



Internet activity report

For the period ending 31 December 2022

June 2023

Acknowledgment of country

The ACCC acknowledges the traditional owners and custodians of Country throughout Australia and recognises their continuing connection to the land, sea and community. We pay our respects to them and their cultures; and to their Elders past, present and future.

Australian Competition and Consumer Commission
Ngunnawal
23 Marcus Clarke Street, Canberra, Australian Capital Territory, 2601
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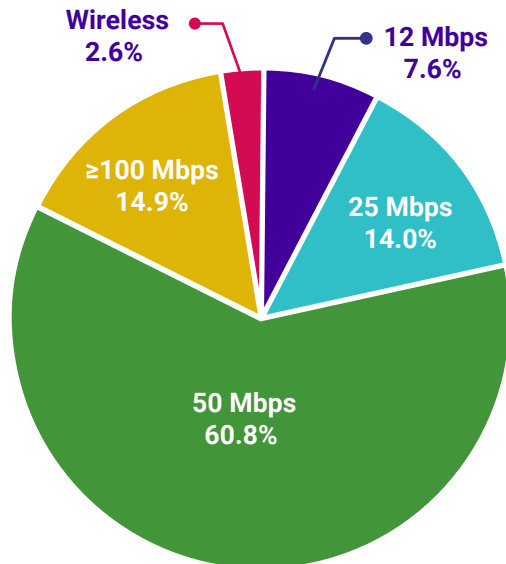
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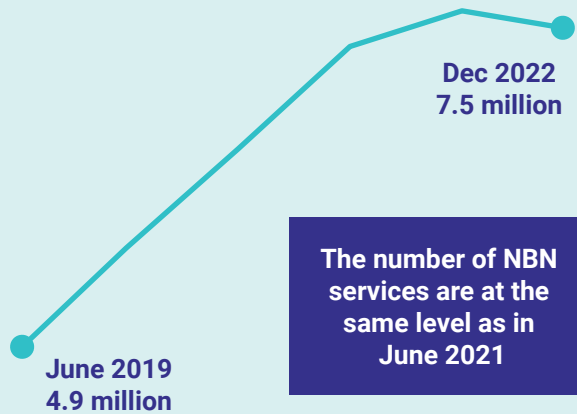
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Data snapshot

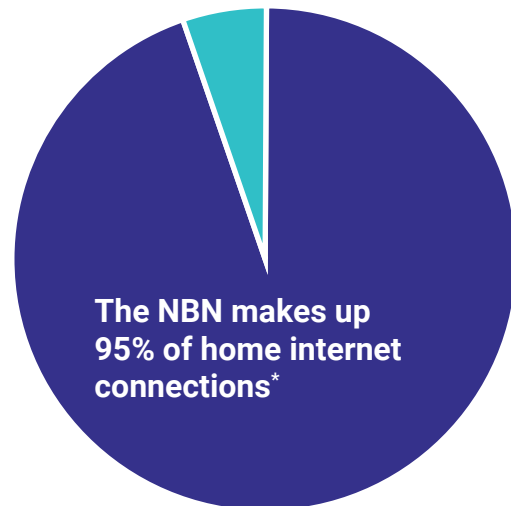
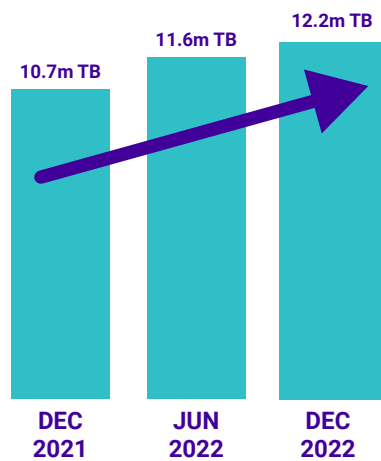
NBN speed tier breakdown



NBN services



Total downloads across all networks are up 14% since December 2021



Note: * The services reported under this report.

