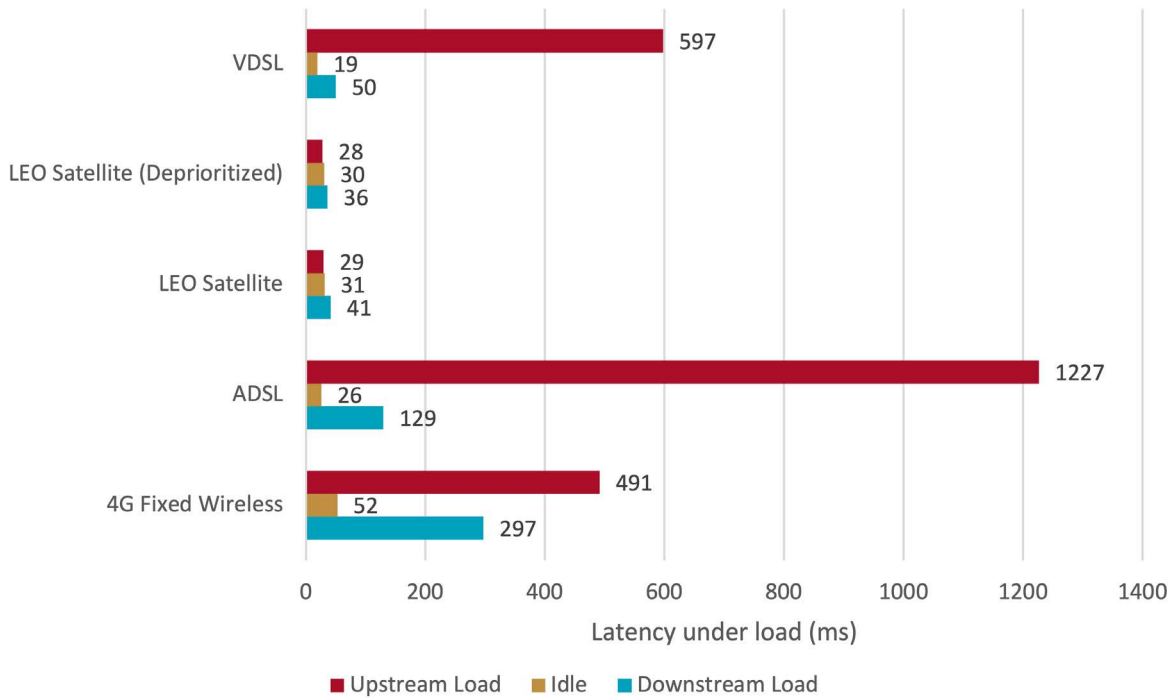
There are not enough whitebox volunteers for WISP performance results. In general, WISPs advertise speeds of between 5Mbps and 50Mbps on their non-cellular wireless networks.

Latency under load

Latency under load refers to the end-to-end latency of an internet connection when the network is loaded with traffic for a period. In our MBNZ testing, we run multiple speed tests in parallel as a proxy for a more heavily utilised network connection. This test is more indicative of real-world usage – multiple devices in the home competing for bandwidth.

Figure 53 shows that latency under load has a significant impact on performance, particularly for copper connections, with ADSL the most impacted. Its latency of 1227ms is likely to impact the performance of most online activities, aside from basic web browsing. LEO satellite performs much better under load than the other rural technologies we test, with latencies that are equivalent to Fibre 50 and Fibre 300. Downstream latency under load has improved on last year from 71ms down to 41ms, which will mean improvements to performance for applications such as video gaming and video conferencing.

Figure 53: Average rural latency under load (24/7)



Source: Commission analysis of July 2024 MBNZ data

Netflix¹⁶⁹

Netflix is the most popular subscription streaming service in New Zealand, with 38% of Kiwis aged 15 and older using the service in 2024. As such, the ability to stream Netflix in UHD is an experiential measure included in MBNZ.

Note that some aspects of performance are outside the control of infrastructure owners such as Netflix encoding choices/policies.

Our MBNZ results reflect not just the performance of the infrastructure and RSPs but also any changes Netflix makes in the background – in particular, video and audio encoding, which is the process of compressing files (making them smaller to download) without compromising the quality.

Results from our July 2024 MBNZ testing show that ADSL struggles to reliably stream UHD Netflix at all (Figure 54). Once the household goes to two or more simultaneous UHD streams, the only reliable technology is LEO satellite.

169 <https://www.nzonair.govt.nz/news/where-are-the-audiences-2024/>

Figure 54: The proportion of rural households that can reliably stream UHD from Netflix

| | | | | | |
|--|---------|---------|---------|---------|------------------------------------|
| ADSL Non-Fibre Areas, n = 34 | NETFLIX | NETFLIX | NETFLIX | NETFLIX | 0 simultaneous UHD video streams |
| | 9% | 0% | 0% | 0% | |
| VDSL Non-Fibre Areas, n = 42 | HD | HD | HD | NETFLIX | 1-2 simultaneous HD video streams |
| | 85% | 68% | 50% | 32% | |
| VDSL Non-Fibre Areas, n = 42 | UHD | UHD | NETFLIX | NETFLIX | 1-2 simultaneous UHD video streams |
| | 88% | 55% | 36% | 21% | |
| 4G Fixed Wireless Non-Fibre Areas, n = 59 | HD | HD | HD | HD | 4+ simultaneous HD video streams |
| | 100% | 100% | 98% | 93% | |
| 4G Fixed Wireless Non-Fibre Areas, n = 59 | UHD | UHD | NETFLIX | NETFLIX | 1-2 simultaneous UHD video streams |
| | 80% | 63% | 46% | 27% | |
| LEO Satellite Non-Fibre Areas, n = 77 | HD | HD | HD | HD | 4+ simultaneous HD video streams |
| | 100% | 100% | 93% | 88% | |
| LEO Satellite (Deprioritized) Non-Fibre Areas, n = 49 | UHD | UHD | UHD | UHD | 4+ simultaneous UHD video streams |
| | 100% | 99% | 96% | 86% | |
| LEO Satellite (Deprioritized) Non-Fibre Areas, n = 49 | UHD | UHD | UHD | UHD | 4+ simultaneous UHD video streams |
| | 100% | 100% | 96% | 65% | |
| LEO Satellite (Deprioritized) Non-Fibre Areas, n = 49 | HD | HD | HD | HD | 4+ simultaneous HD video streams |
| | 100% | 100% | 100% | 100% | |

Source: Commission analysis of MBNZ data

Remote working

Lower latency is important for a good experience using video conferencing services.

For someone on a video call, higher latency will result in a longer delay between users receiving audio or video from the person or people at the other end of the call. Higher latency can also cause video calls to jump or drop out more often.

Server location is another factor that affects the latency of video conferencing services. Services that use servers geographically further away from users will experience higher latency as traffic is required to travel further between the server and the user.

InternetNZ research showed that, in 2024, 52% of employed New Zealanders do the type of work that allows them to work from home. Of these workers, 73% worked from home all or some of the time.¹⁷⁰

Video conferencing service latency is particularly important for remote working. This becomes increasingly important in rural areas as well as urban, as we expect to see increasing numbers of digital nomads traversing rural areas of New Zealand and potentially more people moving to urban fringe or rural areas due to the cost of living.

Our MBNZ programme tests performance across technologies for different video conferencing services. Figure 55 shows the average latency of different technologies to the most popular video conferencing services, on free accounts only. Fibre plans (Fibre 50, Fibre 300 and Fibre Max) have the lowest latency across all services. In some cases, a paid account will result in a lower latency (better). For example, Zoom provides paid subscribers with access to servers geographically nearer to the users than for unpaid subscribers. This results in lower latency for paid subscribers.

Out of ADSL, VDSL, 4G cellular fixed wireless and LEO satellite, we can see that copper and satellite services tend to have lower latencies to video conferencing services, and 4G cellular fixed wireless has higher latencies.

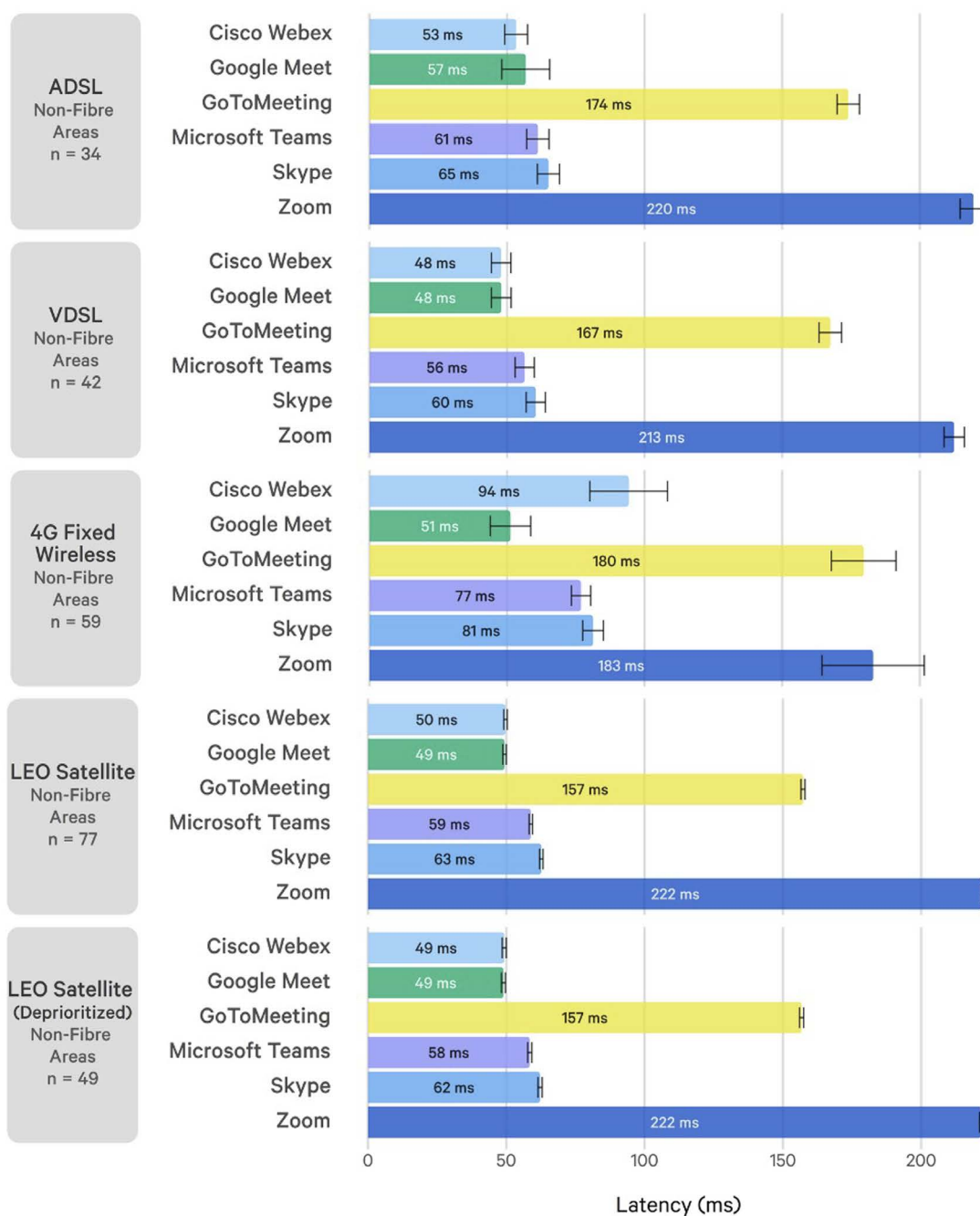
¹⁷⁰ Internet NZ | Ipurangi Aotearoa "New Zealand's Internet Insights: 2024 Survey Findings", page 40 - <https://internetnz.nz/assets/Archives/New-Zealands-Internet-Insights-2024.pdf>

Figure 55: Latency to servers of different video conferencing services using free accounts by broadband technology type

Fibre Areas only. Results are using free accounts only.

Average of household average latency, lower is better.

The number of Whiteboxes contributing to each result is shown under each plan name (eg n = 34).



Source: SamKnows analysis for Commerce Commission

Overall, for video conferencing, VDSL and 4G wireless provide better latency performance compared to ADSL, but they still fall short of the low latency offered by fibre. LEO satellite presents a promising alternative with lower latency than traditional satellite services, but it is still subject to variability based on external factors.

In-home router performance

We recently partnered with Consumer NZ to test the performance of common routers. This research was limited to fibre routers and some routers that do both fibre and fixed wireless. Details can be found in the urban section.

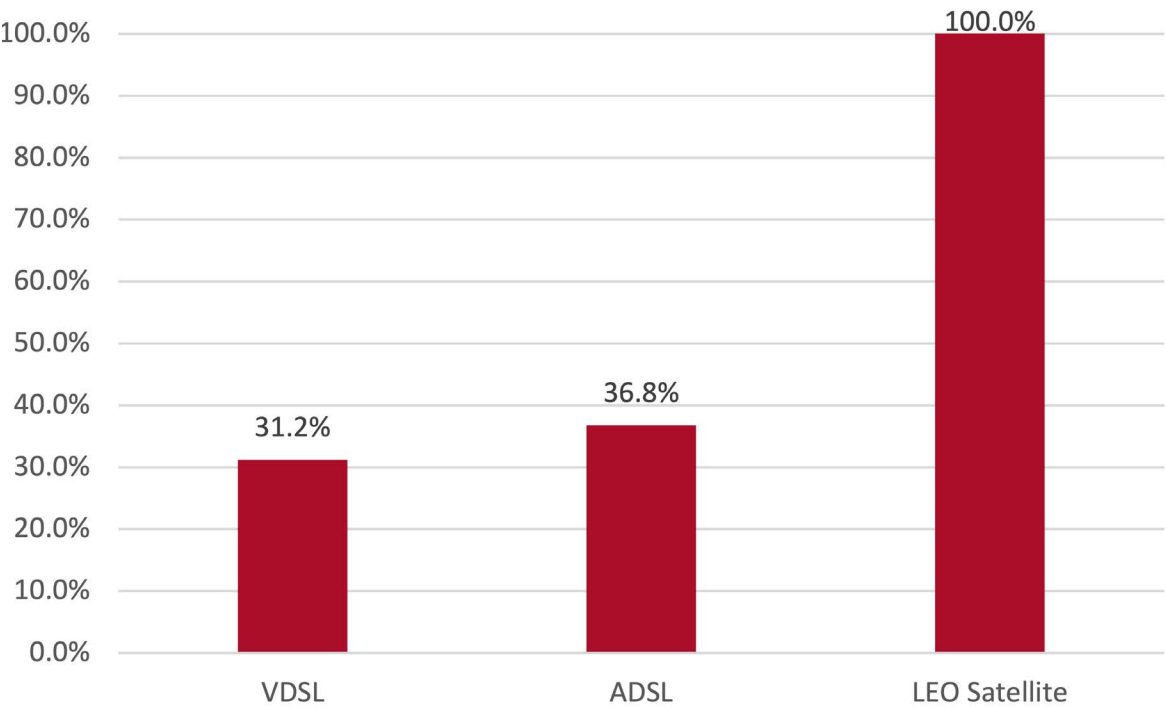
Reliability

We receive data on the number of and duration of faults (defined as a service interruption to a broadband connection that is not due to customer premises equipment such as the router) for fibre, copper and LEO satellite connections. We have again not included cellular or non-cellular fixed wireless data around faults due to variances in data quality. We are consulting with industry on better ways to gather consistent information about terrestrial wireless network service interruptions.

Over the 2 years from July 2022 to June 2024, connections in rural locations experienced more frequent service interruptions on average than those in urban areas and waited longer for service restoration.

100% of LEO satellite connections experienced one or more faults due to three faults that affected every connection. Unlike terrestrial disruptions, which typically affect localised connections on the network, LEO satellite interruptions can impact all users within the satellite's coverage area. This nationwide risk is important to consider as the number of LEO satellite connections grows.

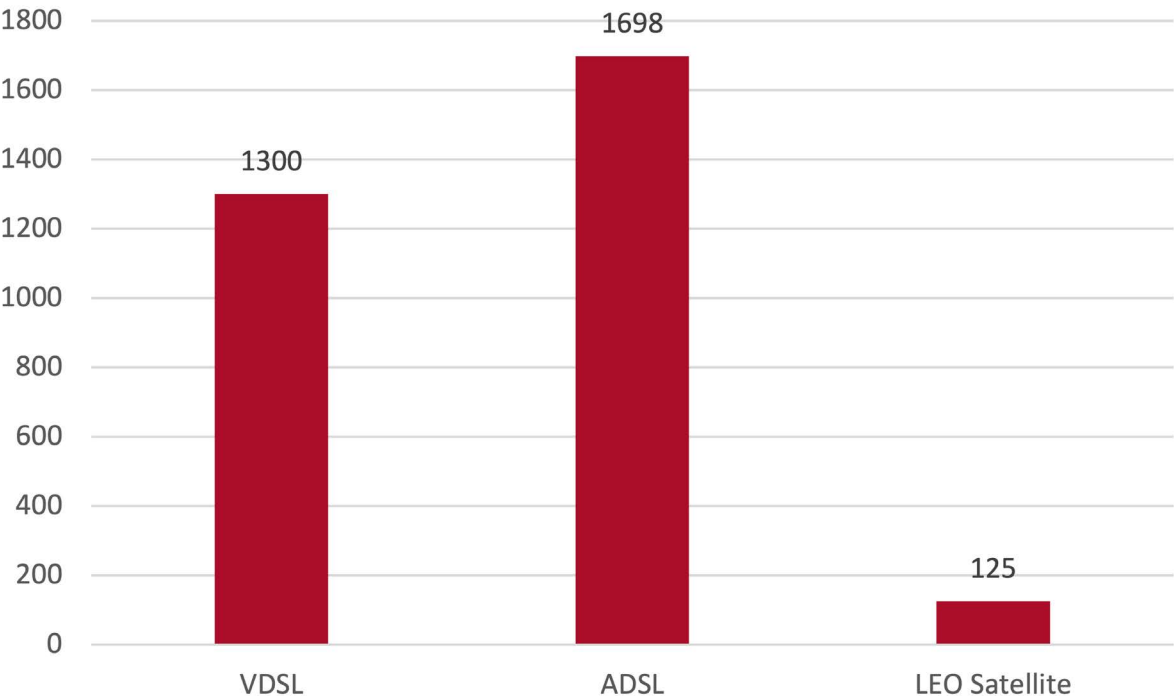
Figure 56: Connections experiencing one or more faults between July 2022 and June 2024



Source: Commission data

In rural areas, copper faults take longer to resolve than in urban areas. Rural ADSL faults take 28 hours on average to fix (Figure 57). ADSL lines are often in remote areas, leading to longer travel and investigation times for field technicians. Some RSPs offer alternatives such as large mobile data caps during copper service interruptions to ensure basic connectivity for rural households.

Figure 57: Average fault duration (average minutes per fault) between July 2022 and June 2024



Source: Commission data

Overall, for rural copper, the key takeaway is that we are seeing a third of lines experience faults and these take 25 hours to fix.

The three LEO satellite faults took less time to restore (125 minutes on average) compared to

VDSL faults (1,300 minutes on average) and ADSL faults (1,698 minutes on average). While we can see that LEO satellite faults may affect a larger number of connections concurrently, the duration of the impact is shorter than for copper connections.

Wholesale-level pricing plays an important part in shaping retail-level pricing for consumers. Regulatory oversight or obligations commonly apply at this level of the market.

2024 highlights

- Copper wholesale prices increased by 5.6% during the year.

Copper pricing

In December 2023, Chorus increased the wholesale price for its copper bitstream products, following the annual legislated CPI price adjustments to Chorus's regulated copper services.¹⁷¹ Its current price of \$51.08 sits between its price for Fibre 50 at \$50.43 and Fibre 300 at \$53.54 (Table 24).

Table 24: Chorus wholesale prices

| Plan | 2023 | 2024 | % change |
|------------|---------|---------|----------|
| Copper UBA | \$48.35 | \$51.08 | 5.6% |

Source: Chorus ¹⁷²

Wholesale cellular fixed wireless broadband and satellite broadband pricing

We do not currently have information on the pricing of wholesale cellular fixed wireless services or wholesale satellite broadband services. We note that these services are subject to contractual terms agreed by wholesalers and retailers.

171 Chorus "FY23 Financial Results - Investor Presentation" (21 August 2023) - <https://assets.ctfassets.net/7urik9yedtcq/5HEZKMCr51rFgSQ76jQdAW/5ac859f42f9ccc37f3a1296dd4750ecf/chorus-financial-results-full-year-fy23-02-investor-presentation.pdf>
172 Ibid.

Retail pricing outcomes are based on the underlying infrastructure or wholesale costs but also take into account competitive dynamics, relativities between offers and consumer demand.

2024 highlights

- The price for a basic copper service in New Zealand is \$16 per month more expensive than the OECD average, down from \$28 more expensive last year as OECD average pricing became more expensive.
- Rural 4G cellular fixed wireless plans are 40% more expensive than urban plans, with an average price of \$115 per month in rural areas compared to \$69 in urban areas, and more likely to have a data cap.
- The launch of Starlink Residential Lite at \$79 per month in rural areas offers performance similar to urban fibre at comparable prices. While 4G wireless retailers reduced some prices after Residential Lite launched, they didn't match Residential Lite. Other providers such as WISPs didn't cut prices, indicating a focus on non-price differentiation.

Prices

We use TechInsights' price benchmarking database for some aspects of our pricing analysis. TechInsights' benchmarks cover plans from incumbent providers who serve at least 70% of customers in each country. In the case of New Zealand, Spark, One NZ, 2degrees and Slingshot are the brands included.

Copper prices and wholesale flow-through

The wholesale price of copper has increased by just under \$3, or 6%, over the year. In general, RSPs have not passed on that increase, choosing to hold or decrease the price for copper broadband (Table 25).

Table 25: Retail copper broadband monthly rental prices in rural areas (ex. landline)

| RSP | June 2022 | June 2023 | June 2024 |
|----------------------|-----------|-----------|-----------|
| Spark | \$105 | \$112 | \$112 |
| One NZ | \$79 | \$94 | \$92 |
| 2degrees | \$91 | \$94 | \$95 |
| 2degrees (Slingshot) | \$85 | \$99 | \$77 |
| Spark (Skinny) | \$73 | \$80 | \$75 |

Source: RSP websites, Commission data

There continues to be a large variance in the broadband prices offered by major RSPs in rural areas. The margin between monthly wholesale (UBA \$51.08) and retail prices ranges from \$24 for Skinny through to \$61 for Spark – a \$37 variation, up from \$32 last year.

Consumers can purchase a landline service, usually for an additional \$10 per month, except from Skinny, which does not offer the service.

Spark, historically the rural incumbent and the provider of last resort,¹⁷³ is charging double the retail margin of its subsidiary brand (Skinny), which works out to be an additional \$444 per year. Skinny's lack of a landline service, an important feature in rural areas where mobile coverage can be patchy, is likely to reduce the take-up of Skinny's broadband offer in rural areas.

In the main, copper prices held steady or reduced slightly, except for Slingshot, which reduced its price by \$15 to \$84 per month for unlimited ADSL or VDSL.

¹⁷³ Spark (supported by Chorus) is the telecommunications service obligation (TSO) provider for the local residential telephone service, which includes charge-free local calling.

4G cellular fixed wireless prices

The range of prices for rural 4G cellular fixed wireless has decreased in the last 12 months. As at June 2024, the range was \$70 –166 per month, whereas at June 2023, prices ranged from \$96 to \$200. We expect that this shift in prices is due to competitive price pressure from the launch of Starlink's deprioritised service, where customers can get close to 200Mbps speeds for \$79 per month in rural areas.

Data caps on rural 4G cellular fixed wireless plans range from 40GB to 1000GB, with several plans offering unlimited data.

As at June 2024, nearly half of the rural plans offered by providers have a data cap of greater than 120GB and under 300GB. In this category, rural prices range from \$70 per month to \$96 per month.¹⁷⁴

There are a limited number of 4G cellular plans with unlimited data for rural customers. These range in price from \$85 to \$166 per month, with an average price of \$137 per month.

Installation costs for cellular fixed wireless range between \$0 and \$325+ depending on whether the customer needs to install an antenna, the complexity of the installation and the term of the plan.

¹⁷⁴ From our selection of 19 providers.

4G cellular fixed wireless prices – urban vs rural prices

4G cellular fixed wireless and satellite-based broadband are two technologies that are available in both urban and rural areas (alongside copper). Satellite pricing is consistent nationwide, but rural 4G cellular fixed wireless is more expensive than urban 4G cellular fixed wireless, particularly for higher data cap plans (Table 26).

Table 26: Rural vs urban 4G cellular fixed wireless prices

| Data cap group | Rural – average monthly price | Urban – average monthly price | Difference |
|----------------|-------------------------------|-------------------------------|------------|
| >120GB | \$91 | \$48 | 48% |
| 121-299GB | \$109 | \$66 | 39% |
| 300GB+ | \$123 | \$72 | 42% |
| Unlimited | \$138 | \$71 | 49% |

Source: RSP websites (as of June 2024)

At an overall level, 4G cellular fixed wireless broadband plans are 40% more expensive to buy in rural areas than they are in urban areas. The average price in urban areas is \$69 while the average price for rural households is \$115.

This \$46 price difference is more than the \$30 gap last year and has been driven by urban reductions due to urban competition between fixed wireless and fibre.

Several factors may account for the difference in price:

- **Infrastructure and operational costs:** Urban areas have more users sharing infrastructure and operational costs, while rural areas have fewer users to share these costs. As at June 2024, there were 92,000 rural residential 4G cellular fixed wireless connections and 196,000 urban connections.¹⁷⁵
- **Spectrum utilisation:** There is more efficient spectrum usage in urban areas. In rural areas, utilisation will depend on relative spectrum holdings between MNOs. For example, Spark holds more low-frequency spectrum than the other MNOs, which is often utilised in rural areas.¹⁷⁶ Where MNOs have a limited spectrum, they may use price to constrain demand.
- **Competition:** Rural areas face less competition due to limited coverage from RBI-funded networks and fewer competing technologies such as fibre, HFC or affordable LEO satellite options. However, we are seeing that around 30% of new LEO satellite connections this year came from fixed wireless connections, which suggests that many consumers see LEO satellite as a viable alternative despite its start-up costs.
- **Network performance:** MBNZ reports show similar performance metrics (download/upload speeds, latency) between urban and rural 4G fixed wireless networks, suggesting that superior performance is not a factor in higher prices in rural areas.

These factors suggest that higher costs and less competition influence the price differential in rural areas. While the service is the same, if rural consumers can't or don't switch, the price gap between urban areas to rural areas will remain stubbornly high.

¹⁷⁵ Commission data.

¹⁷⁶ 700-900Mhz compared to One NZ and 2degrees.

Non-cellular fixed wireless prices

Prices for non-cellular fixed wireless offered by WISPs typically range from \$60 for capped plans to over \$200 for unlimited plans. We have not undertaken unit price analysis on non-cellular fixed wireless plans because these plans also factor speed tiers into their prices. Speed tiers are set by each WISP, leading to a plethora of options at a nationwide level that makes comparison at a per GB level less informative than for cellular fixed wireless.

Our observations are that, in general, WISPs advertise broadband plans in the range of 5–50Mbps download speed. Most plans are faster than ADSL, some are on par with VDSL and cellular fixed wireless but all are slower than LEO satellite. Pricing is competitive, with cellular fixed wireless plans averaging around \$110 per month. Of all the households that shifted to LEO satellite in the last year, WISPs are losing proportionally fewer connections compared to fixed wireless. This may come down to the better relationships they can build with local client bases.

Installation costs for non-cellular fixed wireless range between \$0 and \$1,999¹⁷⁷ depending on whether the customer needs to install an antenna, the complexity of the installation and the term of the plan.

Satellite (GEO and LEO) prices

There are no longer enough providers offering new residential GEO satellite prices for a meaningful comparison. Our data indicates there are fewer than 1,000 existing residential GEO satellite connections in New Zealand. There are three unlimited data GEO satellite plans from Gravity that appear to be still available for sign-up. These range from \$109 per month to \$149 based on speed tiers of 20–50Mbps download speeds. Brdy offers two unlimited plans differentiated by speed for \$139.95 or \$199.95 plus two capped plans. These prices are unlikely to be sustainable in the long run with competition on price and speed from LEO providers.

Standard LEO (Starlink) costs \$159 per month for unlimited data, while its deprioritised speed plan Residential Lite costs \$79 per month.¹⁷⁸

Installation costs for GEO satellite broadband from Gravity range from \$495 to \$1,999. The installation cost for Starlink LEO satellite broadband is usually \$599. From time to time, Starlink offers refurbished hardware at a discount.

¹⁷⁷ Provider websites.

¹⁷⁸ <https://www.starlink.com/nz/residential>

Starlink's Residential Lite service in New Zealand

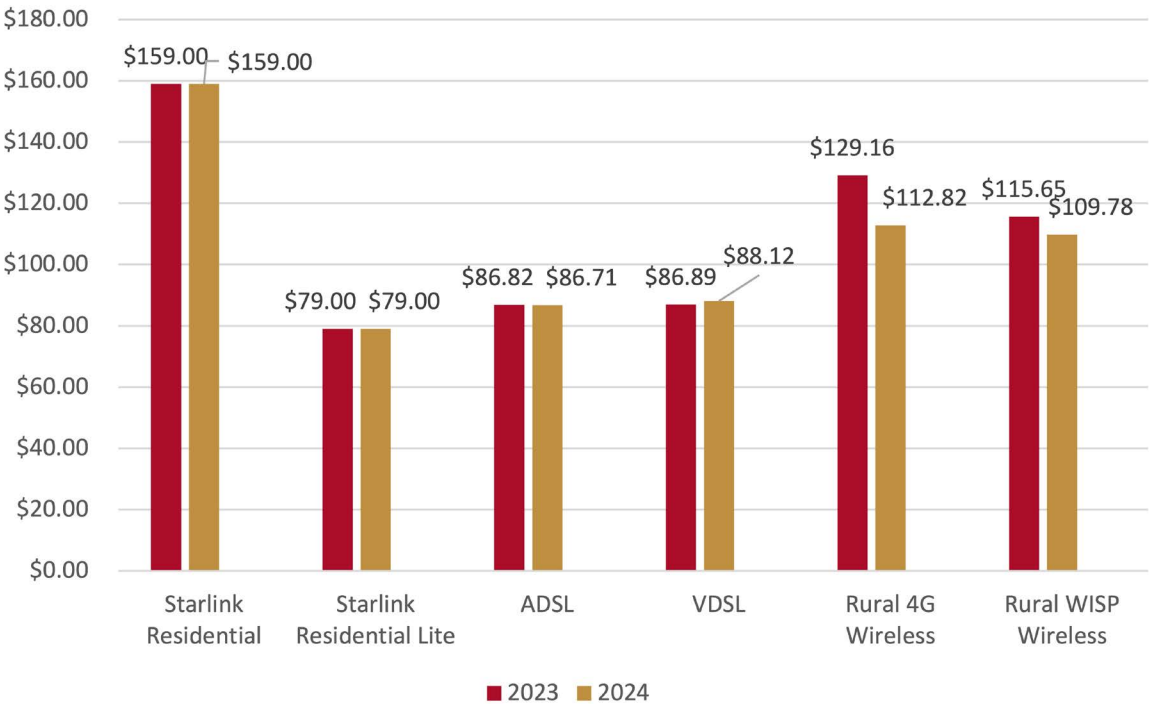
Starlink launched its Residential Lite service in February 2024 at a price point of \$79 per month.¹⁷⁹ Starlink says the service may be slower than its \$159 residential service at peak hours. Our MBNZ broadband performance testing in July 2024 showed Starlink Residential customers averaging 176Mbps at peak times, while Residential Lite customers averaged 158Mbps.¹⁸⁰

The launch of this service in rural New Zealand was a significant moment in rural broadband history as it provides an option for many rural households that performs better than other rural technologies at a price similar to urban broadband. However, the

constraint for uptake does remain that the consumer will pay \$599 for a satellite dish upfront and some may need to pay for an installation depending on the best location for the dish on their property.¹⁸¹

We want to understand if the price point of the Residential Lite service has driven a price-based competitive response from other rural broadband providers. In Figure 58, we compare average pricing by technology before Starlink launched its Residential Lite service by looking at prices in June 2023 with prices by technology 5 months after Starlink launched Residential Lite in June 2024.

Figure 58: Rural price comparison – 2023 to 2024



Source: Commission data (June 2024), operator websites (June 2023)

179 Starlink originally called this its deprioritised service.

180 Commerce Commission "Measuring Broadband New Zealand – Report 21, September 2024" – https://comcom.govt.nz/_data/assets/pdf_file/0019/362521/Measuring-Broadband-New-Zealand-Report-21-September-2024.pdf

181 There are some options to pay this off over time for approved consumers, for example, interest free over 36 months via Harvey Norman – <https://www.harveynorman.co.nz/networking-smart-home-and-home-phones/networking/wireless-modem-router/starlink-standard-kit-v4-tri-band-wi-fi-6-system-white.html>

The data suggests there have been some price reductions in fixed wireless and WISP wireless services during the time period that have reduced the average price of these services. However, generally, these services are still priced well above Starlink's Residential Lite service.

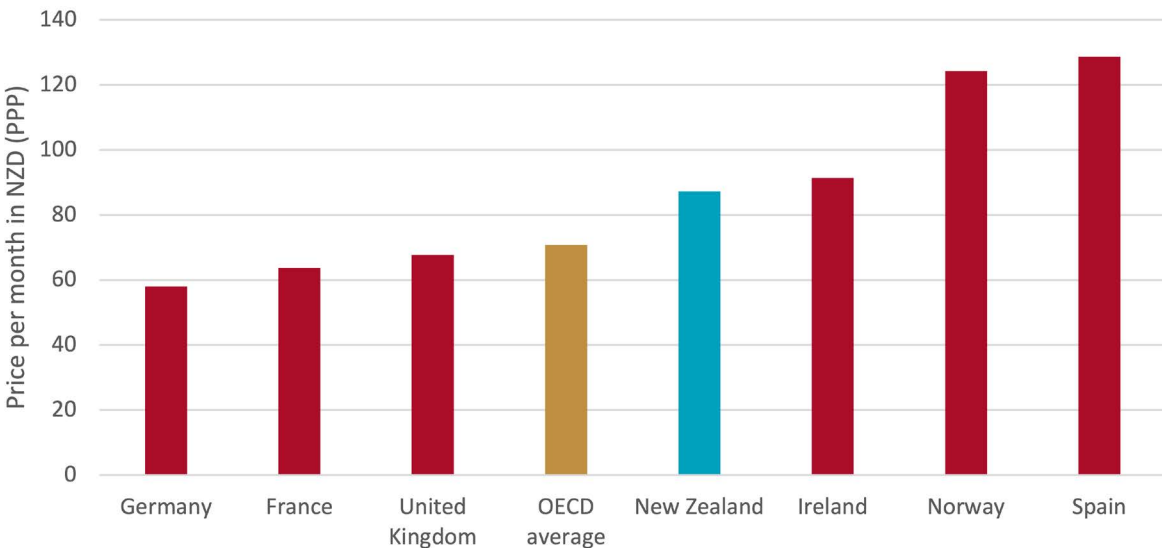
This suggests that rural providers have yet to mount a substantial price-based response. It may be the case that, where providers recognise they can't compete on price, they will look to non-price differentiation instead. Alternatively, terrestrial providers understand that the main barrier to satellite adoption is the high upfront cost. This allows them to avoid competing on monthly fees, as their key advantage is not charging the approximately \$599 upfront fee.

International price comparison

To get an indication of how New Zealand broadband prices compare to those overseas, we compared TechInsights' prices of the cheapest benchmark plan on offer in New Zealand against the cheapest benchmark plan available in OECD countries for a basic copper service.¹⁸² While copper connections are reducing across New Zealand year on year, copper represents 28% of broadband connections in rural areas and remains a relevant comparator.

TechInsights' data shows that the price for a broadband-only copper service in New Zealand has decreased – coming closer to the OECD – but is still \$16.41 higher than the OECD average (Figure 59). Last year, the gap was \$27.86.

