

Communications and media in Australia

Trends and developments in telecommunications 2024–25

February 2026

Copyright notice



<https://creativecommons.org/licenses/by/4.0/>

Except for the Commonwealth Coat of Arms, logos, emblems, images, other third-party material or devices protected by a trademark, this content is made available under the terms of the Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

All other rights are reserved.

The Australian Communications and Media Authority has undertaken reasonable enquiries to identify material owned by third parties and secure permission for its reproduction. Permission may need to be obtained from third parties to re-use their material.

We request attribution as © Commonwealth of Australia (Australian Communications and Media Authority) 2026.

Contents

Introduction	1
Executive summary	2
Internet and communication services at a glance	4
How Australians access and use the internet and communications services	5
Wired telecommunications at a glance	9
Wired telecommunications	10
Wireless telecommunications at a glance	20
Wireless telecommunications	21
Industry developments	26
Notes	35



Acknowledgement of Country

The Australian Communications and Media Authority acknowledges First Nations peoples as the Traditional Owners and Custodians of Australia.

We respect and celebrate First Nations peoples as the original storytellers and content creators of the lands on which we work, and honour the enduring strength and commitment of Aboriginal and Torres Strait Islander peoples to the land, waters and their communities. We pay our respects to Elders past and present.

Introduction

How are telecommunications infrastructure and services provided, taken up and used by Australians?

Using both industry data and our annual consumer research, we provide an overview of developments in the Australian telecommunications sector from June 2024 to October 2025. We also discuss trends in the supply and use of telecommunications services for the past several years.

We look at:

- how Australians are accessing communication services and the internet and what activities they do online
- our use of wired telecommunications, such as fixed-line services supplied over the National Broadband Network (NBN)
- the role of wireless telecommunications, such as mobile phone services, in keeping us connected.

The ACMA's annual consumer surveys

This report references our annual consumer survey collected from 2017 to 2025. The survey provides information on Australian adults' use of communications and media services. Unless otherwise noted, results relate to Australians aged 18 and over.

Information about survey questions is included in the chart notes. All data comparisons in this report reflect statistically significant increases or decreases at the 95% confidence level.

Findings from the ACMA's annual consumer surveys referenced in this report are also available as part of our [*Communications and media in Australia*](#) series.

researchacma

Our research program makes an important contribution to the ACMA's work as an evidence-based regulator. It informs our strategic policy development, regulatory reviews and investigations, and helps us to support a media and communications environment that works for all Australians. The research used for this report is part of the ACMA research program.

Executive summary

This report provides insights into the telecommunications and radiocommunications industries, drawing on industry data and supplemented by the ACMA's annual consumer survey data.

Nearly all of us are online and doing so more often

Internet access and use among Australian adults remains almost universal. There are now more of us using mobile phones to access the internet, with increased daily use.

There was also increased use of smart TVs and tablets to go online.

The rise in use of smart TVs was for all ages. However, for both mobile phones and tablets, the rise was driven by younger Australians. Device use to access the internet for those aged 18–44 increased to 99% for mobile phones (from 97% in 2024) and 49% for tablets (from 44% in 2024).

While overall internet activity access and usage remained steady, several key activities showed a notable rebound after a period of post-pandemic decline, with many returning to levels observed in 2022 and 2023.¹ For instance, accessing government services via apps and video conferencing or calling both grew, reversing declines from the previous year.

Data growth and speed

We downloaded around 13.6 million terabytes of data over retail broadband internet and mobile services in the 3 months to June 2025. The NBN carries 85% of this data.

NBN Co, the company that owns and operates the NBN, has said data traffic over the network has been growing and is forecast to continue to grow across residential and business markets.

A key development for NBN Co in 2025 was the launch of the Accelerate Great program. This lifted download speeds across a range of wholesale plans. The heaviest retail internet users are on very fast speed plans. They download over 900 gigabytes of data every month. The speed of choice for most NBN users remained 50 megabits per second, but NBN Co expects the new 500 megabits per second wholesale speed tier will become Australia's most popular NBN plan.

Many submarine cable projects are also underway to expand Australia's domestic and global interconnectivity. These cables provide a vital service in sending large volumes of data between major data hubs to ensure Australia remains connected with the world.

Growth in 5G and fixed wireless services

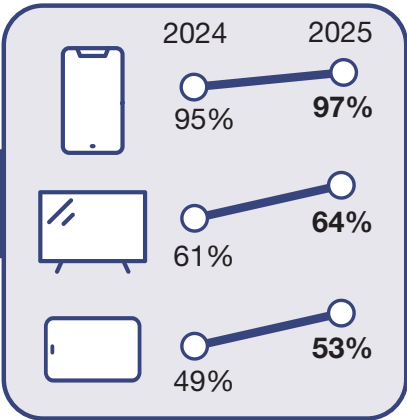
Australia's mobile network operators continue to invest in and expand their 5G networks, including repurposing spectrum previously used for 3G services.

Australia's mobile network operators have more 4G sites (26,246) than 5G sites (15,119) as of 31 January 2025. The operators are continuing to roll out their 5G networks and are adding more 5G sites than new 4G sites, reflecting the maturity of their 4G networks. Most 5G sites are in major cities.

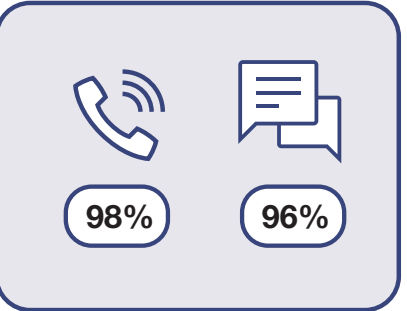
The NBN uses fixed wireless to reach customers in regional, urban and outer-urban areas where fibre connections are too costly, or the terrain is too challenging. Other providers, including Telstra, Optus, TPG Telecom and Pentanet also invest in fixed wireless services, which provide an alternative to the NBN fixed wireless network. While the number of NBN fixed wireless services slightly decreased, the total number of fixed wireless services grew, with non-NBN services increasing by 18%.

Internet and communication services at a glance

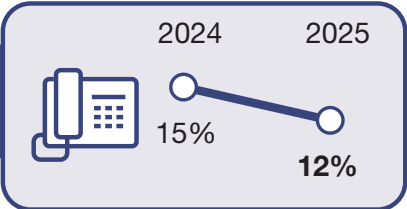
More Australian adults used a mobile phone, Smart TV or tablet to go online.



Mobile phones for calls and texts remain the most widely used communication services.



Use of landline phones for calls continued to decline.



How Australians access and use the internet and communications services

This section covers the most popular devices for accessing the internet and what communication services Australians used. It also summarises the activities we do online.

Devices used to access the internet

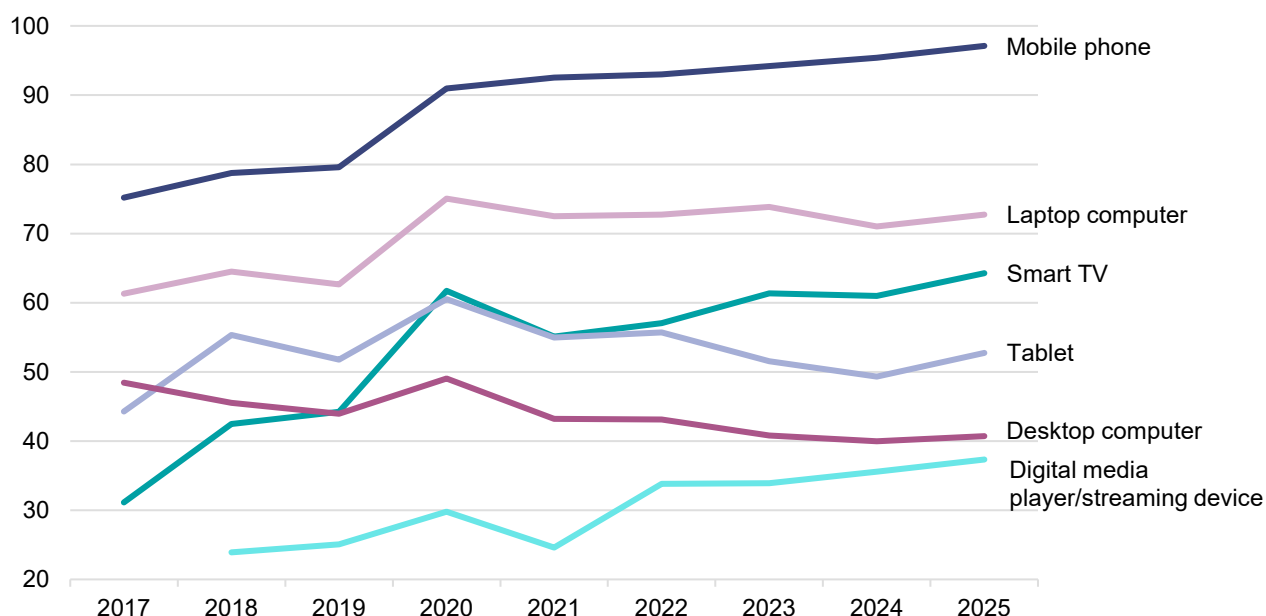
In 2025, internet access remained nearly universal among Australian adults, with 99.7% using a device to go online in the first half of 2025.²

Figure 1 shows devices used by adults to access the internet since 2021:

- Nearly all of us (97%) used a mobile phone to access the internet in 2025, up from 95% in 2024.
- In 2025, we used an average of 4.1 devices to access the internet – an increase from 3.7 devices in 2024, but similar to the 4.0 devices recorded in 2023.
- The rise in device usage was driven by Australians aged 18–54, who used more than they did in 2024 (4.3 compared to 3.8).

There was increased use of smart TVs (64% up from 61%) and tablets (53% up from 49% in 2024) to go online, however this has returned to 2023 levels (52%). While the rise in smart TV usage was across all age groups, for both mobile phone and tablet use, this was driven by younger Australians. Device use to access the internet for those aged 18–44 increased to 99% for mobile phones (from 97% in 2024) and 49% for tablets (from 44% in 2024). Despite growth among younger users, tablet use remains significantly higher for those aged 45 and over at 56%, compared to 49% for those aged 18–44.³

Figure 1: Devices used to access the internet in the previous 6 months to June 2017 to June 2025 (%)



Base: Australians adults; 2017 (n=2,277), 2018 (1,106), 2019 (n=2,067), 2020 (n=2,009), 2021 (n=3,586), 2022 (n=3,580), 2023 (n=3,572), 2024 (n=3,537), 2025 (n=3,543).

Source: ACMA, Communications and media in Australia: How we use the internet, February 2026.

We are now online more often and in greater numbers. Over the previous 12 months, there were increases in adults using a mobile phone to access the internet (up from 95% to 97%), and daily use (from 90% to 92%).⁴

Daily internet use on mobile phones was most common among younger Australians, with 98% of those aged 18–44 using their phones daily (compared to 86% of those aged 45 and over). Interestingly, the overall growth in 2025 was also driven by the younger age group, with daily usage rising from an already high 96% in 2024 to 98%.⁵

Online activities

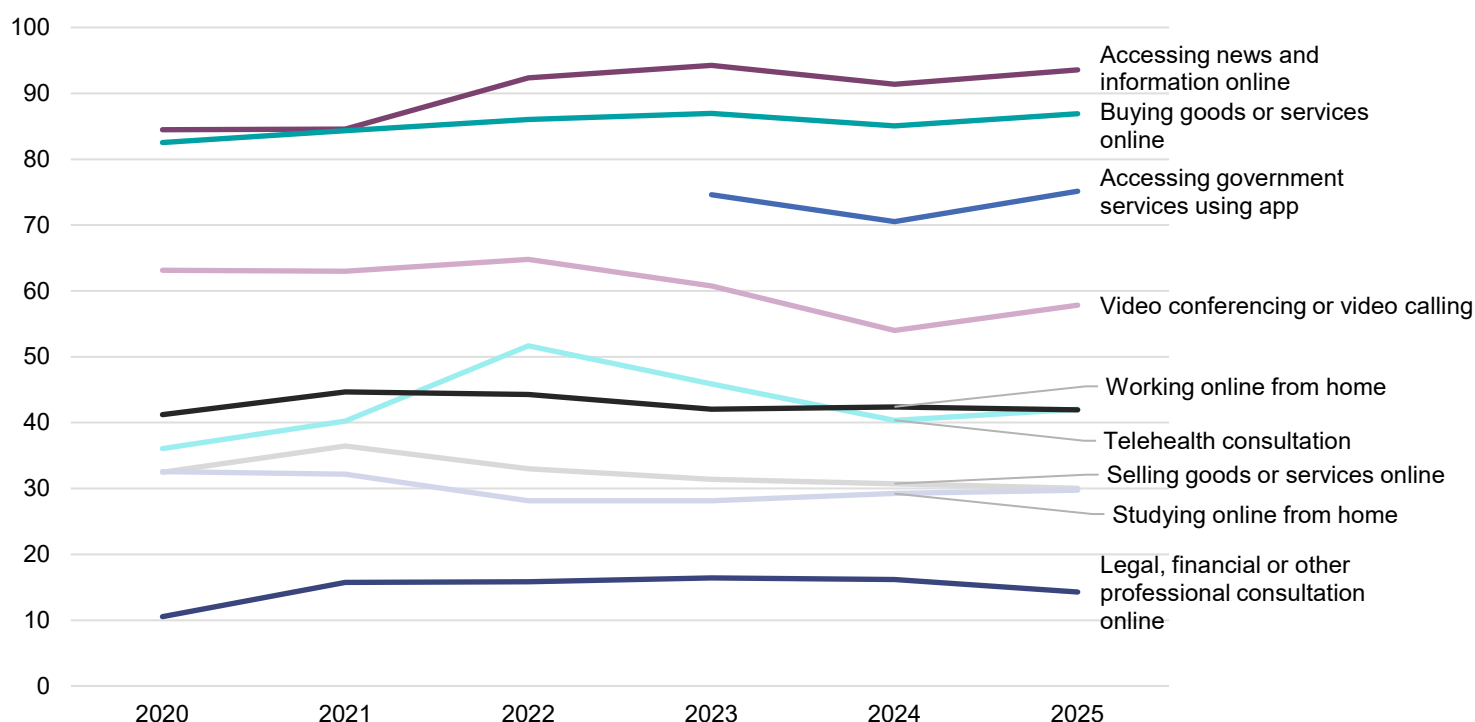
While overall internet activity access and usage have remained steady, several key activities showed a notable rebound after a period of post-pandemic decline, with many returning to levels observed in 2022 and 2023. The key question is whether this growth reflects a sustained reversal of the previous downward trend or represents a one-year anomaly.