Data usage – GB per SIO per month

	Jun-22	Dec-22	% change
NBN	436	452	▲4%
DSL	397	435	▲10%
HFC	285	288	▲1%
Fibre	453	479	▲6%
Satellite	175	189	▲8%
Home wireless broadband	253	283	▲12%
Prepaid mobile	6.3	7.2	▲15%
Post-paid mobile	12.4	14.5	▲16%
Mobile broadband	11.0	11.5	▲4%

Background

The ACCC's Internet Activity Report reports bi-annually on the number of retail services in operation (SIOs) and the volume of data downloaded across NBN, non-NBN fixed internet and mobile services.

Previously, the Australian Bureau of Statistics collected internet activity information under the [Internet Activity Survey \(IAS\)](#). The ACCC took responsibility for this function and has been producing reports since 2018.

The 13 retail service providers (RSPs) currently reporting under this Record Keeping Rule (RKR) are Aussie Broadband, Australian Private Networks, Dodo, Harbour ISP, iiNet, IP Star Australia, MyRepublic, Primus, Singtel Optus, SkyMesh, Telstra, TPG Corporation and TPG Telecom.

We collect the Internet Activity Report data directly from the RSPs and not NBN Co. The underlying data tables are available [here](#).

Readers should consider the following when comparing the range of publicly available information on the NBN and that provided in the Internet Activity Report:

- The Internet Activity Report collects retail SIO information from 13 retail service provider groups only.
- The Internet Activity Report also collects retail SIOs' information regarding non-NBN networks and mobile services.
- In contrast, the ACCC's NBN Wholesale Market Indicators Report reports NBN wholesale SIOs directly acquired by RSPs from NBN Co. This includes information from RSPs not subject to reporting under the Internet Activity RKR.
- An RSP may purchase NBN services from another RSP, which could mean that the purchaser's retail SIO information may exceed its number of wholesale SIOs.
- Conversely, an RSP can resell NBN services to another RSP, which may mean the reseller's wholesale SIO information exceeds its number of retail SIOs.
- In relation to the listing of speed tiers, an RSP may acquire a wholesale NBN service at a specific NBN speed tier but it may, through shaping or 'throttling' customer speeds on its network, market and sell this service to retail end users at a lower headline speed tier.

Given the above, there may be a significant divergence between the number of wholesale services reported under the NBN Wholesale Market Indicators Report and the number of retail services reported under this RKR.

Developments in broadband markets

Download data

Data download volumes over the NBN continue to increase

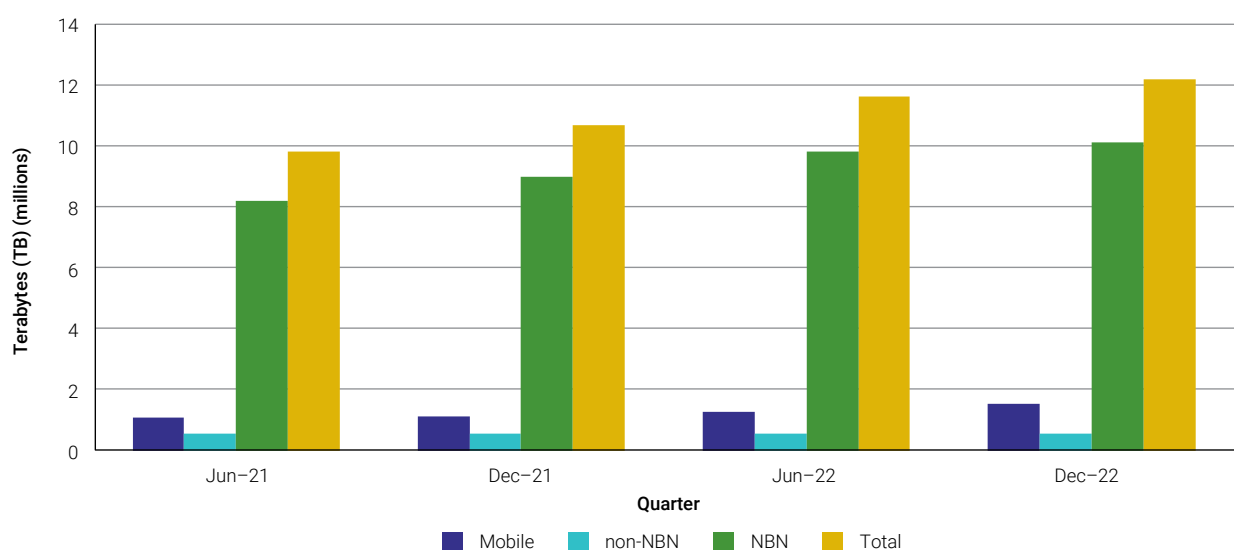
The volume of data downloaded over the NBN and mobile services continued to rise in this period. However, data downloaded over non-NBN fixed networks has remained steady. The NBN accounted for 87% of the data downloaded over the internet.

