



Review of the Measuring Broadband Australia program

Consultation paper

October 2020

Contents

1. Introduction	2
2. Background.....	2
3. Responding to this consultation paper.....	3
4. Review of how the MBA program has operated and market outcomes observed	5
4.1. Objectives and achievements	5
4.2. Objective #1: Providing information on the performance of fixed-line broadband services.....	7
4.3. Objective #2: facilitating performance based competition.....	20
4.4. Objective #3: Improving consumer outcomes.....	21
4.5. Objective #4: Assessing reasonableness of speed claims	26
5. The MBA program – where to from here?	29
5.1. Ongoing requirement for the MBA program.....	29
5.2. The scope of a future MBA program	32
5.3. Other potential augmentations of the program	34
6. Consolidated list of questions.....	37
7. Next steps.....	39

1. Introduction

The consultation paper seeks stakeholder views on the effectiveness of the ACCC's Measuring Broadband Australia (**MBA**) program.

When agreeing funding for the four-year broadband monitoring and reporting program in April 2017, the Australian Government requested that a review of the operation of the program occur prior to the conclusion of the program in June 2021.

Consistent with this request, the ACCC is undertaking a review that will consult with key stakeholders. The ACCC will then provide a report to the Department of Infrastructure, Transport, Regional Development and Communications (**DITRDC**) for consideration.

Submissions to this review will assist in our review of the MBA program's effectiveness, and whether the program should be extended. The Australian Government will then decide on the requirement for an extended MBA program taking into account this review and a range of other communication market and policy factors.

2. Background

The ACCC had released a [consultation paper](#) in August 2013 inviting comment on a potential broadband performance monitoring and reporting program in Australia. The rationale for such a program was to:

- provide visibility over the performance of fixed-line NBN services at the network and RSP level;
- assist in educating consumers in improving their understanding of the technical performance capability of the products and services being offered to them
- provide consumers with reliable and independent information to make informed purchasing decisions;
- promote a competitive fixed line broadband market; and
- encourage greater transparency and accountability in the market that reduces barriers to entry from information asymmetry and efficiently works to meet consumer demand.

[Further consultation](#) in 2014 and a [pilot program](#) in 2015 provided assurance that a program to monitor and report to consumers on the quality of broadband services could be readily established in Australia. Following a funding announcement by the Australian Government in April 2017 a tender process was held. SamKnows, an independent testing provider, was announced as the successful tenderer in December 2017.

SamKnows was appointed to supply their testing device, known as a **Whitebox**, to a selected cohort of volunteers in Australia in order to measure the quality of their fixed-line internet experience. Once an internet user has had their Whitebox connected to their modem or router, it will run automated tests throughout the day and generate a range of [performance metrics](#).

Since March 2018, SamKnows has produced a [report each quarter](#) that details the data collected from ACCC Whiteboxes over the course of a given month (**MBA Quarterly Reports**). The ACCC has then published the report on its website alongside an [interactive dashboard](#) that has presented the same key findings of the Report.

Since the first MBA Quarterly Report, the growing volunteer base has enabled the program to expand to cover a larger number of RSPs and performance metrics in the MBA Quarterly

Reports. As of October 2020, there have been 10 MBA Quarterly Reports released, measuring nine RSPs from an original four at the start of the program.

In 2020, two series of reports have been introduced in response to the COVID-19 event, namely the [key monthly indicators report \(MBA Monthly Report\)](#) and the [critical services report](#). Both these reports have been produced to help [provide relevant and timely information on network performance to government, industry and consumers during the pandemic and are](#) based on the test data recorded by Whiteboxes hosted by Measuring Broadband Australia volunteers.

Further discussion about the content and impact of the MBA program for comment is contained in section 4.

2.1.1. Summary of MBA outputs

The MBA program commenced with MBA Quarterly Reports, and has gradually expanded in response to market developments and demand for additional reporting. An overview of the outputs that are currently published as part of the MBA program are summarised in the table below.

Output	Purpose
MBA Quarterly Report	To present aggregate level results compiled from a one-month monitoring period.
MBA Monthly Report	To present a time series of results measured over a three month period.
Critical Services Report	To track the performance of NBN broadband services in providing access to streaming and video conferencing applications.
MBA data release	Provides summary data for Whitebox units for tests that contributed test data to prepare MBA Quarterly Reports. This data is available on data.gov.au .

3. Responding to this consultation paper

The ACCC encourages stakeholders to provide submissions to this consultation paper on issues canvassed below or any other relevant matters. We also invite stakeholders to contact us to discuss these matters instead of, or in addition to, a written submission.

Submissions should be emailed to: broadbandperformance@accc.gov.au.

While we are not proposing to publish submissions to this consultation paper we may publish a report that provides a summary of the responses received.

Responses to this consultation paper are due by **28 October 2020**.

3.1. Confidentiality of responses

Interested parties wishing to submit material to us should clearly identify any commercial-in-confidence material by replacing the confidential material with an appropriate symbol or 'c-i-c'.

We are committed to treating confidential information responsibly and in accordance with the law. Where we are provided with confidential information, we will, to the extent reasonably possible, seek to protect the confidentiality of that information.

In some circumstances we may be legally required to produce confidential information. For example, we may be required to disclose information that is subject to a confidentiality claim pursuant to a court order or subpoena. If this occurs, we will endeavour to notify and consult with you about the proposed release of your information and measures (such as confidentiality orders) that may be taken to protect that information.

It is also important to note that we may share confidential information internally and with our external lawyers and consultants.

Further information regarding the ACCC's Confidentiality Guideline is available on the [ACCC website](#).

4. Review of how the MBA program has operated and market outcomes observed

In this section the ACCC has described the effect that the MBA program has had on industry, consumers, policy makers and our work at the ACCC with reference to the four broad objectives of the program. We have outlined the change in behaviour we have seen in response to the MBA program and how it has helped address concerns about the functioning of the retail broadband market.

The ACCC have identified a number of broad topics for discussion that relate to the objectives and outcomes of the MBA program, and we have provided the ACCC view on these topics. This section concludes with a set of questions that seeks to understand stakeholder views in response to our observations.

4.1. Objectives and achievements

4.1.1. Overview

The MBA monitoring program has provided consumers, industry and policy makers with independent, new and valuable insights on the performance and reliability of fixed-line retail broadband services in Australia.

A substantial benefit of providing this independent empirical information on NBN network performance is that it has enabled the testing of anecdotal claims about broadband performance. MBA data can help in demonstrating those areas where NBN is performing to a high standard and identifying more precisely the particular aspects of service provision where there is room for further improvement.

The overall aim of the MBA program has been to assist consumers when choosing a retail service provider (**RSP**), build public confidence in the speed claims that retailers have been making, and to encourage the adoption of service quality as a further product dimension over which network operators and RSPs compete.

The MBA program has been collecting and building a new dataset of information on the speed and quality of broadband services in real world conditions. The results have been aggregated and then reported for a range of access networks, RSPs and retail plans. The MBA program has been run independently of network operators and RSPs, to ensure its credence among consumers and industry.

The reported data has been regularly referenced publically and has helped to provide transparency and accountability on the performance and quality of internet performance. The program has also better informed the decisions of consumers, RSPs and policy makers who have had equivalent access to MBA results. This has supported increased competition in retail markets and has been a catalyst in driving greater market efficiency and investment, for example refer to case study 2.

The key objectives of the MBA program have been to:

#1	#2	#3	#4
Provide consumers, industry and policy makers with robust, independent and comparable information on the performance of fixed-line broadband services in Australia.	Facilitate performance-based competition between RSPs by publishing independent performance information.	Improve consumer outcomes by publishing performance information so as to inform their purchasing decisions.	Assist in detecting where real-world service performance is falling short of claims made by service providers as part of a broader strategy to promote compliance with the law.

4.1.2. Measures of success

The ACCC considers that the above objectives is being met through the program’s strong contribution to improving competition and consumer outcomes in broadband markets. The following sections provide the ACCC views on how these objectives have and are continuing to be realised and outline the achievements of the MBA program.

The MBA program has provided all parties with easy access to information that is independent, credible and transparent. It has provided market participants with results that meet their information needs as well as challenge emerging market perspectives over the quality and performance of broadband services.

The program has also been able to establish a publically recognisable and easily understandable system of measurements that report on broadband performance. This has helped to drive competitive outcomes within the market. This has also assisted in educating and informing consumers, rewarding RSPs for delivering services that consumers value, and informing policy decisions.