As shown in Figure 2, accessing news and information was the most common online activity in 2025, with 94% of adults doing so in the previous 6 months. Younger Australians continue to lead in accessing news and information online (95% compared to 91% for those aged 55 and over), but the growth observed in 2025 was primarily driven by older Australians – access among those aged 55 and over rose to 91%, up from 87% in 2024.⁶

Accessing government services via apps was the third most popular online activity, with usage more common among Australians aged 18–64 (78%) than those aged 65 and over (64%). Although usage increased in 2025, this represents a reversal of the decline observed in the previous year. This growth was driven by the 18–64 age group, whose usage rose from 73% in 2024 to 78% in 2025. A similar pattern was observed for video conferencing or video calling via apps or web-based services, which remained more common among those aged 18–64 (66%) compared with 30% of those aged 65 and over. Growth in this area was also led by the 18–64 age group, with usage increasing from 61% in 2024 to 66% in 2025.⁷

Following several years of decline, telehealth consultation with a doctor, psychologist or other medical/health professional remained steady at 42% in 2025. Buying or selling goods online and working from home also remained stable, continuing a trend of minimal change over recent years.⁸

Figure 2: Online activities undertaken in the 6 months to June 2020 to June 2025 (%)



Base: Australians aged 18 and over; 2020 (n=2,009), 2021 (n=3,586), 2022 (n=3,580), 2023 (n=3,572), 2024 (n=3,537), 2025 (n=3,543).

Source: ACMA, Communications and media in Australia: How we use the internet, February 2026. Previously published data may differ slightly due to weighting adjustments.

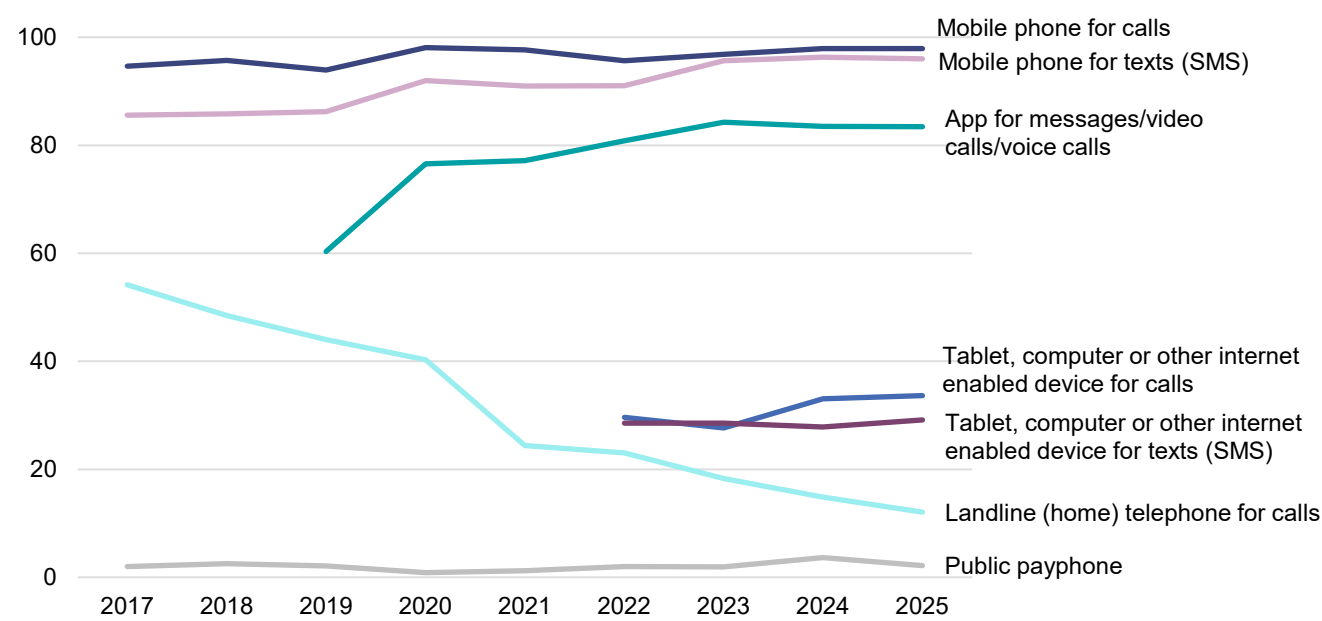
Use of communication services

Australian adults' use of communication services for personal purposes in the 6 months to June 2025 remained stable for most services.

Figure 3 shows that:

- Mobile phone calls (98%) and text messaging (96%) followed by apps for messaging or video/voice calls (83%) continue to be the most widely used communication services in 2025.
- Landline telephone use for calls at home continued to decline, falling to 12% in 2025 (down from 15% in 2024 and 54% in 2017). While usage was highest amongst older Australians at 34% for those aged 75+, this also declined from 45% in 2024.
- Public payphone use returned to 2% in 2025, aligning with previous levels after a brief increase in 2024 (to 4%).

Figure 3: Communication services used for personal purposes in the 6 months to June 2017 to June 2025 (%)



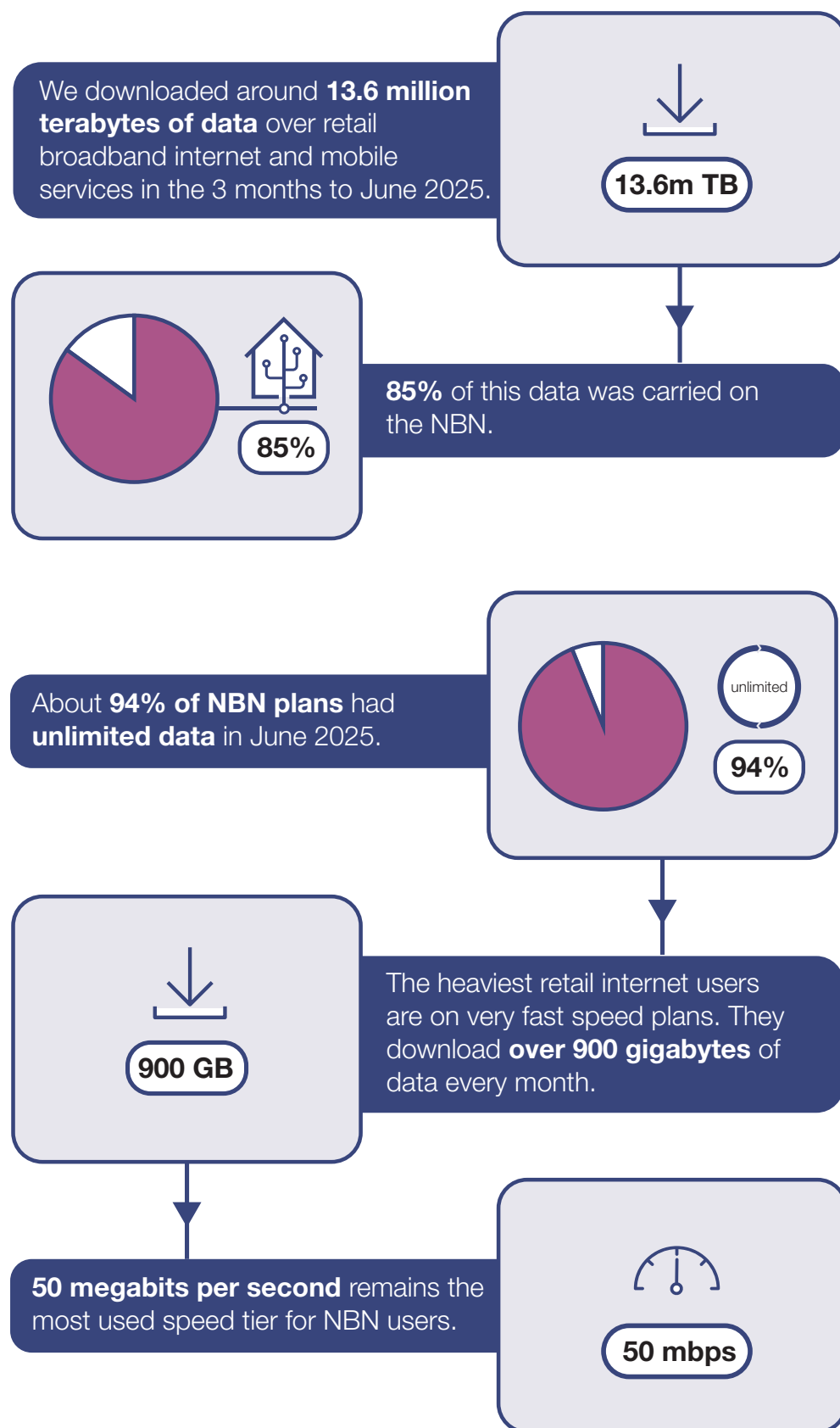
Base: Australians aged 18 and over; 2017 (n=2,277), 2018 (n=2,106), 2019 (n=2,067), 2020 (n=2,009), 2021 (n=3,586), 2022 (n=3,580), 2023 (n=3,572), 2024 (n=3,537), 2025 (n=3,543).
Source: ACMA, Communications and media in Australia: How we communicate, February 2026.

Communication habits greatly differ by age. While mobile phones are used equally across age groups for calls and texts, younger Australians (aged 18–34) are more likely than older age groups (35+) to use apps for messaging, calls, or video calls (94% vs. 79%).⁹

Interestingly, for those aged 18–34, use of traditional SMS and apps for communication were similar (96% and 94% respectively), whereas those aged 35+ are more likely to use SMS (96%) than apps to communicate (79%).¹⁰

Younger Australians (18–34) are also more likely than older age groups to use tablets for communication, with 41% using them for calls compared to 30% of those aged 35 and over, and 33% using them for SMS compared to 28% of older groups. They are also more likely to use public payphones, with 4% reporting usage compared to 2% of those aged 35 and over. However, older age groups remain more likely to use payphones overall, with 16% reporting usage compared to just 4% of younger Australians.¹¹

Wired telecommunications at a glance



Wired telecommunications

Wired telecommunications carry most of the data sent across Australia and around the world. This includes cables laid underground, under the sea and between poles or buildings.

This section primarily discusses trends and developments in fixed line communications. This includes both fibre and copper connections.

The NBN

The National Broadband Network (NBN) is the primary wholesale network for carrying Australia's fixed-line voice and data services. It connected services to around 8.63 million homes and businesses as of June 2025.¹² This is an increase of 20,000 since June 2024.¹³ The NBN is operated by NBN Co, a government-owned company.

The Australian Competition and Consumer Commission (ACCC) regulates NBN Co through the Special Access Undertaking (SAU). The SAU is the regulatory framework that governs the prices, and other terms and conditions, related to NBN Co's wholesale supply of fibre, fixed wireless and satellite services.

NBN Co sells NBN services to retail service providers. Customers can only purchase NBN services from these retail service providers. There are hundreds of retail service providers buying services from NBN Co then selling retail internet and phone plans to residential and business customers.

In December 2020, the then Minister for Communications and the Arts announced the NBN was built and fully operational.¹⁴ In that same year, new rules were introduced under the Statutory Infrastructure Provider (SIP) regime that made NBN Co the default statutory infrastructure provider for most of Australia.¹⁵ Under the SIP regime, providers such as NBN Co are obligated to provide broadband infrastructure to premises across the country.

Since completing the initial build of the NBN, a key focus for NBN Co has been its 5-year network investment strategy, which has involved expanding and upgrading both its fibre and fixed wireless networks.¹⁶ In terms of its operating environment, NBN Co has said data traffic over the network has been growing and is forecast to continue to grow across residential and business markets.¹⁷

A recent key development for NBN Co is the launch of the 'Accelerate Great' program. This lifted download speeds across a range of wholesale plans, for example, the 100 megabits per second tier was upgraded to 500 megabits per second, and the 250 megabits per second tier to 750 megabits per second.¹⁸ The company expects the new 500 megabits per second wholesale speed tier will become Australia's most popular NBN plan. Currently, the most used speed tier in Australia is 50 megabits per second.

Since 2023, NBN Co has been assessing the viability of using low-Earth orbit (LEO) satellites to provide services to customers in its satellite footprint.¹⁹ In August 2025, the company selected Amazon's Project Kuiper (rebranded as Amazon Leo in November 2025) to provide wholesale fixed satellite broadband services.²⁰ These LEO services will replace the satellite broadband currently delivered by NBN Co's geostationary Sky Muster satellites, which reach their end of life in the early 2030s.

Other wired and infrastructure service providers

Fixed telecommunications services in Australia are also delivered by providers other than NBN Co. These providers may use their own fibre or other type of fixed network or the wholesale infrastructure network of companies such as Opticomm. In June 2025, nearly 373,000 of these types of non-NBN fixed services were in operation, a decrease of 15,000 services from June 2024.²¹ The services include internet services provided over fibre and digital subscriber line (DSL) (a family of technologies that transmits digital data over a copper line). It should be noted that these non-NBN providers may also deliver their services via other means, such as fixed wireless (a type of terrestrial wireless service – see the 'Wireless communications' section later in this report for more discussion of fixed wireless).