Figure 1 shows there were 12.2 million Terabytes (TB) of data downloaded across retail broadband internet and mobile services in the 3 months from 1 October 2022 to 31 December 2022. This was made up of 83% downloaded via NBN services, 13% via mobile services and 4% on non-NBN fixed services. The total volume of data downloaded increased from 10.7 million TB to 12.2 million TB between the December 2021 and December 2022 periods (an increase of 14%).

The total volume of data downloaded over NBN services was 10.1 million TB, an increase of 13% compared to the December 2021 period. Downloads over mobile networks also increased in the December 2022 period to 1.5 million TB, up from 1.1 million TB in the December 2021 period.

The total volume of data downloaded over non-NBN networks has remained steady at just over 0.5 million TB since the June 2021 period. Data downloaded via ADSL and non-NBN HFC services has declined, as the remaining consumers on ADSL and non-NBN HFC services complete their migration to the NBN network. However, data downloaded via non-NBN fibre connections has increased, resulting in the overall stabilisation for non-NBN services.

Figure 1: Total volume of data downloaded for retail NBN, retail non-NBN fixed and mobile networks

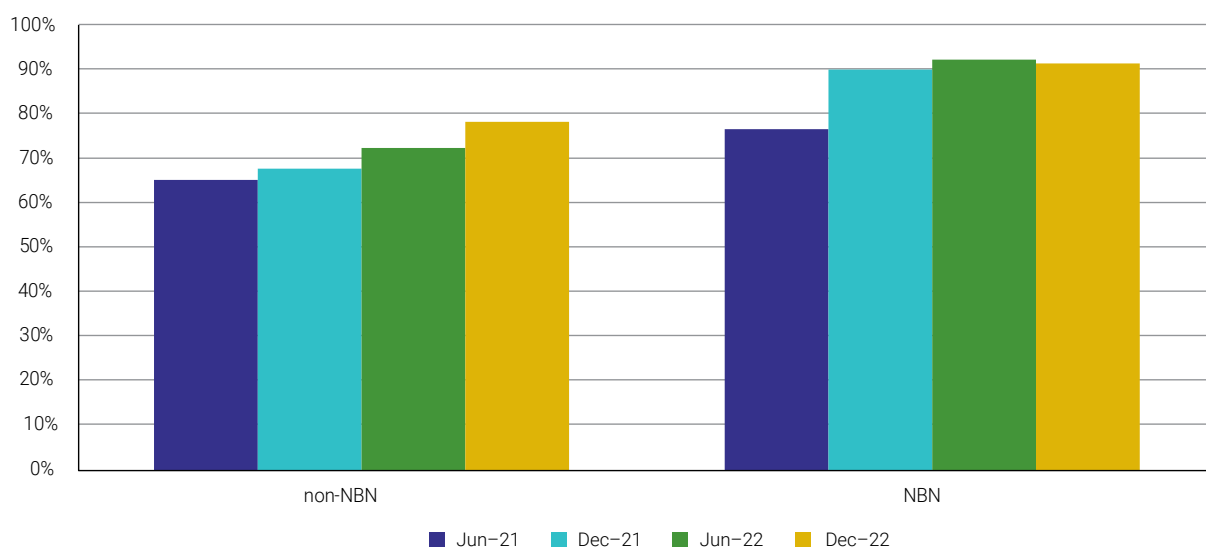


Proportion of NBN services with no data limits decreased slightly

Services available on the NBN generally either have a monthly data download limit or allow for unlimited downloads. This is one of the ways that RSPs can differentiate their products and prices to service different consumer needs. Given the household network is the primary location for streaming services and work from home data usage, services provided over the NBN have a higher proportion of services on plans with no data limits.

