AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Internet activity report

For the period ending 31 December 2021

July 2022

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

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Introduction

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 broadband internet and mobile services.

Previously, internet activity information was collected by the Australian Bureau of Statistics (ABS) under the Internet Activity Survey (IAS).

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.

This report is the first report covering the updated RKR that came into effect for the December 2021 period.

Key statistics – as at December 2021

- NBN services make up 94% of total residential broadband internet SIOs reported under this RKR and account for 95% of the data downloaded over these services.
- The total number of NBN services reported decreased by 84,000 (1%) over the last six months. This is the first reported decrease in NBN services, however one RSP revised their method of calculating the number of services they provide, stating that the previous methodology overstated the number of NBN services.
- The total volume of residential (NBN and non-NBN) broadband downloads continued to grow, increasing by 11% compared to the June 2021 period despite the decrease in the number of services.
- 78% of NBN SIOs are acquired on wholesale download speeds of 50 Mbps and above.
- NBN services average 409 GB per month of downloads (up from 361 GB in June 2021), while non-NBN fixed services download on average 346 GB per month (up from 282GB in June 2021).
- NBN services in the 25 Mbps tier continued to decrease, now making up just 13% of NBN services.
- The average monthly volume of data downloaded per mobile service decreased by 4% since June 2021. This is the first reported decrease in monthly downloads for mobile services since the ACCC started collecting this data in 2018.

Background

The Internet Activity Report data is collected directly from the RSPs, not NBN Co. The underlying data tables are available here.

The following should be taken into account 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 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.

Taking into account the above factors, 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

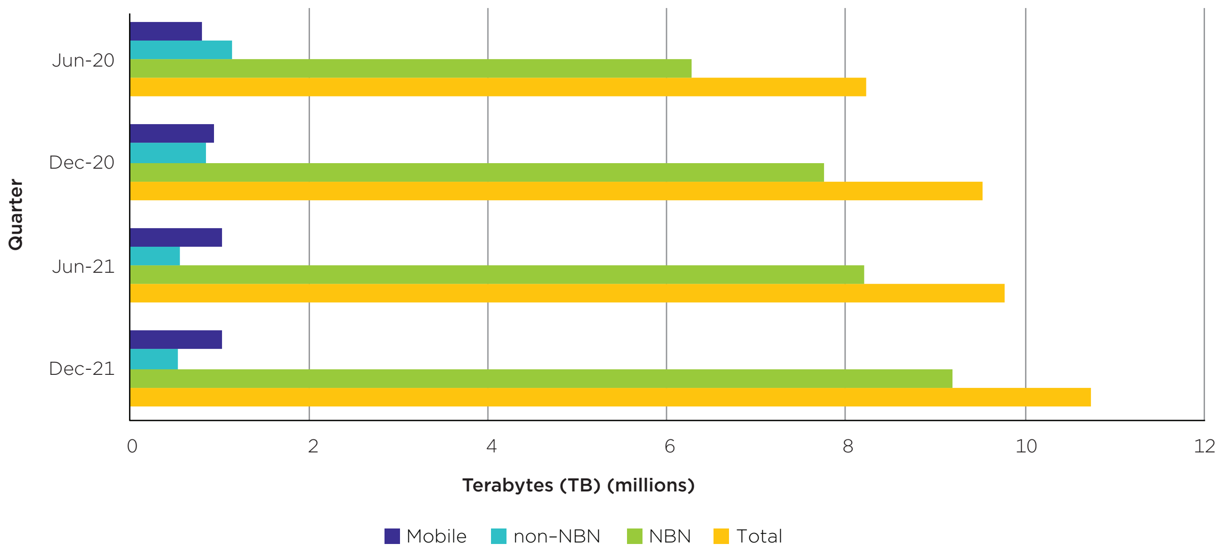
Data download volumes over the NBN continue to increase

The volume of data downloaded over the NBN continues to rise. However, data downloaded over non-NBN broadband networks has remained steady and data downloaded from mobile services has declined slightly. The NBN accounts for most of the data downloaded over the internet.

Figure 1 shows there were 10.7 million Terabytes (TB) of data downloaded across retail broadband internet and mobile services in the three months from 1 October 2021 to 31 December 2021, with 86% downloaded via NBN services, 9% via mobile services, and 5% on non-NBN broadband services. The total volume of data downloaded increased from 9.5 million TB to 10.7 million TB between December 2020 and December 2021 (an increase of 13%).