In particular, the ACCC would like to highlight the following successes of the MBA program. The program has:

- been delivered on time. The flexibility and adaptability of the program has allowed us to enhance the scope of reporting and produce additional metrics and themes for reports, and deliver these on time.
- achieved its objectives within budget noting that this has been met despite the increase in the program’s reporting especially during COVID-19.
- been able to successfully maintain a long-term and consistent volunteer base. This has enabled comparative analysis of broadband performance over the duration of the program. It has also meant that we have been able to reserve remaining Whiteboxes to ensure that the program has continued to be flexible and still have capacity to develop cohorts on emerging RSPs and new products (e.g. higher speed plans) offered in the evolving broadband market, which also reflects changing consumer preferences. We consider that these elements have enabled the ongoing success and relevance of the program to consumers, industry and policy makers.

In the initial forecasts we anticipated releasing around 4,000 Whiteboxes by the final year of the program. We have had over 10,000 volunteers request to join the program, and have released over 2,500 Whiteboxes. While expressions of interest to become a volunteer has exceeded our expectations, we have carefully targeted our dispatches to ensure that we have a representative mix of RSPs, speed tiers, locations and technologies. We have also

ensured that we retained an adequate pool of Whiteboxes to allow for the expansion of our reporting to cover for example emerging RSPs and new speed tier plans.

Additionally, before we commenced the MBA program we made conservative forecasts about the panel size required to obtain statistically robust data given variability of NBN performance. A key indicator of variability is standard deviation, and now that we have access to MBA program data, we are confident that we don't need as many volunteers per cohort as initially expected. Consequently the number of Whiteboxes we have needed to deploy to each targeted cohort is less than originally forecast.

When considering the benefits of the MBA program with reference to the costs to the sector it is useful to consider it within the context of broader investments that have already been made and are planned, for the NBN and other broadband networks seeking to offer similar services to consumers.

As noted by the Minister for Communications, Cyber Safety and the Arts, NBN Co has recently announced a \$4.5 billion network investment to increase access to ultra-fast broadband speeds for up to eight million Australians. The Minister noted this will have significant short and long term positive impacts on the growth of the Australian economy.¹ Furthermore, it is estimated that this investment will increase Australia's GDP by \$6.4 billion per annum by 2024.

In 2018, we estimated that consumers spent over \$4 billion per year on fixed line broadband services. In 2020, we estimate that this has increased to around \$6.3 billion per year.²

As described above, the MBA program has fulfilled a vital role in ensuring the large investments already made into the NBN have delivered the performance and services promised. This additional wave of NBN investment, which is being complemented by private sector investment into 5G networks and other superfast broadband networks will play a vital role in Australia's economic growth going forward. It therefore remains important that the MBA program continues to ensure that the benefits of these investments are being realised and fully exploited by consumers and businesses.

The MBA program has cost on average \$1.6 million per year and has operated within budget.³ This equates to less than 0.025 per cent of the estimated economic benefit expected to flow from the additional NBN investment in ultra-fast broadband alone; without considering the broader economic impacts provided by its contribution to efficiently functioning communications markets.⁴

4.2. Objective #1: Providing information on the performance of fixed-line broadband services

The MBA program has provided all parties with easy access to information that is independent, credible and transparent. It has provided market participants with results that meet their information needs as well as challenge emerging market perspectives over the quality and performance of broadband services.

¹ The Honourable Paul Fletcher, Minister for Communications, Cyber Safety and the Arts, media release, <https://minister.infrastructure.gov.au/fletcher/media-release/45-billion-nbn-investment-bring-ultra-fast-broadband-millions-families-and-businesses-and-create-25000-jobs>, viewed 30 September 2020.

² ACCC estimates.

³ Australian Communications and Media Authority (ACMA), *Cost recovery implementation statement*, Annual carrier licence chart 2018-19, p. 41, <https://www.acma.gov.au/cost-recovery-implementation-statement-cris>, viewed 30 September 2020. This excludes start-up and ongoing ACCC costs of administering the program.

⁴ \$1.6m of the \$6.4bn GDP increase forecast per annum is approximately 0.025 per cent.

The program has also been able to establish a publically recognisable and easily understandable system of measurements that report on broadband performance. This has helped to drive competitive outcomes within the market. This has also assisted in educating and informing consumers, rewarding RSPs for delivering services that consumers value, and informing policy decisions. There is a variety of ways consumers and others access the MBA program results, such as through media and intermediaries (i.e. comparator services) as well as our website. Further discussion about the benefits of the MBA program and evidence for them is outlined in more detail in the following sections, with case studies and supporting data provided where applicable.

4.2.1. Transparency and consumers

There have been a number of important initiatives by the ACCC that have complemented the MBA program and which have also been aimed at improving broadband performance information that is available to consumers. Not only has the ACCC seen a shift in how the market advertises broadband performance and ensures that RSPs' performance meets their advertising, but also that there have been improvements in how information is presented to consumers which is easy to understand and meets their needs. These complementary initiatives have included:

- the ACCC's [Broadband speed claims industry guidance](#) (**Industry Guidance**, discussed further at section 4.5.1.), designed to assist RSPs in how they advertise their retail broadband products with a particular focus on how to advertise download speeds.
- the ACCC accepted [s.87B undertakings](#) from eight RSPs in relation to speeds at which NBN customers with fibre to the node (**FTTN**) and fibre to the building (**FTTB**) connections could upload and download content online (i.e. speeds). Technical limitations on the customers' FTTN or FTTB NBN connection had meant that they could not get the speeds that the RSPs' had advertised. The s.87B undertakings have detailed the remedies the RSPs will provide to affected customers including refunds, moving speed plans, discounted speed plans, and exit from contracts without paying a fee. The undertakings have effect for a period of three years, and vary in start date from between November 2017 and March 2018.

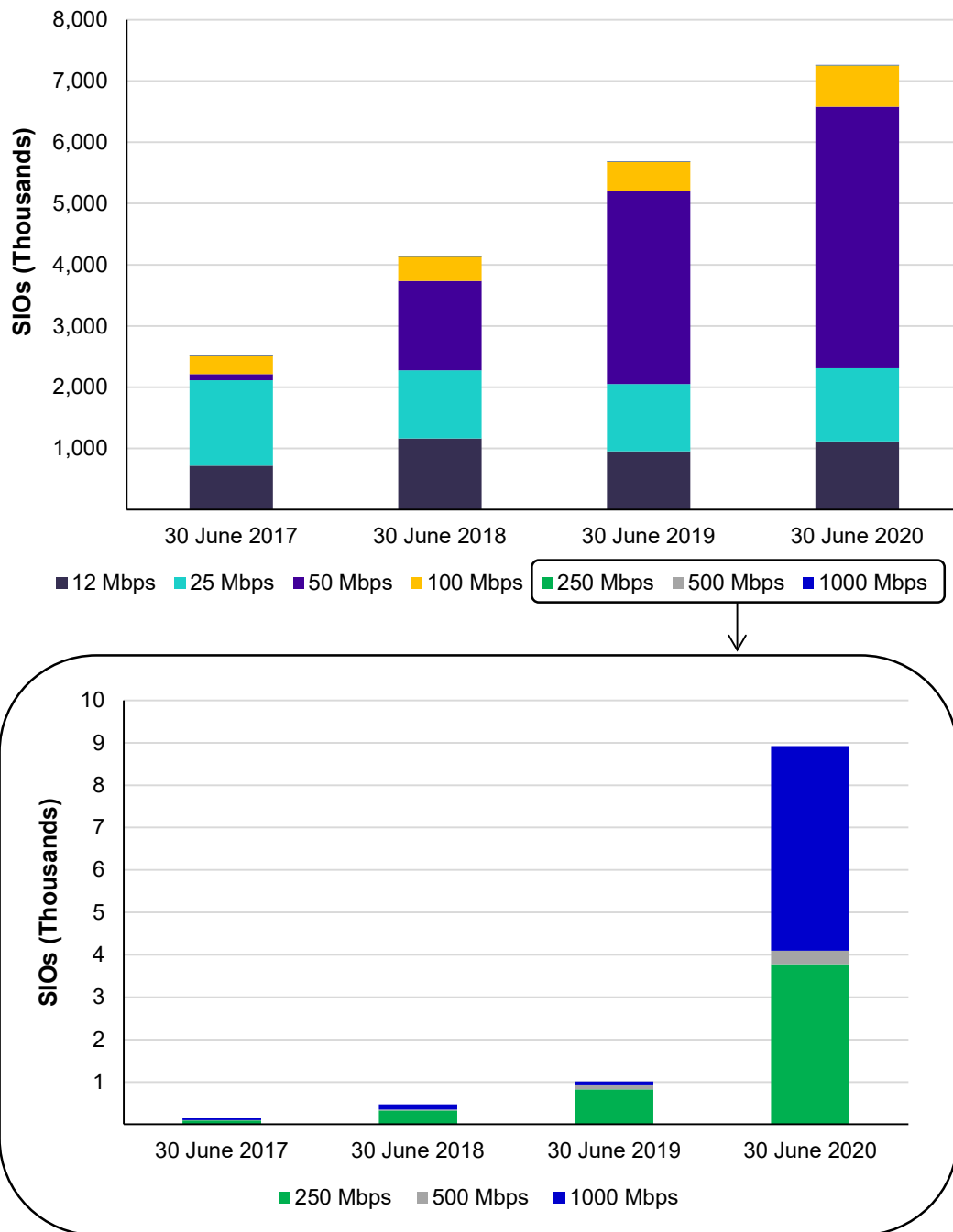
The additional transparency and reliability of information provided by the MBA program has delivered important benefits to consumers, complementing and strengthening other initiatives in the market as noted. This has included:

- Improving consumers' broadband literacy such as understanding the:
 - quality and performance of different types of broadband services; and
 - the broadband services they already have and that they might need in the future.
- Improving consumer engagement in the competitive process as:
 - product offering comparisons have been made easier to comprehend over time
 - there has been a decline in the pre-purchase product search costs (time and effort) and the associated transactional costs (switching impost); and
 - there is an enhanced ability to make better value for money decisions given needs and budget.
- Reducing the potential for consumer harm as the program has improved consumers' abilities to check if their broadband service is delivering on the value that they had signed up for.