Figure 2 shows the proportion of retail NBN services with no data limit has decreased to 91%, a 1 percentage point decrease from the June 2022 period and the first decrease in no data limit plans recorded. For non-NBN fixed services, the proportion of retail non-NBN services with no data limit rose to 78% (up from 72% last period).

Figure 2: Proportion of retail non-NBN and retail NBN fixed services with no data limit

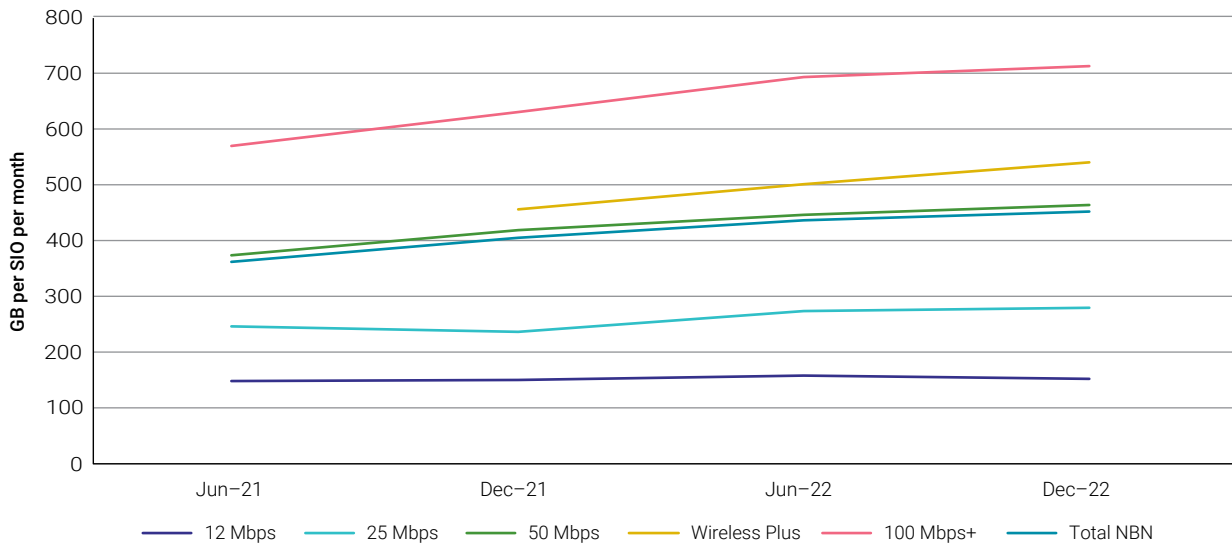


Average amount of data downloaded on high speed NBN services continues to increase

The amount of data downloaded per service in operation differs by the type of network and technology type. Consumers on the NBN, DSL and non-NBN fibre networks downloaded much higher volumes of data compared to those on non-NBN HFC, home wireless broadband and satellite. While NBN consumers were more likely to have plans with no data limits, NBN consumers on higher speed tiers also downloaded over twice as much data as those on lower speed tiers. On average across the range of NBN services and technology types, NBN consumers downloaded 452 Gigabytes (GB) per user per month, up from 404 GB per month in the December 2021 period.

Figure 3 shows the average monthly download per service for each NBN speed tier across the preceding 3-month period. The largest growth was in the Wireless Plus tier, with the average downloads per service in operation increasing by 39 GB (8%) compared to the June 2022 period. The average downloads for consumers in the 12 Mbps tier decreased by 7 GB (5%). The other tiers had similar increases in the range of 6 to 21 GB (2 to 4%).