Figure 59: TechInsights copper price benchmarks – June 2024¹⁸³



Source: OECD Price Performance Benchmarking, provided by TechInsights

¹⁸² Unlimited usage broadband-only copper service providing speeds of at least 5Mbps.

¹⁸³ Japan and United States are not displayed as no copper services meeting the specifications were included in TechInsights' benchmark.

It's important to note the difference between the Commission's average prices and TechInsights' lowest prices:

- TechInsights shows the lowest-priced plan among four providers, answering "what is the lowest price a consumer could pay for this service from a large provider?"
- Our rural price comparison chart shows the average plan price across 16 copper service providers, answering "what is the average price people are paying if they bought this service in June 2024 from large or small providers?"

This explains why the average price is slightly up but the lowest price is down in the TechInsights copper price benchmarks.

The price differences between comparator countries are due to a range of factors. Copper remains a prevalent broadband technology in some comparator countries (such as the United Kingdom) but has been replaced by fibre in others (such as Spain).¹⁸⁴

Lower price/digital equity urban broadband plans

See the urban chapter for detailed analysis.

184 <https://www.oecd.org/digital/broadband/broadband-statistics-update.htm>

The market outcomes produced through infrastructure, wholesale and retail ultimately come down to consumers' usage and their overall satisfaction with the connectivity provided.

2024 highlights

- Rural consumers pay 29% more than urban consumers for a broadband connection on average, yet rural technologies are often slower than urban connections and more likely to have data caps.
- Survey results show that rural broadband households are less satisfied with their service than urban.

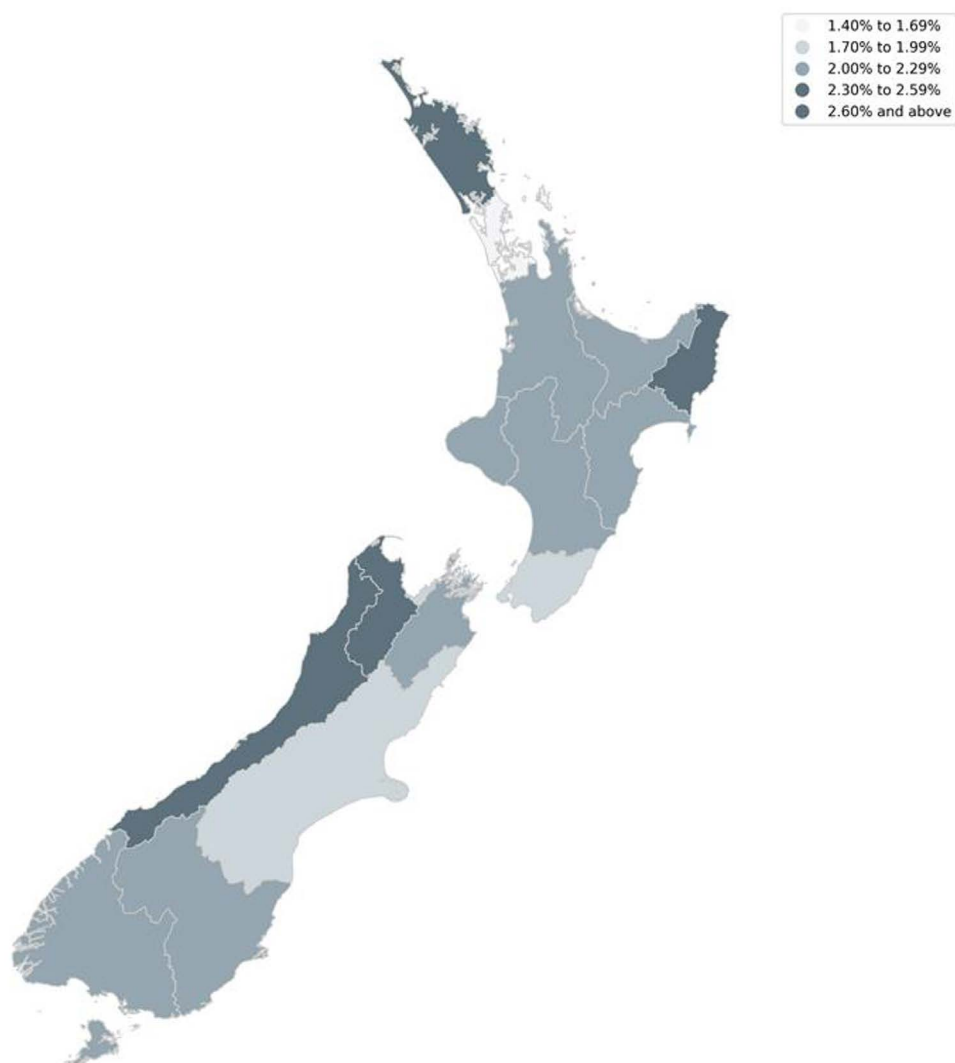
Affordability

Affordability is a relative concept that does not lend itself to precise indicators. Affordability depends not only on price and income but also on other competing spending choices available.

Our affordability analysis compares the average available price of each urban broadband technology with the distribution of household average net income across the regions of New Zealand.

Figure 60 shows a heat map of where the price of urban broadband technologies requires a higher or lower percentage of average household income. In lighter areas on the map, such as Auckland and Wellington, a lower percentage of income is required to purchase an urban broadband connection than in darker-shaded areas such as the Gisborne and the West Coast.

Figure 60: Percentage of average household income to purchase broadband by region



Source: Commission analysis of Stats NZ data

In rural areas, where fibre is not available, the average price for broadband was \$113.52 per month or 2.0% of household monthly income. Rural consumers pay 29% more than urban consumers for a broadband connection on average – urban consumers pay \$87.86 per month. Rural technologies are often slower than urban connections and more likely to have data caps yet cost more.

Across the regions, the average rural price for broadband varies. Rural people in the Gisborne region paid the least at \$106.00 per month on average, but this was one of the highest percentages of household incomes being paid across New Zealand at 2.3%. Rural households in the Taranaki region paid the most at \$119.00 on average per month, which is 2.1% of the average median income in the Taranaki region.

The regions in which rural consumers pay the lowest percentage of household income towards broadband services are Auckland (1.6%),

Wellington and Canterbury (both 1.8%). Rural households that spend the highest percentage of household income towards broadband services are in West Coast (2.4%), Tasman (2.5%) and Northland (2.6%).

Rural households in Northland spend almost twice as much as a percentage of household income on broadband (2.6%) as urban households in Auckland or Wellington (1.4%). When we look closer at rural Northland, there are notable disparities at a suburb level (SA2). Rural households in Pukenui and Matarau spend 1.6% of household income on broadband. However, rural households in Waipoua Forest spend 4.8%, those in Kohukohu-Broadwood spend 4.7%, and those in Hokianga North spend 4.4%. For the higher percentage spend areas, this appears to be driven by lower incomes in these areas.

As part of the Household Economic Survey, Stats NZ publishes annual mean household income by quintile (Table 27).

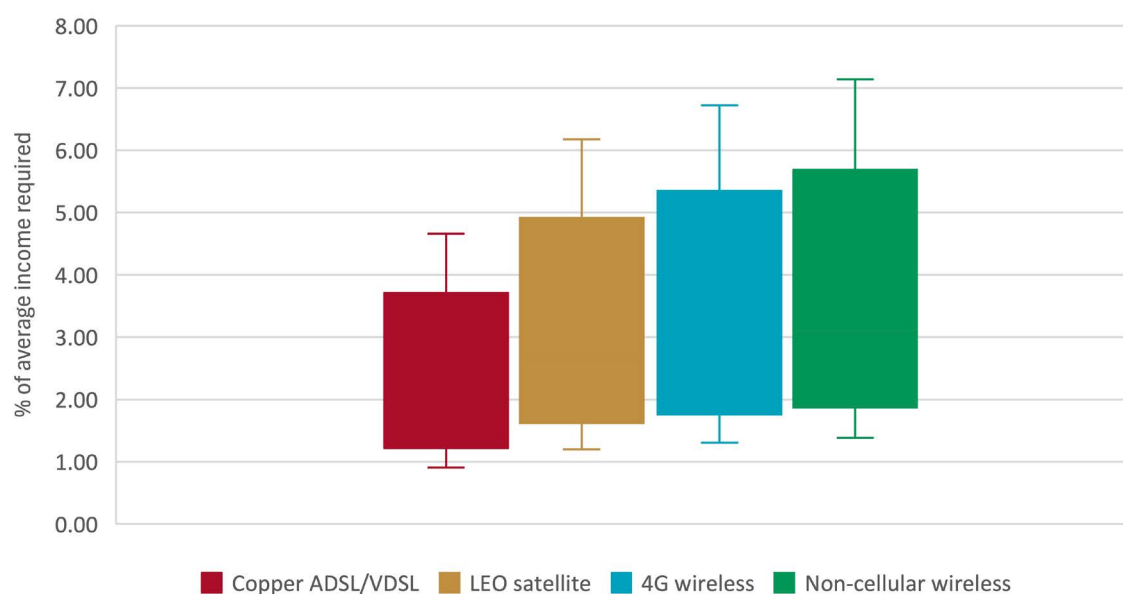
Table 27: Average household income by income quintile (nationwide)

| Quintile | Average household income |
|----------|--------------------------|
| 1 | \$23,117 |
| 2 | \$39,058 |
| 3 | \$53,480 |
| 4 | \$70,152 |
| 5 | \$119,091 |

Source: Commission analysis of Stats NZ's Household Economic Survey data

We then looked at the percentage of income required for rural broadband technologies based on each income quintile (Figure 61). This shows that copper ADSL/VDSL is the most affordable option. However, this is an average price, with prices ranging from \$75 (Inspire Net) to \$119.99 (Spark), the incumbent RSP in rural areas. The data represents the average of available options, not the actual prices households are currently paying.

Figure 61: Relative affordability of rural broadband by income quintiles



Source: Commission data, Stats NZ – income quintiles are nationwide figures, prices for broadband are rural prices

As part of our wider monitoring work, we intend to further develop our understanding of the impact of connectivity and whether there are accessibility and/or affordability challenges that need to be highlighted.

Satisfaction

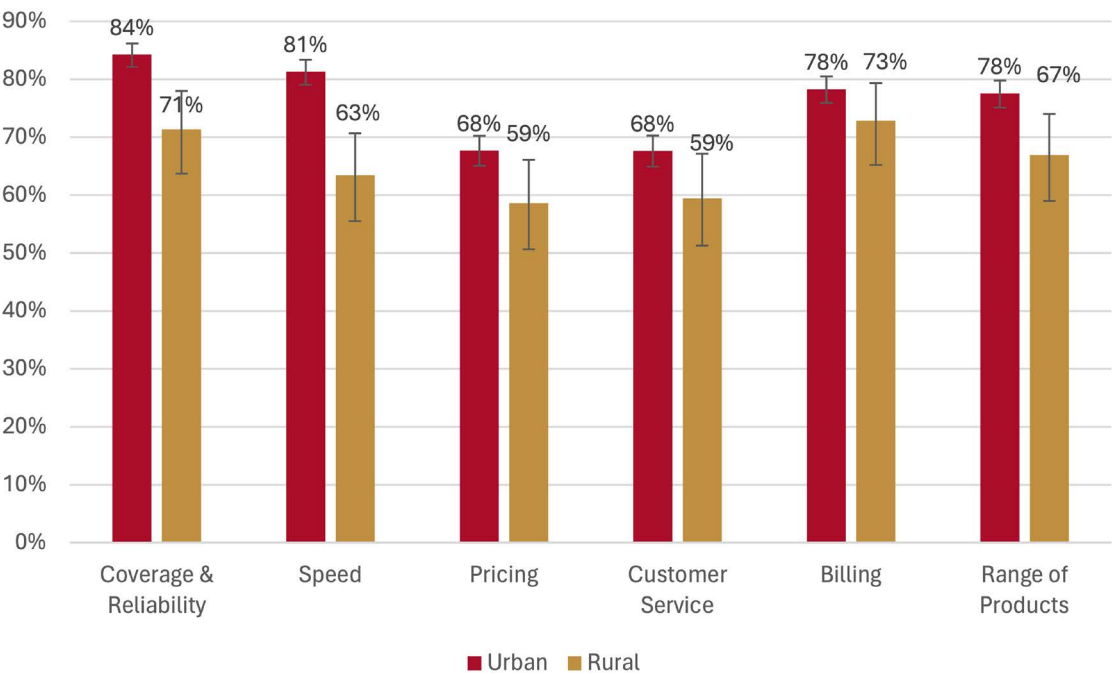
Customer satisfaction – rural vs urban

The results below come from our monthly Telecommunications Consumer Satisfaction Monitoring Report. In May 2024, we switched survey providers, leading to improved data collection methods but limiting our ability to match older data with newer data. This year, we are using data from January to June 2024 for the satisfaction section, which includes responses from 2,419 residential broadband customers.

Results from our Consumer Satisfaction Monitoring Report found that 69% of rural broadband customers are satisfied with their broadband service compared to 77% of urban consumers. This compares with 68% and 78% respectively reported in last year’s Annual Monitoring Report.

The survey also asked rural broadband customers to rate their satisfaction with various service aspects. As shown in Figure 62 rural consumers are less satisfied with all aspects of their broadband service relative to urban consumers.

Figure 62: Comparison of satisfaction levels of rural vs urban consumers



Source: Telecommunications Consumer Satisfaction Monitoring Report – January–June 2024

Our survey results show the most prominent issues affecting rural consumers compared to their urban counterparts in order of magnitude are:

- speed - 63% vs 81%
- coverage and reliability - 71% vs 84%
- range of products - 67% vs 78%.

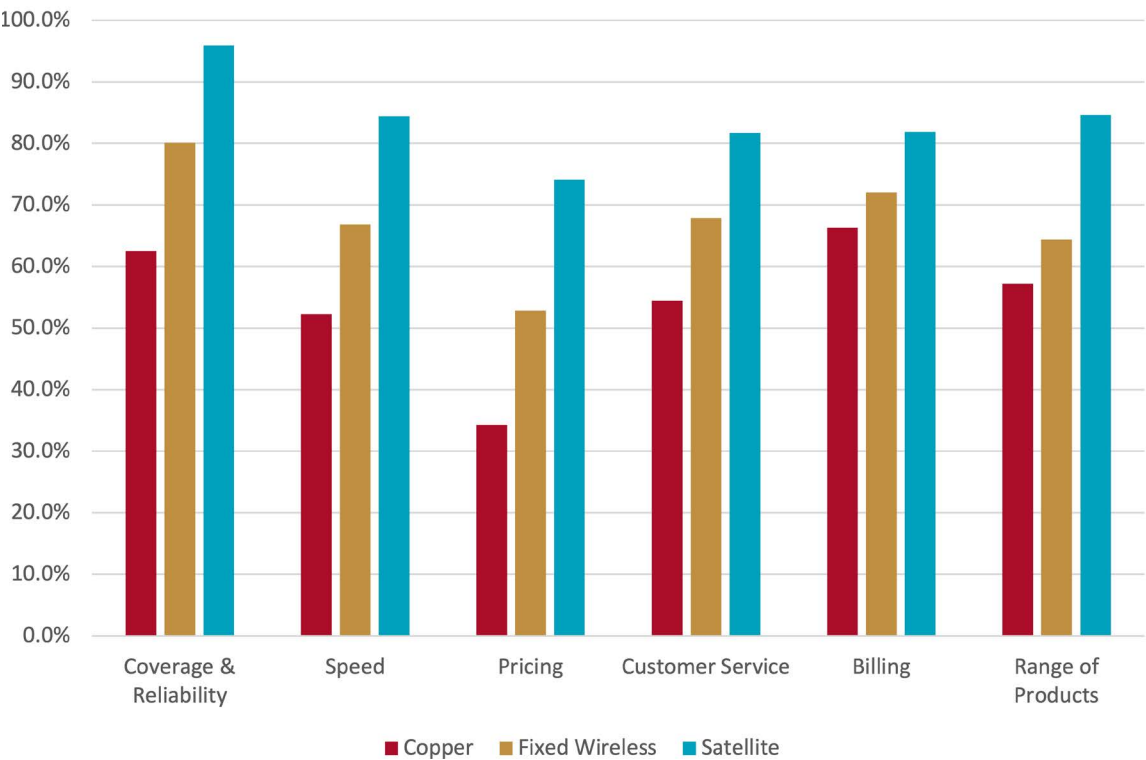
According to our June MBNZ results, no rural broadband technology, except LEO satellite, offers download speeds over 51Mbps. Despite the growth of Starlink connections, around 60% of people moving off copper connections choose other technologies. This indicates that, while a high-speed option exists, factors such as monthly price, upfront cost or unfamiliarity with the provider may be a barrier to uptake.

Customer satisfaction – copper vs alternatives

With the growing availability of copper alternatives in rural areas, we have split the survey results to compare satisfaction levels of copper consumers with those on broadband alternatives (4G cellular fixed wireless, non-cellular fixed wireless and satellite).

Our survey results show that consumers on copper broadband are the least satisfied, particularly with the price for a copper connection, which ranged from \$75 per month to \$111.99 per month as at June 2024 (Figure 63). Fixed wireless customers have somewhat higher satisfaction levels across aspects, but only coverage and reliability comes close to the 80% benchmark. Customers on satellite are the most satisfied.

Figure 63: Satisfaction levels of copper, fixed wireless and satellite broadband consumers in rural areas 2024

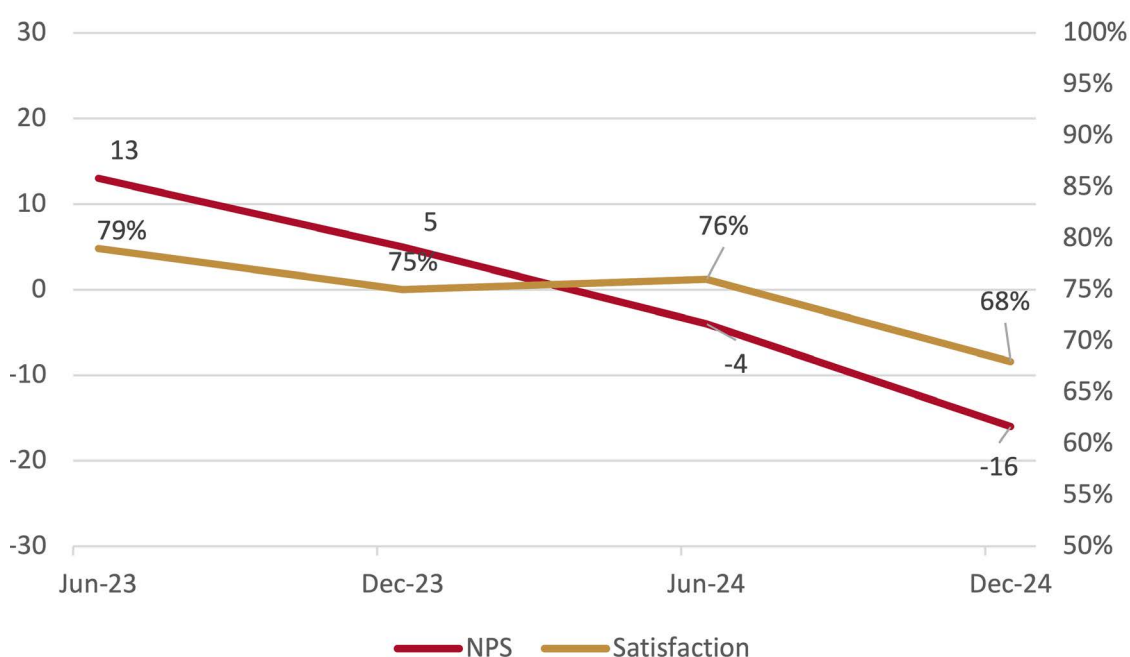


Source: Telecommunications Consumer Satisfaction Monitoring Report – January–June 2024

Satisfaction and NPS over time

Trended data shows there is a significant decrease in both satisfaction and NPS over time (Figure 64).

Figure 64: Broadband NPS and satisfaction trended



Source: Telecommunications Consumer Satisfaction Monitoring Report - July-December 2024

Satisfaction has declined across all aspects, no longer meeting the benchmark for good performance. Data from respondents suggests that dissatisfaction with pricing and customer service plays a part in the decrease over time.

Satisfaction with provider for rural broadband has trended downwards over time and is currently at a materially lower level than it was in early to mid-2024. We expect a significant factor in this decline is a rising dissatisfaction with rural broadband pricing in the face of cost-of-living challenges and compared to lower prices in urban areas. These findings suggest that RSPs must continue their efforts to improve pricing and quality of their services.

Household broadband plan changes¹⁸⁵

The level of plan changing observed in a market may be indicative of the ability of consumers to act and take advantage of competing offers. It may also indicate the presence of behavioural preferences towards the existing and familiar.

There is no fixed proportion of the market that should be expected to change plans. Consumers not changing provider, technology or speed tier is not necessarily a concern if those consumers are satisfied with their provider and/or do not face significant barriers to switching.

During the period January to June 2024, our Consumer Satisfaction Monitoring Report indicates that 11% households switched their broadband provider.

¹⁸⁵ Rural consumers for the purpose of the survey are those who responded that they lived in a rural or remote area. This may not align with the definition of rural (an area where fibre is unavailable) used elsewhere in this report.

Rural broadband plan changes

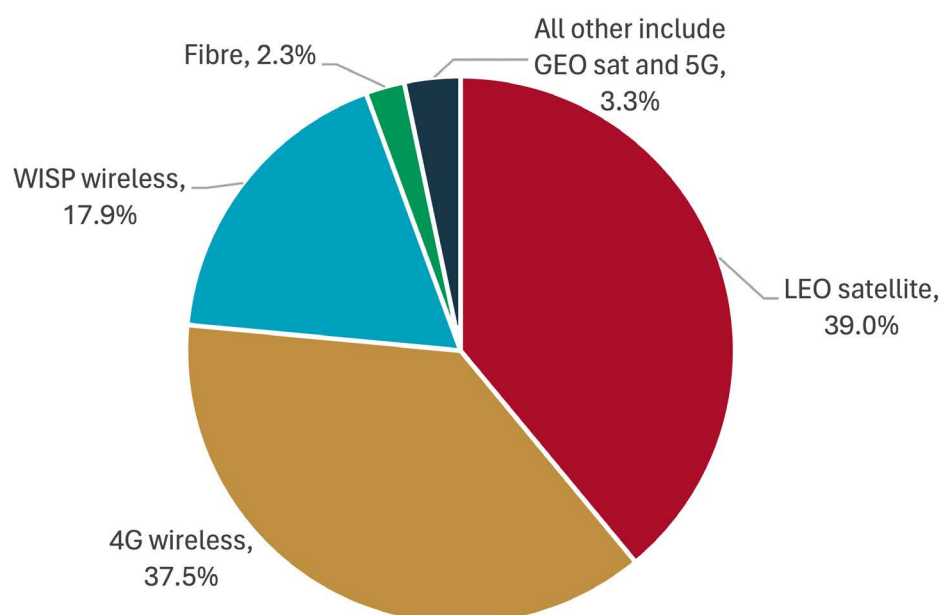
The detailed data we collect from telcos allows us to make year-on-year comparisons of each connection's broadband technology, speed tier and provider. Where one or more of these has changed, this indicates a switch. Our data picks up two scenarios:

1. Where households have changed plan.
2. Where householders have moved out and new householders have connected to a broadband plan.

In rural areas, we focused on what technologies households are moving to when they shift off a copper connection. This helps us understand what options households are selecting and if they are prioritising performance or affordability when they shift.

The data shows us that the majority of households move to a LEO satellite or 4G wireless connection (Figure 65). This suggests that consumers are looking for broadband options with the highest speeds. We expect that Starlink's \$79 Residential Lite plan has driven sign-ups from copper users despite the initial set-up fee.

Figure 65: Technologies rural households switch to when leaving a copper connection

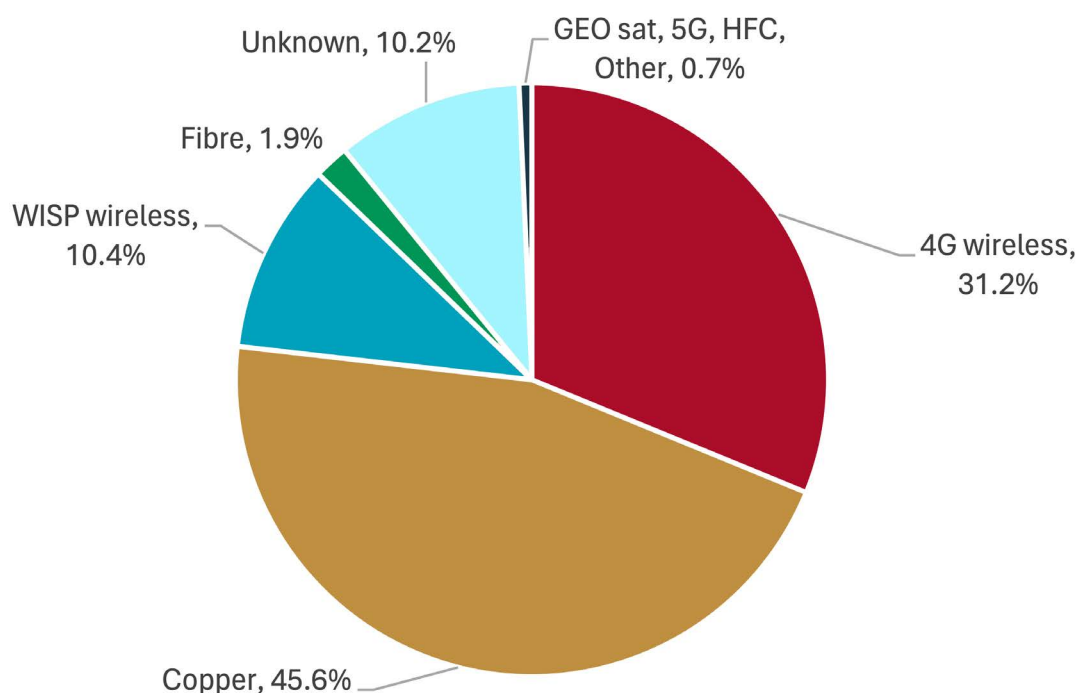


Source: Commission data

We see only around one in five households shifting to a local WISP, but this may also reflect that WISP coverage is not available in all areas and WISP pricing varies between providers and regions.

We also want to understand which technologies and types of providers are losing the most connections to LEO satellite in rural areas (Figure 66).

Figure 66: Technologies rural households switch from when shifting to LEO satellite



Source: Commission data

Unsurprisingly, we see most LEO satellite broadband connections coming from copper connections followed by households on 4G wireless likely wanting better speeds for a lower price (Starlink's Residential Lite caters for this). While only 10% of new satellite connections are coming from WISPs, this still equates to over 2,300 connections in the year to June 2024 – an annual loss of around 5% of WISPs' combined non-cellular wireless connection base to satellite broadband connectivity.

Reasons for switching

The customer satisfaction survey captures respondents' primary reasons for switching:

- I wanted to pay less – 52%.
- I wanted faster speed – 21%.
- I saw an advert/offer from a new provider – 19%.¹⁸⁶

Respondents' reasons for switching align with our performance and pricing findings, which show that copper performance is not improving but prices continue to increase, giving rise to consumers searching out alternatives. Starlink's Residential Lite service launched in February 2024 may have prompted consumers to switch to pay less.

Consumer case studies



This year, we have enriched this report by including the voices of New Zealanders living in rural areas. To bring a human perspective to our findings, we collected case studies from three individuals who shared their experiences with rural broadband. These personal stories highlight the challenges rural households face in accessing reliable broadband. Additionally, they reveal the various and sometimes less-than-ideal strategies these households have employed to overcome these obstacles. By including these real-life accounts, we hope to provide a more comprehensive and relatable understanding of the rural broadband landscape in New Zealand.

¹⁸⁶ Commerce Commission "NZ Telecommunications Customer Satisfaction Tracking: 6 Monthly Report – January–June 2024" – https://comcom.govt.nz/_data/assets/pdf_file/0021/362217/Telecommunications-Consumer-Satisfaction-Monitoring-Report-JanuaryJune-2024.pdf



Case study: Transforming rural connectivity with satellite

Trish lives with her husband on a remote farm in rural New Zealand. For years, they struggled with unreliable internet connectivity through a copper connection, which hindered their ability to stay connected with the outside world and impacted their daily lives significantly.

Installation and customer service experience

In 2024, Trish decided to switch to Starlink's satellite internet service to improve their connectivity. "The installation process was straightforward and mostly handled online. We purchased a satellite dish for around \$500 and installed it on our roof ourselves. The account set-up was simple, and the app provided valuable data on connection speeds," she explains.

Improved connectivity

The switch to Starlink brought a massive improvement in their internet connectivity. "We went from having intermittent reception to enjoying a stable and fast connection, comparable to living in the city. This change was particularly noticeable when we had visitors, who struggled to get reception on their mobile phones, but could easily connect to the internet to use them," Trish shares.

Impact on work and education

The improved connectivity had a profound impact on Trish's ability to work from home. "Previously, the unreliable copper connection made it impossible for me to stay connected to my workplace. With Starlink, I can work from home confidently, which has been a game-changer for my professional life," she says. Additionally, the reliable internet connection supported her grandchildren's learning, providing them with access to online educational resources when needed.

Enhanced safety and reduced isolation

The reliable internet connection also enhanced the family's safety on the farm. "We can use our mobile phones anywhere on the property, which is crucial for safety, especially when my husband or I work alone. This connectivity reduces the risks associated with health emergencies and isolation," Trish notes.

Cost considerations

While Starlink was more expensive than their previous copper connection (\$160 per month compared to \$110), Trish and her family found the benefits far outweighed the additional cost. "We no longer need a landline, and the reliable connectivity provides peace of mind," she says. However, this is an example of the additional cost faced by the rural community. "Fibre rollout was not planned at all for our area, and waiting on the 5G network seemed in the far and distant future. We have had to find our own solutions to issues not faced by our urban counterparts," Trish adds.

Trish's switch to Starlink has been transformative for her family, bringing them reliable and fast internet connectivity that has significantly improved their quality of life. The ease of installation and set-up coupled with the substantial improvement in connection stability has made a world of difference. Trish can now work from home with confidence, and her children have better access to educational resources. The enhanced safety on their farm and reduced isolation are invaluable benefits. Despite the higher cost, the peace of mind and reliability provided by Starlink make it a worthwhile investment. This case study underscores the profound impact that better broadband options can have on rural communities, bridging the digital divide and enhancing everyday life.



Case study: Rural fibre offers urban-like broadband experience

Neil lives in Egmont Village, about 400 metres from State Highway 3. When Neil first moved there 15 years ago, he had an ADSL copper line, which suffered from frequent connection issues.

Initial switch to wireless service

Neil switched to a non-cellular wireless service offered by his local WISP, Primo. “Initially, the speeds were great and a significant improvement on my copper connection,” he recalls. However, over time, nearby trees grew taller, impacting his line of sight to Primo’s network. A line-of-sight obscuration on a non-cellular wireless service can result in a significant drop in speed and performance, and this made Neil’s connection often unusable. This was particularly problematic for his wife, who works remotely and needs to upload large files.

Temporary solution with 4G fixed wireless

Primo is one of the WISPs in New Zealand rolling out a rural fibre network. However, Neil’s property wasn’t in the initial footprint of Primo’s new fibre network, so they set him up with a 4G fixed wireless service. “This fixed some of the issues we were having with the non-cellular wireless connection,” he explains.

Upgrade to fibre

About a month later, Primo informed Neil that he was eligible for a fibre connection as part of an expansion of the footprint. Neil didn’t hesitate and is now on fibre and consistently getting more than 800Mbps. “It’s been a game-changer, particularly for my wife’s work. The best thing about it is the reliability and the price, which is actually cheaper than what we were paying for non-cellular wireless,” Neil shares.

Additional connectivity

Neil also has a Starlink dish, which he uses when he goes camping and considers to be a valuable option. “But what I like about Primo is their local support, and I know that my money is going to a community-based telco rather than a global company,” he notes.

Neil’s journey to reliable connectivity in Egmont Village highlights the challenges and solutions for rural consumers. From struggling with a poor ADSL copper line to finding temporary relief with 4G fixed wireless and finally achieving high-speed fibre connectivity, his experience underscores the importance of local support and community-based services in bridging the digital divide.



Case study: Navigating connectivity challenges in rural New Zealand

Despite living just 15 kilometres from a decent-sized town, Debbie¹⁸⁷ faced significant connectivity challenges for a family trying to stay connected for work and daily life. To remain available for work commitments, including Zoom and Teams meetings, Debbie's family resorts to having two connections: Starlink and Spark.

Initial struggles with wireless broadband

Upon moving into their house, the family initially used a wireless broadband service. "We were paying up to \$450 per month with no reliability, especially if more users were in the house. We needed technicians to visit often, which took time to get an appointment. Running our business this way was challenging," she explains.

Switch to copper broadband

The family then switched to a copper connection from Spark, which improved their situation and significantly lowered costs. However, this solution was short-lived, and they soon faced issues with the reliability of their connection again.

Adopting Starlink

To address the ongoing issues, they opted for Starlink. "We still had our email via the private provider and after some time realised that our emails were not sent due to the local provider and the foreign provider not working together. Also, it was unreliable with heavy cloud cover," she shares.

Introducing Spark wireless broadband

To further improve their connectivity, they added a Spark wireless broadband connection. "We now swap between the two as needed, and the cost is still lower than the local provider's," she notes. Despite having both Starlink and Spark, there are still times of poor connection reliability, even with expanders for internet and cell reception installed in their house.

This family's journey to reliable connectivity in rural New Zealand highlights the complexities and challenges of achieving stable internet access. From struggling with an expensive and unreliable private wireless broadband service to finding temporary relief with a copper connection and eventually adopting both Starlink and Spark wireless broadband, their experience underscores the importance of having diverse options. The combination of Starlink and Spark has provided a more stable and cost-effective solution, allowing them to stay connected for work and daily life, although this costs them significantly more than urban consumers pay for a single reliable option.

¹⁸⁷ Real name has been changed to protect the privacy of the consumer.

Concluding remarks

Rural connectivity at home has seen significant improvement over the past year, with advancements in satellite and fixed wireless technologies playing a pivotal role to address unique rural challenges. We're seeing households move off legacy copper connections to better-performing technologies.

The competitive landscape is fostering improved service offerings and increased data caps, addressing the growing needs of rural consumers. However, affordability remains a critical issue, with rural households facing higher costs for broadband services. Infrastructure reliability also remains a concern for households, particularly in isolated rural areas.

Connectivity on the move | Honotanga hāereere

Mobile services
(data, calls and texts)



Market structure | Hanganga māketē

Market structure covers structural elements of telecommunications markets, including infrastructure availability, the type and share of wholesale and retail offerings using that infrastructure and the transparency and understanding of these offers by consumers.

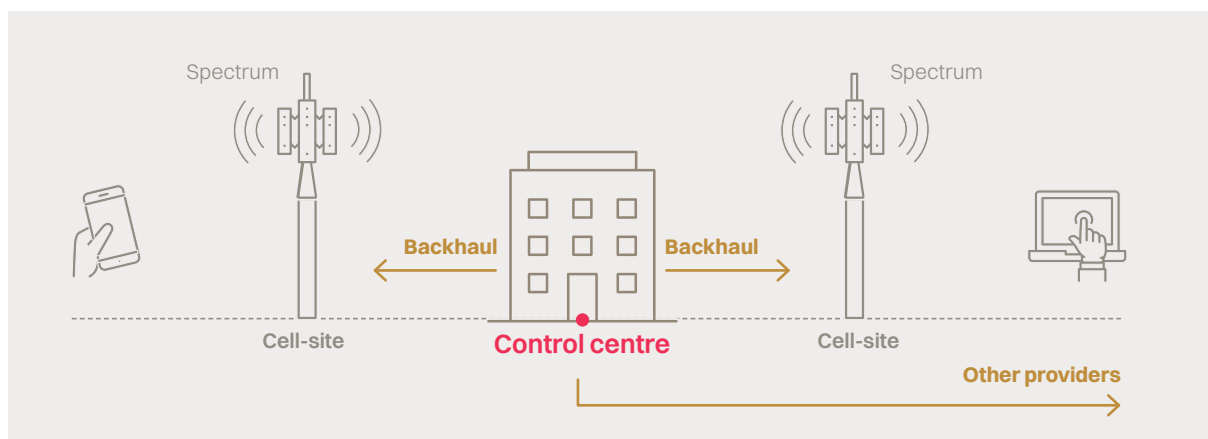
Infrastructure | Hanganga

Telecommunications infrastructure – the physical components that connect homes and businesses to voice and broadband services – provides the foundation for how the rest of the market operates in New Zealand.