Under the SIP regime, other telecommunications carriers can also become the main wholesale provider in certain areas if they have installed their own infrastructure in new developments or building redevelopments. These carriers connect premises to the internet and provide internet services to other retail service providers upon request. In 2024, new legislation came into force that made changes to the SIP regime.²² This included bringing 'private networks in new developments, for example those operating in retirement villages, into the SIP regime'.²³ In September 2025, 34 non-NBN Co SIPs were registered with the ACMA.²⁴

Data downloaded in Australia

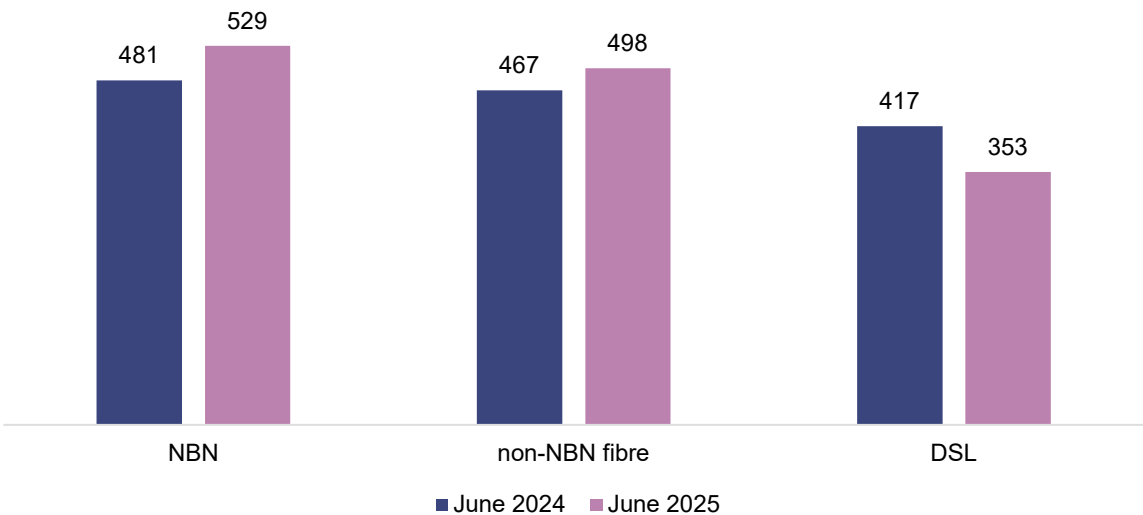
In the 3 months to June 2025, about 13.6 million terabytes of data were downloaded across various retail broadband services. This was 0.9 terabytes more than the same period in 2024. Of this total:²⁵

- the NBN carried 11.6 million terabytes of data
- mobile services carried 1.5 million terabytes of data
- non-NBN fixed services carried 558,000 terabytes of data.

Figure 4 shows the average monthly data downloaded by retail customers by connection type in June 2024 and June 2025. Key points:²⁶

- The average monthly data download per connection for NBN services exceeded non-NBN fibre services.
- NBN and Non-NBN connection types recorded increases compared to the previous year – NBN: 10%, non-NBN fibre: 7%.
- About 94% of NBN plans offered unlimited data in June 2025.

Figure 4: Average data downloaded per month by retail customers by connection type in June 2024 and June 2025 (gigabytes)



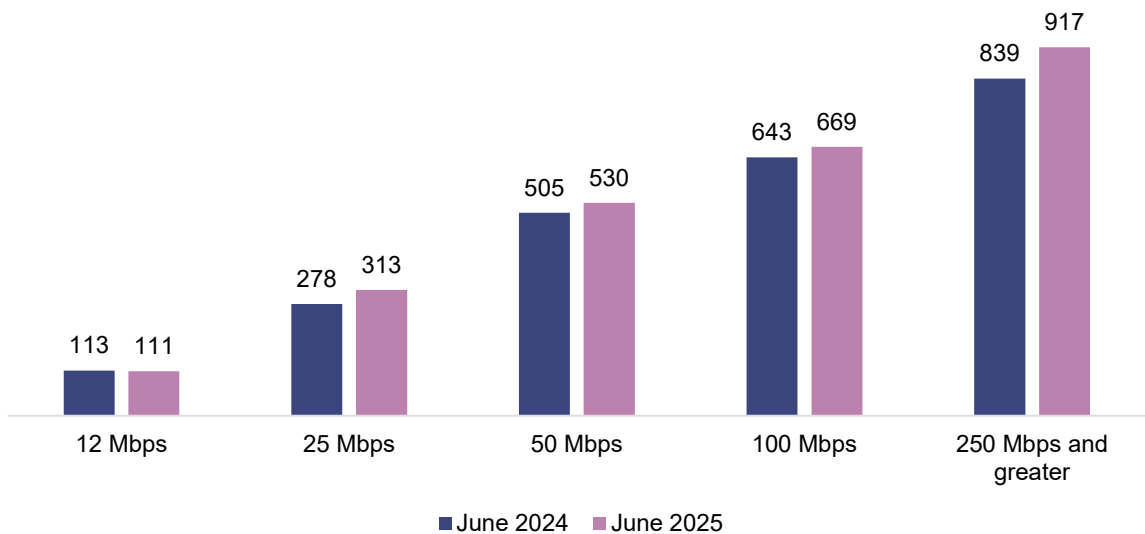
Source: ACCC Internet activity report June 2025.²⁷ Quarterly data divided by 3 to produce average monthly figures then divided by services in operation to get average monthly download per service.

Data downloaded on the NBN by speed tier

Figure 5 shows the average monthly data downloaded for retail fixed line plans available on the NBN. Key points:²⁸

- Users on plans with speeds of 250 megabits per second or higher downloaded the most data. These users downloaded 78 gigabytes more in June 2025 compared to the previous year, an 9% increase.
- Users on plans of 50 megabits per second downloaded 26 gigabytes more data in June 2025 compared to the previous year, a 5% increase.
- Users on the lower-speed plan of 12 megabits per second downloaded slightly less data in June 2025 compared to the previous year.

Figure 5: Average data downloaded per service per month on NBN retail connections of different speeds in June 2024 and June 2025 (gigabytes)



Source: ACCC Internet activity report June 2025.²⁹ Quarterly data has been divided by 3 to produce average monthly figures then divided by services in operation to get average monthly download per service.

Note: Two factors contribute to changes in average data downloaded per month – changes in the users connected to each speed tier and differences in consumption.

Spotlight: data demand in Australia

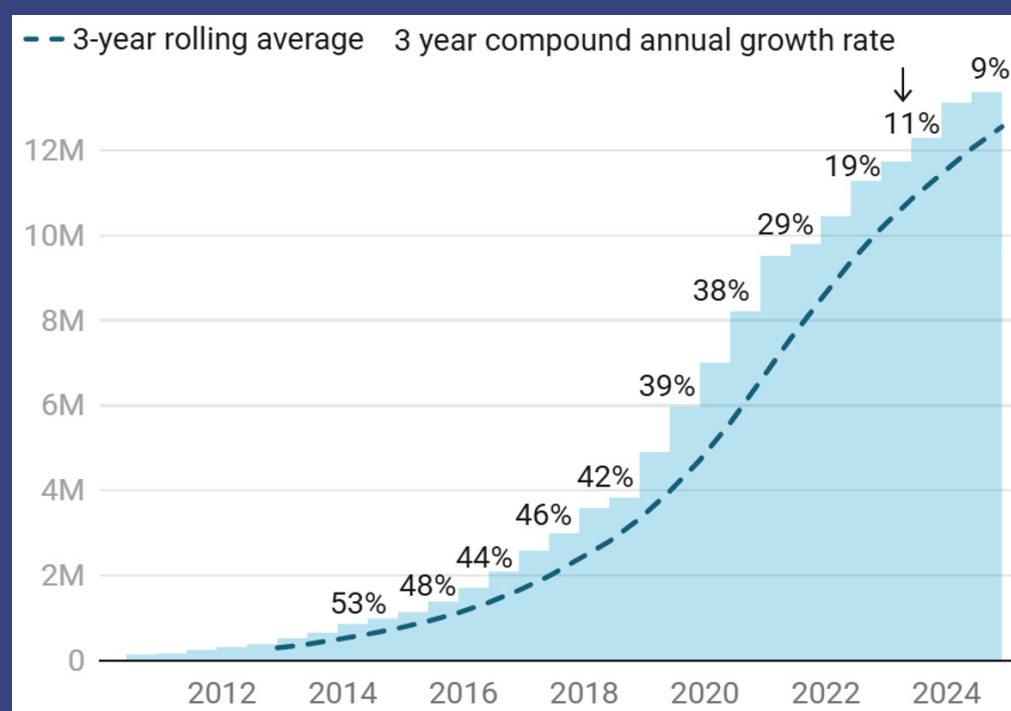
Data has increasingly become part of the everyday lives of consumers.* As seen in Figure 2, Australians engage in a broad range of online activities.

ACMA research shows that online data usage has expanded significantly across all age groups, particularly among older Australians. Internet use for those aged 65 and over has increased substantially since 2019, prior to the COVID-19 pandemic. In 2025, nearly 100% of Australians aged 65–74 went online, up from 71% in 2019. Internet adoption among those aged 75 and older reached 99% in 2025, nearly double from 52% recorded in 2019. This represents a major shift in digital engagement among older demographics.

NBN Co notes that Australian households and businesses are using more data than ever before and it expects this trend to continue. However, there is evidence suggesting that the growth in data downloaded over the internet is slowing.† Some industry analysts suggest that data growth rates are declining for both mobile and fixed services in many developed countries, with activities such as video streaming no longer increasing average data usage as they once did.³⁰

Figure 6 shows the total annual volume of data downloaded over the internet in Australia since 2012. It also shows the compound annual growth rate and a 3-year rolling average, which smooth year-to-year variation and highlight the underlying trend. The figure indicates that while the total data downloaded continues to increase each year, the rate of growth is slowing.

Figure 6: Total volume of data downloaded December 2012 to December 2024 (millions of terabytes) with annual growth rate and 3-year rolling average



Source: ABS & ACCC.³¹

* We have used the term 'consumers' to also reflect that people may be at home, work or school while using wireless networks (excluding Wi-Fi). This spotlight uses data specified by network type (fixed and wireless) or device type rather than by type of user. Most of the data is downloaded over fixed-lines and NBN Co note most of this data is used by households. This spotlight does not consider data use from enterprises and government entities.

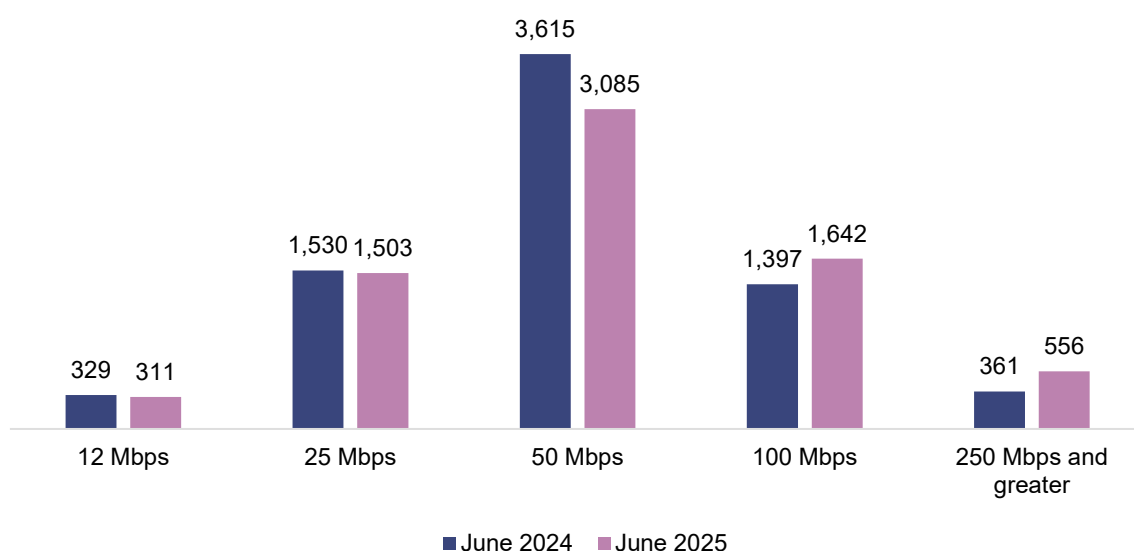
† Figure 6 uses information on the volume of data download in Australia from the Australian Bureau of Statistics (ABS) and Australian Competition and Consumer Commission, which took over collecting internet activity data from the ABS at the end of 2018. There are differences in how the information was collected over this period.

The most used speed tiers

Figure 7 shows the number of NBN connections by download speed in June 2024 and June 2025. Key points:³²

- The most used speed plan was 50 megabits per second, used by about 5 in 10 NBN connections (50%). The number of these plans decreased by 530,000 in June 2025 compared to the previous year, a 15% decrease.
- The 25 megabit per second speed plan was used by around 2 in 10 NBN connections (21%). The number of these plans decreased by 27,000 in June 2025 compared to the previous year, a 2% decrease.
- The 100 megabit per second speed plan was used by over 2 in 10 NBN connections (23%). The number of these plans increased by 245,000 in June 2025, compared to the previous year, a 17% increase.

Figure 7: NBN connections by download speed in June 2024 and June 2025 ('000s)



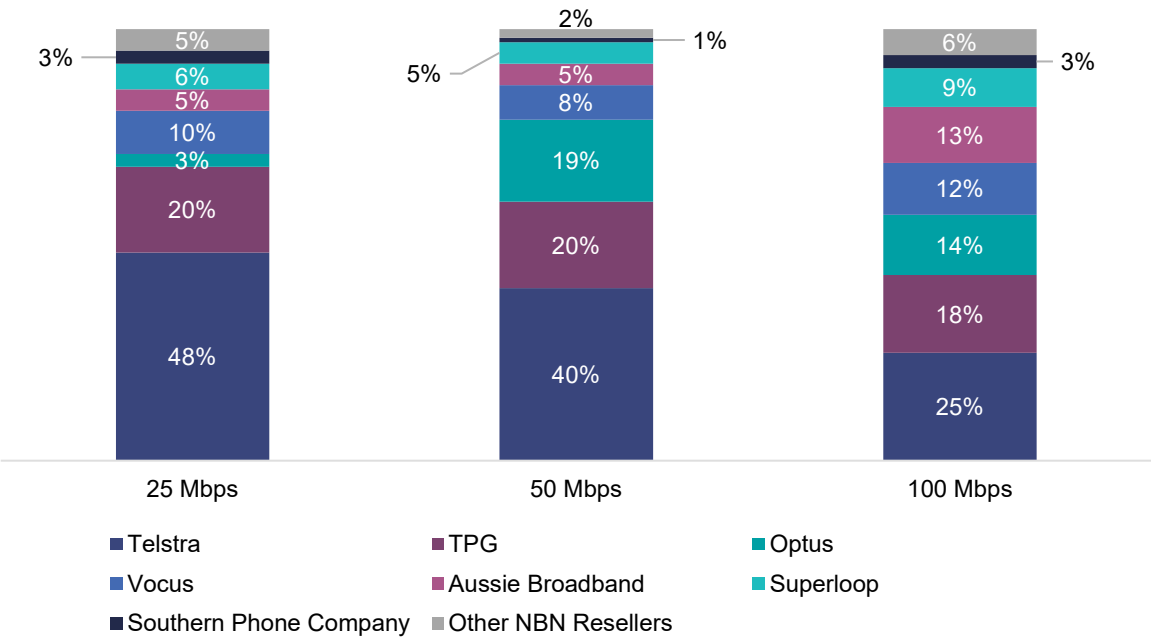
Source: ACCC Internet Activity Report June 2025.³³

Wholesale market share shifted at higher speed tiers

Figure 8 shows there are differences in the wholesale market share for plans with different download speeds. Telstra, Optus and TPG Telecom have most of the market share for the most popular NBN speed tiers:³⁴

- Telstra had the most wholesale market share between 25 megabits per second (48%), 50 megabits per second (40%) and 100 megabits per second (25%).
- Optus' wholesale market share differed between 25 megabits per second (3%), 50 megabits per second (19%) and 100 megabits per second (14%).
- TPG Telecom had the most consistent wholesale market share between 25 megabits per second (20%), 50 megabits per second (20%) and 100 megabits per second (18%).