Figure 3: NBN retail broadband internet – Average monthly downloads per SIO per period by speed tier

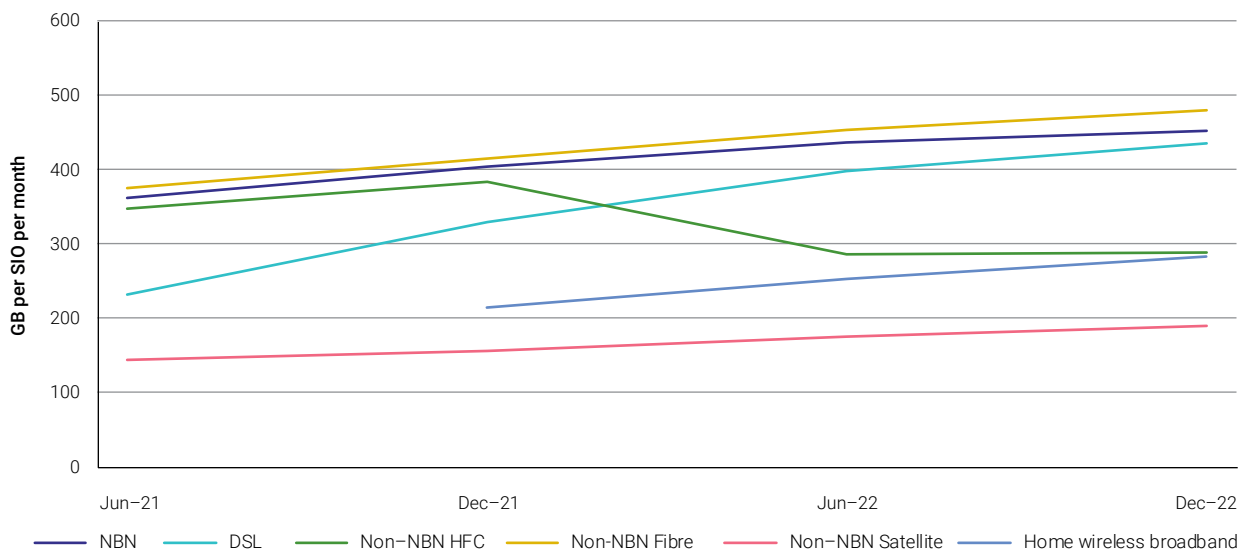


Note: Wireless plus data was included in 50 Mbps prior to the December 2021 period

Figure 4 shows the average monthly download per service across the preceding 3-month period for each non-NBN technology type. Consumers on non-NBN networks downloaded on average 426 GB per user per month. This included users on non-NBN HFC and fibre services downloading 288 and 479 GB per month respectively, and users on satellite downloading only 189 GB per month. Average downloads on DSL networks reached a record high this period, averaging 435 GB per month, up 10% from the June 2022 period. The number of DSL services decreased by 15% this period, with only 155,000 services remaining on the DSL network. Also, there were only 31,000 services remaining on the non-NBN HFC network, down from 34,000 in June 2022. The low number of services is resulting in volatile shifts in the average download volumes on these technologies, particularly non-NBN HFC.

Given the limitation on satellite download capability, the volume downloaded over satellite is substantially below that of other technologies. However, the average volume of data downloaded over non-NBN satellite continued to grow.

Figure 4: NBN and non-NBN retail broadband internet – Average monthly downloads per SIO per period by technology type



There were less than 1,000 non-NBN fixed wireless services in the December 2022 period, and due to the low number of services they are not shown in Figure 4. Importantly, fixed wireless means a point-to-point microwave or radio link. This is a different type of service to home wireless broadband, which provides home broadband over a 4G or 5G mobile network connection.¹ Home wireless broadband data was collected for the first time in the December 2021 period. The average downloads per service over home wireless broadband was 283 GB per month, up 32% since the December 2021 period. There were 416,000 home wireless broadband services in the December 2022 period, up from 294,000 in the December 2021 period.