- Increasing access to consistently improving service quality and product offerings as RSPs compete and are indirectly held accountable by the program's independent publically available information.

These benefits are difficult to quantify, but are evidenced by how the market has changed since before the commencement of the MBA program. Broadband services now run faster more often compared with before the MBA program, as shown later in charts 6 and 7. Consumers now have more confidence to purchase higher speed tier plans, which indicates that they are aware that they will get what they are paying for and they are confident to make this decision. This is evidenced by the chart below, which shows that as at 30 June 2017 most NBN services in operation (**SIOs**) had a download data transfer rate of 12 Mbps or 25 Mbps. This has shifted dramatically as at 30 June 2020, where the majority of SIOs have a download data transfer rate of 50 Mbps. Over this time there has also been an increase in SIOs where the download data transfer rate exceeds 100 Mbps, which indicates that consumers have matured in their understanding and awareness of these higher speed plans.

Chart 1: Number of SIOs by download data transfer rate



Source: [ACCC NBN Wholesale Market Indicators Report](#), table 5.

Note: The Home Ultrafast AVC TC-4 bandwidth profile has been included as part of the 1000 Mbps total.

The ACCC notes that providing transparency to consumers regarding the performance of different types of broadband services and different RSPs' product offering has been an important step to addressing the information asymmetry that has previously existed about network performance.

Prior to the MBA program, there was limited comparable information about performance and other factors to assist consumers in making their NBN purchasing decisions. Historically, RSPs competed primarily on the basis of price, data quotas and 'headline' or maximum data

rates and this was the only information available to consumers. This had meant that consumers were at risk of making poor and uninformed purchasing decisions.

The ACCC had been concerned about the detriment that could arise from this continued information asymmetry as RSPs who had more information about their service than the consumer would give rise to an incentive for an RSP to potentially conceal information in order to obtain a more favourable outcome. In this way, the program has also indirectly increased consumer protections as RSPs' performance claims which are public, are now being verified through the program, effecting their accountability to the public; and not just to the ACCC.

With the MBA program, consumers have been able to meaningfully compare service performance when considering their broadband options, which is further detailed in case study 1, below.

Case Study 1 – comparing performance of broadband plans

The MBA program currently covers nine RSPs: Aussie Broadband, Dodo and iPrimus, Exetel, iiNet, MyRepublic, Optus, Telstra, TPG and Vodafone.

In 2018-19, these RSPs represented at least 94 per cent of the retail market for fixed broadband services.⁵

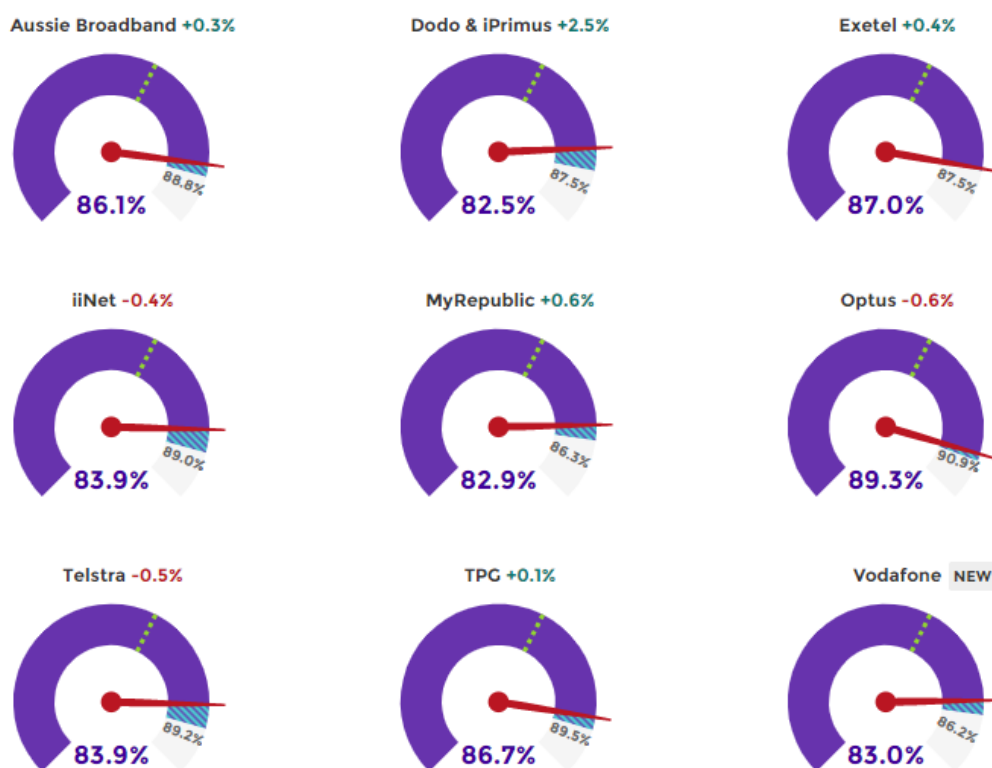
Our consumer dashboard presents key results for these nine RSPs:⁶

⁵ ACCC, *ACCC Communications Market Report 2018–19*, p. 22, https://www.accc.gov.au/system/files/Communications%20Market%20Report%202018-19%20-%20December%202019_D07.pdf, viewed 17 September 2020.

⁶ ACCC, *Broadband performance data*, May 2020, <https://www.accc.gov.au/consumers/internet-landline-services/broadband-performance-data>, viewed 17 September 2020.

NBN plan speeds delivered during busy hours and the busiest hour

- Download speeds - busy hours
- Download speeds - busiest hour
- Upload speeds - busy hours



Busy hours = 7.00pm to 11.00pm.

■ = Benchmark level 60%.

+ - Percentage point changes compared with previous quarter's measurements.

■ Percent of maximum plan speed.

■ The shaded area indicates the boost to average speed if services not able to achieve maximum plan speeds were excluded from the overall results. These services include NBN FTTN connections not capable of delivering 50 Mbps. If you are a customer on a service that does not deliver expected speeds, contact your provider to ask whether the problem can be fixed or about moving onto a cheaper plan.

This information has been picked up by comparator websites⁷ and is available to consumers to access. The availability of such information enables consumers to readily compare the performance of these RSPs, reducing barriers to switching and thereby encouraging competition on performance.

The MBA program has provided robust reporting on broadband performance including expanding to reporting on the performance of video streaming services, which the ACCC has been able to utilise to educate and inform consumers.

⁷ See e.g. Compare Broadband, ACCC reports TPG has the fastest NBN speed, 2 September 2019, <https://www.comparebroadband.com.au/broadband-articles/nbn-id58/accc-reports-tpg-has-the-fastest-nbn-speed-id1383/>, viewed 17 September 2020; Finder, TPG tops NBN speeds according to the ACCC, 5 November 2018, <https://www.finder.com.au/tpg-tops-nbn-speeds-according-to-the-accc>, viewed 17 September 2020.

The ACCC has actively tried to build consumer understanding of technical performance metrics around broadband performance and have published guidance on our website to further assist in this process, for example, our guide to [home broadband for consumers](#).

The MBA program has therefore been able to provide consumer with assurances of reliable and transparent information that is in line with what consumers want.

“...What they [consumers] care about is the speeds they get from a network speed test, whether Netflix is freezing and whether it holds up when they have multiple people at home working.”⁸ (Minister Fletcher)

4.2.2. Transparency – RSPs and network operators

The MBA program has allowed RSPs to assert the relative quality of their services in comparison to other RSPs. The publication of performance information has helped to ensure that RSPs and network operators (such as NBN Co) are accountable to consumers for the performance of their services.