Figure 8: Wholesale market share of the most popular NBN speed plans by NBN resellers at June 2025



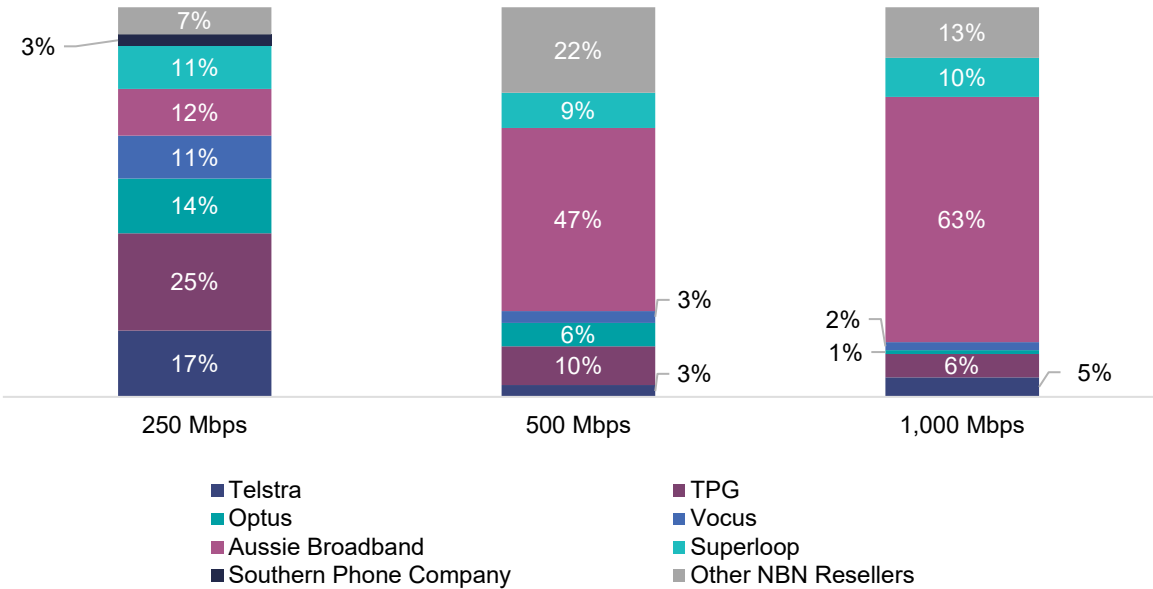
Source: ACCC NBN Wholesale Market Indicators Report.³⁵

However, as shown in Figure 9, smaller NBN resellers hold more market share for plans with higher download speeds:³⁶

- Smaller resellers combined accounted for 44% of all NBN plans with 250 megabits per second plans. This increases to 81% of all NBN plans on 500 megabits per second and 88% of all NBN plans on 1,000 megabits per second.
- Telstra’s wholesale market share differed between 250 megabits per second (17%), 500 megabits per second (3%) and 1,000 megabits per second (4%).
- Aussie Broadband’s wholesale market share differed between 250 megabits per second (12%), 500 megabits per second (47%) and 1,000 megabits per second (63%).

Industry analysts note that NBN Co’s ‘Accelerate Great’ program (see page 13) may enable smaller resellers to increase their share of higher-speed broadband tiers. Analysts suggest this could occur through competitive pricing, marketing and promotional strategies aimed at attracting customers.³⁷

Figure 9: Wholesale market share of higher NBN speed plans by NBN resellers as at June 2025



Source: ACCC NBN Wholesale Market Indicators Report.³⁸

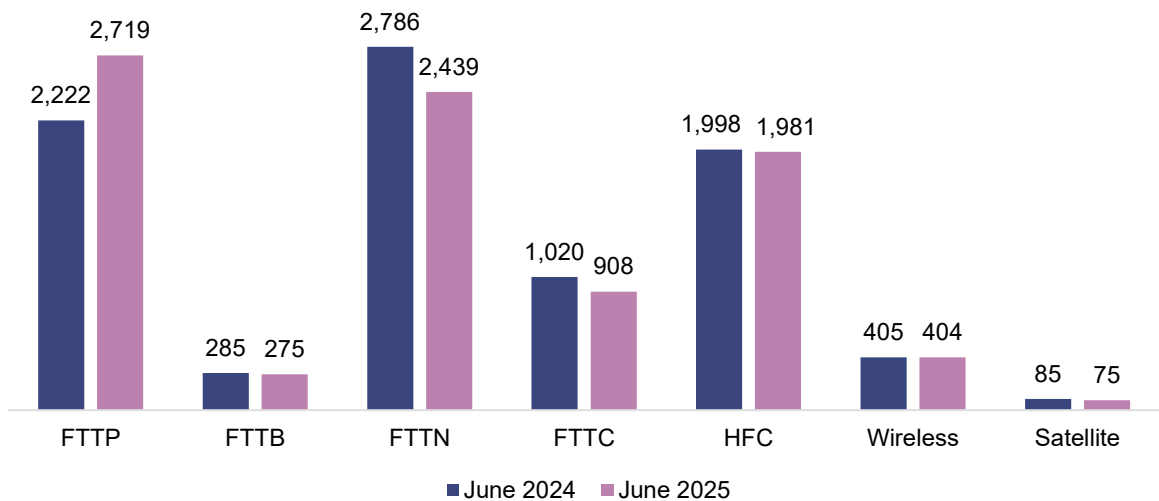
Changes in NBN connection types

The NBN uses a range of technologies to provide services to consumers. These include fibre-to-the-node (FTTN), which combines modern fibre with existing copper lines, and fibre-to-the-premises (FTTP), which uses fibre for the entire connection to the premises.

Figure 10 shows the number of NBN services in operation by technology type in June 2024 and June 2025. Key points:³⁹

- FTTP was the most used connection, with around 3 in 10 NBN connections (31%) in June 2025. This is an increase of 497,000 connections (22%) compared to June 2024.
- FTTN connections decreased by 347,000 over the same period, a 12% decrease.
- The growth in FTTP connections and decrease in FTTN connections coincide with increased investment in fibre upgrades as NBN Co migrates more customers from FTTN and fibre-to-the-curb to FTTP.
- For the FY25, the number of homes and businesses connected via FTTP increased by 23%, from 2.2 million to 2.7 million.⁴⁰ The CEO of NBN Co stated that ‘for the first time ever, fibre is the dominant fixed-line technology’ in the NBN network.⁴¹

Figure 10: Number of NBN services in operation by technology type in June 2024 and June 2025 ('000s)



Source: ACCC NBN Wholesale Market Indicators Report.⁴²

Notes: Refers to wholesale NBN services in operation, not retail services in operation.

More submarine cables linked Australia and the world

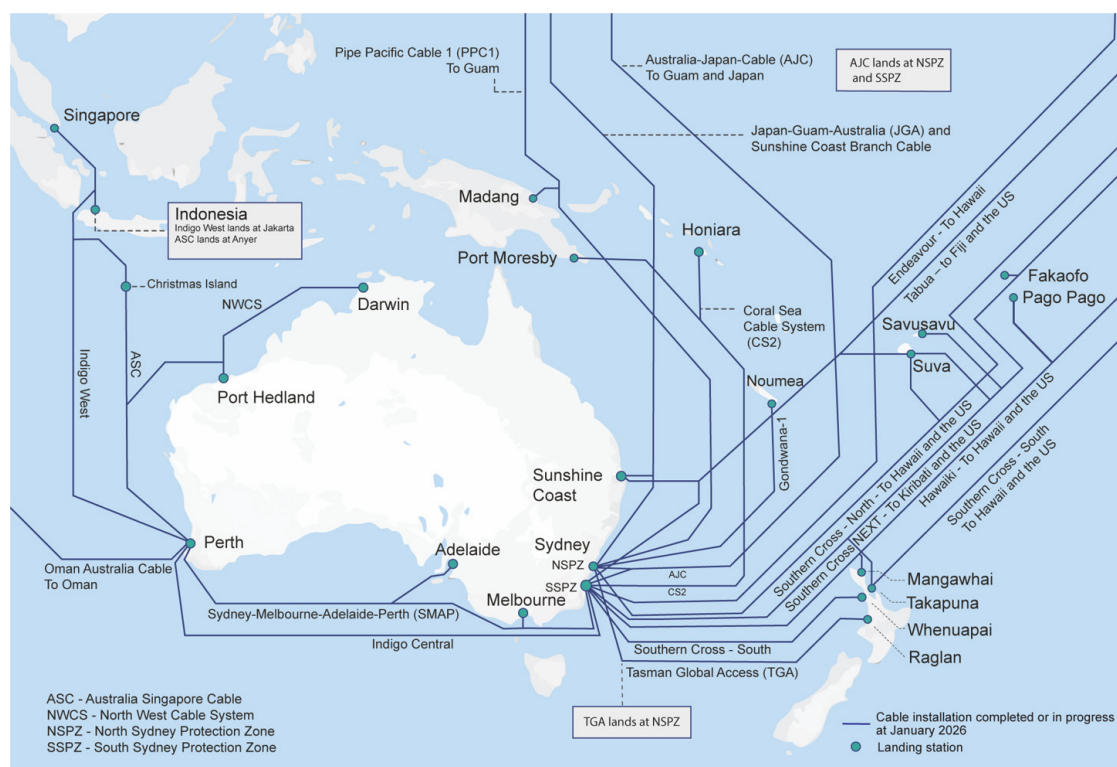
Submarine cables act as internet ‘superhighways’. They carry large volumes of data around the world and connect to several places in Australia. Most internet data carried to and from overseas travels along submarine cables at some point.

Submarine cables are regularly upgraded and expanded to accommodate growing demand for data. There has been increased investment in new submarine cables in recent years. On average, there has been over US\$2 billion of investment in new submarine cables globally from 2017 to 2025.⁴³ Several factors are driving these investments, such as the growing demand for bandwidth, the need for backup networks and the potential data speed needs of AI.⁴⁴

Figure 11 shows that Australia is connected by many submarine cables extending east, west and north. Recent announcements have been made for the following upcoming cable projects:

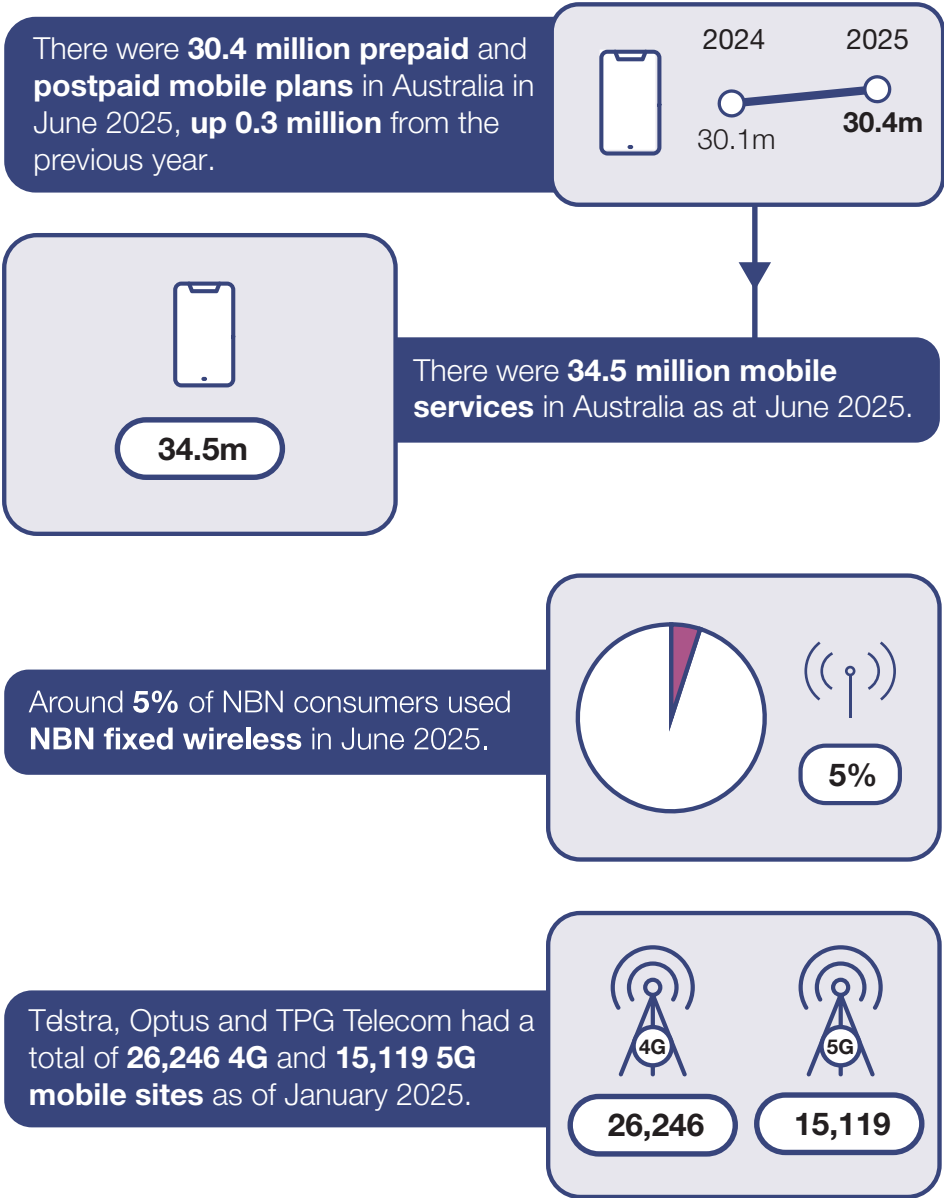
- **Pacific Connect** announced by Google in October 2023.⁴⁵ This initiative includes the Tabua cable which will connect Sydney and the Sunshine Coast to Fiji and the United States (US), and the Honomoana cable which will connect Sydney and Melbourne to French Polynesia and the US. Installation under the Pacific Connect initiative commenced in November 2025 and is set to extend into 2026.⁴⁶
- **Australia Connect** announced by Google in November 2024.⁴⁷ This initiative includes the TalayLink cable, which will connect Melbourne, Perth and Christmas Island to Thailand, and the Bosun cable, which connects Darwin and Christmas Island.⁴⁸ Google has also recently announced the Dhivaru cable, which will be built under this same initiative and connect Christmas Island to the Maldives and Oman.⁴⁹
- **Tasman Ring Network** announced by Datagrid New Zealand and Chorus in December 2024. This cable will connect Auckland, New Plymouth, Greymouth and Invercargill with Sydney and Melbourne.⁵⁰ It is expected to be ready for service at the end of 2027.
- **Sydney-Melbourne-Adelaide-Perth (SMAP) cable** manufactured by SUBCO in February 2025.⁵¹ This cable is expected to be ready for service in May 2026.⁵²
- **Tasman Express cable** announced by Southern Cross' Cable Network in September 2025. This cable will connect Sydney and Auckland and expected to be ready for service in 2028.⁵³