The total volume of data downloaded over non-NBN services has stabilised as consumers complete their migration to the NBN network. The total volume of data over non-NBN networks remained steady at just over 0.5 million TB across 2021. Downloads over mobile services fell slightly in December 2021 for the first time since the ACCC began collecting data in 2018. Total mobile downloads fell to 1.02 million TB down from 1.05 million TB in June 2021.

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

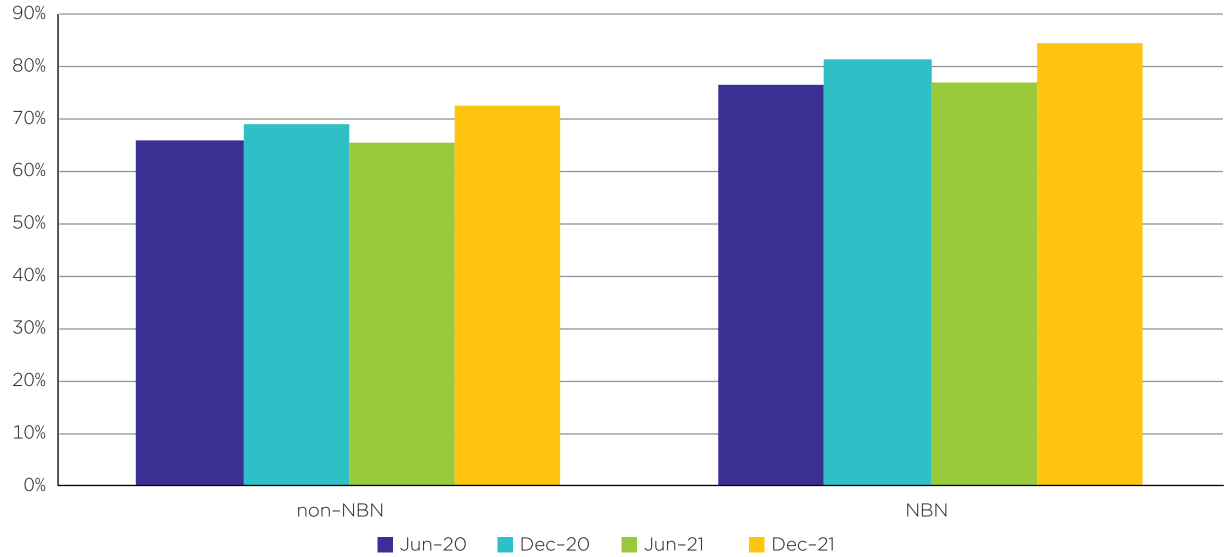


Proportion of NBN services with no data limits continues to grow

Services available on the NBN can generally be grouped into two categories, those with a monthly data download limit and those which allow for unlimited downloads. 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 increased to 84%, an increase of 8% from the previous period and continuing the long term trend towards no data limit plans. For non-NBN fixed services, the proportion of retail non-NBN services with no data limit increased by 7% to 72% compared to June 2021. The proportion of non-NBN fixed services with no data limit has fluctuated frequently over the past two years. This is likely due to the low number of services and changing technology mix of non-NBN services as consumers complete their migration to the NBN. For example, the number of DSL plans has decreased by 35% since June 2021 while the number of non-NBN fibre plans has increased by 4%.