The starting point for connecting Kiwis on the move is the mobile infrastructure deployed across New Zealand. This includes highways, holiday spots, tourist destinations and other parts of the country without permanent populations.

2024 highlights

- In 2024, 5G coverage reached 40% of New Zealand's population, increasing from 26.8% in 2023. However, geographic coverage remains low at 1.2% as MNOs focus deployment on urban areas.
- Connexa and Fortysouth are expanding their tower networks, with commitments to build hundreds more towers over the next decade. We estimate Connexa's network to comprise between 2,470 and 2,550 towers as of June 2024 and Fortysouth at 1,600 towers.
- All three MNOs plan to switch off their 3G networks by the end of 2025.



Coverage¹⁸⁸

In New Zealand, three national cellular networks are operated by 2degrees, Spark and One NZ.

Mobile coverage is generally measured by MNOs using computerised propagation models that can calculate coverage as a percentage of the land mass covered or the percentage of population covered. The models do not always reflect real-world experience.

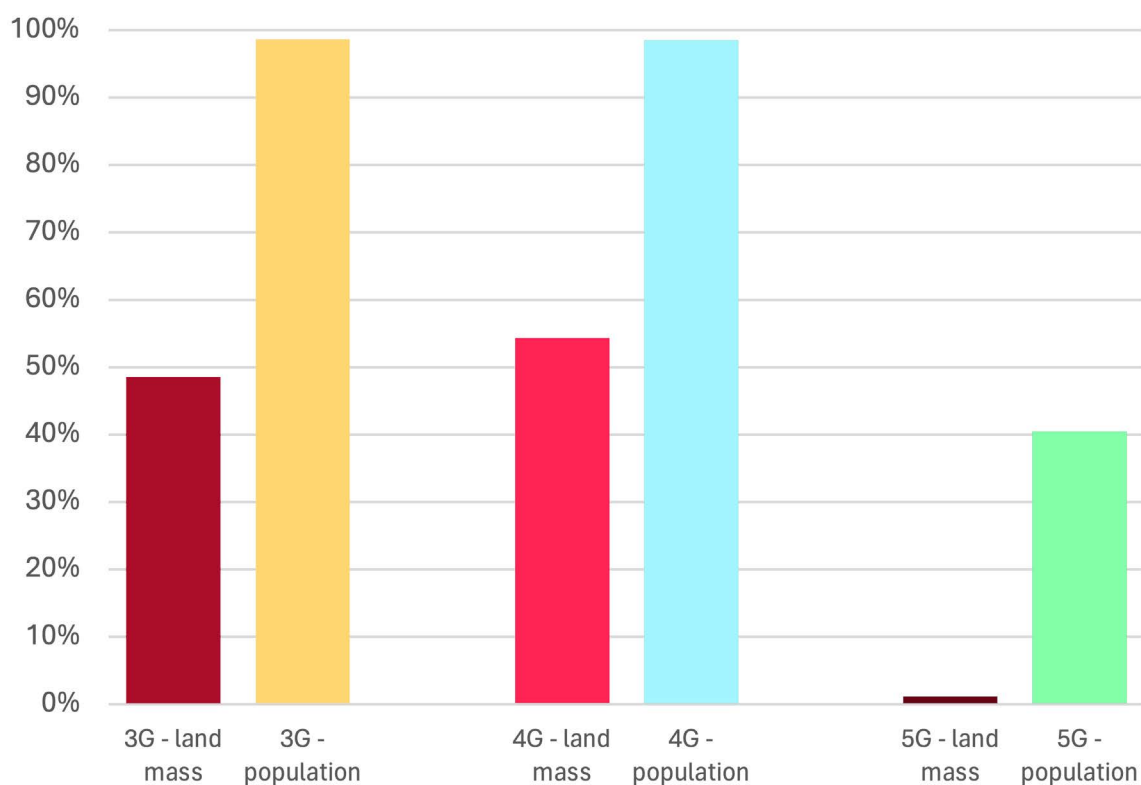
The three MNOs produce their own coverage maps, although historically these have not been standardised, making network coverage comparisons challenging for consumers. There is currently no mobile equivalent of broadbandmap.nz that shows comparative coverage between the three MNOs.

In January 2025, we published a set of guidelines to the telecommunications industry aiming to ensure consumers have access to consistent and standardised coverage maps that are easily locatable and can exit a mobile service without penalty if they experience coverage issues in the first month of the service.

188 Commerce Commission "Product Disclosure – Mobile Coverage Maps Guidelines" (30 January 2025) – https://comcom.govt.nz/_data/assets/pdf_file/0023/364154/Product-Disclosure-Mobile-Coverage-Maps-guidelines-30-January-2025.pdf

In recent years, New Zealand MNOs have introduced 5G, adding to the existing 3G, and 4G networks that many people continue to use (Figure 67).

Figure 67: Mobile network coverage by generation of technology, 2024



Source: Commission data

5G coverage

In 2024, average reported 5G population coverage reached 40.4% (around 2.1 million people), up from 2023 when 5G coverage reached 26.8% of the population (around 1.4 million people).¹⁸⁹

The average reported 5G geographic coverage sits at 1.2% of New Zealand's land mass, up slightly from 0.8% in 2023.¹⁹⁰

This figure is low because the majority of 5G coverage so far is in urban areas where cell sites may cover a smaller geographic coverage area but are available to a greater share of the population. Users in this area must be using a 5G capable device.

Figure 68 shows the user-tested proportion of time that consumers with a 5G device had an active 5G connection. It shows that, as 5G networks expand, consumers with 5G devices are experiencing more time in 5G coverage.

Figure 68: User-tested 5G availability



Source: Opensignal¹⁹¹

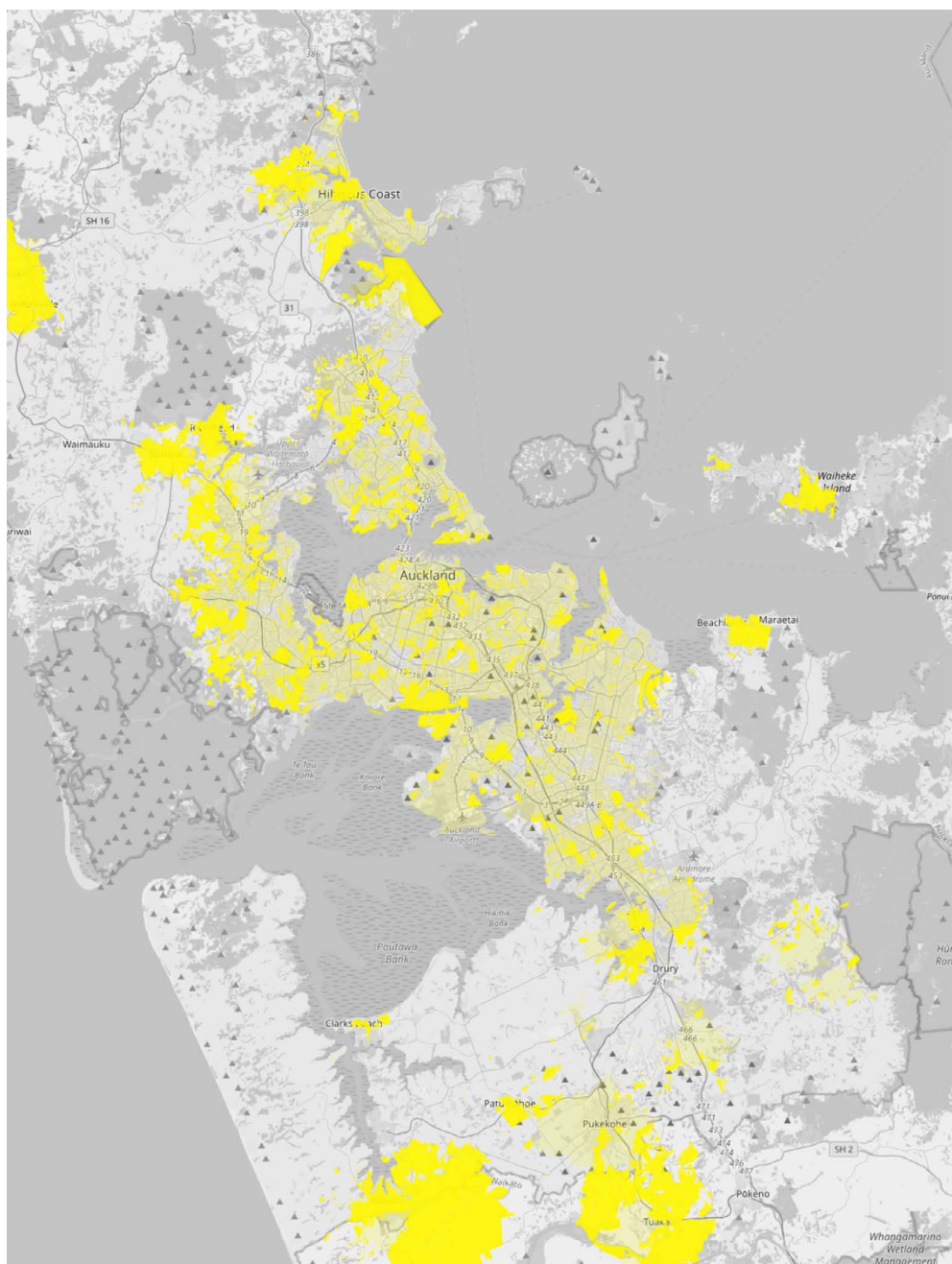
All three MNOs have improved in user-tested 5G coverage over the last year, with Spark showing the greatest improvement from 5.5% to 8.8%. This reflects the continued rollout, primarily in large urban areas with the greatest population density.

This year, our 5G coverage mapping focuses on the differences in coverage between 2023 and 2024, which may be where coverage has improved or where coverage has declined. Areas coloured light yellow show where coverage was in 2023 and areas coloured dark yellow show new areas of coverage in 2024.

189 Commission data and/or Annual Industry Questionnaire.
190 Revised 2023 figure, which differs from what was reported in last year's Annual Monitoring Report.
191 New Zealand mobile network experience reports October 2022, October 2023 and September 2024 - <https://www.opensignal.com/new-zealand>

Figure 69 shows 5G mobile coverage across the Auckland region. Coverage has increased across the region but more significantly in the surrounding townships such as Helensville, Kumeū, Riverhead and Waiuku.

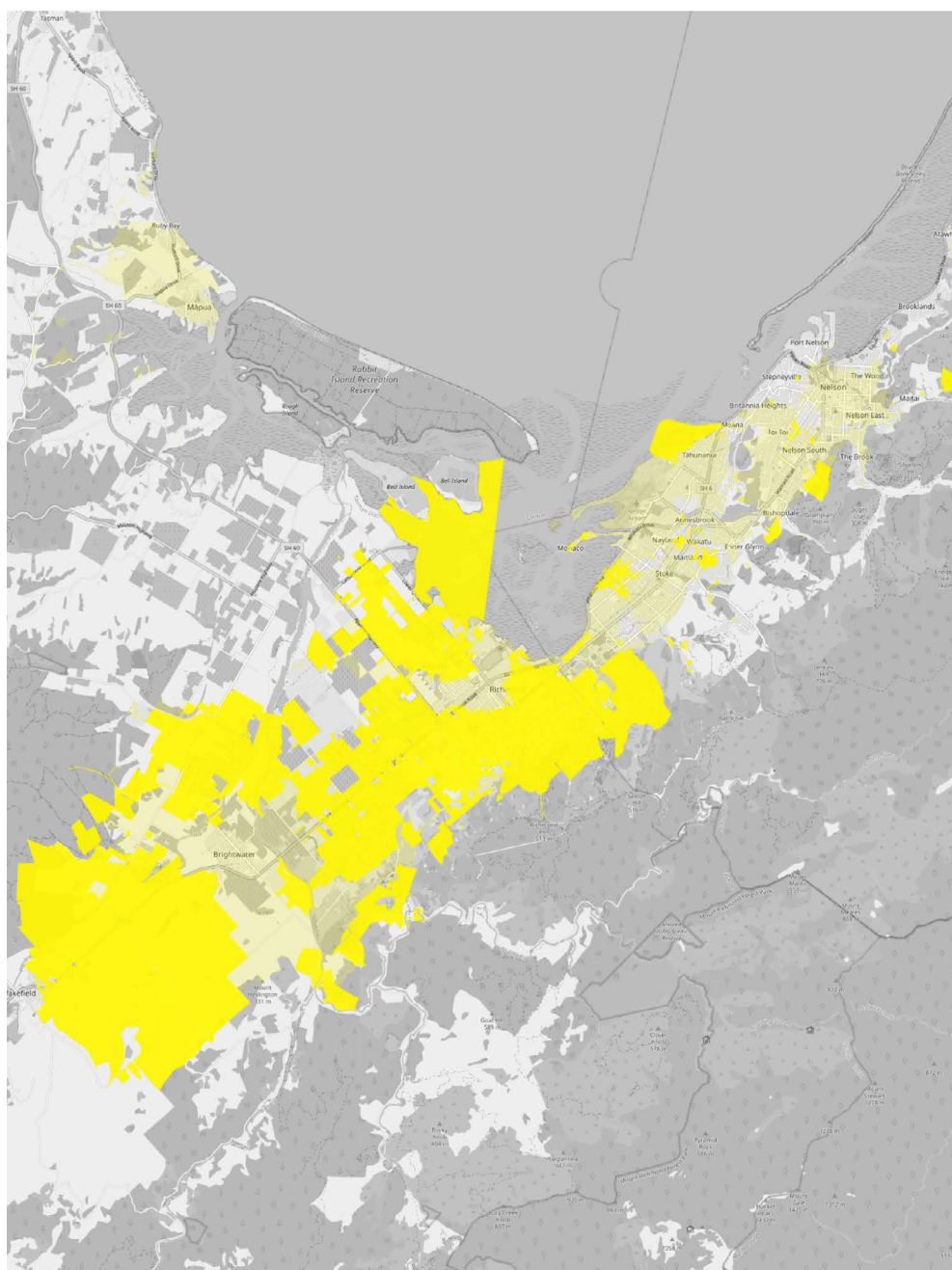
Figure 69: Operators' increases in 5G mobile coverage: Auckland



Source: Commission data

Figure 70 shows 5G mobile coverage across the Nelson and Tasman regions. Coverage has increased significantly across the areas south of Nelson, particularly around Richmond and the area between Wakefield and Brightwater.

Figure 70: Operators' increases in 5G mobile coverage: Nelson and Tasman



Source: Commission data

MNOs continue to progress towards their 5G deployment targets:

- Spark's current target is to have 5G in all towns with a population of greater than 1,500 people by the end of June 2026.¹⁹² We estimate this to be 150–180 towns.
- 2degrees planned for its 5G rollout to reach 50 towns by the middle of 2024.¹⁹³ While it has rolled out 5G across more of the country this year, there is no update on the number of towns reached.
- One NZ has invested \$500 million since 2020 on 4G and 5G rollouts and says that it expects to accelerate its 5G rollout further and faster.¹⁹⁴ In 2024, the company said it is on track with its upgrades rollout.¹⁹⁵

Our analysis of public statements indicates that two MNOs have scaled back their initial ambitions for 5G deployment. This shift likely reflects a global sentiment that 5G is more challenging to monetise than initially anticipated, with investments facing increased scrutiny from investors. As noted in the urban connectivity chapter, we have also seen slow uptake of 5G fixed wireless services. We anticipate a slowdown in 5G deployment once key urban areas are covered as providers redirect funds towards higher-performing investments such as data centres. However, MNOs will need to meet their coverage commitments in respect of smaller regional towns as part of their commitments to government under the 3500MHz spectrum allocation.

There are two main ways a network operator can build its 5G network:

- **5G non-standalone:** Uses 5G equipment on cell towers connected to an existing 4G core network. This is a faster and more economical path to 5G deployment than a full standalone implementation but does not provide all the benefits of a standalone implementation
- **5G standalone:** Both the radio access network and core network are 5G, resulting in an end-to-end 5G network that is more future-ready. Benefits include ultra-low latency, faster and more reliable network performance and network slicing.

In New Zealand, all three MNOs started 5G deployment by building out 5G non-standalone networks. Spark announced that it will deploy 5G standalone nationwide by 2026.¹⁹⁶

¹⁹² Spark FY24 results summary - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/FY24%20Results%20Summary%20FINAL.pdf

¹⁹³ <https://www.2degrees.nz/media-releases/2degrees-expands-5g-reach>

¹⁹⁴ <https://api.nzx.com/public/announcement/412638/attachment/396009/412638-396009.pdf>

¹⁹⁵ <https://infratil.com/news/infratil-investor-day-2024/infratil-investor-day-2024-one-nz-update/>

¹⁹⁶ Spark website (as at June 2023).

4G coverage

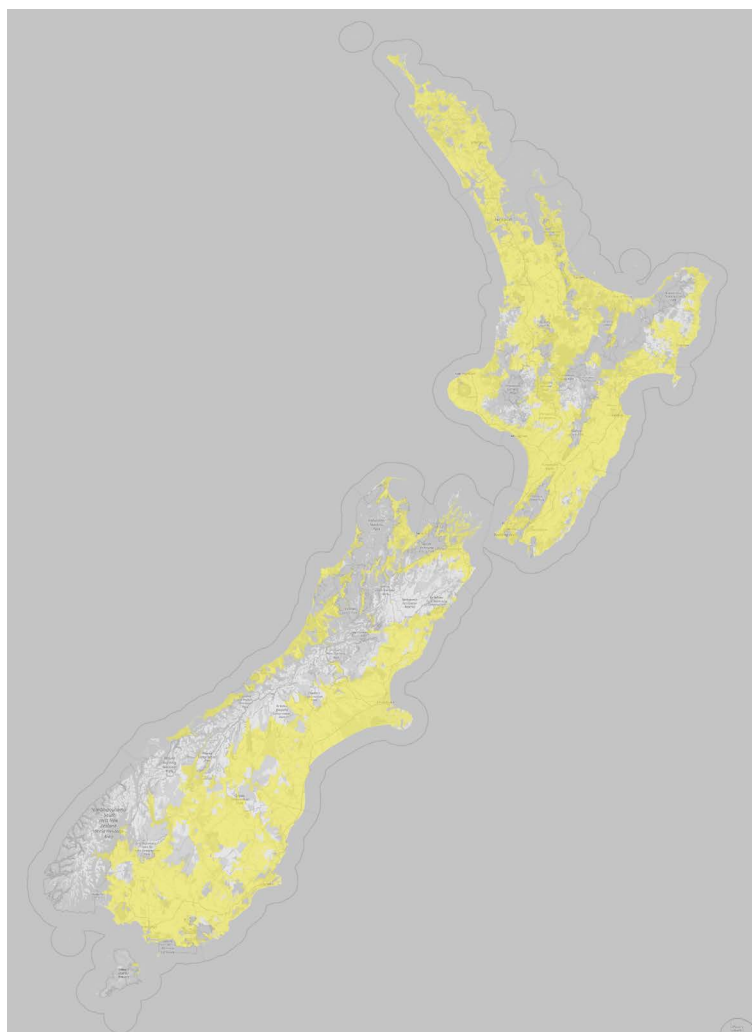
Reported 4G mobile population coverage is largely consistent across all three MNOs, with the average increasing slightly in 2024 to 98.5% from 97.7% a year ago. Average 4G landmass coverage was also slightly up, to 54.3% in 2024 from 52.3% a year ago.^{197,198}

These small increases are likely due to the ongoing RCG tower build programme (which all MNOs

share to provide coverage) meaning more locations and people in New Zealand are covered by 4G. The 4G upgrade programmes MNOs are undertaking (primarily upgrading 3G sites to 4G in anticipation of the upcoming 3G shutdown) are also likely to play a role in this.

Figure 71 shows MNOs' combined rural and urban 4G and 5G mobile coverage.

Figure 71: Operators' combined rural and urban 4G and 5G mobile coverage



Source: Commission data

¹⁹⁷ Commission data and Annual Industry Questionnaire.

¹⁹⁸ 2023 coverage numbers may be revised from the 2023 Annual Monitoring Report.

3G coverage

Reported 3G coverage is largely unchanged from 2023, with the average 3G population coverage 98.6% in 2024. Average 3G landmass coverage dropped slightly to 48.5%.¹⁹⁹

We expect 3G coverage to cease at the end of 2025 as MNOs shut down their 3G networks. One NZ has announced that it will switch off its 3G network by 31 December 2025.²⁰⁰ Spark has also reported that it will shut off its 3G network towards the end of 2025,²⁰¹ with 2degrees indicating a similar late 2025 timeframe.²⁰² We discuss this further in the market developments section.

Satellite Direct-to-Cell (D2C) coverage

Direct satellite to cellular connectivity (D2C) is an innovative new technology that extends cellular network coverage by enabling standard smartphones to communicate via satellite networks in areas where there is direct line of sight to the sky. MNOs around the world are partnering with satellite providers to provide D2C services. These services have some limitations and caveats but are likely to improve over time.

Spark and 2degrees have partnered with satellite network provider Lynk Global for D2C mobile services, while One NZ has partnered with Starlink.²⁰³ 2degrees has also partnered with AST SpaceMobile for access to its non-terrestrial cellular broadband network.

The service has several limitations or caveats at present:

- While standard handsets can communicate with satellite networks using this technology, they may require updates from the manufacturer to function. These updates will take time to roll out.²⁰⁴
- Similar to LEO satellite broadband, D2C requires a clear line of sight to the sky. This means it may not work in areas where the line of sight is obstructed by hills, trees, buildings or other objects.
- The initial service provided with these partners is text messaging, which may take several minutes to send or receive.

One NZ launched a beta D2C service in late 2024, while Spark noted in August that it is trialling the service with Lynk Global. We expect that Lynk Global will launch the service once it has enough satellites in orbit to support it. 2degrees said it is investing in building a local ground station as part of its partnership with AST SpaceMobile.

¹⁹⁹ Commission data/Annual Industry Questionnaire.

²⁰⁰ <https://one.nz/3g-switchoff>

²⁰¹ <https://www.spark.co.nz/help/mobile-understand/3g-network-closure/>

²⁰² <https://www.2degrees.nz/help/mobile-help/troubleshooting/things-to-know-about-our-3g-shutdown>

²⁰³ Not to be confused with 2degrees' recent partnership announcement with AST SpaceMobile, which is for cellular broadband services.

²⁰⁴ For instance, One NZ launched a beta D2C service in December 2024, which currently supports a limited range of handsets, but that number is growing - <https://www.nzherald.co.nz/business/companies/telecommunications/one-nz-launches-its-starlink-direct-to-mobile-service-but-with-a-couple-of-initial-limitations/FIPWCB5UCJBV3GMDCTMEIZS46M/>

Government investment

The Mobile Black Spot Fund (MBSF) was announced by the Government in 2018. It seeks to provide greater mobile coverage on approximately 1,400km of state highways and in 168 tourism locations where no coverage previously existed. RCG is contracted to deliver the MBSF programme.

See Rural connectivity at home >
Market structure > Infrastructure for our discussion of the RCG and other government infrastructure investments.

Under the MBSF, in the year to 30 June 2024, 60 new mobile towers were completed, resulting in an additional 44 tourism sites, 37 marae and 409km of state highways and local roads gaining mobile coverage.²⁰⁵ Most of the additional sites and roads covered in that period were in Manawatū-Whanganui, top of the South Island, West Coast, Canterbury and Otago. Most of the newly connected marae were in Northland, Waikato and Bay of Plenty.

The additional towers and locations covered likely played a key role in the increase in 4G population and land-mass coverage seen in the last year.

The MBSF programme was originally set to be completed by December 2022. As of 30 June 2024, the programme has completed coverage to 168 tourism sites (92% of the revised target of 180 sites) and 1,682km of state highway and local roads (95% of the revised target of 1,800km).²⁰⁶

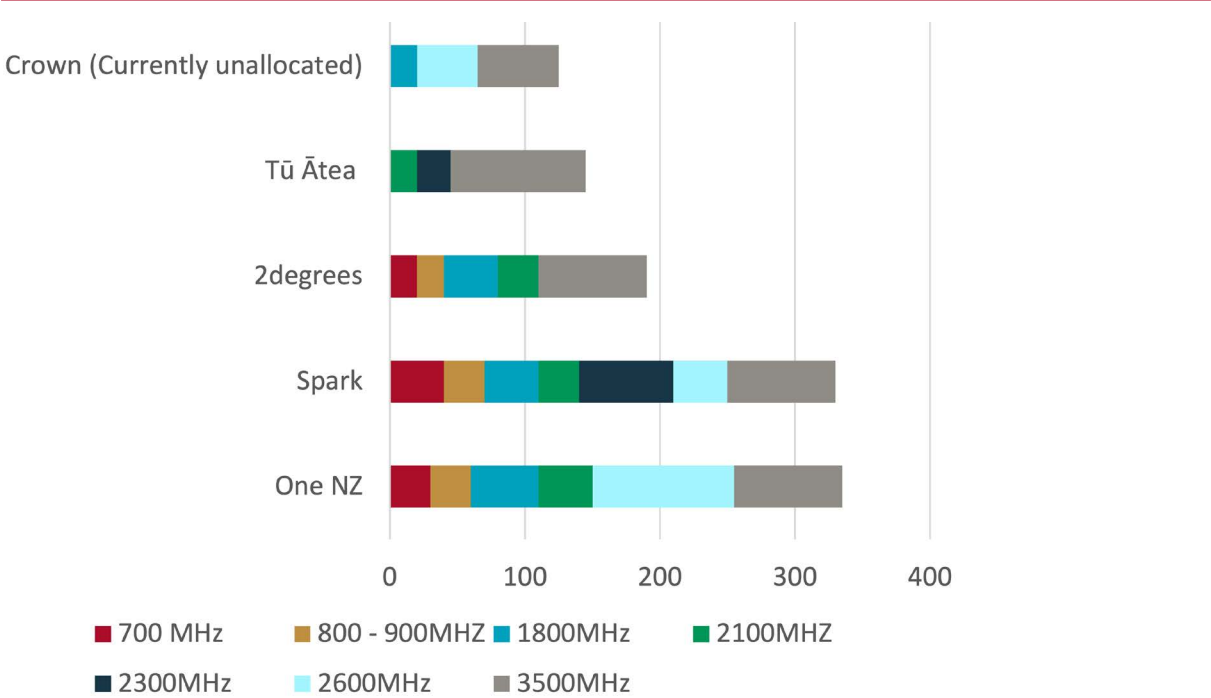
205 Commission analysis of NIFF Quarterly Connectivity Updates - <https://www.nationalinfrastructure.govt.nz/about/publications/>
206 Commission analysis of NIFF Quarterly Connectivity Update (June 2023) - <https://www.crowninfrastructure.govt.nz/wp-content/uploads/CIP-Digital-Connectivity-Quarterly-Report-JUNE-2023.pdf>

Spectrum

MNOs use different spectrum bands for mobile services. Lower frequencies cover wider areas and penetrate objects like walls better than higher frequencies. However, higher frequencies can carry more data. Spectrum is limited, so MNOs can only use certain frequencies. For any given level of spectrum, MNOs can improve services by building more towers. In urban areas, 5G uses higher frequencies than older networks, which have lower penetration and coverage. Therefore, MNOs will build more sites for 5G. In rural areas, lower frequencies will carry 5G signals further.

Figure 72 illustrates the current spectrum holdings of One NZ, 2degrees, Spark and Tū Ātea (previously the Interim Māori Spectrum Commission) as well as unallocated spectrum held by the Crown. Spectrum holdings contribute to the relative capacity of each MNO and are a factor in their ability to compete in the provision of retail and wholesale mobile and cellular fixed wireless broadband services. Of the MNOs, Spark and One NZ hold similar amounts of spectrum after One NZ’s acquisition of Dense Air, while 2degrees has the least.²⁰⁷

Figure 72: Spectrum holdings²⁰⁸



Source: Commission data

207 Commerce Commission “One NZ and Dense Air Statement of Issues” (February 2024) - https://comcom.govt.nz/_data/assets/pdf_file/0021/342255/One-NZ-and-Dense-Air-Statement-of-Issues-2-February-2024.pdf. The 2x15MHz of spectrum at 2100 for 2degrees is owned by Hauraki Limited but used by 2degrees.

208 Spectrum holdings prior to completion of One NZ’s acquisition of Dense Air.

In New Zealand, the Government has historically allocated licensed telecommunications spectrum via an auction process. Rights for the use of the spectrum are valid for a fixed period. The current allocations expire between 2028 and 2043. When they expire, the Government will likely reallocate required bands via a process such as auction or direct allocation.

In May 2023, the Government signed agreements with each MNO for a direct allocation of 80MHz of spectrum in the 3.5GHz band (used for 5G) in exchange for \$24 million from each MNO to expand mobile coverage into rural areas via the RCG. This funding is additional to the value of the works required to accelerate the provision of 5G to urban and suburban areas.²⁰⁹

Tū Ātea also received 100MHz of 5G spectrum in the 3.5GHz band and is expected to receive further spectrum over time that is potentially available to MNOs on commercial terms.

Tū Ātea currently uses its spectrum to offer end-to-end private 4G and 5G radio network services and recently announced a deal with CentrePort to provide dedicated connections to tablet devices used in vehicles and cranes.²¹⁰ Private networks allow enterprise customers to avoid congestion on public mobile networks, and providers can offer tailored services to overcome coverage and performance issues.

In May 2024, the Commission granted clearance for One NZ to acquire Dense Air, including its spectrum licence for 2x35MHz of 2600MHz spectrum, noting it was satisfied that the acquisition is unlikely to substantially lessen competition in any New Zealand market.^{211,212}

Mid-band spectrum (between 1GHz and 6GHz, including 2600MHz) offers greater capacity but over shorter distances so is useful to provide capacity and carry signals in densely populated urban areas using a large number of sites. 2600MHz spectrum is used by One NZ and Spark to provide 4G mobile and wireless broadband services but may be used for 5G and 6G services in the future, together with other spectrum bands. One NZ will likely use Dense Air's spectrum to add capacity to its network and provide improved services to customers.

There are no current or imminent spectrum auctions as at June 2024.

209 <https://www.rsm.govt.nz/projects-and-auctions/current-projects/preparing-for-5g-in-new-zealand/>; <https://www.beehive.govt.nz/release/govt-speed-5g-rollout-regional-towns>

210 <https://www.tuatea.nz/post/t%C5%AB-%C4%81tea-to-build-the-country-s-first-commercial-private-5g-network-for-centreport-1>

211 https://comcom.govt.nz/_data/assets/pdf_file/0023/364280/5B20245D-NZCC-10-One-New-Zealand-and-Dense-Air-merger-clearance-determination.pdf

212 While this increases the gap in relative holdings between One NZ and 2degrees, the Commission said 2degrees has access to other mid-band spectrum it can use, it can deploy its existing spectrum at more sites and it can improve spectral efficiency.

Tower ownership²¹³

Passive infrastructure includes network elements such as towers, masts and poles that are not part of the active telecommunications network.

Globally, MNOs have been selling their passive infrastructure to tower companies (TowerCos) to free up capital for investments like 5G. In New Zealand, Spark and 2degrees sold their towers to Connexa, and One NZ sold its towers to Fortysouth.

Connexa and Fortysouth operate most of the tower infrastructure in New Zealand and lease space on the towers to the network operators for their radio access network equipment.

Connexa purchased 1,267 mobile towers from Spark in October 2022 and 1,124 from 2degrees in June 2023, giving it a network of just under 2,400 towers.²¹⁴ When making these purchases, Connexa committed to building at least 670 more towers over the next decade as part of Spark's build programme and 390 over the same timeframe for 2degrees. As such, we estimate that the Connexa network comprises 2,470–2,550 towers as of the end of June 2024.

Connexa was 83% owned by Ontario Teachers' Pension Plan and 17% owned by Spark at 30 June 2023.²¹⁵ While outside the time period for this report, we note that Spark announced plans to sell its share in Connexa in late 2024.

Fortysouth acquired 1,484 towers from One NZ in November 2022 with a commitment to build at least another 390 towers over the next decade.²¹⁶ Fortysouth had 1,580 towers at the end of March 2024, well on track to meet its minimum commitment to One NZ. We estimate the network would comprise around 1,600 towers as of June 2024. Fortysouth is owned by Infratil, Infrared Capital and Northleaf Capital.

213 In June 2023, 2degrees completed the sale of its passive cellular network infrastructure to Connexa, following clearance from the Commission.

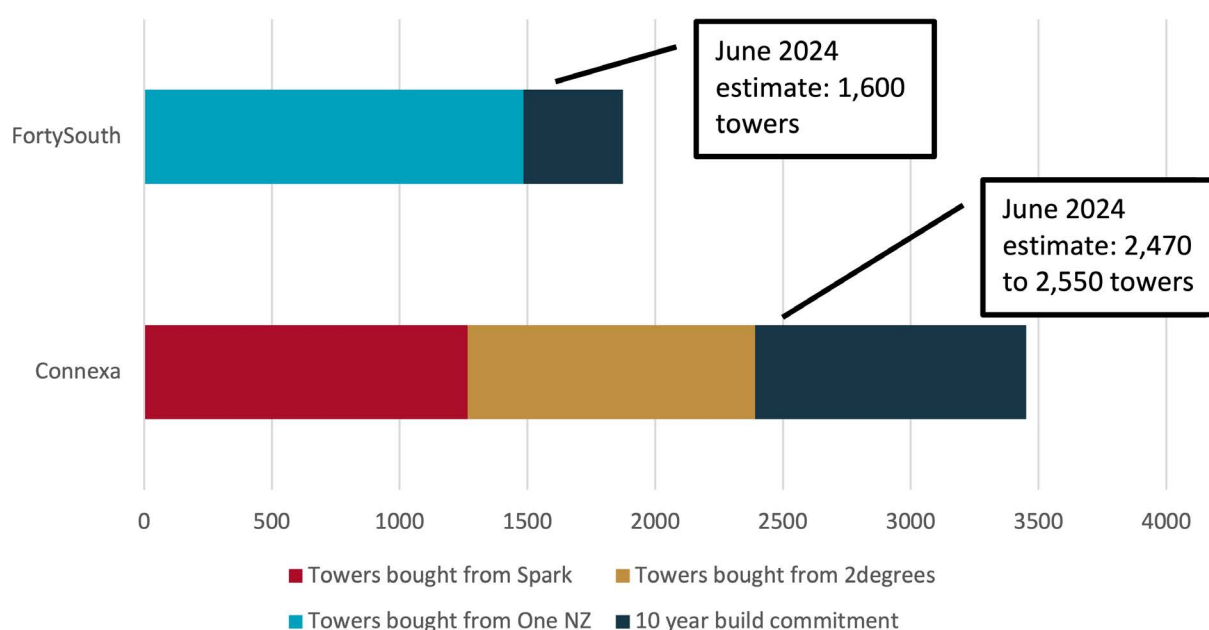
214 <https://connexa.co.nz/news/connexa-completes-acquisition-of-2degrees-passive-mobile-tower-assets>

215 <https://www.otpp.com/en-ca/about-us/news-and-insights/2022/connexa-and-ontario-teachers--announce-agreement-to-acquire-2deg/>

216 Infratil "Annual Report 2023", page 44 - <https://infratil.com/for-investors/bonds/where-to-find-out-more/annual-report-2023/>

Figure 73 summarised the towers built or committed as at June 2024.

Figure 73: TowerCos towers built and committed



Source: Connexa, Fortysouth, Commission analysis

MNOs have used some of the proceeds from the sale of these towers to invest into growth areas such as their 5G deployments. For example, Spark invested \$101 million of the tower sale proceeds in data centres and 5G acceleration in FY23.

The RCG owns its own tower network (not part of the Connexa or Fortysouth companies) across some rural and remote areas of New Zealand. It announced its 500th tower completion in early July 2024.²¹⁷ These towers are used by all three MNOs, bringing coverage to areas where it would be uneconomic for one MNO to do alone.