It has also led to there being strong incentives for them to:

- compete in delivering quality broadband services;
- accurately represent their technical performance capabilities of the products they offer; and
- invest in operational improvements where necessary.

This has in-turn led to RSPs being rewarded for achieving their advertised performance claims with end-user quality results being transparent to the consumer and the market.

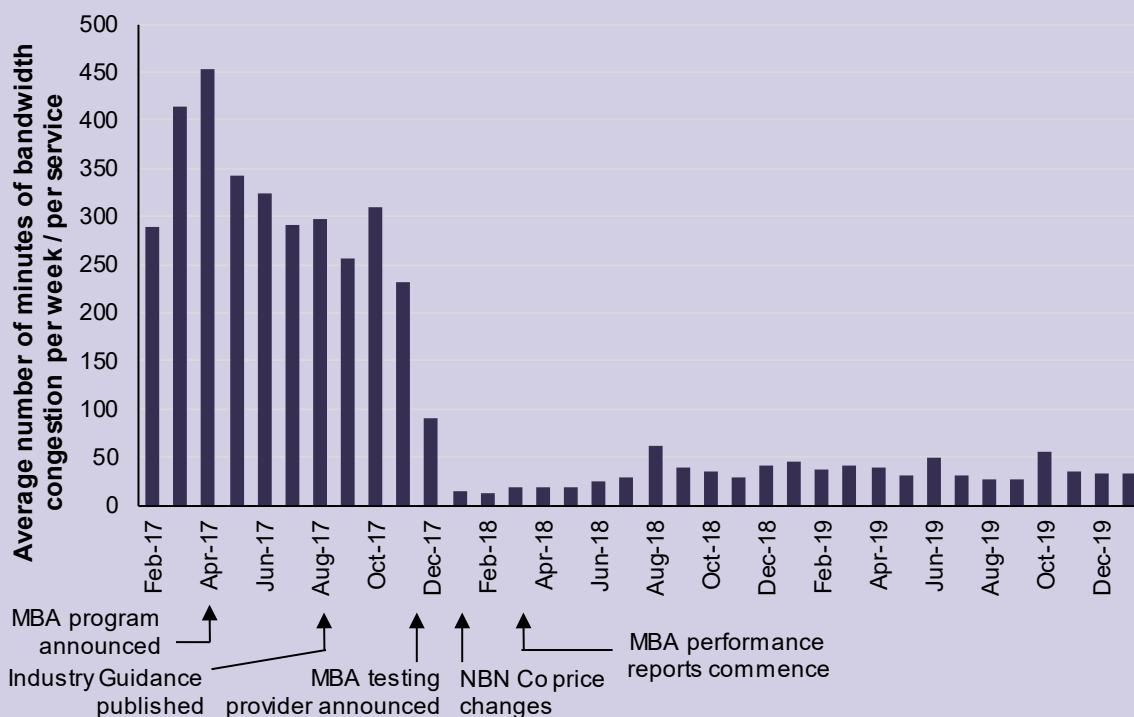
While network operators play a key role in the availability of quality broadband services, this is also influenced by the commercial decisions made by RSPs (e.g. how much transit and backhaul transmission capacity to provision). The MBA program has ensured that there is sufficient information in the market about the quality of broadband services, to assist industry in making efficient network investments, including purchase of Connectivity Virtual Circuit (**CVC**). An example of this is shown in case study 2.

⁸ Paul Smith, 'Door opens for Telstra as NBN 'proves itself' in lockdown', *Financial Review*, 26 May 2020, <https://www.afr.com/technology/door-opens-for-telstra-as-nbn-proves-itself-in-lockdown-20200524-p54vuv>, viewed 21 September 2020.

Case Study 2 – reduction in congestion

We have observed that average bandwidth congestion started trending down soon after the MBA program announcements, with significant decreases following the introduction of NBN Co's 'Focus on 50' promotion which resulted in some pricing discounts made by NBN Co.⁹

Chart 2: Average network bandwidth congestion February 2017 to January 2020



Source: Underlying data taken from NBN Co's *How we're tracking* dashboard at: <https://www2.nbnco.com.au/corporate-information/about-nbn-co/updates/dashboard-july-2020#2018>.

The downward trend indicates that the bandwidth available to NBN end-users has increased since early 2017. The change in NBN Co's wholesale offerings and pricing discounts was timed soon after the MBA program and testing provider were announced. This change in the wholesale offer was not just about addressing congestion and ensuring that RSPs were providing the quality of service that they represented, but also to promote efficiency. The transparency over the quality of broadband services provided by the MBA program has promoted this efficient result.

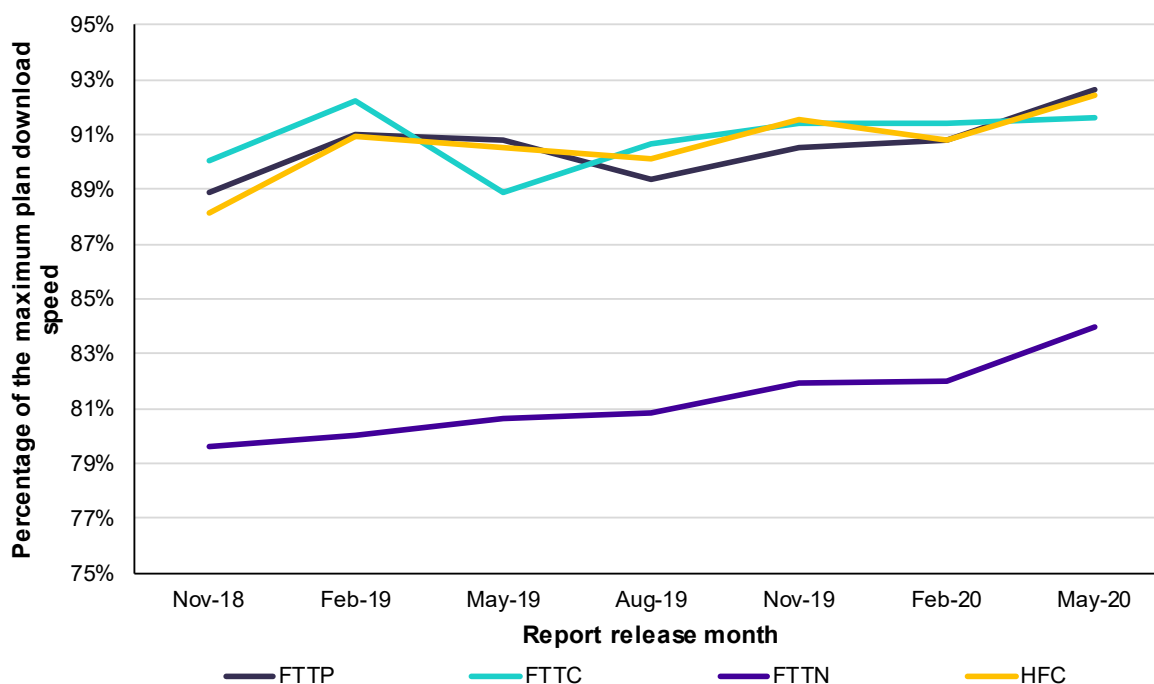
While the MBA program has shown that NBN fixed-line broadband services have been broadly achieving their performance claims and have generally supported consumers' use of broadband services, it has also been an effective tool in identifying deficiencies impacting certain consumer segments.

This has particularly been the case for some NBN services that the MBA results have helped to indicate as being underperforming relative to the speed of the retail product purchased by the end-user. This issue is often a result of technical limitations in the NBN access network which have been predominantly associated with the FTTN access technology. The chart

⁹ See e.g. ACCC, *NBN users shift to higher speeds – media release*, 10 May 2018, <https://www.accc.gov.au/media-release/nbn-users-shift-to-higher-speeds>, viewed 11 September 2020.

below shows the FTTN access technology in comparison to fibre to the premises (FTTP), fibre to the curb (FTTC) and Hybrid Fibre Co-Axial (HFC) network technologies.

Chart 3: Average hourly download speed by access technology (including underperforming NBN services)



Source: MBA program.

Note: Data is shown for all hours and all services.

The ACCC’s media releases issued with each MBA Quarterly Report have repeatedly encouraged NBN Co and RSPs to take steps to address underperforming services. The ACCC have also urged consumers to contact their RSPs if they are not getting the speeds they have been promised.

In response, RSPs have been using data provided to them by NBN Co to ensure they offer a plan speed which can be attained. It has also prompted them to assist consumers to resolve in-home wiring issues. NBN Co has also been undertaking initiatives to remediate individual or systemic performance issues.