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

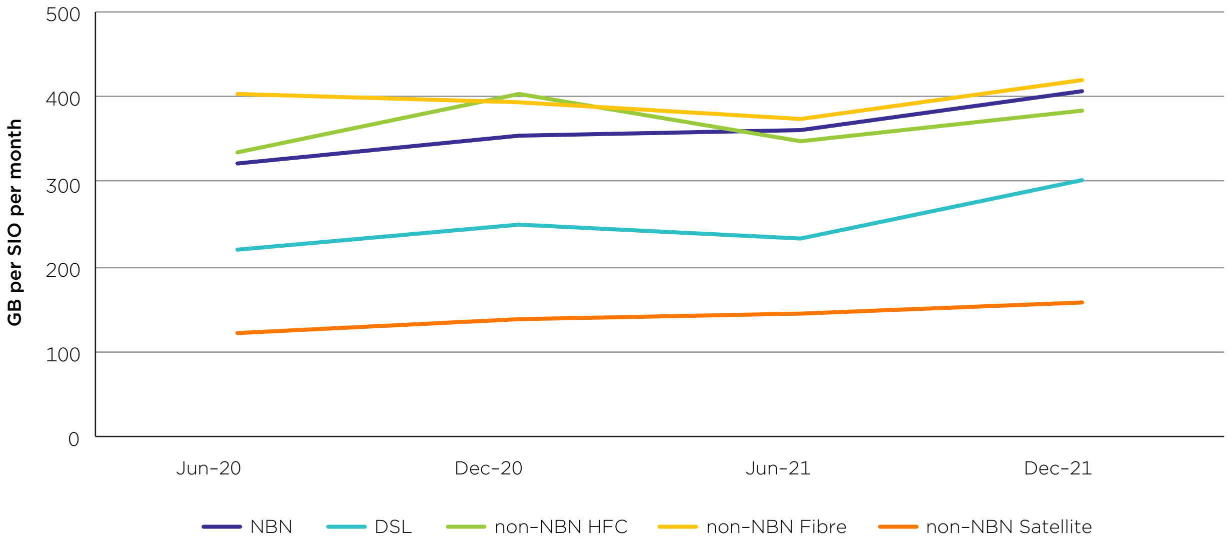
The amount of data downloaded per consumer is very dependent on the type of network and technology type. Consumers on the NBN, non-NBN HFC and non-NBN fibre networks download much higher volumes of data compared to those on DSL, mobile and satellite. While NBN consumers are more likely to have plans with no data limits, NBN consumers on higher speed tiers also download 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 409 Gigabytes (GB) per user per month, up from 355 GB per month in December 2020.

Figure 3 shows the average monthly download per service for each non-NBN technology type. Consumers on non-NBN networks downloaded on average 346 GB per user per month. This included users on HFC and fibre services downloading 383 and 420 GB per month respectively, and users on satellite downloading only 156 GB per month. Average downloads on DSL networks reached a record high this period, averaging 302 GB per month, up 21% from December 2020.

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 continues to grow.

There were less than 1000 non-NBN fixed wireless services, and due to the low number of services they are not shown in Figure 3. Importantly, fixed wireless means a pointto-point microwave or radio link, which is a different type of service to home wireless broadband, which provides home broadband over a 4G or 5G connection. Home wireless broadband data was collected for the first time in this report. There were 129,000 home wireless broadband services in December 2021.

Figure 3: NBN and non-NBN retail broadband internet – downloads per SIO per month by technology type



Broadband services in operation

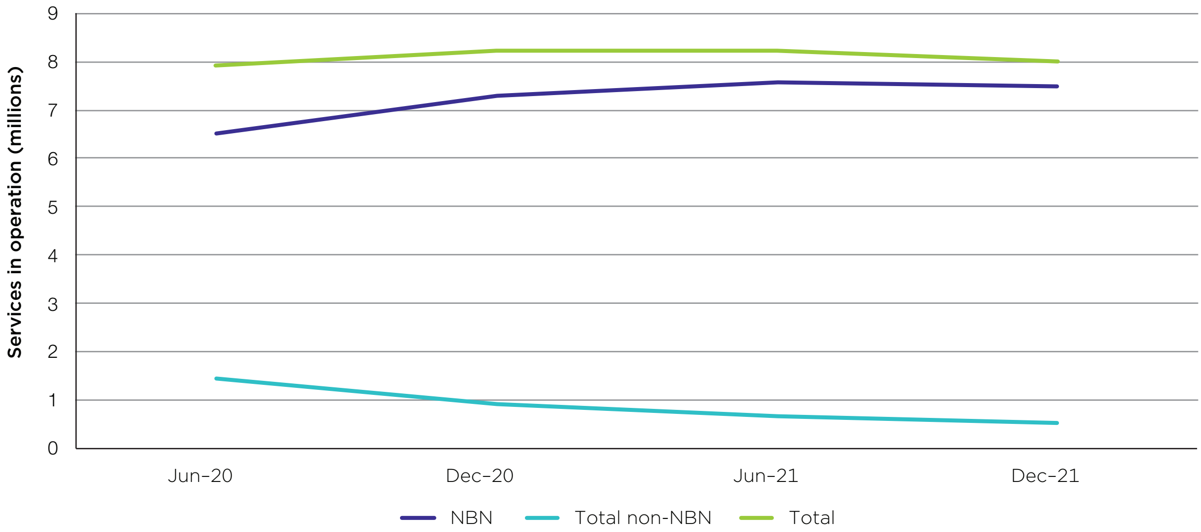
NBN retail broadband internet services in operation decreases for first time