²¹⁷ <https://billbennett.co.nz/rural-connectivity-group-hits-500-cell-site-milestone/>

The wholesale market plays an important role in shaping outcomes at the retail level for consumers. Regulation usually applies where competition by itself is not enough to result in access to infrastructure that shows natural monopoly characteristics.

The wholesale mobile market has been integral in helping to facilitate the entry and expansion of New Zealand's third mobile network 2degrees – resulting in a fundamental shift in the overall market structure of telecommunications in New Zealand. Current wholesale activity generally takes place on commercial terms, subject to certain regulatory provisions.

2024 highlights

- The market share of MVNOs grew from 1.6% to 2.5% in 2024, with the number of MVNO subscribers increasing by 61% from 106,000 in 2023 to 171,000 in 2024.
- The number of MVNOs in the market has nearly doubled since our monitoring report in 2022, bringing the total offering consumer mobile services to 11.
- MNOs have launched tools and partnerships to make it easier for MVNOs to establish themselves, reflecting a trend towards increasing mobile network utilisation.
- Most MVNOs are offering 5G service as well as 4G service. It remains to be seen whether MNOs will enable D2C service for their MVNOs or keep it as a service differentiator for themselves.

Over time, certain regulatory protections have been put in place to preserve incentives for competitive outcomes in the mobile market. These include price caps for mobile termination access services (MTAS) and provisions for services that are critical in a multi-operator environment such as mobile co-location and national roaming.

With three established MNOs now operating in the market, the wholesale regulatory protections provide a backstop where commercial terms continue to be needed.

MVNOs

An MVNO is a mobile provider that does not own the network infrastructure or spectrum over which it provides services to its customers. An MVNO enters into an agreement with a MNO to obtain bulk access to network services at wholesale rates, then sets retail prices independently.

MVNO Primo entered the market since our last monitoring report. We also identified an additional MVNO that we hadn't included in our previous report.²¹⁸ As a result, there were 11 MVNOs operating in New Zealand as at 30 June 2024.²¹⁹ As shown in Table 28, all three MNOs are hosting MVNOs on their networks.

Table 28: MVNOs operating in New Zealand

| MVNO | Owner | Industry | MNO host | Main propositions | Basic strategy |
|--------------------|-----------------------------|---------------------------|----------|--|--|
| Compass | Compass Communications Ltd. | Telco | One NZ | None | No longer actively selling, has existing customers |
| Contact Mobile | Contact Energy | Energy retailer | One NZ | Endless and unlimited data plans | Bundling services |
| Kogan Mobile | Kogan | Online retailer | One NZ | 31-day plans and 365-day plans | No frills, low cost |
| Megatel | Nova Energy | Telco and energy retailer | Spark | Endless plans and rollover data plans | Bundling services |
| Netspeed | Netspeed | Regional telco | One NZ | Endless plans | Bundling services |
| Primo | Primo | Regional telco | One NZ | Endless plans | Bundling services |
| Rocket Mobile | My Republic | International telco | One NZ | Unlimited data plans of varying speeds | Act as an innovative challenger brand |
| Mighty Mobile | Mighty Ape/ Kogan | Online retailer | One NZ | Unlimited data plans of varying speeds | Sell subscription services to large customer base via strong online presence |
| Mercury Energy | Mercury Energy | Energy retailer | Spark | Endless plans and rollover data plans | Bundling services |
| Warehouse Mobile | The Warehouse | Retailer | 2degrees | Rollover data plans | No frills, low cost |
| Nova Energy Mobile | Nova Energy | Energy retailer | 2degrees | Endless plans | Bundling services |

218 We have only included MVNOs that sell retail residential services. We know of two others that sell retail business mobile services only. Netspeed is the MVNO included in this list we hadn't included previously.
219 Our definition of an MVNO for this report is an organisation that utilises an MNO network to supply mobile services and that these services are sold to residential consumers with current offers available via the MVNO's website. We do not include sub-brands such as Skinny or Slingshot, as these brands are part of an MNO's overall mobile strategy and not independent from that perspective.

There has been material growth in MVNO market share – moving from 1.6% to 2.5²²⁰ in the year to June 2024. This is the highest we've seen MVNO market share to date, but it is still in the bottom eight in the OECD.²²¹

In 2024, there were 171,000 MVNO subscribers, up 61% from 106,000 in 2023. The number of MVNOs has nearly doubled since our monitoring report in 2022 (some others have been disestablished or merged in that time also). The majority of the new entrants use One NZ as their network operator. We have regularly seen energy and broadband providers entering the mobile market as MVNOs, with over 70% of the MVNOs established in the last 2 years being providers that already primarily sold broadband and/or energy services.

This increase in the number of MVNOs is consistent with an international trend towards increased network utilisation by MNOs as they seek to monetise ongoing investments into their networks. During the year, One NZ and 2degrees both launched tools and partnerships aimed at making it easier for MVNOs to get established.²²² Spark Wholesale has a dedicated team to service and enable MVNO entry.²²³

Entering the mobile market through MVNO arrangements can be appealing for providers such as energy companies because they can leverage existing systems and customer bases without the high costs of building a mobile network. Their trusted brands can help attract customers from the Largest 3 telcos.

The rise of eSIMs makes switching providers easier for consumers, which may encourage greater levels of switching, including to MVNOs.

220 Commission data.

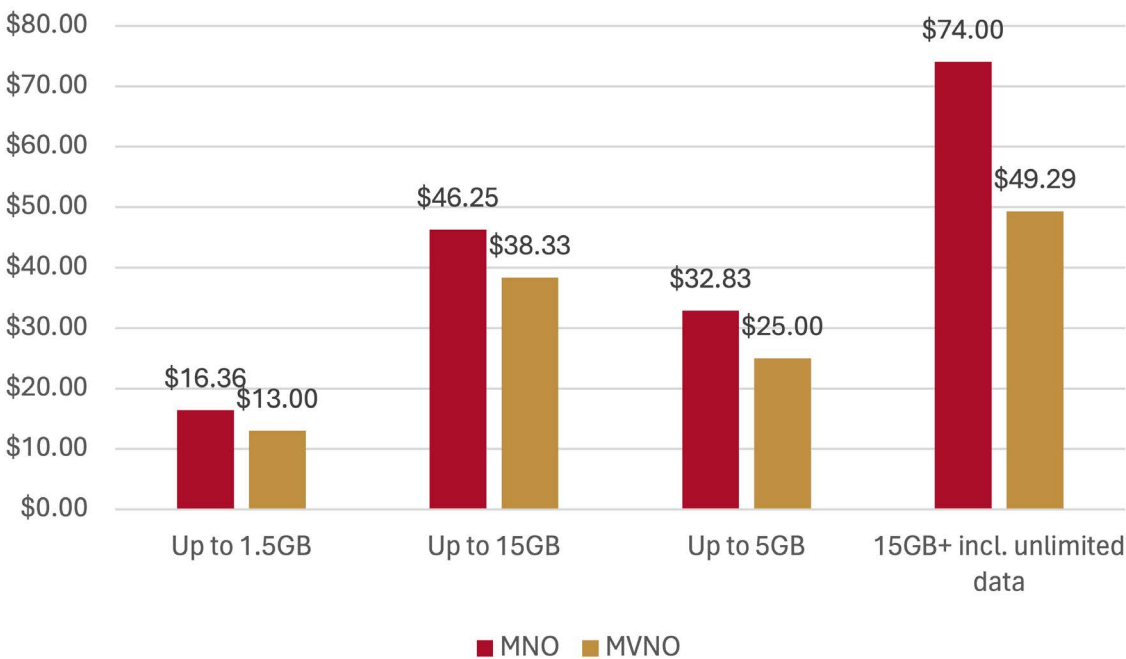
221 OECD "Emerging Trends in Communication Market Competition" (2021) - https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/09/emerging-trends-in-communication-market-competition_3f2df010/4ad9d924-en.pdf

222 <https://www.reseller.co.nz/article/2092502/one-nz-deploys-launchpad-platform-from-matrixx-software-to-drive-mvno-growth.html>; <https://totogi.com/newsroom/press-releases/new-zealand-telco-2degrees-selects-totogi-charging-as-a-service-to-expedite-market-growth>

223 <https://www.sparkwholesale.co.nz/products/Mobility/MVNO/>

MVNOs typically offer plans at similar or cheaper prices to MNOs and regularly target specific customer groups with their offerings – see Figure 74 for a comparison of prepaid plans.

Figure 74: MVNO vs MNO average prices – prepaid plans



Source: Commission data from operator websites collected 30 June 2024

MVNOs also differentiate their service based on value add-ons such as rollover balances and international calling and texts. Whether MVNOs get access to the latest features and upgrades of their host MNO network depends on the contractual agreements between the two parties. For example, not all MVNOs have access to their MNO’s 5G network, and One NZ does not currently offer MVNOs access to its D2C satellite service via SpaceX.

Overall, this is a positive step towards a more competitive mobile market place in New Zealand. For example, Figure 74 shows that prepaid consumers moving to an MVNO can save between \$3.36 (<1.5GB plans) to \$24.71 (>15GB plans) per month on average.

The long-term sustainability of the MVNO market depends on MNOs’ strategies. MNOs are motivated to monetise excess network capacity, but since they control the infrastructure and set wholesale prices, they have some influence on MVNOs’ success.

National roaming

National roaming allows customers of one cellular network to use another network when they are outside their own provider's coverage area within New Zealand.

We are required to undertake a statutory review of the national roaming service every 5 years to determine whether reasonable grounds exist to investigate its removal from the Telecommunications Act.

We undertook our latest review of National Roaming in 2023. We have retained the regulatory backstop to ensure existing network operators deal with access seekers on reasonable terms.

Mobile co-location

Mobile co-location allows an MNO to locate its equipment on another MNO's existing infrastructure (mast or tower).

Co-location helps reduce network infrastructure costs for existing and potential MNOs by providing for the sharing of network infrastructure.

Co-location is available under regulated and commercial terms.

We are required to undertake a statutory review of the mobile co-location service every 5 years to determine whether reasonable grounds exist to investigate its removal from the Telecommunications Act. We are next due to review mobile co-location by May 2026.

We do not currently have information on the extent of mobile co-location in New Zealand. With the creation of the two key TowerCos Connexa and Fortysouth, we expect this market to grow over time given the commercial incentives of TowerCos to attract more tenants onto their towers. The RCG offers co-location services to WISPs.

2degrees provides services using multi-operator radio access network equipment installed on One NZ cell sites. Under this form of arrangement, 2degrees and One NZ share not only the cell tower (now owned by TowerCo Fortysouth) but the radio access network equipment as well.

Retail telecommunications markets are where combinations of infrastructure and wholesale offers are packaged up by competing firms/brands to be marketed to consumers. The structure of the retail market has the most direct effect in shaping the experience of consumers.

The retail mobile market structure has been significantly shaped by past wholesale access regulation and spectrum allocation decisions that supported the entry and expansion of 2degrees as New Zealand's third MNO.

2024 highlights

- The mobile market in New Zealand remains highly concentrated, with an estimated HHI of 3,343 in 2024, reflecting limited distribution across firms.
- Market concentration has reduced by 1.1% over the past five years.
- MVNOs have increased their market share to 2.5% in 2024, up from 1.6% in 2023.
- There is a significant difference in the adoption of endless plans – 67% of postpaid users have endless plans compared to only 7% of prepaid users.
- 2degrees was the only mobile network operator to grow its market share, likely due to its consistently lower pricing across postpaid and prepaid plans.

Retail mobile services are predominantly supplied by three MNOs – 2degrees, Spark and One NZ. There are 11 MVNOs – Compass, Contact Energy Mobile, Kogan Mobile, Megatel, Mercury, Mighty Mobile, Netspeed, Nova Energy Mobile, Primo, Rocket Mobile and Warehouse Mobile – that serve a small but growing share of mobile subscribers.

Retail market share

Market concentration

Market concentration – the extent to which the distribution of the market across firms is limited to relatively few firms – is an important structural characteristic of a market.

There are several ways to look at market concentration. We have chosen to use both the market concentration ratio and HHI:

- The market concentration ratio (CR) looks at the market shares of the providers relative to the total market share. The analysis in this report uses CR3, which measures the market share of the three largest providers in a market, and CR5, which measures the five largest providers in a market. Please note that information about Spark for this section includes its sub-brand Skinny.
- HHI analyses market shares of each firm in a market to determine a value of market concentration – an HHI between 1,500 and 2,500 indicates moderate concentration, whereas values above this indicate high concentration.

The New Zealand mobile market continues to operate as a three-player oligopoly, with the three largest MNOs collectively holding 97.5% of the market share in 2024 (CR3) and the top five providers accounting for 98.9% (CR5) (Table 29). MVNO subscribers make up the final 2.5% of the mobile market, up from 1.6% in 2023.²²⁴ In contrast, the national broadband market – covering both residential and business services – is less concentrated. The top three broadband providers hold 73% of the market (CR3) and the top five account for 86% (CR5).

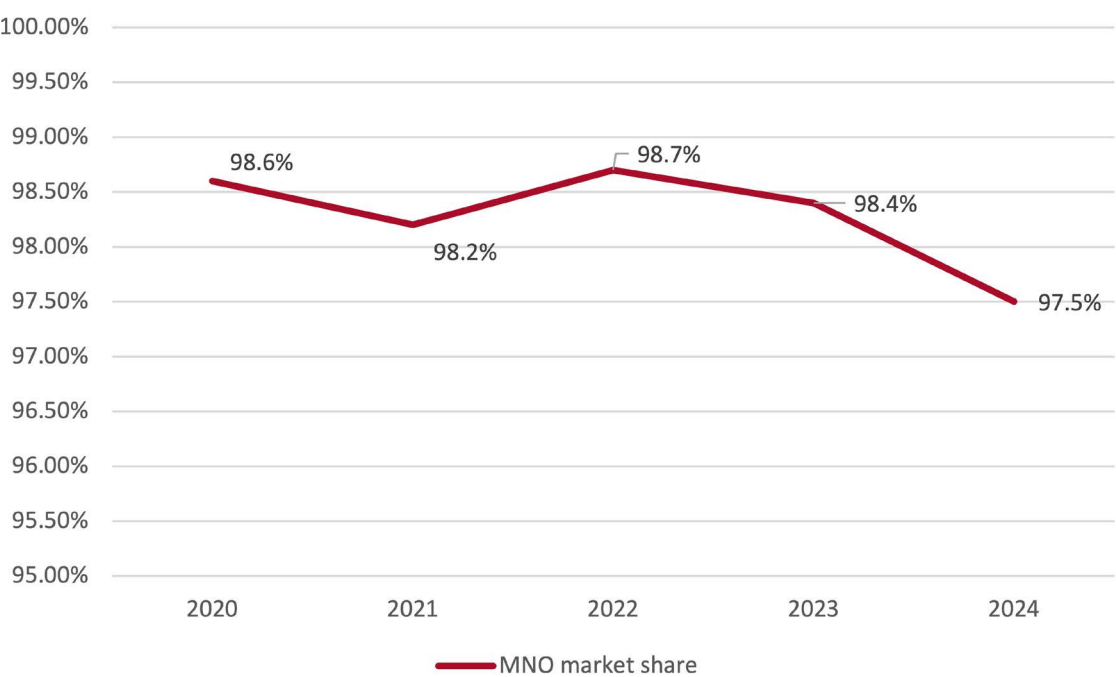
²²⁴ It should be noted that Rocket Mobile did not provide its connection numbers to us. It is probable that, with Rocket Mobile's numbers, the overall MVNO market share would be closer to 2.0% of the market.

Table 29: Market concentration and HHI

| | National mobile market | National broadband market (residential and business) |
|-----|------------------------|--|
| CR3 | 97.5% | 73% |
| CR5 | 98.9% | 86% |
| HHI | 3,343 | 2,040 |

Figure 75 shows that market concentration has reduced by 1.1% over the past four years. Between 2018 and 2020, there was little change in the number of retail competitors (MNO and MVNO) except that Kogan Mobile launched as an MVNO with then-named Vodafone in 2019.

Figure 75: Market share of MNOs by connections



Source: Commission data

Since 2020, there have been changes in the MVNO market. The merger of Vocus and 2degrees completed in June 2022, so Vocus's mobile customers have been included in the MNO figure for 2022 onwards. There has also been further entry by new MVNO providers such as Rocket Mobile, Mighty Mobile and more recently Kiwi Mobile.²²⁵

We can see that, since 2022, the MVNOs have taken a small amount of market share from MNOs. MVNOs' combined market share of 2.5% in 2024 is the largest market it has ever been. While this shift is positive, the Largest 3 vertically integrated national players still control 97.5% of the market.

With 11 MVNOs now in the market, we are seeing signs of improvement improvements in wholesale infrastructure competition, restructuring and investment by MNOs to enable MVNO entry.

HHI

The mobile market in New Zealand is highly concentrated, with an estimated HHI of 3,343 in 2024.²²⁶ This represents a slight decrease from the 2023 estimate of 3,453, reflecting a modest reduction in market concentration across both residential and business segments.

In comparison, the national broadband market is less concentrated, with an HHI of 2,040. This indicates that, while both markets are dominated by a few large providers, the broadband sector exhibits a more competitive structure than the mobile market.

²²⁵ Kiwi Mobile launched in July 2024 and therefore subscriber numbers and those of any other MVNO launching after 30 June 2024 will be included in next year's Annual Monitoring Report.

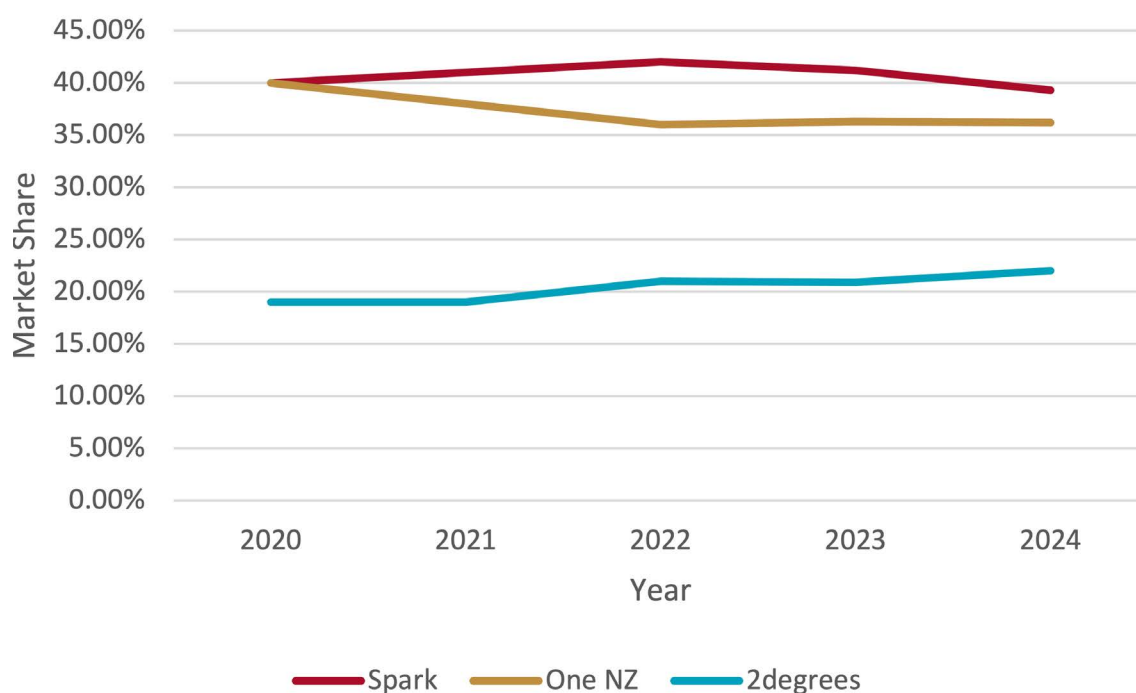
²²⁶ HHI is calculated as the sum of the squares of the market shares of the MNOs (including their sub-brands) and the MVNOs included in the Annual Industry Questionnaire.

Competition between MNOs

Having examined MNOs relative to the total market, it is important also to understand the level of competition that exists among MNOs. To do this, we have looked across the market shares of MNOs to identify whether any volatility exists over time. At a high level, we would interpret volatility between providers' market shares as an indicator of competition.

While we do not have the data required to produce a long time series,²²⁷ Figure 76 does suggest some volatility in the market shares between MNOs.

Figure 76: MNO market shares 2020–2024



Source: Commission data

²²⁷ Due to a change in methodology between 2019 and 2020 for calculating this metric, prior data is no longer comparable.

We expect that volatility in market shares in 2021–2022 was driven by external factors related to COVID-19 travel restrictions rather than by increasing competition in the market.

In the last year, 2degrees is the only MNO to have improved its market share. One NZ's market share remained flat, and Spark lost market share, likely to challengers such as 2degrees and the MVNOs. When we analysed plan pricing data between the providers, it demonstrated that 2degrees had the lowest prices across MNOs for postpaid offers as at June 2024 (Table 30). 2degrees also had competitive pricing for prepaid plans, but, in some cases, Skinny's prices were lower. We can surmise that 2degrees has been seeking growth in subscriber numbers by focusing on competitive pricing. We have not seen either of the original duopoly, Spark or One NZ, elect to engage in price-based responses to 2degrees.

Table 30: Provider prices to meet data allowance categories – postpaid (June 2024)

| Data allowance | 2degrees | One NZ | Spark |
|-----------------|----------|---------|---------|
| S – up to 1.5GB | | | \$21.00 |
| M – up to 5GB | \$40.00 | \$45.00 | \$45.00 |
| L – up to 15GB | \$50.00 | \$65.00 | |
| XL – up to 40GB | \$60.00 | | \$70.00 |
| Unlimited | \$80.00 | \$85.00 | \$90.00 |

Source: Commission data

Retail offers

Mobile retailers' offers in the retail telecommunications market are made up of three key components:

- Plan types – prepaid vs postpaid.
- Plan allowance of texts, calls and data.
- Data speeds.

Service characteristics – plan type

There are two types of mobile plans – prepaid and postpaid:

- Prepaid plans require customers to load credit onto their accounts. Using this credit, customers can then purchase bundles of calls, texts and data or pay as they go (casual users).
- For postpaid plans, providers send customers a bill each month for the service.

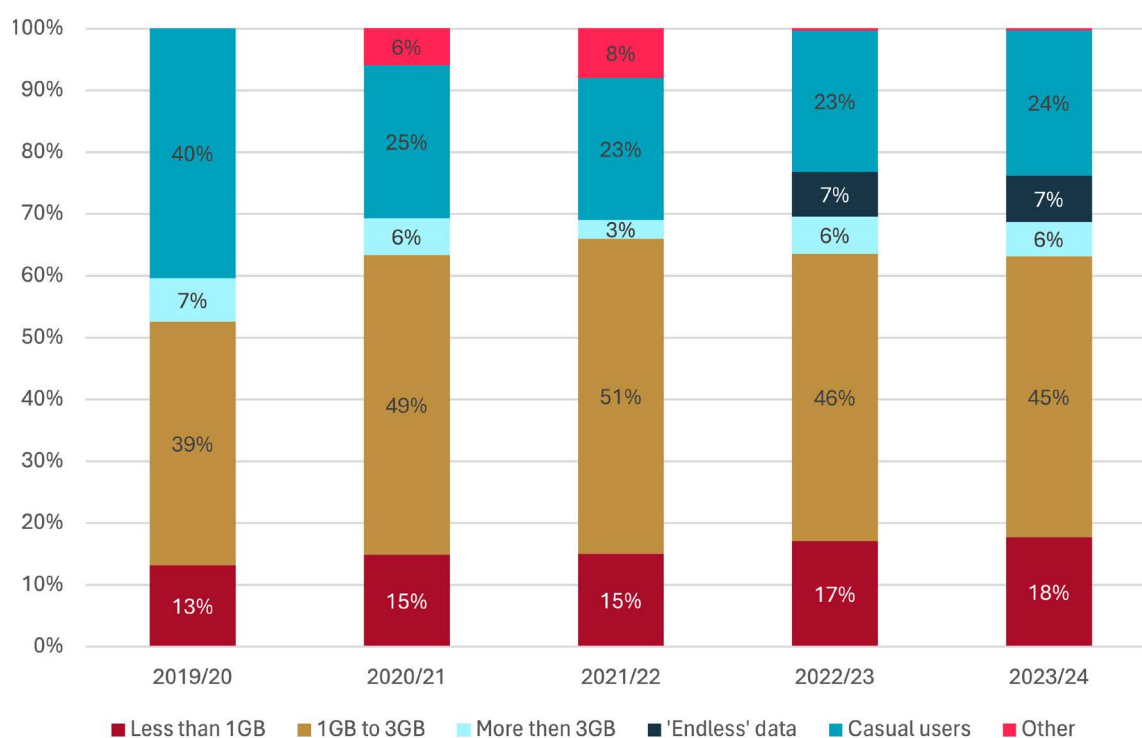
In 2024, 59% of residential mobile consumers were on prepaid plans, the same as 2023.²²⁸ Until 2022, we saw a trend of consumers moving away from prepaid to postpaid plans. However, in 2023, the number moved slightly back towards prepaid connections and has remained static in 2024. This shift likely reflects household budget pressures due to the recent economic situation in New Zealand. Prepaid plans help consumers manage their spending more flexibly.

228 Commission data/Annual Industry Questionnaire.

Service characteristics – plan allowance

The make-up of data allowances in prepaid plans has remained mostly steady over time, with some increases in the percentage of connections on endless plans or data-only plans (Figure 77). Endless data plans are available on prepaid plans as well as postpaid plans.²²⁹ Few prepaid users opt for endless plans (7%). The significant majority (87%) of prepaid users are on plans with less than 3GB of data or are casual users.

Figure 77: Data allowances of residential prepaid plans²³⁰



Source: Commission data²³¹

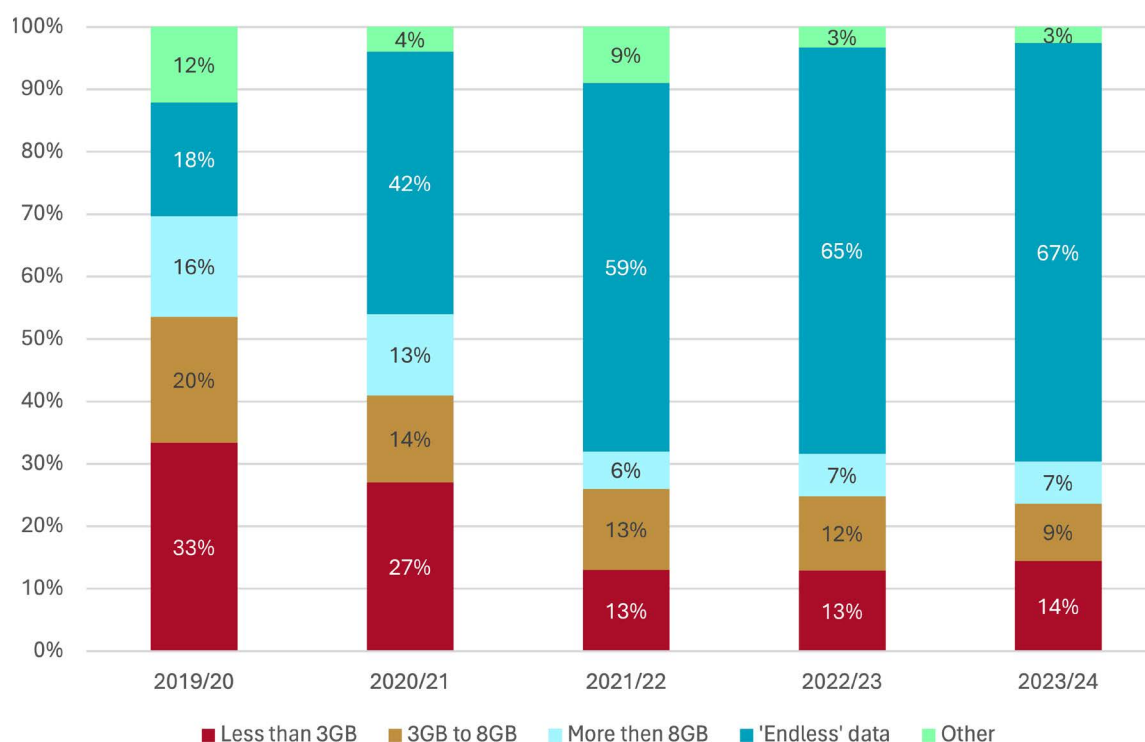
²²⁹ The appearance of a percentage of endless plans from 2023 onwards in Figure 77 is because the Commission began asking providers for the number of connections on endless plans.

²³⁰ Other includes data-only and endless prepaid plans prior to 2021/22.

²³¹ Casual users top up their prepaid account with credit but do not buy a monthly recurring plan and consume calls, texts and data on a per minute/message/GB basis. Other includes any other plans not covered in the existing categories. Up to 2021/22, this included endless data plans until we split out this information in 2022/23.

In contrast, the majority of postpaid users (67%) are on endless plans with only 14% on plans with less than 3GB of data (Figure 78). This significant uptake indicates strong marketing efforts from MNOs and demonstrates the value of data to consumers, allaying the fear of running out of data and the potential for a shift towards unlimited data differentiated by speed tiers.

Figure 78: Data allowances of residential postpaid plans



Source: Commission data

There is notable disparity between the percentage of users on endless plans on prepaid (7% of prepaid connections) vs those on postpaid (67%). Factors for this could include that:

- fewer providers offer endless plans on prepaid than on postpaid
- providers grandfathering older plans and migrating postpaid consumers onto endless plans
- consumers who want the latest handsets on interest-free repayments tend to need to be on the higher-priced plans to get them
- around a quarter of all prepaid connections are casual and would likely never choose a plan, including endless plans.

Some providers offer consumers flexibility to control their spend on an intra-month or inter-month basis. For example:

- Electric Kiwi's Kiwi Mobile lets consumers level up through data tiers with an increasing daily rate if they need more data throughout the month²³²
- One NZ has offered its MyFlex Prepay proposition for several years, where its consumers can pick and change their own custom combination of data, texts and calling minutes.

Service characteristics - speeds

Two providers sell mobile plans based on their speed:

- Mighty Mobile offers three unlimited data plans at different speeds. Consumers can choose between up to 10Mbps, up to 50Mbps and Max speed data.
- Rocket Mobile (previously My Republic) offers four unlimited data plans at different speeds. Consumers can choose between up to 2Mbps, up to 10Mbps, up to 40Mbps and Max speed data.

The speed a consumer gets will depend on factors such as how far they are from a cell tower, whether they are indoors or outdoors and whether they are connecting to a 3G, 4G or 5G tower. A plan rated at up to 40Mbps, for example, will not achieve 40Mbps all the time.

Consumers can run their own speed tests on various websites or mobile apps such as speedtest.net or opensignal.com.

²³² Alternatively, these consumers will shift to a throttled data speed if their maximum speed data runs out.

Consumers of telecommunications are presented with a wide range of retail offers that are products of the underlying market structure – the network infrastructure, its capabilities, ownership and regulatory settings. Whether consumers understand and act on these offers is a product of the information available to them, including through marketing, and their innate preferences and behaviours.

2024 highlights

- Our survey results show that 63% of mobile consumers have been with their provider for more than 5 years, up from 60% last year.
- The latest Consumer NZ review finds Spark has improved the usage and spend information it provides to consumers through the deployment of its AI-powered Made for You Review, which provides consumers with personalised plan recommendations.

Market transparency

In 2020, a Commission review of bills from 80,000 mobile customers identified issues of transparency and consumer inertia in the residential mobile market. We asked MNOs to improve the usage and spend information made available to mobile consumers.

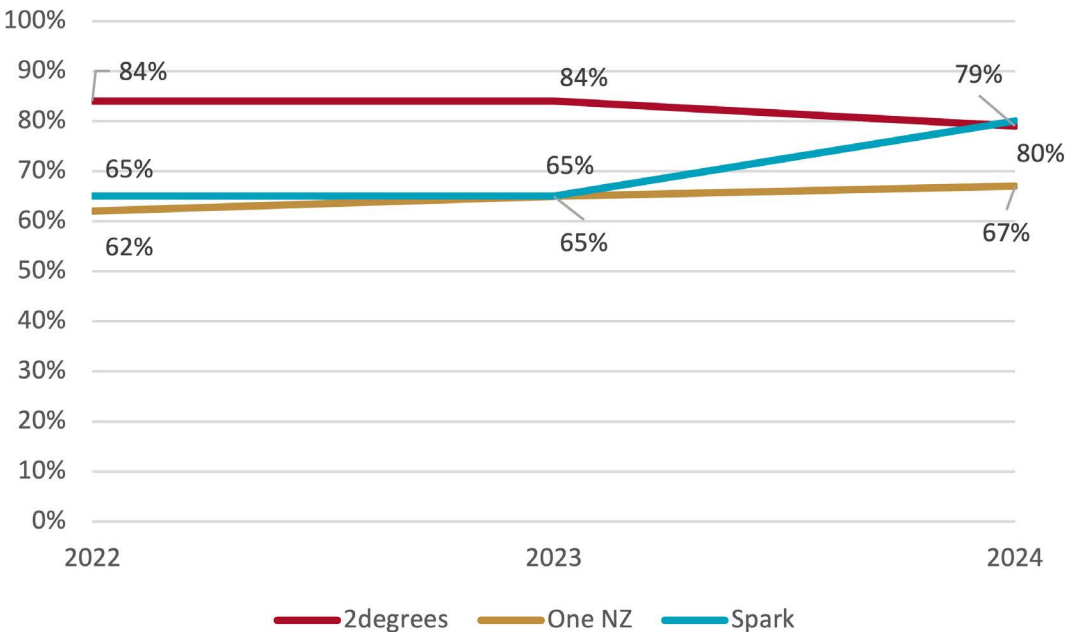
In 2022, we engaged Consumer NZ to undertake an independent assessment of the changes to usage and spend information made by MNOs.²³³ The review found consumers were getting better usage and spend information (through either

the MNO's app or annual reminders) than before the Commission's review but that there were significant opportunities for further improvement across all MNOs.²³⁴

In 2023, Consumer NZ undertook a second review.²³⁵ The review showed that, at that time, providers had made little progress over the prior year.

The latest review, released in 2024, suggests that 2degrees and One NZ had made little further progress over the year.²³⁶ However, Spark had recorded a notable improvement due to its new AI-powered personalised plan recommendations through its Made for You Review. Spark now leads the transparency rankings (Figure 79).

Figure 79: MNO mobile plan transparency scores



Source: consumer.org.nz

233 Commerce Commission “Addressing transparency and inertia issues in the residential mobile market” (19 May 2022) - https://comcom.govt.nz/_data/assets/pdf_file/0026/283904/Addressing-transparency-and-inertia-issues-in-the-residential-mobile-market-update-Open-letter-20-May-2022.pdf
234 Consumer NZ’s full review can be found at <https://www.consumer.org.nz/articles/how-consumer-friendly-is-your-telco-provider>
235 Consumer NZ’s 2023 review can be found at <https://www.consumer.org.nz/articles/mobile-plans-which-mobile-provider-is-most-consumer-friendly>
236 Consumer NZ’s 2024 review can be found at <https://www.consumer.org.nz/articles/is-your-mobile-plan-right-for-you-telcos-could-do-more-to-tell-you>

Switching providers and changing plans

The level of switching observed in a market may be indicative of the ability of consumers to act and take advantage of competing offers. It may also indicate the presence of behavioural preferences towards the existing and familiar.