Figure 11: Submarine cable landings in Australia



Source: Australian Communications and Media Authority – International submarine cables landing in Australia.⁵⁴

Wireless telecommunications at a glance



Wireless telecommunications

Wireless telecommunications play an important role in connecting Australians. Wireless services include:

- mobile telecommunications
- fixed wireless internet, also known as fixed wireless access
- satellite communications.

This section discusses trends and developments in wireless services.

Mobile network operators and their services

Three national mobile network operators, Telstra, Optus and TPG Telecom, own and operate the majority of Australia's mobile network infrastructure.

The mobile network operators offer services both direct to consumers and via resellers known as mobile virtual network operators (MVNOs). These services are offered on fourth and fifth generation (4G and 5G) mobile technologies.

As of June 2025, Telstra was the largest provider of mobile services, followed by Optus and then TPG Telecom.⁵⁵ Together they accounted for 26.6 million of the 30.4 million pre-paid and post-paid mobile services in Australia.⁵⁶ The remaining 3.8 million services were provided by MVNOs that are not sub-brands of Telstra, Optus or TPG Telecom.⁵⁷

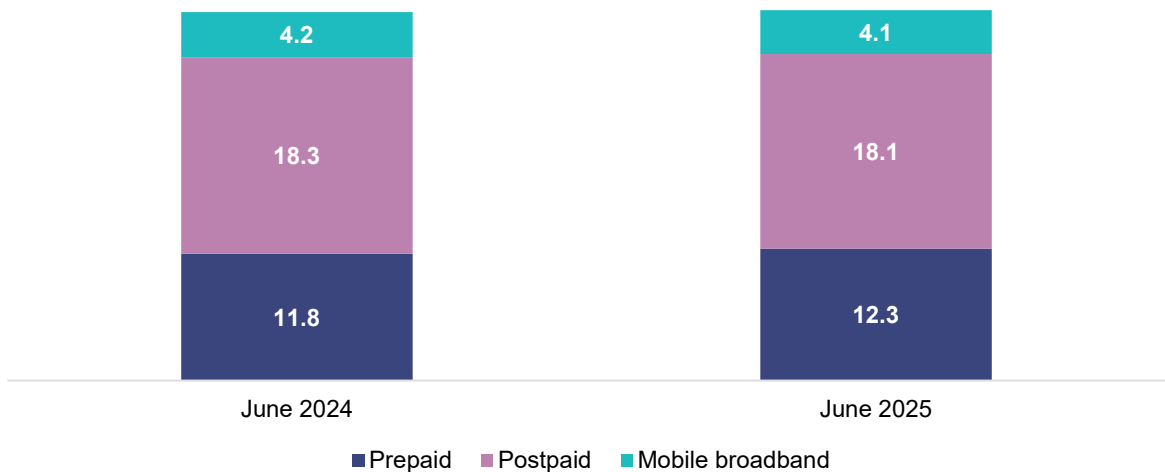
Postpaid remained most used mobile service in Australia

Figure 12 shows the number of mobile services in operation by type for June 2024 and June 2025.⁵⁸

Key points include:

- The total number of mobile services in Australia remained largely unchanged from 34.3 million in 2024 to 34.4 million in 2025.
- Mobile broadband services declined from 4.2 million in 2024 to 4.1 million in 2025 – a decrease of around 2%. These mobile services provide a wireless internet connection from a mobile network.
- Prepaid services increased from 11.8 million in 2024 to 12.3 million in 2025 – an increase of around 4%.
- Postpaid services decreased from 18.3 million in 2024 to 18.1 million in 2025 – a decrease of around 1%.

Figure 12: Number of mobile services in operation by type in June 2024 and June 2025 (millions)



Source: ACCC Internet Activity Report June 2025.⁵⁹ Numbers have been rounded to one decimal place.

4G remains the most used technology

The technology known as ‘4G long term evolution’ became available to Australia consumers in September 2011.⁶⁰ 52% of all Australian mobile services used 4G in 2024.⁶¹ This is expected to decrease to 14% by 2029 as consumers migrate to 5G.⁶²

Australia’s mobile network operators have more 4G network sites than 5G. As of 31 January 2025:⁶³

- Telstra’s 4G network had 11,725 sites, a yearly increase of 6%.
- Optus’s 4G network had 9,316 sites, a yearly increase of 2.5%.
- TPG Telecom’s 4G network had 5,205 sites, a yearly decrease of 9%.

5G sites increase as networks continue to roll out

In 2018, 5G became available to Australian consumers.⁶⁴ About 48% of all mobile services used 5G in 2024. This is expected to increase to around 86% by 2029.⁶⁵

Australia’s mobile network operators have more 4G sites (26,246) than 5G sites (15,119) as of 31 January 2025.⁶⁶ The operators are continuing to roll out their 5G networks and are adding more 5G sites than new 4G sites, reflecting the maturity of their 4G networks. Most 5G sites are in major cities, although the ACCC notes that Telstra’s 5G rollout has shifted to focus on regional and remote areas.

While Telstra has had the most 5G sites each year since 2020, in terms of percentage, Optus has increased its total site count the most.⁶⁷ As of 31 January 2025:⁶⁸

- Telstra’s 5G network had 6,421 sites, a yearly increase of 26.3%.
- Optus’ 5G network had 4,939 sites, a yearly increase of 22.3%.
- TPG Telecom’s 5G network had 3,759 sites, a yearly increase of 23.2%.

Multi-operator core network agreement

In 2024, TPG Telecom and Optus entered into a multi-operator core network agreement.⁶⁹ As part of the agreement, Optus gets access to some of TPG Telecom’s spectrum while TPG Telecom gets to use some of Optus’ mobile network infrastructure. As of 31 January 2025, the Optus-TPG agreement had 2,442 4G sites and 4,210 5G sites. These sites are for use by TPG.⁷⁰

Spotlight: Expected differences between 5G and 6G

5G is the latest generation of global wireless technology used for mobile and internet services. 5G can operate in both lower bands (for example, sub-6 GHz) as well as higher frequency, millimetre wave bands (for example, 24 GHz and up). Compared to previous generations, 5G is designed to deliver faster data speeds and lower latency and to use existing spectrum more efficiently.⁷¹ Australia's mobile network operators continue to invest in and expand their 5G networks,⁷² including repurposing spectrum previously used for 3G services.⁷³ However, as 5G networks continue to roll out, researchers and industry stakeholders are beginning to prepare for 6G. Early consensus among equipment manufacturers is that 6G network use cases will require:

- higher data rates
- lower latency
- expanded advanced antenna system technologies
- increased computation spread across the network
- access to additional spectrum.⁷⁴

Industry stakeholders and analysts expect 6G networks to differ from 5G in several key ways.⁷⁵ Some of the most notable differences will include:

- **Artificial Intelligence (AI)** – AI will be integrated into the design process of 6G networks from the outset.⁷⁶ In contrast, AI was introduced later in 5G development, as part of 5G-Advanced.⁷⁷
- **Spectrum** – Equipment manufacturers such as Ericsson, Nokia, Qualcomm and Samsung expect 6G to use both existing and new spectrum.⁷⁸ This includes shared spectrum between 5G and 6G, as well as new bands such as upper 6 GHz and sub-terahertz bands spectrum dedicated to 6G.⁷⁹
- **Equipment** – Qualcomm noted that 6G networks may require a large number of small antennas to receive signals in higher spectrum bands.⁸⁰ As a result, 6G networks may require more antennas than 5G.⁸¹ This has led to operators to advocate for more software-centric 6G networks that can be upgraded through software downloads wherever possible.⁸²

Analysts expect 6G networks to begin commercial deployment around 2030.⁸³ However, this timeline assumes there are no delays. For example, some analysts note that operators may not have the ability to roll out 6G until they have finished deploying their 5G networks.⁸⁴ Progress also depends on the timely development of 6G standards by the 3GPP.⁸⁵ These standards ensure 6G networks and devices worldwide can communicate and operate with one another.⁸⁶

Fixed wireless growth continued

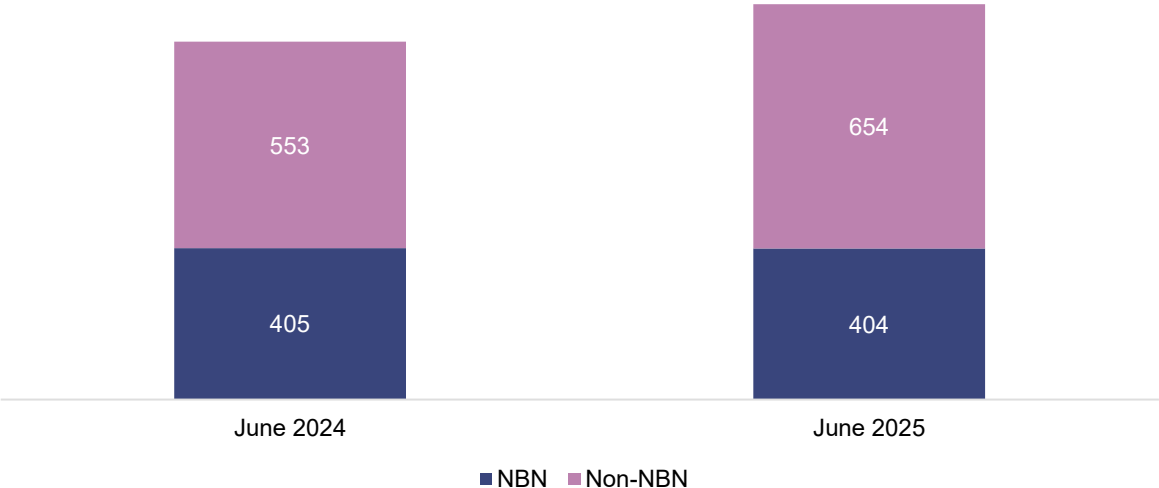
Rather than laying fibre or cables all the way to a premises, fixed wireless services use a modem that connects wirelessly to a nearby base station. Typically, these are in rural and regional areas, where installing fibre is impractical or too expensive.

Around 40 companies in Australia offer fixed wireless services.⁸⁷ Smaller providers often only operate in specific regions or communities.⁸⁸ National providers include Telstra, Optus and TPG Telecom.

NBN Co’s fixed wireless network covers regional, urban and peri-urban areas.⁸⁹ In June 2025, around 5% of NBN consumers used fixed wireless.⁹⁰ In February 2025, NBN Co announced it had completed a \$750 million upgrade to its fixed wireless network, increasing speeds for around 800,000 premises.⁹¹

Figure 13 shows that total fixed wireless services in operation between June 2024 and June 2025 increased from 958,000 to 1.06 million – a 10% rise.⁹² The number of non-NBN fixed services increased by 18% and the number of NBN fixed wireless services decreased by 0.2%.⁹³

Figure 13: Fixed wireless services in operation in June 2024 and June 2025 ('000s)



Source: NBN Wholesale market indicator report – June 2025 & NBN Internet activity report June 2025 for ‘Home Wireless broadband services in operation’.⁹⁴

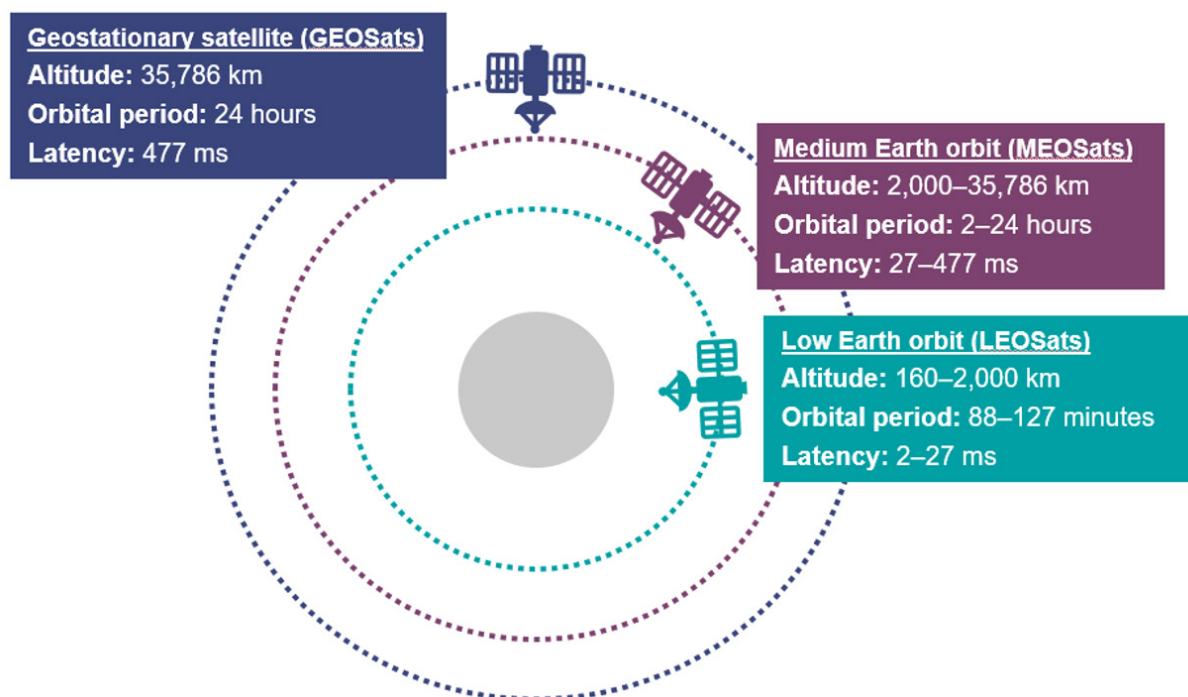
Notes: Refers to wholesale NBN services in operation, not retail NBN services in operation.