The ACCC have observed that the proportion of underperforming services in our sample size have been steadily declining over the past two years from almost 14 per cent in May 2018 to around 9 per cent in May 2020. This has been achieved through RSPs and NBN Co remediating the technical causes of poor performance (such as malfunctioning modems and in-home wiring issues) and we have observed material improvements in the maximum attainable speed for many monitored services over the duration of the program as a result. For other services, we have encouraged RSPs to reassign consumers to plans that more closely align with the maximum speed attainable on their line. To the extent this is reflected across all NBN consumers, this represents a significant improvement in consumer outcomes, whereby more consumers are getting the speeds they are paying for.

Case Study 3 – MBA program as a consumer and policy advocacy tool

The MBA program reports are widely followed by industry and broader media, making it a valuable advocacy tool. This has provided a strong impetus for action to address the issue of underperforming FTTN services.

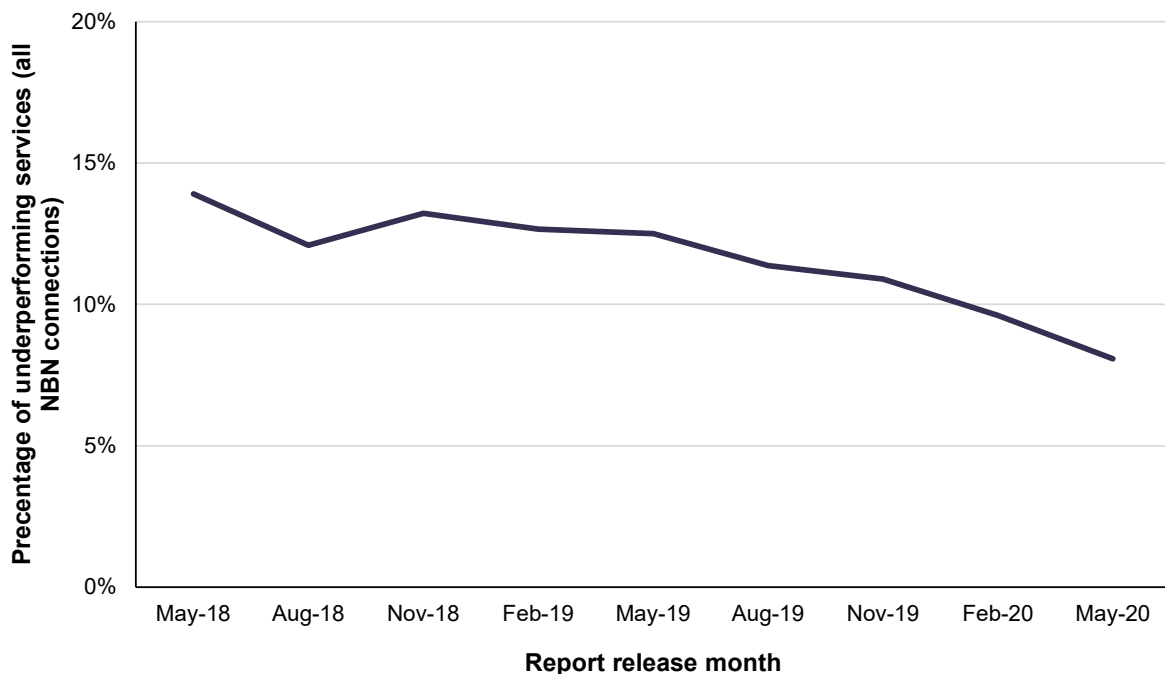
For example, following MBA report 8 in February 2020, [the Guardian](#) and [the Australian](#) newspapers reported on the relatively poor performance of some FTTN services, elevating the issue among stakeholders as well as consumers more broadly.

Fibre-to-node NBN users often not getting speeds they're paying for, watchdog says

MBA program data on the extent and impact of underperforming services has reinforced consumer complaints about poor broadband speeds and informed the ACCC's own NBN [Wholesale Service Standards Inquiry](#). While this [inquiry is still ongoing](#), NBN Co has made commitments to include provisions in its next Wholesale Broadband Agreement for rebates in certain circumstances for underperforming connections.

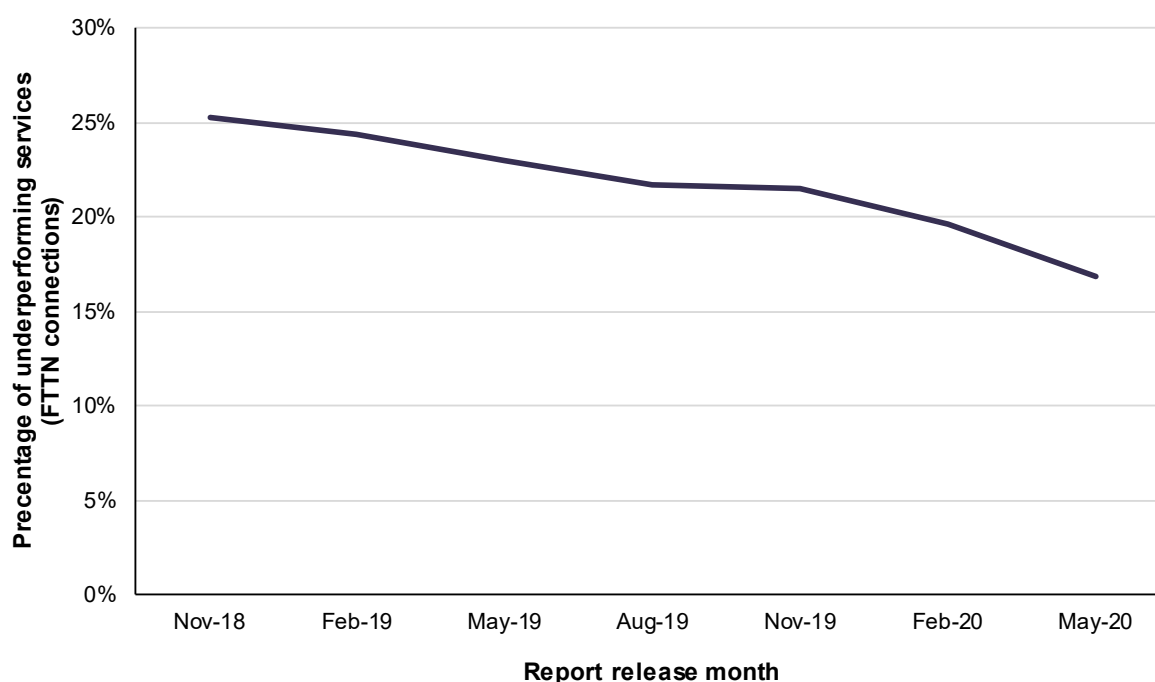
The charts below illustrate that since the start of the MBA program, the percentage of underperforming services in the volunteer pool has steadily decreased, suggesting that there has been some investment of a remedial nature to improve services.

Chart 4: Percentage of underperforming services (all NBN connections)



Source: MBA program.

Chart 5: Percentage of underperforming services (FTTN connections only)



Source: MBA program.

4.2.3. Transparency and policy makers

The data collected by the MBA program has also supported policy makers by demonstrating the extent to which quality broadband services have benefited consumers and industry from the significant capital investment in the NBN. The policy was to improve the quality of consumer broadband services by having the NBN, compared with previous broadband technologies.

In the absence of the MBA program, there had been no independent evidence to demonstrate how the network was performing, and only anecdotal accounts of individual services and how they had been performing.

"The government has recognised there is a lot of 'he said, she said' debates going on out there that [aren't] not doing consumers any good, not doing the telco sector any good and we have just got to get clarity on what is causing these problems," Mr Sims said. "It is affecting the whole NBN rollout."¹⁰

We have seen that over time, there has been an increase in information that is in addition to the MBA program. For example NBN Co has increased its reporting on its minutes of congestion (at a network level) and RSPs are now providing more reliable indicators of the speeds that consumers should typically expect to receive on their NBN plans. The MBA program however provides an independent means by which to verify this information in a manner that is accessible to consumers, as well as providing additional quality information regarding services supplied over the NBN.

In this way the MBA program has been key to demonstrating what the return on investment has been for policy makers.

¹⁰ Lucy Battersby, 'Australia launches NBN speed monitoring program', *The Sydney Morning Herald*, 7 April 2017, <https://www.smh.com.au/technology/australia-launches-nbn-speed-monitoring-program-20170407-qvfnu6.html>, viewed 21 September 2020.

The MBA testing methodology has ensured that the data collected reports on real-life service performance, including geographic, technological, RSP and speed tier attributes. The MBA program covers the vast majority of RSPs in the market (at least 94 per cent of the retail market for fixed broadband services¹¹) and thereby provides a robust view of how broadband services are performing across the whole market.

This has also helped Government to have evidence based information on the performance of the NBN which it has used to respond to media and public queries on how it is delivering on its NBN objectives.