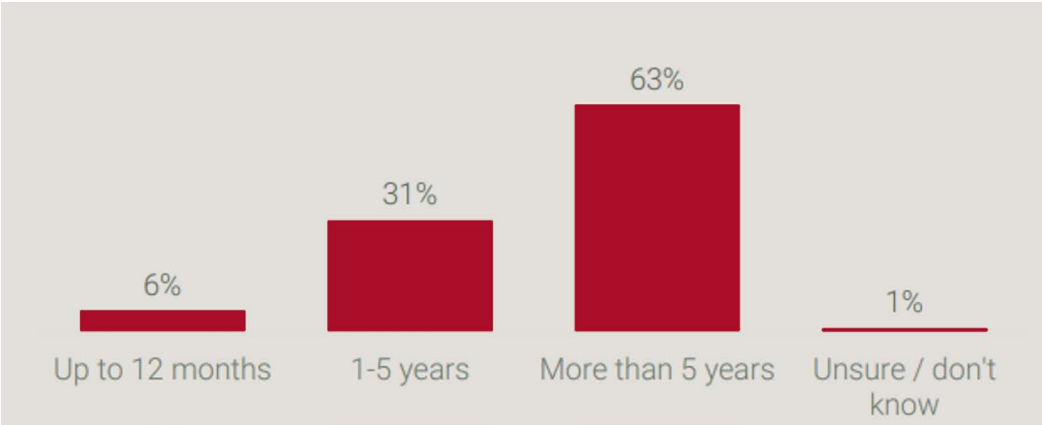
There is no fixed proportion of the market that should be expected to switch. Consumers not switching provider is not necessarily a concern if those consumers are satisfied with their provider (for example, where their existing provider competes harder to retain them or is providing services that meet their needs) and/or do not face significant barriers to switching.

Time spent with current provider

The results below come from our monthly customer satisfaction survey. Data was collected between January and June 2024 and includes responses from 2,373 residential mobile customers.

Our survey results show that 63% of mobile consumers have been with their current provider for more than 5 years (Figure 80). This is up from 60% last year and 58% the prior year (Table 31). This is also higher than the broadband market where our recent survey showed that only 43% of consumers have been with their broadband provider for more than 5 years. 10% changed plans with the same provider between January and June 2024, down from 17% from July to December 2023.

Figure 80: Time spent with current mobile provider



Source: Telecommunications Consumer Satisfaction Monitoring Report – January-June 2024²³⁷

Table 31: Percentage of customers with provider for 5 years or more

| Provider | 2023 | 2024 | Increase 2023 to 2024 |
|----------|------|------|-----------------------|
| Spark | 67% | 71% | 4% |
| One NZ | 68% | 76% | 8% |
| 2degrees | 56% | 61% | 5% |

Source: Telecommunications Consumer Satisfaction Monitoring Reports 2023–2024, Commerce Commission

237 Rounded numbers can generate a difference to total numbers in the report. 95% confidence intervals for up to 12 months is 4–7%, 1–2 years is 9–14%, 3–5 years is 21–28%, more than 5 years is 54–62%.

Switching provider

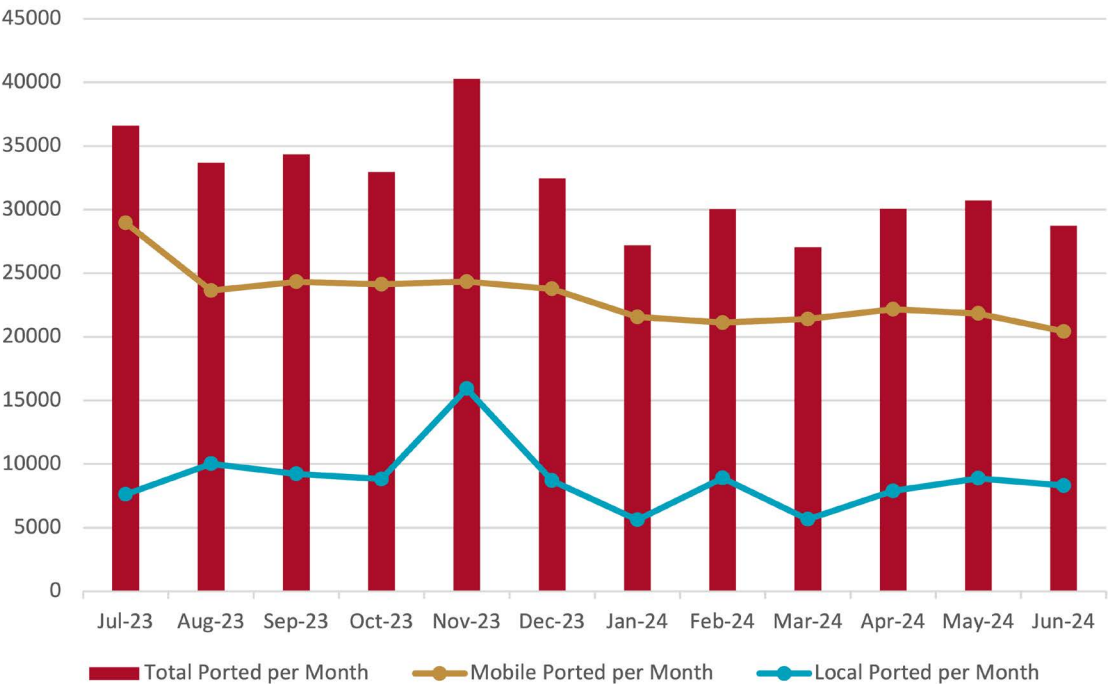
In telecommunications, porting is the process of transferring a phone number from one network to another. The ability for consumers to port their numbers – particularly mobile numbers – is a critical market feature that supports switching, which in turn promotes competition and positive consumer outcomes. For this reason, the porting service and associated process is regulated.

The TCF manages the operational aspects of porting in New Zealand across more than 30 fixed and mobile RSPs. The TCF tracks the porting of numbers month to month and publishes activity on a quarterly basis.

We use porting data as a proxy metric for consumers switching between different providers.

As can be seen from Figure 81, the number of mobile ports per month is around 20,000 to 25,000.²³⁸

Figure 81: Switching providers



Source: TCF ²³⁹

²³⁸ Large rises in ports per month can occur when large businesses switch all of their mobile connections to a new provider.
²³⁹ <https://www.tcf.org.nz/industry-hub/number-portability/number-portability-statistics>

Our customer satisfaction survey asks consumers if they have switched provider in the last 12 months. This includes where consumers have ported their number to a new provider. It also captures where consumers have cancelled their service and then taken up a new service with another provider without porting their number.

Overall, 5% of consumers said they have switched mobile providers in the last 12 months, slightly down from 6% in 2023.²⁴⁰

However, mobile customers tend to stay with the same provider for longer than they do with a broadband provider. 63% of mobile consumers have been with their current provider for more than 5 years compared to 43% for broadband consumers. For mobile consumers, this correlates strongly with age. The older a consumer is, the more likely they are to have been with their provider for more than 5 years. Low switching rates may reflect that mobile consumers are satisfied with their service, aren't aware of or are unsure how to assess a better deal for them or are reluctant to switch due to perceived hassle with the process. We also see tactics in the market that make customers more 'sticky' to their provider – for example, where credit in a virtual wallet can only be used towards a new phone and where bundling services means customers are less likely to leave.

For those that did switch mobile providers, the key reasons for switching were to get a lower price or to get more data.

Issues with switching providers

Nearly one in five consumers that switch were not satisfied with the switching experience. Common issues with switching include inadequate information about the steps involved and lack of updates during the process.

Complaints to the Commission and to the TDR about switching highlight issues such as double billing, unauthorised switching and difficulty retrieving credits on prepaid accounts and refund requests from overcharging.

The Commission is currently working with the industry to improve the processes and outcomes for consumers.²⁴¹

240 Commerce Commission "NZ Telecommunications Customer Satisfaction Tracking: 6 Monthly Report – January–June 2024" – https://comcom.govt.nz/_data/assets/pdf_file/0021/362217/Telecommunications-Consumer-Satisfaction-Monitoring-Report-January-June-2024.pdf. A switch to a new research provider means a break in the underlying data from the July to December 2023 report.

241 Commerce Commission "Improving Retail Service Quality: Switching" (20 March 2025) – https://comcom.govt.nz/_data/assets/pdf_file/0016/365011/Switching-Issues-Paper-20-March-2025.pdf

eSIMs

An embedded SIM (eSIM) is a digital version of the traditional SIM card. Unlike physical SIM cards, eSIMs are built directly into a device's motherboard and cannot be removed. They perform the same functions as physical SIM cards such as storing data and connecting to the MNO's network, but they offer greater flexibility and convenience.

eSIM technology is supported by a wide range of devices, including smartphones, tablets, smartwatches and laptops. eSIMs offer several advantages for consumers such as ease of switching carriers, the ability to store multiple profiles, space-saving designs and convenience for travellers.

In New Zealand, eSIM technology is gaining traction, with all MNOs and some MVNOs offering eSIM services. The providers support eSIM for a variety of devices, including smartphones and wearables.

Despite the benefits, constraints to eSIM connection growth include device compatibility, lack of awareness and understanding, limited provider support and technical challenges for less tech-savvy users. When it comes to smartphones, not every phone can be eSIM enabled. Some devices don't have the capability available and MNOs don't yet support every device that does have eSIM capabilities.

Another benefit of eSIMs is that there are now several providers that offer roaming plans for eSIMs, for example, Revolut and GlobaleSIM. In New Zealand, Flight Centre also now offers eSIM-based roaming services via its partner Celitech.

We expect the range of eSIM capable phones that are supported by MNOs to increase over time.

Market outcomes | Putanga māketē

Market outcomes flow from market structure and cover the performance of telecommunications infrastructure and the levels of wholesale and retail pricing through to consumer affordability and satisfaction.

Infrastructure | Hanganga

Reliable, adaptable and high-performing telecommunications infrastructure is fundamental for positive connectivity outcomes in Kiwi homes and businesses.

2024 highlights

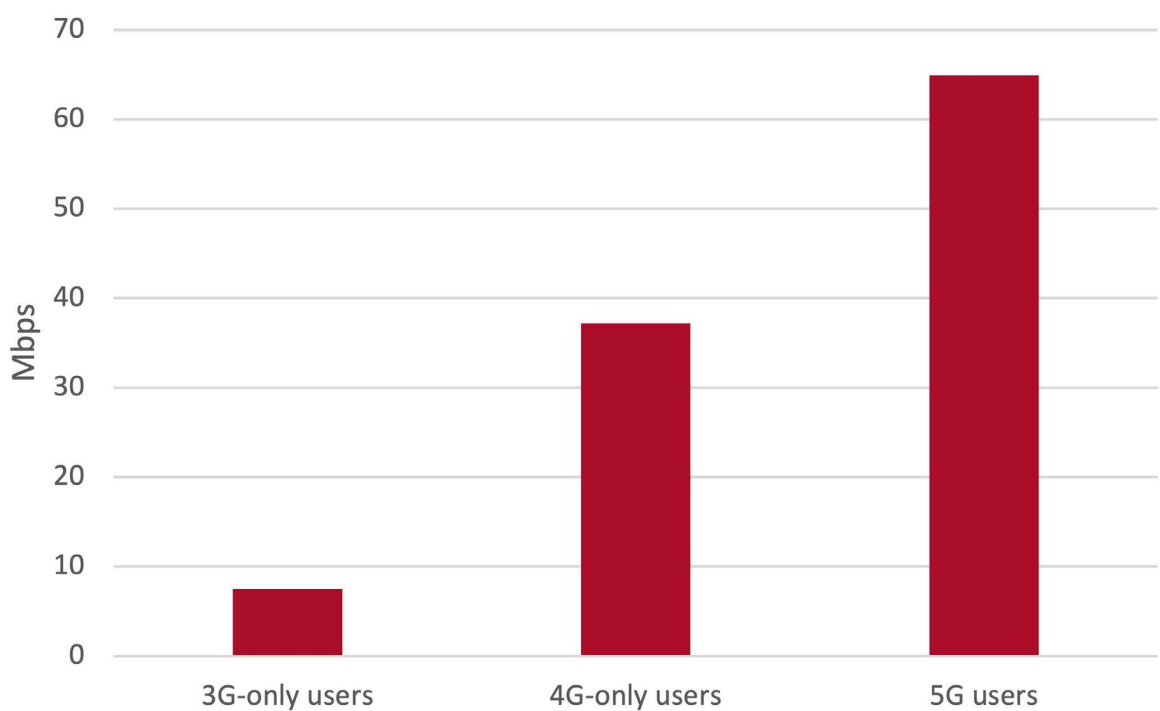
- New Zealand MNOs are in the top 20 providers in large land mass countries for average 5G download speeds in Opensignal's Global Mobile Network Experience Awards 2024.
- Each MNO has increased its mobile download speeds considerably between 2023 and 2024. Higher 5G download speeds play a key role, increasing from 254Mbps in 2023 to 313Mbps in 2024.
- MNOs will shut down 3G services at the end of 2025.

Speeds

Download speed is the rate at which data travels from the internet to the mobile device, measured in Mbps.

Download speeds vary by the generation of mobile technology used, with 5G capable of providing faster data download speeds than 3G or 4G (Figure 82).

Figure 82: Average mobile download speeds by highest generation of technology used (2024)

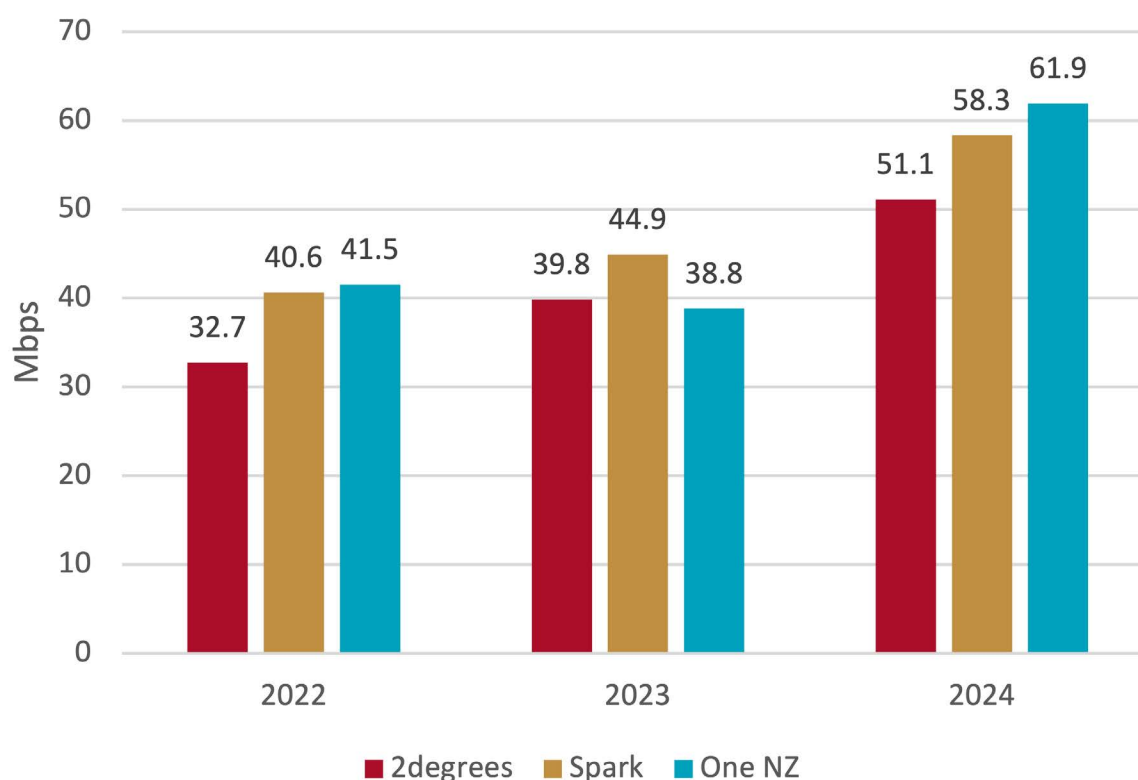


Source: Opensignal ²⁴²

²⁴² Average download speeds for users that have only ever connected to 3G during the testing period, have only connected to 4G or have connected to 5G (but are likely to have spent time connected to 4G and/or 3G networks as well) – <https://www.opensignal.com/2024/05/29/understanding-3g-usage-in-new-zealand-ahead-of-the-2025-shutdowns>

Figure 83 shows the average download speeds experienced by users across an MNO's networks (3G, 4G and 5G). In 2024, the average download speed has increased significantly, with higher 5G download speeds playing a key role in the average increase alongside newer devices and greater coverage.

Figure 83: Average mobile download speeds (Mbps)



Source: Opensignal²⁴³

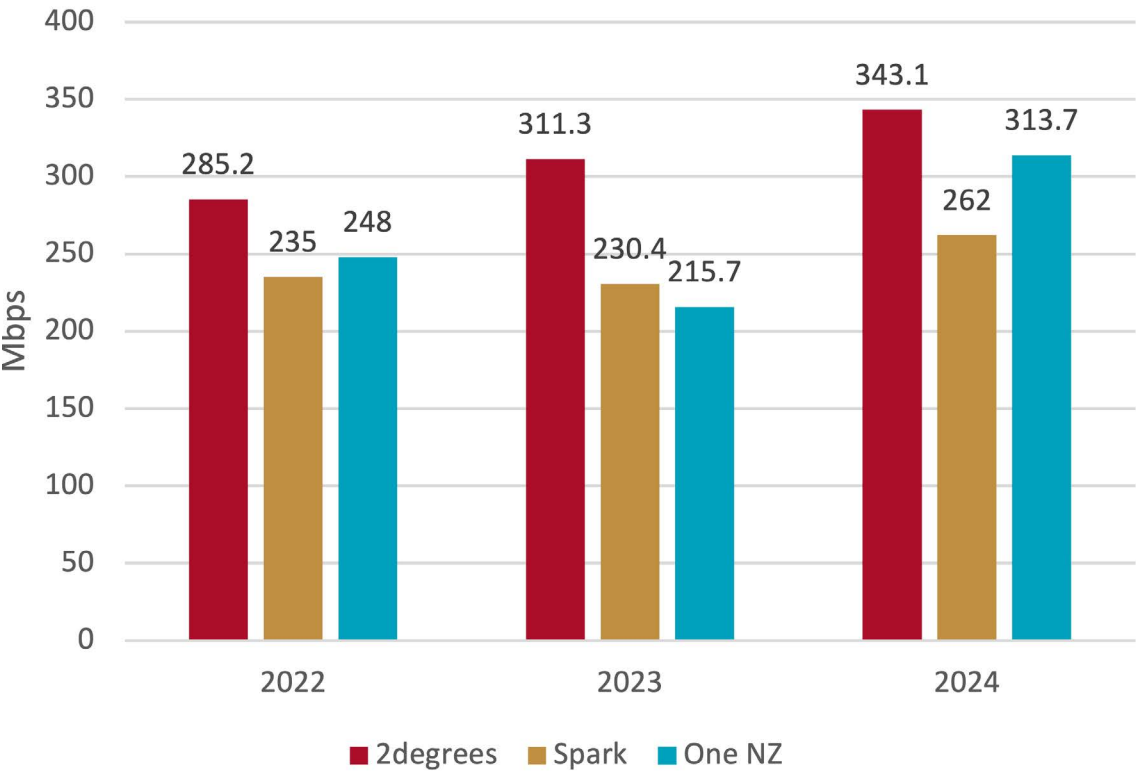
²⁴³ New Zealand mobile network experience reports October 2022, October 2023 and September 2024 - <https://www.opensignal.com/new-zealand>

5G network

As MNOs build out their 5G networks and more consumers buy 5G-capable devices, the number of consumers using 5G is increasing. As that happens, MNOs must carefully balance the dimensions of the network with the number of users, as more users will place more pressure on the network. While MNOs might get very high average download speeds with only a small number of users, the speeds may trend downwards as more users move onto the 5G network over the coming years.

2degrees has consistently led in 5G download speeds for the last 3 years. The average 5G download speeds have increased for all MNOs on the prior year, with an average increase of 23%. One NZ has increased the most, up 45% to 313Mbps on average, moving well past Spark but remaining behind 2degrees for average speeds. While 2degrees has shown consistent increases in 5G average download speed since 2022, Spark and One NZ speeds experienced a decrease from 2022 to 2023 but rebounded in 2024. Overall, we are seeing speed increases across all MNOs.

Figure 84: 5G average download speeds where available in New Zealand



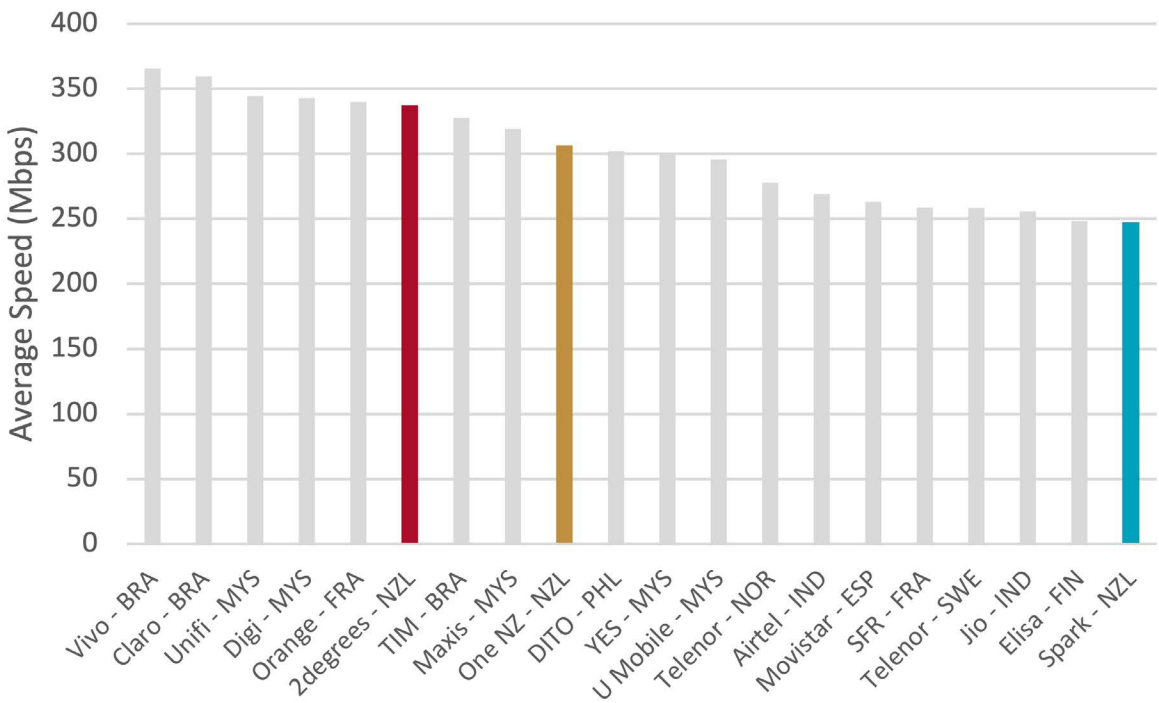
Source: Opensignal²⁴⁴

244 Ibid.

International speed comparison

The three New Zealand MNOs all ranked in the top 20 operators in large land mass countries for 5G download speed (Figure 85). Globally, both 2degrees and One NZ were in the top 25 providers for 5G download speeds.

Figure 85: 5G download speeds (large land mass countries) – top 20 operators (June 2024)



Source: Opensignal²⁴⁵

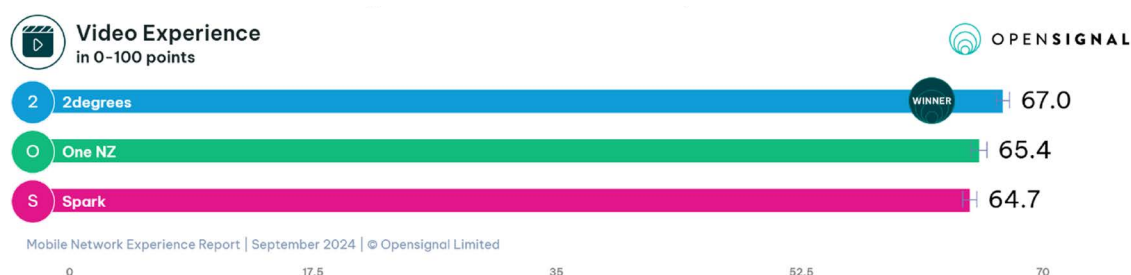
²⁴⁵ https://www.opensignal.com/2024/10/5g-global-mobile-network-experience-awards-2024#2024_5G_awards_180day_starting_202401_final_short_v25_5G

Performance – video experience

Opensignal's mobile video experience measures how well users can watch videos on their mobile devices. It looks at things like how long videos take to load, if they pause (stall) and the video quality. This is tested on different mobile networks by watching real videos. The results are scored from 0–100 using an international standard.

The top comparable MNOs globally scored between 71.2 and 73.9 in this category.²⁴⁶ In 2024, New Zealand MNOs scored between 64.7 and 67.0 in this category, representing a 'good' score (Figure 86). This means that consumers were on average able to stream video at 720p or better with satisfactory loading times and little stalling. These scores have risen slightly from 2023 for all three MNOs, in line with the greater speeds and coverage of 5G seen during the year.

Figure 86: Mobile video experience



Source: Opensignal²⁴⁷

²⁴⁶ Opensignal splits countries into two groups based on land area, with New Zealand in Group 1 along with other countries with a land area of over 200,000km².

²⁴⁷ Opensignal "New Zealand Mobile Network Experience Report" (September 2024) – <https://www.opensignal.com/reports/2024/09/newzealand/mobile-network-experience>

Performance – gaming experience

Opensignal's mobile gaming experience measures how users experience real-time multiplayer mobile gaming on an operator's network. This is measured across all MNOs' network generations and is tested by measuring aspects of the experience of playing real-time multiplayer, mobile games such as Fortnite and Pro Evolution Soccer. Its testing approach is based on research that quantifies the relationship between technical network parameters and the gaming experience and reports this as a score between 0 and 100.

The top comparable MNOs globally scored between 77.9 and 82.6 in this category. In 2024, New Zealand MNOs scored between 67.8 and 73.8 in this category, representing a 'fair' overall experience (Figure 87). Opensignal says that 'fair' means the games responds to player actions in most cases but most users may notice delays between actions on their end and outcomes in the game. These scores have stayed static since 2023.

Figure 87: Mobile gaming experience



Source: Opensignal²⁴⁸

²⁴⁸ Ibid.

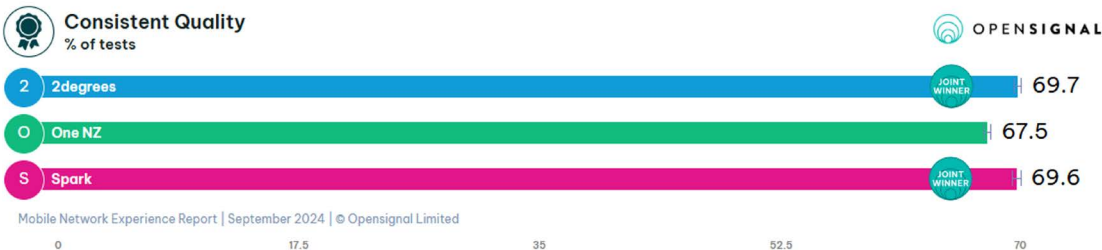
Consistency

Opensignal measures consistent quality by combining different experience indicators such as download speed, upload speed, latency, jitter, packet discard and time to first byte. The overall score is the percentage of tests that meet the thresholds recommended by more demanding common applications.

Opensignal says that consistent quality measures whether the network is sufficient to support common mobile application requirements at a level that is 'good enough' for users to maintain (or complete) various typical tasks on their devices.²⁴⁹

The top comparable MNOs globally scored between 86.0 and 89.5 in this category. In 2024, New Zealand MNOs scored between 67.5 and 69.7 in this category, representing a 'good enough' level for users to maintain (or complete) various typical demanding tasks on their devices (Figure 88). These results were similar to 2023, with One NZ losing 1.7% and Spark gaining 1.4%.

Figure 88: Mobile consistent quality by provider, 2024



Source: Opensignal²⁵⁰

249 Opensignal includes tasks such as video calling, uploading an image to social media and using smart home applications.
250 Opensignal "New Zealand Mobile Network Experience Report" (September 2024) - <https://www.opensignal.com/reports/2024/09/newzealand/mobile-network-experience>

Availability

Opensignal measures availability as the proportion of time people have a network connection in the places they most commonly frequent. 5G availability is measured by the amount of time a device is on an active 5G connection. It tells us how long consumers have a 5G signal on average across activities and locations such as being at work, being at home and being on the move.

Availability results remained reasonably static in 2024, with slight increases seen across all three MNOs (Figure 89). One NZ's 0.4% point increase was the largest increase, bringing it closer to the other two.²⁵¹

Figure 89: Mobile availability by provider, 2024



Source: Opensignal²⁵²

251 This is not a coverage metric so does not indicate service available in 99% of the country or places people go. This measure highlights availability in our most commonly visited places (at home, at work, at play). Lack of service availability in these places would often be unexpected and cause frustration.

252 Opensignal "New Zealand Mobile Network Experience Report" (September 2024) - <https://www.opensignal.com/reports/2024/09/newzealand/mobile-network-experience>

As MNOs continue to build their 5G coverage, 5G availability has improved since 2023 (Figure 90). On average, consumers spend 9.2% of their time with an active 5G connection.²⁵³ This is a 2.3% increase from 6.9% in 2023.

Figure 90: 5G Availability by provider, 2024



Source: Opensignal²⁵⁴

253 Only measures consumers with a 5G device and 5G subscription.

254 Opensignal "New Zealand Mobile Network Experience Report" (September 2024) - <https://www.opensignal.com/reports/2024/09/newzealand/mobile-network-experience>

Reliability

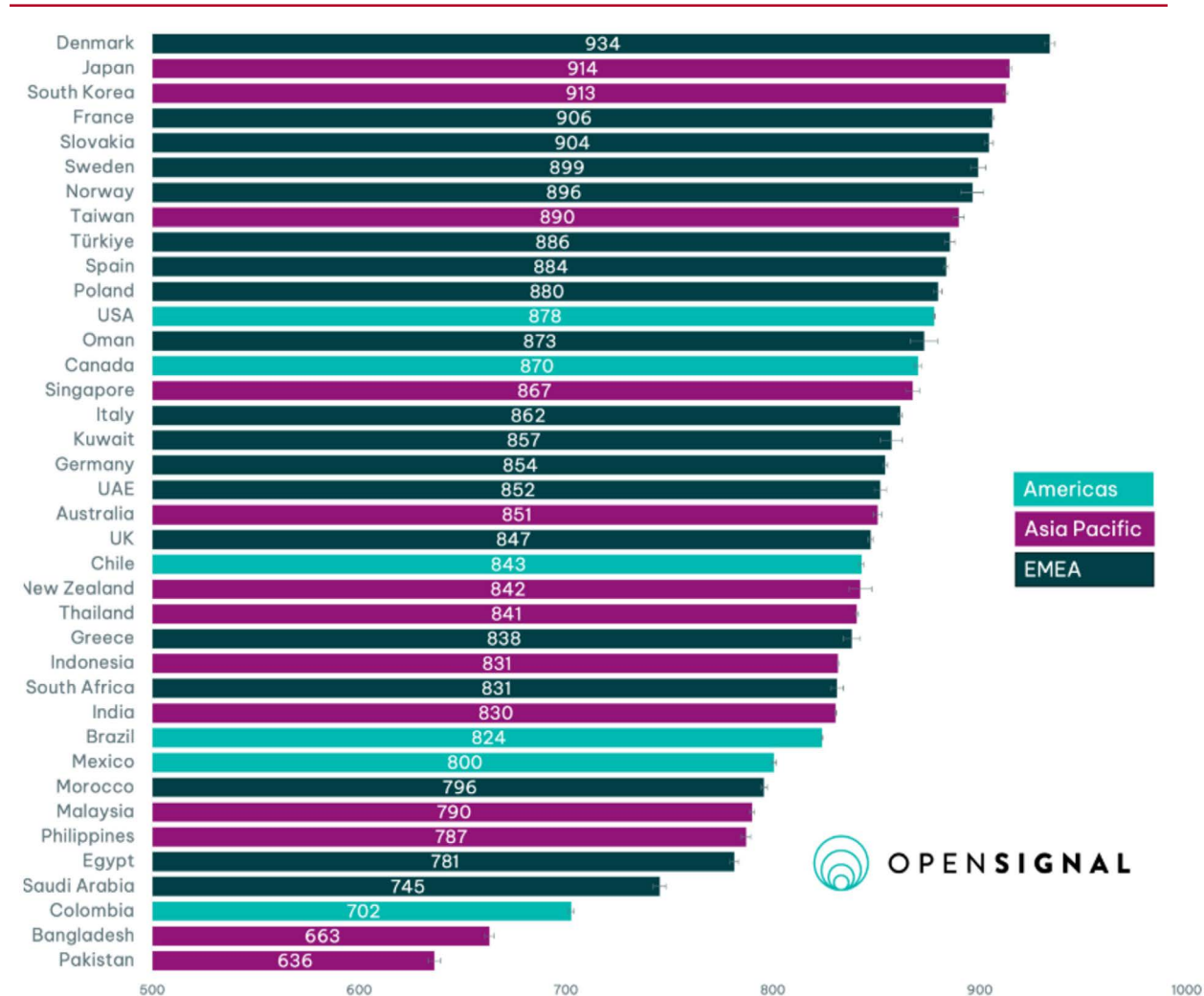
Opensignal's reliability experience evaluates how effectively users can connect to and perform essential tasks on operators' networks. This assessment includes factors such as signal availability, data connectivity, task completion and sufficiency.

A survey in the United States run by Opensignal found that reliability of a mobile network is the most important factor to consumers aside from cost. It is even more important than speeds.²⁵⁵ This is the first time Opensignal introduced the reliability experience measure, where reliability is measured on a 100–1000 point scale.

255 <https://www.opensignal.com/2024/02/08/the-opensignal-global-reliability-experience-report>

As can be seen in Figure 91, on a country level, New Zealand is mid-pack across the 40 markets analysed by Opensignal, with a score of 842. Denmark (934) and Pakistan (636) bookended the rankings, with most countries receiving a score of 800 or higher. Countries with more established, slower-growing mobile markets performed better than those emerging markets where growth was higher, putting pressure on infrastructure and thus performance.

Figure 91: Country mobile reliability experience, 2024



Source: Opensignal²⁵⁶

²⁵⁶ Ibid.

There is some, albeit limited, correlation between countries with higher 5G performance (availability and download speeds) and higher reliability. Denmark, Japan, South Korea and Slovakia all performed well across a range of 5G performance measures and were at the top of reliability. However, while countries like Malaysia, Kuwait and the Philippines performed well with regard to 5G performance, they found themselves much lower in the reliability rankings.

At a national provider level, the results were largely consistent, with Spark slightly outperforming the other two MNOs (Figure 92).

Figure 92: Reliability by provider, 2024



Source: Opensignal²⁵⁷

Based on global trends, we could see reliability increase in New Zealand as 5G is rolled out further, but this is not a foregone conclusion based on the experiences of countries like Malaysia. New Zealand’s topography, urban/rural split and weather events may constrain potential improvements from increased coverage.

257 Opensignal “New Zealand Mobile Network Experience Report” (September 2024) - <https://www.opensignal.com/reports/2024/09/newzealand/mobile-network-experience>

Conclusion

The Opensignal data reveals that New Zealand's MNOs perform similarly in terms of download speeds, with all three MNOs ranking well globally. However, there is significant room for improvement in user experience compared to other countries. While 5G availability and speeds have increased, enhancing video and gaming experiences, consistency and reliability still lag behind top-performing nations.