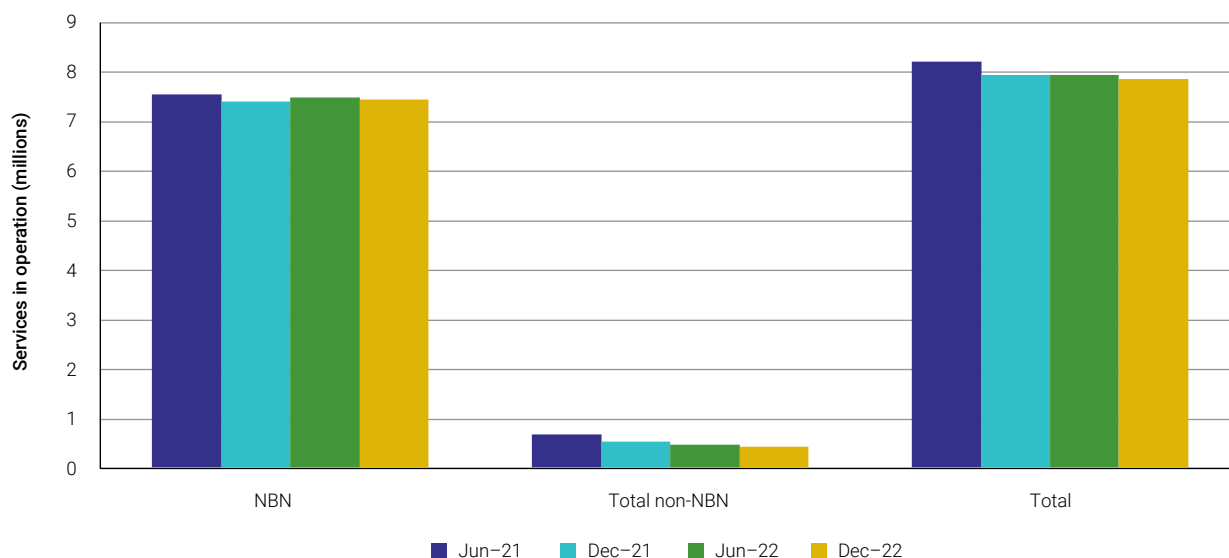
Broadband services in operation

NBN retail broadband internet services in operation remains steady

The total number of NBN and non-NBN fixed services in operation decreased by 46,000 this period. Figure 5 shows that as at 30 December 2022, there were 7.9 million retail broadband internet services reported by the 13 retailers covered under this report, 83,000 less than the June 2022 period. Of these, 7.5 million were NBN services (95% of the total). Based on reported services over the last 2 years, it is clear that the number of NBN services has steadied at 7.5 million.

Non-NBN fixed services continued to decrease, falling by 8% since the June 2022 period to 422,000. Of the total non-NBN services in the market, 48% were fibre, followed by DSL (37%), HFC (8%) and satellite (8%). The ACCC expects that this decrease in non-NBN services will continue, as remaining consumers migrate from using DSL services on Telstra’s copper network and HFC services on the Optus or Telstra networks onto the NBN and other alternative networks.² However, non-NBN fibre connections (a subset of total non-NBN fixed services) have grown over the past 2 years, indicating that the decreasing trend in the total number of non-NBN services should eventually ease.

Figure 5: NBN and non-NBN retail broadband internet – total services in operation



1 Home wireless broadband is an internet connection which provides short broadband range, high data rate connections between a fixed modem and access points connected to a mobile network.

2 Consumers on non-NBN HFC and DSL networks within the NBN fixed line footprint are required to migrate within 18 months of an NBN fixed line service being available at their property. However consumers that would be serviced by NBN fixed wireless or satellite technology are not required to migrate.