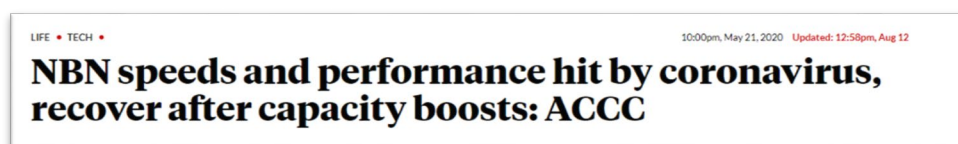
“The ACCC’s Measuring Broadband Australia program provides Australian consumers with accurate and independent information about broadband speeds. The fourth report of the program was released in February 2019 and for the first time, this latest report includes a breakdown of speed results by NBN technology. The report confirms that in 65% of tests undertaken, download speeds of above 90% of maximum plan speeds continue to be achieved across all technologies including FTTN.

The report also shows that broadband speeds did not slow significantly during busy evening hours (7-11pm) with average speeds reducing by less than two percentage points compared with the average.”¹²

4.2.4. Flexibility and adaptability of the MBA program during COVID-19

During the COVID-19 pandemic, the MBA program data has provided valuable insights into how broadband services performed at a critical time of demand on the NBN network.

On 21 May 2020 the ACCC released the first MBA Monthly Report that provided daily network level download speed measurements for each month from February to April 2020. This report presented results that covered the period from the onset of the COVID-19 pandemic in Australia. The ACCC’s report had provided stakeholders with credible market data that was able to show the efficacy at a network level of the various mitigation strategies that had been put in place by NBN Co and other service providers in mid-March 2020. This helped to boost public confidence in the broadband network especially during the critical time resulting from the effects of the pandemic.



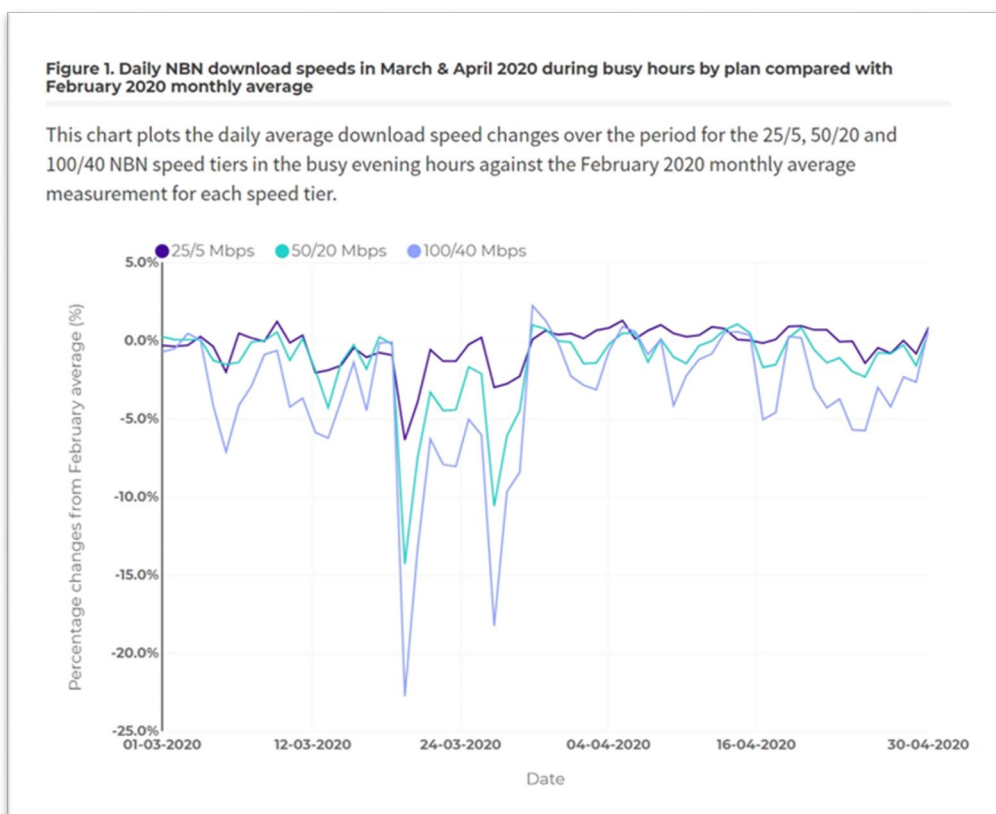
13

The MBA Monthly Report complements the in-depth MBA Quarterly Reports by tracking network performance each day of the quarter, making further use of the data collected by the program to provide transparency to the market.

¹¹ ACCC, *ACCC Communications Market Report 2018–19*, p. 22, https://www.accc.gov.au/system/files/Communications%20Market%20Report%202018-19%20-%20December%202019_D07.pdf, viewed 17 September 2020.

¹² Commsday, *Interview: Mitch Fifield*, 1 May 2019, <https://www.commsday.com/2019/05/01/exclusive-interview-with-mitch-fifield/>, viewed 21 September 2020.

¹³ Isabelle Lane, 'NBN speeds and performance hit by coronavirus, recover after capacity boosts: ACCC', *The New Daily*, 21 May 2020, <https://thenewdaily.com.au/life/tech/2020/05/21/nbn-speeds-performance-coronavirus-accc/>, viewed 21 September 2020.



14

The ACCC also used MBA data to provide timely information on a weekly basis to policy makers on the performance of the network. This relevant and independent information has helped maintain confidence in the market and has been important in influencing policies that ensure Australia’s broadband infrastructure could support households and businesses as network demand spiked.

Information about NBN performance and congestion became a key concern as Australians shifted to working and schooling from home. This information will likely remain important for consumers and businesses for the duration of the pandemic as they navigate the uncertainties related COVID-19. Indeed, the level of demand on the NBN network remains unprecedented. Pre-COVID-19 (prior March 2020), the peak download throughput was around 11 Tbps.¹⁵ During COVID-19, the highest recorded download throughput peak was 16.2 Tbps on 5 August 2020,¹⁶ and this has since declined but still remains high with a recently weekly high of 14.8 Tbps as at 22 August 2020.¹⁷

¹⁴ ACCC, *Measuring Broadband Australia program – Monthly key indicators report*, 21 May 2020, <https://www.accc.gov.au/regulated-infrastructure/communications/monitoring-reporting/measuring-broadband-australia-program/monthly-key-indicators-report>, viewed 21 September 2020.

¹⁵ NBN Co, *Australian Data Demand: new weekly report reveals growth in NBN data demand – media release*, 2 April 2020, <https://www.nbnco.com.au/corporate-information/media-centre/media-statements/australian-data-demand>, viewed 30 September 2020.

¹⁶ NBN Co, *Australian Broadband Data Demand: new peak in data demand – media release*, 14 August 2020, <https://www.nbnco.com.au/corporate-information/media-centre/media-statements/data-demand-new-peak-in-data-demand>, viewed 30 September 2020.

¹⁷ NBN Co, *Australian Broadband Data Demand: moderate decline in NBN data demand – media release*, 28 August 2020, <https://www.nbnco.com.au/corporate-information/media-centre/media-statements/moderate-decline-in-data-demand>, viewed 30 September 2020.

Case Study 4 – COVID-19

On 18 March 2020 NBN Co commenced offering 40 per cent additional CVC to RSPs in response to spikes in traffic volumes caused by the COVID-19 event's associated social distancing measures.

In using real-time measurements from the MBA program's dashboard, it has enabled the ACCC to provide industry with timely key updates on the efficacy of mitigation strategies and other industry responses that have been put in place by service providers, including streaming service providers. In particular, the ACCC used this data to provide daily reports to ACCC Commissioners and shared weekly with the DITRDC and members of the [NBN Special Working Group](#) relevant broadband performance information reports to also assist in guiding technical and policy responses.

NBN daytime speeds not impacted: ACCC

By Nico Arboleda
Apr 6 2020
11:43AM

The extra CVC capacity that NBN Co introduced to its network was enough for the network's speeds not to be negatively impacted, the Australian Competition and Consumer Commission (ACCC) revealed.



18

Based on this MBA program data, ACCC Chair Rod Sims has also been able to provide assurances to industry, consumers and businesses via his virtual [CommsDay Summit 2020](#) address on 6 April 2020 where he stated that NBN speeds were holding up, in large part because of NBN Co's move to provide additional capacity to RSPs.

With the COVID-19 pandemic leading to performance information becoming of great topical interest to government, industry and consumers alike, the ACCC released a new limited series of [Critical Services Reports](#) with the support of our testing provider SamKnows. The reports aim to show how well consumers' NBN services are supporting their use of key streaming and productivity applications critical to online education, business, entertainment, social media and virtual communications.

The ACCC has considered that the transparency and independent perspective on how well NBN and policy responses have assisted performance of telecommunications networks of high importance in the current environment. It also demonstrates the adaptability of the MBA program and ability for us to pivot and consider areas of particular interest or concern.