Connectivity on the move | Honotanga hāereere

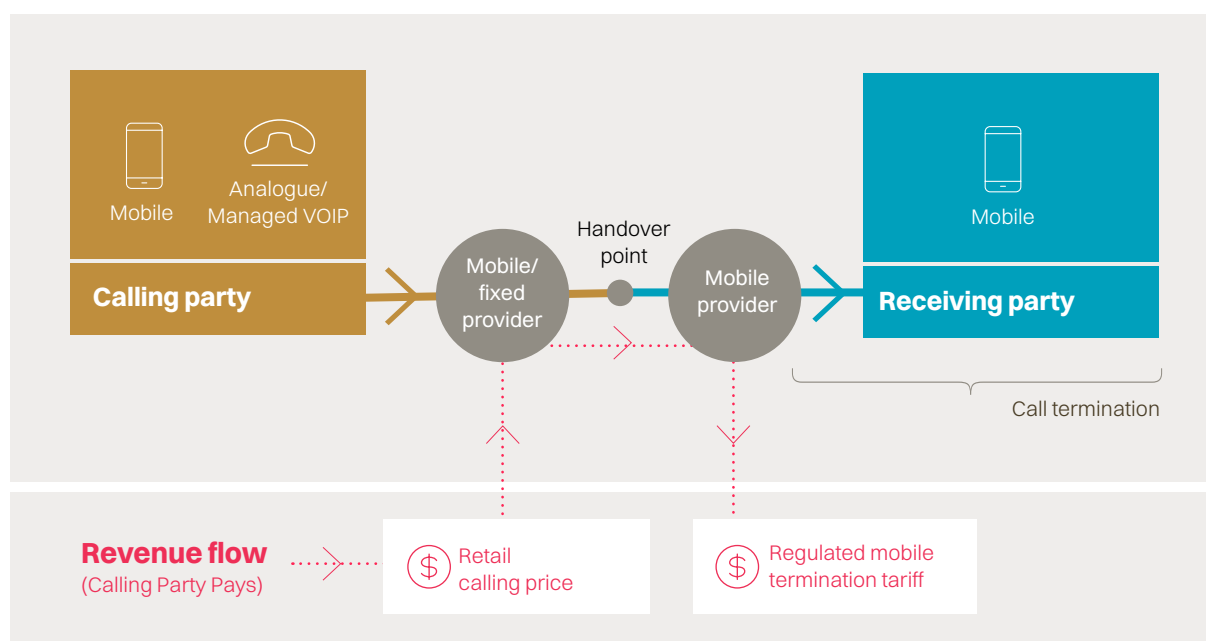
Market outcomes | Putanga māketē

Wholesale | Hoko rarawe

Wholesale-level pricing plays an important part in shaping retail-level pricing for consumers. Regulatory oversight or obligations commonly apply at this level of the market.

2024 highlights

- MNOs continue to price MTAS at the regulated price caps set in 2011.



Mobile termination access services

Mobile termination access services (MTAS) are the termination services a fixed or cellular network operator needs to allow its subscribers to communicate with the subscribers of a different cellular network.

MTAS is a designated access service under Schedule 1 of the Telecommunications Act. This means that we can determine price and non-price terms for the service (see Table 32 for the current regulated rates). The MTAS service includes termination of voice calls (fixed-mobile and mobile-mobile) and SMS.

Market conditions have changed considerably since MTAS was first regulated in 2011, and we are currently considering whether there is a case for deregulation.

The final decision on the MTAS (Mobile Termination Access Service) assessment found there are reasonable grounds to investigate whether MTAS should be removed from regulation. The decision noted improved competition in the mobile market, aided by lower mobile termination rates. Consumer behaviour has shifted toward mobile data usage, with declining voice and SMS use. Most mobile plans now focus on data, often including unlimited calls and texts.

The next step is to prepare a draft and final report with recommendations for the Minister.

Table 32: Regulated rates

| | Regulated rate |
|--------------------------|----------------|
| Voice (cents per minute) | 3.56 |
| SMS (cents per SMS) | 0.06 |

Through our Annual Industry Questionnaire, we have observed that MTAS revenue is mostly flat over time. However, we are seeing growth in consumer use of over-the-top (OTT) voice and messaging services, which is likely to impact MTAS revenue over time.

The Commission is required to consider, at intervals of not more than 5 years, whether there are reasonable grounds for commencing an investigation into whether MTAS should be omitted from Schedule 1 of the Act.

The Commission completed its most recent 5-yearly MTAS reasonable grounds assessment in March 2025.

Our final decision on that MTAS reasonable grounds assessment concluded that there are reasonable grounds for commencing an investigation into whether MTAS should be omitted from the Act.²⁵⁸

The final decision said that competition in the retail mobile market has improved due to regulated MTR reductions, lowering barriers for new entrants such as 2degrees, now an established player.²⁵⁹ Consumer demand has shifted towards mobile data usage, driven by smartphones and faster internet (4G/5G). Mobile call minutes plateaued in 2020 and declined in 2022/23, while SMS usage has declined since 2012/13. Data is now the key feature of most mobile plans, often including unlimited SMS and voice minutes.

In carrying out our investigation into regulation of MTAS, we must now prepare a draft report and then a final report to the Minister outlining our recommendations.

258 https://comcom.govt.nz/_data/assets/pdf_file/0021/365061/Mobile-termination-access-services-MTAS-review-final-decision-25-March-2025.pdf
259 Ibid.

MVNOs

MVNO agreements are reached on commercial terms so there is no public information on wholesale prices. However, all three MNOs now have multiple MVNOs as wholesale customers, suggesting a degree of competitive tension on pricing at this level of the market. The growth in MVNOs seen in recent years should add to competition, including competitive pressure on prices.

Retail pricing outcomes are based on the underlying infrastructure or wholesale costs but also take into account competitive dynamics, relativities between offers and consumer demand.

2024 highlights

- The average data usage by postpaid consumers has increased by a significant 3.1GB (from 8.8GB to 12.0GB) per month from 2023 to 2024 as consumers use more data on unlimited/endless plans or where providers upgrade their data allowances.
- According to TechInsights' benchmarking of mobile prices in 2024, the price per month to meet the average postpaid consumer's needs is \$60 in New Zealand, the same as last year. This is \$5 higher than the OECD average. For prepaid consumers, it is \$29, same as the OECD average.
- MVNOs generally offered lower prices across all data tiers compared to MNOs in 2024. However, MVNO plans may lack certain features like hotspotting and 5G capabilities.
- There is notable variance in pricing for plans at each data tier, enabling price-conscious consumers to shop around for a better deal.

Prices

We use TechInsights' price benchmarking database for some aspects of our pricing analysis. TechInsights' benchmarks cover residential plans from incumbent providers who serve at least 70% of customers in a given country. In the case of New Zealand, Spark, One NZ, 2degrees and Skinny are the brands included.

It's important to note the difference between Commission average prices and TechInsights lowest prices:

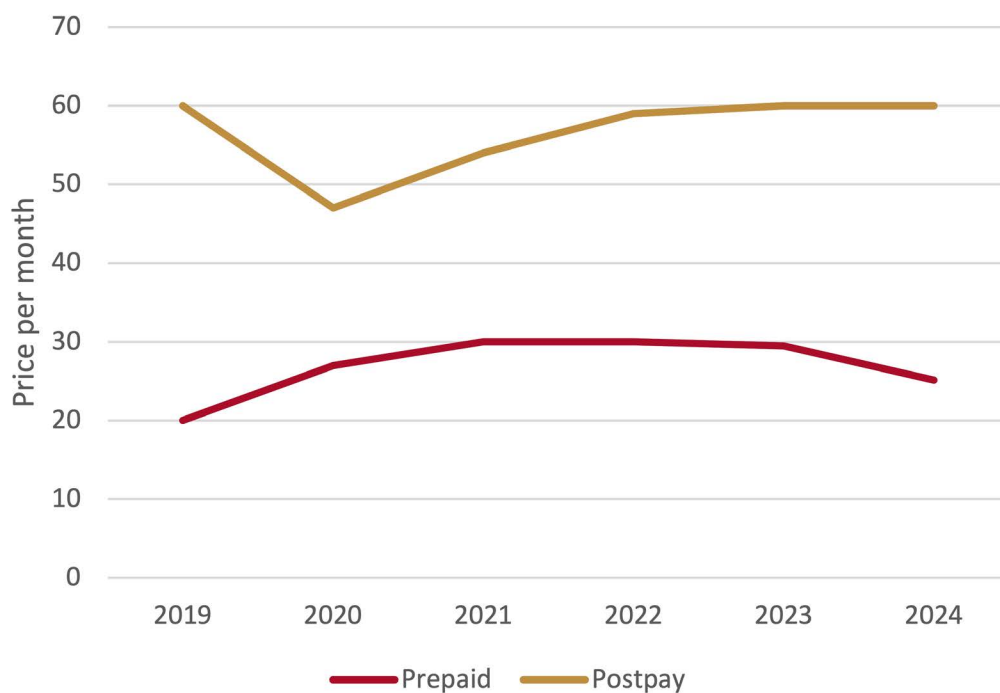
- TechInsights shows the lowest priced plan among the biggest four providers, answering “what is the lowest price a consumer could pay for this service from a large provider?”
- Our mobile plan price ranges chart shows the range of retail price across 69 mobile plans from 12 service providers, answering “what is the range of prices people are paying if they bought this service in June 2024 from large or small providers?”

TechInsights price benchmarks to meet average use – postpaid and prepaid

Since 2020, the monthly price to meet average postpaid mobile usage (minutes, SMS and data) has risen \$13 or 27% to \$60 per month (Figure 93), while average data usage has increased by a significant 3.1GB since 2023 (Figure 94). We expect this is due to providers migrating consumers to higher data plans, with the increased headroom generating higher average usage. The monthly price to meet average prepaid mobile usage (minutes, SMS, and data) has dropped \$2 or 7% since 2020, while average prepaid data usage has decreased slightly on last year. This downward trend, combined with an increase in prepaid users, suggests a move to retain or capture more price-sensitive consumers in the current economic climate.²⁶⁰

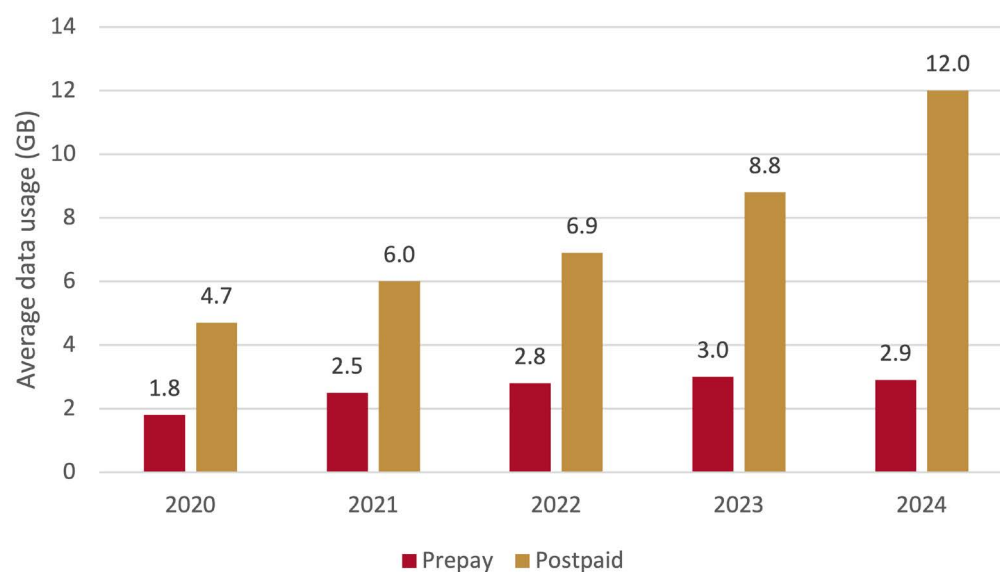
²⁶⁰ 2degrees reduced its price for a 3GB carryover data plan to \$25.

Figure 93: TechInsights' price benchmarks to meet average mobile usage



Source: OECD Price Performance Benchmarking provided by TechInsights, prices are nominal and not adjusted for inflation

Figure 94: Average residential mobile data usage (GB)



Source: Commission data

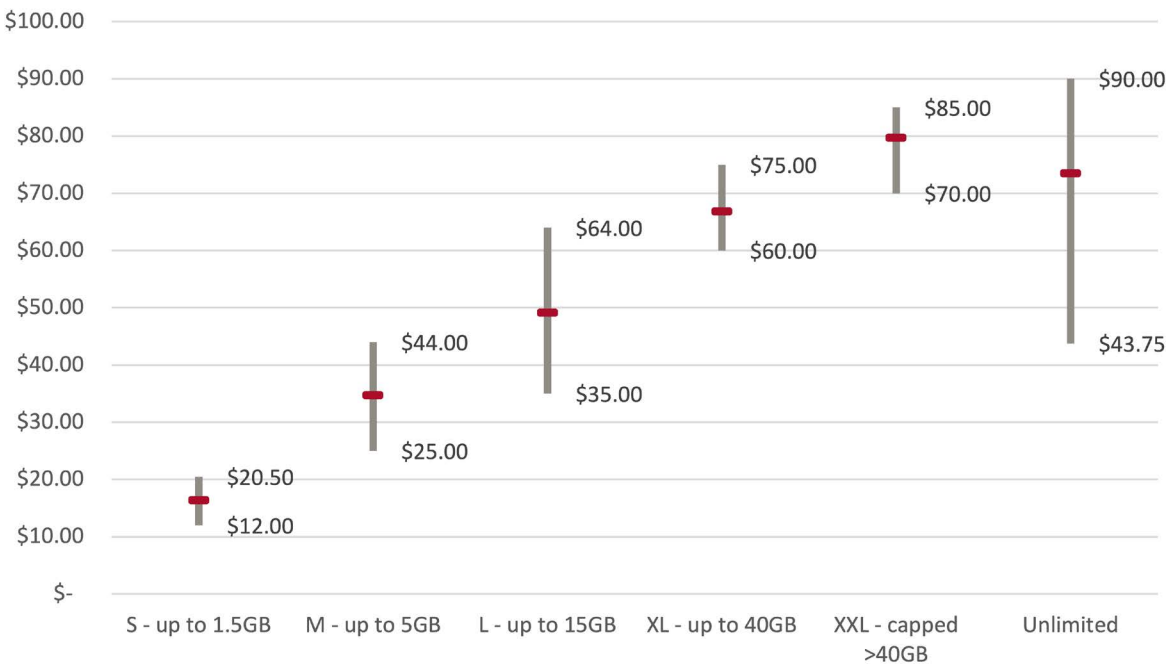
Postpaid and prepaid pricing trends

The trends we are seeing include:

- average prepaid usage is remaining mostly static
- prices are flat, particularly in the prepaid market, where consumers may be more price conscious.

Figure 95 shows there are a range of price points at each data tier. This includes differences in pricing between prepaid and postpaid plans, plus some plans may offer extras such as a streaming media subscription.

Figure 95: Mobile plan price ranges by data tier



Source: Commission data accessed from operator websites (30 June 2024)

MNO vs MVNO pricing

Table 33 shows the 20 lowest-cost mobile plans based on price per GB, assuming data is the most valued inclusion. For unlimited data plans, a 150GB cap was used to calculate price per GB.

Rocket Mobile and Mighty Mobile offer the cheapest plans with unlimited data but throttled speeds. Several Max speed endless plans follow, costing \$0.47 to \$2.00 per GB.

Table 33: Price per GB - top 20 plans²⁶¹

| Rank | Provider | Type | Plan name | Price per GB | Speed limit |
|------|----------------|----------|---------------------------------|--------------|-------------|
| 1 | Rocket Mobile | Prepaid | Rocket Starter | \$0.17 | 2Mbps |
| 2 | Rocket Mobile | Prepaid | Rocket | \$0.23 | 10Mbps |
| 3 | Mighty Mobile | Prepaid | Fast Plan | \$0.27 | 10Mbps |
| 4 | Rocket Mobile | Prepaid | Rocket Plus | \$0.30 | 40Mbps |
| 5 | Mighty Mobile | Prepaid | Faster Plan | \$0.33 | 50Mbps |
| 6 | Rocket Mobile | Prepaid | Rocket Max | \$0.47 | Max speed |
| 7 | Megatel | Postpaid | Endless Max | \$0.53 | Max speed |
| 8 | 2degrees | Postpaid | Unlimited Max speed data | \$0.53 | Max speed |
| 9 | Mighty Mobile | Prepaid | Fastest Plan | \$0.53 | Max speed |
| 10 | Contact Energy | Postpaid | Large | \$0.53 | Max speed |
| 11 | One NZ | Postpaid | One Plan | \$0.57 | Max speed |
| 12 | Spark | Postpaid | Endless Plan | \$0.60 | Max speed |
| 13 | 2degrees | Prepaid | 120GB Max Speed then Endless... | \$0.71 | Max speed |
| 14 | Mercury | Postpaid | 100GB Endless+ Data | \$0.84 | Max speed |
| 15 | Skinny | Prepaid | Endless Data | \$0.88 | Max speed |
| 16 | Spark | Prepaid | Prepaid Value Pack | \$2.00 | Max speed |
| 17 | One NZ | Prepaid | MyFlex Prepay | \$2.00 | Max speed |
| 18 | Nova Energy | Postpaid | Endless Mobile 32GB | \$2.16 | Max speed |
| 19 | Kogan Mobile | Prepaid | Large | \$2.33 | Max speed |
| 20 | 2degrees | Prepaid | 25GB Carryoverdata | \$2.40 | Max speed |

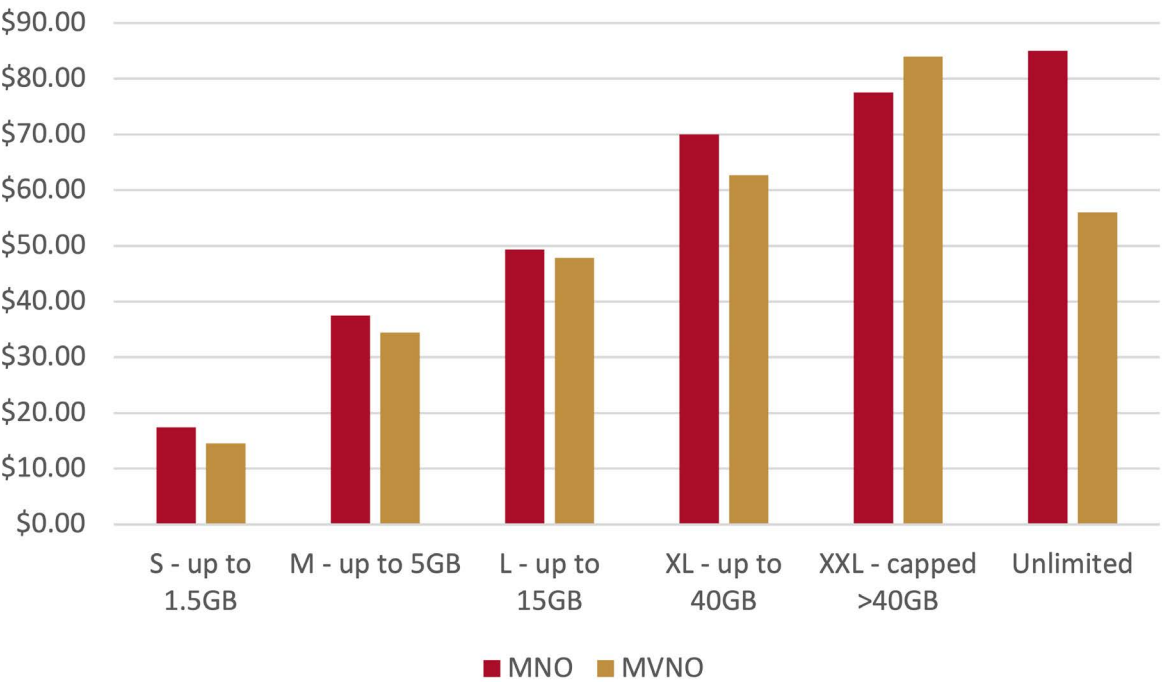
Source: Provider websites (June 2024)

²⁶¹ Divides price by data allowance in GB and excludes other inclusions such as minutes and texts. For unlimited plans, we have assumed 150GB.

Beyond the top 20, 50 more plans were analysed, mostly costing \$3.00 to \$16.00 per GB. Five plans exceeded \$20 per GB, with one plan costing \$150 per GB (\$15/month for 100MB).

MVNOs priced plans lower than MNOs across all data tiers as at June 2024, except the capped plans with more than 40GB of data category (Figure 96).

Figure 96: Average price of plans by data tier - MNO vs MVNO



Source: Commission data accessed from operator websites (30 June 2024)

However, MVNOs may not match the plan inclusions of their MNO partners such as hotspotting, 5G (where available) or D2C capabilities. The reason for the significant difference in price for unlimited data plans is because some MVNOs offer cheap plans with unlimited data but at throttled speeds.

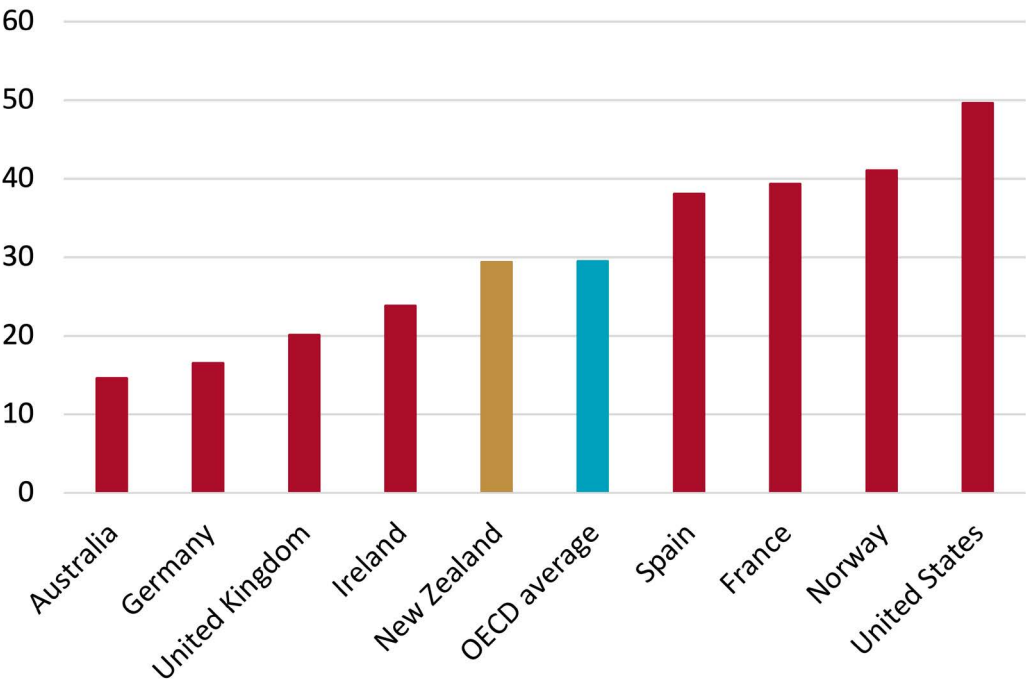
International price comparison

To get an indication of how New Zealand mobile prices compare to those overseas, we compared TechInsights' price of the cheapest benchmark plan on offer in New Zealand against the cheapest benchmark plan available in OECD countries for two custom baskets.

The baskets were based on average usage for prepaid and postpaid consumers in New Zealand. In 2024, the average usage for a prepaid consumer was 61 minutes of calling, 2.9GB of data, and 41 texts. The average usage for a postpaid consumer was 198 minutes of calling, 12.0GB of data, and 94 texts.²⁶²

In 2024, New Zealand's price per month to meet average prepaid use is \$29, inline with the OECD average of \$29 (Figure 97). The OECD average has remained flat since 2023.

Figure 97: TechInsights' price to meet average prepaid usage (September 2024)

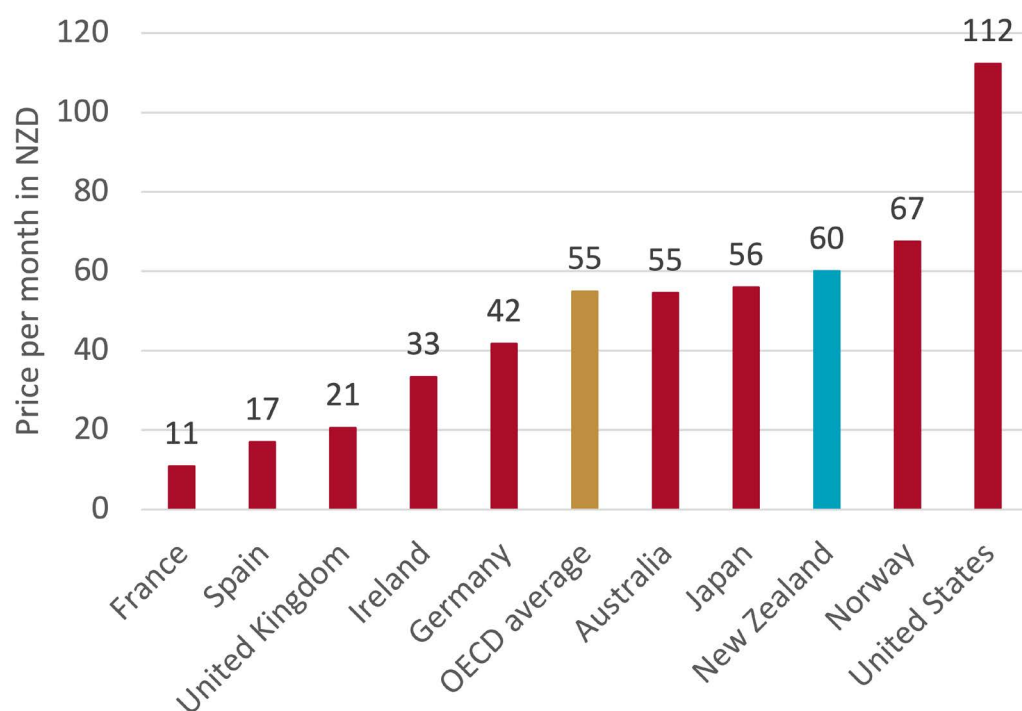


Source: OECD Price Performance Benchmarking provided by TechInsights – Japan is not included as there were no prepaid plans included in the benchmark

²⁶² We discuss usage trends in more detail later in this chapter.

New Zealand's price per month to meet average postpaid use has moved closer to the OECD average this year. In 2023, New Zealand (\$60) was \$15 higher than the OECD average (\$45). In 2024, New Zealand (\$60) was \$5 higher than the OECD average (\$55) (Figure 98). However, the reason for the close in gap is because the OECD average has increased, not because prices in New Zealand have reduced for consumers.

Figure 98: TechInsights' price to meet average postpaid usage (September 2024)



Source: OECD Price Performance Benchmarking provided by TechInsights

International price comparison – deeper dive

This year, we compared average mobile plan prices between New Zealand, Australia, Singapore and Ireland to understand the value for money that New Zealand consumers can get relative to these comparator countries. We chose Australia for its economic and geographic proximity, Ireland for its similar population size and Singapore for its high mobile penetration, which parallels New Zealand.

Figure 99 shows that New Zealand has higher prices for capped data plans (both under and over 100GB) compared to the other comparator countries.

Figure 99: Mobile plan prices in New Zealand vs comparator countries (NZD)



Source: Largest 3 Retailers' website prices for each market, converted to NZD²⁶³ (accessed April 2025)

263 Currency conversions via Morningstar (as at 28 April 2025).

Table 34 indicates that New Zealand offers the lowest average data cap. This suggests that, of the four countries, New Zealand’s plans offer the lowest value because they have the highest prices and the least data.

Table 34: Average data allowance of capped plans (GB)

| Country | Average data allowance capped plans |
|-------------|-------------------------------------|
| New Zealand | 48GB |
| Australia | 185GB |
| Singapore | 214GB |

In Ireland, the top three mobile providers (Eir, Vodafone and Virgin Media) only sell uncapped plans. These plans cost an average of \$46.00 – a lower price than the average price of \$87.50 for unlimited plans from the top three providers in New Zealand. An unlimited data plan in Singapore costs more than in New Zealand, but it includes data for roaming across Asian countries as well as local data. While there is only one unlimited data plan in Singapore, the plans with data caps are sizeable, ranging from 150GB to 350GB per month.

The market outcomes produced through infrastructure, wholesale and retail ultimately come down to consumers' usage and their overall satisfaction with the connectivity provided.

2024 highlights

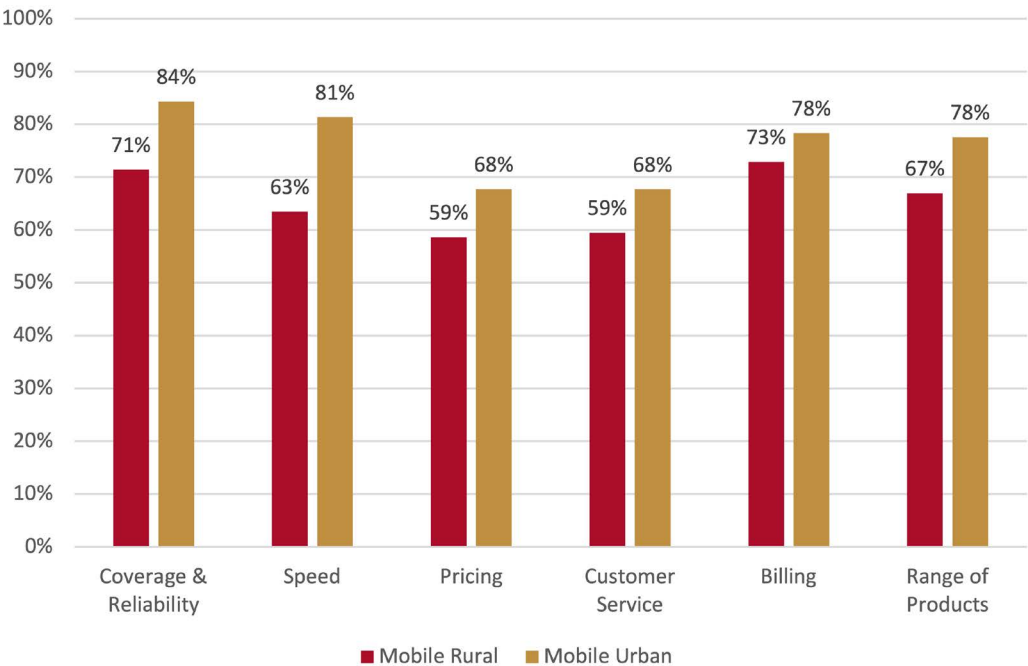
- Mobile consumer satisfaction levels are below the benchmark for good performance (80%) in most aspects.
- Despite this, we are not seeing the expected corresponding increase in consumers switching plans and/or providers. This suggests that barriers to switching remain for consumers.
- Consumers continue to use text messaging less and are shifting to using internet-based messaging apps such as Facebook Messenger and WhatsApp.

Satisfaction

The results below come from our monthly customer satisfaction survey. In May 2024, we switched survey providers, leading to improved data collection methods but limiting our ability to match older data with newer data. This year, we are using data from January to June 2024 for the satisfaction section, which includes responses from 2,454 residential mobile customers.

Our customer satisfaction survey found that the benchmark for good performance (80%) is not met across most aspects of service. There is significant room for improvement in different aspects of service. Satisfaction across aspects is divided in Figure 100 by people living in urban areas or living in rural areas.

Figure 100: Satisfaction levels of mobile consumers in urban and rural areas 2024



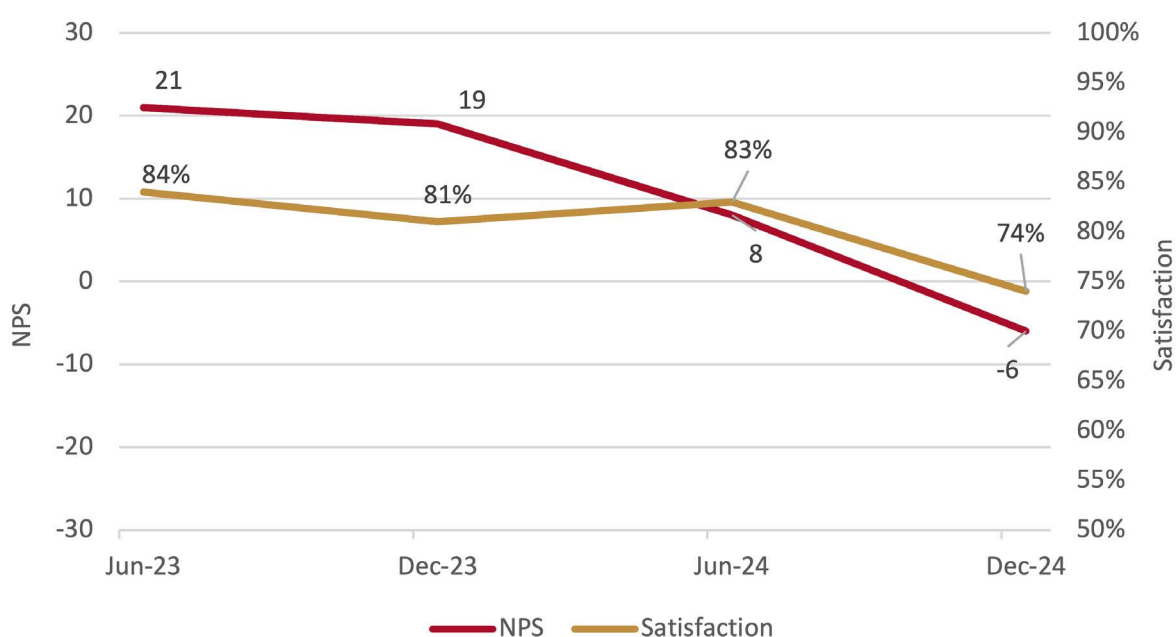
Source: Telecommunications Consumer Satisfaction Monitoring Report – January–June 2024

The survey shows that satisfaction is higher in urban groups compared to rural groups across all aspects of service. Consumers in all areas of New Zealand are least satisfied with mobile pricing and customer service.

Satisfaction and NPS over time

Over time and into the latter half of 2024, there is a significant decrease in both satisfaction and NPS (Figure 101).

Figure 101: Mobile NPS and satisfaction trended



Source: Telecommunications Consumer Satisfaction Monitoring Report - July-December 2024

Satisfaction has declined across all aspects no longer meeting the benchmark for good performance in the second half of the year. Price followed by customer service are the top reasons why respondents give a low NPS.²⁶⁴

²⁶⁴ A 0-6 score, representing a detractor.

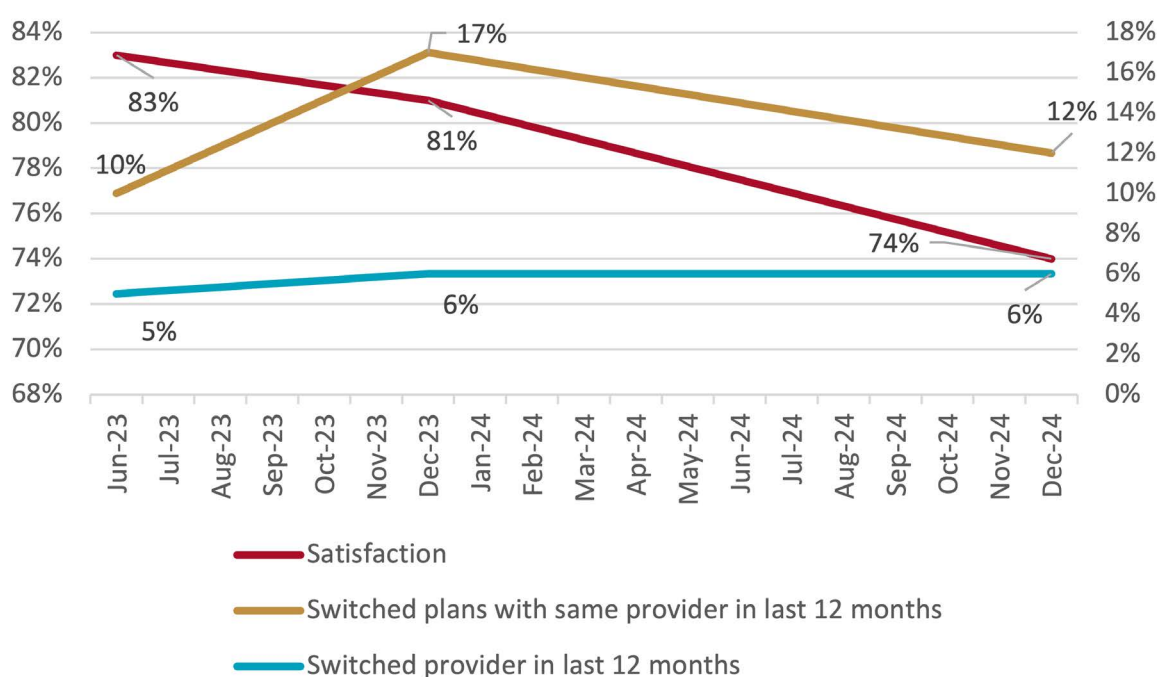
Tenure and switching

Mobile consumers stay with their provider longer than broadband consumers. 63% of mobile consumers have been with their current provider for more than 5 years compared to 43% for broadband.