The number of broadband services in operation decreased for the first time as migration to the NBN nears completion. However, one provider changed the methodology used to calculate their NBN services, which resulted in a decrease from its previously reported figures. Therefore, it is possible that this decrease is a once off correction in the data. Figure 4 shows that as at 31 December 2021, there were 8 million retail broadband internet services, 230,000 fewer than the June 2021 quarter, with a large proportion of that decrease attributable to the provider with the updated methodology. Of these, 7.5 million were NBN services (94% of the total), a decrease of 84,000 services since June 2021.

NonNBN fixed services continued to decline, falling by 22% since the June 2021 report to approximately 514,000. Of the total non-NBN services in the market, 45% were DSL, followed by fibre (37%), HFC (12%), and satellite (6%).

This decline in non-NBN services shown in Figure 4 will continue as consumers migrate from legacy DSL and HFC networks and onto the NBN and other alternative networks. However, as the number of services on non-NBN fibre and satellite connections have grown slowly and steadily over the past 2 years the total number of non-NBN services will continue to stabilise.

Figure 4: NBN and non-NBN retail broadband internet – total services in operation



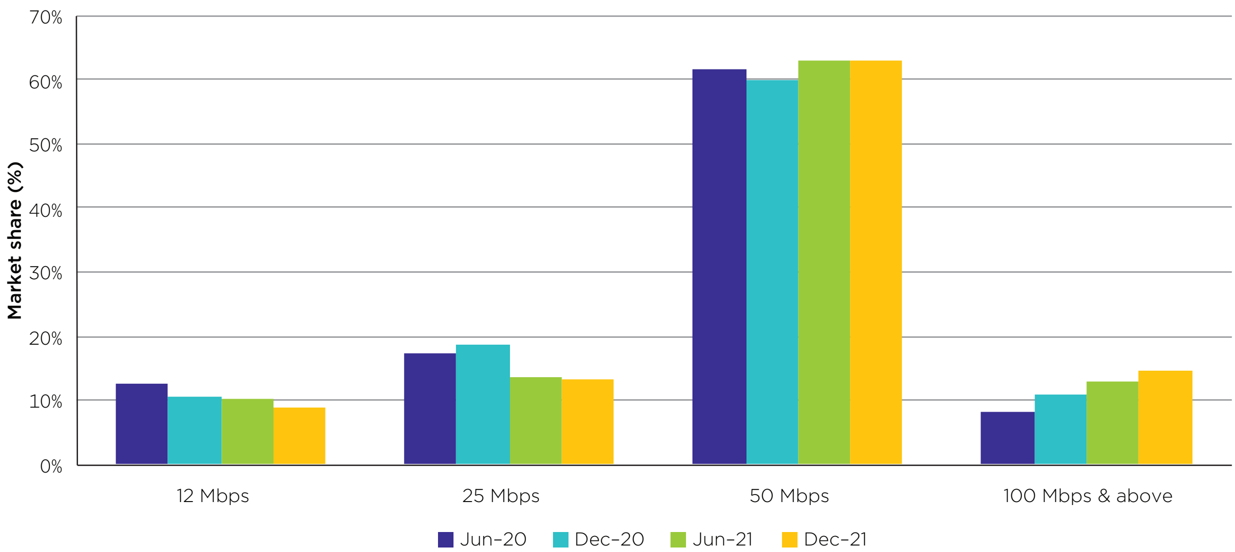
NBN high speed tiers increasing in popularity

Services at 100 Mbps or above make up 15% of NBN retail services, an increase of 2%, or 114,000 since June 2021. New speed tier data collected for the first time[1] during this period shows that 4% of all NBN services are at 250 Mbps or above. Further analysis of the trends for very high speed downloads will be possible in future reporting periods.

Figure 5 shows that growth in NBN services in the 50 Mbps speed tier has stabilised during the last period. This is likely due to the new speed tier reporting methodology noted above reducing the number of services in this bracket. 50 Mbps services make up 61% of all NBN services.

Figure 5 also shows the continuing the trend observed in the previous period of decreasing 25 Mbps SIOs. These decreased by 5% since June 2021. The number of 12 Mbps plans also declined by 13% over the same period.