4.3. Objective #2: facilitating performance based competition

The MBA program promotes competition by enabling RSPs to better understand their own services and provide a benchmark against the offerings of competitors. The cost/performance trade-off has also become more visible to consumers, who are now better informed to consider which services best suit their needs and budget. This in turn has encouraged RSPs to manage their networks efficiently so as to meet consumer expectations.

The MBA program has allowed RSPs to assess the quality of their services relative to other RSPs. It has increased incentives for industry to compete on performance, and to demonstrate how their services are delivering returns on investment. While some RSPs previously conducted real-world testing on a proportion of their end-users, generally this

¹⁸ Isabelle Lane, 'NBN speeds and performance hit by coronavirus, recover after capacity boosts: ACCC', *The New Daily*, 21 May 2020, <https://thenewdaily.com.au/life/tech/2020/05/21/nbn-speeds-performance-coronavirus-acc/>, viewed 21 September 2020.

information was not publically released and therefore was not available for comparison between RSPs.

Independent and reliable comparative data has provided a sound basis on which RSPs can market the quality of their services and importantly, provides transparency over whether their performance meets their advertising claims. This has been reflected in the use of MBA results in advertising campaigns by RSPs as it provides RSPs with a benchmark to compare their own services against the offerings of competitors. This is further discussed at Case Study 5.

Case Study 5 – use of MBA results in RSP advertising

RSPs have engaged significantly with the MBA results, and we have seen various MBA result metrics used in advertising. Some RSPs who have used MBA results in their marketing campaigns or public relations content include Optus,¹⁹ iiNet,²⁰ and TPG.²¹

We consider that this has been a positive change in market behaviour as there has been increased transparency of information and competition based on results, as evidenced by RSPs moving to advertising on the basis of MBA results and coming to rely on the data provided to assure consumers of their performance reliability and quality of service.

From a competition perspective, the robust testing and reporting of results through the MBA gives RSPs visibility over their own real-world service performance and that of other RSPs. This enables RSPs to compare their performance outcomes against rivals and RSPs who invest heavily in service performance may be appropriately rewarded.

4.4. Objective #3: Improving consumer outcomes

A key benefit of the MBA program has been encouraging retailers to compete on performance as well as price and data inclusions.

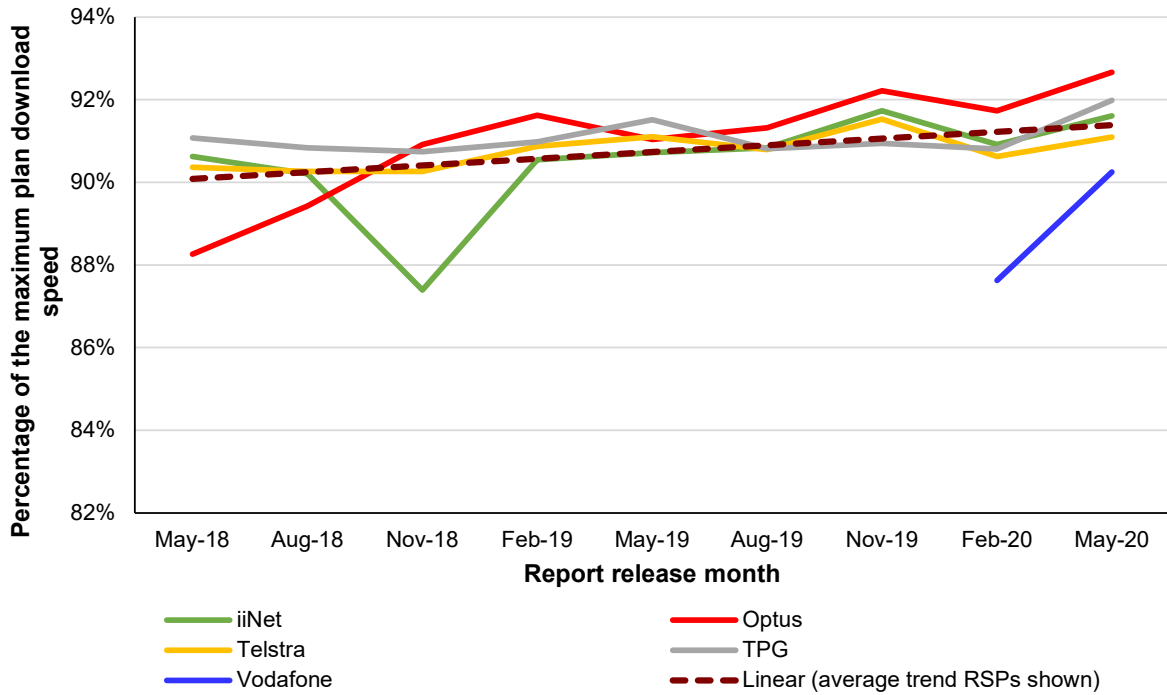
Since the commencement of the program, we have observed an improvement in the performance of monitored retail broadband services. This is illustrated in the following charts, which shows average download performance as a percentage of maximum plan speeds during all hours. The dotted line shows a broadly indicative upward trend for the RSPs' average performance since the commencement of the MBA program.

¹⁹ See e.g. Optus, *ACCC rates Optus #1 for average NBN download speeds*, 26 November 2019, <https://www.optus.com.au/broadband-nbn/nbn/nbn-articles/accc-rates-optus--1-for-average-nbn-download-speeds>, viewed 17 September 2020; Optus, *NBN News: Optus retains ACCC-rated #1 average NBN download speed*, 14 April 2020, <https://www.optus.com.au/broadband-nbn/nbn/nbn-articles/optus-retains-top-nbn-average-download-speeds-as-rated-by-accc>, viewed 17 September 2020.

²⁰ iiNet, *Why choose iiNet as your NBN Provider?*, <https://www.iinet.net.au/internet-product/broadband/nbn>, viewed 17 September 2020.

²¹ TPG, *TPG over delivers on NBN speeds in ACCC report*, 7 May 2019, <https://www.tpg.com.au/about/media.php>, viewed 17 September 2020.

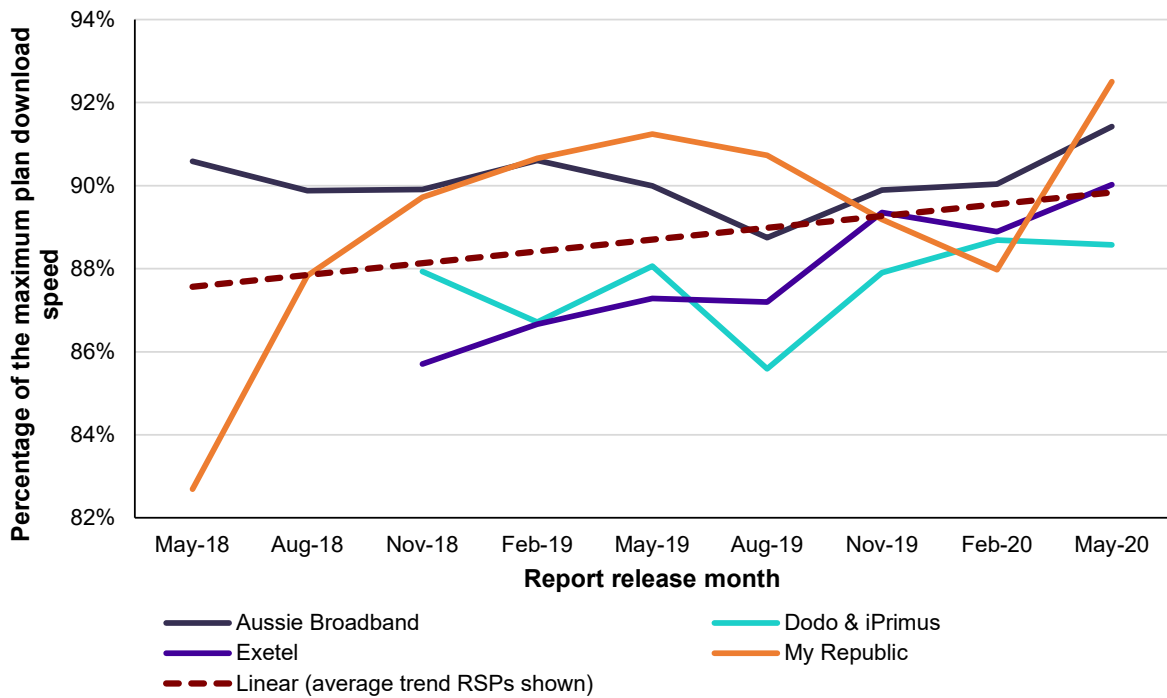
Chart 6: Average hourly download speed by RSP (excluding underperforming NBN services)



Source: MBA program.

Note: Data is shown for all hours.

Chart 7: Average hourly download speed by RSP (excluding underperforming NBN services)



Source: MBA program.