Satellite developments

Australia's communications sector includes satellite services. Satellites are broadly classified into 3 categories: geostationary satellite orbit (GSO), medium-Earth orbit (MEO) and low-Earth orbit (LEO).⁹⁵

Figure 14 shows the characteristics of the 3 categories of satellites. LEO satellites are positioned 160–2,000 km above the Earth's surface and complete multiple orbits daily. Their proximity to Earth offers advantages over MEO and GEO satellites, including lower latency, cheaper launch costs and lower signal strength requirements.⁹⁶

Figure 14: Satellite characteristics



Source: Communications supply chain market study, March 2023.⁹⁷

Recent announcements highlight the following developments in LEO satellites:

- **Telstra.** In January 2025, Telstra signed an agreement with Starlink to provide direct-to-mobile services. It launched its satellite messaging service in June 2025 for customers with compatible devices and eligible Telstra plans. Satellite voice services are expected to become available in 2027.⁹⁸
- **NBN Co.** In August 2025, NBN Co selected Amazon's Project Kuiper to deliver high-speed, wholesale fixed broadband via satellite to customers in Australia. The service is expected to launch in mid-2026.⁹⁹
- **Optus.** In July 2025, Optus announced an agreement to build, launch and operate a LEO satellite in partnership with iLAUNCH, HEO, Inovor Technologies and the Defence Science and Technology Group. The satellite will feature a specialised space telescope and compact communication terminal and is scheduled to launch in 2028.¹⁰⁰
- **TPG Telecom.** In May 2025, TPG Telecom sent its first direct-to-mobile text message on its Vodafone network using Lynk Global's LEO satellites.¹⁰¹

Industry developments

This section discusses industry developments for telecommunication companies in Australia with a market capitalisation above \$250 million.

Revenues varied for telecommunications companies

The telecommunications companies listed in Table 1 saw varied revenue results for the year ended 30 June 2025. These companies operate in both wired and wireless markets.

Table 1: Revenue for 12 months to 30 June 2025 (AUD\$ millions)

Company	2023–24 (\$million)	2024–25 (\$million)	Change [#]
Telstra	23,482	23,610	0.5%
Optus*	8,077	8,269	2%
TPG Telecom*	5,252	5,577	6%
Aussie Broadband	1,000	1,187	19%
Superloop	420	550	31%

* Figures are for last 12 months for 30 June 2025 from S&P Capital to match Australian fiscal year used by other companies. Optus' fiscal year is April to March. TPG Telecom's fiscal year is January to December.

Note: Optus' last 12 months financials have been converted from SGD to AUD using S&P Capital. The spot exchange rate for 30 June 2025 was A\$1.198.

Rounded to the nearest whole number.

Source: Company reports & S&P Capital.¹⁰²

Telstra, Optus, and TPG Telecom all recorded revenue growth primarily from their mobile segments. Both Telstra and Optus saw increased revenue from postpaid services, while TPG Telecom saw increased revenue from mobile subscriber growth following its regional network expansion.¹⁰³

Aussie Broadband and Superloop also reported revenue growth from their consumer and enterprise segments. Both companies gained new consumer customers through broadband connections and increased revenue from new wholesale customers.¹⁰⁴

Capital expenditure by network operators

Table 2 shows the capital expenditure forecasts for the 2025–26 financial year for publicly listed telecommunications companies operating in Australia with a market capitalisation over \$250 million.

Table 2: Capital expenditure forecasts for publicly listed companies for 2025–26

Company	2025–26
Telstra	\$3.2–3.5 billion
Optus*	\$1.3 billion
TPG Telecom [†]	\$750 million
Aussie Broadband	\$55–60 million
Superloop	\$32–35 million

* Optus's fiscal year is April 2024 to March 2025, in line with its owner Singtel and its reporting period.

[†] TPG's fiscal year is January 2024 to December 2024.

Source: Company reports.¹⁰⁵

Market activity

This section outlines the key developments which occurred during the 2024–25 financial year for publicly listed telecommunications companies operating in Australia with a market capitalisation over \$250 million:

- Telstra focused on rolling out its Aura Network, previously known as the Intercity Fibre Network, which will connect all of Australia's state capitals once completed.¹⁰⁶ The Sydney-Canberra-Melbourne route launched in October 2025.¹⁰⁷
- Optus concentrated on its mobile segment, particularly in postpaid and its MVNO brand Amaysim, while also managing costs.¹⁰⁸
- TPG Telecom focused on growing its mobile market share with regional network sharing and completing the sale of assets to Vocus.¹⁰⁹
- Aussie Broadband and Superloop focused on increasing customers across consumer and enterprise segments.¹¹⁰ Aussie Broadband grew consumer customers through bundling products and adding new NBN customers seeking higher speed plans.¹¹¹ It also gained enterprise customers from new contracts and strong demand for high-speed connectivity.¹¹² Superloop grew its enterprise customers through demand for high speed plans.¹¹³

Table 3 shows acquisitions that occurred from December 2024 to December 2025. These include full acquisition of another company as well as the sale and acquisition of specific assets or customer bases. Most acquisitions were from medium-sized telco businesses looking to grow customer numbers, while major telecommunications companies looked to diversify their products and services.

Table 3: Completed acquisitions from 1 December 2024 to 31 December 2025

Bidder – Target	Details
Telstra – Boost Mobile	<p>December 2024</p> <p>Telstra announced it had acquired Boost Mobile, an MVNO.¹¹⁴ Telstra previously operated parts of the Boost Mobile business, including network access and customer service.</p>
Amaysim – Circles Life	<p>January 2025</p> <p>Amaysim, an Optus-owned MVNO, acquired the Australian customers from another MVNO, Circles Life.¹¹⁵</p>
Superloop – Uecomm Pty Ltd	<p>February 2025</p> <p>Superloop Limited entered an agreement to acquire Optus' subsidiary Uecomm Pty Ltd for \$17.5 million.¹¹⁶</p> <p>The acquisition added over 2,100 kilometres of high-capacity fibre assets and 800 kilometres of owned duct to the Superloop network. The fibre network is located across Sydney, Melbourne, Brisbane and the Gold Coast.¹¹⁷</p>
Tangerine Telecom – numobile	<p>April 2025</p> <p>Tangerine acquired the customer base of numobile in April 2025.¹¹⁸ Around 7,000 numobile customers were migrated to Tangerine services in June 2025.</p>
Optus – Nine Entertainment	<p>June 2025</p> <p>Optus announced it accepted an offer from Nine Entertainment and Stan to transfer the broadcast rights for the Premier League and Emirates FA Cup.¹¹⁹ Under the agreement, Stan Sport will begin streaming both competitions from August 2025, with Optus Sport set to close following the transition.</p>
Vocus – TPG	<p>July 2025</p> <p>Vocus completed its acquisition of TPG Telecom's fibre network infrastructure assets and Enterprise, Government and Wholesale fixed operations'.¹²⁰ The acquisition included:¹²¹</p> <ul style="list-style-type: none"> • fibre network assets that connect almost 20,000 buildings • 7,000 kilometres of submarine cable connecting Sydney to Guam • control of TPG's Vision Network, a wholesale provider of residential broadband services.
Tangerine Telecom – Buddy Telco	<p>August 2025</p> <p>Aussie Broadband sold its sub-brand, Buddy Telco, to Tangerine Telecom for \$8 million.¹²² Buddy Telco was launched in July 2024 as a value-oriented brand offering lower priced NBN plans.¹²³</p>
Optus – Waveconn	<p>September 2025</p> <p>Optus agreed to sell and lease back about 340 mobile tower and rooftop sites to Waveconn, a major operator of digital infrastructure in Australia.¹²⁴</p>

AI developments

There were several AI developments from Australia's telecommunications companies in 2025. These include:

- In February 2025, Superloop announced it launched a chatbot called Teddy, which uses a large language model interface.¹²⁵ Superloop reported Teddy had 'diverted significant chat volumes from human agents while maintaining customer satisfaction'.
- In March 2025, Telstra announced a joint venture with Accenture to integrate AI more deeply into its operations.¹²⁶ Telstra aims to reinvent business processes, boost productivity and build AI capability across its workforce through the joint venture.¹²⁷
- In April 2025, Optus outlined its AI strategy.¹²⁸ Optus is using large language models from Google and Anthropic to develop a suite of AI tools. One of these tools, Sally AI, is being tested to help guide customers through tasks such as setting up home internet using the camera on their handset.¹²⁹
- In May 2025, Telstra established an AI hub in Silicon Valley designed to 'accelerate Telstra's foundational AI architecture'.¹³⁰ The hub is intended to support AI use cases and unlock business intelligence, including improvements to customer services operations.

Spotlight: Global telco investment in AI

AI is used by telco companies around the world, offering opportunities to reduce costs and make operations more efficient.¹³¹ In a 2025 white paper, the World Economic Forum (WEF) suggested that using AI may also ‘increase the return on investment on the large capital expenditure investments made by telcos’.¹³²

However, it can be hard to get accurate information on what telcos are spending on AI and what the cost benefit returns are or will be. The reasons for this include a lack of clear, specific evidence on return on investment and the different market value estimates for various potential use cases.¹³³ It has also been observed that telcos can find it difficult to work out which use cases to prioritise and face challenges with implementation.¹³⁴

The following is a list of some of the key reasons telcos worldwide are investing in AI technologies, according to analysts and industry professionals:

- **Infrastructure, network and operations** – AI can make changes to operations and services along with improving efficiency to generate revenue.

Examples include integrating AI into radio access network infrastructure and using generative AI to make operations more efficient ‘through improved employee productivity’.¹³⁵

The global industry body TM Forum cautions that ‘when it comes to using AI for automation AI has its limitations, particularly in the network and the drive towards autonomous networks’.¹³⁶

It also says that it is not currently clear whether AI will replace certain roles in the sector or simply change how employees work e.g. automate tasks to help employees do their current jobs more efficiently.

- **Marketing, sales and customer services** – AI can transform and improve customer experiences and drive business growth with personalised sales and marketing tools.

Examples include diversifying sales and marketing revenue through AI-as-service offerings (for example, the use of cloud computing to deliver AI services and tools).

- **Using generative AI to create new services and transform operations** – AI can create new services to generate revenue and improve operations to drive greater productivity and business performance.

Examples include Telcos and private equity firms building generative AI data centres. Deloitte notes that several ‘global telecoms have announced they will build their own [generative] AI data centers, using the training and inference capacity to offer new services, and selling [generative] AI as a service to others, largely driven by data-sovereignty needs’. Deloitte does caution, however, that it expects only some telco companies will invest this way.¹³⁷

This use case is an example of telcos extending their businesses and operations into what could be considered non-telco areas. TM Forum says that communication service providers are spending more on third party providers and as they increasingly adopt generative AI will become ‘increasingly reliant on hyperscale service providers and the public cloud’.¹³⁸

Glossary

3G: third-generation mobile telecommunications

Broadband mobile telecommunications services with improved data rates over their 2G predecessors, providing for applications such as web browsing, video conferencing and location-based services.

3GPP: 3rd Generation Partnership Project

A global partnership of several international telecommunications standard-making organisations.

4G: fourth-generation mobile telecommunications

Enhanced broadband mobile telecommunications services that provide increased bandwidth compared to 3G to support voice, video, data and high-quality streaming of multimedia content over an all-internet protocol network.

5G: fifth-generation mobile telecommunications

Broadband mobile telecommunications services providing increased data rates and reduced latency compared to 4G.

ACCC: Australian Competition and Consumer Commission

An independent Commonwealth statutory authority. It enforces the *Competition and Consumer Act 2010* and other legislation promoting competition and fair trading, and regulates national infrastructure.

ACMA: Australian Communications and Media Authority

An independent Commonwealth statutory authority. It regulates communications and media services in Australia.

ACMA annual consumer survey

Quantitative consumer research commissioned by the ACMA that provides time-series tracking of consumer communications and media use. This research considers consumer behaviour, adoption of and attitudes towards media and communications services, and emerging issues.

broadband

A class of high-speed internet access technologies, such as digital subscriber line, hybrid fibre coaxial cable and wi-fi, offering a data rate significantly higher than dial-up internet services.

cable: hybrid fibre coaxial (HFC) cable

Transmission links consisting of optical fibre on main routes, supplemented by coaxial cable closer to the end user's premises.

direct-to-mobile

A satellite direct-to-mobile service provides direct connectivity between a mobile phone and a satellite network. It can provide mobile coverage outside the coverage area of both terrestrial cellular and wi-fi networks. Previously, a dedicated device such as a satellite phone was required for mobile communication with satellites.

DSL: digital subscriber line

Transmission technology that enables high-speed data services to be delivered over a twisted-pair copper line.