Figure 5: NBN retail broadband internet by speed tier – market share[2]



1 This report gathered information on 10 NBN speed tiers while previous reports only covered 4 groupings of tiers.

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

Mobile services

The number of retail mobile phone services remains stable but mobile broadband downloads decreased

As at 31 December 2021, there were approximately 27 million mobile handset services, with 65% of consumers on post-paid plans and just over one-third using prepaid plans. In addition, there were around 4.5 million mobile broadband services.

Figure 6 shows the change in the number of mobile services (prepaid and post-paid) and the total number of mobile broadband services over the last three periods. The number of mobile services in operation has been fairly steady with only small increases and decreases between periods over the last two years. There was a 1% increase in the number of mobile services this period representing an increase of approximately 0.2 million services.

Figure 7 shows the total number of mobile services in each period by the type of service. In the December 2021 prepaid and post-paid services increased by approximately 127,000 (1.3%) and 66,000 (0.4%) services respectively. The number of mobile broadband services (for example, mobile dongles) declined by approximately 67,000 (1.5%). Additionally, data relating to machine-to-machine (M2M) services was collected for the first time in the December 2021 period and is shown in Figure 7. M2M services are device to device connections, often used for Internet of Things (IoT) services. There were 5.2 million M2M services in December 2021.

Figure 8 shows the average monthly volume of data downloaded on mobile devices has decreased for the first time since 2018. The average monthly volume of data downloaded per SIO on mobile services has decreased by 0.4 GB (or 4%) to 10.7 GB since the June 2021 reporting period. This is still significantly below the amount of data downloaded over fixed line networks indicating that mobile data and broadband is largely a secondary means of accessing the internet, particularly for services with high data volumes such has high resolution video streaming services. We will monitor this trend in future reports to determine if this is another once off correction or if the sustained long term growth in mobile downloads has ceased.