With satisfaction and NPS decreasing, we could expect to see increased switching activity. This includes switching plans with the same provider or moving to a different provider.

Our data indicates that, as satisfaction has decreased, there is no increase in switching plans or switching providers (Figure 102). This is contrary to expectations and indicates that barriers may remain to consumer switching. The overall level of switching providers remains low at 5% for the 12 months to June 2024. The main reasons mobile consumers switch mobile plans is to get more data or pay a lower price. This aligns with the low satisfaction scores for pricing we noted earlier.

Figure 102: Satisfaction vs switching – mobile provider



Source: Telecommunications Consumer Satisfaction Monitoring Report

Satisfaction with switching and switching issues

When switching, more than one in four respondents (28%) were not satisfied with the switching process.

Our recent work on switching issues found a number of issues mobile consumers face when switching that should be addressed to make it easier for consumers to switch to the best plan and/or provider for them. The issues included problems with manual switching, contacting the losing RSP and issues when taking an interest-free phone.

We are working with the industry to improve the process and outcomes for consumers.

Special topics | Ngā kaupapa motuhake



Special topics | Ngā kaupapa motuhake

Complaints about telecommunication services | Ngā amuamu mō ngā ratonga torotoro waea

Telecommunications Dispute Resolution (TDR) is the independent and free dispute resolution service for consumers who have disputes with their telecommunications service providers about mobile, internet and landline services. It is also the dispute resolution service for disputes relating to the 111 Contact Code and Copper Withdrawal Code.

There were 3,460 complaints in 2023/24, down 7% from last year. In 2022/23, there was a large increase in complaints received by TDR after major marketing campaigns in 2022 and 2023 that created awareness of TDR to consumers. TDR believes that it may now see a more stable level of complaints over time after some large fluctuations in previous years.²⁶⁵

Table 35: Complaints and enquiries to TDR

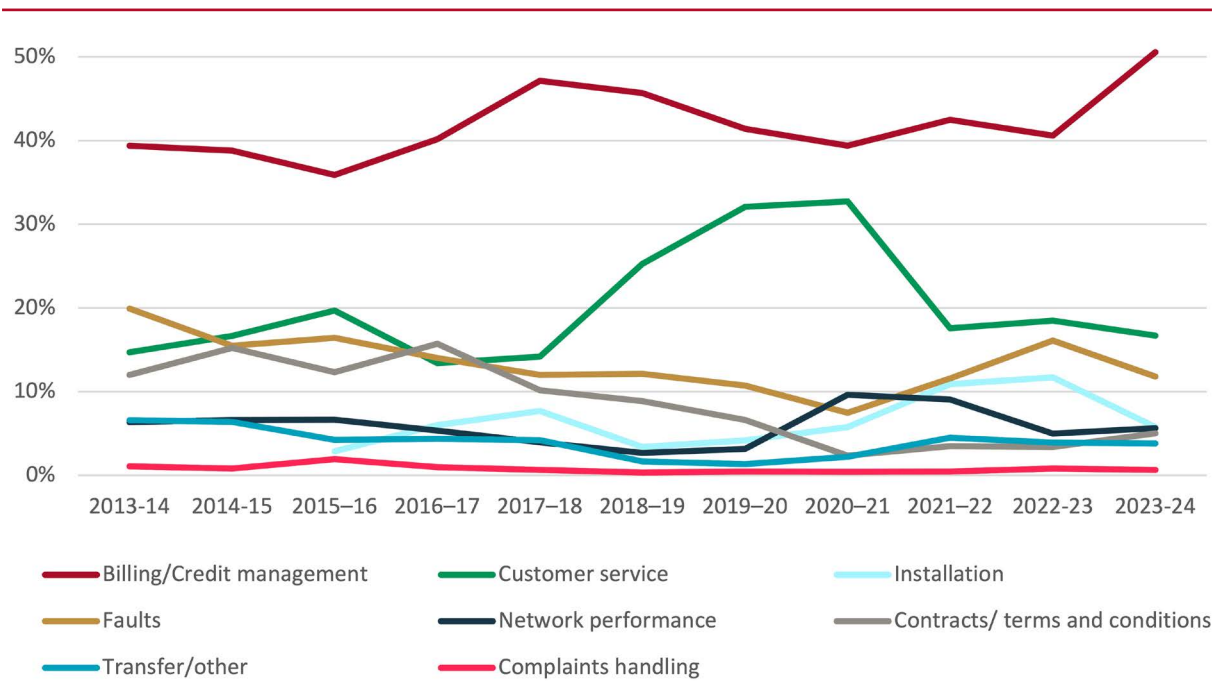
| Category | Number of complaints/enquiries 1 July 2023 to 30 June 2024 | Percentage of complaints/enquiries |
|--------------------------------|---|---------------------------------------|
| Billing | 1,750 | 51% |
| Customer service | 578 | 17% |
| Faults | 408 | 12% |
| Installation | 200 | 6% |
| Contracts/terms and conditions | 195 | 6% |
| Network performance | 174 | 5% |
| Transfer | 98 | 3% |
| Other | 34 | 1% |
| Complaints handling | 23 | 1% |
| TOTAL | 3,460 | 100% |

Source: TDR²⁶⁶

265 Telecommunications Dispute Resolution "Annual Report 2024", page 16 -https://www.tdr.org.nz/sites/default/files/2024-12/TDR%20Annual%20report%202024_final.pdf
266 Ibid, page 18.

The total number of billing complaints has increased by around 16% compared to last year, making up around half of all complaints (Figure 103). Most of these billing complaints are caused by disputed charges on a consumers account.²⁶⁷

Figure 103: TDR complaints and enquiries



Source: TDR²⁶⁸

²⁶⁷ Ibid, page 21.

²⁶⁸ Based on TDR annual reports - <https://www.tdr.org.nz/resources/publications>

Technical complaints such as those relating to installation and faults have decreased from last year. This may be due to the labour shortage of skilled field technicians that LFCs and Chorus were facing in previous years being improved in 2024.²⁶⁹ TDR also believes this shows increased stability in the sector following major infrastructure changes, including the nationwide transition to fibre.²⁷⁰

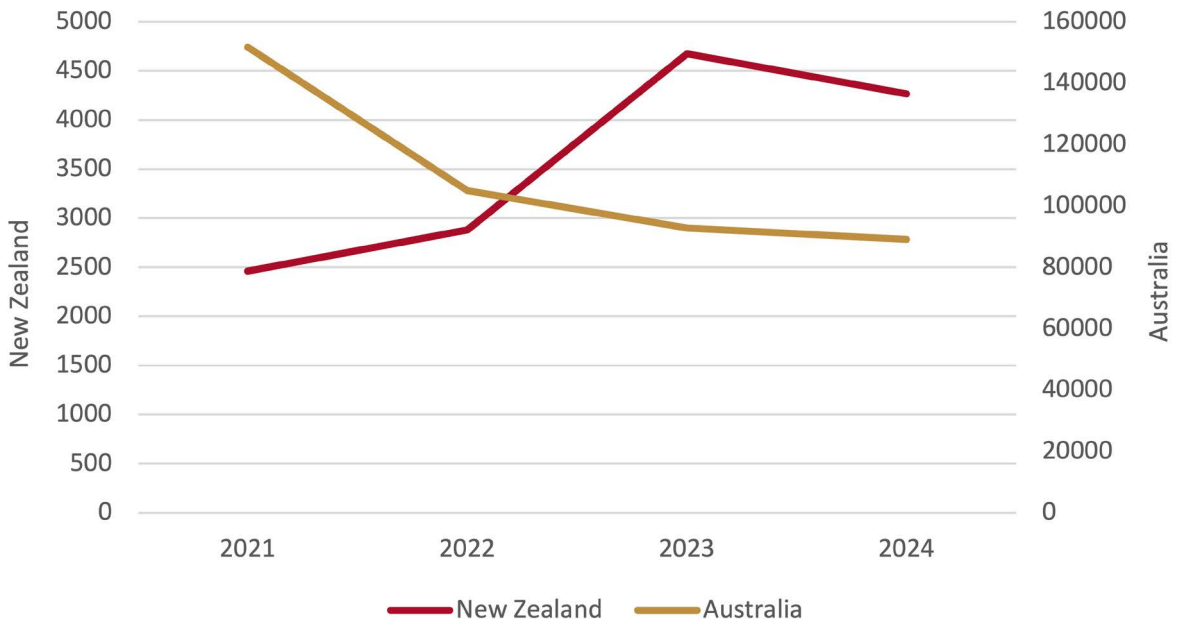
Customer service complaints continue to rank second in terms of volume but have reduced by 16% over the past year.

Consumers may also make a complaint to the Commerce Commission. In the year to June 2024, the Commission received a total of 1,205 telecommunications-related complaints. Complaints received relate to themes of:

- billing issues, particularly high late fees – in some cases, customers were charged
- a late fee after making a payment on time
- price increases on fixed-term contracts after consumers had signed up
- roaming charges and notifications – some customers complained that they did not receive roaming notifications or usage warnings from their RSP, which meant customers were unaware or roaming usage and resulted in charges they were not expecting.

Looking at New Zealand complaints to TDR and the Commission, we can see an increase over time. However, in Australia, complaints to the Telecommunications Industry Ombudsman have been decreasing over time (Figure 104).

Figure 104: Telecommunications complaints trends – New Zealand vs Australia



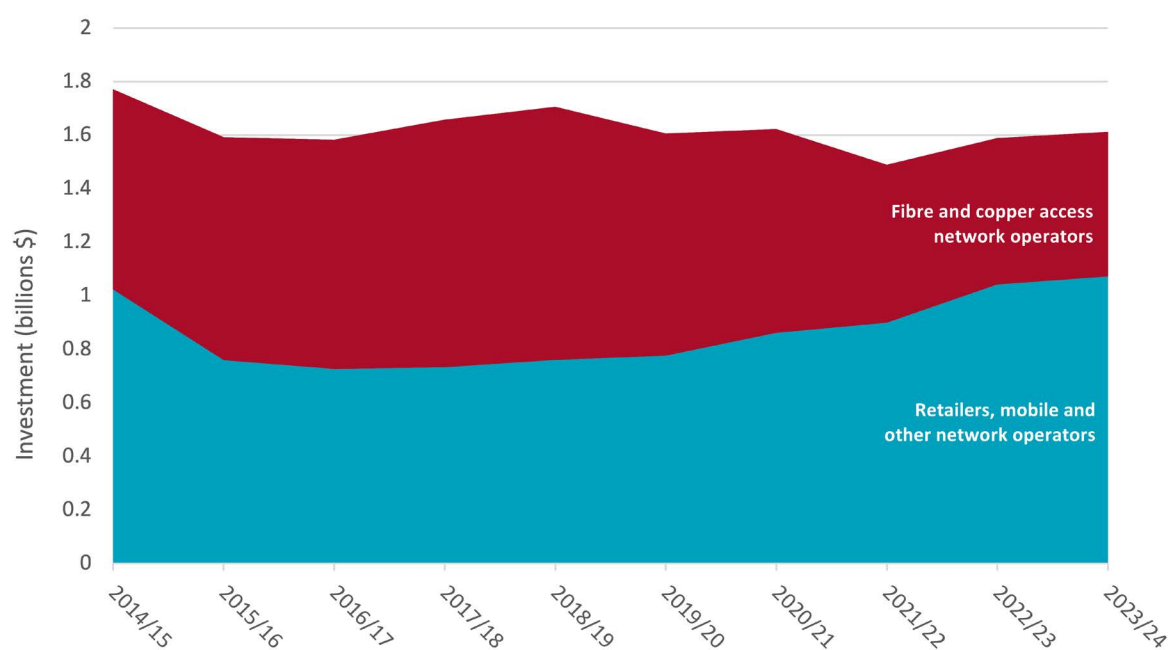
Source: Commission data,²⁷¹ Telecommunications Industry Ombudsman data

269 <https://www.rnz.co.nz/news/business/487004/customers-face-delays-for-fibre-installation-chorus-committed-to-clearing-backlog>
270 Telecommunications Dispute Resolution "Annual Report 2024", page 16 - https://www.tdr.org.nz/sites/default/files/2024-12/TDR%20Annual%20report%202024_final.pdf
271 'New Zealand' includes all telecommunications complaints to the Commission and all telecommunications complaints to TDR (data is not split by urban/rural).

Investment in the telecommunications industry has been heavily influenced by Chorus and the other LFCs over the last decade with the rollout of the UFB programme. In recent years, we have seen a decrease in investment from the fibre and copper access network providers with the UFB rollout being complete in late 2022 and the withdrawal of Chorus's copper network in urban areas.

Investment by MNOs, retailers and other network operators has increased recently with the rollout of 5G and investment in other areas such as IT systems. This has offset the drop in investment by the fibre and copper network operators (Figure 105). Overall, investment was flat over the last year at \$1.6 billion, increasing by 1%.²⁷²

Figure 105: Telecommunications investment

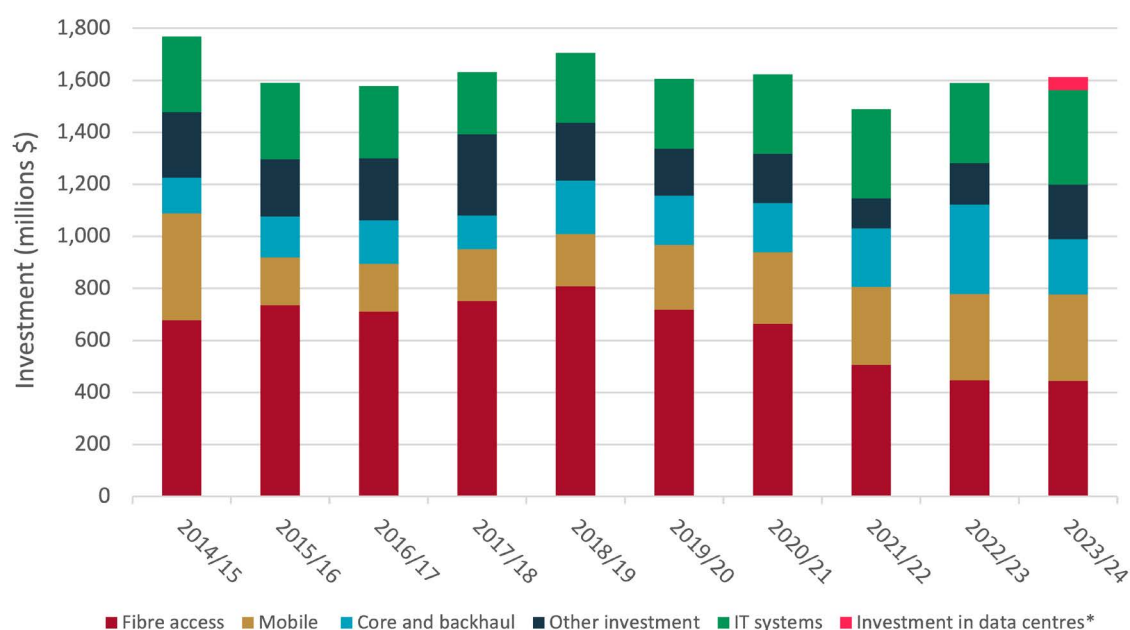


Source: Commission data

²⁷² The investment amounts shown over the last 10 years are in nominal terms and not adjusted for inflation. While there has been a 1% increase in investment between 2023 and 2024, the amount has reduced slightly in real terms.

Figure 106 shows investment broken down by each component. In 2024, we have added a new investment category to our questionnaire to separately measure investment in data centres. This has meant some investment previously included in other investment categories has moved into the data centre component.

Figure 106: Investment by component



*New investment category for 2024

Source: Commission data

Investment in the fibre access network peaked in 2019 and has begun to decrease with the completion of UFB. Over the past year, investment in the fibre access network decreased by 3%. Investment in mobile networks was stable over the past year at \$332 million.

Investment in the core and backhaul network has decreased by 37% to \$214 million in 2024 after increasing significantly in 2023. Previously, this category included data centre investment, which could have impacted this decrease. Investment in IT systems increased by 23% to \$364 million,

while other investment, which includes copper access and spectrum investment, increased by 9% to \$208 million.

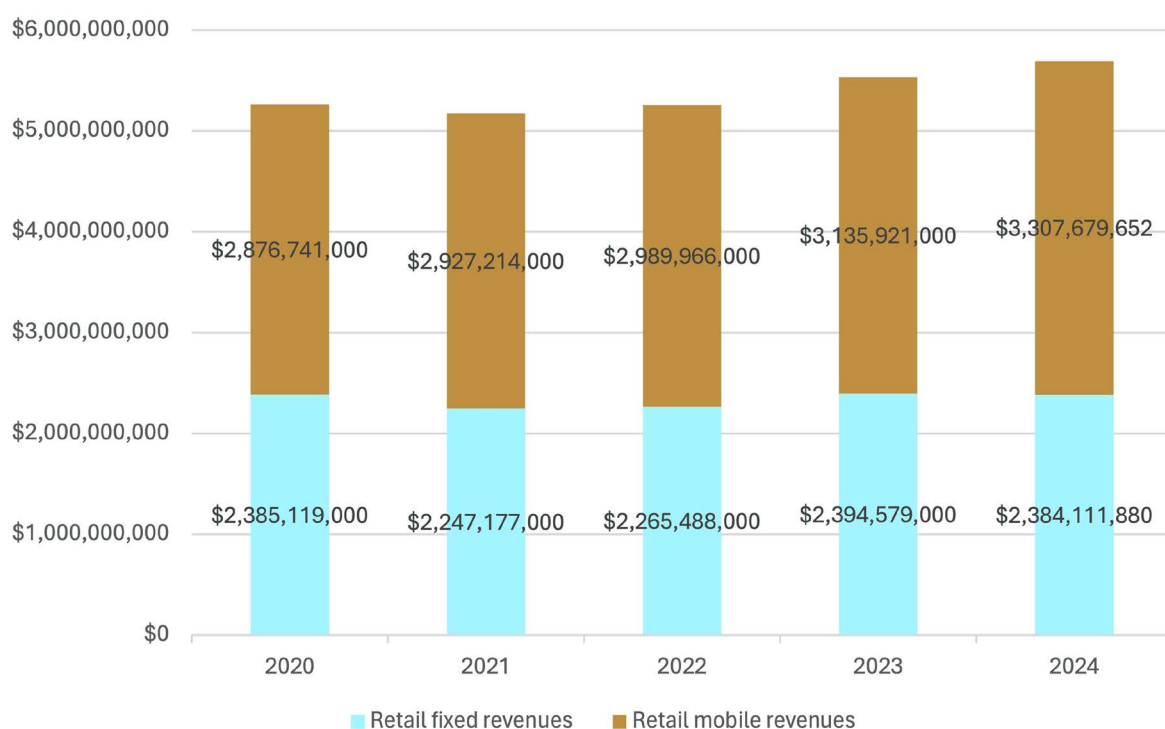
Investment in data centres was \$50 million in 2024. This will have decreased year on year, with Spark reporting capital expenditure on data centres reducing from \$114 million in 2023 to \$41 million in 2024.²⁷³ With the growth in generative AI and cloud computing, this is an area we will continue to monitor and report on in future Annual Monitoring Reports.

²⁷³ Commission analysis of Spark Annual Reports – <https://investors.sparknz.co.nz/Investor-Centre/?page=Annual-Reports>

Industry revenue performance

For the year to June 2024, mobile revenues have increased, driven by demand for data and MNOs migrating customers to higher-value plans (Figure 107). However, we expect that growth is slowing and could stall next year.

Figure 107: Industry revenues – retail fixed and retail mobile



Source: Annual Industry Questionnaire

Retail fixed revenues were flat, reflecting ongoing challenges for telcos in the consumer broadband segment such as price competition and bundling from non-telco providers.

Larger telcos are looking for revenue growth in mobile, data centres and fibre services (for example, One NZ's EonFibre). There has been significant industry investment here including 4G upgrades, the 5G rollout and data centre builds. UFB network providers are aiming to grow revenues efficiently from improving asset utilisation.

Revenue segment performance

Consumer mobile

For FY24, Spark reported a 3.1% growth in mobile service revenue, although this fell short of its 5% target due to increased price competition in the enterprise sector.²⁷⁴ One NZ grew mobile revenues to \$779 million from \$731 million.²⁷⁵ 2degrees also reported strong growth in mobile revenue, increasing to \$555 million from \$509 million.²⁷⁶ Overall, there has been moderate growth in the consumer mobile segment, with companies focusing on increasing average revenue per user and reducing churn through innovative plans and services.

Business mobile

In the business mobile segment, Spark faced challenges with negative growth due to price pressure from competitors such as 2degrees, which has been more aggressive in the enterprise market following its merger with Vocus. One NZ and 2degrees have been leveraging their infrastructure to offer competitive business mobile services, with 2degrees focusing on integrated solutions for enterprise and government customers.^{277,278,279}

Consumer broadband

The consumer broadband segment has been challenging, with Spark reporting a 2.1% decline

in broadband revenue due to price competition and bundling from non-telco providers.²⁸⁰ Chorus, however, saw growth in its Fibre 50 and Fibre Max products, with a 3% increase in revenue and a 4% lift in earnings before interest, taxes, depreciation and amortisation.²⁸¹ 2degrees reported an increase in broadband revenue to \$415.9 million from \$371.6 million, reflecting strong performance in this segment.²⁸²

Enterprise

In the enterprise segment, Spark's IT services underperformed due to private sector project delays and public sector spending cuts. However, its data centre business saw significant growth, with a 54.2% revenue increase.²⁸³ One NZ is focusing on its new fibre subsidiary for B2B services, EonFibre.²⁸⁴

Overall

The industry is experiencing growth in mobile and data centre segments while facing challenges in broadband and IT services. Companies are pivoting towards data centres and digital transformation initiatives to drive future growth, with a focus on leveraging technological advancements and digital transformation initiatives to drive future performance.

274 Spark FY24 results summary - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/FY24%20Results%20Summary%20FINAL.pdf

275 Infratil FY24 results summary - <https://infratil.com/for-investors/reports-results-meetings-investor-days/results/annual-results-for-the-year-ended-31-march-2024/presentation-of-results-march-2024/>

276 <https://www.2degrees.nz/media-release/2degrees-reports-strong-growth-across-key-market-segments?srsId=AfmBOOp7Nfl4n-7xe8eh91u5NplqQa2U-CeCmCTPOGwMr9TL2qxz0kpa>

277 Spark FY24 results summary - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/FY24%20Results%20Summary%20FINAL.pdf

278 Infratil FY24 results summary - <https://infratil.com/for-investors/reports-results-meetings-investor-days/results/annual-results-for-the-year-ended-31-march-2024/presentation-of-results-march-2024/>

279 <https://www.2degrees.nz/media-release/2degrees-reports-strong-growth-across-key-market-segments?srsId=AfmBOOp7Nfl4n-7xe8eh91u5NplqQa2U-CeCmCTPOGwMr9TL2qxz0kpa>

280 Spark FY24 results summary - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/FY24%20Results%20Summary%20FINAL.pdf

281 Chorus FY24 results summary - https://assets.ctfassets.net/7urik9yedtcq/nzx-doc-425562/3efb98692c0ee5bba39a2bce4fb571fc/Investor_Presentation_-_FY24_results.pdf

282 <https://www.2degrees.nz/media-release/2degrees-reports-strong-growth-across-key-market-segments?srsId=AfmBOOp7Nfl4n-7xe8eh91u5NplqQa2U-CeCmCTPOGwMr9TL2qxz0kpa>

283 Spark FY24 results summary - https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/FY24%20Results%20Summary%20FINAL.pdf

284 Infratil FY24 results summary - <https://infratil.com/for-investors/reports-results-meetings-investor-days/results/annual-results-for-the-year-ended-31-march-2024/presentation-of-results-march-2024/>

Special topics | Ngā kaupapa motuhake

Digital equity – homes without fixed broadband | Tautika matihiko – ngā kāinga aunui kore

2024 highlights

- Approximately 170,000 New Zealand households do not have a fixed broadband connection, with some districts as high as 30%.²⁸⁵
- The data suggests that affordability is a key problem. Households in districts with lower broadband connectivity often have lower median incomes and higher numbers of dependants – less money but more mouths to feed.²⁸⁶
- Rural Māori appear to face a higher level of digital inequity.²⁸⁷ There are fewer affordable broadband choices in areas with high Māori populations compared to areas with low Māori populations.
- Some households have more than one broadband connection.²⁸⁸ This was observed especially in holiday hotspots, indicating shared properties or holiday homes. We know anecdotally this also occurs in households with many occupants, for example, an extra connection for people living in a caravan or garage on site.

New insights from Commission data

We have conducted new analysis this year with our detailed connection-level data. We can use this data to understand more about dwellings that lack a fixed broadband connection.

We created a data model that combines information about active broadband connections in each SA2 area (similar to a suburb) with the overall number of dwellings in that area²⁸⁹ to determine how many dwellings don't have a connection.

We then added in census data about demographics in those SA2 areas, including population age, ethnicities and incomes. We can roll the data up to district level, regional level and nationwide.

²⁸⁵ Commission data.

²⁸⁶ Demographic information such as median incomes and number of dependants from Stats NZ.

²⁸⁷ Commission data.

²⁸⁸ Commission data.

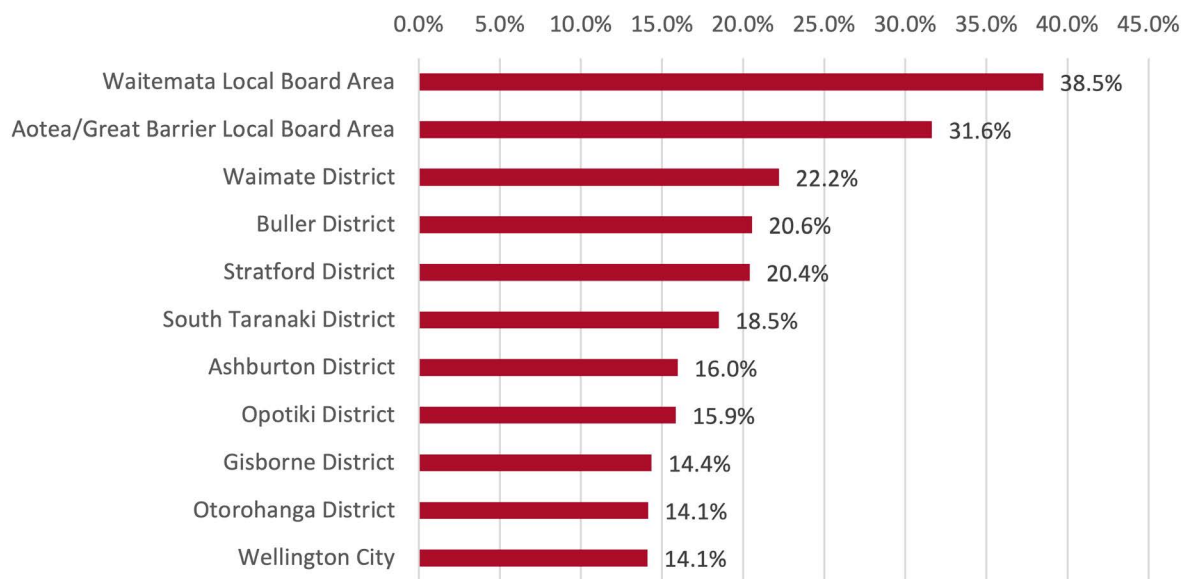
²⁸⁹ We considered several dataset options for an approximation of the total number of dwellings that could have a residential broadband connection. We use a LINZ dataset that lets us select all the rateable units (properties subject to council rates) that have a residential property use or land use type. In this way, we avoid counting parcels of land that would never have a residential broadband connection such as commercial properties, paddocks and vacant lots.

Around 170,000 houses don't have a fixed broadband connection

We found that, on average, 9.9% of New Zealand homes do not have a fixed broadband connection, which is about 170,000 households.²⁹⁰ These households may rely on cellular mobile connections or community internet facilities or may not wish to be connected to the digital world.

Across New Zealand's districts, this rate varied from 1% to around 30%. Figure 108 illustrates the districts with the largest percentages of dwellings with no fixed broadband connection.

Figure 108: New Zealand district percentages of dwellings with no fixed broadband connection



Source: Commission data, LINZ, Stats NZ

290 Nationwide average excluding districts with an average of more than one connection per dwelling to ensure connectivity in those areas did not mask the issues with low connectivity.

Why households do not have a broadband connection

There are three broad reasons why a household does not have a broadband connection:

- 1. **Affordability:** Households can't afford the monthly cost for a suitable broadband connection from the options they have available and/or upfront costs may be a barrier.
- 2. **Access:** Consumers feel there is not a suitable broadband access technology for the household.
- 3. **Abstainers:** Where a household chooses not to be connected to broadband uninfluenced by access issues or affordability issues. In a Ministry for Primary Industries study, some participants noted that they enjoy being disconnected but also recognised the importance of connectivity for business and for safety.²⁹¹

1. Affordability

We studied the make-up of the population in these districts. A lower than average median income for the district sometimes plays a part, as affordability can be challenging, especially in rural areas with fewer cheap options.²⁹²

Several districts with lower fixed broadband connectivity had relatively high numbers of people under the age of 15. This suggests that larger numbers of dependants may reduce disposable income available for bills such as fixed broadband.

Districts with extensive rural areas often showed lower levels of connectivity, likely due to the lack of affordable options where fibre is not available. In urban areas, households can choose Fibre 50 plans or 4G fixed wireless plans for around \$60 per month. In rural areas, fibre is not usually available, and 4G fixed wireless plans often cost more. Other options such as non-cellular fixed wireless via a regional telco or satellite connections often come with one-off cost in the hundreds of dollars for customer premises equipment.

291 Research First "Rural Users Digital Connectivity Experiences" (March 2023) - <https://www.mpi.govt.nz/dmsdocument/58336-Rural-Users-Digital-Connectivity-Experiences-March-2023>

292 This was not the case across all districts with lower connection rates. The difference in median incomes between areas with higher rates of unconnectedness was only \$2,000 per year lower than areas that are well connected (\$38,000 vs \$40,000, with ranges across all districts varying between \$29,000 and \$58,000).

2. Access

Access is about how well served a household is by well-performing broadband technology options. In urban areas, we do not consider there to be any access issues because every household in urban areas has fibre available²⁹³ and the vast majority will likely have access to 4G and/or 5G fixed wireless broadband as well.

Rural areas have a more complex access landscape, with varying degrees of access issues. Some remote properties may have zero terrestrial broadband options,²⁹⁴ while others will have a combination of one or more access technologies across ADSL, VDSL, 4G cellular wireless, non-cellular wireless (at variable performance levels), LEO satellite and GEO satellite, and a small number of households may have access to fibre (via WISPs) or to HFC (via One NZ). While recent Commission analysis found that 96% of households that are currently connected to ADSL has at least one faster terrestrial wireless broadband alternative, this shows that a small minority of households may have somewhat limited choices. There are also 130,000 households in rural areas that do not have (and probably have never had) access to the copper network, whose options will be further limited.

3. Abstainers

We expect that a portion of households without broadband simply do not wish to have a broadband connection for reasons outside of affordability or access. We currently have no data on the percentage of such abstainers. Hypothetically, we could expect there is a higher proportion of abstainers in urban areas, where there are no access issues and less of an affordability issue due to higher incomes.

²⁹³ Our definition of urban areas is SFAs – places where UFB fibre is available.

²⁹⁴ Including where they cannot use satellite-based broadband due to line-of-sight issues.

The least connected of all – the unique case of Waitematā Local Board area

The Waitematā Local Board area includes central Auckland locations such as Queen Street, Karangahape Road and Auckland University. Only 56.1% of dwellings have a fixed broadband connection on average. This district has a higher than average median income, a diverse population and a lower rate of people aged under 15.

However, the data shows that residents in this district stay at their residence for the lowest amount of time in New Zealand, averaging 5.4 years compared to the national average of 8.4 years. Areas in the CBD and those close to the university stay at their residence for less than 3 years on average.

We think two groups are attributing to these low fixed broadband rates. The first group is transient populations like students or long-stay travellers, and the second group is people living alone in small apartments. We believe many in these groups could be using unlimited or endless data mobile plans to hotspot or cast to their devices. Some dwellings might share a broadband connection over Wi-Fi. The number of consumers selecting these plans has been on the increase for several years. They do this instead of paying for a fixed broadband connection just for themselves on top of their mobile connection.

Some households have more than one connection

Interestingly, some districts have an average of more than one connection per dwelling Table 36.

Table 36: Districts with a connectivity rate well above 100%

| District | Connectivity rate per dwelling |
|----------------------------|--------------------------------|
| Mackenzie District | 105.5% |
| Taupō District | 106.8% |
| Thames-Coromandel District | 120.0% |
| Waiheke Local Board area | 120.2% |

Source: Commission data, LINZ, Stats NZ

These districts are holiday hotspots containing larger volumes of homes that are partly or fully used for short-term holiday rentals. This may explain why several of these homes have two broadband connections – one for guests and one for the home owner.

Anecdotally, we understand that a dwelling may have more than one connection where there are many people living there or where there might be one or more minor dwellings such as a caravan, sleepout or garage that people reside in away from the main house.

Rural Māori likely to incur digital inequity in broadband access

Our data shows there are 10 districts where Māori make up 40% or more of the population (Table 37).

Table 37: Districts where Māori population is higher than 40%

| District | % Māori population | Households without broadband |
|--------------------|--------------------|------------------------------|
| Ōpōtiki District | 66.2% | 15.9% |
| Gisborne District | 54.7% | 14.4% |
| Far North District | 50.0% | 11.4% |
| Ruapehu District | 45.7% | 9.8% |
| Waitomo District | 45.4% | 9.5% |
| Wairoa District | 68.5% | 9.1% |
| Rotorua District | 43.5% | 8.7% |
| Whakatāne District | 48.6% | 8.4% |
| Kawerau District | 65.6% | 2.5% |

Source: Commission data, LINZ, Stats NZ

Three districts are less connected than the national average (9.9%) – Ōpōtiki District, Gisborne District and Far North District. The other six districts appear to be either close to the average or better connected than the national average.

The Far North and Ōpōtiki are districts with a higher percentage of rural dwellings than in a city-based district. There are low median incomes in rural areas and fewer affordable options such as entry-level fibre or urban 4G wireless. Māori make up 50–66% of the populations.

This highlights the inequity faced by rural-dwelling Māori in terms of broadband connectivity. More Māori live in rural areas with fewer connectivity options and higher costs and are less able to afford broadband connections.

In districts with a high Māori population and the data indicates households are better connected than average, our analysis suggests this may be the case in some parts of the district but hides small pockets with low connectedness. For example, urban areas of Whakatāne are well connected but the more rural parts are not.

Affordability and nature of alternatives likely reason some households stay on copper

In New Zealand, six districts still have more than 20% of dwellings connected via copper Table 38. This is notable given the progress of the copper withdrawal programme, which is removing copper services from much of urban New Zealand.