FTTB: fibre-to-the-building

A type of broadband access network deployment where optical fibre is deployed to a communications cabinet in the basement of each building (typically an apartment block). The final connection to each individual premises within the building is made by alternative technologies, typically using the building's existing copper cabling.

FTTC: fibre-to-the-curb

A type of broadband access network deployment where optical fibre is extended close to premises, connecting to a small distribution point unit generally located inside a pit on the street. From here, the existing copper network is connected to the fibre to form the final connection.

FTTN: fibre-to-the-node

A type of broadband access network deployment where the optical fibre line runs to a node (cabinet) located in the street. From this street cabinet, individual premises are connected via existing copper cabling networks.

FTTP: fibre-to-the-premises

A type of broadband access network deployment where the fibre-optic line extends directly to individual premises. Compared to other fibre-optic connection types, this type of connection results in the fibre-optic line running as close as possible to the end-user and subsequently results in the least reliance on existing copper cabling networks.

fixed-line phone service

Covers the delivery of voice services over a copper pair-based public switched telephone network or fixed-line broadband networks.

fixed wireless broadband service

A class of internet access technology that uses radio signals to connect a premises to the internet.

generative AI

Generative AI refers to artificial intelligence systems that create new content—such as text, images, audio, video, code or data—by learning patterns from large datasets and generating outputs in response to user prompts.

gigabyte

One billion bytes; a unit of information. Each byte is 8 bits.

Mbps: megabits per second

Data transfer rate of one million bits per second.

MB: megabyte(s)

One million bytes; a unit of information. Each byte is 8 bits.

Mobile Virtual Network Operator

A mobile virtual network operator (MVNO) sells mobile services but does not operate a mobile network. Some MVNOs are owned by mobile network operators while others buy network access at wholesale rates from one of the mobile network operators or third parties that work with them.

Low-Earth orbit (LEO) satellite

A satellite that has an orbit between 160 and 2,000 km above Earth.

NBN: National Broadband Network

The national wholesale-only, open-access data network in Australia offering high-speed broadband to premises using different technologies.

NBN Co: NBN Co Limited

A wholly owned Australian Government company established to design, build and operate the NBN.

payphone

A public phone that can be used for calls. Some payphones can also be used for text messaging and have wi-fi services. Public payphones operated by Telstra have been free since August 2021. Some private businesses and clubs also operate public payphones.

postpaid

Mobile telephony services for which a consumer contracts to pay a specified monthly charge for access, subscription and call, SMS and data used/allowances. Post-paid mobile plans may also include a mobile handset.

prepaid

Mobile telephony services for which a consumer is not billed regularly, but rather pays upfront for handset, access, call charges etc for specified period (such as 1 month).

spectrum

Electromagnetic spectrum, or spectrum, is a range of frequencies of electromagnetic radiation. Telecommunications networks use spectrum on wireless networks to communicate between networks and end users.

smartphone

A mobile phone built to use a mobile operating system, with advanced computing capability and connectivity. It has a touchscreen and can access the internet and run applications. For example, an Apple iPhone, Samsung Galaxy or similar device.

terabyte

One thousand gigabytes; a unit of information.

wi-fi

A type of wireless local-area network technology that uses radio waves to provide wireless high-speed internet and network connections.

wired network

A communications network that uses wires (for example, copper wire or fibre-optic cables) as the primary mode of communication.

wireless network

A communications network that uses radio spectrum (for example, mobile networks or satellites) as the primary mode of communication.

Notes

- 1 The World Health Organisation (WHO) declared the coronavirus (COVID-19) a global pandemic in March 2020. In May 2023 the WHO declared that the virus was no longer a public health emergency of international concern.
- 2 ACMA, *Communications and media in Australia: How we use the internet*, ACMA, Australian Government, February 2025.
- 3 ACMA, Unpublished research: ACMA Annual consumer survey, June 2025. Base: Australians adults (n=3,543). QD5. Which of the following devices have you used to access the internet at home or elsewhere in the past 6 months?
- 4 ACMA, Unpublished research: ACMA Annual consumer survey, June 2025. Base: Australians adults (n=3,543). QD5. Which of the following devices have you used to access the internet in the past 6 months, for personal use? 'Mobile phone'. QD6. On average, in the past 6 months how often did you use the following devices to access the internet for personal purposes? 'Multiple times a day' and 'Once a day'.
- 5 Ibid.
- 6 ACMA, Unpublished research: ACMA Annual consumer survey, June 2025. Base: Australians adults (n=3,543). QD8. Below is a range of internet-based activities. Please indicate whether or not you have done any of the following in the past 6 months at home or elsewhere.
- 7 Ibid.
- 8 Ibid.
- 9 ACMA, Unpublished research: ACMA Annual consumer survey, June 2025. Base: Australians adults (n=3,543). QA1. In the past 6 months which of the following communication services have you used for personal purposes?
- 10 Ibid.
- 11 Ibid.
- 12 NBN Co, [Monthly Progress Report June 2025](#) [report], n.d., accessed 9 October 2025.
- 13 NBN Co, 'Monthly Progress Report June 2025'; NBN Co, [Monthly Progress Report June 2024](#) [report], n.d., accessed 6 November 2025.
- 14 Department of Infrastructure, Transport, Regional Development, Communications and the Arts, (DITRDCA), *Declaration that the NBN should be treated as built and fully operational* [website], DITRDCA, Australian Government, 11 December 2020, accessed 8 October 2025.
- 15 DITRDCA, [Statutory Infrastructure Provider Regime](#) [website], DITRDCA, Australian Government, n.d., accessed 20 November 2025.
- 16 See, for example, NBN Co, [NBN Co meets guidance targets, nation-wide network upgrades on track](#) [media release], NBN Co, 12 August 2025, accessed 6 November 2025.
- 17 See, for example, Australian Competition and Consumer Commission (ACCC), [Chapter 2 - nbn's Operating Environment](#) [government report], ACCC, 2 July 2025, accessed 6 November 2025;
- 18 NBN Co, [nbn's biggest internet upgrade: faster speeds for more Australian homes and businesses](#) [media release], NBN Co, 16 September 2025, accessed 6 November 2025.
- 19 See, for example: [Better delivery of universal services, Discussion paper](#), NBN Co submission, 1 March 2024, accessed 10 February 2026.
- 20 NBN Co, [NBN Co selects Amazon's Project Kuiper to bring low Earth orbit \(LEO\) satellite broadband to Australia](#) [media release], NBN Co, 5 August 2025, accessed 6 November 2025.
- 21 ACCC, [Internet activity report – June 2025 – data tables](#) [report], ACCC, Australian Government, 17 December 2025, accessed 8 January 2026.
- 22 See *Telecommunications Legislation Amendment (Enhancing Consumer Safeguards and Other Measures) Act 2024*.
- 23 Michelle Rowland, Minister, *Telecommunications Legislation Amendment (Enhancing Consumer Safeguards and Other Measures) Bill 2023 Second Reading*.
- 24 ACMA, [Statutory infrastructure provider \(SIP\) regime](#), ACMA, 16 September 2024, accessed 13 November 2025.
- 25 ACCC, 'Internet activity report – June 2025 – data tables'.
- 26 ACCC, 'Internet activity report – June 2025 – data tables'.
- 27 ACCC, 'Internet activity report – June 2025 – data tables'.
- 28 ACCC, 'Internet activity report – June 2025 – data tables'.
- 29 ACCC, 'Internet activity report – June 2025 – data tables'.
- 30 See, for example, William Webb, *The End of Telecoms History*, 2024; J Bradvord, K Egan, H Low and A Loyes, *The mysterious case of disappearing data volume growth*, Enders Analysis, 2025, accessed through subscription; Dan Grossman, [From Scarcity to Abundance: The Inexorable Shift in Broadband Dynamics](#), LinkedIn, 18 September 2025, accessed 10 February 2026.
- 31 ABS, 'Internet Activity, Australia'; ACCC, 'Internet activity report – period ending 30 June 2023'.
- 32 ACCC, 'Internet activity report – June 2025 – data tables'. The ACCC advises that telecommunications suppliers and providers report information for both the current and previous reporting periods. Figures in the previous reporting period may be revised by respondents in later reports.
- 33 ACCC, ['NBN Wholesale Market Indicators Report 30 June 2025'](#) [report], ACCC, Australian Government, 22 August 2025, accessed 14 October 2025.
- 34 ACCC, 'NBN Wholesale Market Indicators Report 30 June 2025'.
- 35 ACCC, 'NBN Wholesale Market Indicators Report 30 June 2025'.
- 36 ACCC, 'NBN Wholesale Market Indicators Report 30 June 2025'.
- 37 G Lynch, *NBN speed boost seen fuelling churn as challengers press share gains*: Jefferies [news article], CommsDay, 30 September 2025, p 3.
- 38 ACCC, 'NBN Wholesale Market Indicators Report 30 June 2025'.

- 39 ACCC, 'NBN Wholesale Market Indicators Report 30 June 2025'.
- 40 NBN Co, NBN Co meets guidance targets, nation-wide network upgrades on track [media release], NBN Co, 12 August 2025, accessed 10 February 2026.
- 41 E Sweeney, NBN Co Full Year Results presentation – FY25 Address by Ellie Sweeney [transcript, NBN Co, 12 August 2025, p 3, accessed 10 February 2026.
- 42 ACCC, 'NBN Wholesale Market Indicators Report 30 June 2025'.
- 43 TeleGeography, The State of the Network [industry report], TeleGeography, 17 February 2025, p 4.
- 44 TeleGeography, The State of the Network, pp 1–6.
- 45 B Quigley, Honomoana and Tabua subsea cables connect South Pacific [company news], Google Cloud, 26 October 2023, accessed 9 December 2025.
- 46 Department of Climate Change, Energy and the Environment and Water, Subsea fibre optic data cable systems installation – Australia East [public referral], Australian Government, 17 September 2025, accessed 9 December 2025.
- 47 B Quigley, Bosun, Australia Connect initiative for Indo-Pacific connectivity [company news], Google Cloud, 26 November 2024.
- 48 R Pearce, Google sets February 2026 start for Australia West cable rollout [news article] CommsDay, 3 October 2025, pp 1–2; B Quigley, Bosun, Australia Connect initiative for Indo-Pacific connectivity [company news], Google Cloud, 26 November 2024, accessed 9 December 2025; B Koley, TalayLink subsea cable to connect Australia and Thailand [company news], Google Cloud, 24 November 2025, accessed 9 December 2025.
- 49 B Koley, Introducing Dhivaru and two new connectivity hubs [company news], Google Cloud, 18 November 2025, accessed 9 December 2025.
- 50 G Lynch, Chorus, Datagrid join forces for 540TB trans-Tasman fibre ring [news article], CommsDay, 5 December 2024, pp 1–2.
- 51 G Lynch, ASN ships SUBCO cable [news article], CommsDay, 25 February 2025, pp 4–5.
- 52 SUBCO, SUBCO announces major milestones for SMAP and strategic capacity expansions across Australia [company news], SUBCO, 8 January 2026, accessed 16 January 2026.
- 53 D Bushell-Embling, Southern Cross Cables finalises design of Tasman Express [news article], CommsDay, pp 3–4.
- 54 ACMA, International submarine cables landing in Australia [website], ACMA, Australian Government, 16 January 2026, accessed 27 January 2026.
- 55 ACCC, 'Internet activity report – June 2025 – data tables', table 5.
- 56 ACCC, 'Internet activity report – June 2025 – data tables', table 5.
- 57 ACCC, 'Internet activity report – June 2025 – data tables', table 5.
- 58 ACCC, 'Internet activity report – June 2025 – data tables', table 3.
- 59 ACCC, 'Internet activity report – June 2025 – data tables', table 3.
- 60 Telstra, 'Telstra 2012 Annual Report' [financial report], Telstra, 9 August 2012.
- 61 GlobalData, 'Australia Telecom Operators Country Intelligence Report' [report], *GlobalData*, 16 July 2025, p 16, accessed 14 October 2025 through subscription.
- 62 GlobalData, 'Australia Telecom Operators Country Intelligence Report', p 16.
- 63 ACCC, Mobile Infrastructure Report 2025 [report], ACCC, Australian Government, 12 November 2025, accessed 14 November 2025.
- 64 C Seneviratne C, 'We've enabled 5G in all major Australian cities' [website], *Telstra Exchange*, *Telstra*, 18 December 2018, accessed 15 September 2025.
- 65 GlobalData, 'Australia Telecom Operators Country Intelligence Report', p 16.
- 66 ACCC, 'Mobile Infrastructure Report 2025', pp 9 & 11.
- 67 ACCC, 'Mobile Infrastructure Report 2025', p 9; Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA), 'What is 5G?' [website], DITRDCA, Australian Government, n.d., accessed 15 September 2025.
- 68 ACCC, 'Mobile Infrastructure Report 2025', p 9.
- 69 Optus, TPG Telecom and Optus sign network sharing agreement marking new era of mobile services for regional Australia, [media release], Optus, 29 April 2024, accessed 5 November 2025.
- 70 ACCC, 'Mobile Infrastructure Report', pp 8 & 10.
- 71 Parliament of Australia, Connecting the country: Mission critical [government report], Parliament of Australia, November 2023, pp 4–5, accessed 14 November 2025; Everything you need to know about 5G, Qualcomm, n.d., accessed 10 December 2025
- 72 T Baird, Optus 5G+ covering more of Australia than our standard 5G [website], Optus, 3 February 2025, accessed 31 October 2025; Ericsson, Ericsson powers Telstra's 5G evolution in Australia [press release], Ericsson, 24 July 2025, accessed 31 October 2025; TPG Telecom, 2024 Annual Report [financial report], TPG Telecom, 21 March 2025, p 4, accessed 31 October 2025.
- 73 Optus, Optus to commence 3G switch off from today [company announcement], Optus, 28 October 2024, accessed 31 October 2025; C Seneviratne, Telstra 3G network shutdown: accessing support and transitioning to 4G/5G [company announcement], *Telstra Exchange*, 30 January 2025, accessed 31 October 2025.
- 74 Qualcomm, Vision, market drivers, and research directions on the path to 6G, December 2022, pp 20 & 34, accessed 9 September 2025; Nokia, Unlocking the full potential of AI-native 6G through standards [website], Nokia, 7 March 2025, accessed 31 October 2025; M Kothiwale & A Nigam, Compute platform considerations for 6G vRAN [website], Samsung, 1 September 2023, accessed 31 October 2025; Samsung, Samsung Electronics Unveils 6G White Paper and Outlines Direction for AI-Native and Sustainable Communication [website], Samsung, 6 February 2025, accessed 31 October 2025.