Figure 6: Mobile services – change in the number of services in operation

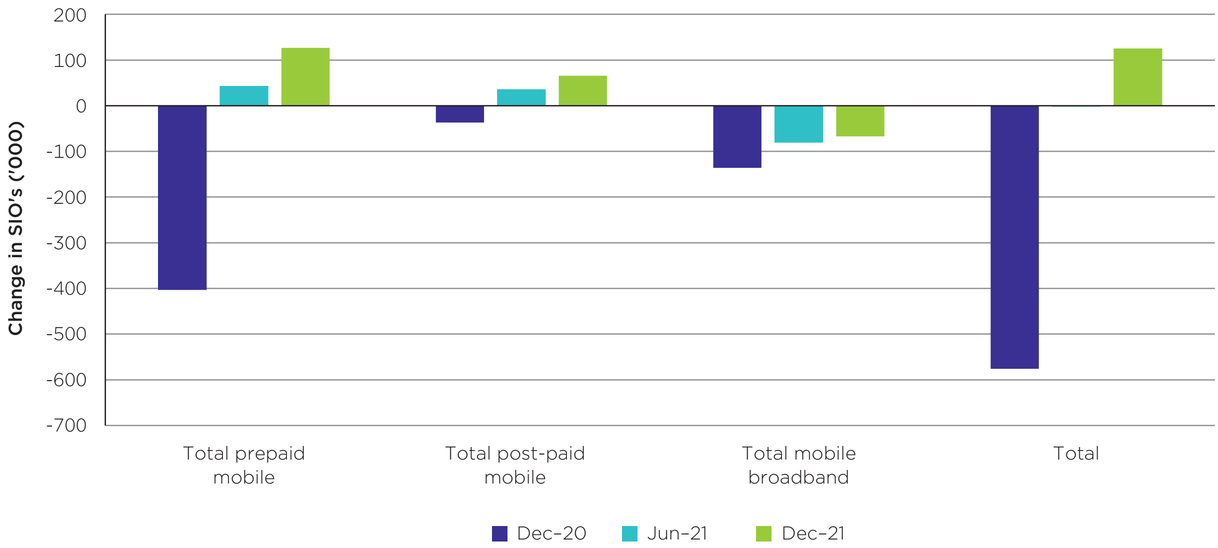


Figure 7: Mobile services – total services in operation

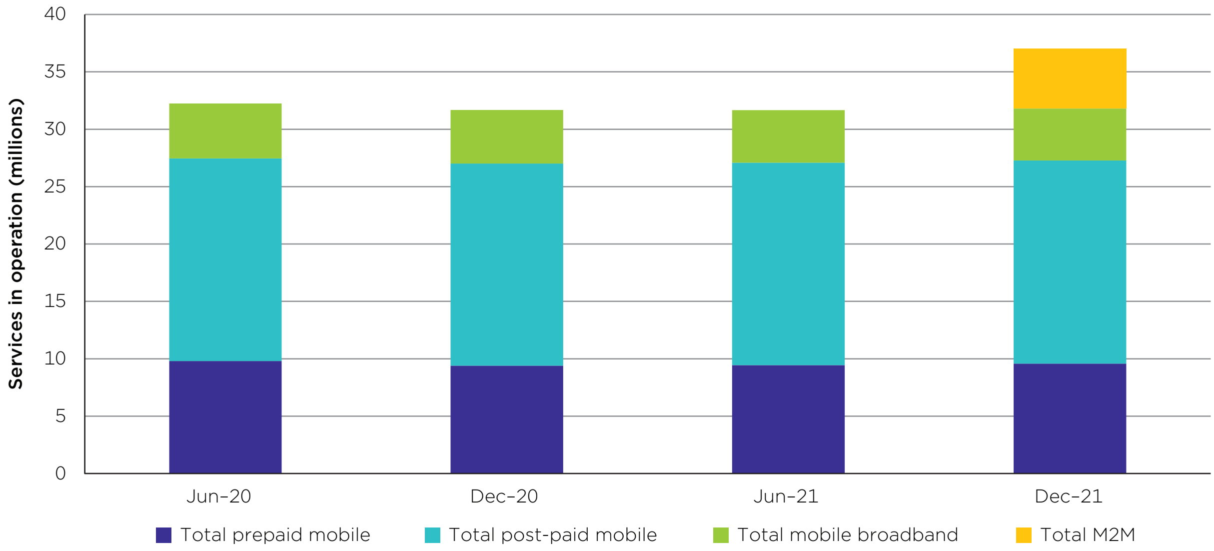
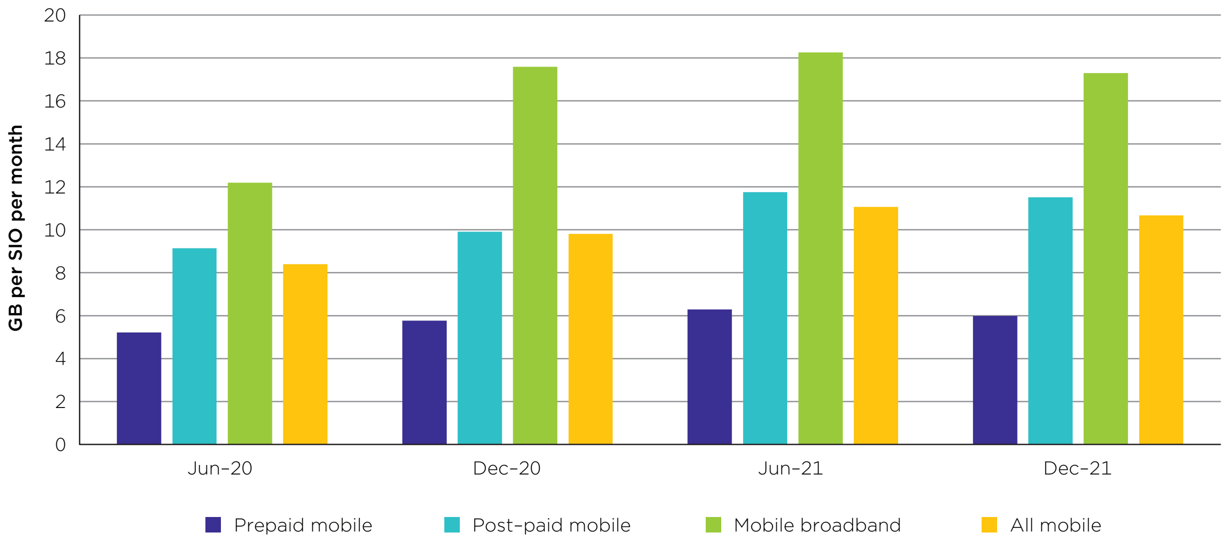


Figure 8: Average monthly volume of data downloaded per SIO by type of mobile service



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