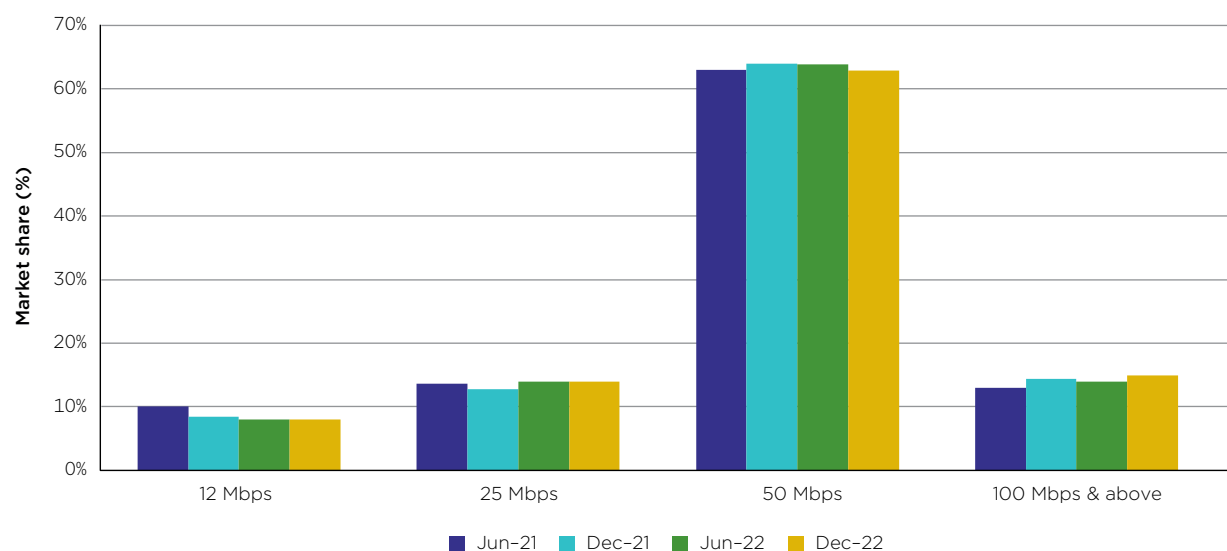
Market shares of NBN speed tiers remain steady

Services at 100 Mbps or above made up 15% of NBN retail services, up 1 percentage point from the level observed in June 2022. Services at 250 Mbps or above made up just 2% of all NBN services.

Figure 6 shows that NBN services in the 50 Mbps speed tier decreased slightly during the last period. Services in the 50 Mbps tier (including wireless plus) made up 63% of all NBN services.

Figure 6 also shows a change in the decreasing 25 Mbps and 12 Mbps SIOs trend observed previously. They both maintained their market share this period, with only small changes of less than half a percentage point observed.

Figure 6: NBN retail broadband internet by speed tier – market share



Note: Retail services are reported on the basis of the wholesale speed tier which the retail service is acquired.

Mobile services

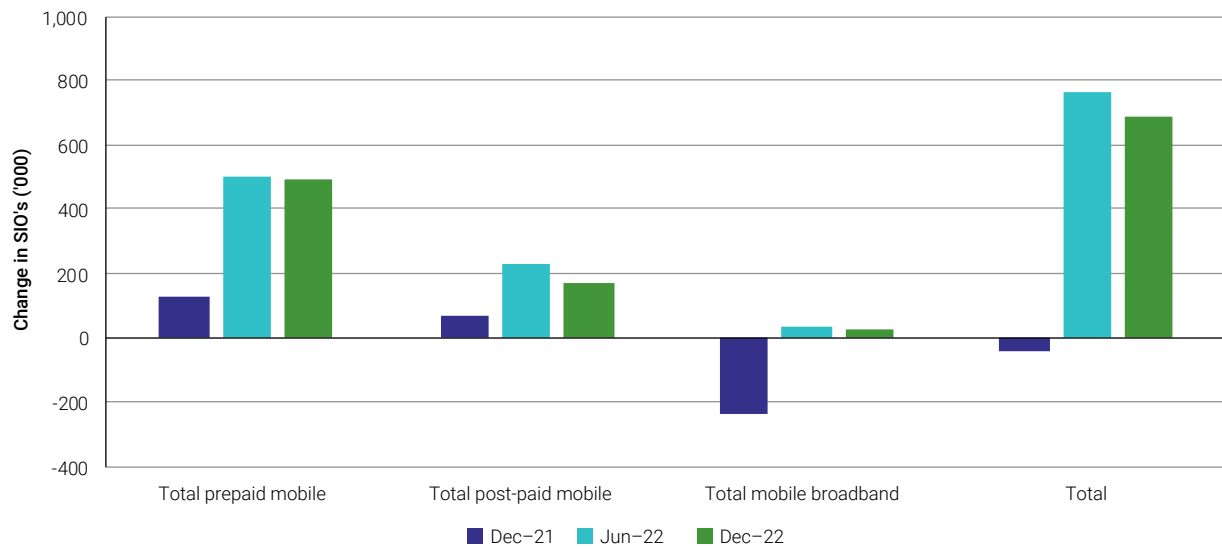
High growth in number of mobile services and downloads

As at 31 December 2022, there were approximately 28.7 million mobile services. This compares to the Australian population of approximately 26.1 million, resulting in an average of 1.1 mobile services per person.³ This is split between 63% of consumers on post-paid plans and 37% using prepaid plans. In addition, there were around 4.4 million mobile broadband services.