- 75 E Gubbins, 6G Update: As Operators Plead for 6G to be More Software-Centric, Hardware Innovation Advances [analyst note], GlobalData, 12 November 2024, accessed through subscription 15 October 2025 ; E Gubbins, 6G Developers Work to Reduce the Need for Radio Replacement [analyst note], GlobalData, 26 September 2025, accessed through subscription 14 October 2025.
- 76 Nokia, [Unlocking the full potential of AI-native 6G through standards](#) [website], Nokia, 7 March 2025, accessed 31 October 2025.
- 77 GSMA, [5G-Advanced: Shaping the future of operator services marketing paper](#), GSMA, 7 February 2024, accessed 9 September 2025.
- 78 Ericsson, [6G spectrum - future mobile life beyond 2030](#) [website], Ericsson, May 2024, accessed 9 September 2025; Nokia, [Spectrum for 6G explained](#) [website], Nokia, 27 June 2023, accessed 9 September 2025; Qualcomm, [Vision, market drivers, and research directions on the path to 6G](#), December 2022, p 20, accessed 9 September 2025; Samsung, [Samsung Unveils 6G Spectrum White Paper and 6G Research Findings](#) [website], Samsung, 8 May 2022, accessed 9 September 2025.
- 79 Ericsson, [6G - Follow the journey to the next generation networks](#) [website], Ericsson. n.d., accessed 15 October 2025; (spectrum bands) Nokia, [6G explained | Nokia.com](#) [website], Nokia, n.d., accessed 15 October 2025; Hewlett Packard Enterprise, [What is 6G?](#) [website], Hewlett Packard Enterprise, 30 April 2025, accessed 15 October 2025.
- 80 Qualcomm, [Vision, market drivers, and research directions on the path to 6G](#), December 2022, p 33, accessed 9 September 2025; E Gubbins, '6G Update: As Operators Plead for 6G to be More Software-Centric, Hardware Innovation Advances'.
- 81 E Gubbins, '6G Developers Work to Reduce the Need for Radio Replacement'; Qualcomm, 'Vision, market drivers, and research directions on the path to 6G'.
- 82 E Gubbins, '6G Developers Work to Reduce the Need for Radio Replacement'.
- 83 GlobalData, Tech, Media, & Telecom Predictions 2024 [industry report], GlobalData, 7 December 2024, p 46, accessed 14 November 2025; ITU-R, [Relationship and Timelines](#) [website], ITU-R, 16 November 2023, accessed 9 September 2025; Nokia, [6G explained](#) [website], Nokia, n.d., accessed 15 October 2025.
- 84 A Wooden, 'What is 6G?' [news article], telecoms.com, 9 May 2023, accessed 9 September 2025.
- 85 ITU, [ITU advances the development of IMT-2030 for 6G mobile technologies](#) [press release], ITU, 1 December 2023, accessed 31 October 2025; ITU, [IMT towards 2030 and beyond \(IMT-2030\)](#) [website], ITU, n.d., accessed 15 October 2025; D Larsson, [6G standardization timeline and principles](#) [article], Ericsson, 22 March 2024, accessed 31 October 2025.
- 86 ITU, 'ITU advances the development of IMT-2030 for 6G mobile technologies'.
- 87 Better Internet for Rural, Regional & Remote Australia (BIRR), [Alternative fixed wireless providers](#) [website], BIRR, n.d., accessed 31 October 2025.
- 88 See for example: Hyperwave Wimmera, [More connections in Nhill and Kaniva](#) [blog post], Hyperwave, 9 February 2020, accessed 14 October 2025. Hyperwave offers fixed wireless in western Victoria; CRISP Wireless, [About Us](#) [website], CRISP Wireless, n.d., accessed 31 October 2025. CRISP Wireless offers fixed wireless services in regional southern Western Australia.
- 89 NBN Co, 'The technology that connects your premises' [website], NBN Co, n.d., accessed 24 September 2025.
- 90 ACCC, [NBN Wholesale Market Indicators Report 31 June 2025](#) [report], ACCC, Australian Government, 22 August 2025, accessed 31 October 2025.
- 91 NBN Co, [nbn Fixed Wireless upgrade program completed for 800k homes and businesses](#) [media release], NBN Co, 14 February 2025, accessed 31 October 2025.
- 92 ACCC, 'Internet activity report – June 2025 – data tables'.
- 93 ACCC, 'NBN Wholesale Market Indicators Report 31 June 2025'; ACCC, 'Internet activity report – June 2025 – data tables', table 6.
- 94 ACCC, 'Internet activity report – June 2025 – data tables', table 6.
- 95 ACMA, [Communications supply chain market study: From equipment and spectrum to wholesale services](#) [report], ACMA, March 2023, accessed 31 October 2025.
- 96 GlobalData, 'Strategic Intelligence: Deep Dive into Satellite Broadband Access' [report], GlobalData, 5 June 2025, slide 10, accessed 14 October 2025 through subscription.
- 97 ACMA, 'Communications supply chain market study: From equipment and spectrum to wholesale services'.
- 98 S Sehgal, [Telstra to bring SpaceX's Starlink Satellite-to-mobile technology to our customers](#) [company news], Telstra, 9 January 2025, accessed 31 October 2025; C Seneviratne, [Telstra satellite to mobile connectivity: our latest trials with Starlink and what the tech can do](#) [company news], Telstra, 15 May 2025, accessed 31 October 2025; T Beach, [It's landed – Australia's first satellite to mobile text messaging product for eligible mobile customers](#) [company news], Telstra, 7 June 2025, accessed 31 October 2025; D Claughton, [Telstra launches Australia's first direct-to-satellite text messaging service](#) [news article], ABC News, 2 June 2025, accessed 31 October 2025.
- 99 NBN Co, [NBN Co selects Amazon's Project Kuiper to bring low Earth orbit \(LEO\) satellite broadband to Australia](#) [media release], NBN Co, 5 August 2025, accessed 31 October 2025.
- 100 Optus, [Optus consortium to build and launch sovereign LEO satellite to advance cutting edge connectivity technology](#) [media release], Optus, 14 May 2025, accessed 31 October 2025.
- 101 G Lynch, TPG Telecom completes first satellite-to-mobile text on Vodafone network via Lynk Global [news article], CommsDay, pp 1-2, 6 May 2025, accessed 31 October 2025.
- 102 Telstra, 'Financial results for the year ended 30 June 2025'; Singtel, 'Business update for the first quarter ended 30 June 2025'; TPG Telecom, 'Half-year financial report 2025'; Superloop, [FY25 Financial Full Year Results Announcement](#) [financial results], Superloop, 20 August 2025, accessed 31 October 2025; Superloop, [Appendix 4E Full Year Financial Report](#) [financial report], Superloop, 20 August 2025, accessed 31 October 2025; Aussie Broadband, [2025 Full Year Results](#) [slideshow], Aussie Broadband, 25 August 2025, accessed 31 October 2025.

- 103 Telstra, [Financial results for the full-year ended 30 June 2025](#) [financial results], Telstra, 14 August 2025, accessed 31 October 2025; Optus, [Singtel posts FY25 net profit of S\\$4.02 billion](#) [media release], Singtel, 22 May 2025, accessed 31 October 2025; TPG Telecom, [TPG Telecom limited results for the half year ended 30 June 2025](#) [media release], TPG Telecom, 28 August 2025, accessed 31 October 2025.
- 104 Superloop, [FY25 Financial Full Year Results Announcement](#) [financial results], Superloop, 20 August 2025, accessed 31 October 2025; Superloop, [Appendix 4E Full Year Financial Report](#) [financial report], Superloop, 20 August 2025, accessed 31 October 2025; Aussie Broadband, '2025 Full Year Results'.
- 105 Telstra, [Market Release: Telstra delivers continued growth on the back of T25 completion](#) [media release], Telstra, 14 August 2025, accessed 31 October 2025; Aussie Broadband, '2025 Full Year Results'; TPG Telecom, [Transcript of TPG Telecom HY25 Results](#) [transcript], TPG Telecom, 28 August 2025, accessed 30 October 2025; Singtel, [Singtel posts FY25 net profit of S\\$4.02 billion](#) [news release], Singtel, 22 May 2025, accessed 28 October 2025; Superloop, [2025 Annual General Meeting Presentation](#) [slideshow], Superloop, 13 November 2025, accessed 30 October 2025.
- 106 Telstra InfraCo, [Aura Network](#) [website], Telstra, n.d., accessed 29 October 2025.
- 107 S Worrall, [Telstra Intercity Fibre Network \(Aura Network\): Sydney to Melbourne coastal route is now live](#) [company news], Telstra, 21 October 2025, accessed 31 October 2025.
- 108 Optus, [Investor Day Presentation](#) [slideshow], Optus, 28 August 2025, slide 5-9, accessed 31 October 2025.
- 109 TPG Telecom, [Half-year results 2025](#) [slideshow], TPG Telecom, 28 August 2025, slide 27, accessed 31 October 2025.
- 110 Aussie Broadband, [Annual Report 2025](#) [financial report], Aussie Broadband, 25 August 2025, p 5, accessed 31 October 2025; Superloop, [Annual Report 2025](#) [financial report], Superloop, 14 October 2025, p 6, accessed 31 October 2025.
- 111 Aussie Broadband, [2025 Full Year Results](#) [slideshow], Aussie Broadband, 25 August 2025, slide 16, accessed 31 October 2025.
- 112 Aussie Broadband, '2025 Full Year Results', slides 17–18.
- 113 Superloop, [Annual Report 2025](#) [financial report], Superloop, 14 October 2025, p 40, accessed 31 October 2025; Superloop, [Full Year Results 2025](#) [slideshow], Superloop, 20 August 2025, slide 13, accessed 31 October 2025.
- 114 Telstra, [Telstra acquires Boost Mobile](#) [media release], Telstra, 2 December 2024, accessed 16 October 2025.
- 115 Amaysim, [amaysim accelerates growth with Circles Life acquisition](#) [media release], Amaysim, 21 January 2025, accessed 16 October 2025.
- 116 Superloop, [Superloop acquires fibre assets](#) [media release], Superloop, 9 December 2024 accessed 16 October 2025.
- 117 Superloop, 'FY25 Full Results Announcement', p 3.
- 118 Tangerine, [Numobile migration](#) [website], Tangerine, 16 April 2025, accessed 16 October 2025; A Choros, [Tangerine acquires numobile customer base](#) [news article], WhistleOut, 23 June 2025, accessed 31 October 2025.
- 119 Optus, [Optus Sport to transfer Premier League and Emirates FA Cup football rights to Stan](#) [press release], Optus, 30 June 2025, accessed 16 October 2025.
- 120 Vocus, [Vocus Welcomes FIRB Clearance for Acquisition of TPG Fibre and Fixed EGW Assets](#) [company news], 6 July 2025.
- 121 Vocus, [Vocus Completes A\\$5.25bn Acquisition of TPG Fibre Assets](#) [company news], Vocus, 30 July 2025, accessed 16 October 2025; S Thompson, K Sood & E Rapaport, [TPG Telecom may be gearing up for a stonking \\$2.5b capital return](#) [news article], 10 July 2025, accessed 31 October 2025.
- 122 J Wiggins, [Aussie Broadband sells Buddy Telco to CBA-backed company in bank rewards push](#) [news article], Australian Financial Review, 25 August 2025.
- 123 Digital Nation, [Aussie Broadband introduces digital challenger brand, Buddy](#) [news article], iNews, 16 July 2024, accessed 31 October 2025.
- 124 Optus, [Optus Announces Sale of Mobile Tower Infrastructure to Waveconn](#) [media release], Optus, 3 September 2025, accessed 16 October 2025.
- 125 P Tyler, 'Superloop Limited: FQ2 2025 Earnings Call Transcripts', S&P Global Market Intelligence, 20 February 2025, p 10, accessed 8 October 2025 through S&P Global Platform.
- 126 Telstra, [Telstra and Accenture announce global AI joint venture](#) [media release], Telstra, 15 January 2025, accessed 8 October 2025.
- 127 Telstra, 'Telstra and Accenture announce global AI joint venture'.
- 128 R Pearce, Tech from Google, Anthropic underpins Optus AI strategy [news article], Communications Day, 24 April 2025, pp 5–6, accessed 31 October 2025; D Van Boom, [Optus turns to Google and Anthropic to power its AI strategy](#) [news article], Capital Brief, 23 April 2025, accessed 31 October 2025.
- 129 T Williams, [What AI means for Telstra and Optus workers, customers](#) [news article], Information Age, 3 June 2025, accessed 5 November 2025.
- 130 Accenture, [Telstra and Accenture Launch Silicon Valley Hub to Rapidly Advance Benefits of AI for Telstra Customers and People](#) [company news], Accenture, 13 May 2025, accessed 31 October 2025.
- 131 World Economic Forum, [Artificial Intelligence in Telecommunications](#) [white paper], World Economic Forum, February 2025, accessed 3 November 2025; M Newman, [Building an AI strategy: Telcos put the foundations in place](#) [industry report], TM Forum, March 2024, accessed 3 November 2025.
- 132 World Economic Forum, 'Artificial Intelligence in Telecommunications', p 4.
- 133 See for example M Newman, [Building an AI strategy: Telcos put the foundations in place](#), TM Forum, March 2024, accessed 20 May 2025.
- 134 See, for example, A Okeleke, [AI in telecoms: a strategic guide for operators and vendors](#), Analysys Mason, 30 September 2024, p 14, accessed 20 May 2025.

- 135 A Okeleke, AI in telecoms: a strategic guide for operators and vendors [website], Analysys Mason, 30 September 2024, accessed 20 May 2025, p 9.
- 136 Newman, Building an AI strategy: Telcos put the foundations in place.
- 137 D van Dyke, D Littmann, J Fritz, J Loucks & D Stewart, 2025 global telecommunications outlook [online report], Deloitte Centre for Technology, Media & Telecommunications, 20 February 2025, accessed 22 May 2025.
- 138 M Newman, Building an AI strategy: Telcos put the foundations in place.