Table 38: Districts with more than 20% copper connections

| District | Copper connections |
|--------------------------------------|--------------------|
| Aotea/Great Barrier Local Board Area | 27.0% |
| Far North District | 25.9% |
| Ōpōtiki District | 23.1% |

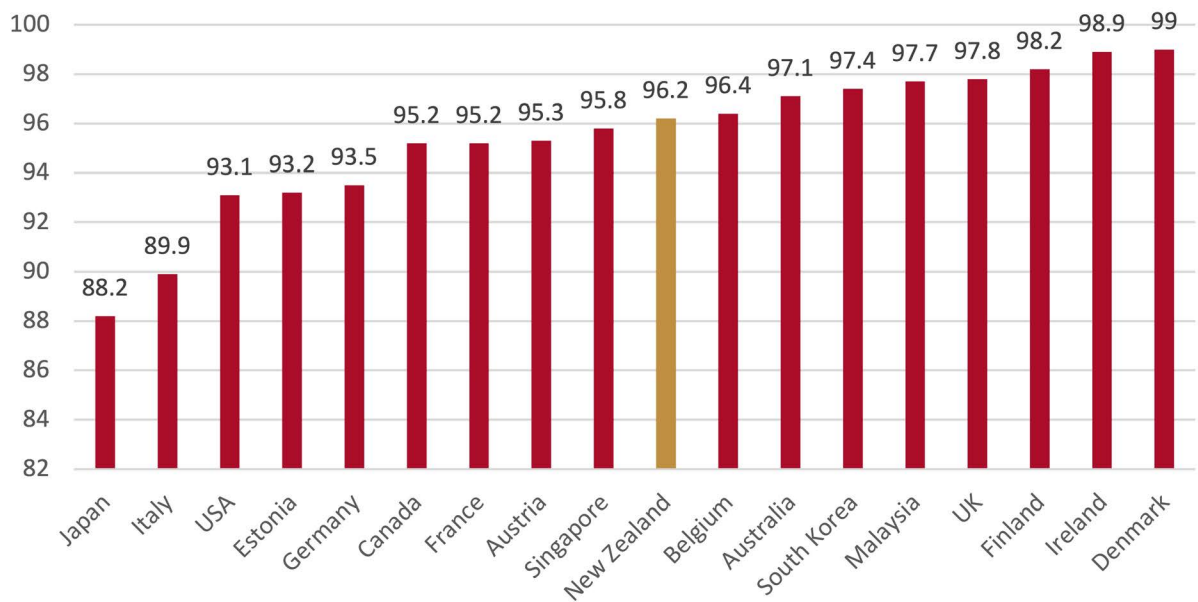
Source: Commission data, LINZ, Stats NZ

In the Far North, Ōpōtiki, and Aotea/Great Barrier districts, the high percentage of copper connections is due to the predominance of rural properties where fibre is unavailable. These districts also have low median incomes and are less well served by WISPs and cellular networks compared to other rural areas. Consequently, residents with lower incomes in these regions have fewer connectivity options, and alternatives to copper such as satellite or WISP services often require significant upfront costs.

International comparisons

Figure 109 illustrates the internet penetration rates for various selected countries around the world.²⁹⁵ This is not the same figure as unconnected households. Instead, it measures the percentage of the total population that uses the internet (on fixed or mobile devices). This is useful at a global level for comparisons to other countries.

Figure 109: Internet penetration, various countries, 2025²⁹⁶



Source: We Are Social & Meltwater

We can see that, from a relative perspective, New Zealand sits about middle of the pack of the comparison countries we've chosen, and there is the opportunity to take some deeper dives into countries with a higher internet penetration to understand what lessons we might learn around improving penetration.

²⁹⁵ We chose a handful of comparable countries mostly within the OECD.
²⁹⁶ <https://datareportal.com/reports/digital-2025-local-country-headlines>

What is backhaul?

Backhaul is the intermediary link in a telecommunications network between the edge of the network (such as copper or fibre connecting homes or mobile sites) and the core network (such as internet gateways and content provision). It transports traffic between the two parts of the network. Generally, backhaul is provided over fibre, but wireless technologies are sometimes used in high-cost remote areas.²⁹⁷

What are the different types of backhaul services?

Backhaul services can be broadly classified into three categories based on their geographic reach:²⁹⁸

- **Inter-regional backhaul services** – the set of services between main and provincial cities (for example, Auckland to Christchurch, Auckland to Whangārei, Whangārei to Tauranga).
- **Intra-regional backhaul services** – the set of services between the provincial cities and neighbouring towns (for example, Whangārei to Kaitia, Palmerston North to Feilding).
- **Local backhaul services** – the set of services within a town (for example, Feilding) or central business district (for example, Dunedin) that link the first points of traffic aggregation (for example, wireless sites).

²⁹⁷ Commerce Commission “Section 9A Backhaul services study” (June 2019), page 2 – https://comcom.govt.nz/_data/assets/pdf_file/0021/153039/Section-9A-Backhaul-services-study-Final-findings-11-June-2019.PDF

²⁹⁸ Ibid, page 4.

Who are the main providers?

Chorus is the main provider of inter-regional, intra-regional and local backhaul services across New Zealand. Table 39 summarises the main providers of backhaul services across the different backhaul categories.

Table 39: Backhaul providers in New Zealand

| Backhaul service type | Providers |
|----------------------------------|--|
| Inter-regional backhaul services | Chorus, Spark, One NZ, Vector Communications, Vital, 2degrees, Kordia |
| Intra-regional backhaul services | LFCs (Chorus, Northpower, Tuatahi, Enable) |
| Local backhaul services | Kordia, One NZ, Spark, LFCs (Chorus, Northpower, Tuatahi, Enable), Vector, Vital |

Source: Commission data

Backhaul networks are built and upgraded based on the volume of traffic they need to handle. High-volume links to main and provincial cities (inter-regional backhaul services) are usually served by multiple competing backhaul networks as it is economic for providers to compete.²⁹⁹ However, in lower-volume links outside of main and provincial cities, there is less competition between backhaul providers.

Intra-regional backhaul is predominantly provided by LFCs within their own UFB areas. Chorus operates most of the intra-regional network across New Zealand and has little or no competition in many areas.³⁰⁰

299 Ibid, page 7.
300 Ibid, page 8.

Who is purchasing backhaul services?

Telecommunications providers that purchase backhaul mainly fall into three categories:³⁰¹

- Fixed line RSPs use backhaul providing fixed-line services over fibre, HFC or copper technologies.
- Retail providers of managed data services use backhaul providing connectivity between sites for large corporate and government customers.
- Cellular network operators use backhaul linking their cell sites to their core networks.

Why is backhaul important for telco consumers?

Consumer outcomes

Competitive and efficient backhaul markets benefit consumers. Costs of backhaul are passed on to consumers through the telecommunications product they purchase such as broadband and mobile services. Increased competition leads to better service quality through increased investment and innovation and creates more choice for consumers as it becomes more economic for RSPs to enter the retail market through reducing backhaul costs.

Resilience

In areas with low data volume backhaul links, having multiple providers is often not economically viable. This can lead to a lack of redundancy in backhaul cables and routes, which affects network resilience during natural disasters.³⁰² For example, in 2023, Cyclone Gabrielle caused all the major fibre connections in and out of the Hawke's Bay and Gisborne regions to be damaged or destroyed, impacting telecommunications services for a period of time.³⁰³ While competitive backhaul markets will drive increased choice of backhaul provider and routes, enhancing resilience on some routes will require government intervention.

Next steps

We will continue to monitor the backhaul market and plan to release further analysis on the backhaul market in future Annual Monitoring Reports.

301 Ibid, page 6.

302 <https://www.tcf.org.nz/news/2023-telecommunications-resilience-plan>

303 <https://www.tcf.org.nz/news/battening-down-the-hatches-the-telco-sectors-response-to-cyclone-gabrielle>

Special topics | Ngā kaupapa motuhake

International subsea cables | Taura papa moana

The subsea cable market is the backbone for international data transmission. These cables are essential for maintaining high-speed internet connectivity, supporting international business operations and enabling global communication.

Subsea cables are vulnerable to various risks, including natural disasters, fishing activities and anchor drags. Damage to these cables can lead to significant disruptions in internet connectivity, affecting businesses and individuals alike.

In 2001, New Zealanders lost connectivity to the world due to a 2-day outage of the Southern Cross Cable. A fishing trawler sliced one cable, and the other cable was out of service for planned maintenance. Software that handled failovers also failed.³⁰⁴

As demand for data-driven services increases, so does the importance of reliable and resilient subsea cable networks. New Zealand's geographic isolation makes its subsea cable connections to the rest of the world particularly vital. As a critical element of our connectivity to the outside world, resilience in the network and diversity of the network are important to protect from the risk of natural disasters or even acts of sabotage.

There are currently three key cable networks in service in New Zealand:

- **Southern Cross Cable Network:** Owned by Spark, Singtel, Telstra and Verizon Business. The route includes Australia, New Zealand (Takapuna and Whenuapai), Fiji, Samoa, Tokelau, Kiribati and the United States. Its total capacity is around 100Tbps.
- **Tasman Global Access:** This cable connects Australia and New Zealand (Raglan) with a capacity of 20Tbps. It is owned by Spark, Telstra and One NZ.
- **Hawaiki:** Owned by digital infrastructure company BW Digital, this 67Tbps cable connects the United States, American Samoa, New Zealand (Mangawhai) and Australia.

Telcos, internet service providers and large companies typically buy subsea cable capacity. The increasing number of data centres in New Zealand is driving demand for higher capacity, as these facilities require substantial bandwidth to support cloud services and data storage. While New Zealand appears to have sufficient capacity to meet its international connectivity needs, ongoing investment is essential to keep pace with growing demand.

There are plans in the pipeline for five additional cable projects to land in New Zealand. Further cables would improve resilience in the case of natural disasters or other impacts. We also expect to see productivity improvements enabled by these new cables. For example, according to international consultant Analysys Mason, the Tasman Ring cable has the potential to boost gross domestic product by as much as \$3.7 billion each year and create up to 10,000 jobs during its construction and operational phases.³⁰⁵

The planned new cable systems are listed below:

- **Te Waipounamu:** 120Tbps connecting Invercargill and Australia. Planned to be ready for service in 2026.
- **Hawaiki Nui:** Will extend the Hawaiki project to include Singapore, Sydney, Los Angeles and Indonesia and include New Zealand connections at Christchurch, Dunedin and Invercargill.
- **Honomoana:** Will include a 30Tbps branch to Auckland. Connects United States, Tahiti, New Zealand, and Australia. Google subsidiary Starfish plans to commence commercial operations in the United States in 2026.
- **Humboldt:** Planned to go from Chile to Australia, including a New Zealand connection. No ETA.
- **Tasman Ring:** Chorus and Datagrid collaboration that would connect Melbourne, Sydney, Auckland, Greymouth, Invercargill and New Plymouth with capacity of up to 540Tbps. No ETA.

Scams are a significant issue in New Zealand.

³⁰⁴ <https://www.nbr.co.nz/dick-remembers-the-day-the-southern-cross-cable-lost-service-and-says-it-will-fail-again/>
³⁰⁵ <https://www.thepress.co.nz/nz-news/360564364/datagrid-seeks-fast-track-approval-submarine-cable-australia>

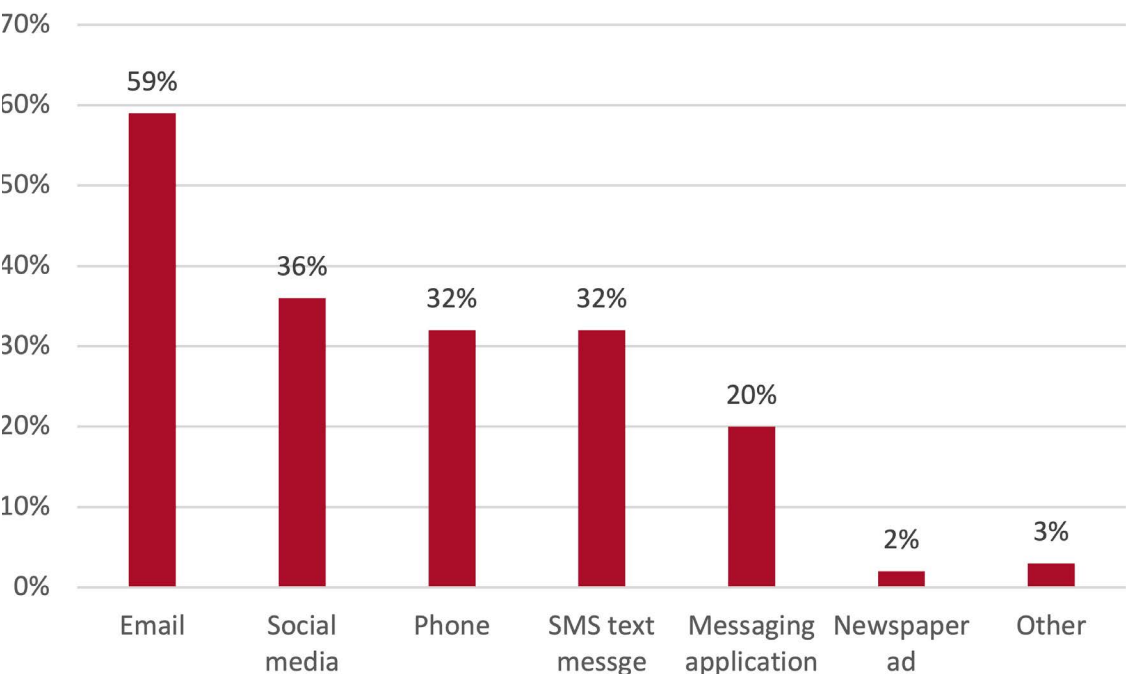
Special topics | Ngā kaupapa motuhake

Safeguarding consumers from scams | Te whakamaru kiritaki ki ngā tāware

Increasingly, scams involve telecommunications networks and services such as text or instant messages, fake websites or phone calls from scammers impersonating legitimate companies to trick New Zealanders into providing sensitive information or making payments. The financial impact of scams in New Zealand is substantial, with estimates of between ~\$200 million and ~\$2.3 billion lost per year.^{306,307} Over a million New Zealand households were targeted by scammers in the last year,³⁰⁸ highlighting the prevalence of this issue.

Scams involving telcos or their networks not only cause financial harm but also erode trust in telecommunications networks and services. In a recent survey, the Financial Markets Authority found that phone calls and/or text messages are used as methods of contacting people in around a third of all scams (Figure 110).

Figure 110: Experience with scams – method of contact



Source: Financial Markets Authority³⁰⁹

306 <https://www.consumerprotection.govt.nz/news-and-media/kiwis-lose-184-million-to-scams>
307 <https://www.nzherald.co.nz/business/kiwis-lose-23b-to-digital-scams-government-readies-three-big-moves/HUX4P5N3QNHLRLKLAJD7DQR2OU/>
308 <https://www.consumer.org.nz/articles/new-zealand-s-scram-crisis-are-we-falling-behind>
309 Financial Markets Authority "Consumer Confidence Survey 2024" - <https://www.fma.govt.nz/assets/Research/Consumer-Confidence-Survey-Overview-Report-2024.pdf>

Two recent examples of scams that involved the use of telecommunications networks:

- **Op Orca smishing scam:** A 19-year-old man was arrested in Auckland in August 2024 for using an SMS blaster – a device that mimics a cell tower to send fraudulent texts claiming to be from banks. This is the first time such a device has been found in New Zealand. The scam, which sent thousands of texts, aimed to steal personal information such as passwords and credit card details.³¹⁰
- **Text scam:** Authorities dismantled a text scam operation in Auckland that involved sending spam messages using various ruses such as the “Hi Mum” scam, banking scams and Netflix scams. The operation led to the seizure of firearms and the arrest of two individuals in December 2024, underscoring the serious nature of these scams and the involvement of organised crime groups.³¹¹

Organisations involved in fighting scams

In New Zealand, several government organisations play a part in fighting scams, including CERT NZ, Ministry of Business, Innovations and Employment, Serious Fraud Office, NZ Police, Inland Revenue, Financial Markets Authority and the Commerce Commission. As an example, the Department of Internal Affairs undertakes investigations and enforcement actions to disrupt scam operations under the Unsolicited Electronic Messages Act 2007.

The Commission helps to fight scams such as pyramid schemes, prize scams, online retailers who don't supply and fake billing scams that involve misleading and deceptive conduct in trade. The Commission also regulates payment systems under the Retail Payment System Act 2022, where we are working to facilitate open banking as a secure, low-cost alternative to screen-scraping and reverse-engineering payment methods, which increase scam risks.

Multiple industry sectors are also involved such as the banking industry, payments sector, technology platforms such as Google and Apple and the telecommunications industry.

Within the telco sector in New Zealand, individual companies have initiatives to help fight scams and protect consumers – for example, Spark and 2degrees have launched content filters to block scam messages.^{312,313} At an industry level, the TCF has a Scam Prevention Working Group that works with the banking and government sector to help block scam activity on telco networks. The TCF has also developed a scam prevention code defining how telcos should identify and block numbers involved in scam calling and texts.

310 <https://www.rnz.co.nz/news/national/529737/teen-arrested-for-smishing-scam-using-technology-never-before-seen-in-new-zealand>

311 <https://www.nzherald.co.nz/nz/operation-cargo-police-arrest-west-auckland-duo-after-text-scam-raid-uncovers-firearms-ammunition/QEP07XXZJ5DIBCH3NAEXXOJTXU/>

312 <https://www.spark.co.nz/help/privacy-and-safety/scams-safety/how-spark-helps-protect-you-online/>

313 <https://www.consumer.org.nz/articles/new-zealand-s-scam-crisis-are-we-falling-behind>

The way forward

A coordinated approach between industry and government is essential to enhance consumer protection and keep New Zealanders safe.

In Australia, the Government is developing a new Scams Prevention Framework to require some business sectors to take reasonable steps to prevent, detect and disrupt scams as well as report transparently about prevention measures and share intelligence with the Australian Competition and Consumer Commission.³¹⁴

This legislation will allow the Government to switch on proactive powers for different industry sectors as appropriate. Telecommunications services and broadcasting services providers are proposed to be included in the new legislation's remit.

From another perspective, a recent article from Consumer NZ suggests greater liability for companies such as telcos and banks would provide better customer protection against losses and drive innovative approaches from the companies to better prevent scams.³¹⁵

314 <https://www.nortonrosefulbright.com/en/knowledge/publications/e463274b/part-2-navigating-the-new-frontier-unpacking-the-new-scams-prevention-framework#section3>

315 <https://www.consumer.org.nz/articles/new-zealand-s-scam-crisis-are-we-falling-behind>

In this section, we look at some of the upcoming market developments we are expecting during the 2025 year and the impacts these events might have.

In 2025, the telecommunications market is poised for significant changes driven by four influential market events: Chorus's fibre speed upgrades, the Amazon Kuiper satellite broadband launch, the launch of D2C mobile services and the industry-wide 3G network shutdown. This section explores these key market developments and their potential impacts, providing insights into how these changes may shape the market landscape.

Fibre upgrades – Chorus's 'The Big Fibre Boost'

Chorus will upgrade Fibre 300 to Fibre 500 and Fibre 50 to Fibre 100 in June 2025 with no increase to the wholesale price.³¹⁶ We expect LFCs to follow suit. This is Chorus's second speed upgrade after upgrading Fibre 100 to Fibre 300 in 2021/22.

We expect Fibre 100 and Fibre 500 to attract some consumers currently on 4G or 5G fixed wireless broadband. Fibre 100 (upgraded Fibre 50) is likely to be particularly attractive to price-conscious customers on 4G wireless services.

We expect market shares may shift

Where plan changes from fixed wireless to fibre occur, we estimate the market share across the Largest 3 may churn from wireless to fibre, contributing to a continued loss of broadband market share for the Largest 3. We estimate that, by June 2026, the broadband market share for the Largest 3 could be as low as 65%, down from 74% in June 2023.³¹⁷

However, we could also see MNOs choosing to sacrifice the greater margins on fixed wireless by moving a customer to Fibre 100 rather than lose the customer to another provider.

Some plan downgrading may occur

The Big Fibre Boost may prompt some consumers on Fibre Max to downgrade to Fibre 500. We could also see some downgrades from Fibre 300 to Fibre 100.

Economic conditions and the desire to save money will drive some downgrades, potentially saving consumers up to \$41 per month.³¹⁸ Others may feel that Fibre Max's perceived premium value no longer justifies its cost, with Fibre 500 offering a similar experience. Fibre 500's performance will be more than sufficient to meet most users' requirements, according to the MBNZ programme.³¹⁹ Already, we have seen evidence that some consumers have changed plans from Fibre 300 or Fibre Max to Fibre 50.

However, the low propensity of Kiwi consumers to switch broadband plans, currently at 11% annually, may limit the number of downgrades.

MNOs will reposition their 5G narratives and products

Fibre 500 will offer nearly twice the current download speed of 5G fixed wireless broadband.³²⁰ However, Spark is deploying standalone 5G³²¹ and its testing has achieved speeds of nearly 1Gbps.³²² This could enable Spark to offer its 5G fixed wireless on a comparable download speed basis with Fibre 500.

³¹⁶ <https://www.rnz.co.nz/news/business/541580/chorus-doubles-speed-limits-on-basic-household-plans>

³¹⁷ Based on estimates of 71% as at June 2024 and 69% at June 2025 when fibre upgrades launch. The estimate also considers the changing market shares in rural as consumers shift off copper to alternatives, including Starlink.

³¹⁸ Fibre Max \$121 with Mercury to Fibre 300 \$80 with Contact Energy, Skinny and several WISPs as at June 2024.

³¹⁹ Commerce Commission "Measuring Broadband New Zealand – Report 20, June 2024", page 6 - https://comcom.govt.nz/_data/assets/pdf_file/0020/356501/Measuring-Broadband-New-Zealand-Report-20-June-2024.pdf

³²⁰ Currently ~300Mbps for 5G fixed wireless broadband.

³²¹ All three MNOs' current 5G deployments are non-standalone where the radio access network is 5G but the core remains 4G. In a standalone deployment, both the radio access network and the core are 5G.

³²² Noting the real-world testing with load on the network may be lower.

Amazon Kuiper broadband launch

We currently expect Amazon Kuiper to launch LEO broadband services in New Zealand in late 2025.³²³

Amazon Kuiper could gain up to 15% rural market share for broadband connections by 2027

Amazon's launch date will be well timed if there is a decision to deregulate copper broadband in rural areas. If this proceeds, Chorus will withdraw copper in line with its goal to become a fibre-only company by 2030. Chorus may elect to implement a pricing strategy that will encourage rural copper consumers to churn to a different service.

Amazon Kuiper can use that timing to its advantage to seek connection growth. This suggests that Amazon could grow its market share without needing to focus on winning over Starlink customers.

Amazon has an extensive marketing reach, including its website and streaming services, which it could use to its advantage. For example, Amazon could bundle its services or offer buy-back programmes for Starlink's equipment to attract customers.

With attractive propositions and by being in market as consumers are switching away from copper, we think that Amazon Kuiper could reach a material rural broadband market share of up to 15% by 2027.³²⁴

The key risk for this prediction is that timely satellite launches are crucial for Kuiper's market penetration. In June 2024, Amazon said it still intends to start offering service to customers in 2025.³²⁵ New Zealand will be one of the first countries where the service launches.³²⁶

Another risk is that rural consumers are already moving off copper at a pacy rate and the later Kuiper launches, the fewer copper broadband consumers will be left.

323 <https://www.reseller.co.nz/article/3499482/overseas-investment-office-green-lights-aws-project-kuiper-satellite-investment.html>

324 This is based on assumptions around market movements and activities.

325 <https://www.satellitetoday.com/connectivity/2024/06/27/amazon-pushes-the-first-full-kuiper-launch-to-q4/>

326 TUANZ 2024 Symposium - Amazon Kuiper Keynote - Kuiper intends to launch on the lowest and highest latitudes first and then work its way into the equator.

We expect to see price drops in rural broadband plans

Kuiper's market entry will increase competition in the rural broadband market, and the company has stated it intends to bring down the start-up costs of buying a dish. This will pressure other market participants to adjust their pricing strategies. For example, there may be pricing pressure on rural fixed wireless, where the average price is 40% more in rural areas than in urban areas.

As a result, we expect rural broadband prices to decrease in 2026/27, benefiting consumers with more affordable and better-performing internet options.

We intend to continue to track the competitive dynamics in the rural broadband market to observe if the entry of new players such as Amazon Kuiper leads to improved pricing and service quality for consumers.

D2C mobile services

The launch of D2C satellite services marks a revolutionary shift in the market, especially for rural areas. Like the impact of Starlink's LEO broadband, D2C services have the potential to significantly enhance connectivity in remote regions.

MNOs are partnering with satellite providers to offer services in areas without terrestrial cellular coverage. One NZ launched a limited beta service in December 2024,³²⁷ with Spark and 2degrees planning to follow in 2025. Initially, services will be limited to texting, with voice and basic data capabilities to follow.

One NZ's D2C service initially supported only four handsets. However, One NZ has since added further handsets and plans to continue rolling out the service to a wider range of devices. Currently, texts can take up to 10 minutes to send or receive, but we expect this to improve over time as SpaceX adds more satellites to its constellation. Additionally, One NZ prepaid customers and those accessing One NZ's network via an MVNO or reseller such as Kogan are currently excluded.

Uptake may be limited initially

We expect domestic usage to be primarily among rural workers, tourists, holiday makers, and first responders. With 98% population coverage in cellular areas, urban residents and workers will have limited use for D2C except when travelling to remote locations. However, this could change if MNOs offer innovative services using D2C such as enhanced roaming capabilities.

While current limitations are apparent, we expect D2C services to improve over time as more information is released and technology advances.

327 <https://www.nzherald.co.nz/business/companies/telecommunications/one-nz-launches-its-starlink-direct-to-mobile-service-but-with-a-couple-of-initial-limitations/FIPWCB5UCJBV3GMDCTMEIZS46M/>

3G shutdown in New Zealand

New Zealand's major MNOs, including Spark, One NZ and 2degrees, plan to shut down their 3G networks by the end of 2025 or in early 2026.^{328,329} This move is part of a global trend where older-generation technologies are being phased out to make way for more advanced and efficient 4G and 5G networks.

The 3G shutdown will free up valuable spectrum that can be repurposed to enhance 4G and 5G services, particularly in rural areas where connectivity improvements are most needed. These newer technologies offer faster internet speeds, improved call quality and better support for data-intensive activities such as video streaming. 4G and 5G networks are more power-efficient, which is beneficial for both operators and consumers.

Consumers who still rely on 3G devices will need to upgrade to 4G or 5G-compatible devices to maintain connectivity. This includes mobile phones and other devices such as vehicle trackers, alarms and medical alert systems that use 3G technology. For example, Spark has 120,000 mobile devices and 80,000 Internet of Things devices with active connections that are 3G only.³³⁰

There are also some 4G devices that may still rely on 3G for voice calls instead of using VoLTE. This might be because the 4G device does not have VoLTE at all or has it but it is not enabled or that the MNO does not support VoLTE on some devices despite it being an available feature of the device.

328 <https://www.spark.co.nz/help/mobile/understand/3g-network-closure/>

329 <https://www.tcf.org.nz/digital-living/consumer-info-hub/understanding-the-3g-shutdown>

330 https://investors.sparknz.co.nz/FormBuilder/_Resource/_module/gXbeer80tkeL4nEaF-kwFA/doc/H1FY25_Results_Transcript.pdf

While there will be longer-term benefits to the 3G shutoff, it could cause issues for some New Zealanders in the shorter term

Digital Equity Coalition Aotearoa says that the 3G shutdown risks widening the digital divide³³¹ and that it will disproportionately affect rural communities, low-income households and older adults. A 2023 Federated Farmers rural connectivity study found 29% of farmers surveyed indicated that 3G was the highest-generation cellular technology available to them.

The Australian Senate conducted an inquiry into the 3G shutdown, highlighting concerns about the impact on access to emergency services, the number of affected devices and the adequacy of 4G coverage in rural areas.³³² These issues are relevant to New Zealand as well, where similar challenges may arise.

Internationally, the shutdown of 3G networks has led to various outcomes. In the United States, the transition has been relatively smooth, but there have been instances where refurbished phones from overseas markets were not compatible with local 4G networks.³³³ Countries like Germany and Singapore have successfully phased out 3G, but not without addressing the needs of vulnerable populations and ensuring adequate coverage with newer technologies.³³⁴

Internationally, industry and regulatory bodies have undertaken activities designed to positively impact the customer experience during 3G shutdowns:

- In the United States, AT&T provided free or discounted 4G/5G-compatible devices to customers still using 3G phones.³³⁵
- In the United Kingdom, Ofcom worked with mobile operators to develop a document of its expectations around transparency of contracts and customer rights to exist, treatment of vulnerable customers, access to emergency services and fairness commitments.³³⁶
- The Australian Communications and Media Authority launched public awareness campaigns to inform consumers about the 3G shutdown and the steps they need to take.³³⁷

³³¹ <https://www.digitalequity.nz/blog/3g-switchedoff>

³³² https://www.apf.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/3GNetworkShutdown

³³³ <https://www.abc.net.au/news/2024-10-24/3g-shutoff-affect-refurbished-mobile-phones-bought-from-us-china/104503266>

³³⁴ <https://blog.telegeography.com/2g-and-3g-shutdowns-continue>

³³⁵ <https://techbuzz.att.com/explainers/att-is-shutting-down-its-3g-network-heres-how-to-prepare/>

³³⁶ <https://www.ofcom.org.uk/siteassets/resources/documents/phones-telecoms-and-internet/information-for-industry/3g-and-2g-switch-off/3g-and-2g-switch-off?v=322171>

³³⁷ <https://www.acma.gov.au/3g-network-switch>

Concluding remarks

New Zealand's mobile market remains concentrated among the Largest 3 operators, though MVNOs are slowly gaining ground. Despite increased competition and expanding 5G coverage, rural connectivity gaps persist.

Pricing for mobile services in New Zealand is relatively high compared to other countries, especially for data-heavy plans. Pricing and customer service remain key areas for improvement in consumer satisfaction.

The current state reflects that the burgeoning additional competition in the mobile market needs to develop and strengthen to enhance overall market performance.

Market monitoring updates | Kōrero hou a te māketē

Section 9A studies | Kaupapa Mātai a Tekiona 9A

Measuring Broadband New Zealand (MBNZ)

Our MBNZ programme aims to provide consumers with independent information on broadband performance across different technologies, providers and plans to enable them to make confident and informed choices about their broadband.

Our quarterly MBNZ reports compare technologies across several measures, including download and upload speeds, latency, video streaming, social media, online gaming and video conferencing performance.³³⁸

This year, we have continued to improve the programme to cover more providers, technologies and services, for example, we began reporting on Fibre 50 performance for the first time in April 2024.

We reported performance testing results for 5G wireless connections for the first time in June 2024, where Spark had commenced embedding testing agents into its routers. This enables a far larger testing population than needing to recruit whitebox volunteers.

After starting to include LEO satellite results in May 2023, we have expanded the programme to include results for Starlink's deprioritised service (Residential Lite) in July 2024, which currently performs only marginally slower on speeds than Starlink's main residential service.

In April 2024, we published our first RealSpeed report, which compares measurements taken from the router with measurements taken on various devices being used in the home such as laptops, TVs, tablets and phones. The goal is to help consumers understand how their home set-up can impact the performance of their broadband connection within their home.³³⁹

³³⁸ MBNZ quarterly reports can be found at <https://comcom.govt.nz/regulated-industries/telecommunications/monitoring-the-telecommunications-market/monitoring-new-zealands-broadband/Reports-from-Measuring-Broadband-New-Zealand>

³³⁹ Commerce Commission "Measuring Broadband New Zealand – RealSpeed Report 2024" – https://comcom.govt.nz/_data/assets/pdf_file/0031/348961/RealSpeed-Report-April-2024.pdf

Router testing

We have been working with Consumer NZ to test the performance of different routers available on the market. In November 2024, Consumer released its report comparing devices supplied by service providers as well as common off-the-shelf options available for purchase in New Zealand. This report is freely available to all New Zealanders and contains helpful, understandable advice as well as router performance ratings.³⁴⁰

Broadcasting transmission services

In June 2024, we published a report on broadcasting transmission services in New Zealand.

The report measures key metrics on the broadcasting transmission services market structure in New Zealand, encompassing the key players, services and infrastructure and ongoing development of the market.

Our next report will be published in 2025.

³⁴⁰ Consumer's test results and buying guide can be found at <https://www.consumer.org.nz/products/wifi-routers-and-mesh-networks/review>

Market monitoring updates | Kōrero hou a te māketē

Retail service codes and guidelines |

Ngā aratohu me ngā wāhere ratonga hoko

Part 7 *Consumer matters* of the Telecommunications Act is aimed at improving retail service quality (RSQ). Along with section 9A, the Act directs us to monitor RSQ and make information available in a way that informs consumer choice. Part 7 also empowers us to review industry RSQ codes, issue guidelines and create Commission RSQ codes.

Monitoring consumer satisfaction

In November 2023, we published the first results from our monthly consumer satisfaction monitoring programme. We undertake a monthly research programme of consumer satisfaction with RSQ. This programme allows the Commission to gather consumer insights to monitor RSQ to ensure it reflects the demands of end users of telecommunications. Results are published every 6 months to share our understanding of consumer issues and demand with stakeholders.

Customer services provider rankings

During 2023, we started to publish rankings of provider performance on key customer service metrics. These metrics were based on indepth research with consumers. We publish the rankings to help inform consumers about which providers offer the best customer service for mobile and broadband. Feedback received to date from consumers is that these rankings are supporting decision making.

Product Disclosure – Retail Service Bundling Guidelines (Energy and Telecommunications Bundles)

On 22 November 2023, we published these guidelines under section 234 of the Telecommunications Act to set out our expectations concerning the bundling of energy and telecommunications services by RSPs.

The guidelines are intended to ensure that price and other key information relating to bundles is displayed clearly and transparently to allow consumers to make appropriate comparisons and fully informed choices.

A review in 2024 showed these guidelines are achieving their objectives and have improved information for consumers.

Product Disclosure – price, cost and coverage maps guidelines

On 14 December 2023, we issued two sets of draft product disclosure guidelines for consultation:

- The Draft Product Disclosure – Retail Service Price and Cost Guidelines³⁴¹ cover the presentation of average price, total cost, early termination fees and offer summaries. These guidelines set out our expectations regarding the measures RSPs should implement to increase the transparency of retail service pricing and to aid the comparability of offers between RSPs.
- The Draft Product Disclosure – Coverage Map Guidelines³⁴² cover the presentation of coverage maps alongside mobile services. These guidelines apply to all providers of mobile services and set out our expectations regarding the way mobile providers prepare and present coverage maps to increase consumer awareness of the coverage they can expect and their rights in the event of experiencing a material coverage issue.

The final Product Disclosure – Mobile Coverage Maps Guidelines³⁴³ were published in early 2025 and the final price and cost guidelines will follow shortly.

³⁴¹ https://comcom.govt.nz/_data/assets/pdf_file/0026/337670/Improving-RSQ-Draft-Product-Disclosure-Price-and-Cost-Guidelines-14-December-2023.pdf





³⁴² https://comcom.govt.nz/_data/assets/pdf_file/0034/337669/Improving-RSQ-Draft-Product-Disclosure-Mobile-Coverage-Maps-Guidelines-14-December-2023.pdf

³⁴³ https://comcom.govt.nz/_data/assets/pdf_file/0023/364154/Product-Disclosure-Mobile-Coverage-Maps-guidelines-30-January-2025.pdf

Retail Service Quality: Ex Post Reviews Summary

in 2024, the Commission conducted ex post reviews of four key issues under our RSQ work programme.³⁴⁴ These reviews aimed to assess whether the intended consumer benefits were being delivered, consistent with the RSQ purpose of the Act. Table 40 summarises the overall progress and individual outcomes for each area and highlights areas for improvement addressed through updated guidelines.

Table 40: Results summary for RSQ work programme

| Area | Issues | Outcome | RAG* |
|---------------------|--|--|---|
| Dispute Resolution | <ul style="list-style-type: none">Industry scheme had never been reviewedLow consumer awareness and utilisation | <ul style="list-style-type: none">Higher awareness (+7%)Wider coverage (+50%)More usage (+23%)Faster resolution (+96% within 60 days) |  |
| Mobile Transparency | <ul style="list-style-type: none">High inertia levelsEvidence of significant overspending | <ul style="list-style-type: none">Better usage / spend informationMobile comparison tool launchedMove towards proactive 'right planning' |  |
| Broadband Marketing | <ul style="list-style-type: none">Consumer confusion about 'up to' speeds and performance of different technologiesMisselling to consumers after copper | <ul style="list-style-type: none">Real world (MBNZ) speeds in advertising"Exit right" when providers don't deliver what's advertised36% reduction in consumer complaints |  |
| Electricity Bundles | <ul style="list-style-type: none">Fast growing segment but lacking of pricing transparencyElectricity often more expensive in these bundles than if brought separately from the same provider | <ul style="list-style-type: none">Stopped poor pricing practicesBetter cost information for consumers |  |

*RAG means red, amber or green, where green indicates that consumer benefits were delivered acceptably for that area of work.

Source: Commerce Commission

344 Commerce Commission "Retail Service Quality: Ex Post Reviews Summary" (March 2025) – see https://comcom.govt.nz/_data/assets/pdf_file/0030/365682/RSQ-Ex-Post-Reviews-Summary-March-2025.pdf

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