Figure 7 shows the change in the number of mobile services (prepaid and post-paid) and in the total number of mobile broadband services over the last 3 periods. The number of mobile services in operation have been steadily increasing over the last 2 years. There was an increase of 692,000 in the number of mobile services this period, representing a 2% increase. This follows growth of 733,000 services (3%) observed in June 2022.

³ [Australian Bureau of Statistics National, state and territory population, September 2022.](#)

Figure 7: Mobile services – change in the number of services in operation



Note: Data not shown for the June 2021 period due to compatibility issues across the periods.

Figure 8 shows the total number of mobile services in each period by the type of service. In December 2022, prepaid and post-paid services increased by 490,000 (4.9%) and 172,000 (1.0%) services respectively. The number of mobile broadband services (for example, mobile dongles) increased by approximately 30,000 (0.7%). Data on machine-to-machine (M2M) services was collected for the first time in December 2021 and is shown in Figure 8.⁴ There were 6.5 million M2M services in December 2022, up 12% from 5.8 million services in June 2022.

Figure 8: Mobile services – total services in operation

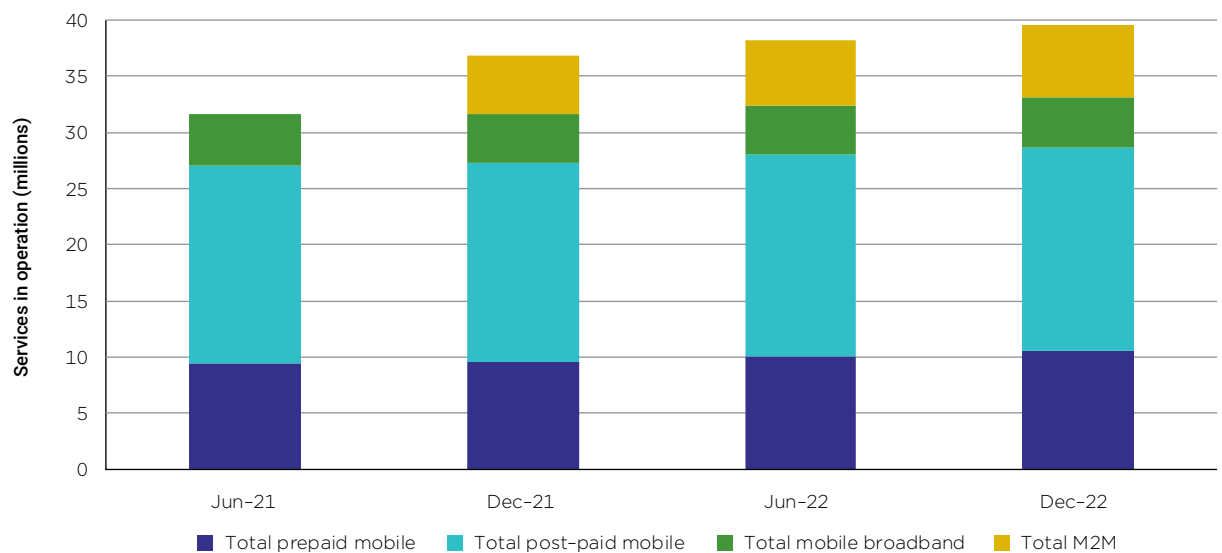


Figure 9 shows that the average monthly volume of data downloaded on mobile devices increased in December 2022. The average monthly volume of data downloaded per SIO on mobile services increased by 1.4 GB (or 13%) to 11.7 GB since the June 2022 reporting period.

⁴ Machine-to-machine or M2M is a direct communication between devices using any communication channel, including fixed/wired and wireless. Examples of products using M2M services include smart electricity meters, alarm systems, medical alert alarms, and asset tracking systems.

Figure 9: Average monthly volume of data downloaded per SIO by type of mobile service