Note: Data is shown for all hours.

The charts show some significant improvements by RSPs such as MyRepublic and Optus since the start of the MBA program. The ACCC considers that such improvements illustrate how increasing competitive pressure from the MBA's transparency of service quality has driven increased overall performance standards.

The ACCC has also observed a considerable increase in the relative performance of RSPs from the first time that they have been reported on. For example, Exetel and Dodo/iPrimus, while lower when first included in report 4, subsequently [caught up with other RSPs in later reports](#). The improvement in performance across all RSPs is almost double that shown in charts 5 and 6 if underperforming services are included.

Prior to the MBA program, RSPs and network operators did not face substantial pressure to ensure that their networks delivered the performance that they were capable of or the performance that they represented to the market.

The MBA program not only reports on download and upload speeds, but other metrics of increasing relevance to certain consumers such as latency and packet loss. MBA results are also placed in consumer friendly contexts to further assist consumers. For example, MBA reports 9 and 10 provide information on the required NBN speed tier for different numbers and qualities of video streaming. There is growing demand for high-speed applications such as video-streaming, and an RSP's demonstrated capacity to deliver these services is relevant to consumer decision-making and also managing consumer expectations and complaints.

Case Study 6 – reduction in consumer complaints

Over this period, the government, ACCC and the Australian Communications and Media Authority (**ACMA**) have had a strong focus on addressing NBN migration issues, which is likely to have driven a reduction in complaints about NBN service quality.

In addition to the MBA program, our broadband speed claims guidance became progressively adopted from late 2017 and in 2018 the ACMA introduced regulation to assist consumer access to information to guide their NBN speed tier selection.²²

While the ACCC is unable to directly measure the benefits to consumers that flow from the transparency of RSP performance as a result of the MBA program, complaints made to the Telecommunications Industry Ombudsman (**TIO**) may be a reasonable proxy since increased transparency will likely result in RSPs being held more accountable and deliver on their performance claims.

The table below outlines TIO complaints that relate to NBN service quality (2018-19 and 2017-18), compared with complaints in 2016-17 about services delivered over the NBN.

Year	Number of complaints
2018-19	23,362 ²³
2017-18	27,008 ²⁴
2016-17	27,195 ²⁵

Over this period complaints to the TIO on NBN service quality have fallen by 14 percent while the number of NBN services in operation (**SIOs**) have increased by 46 percent.²⁶ In 2019-20, this trend appears to have continued, with a significant drop of 21 per cent in speed related complaints to the TIO in 2019-20 compared with 2018-19.²⁷

The downward trend in complaints suggests that improved information and support available to consumers and promotion of competition among RSPs has positively supported consumer's service quality expectations.

We have seen considerable engagement with the ACCC's webpages that have hosted the MBA reports as shown in table 1, and this has increased during the COVID-19 period. We consider this measure is also an indicator of consumer engagement with the MBA program, and along with the decline in TIO complains, shows that the MBA program has assisted in

²² The Australian Communications and Media Authority's (**ACMA**) *Telecommunications (NBN Consumer Information) Industry Standard 2018* and the *Telecommunications Service Provider (NBN Service Migration) Determination 2018* aims to help consumer choose a plan that is right for them. See ACMA, *NBN service rules for telcos*, 10 December 2019, <https://www.acma.gov.au/nbn-service-rules-telcos>, viewed 17 September 2020.

²³ TIO, *Telecommunications Industry Ombudsman Annual Report, 2018-19*, p. 19, <https://www.tio.com.au/sites/default/files/2019-09/TIO%20Annual%20Report%202018-19.pdf>, viewed 11 September 2020.

²⁴ TIO, *Telecommunications Industry Ombudsman Annual Report, 2017-18*, p. 38, <https://www.tio.com.au/sites/default/files/2019-05/Telecommunications-Industry-Ombudsman-Annual-Report-2018.pdf>, viewed 11 September 2020.

²⁵ Please note this figure relates to 'complaints about services delivered over the NBN', see TIO, *Telecommunications Industry Ombudsman Annual Report, 2016-17*, p. 30, <https://www.tio.com.au/sites/default/files/2019-05/Telecommunications-Industry-Ombudsman-Annual-Report-2017.pdf>, viewed 11 September 2020.

²⁶ The total number of premises activated increased from 4,777,672 as at 30 June 2017, to 8,851,811 as at 30 June 2019. See ACCC, *ACCC Communications Market Report 2018-19*, p. 13, https://www.accc.gov.au/system/files/Communications%20Market%20Report%202018-19%20-%20December%202019_D07.pdf, viewed 21 September 2020.

²⁷ TIO, *Telecommunications Industry Ombudsman Annual Report 2019-20*, p. 74, https://www.tio.com.au/sites/default/files/2020-09/TIO%20AR2019-20_High-Res.pdf, viewed 12 October 2020.

addressing the information asymmetry and performance issues that contributed to a relatively elevated level of consumer dissatisfaction, prior to the start of the program.

Table 1: Engagement with ACCC MBA webpages between 2019 and 2020

ACCC webpage	Hits from 1 January 2020 – 1 September 2020	Hits from 1 January 2019 – 31 December 2019
Measuring Broadband Australia program project page	4,717	5,255
Broadband performance data dashboard	25,977	29,285

Case Study 7 – improved outage results

An example of how the MBA program has provided enhanced visibility to both consumers and industry and has led to improved consumer outcomes and improved service quality and performance is the program’s identification of a relatively high number of service outages on Optus services in [MBA Quarterly Report 5](#).

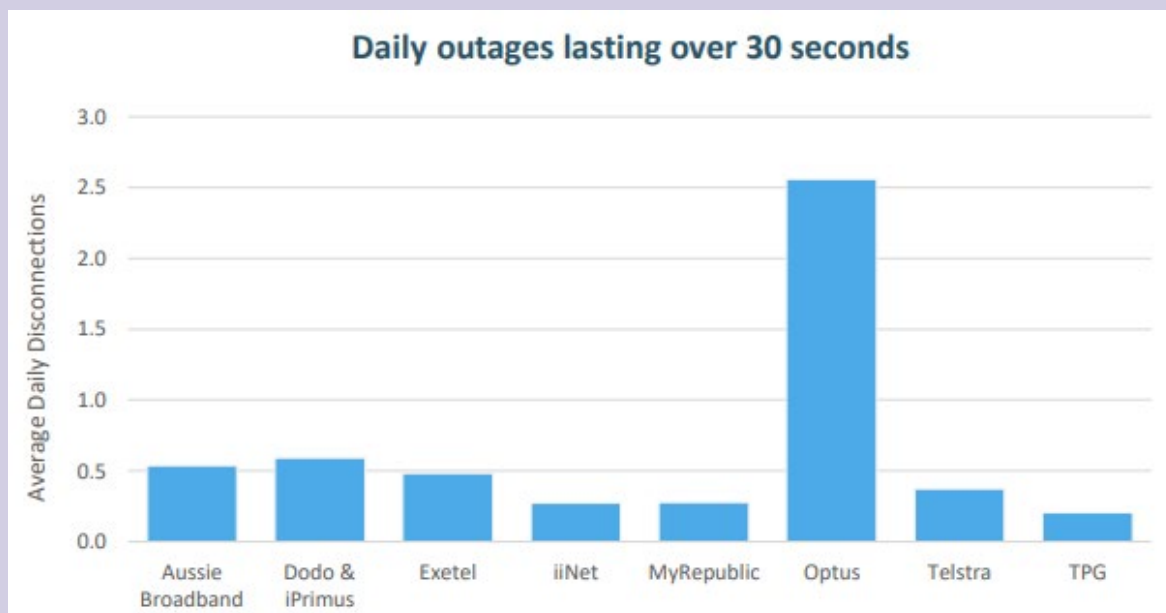
Following investigation prompted by the MBA results, Optus discovered that the high outage rates were due to a technical issues with its modems.²⁸ Optus then distributed a firmware update to its modems to remedy the issue for its consumers. Subsequent tests observed Optus’s outage rates return to levels comparable with other RSPs.²⁹

This has shown that the MBA program has also performed a diagnostic function in revealing whether real-world service performance is falling short of consumer expectations, thereby promoting investment of a remedial nature.

²⁸ ACCC, *Underperforming broadband services still a problem for some consumers – media release*, 6 August 2019, <https://www.accc.gov.au/media-release/underperforming-broadband-services-still-a-problem-for-some-consumers>, viewed 18 September 2020; ACCC, *Measuring Broadband Australia – Report 6 – August 2019*, 6 August 2019, p. 8, <https://www.accc.gov.au/regulated-infrastructure/communications/monitoring-reporting/measuring-broadband-australia-program/previous-performance-reports>.

²⁹ ACCC, *Underperforming broadband services still a problem for some consumers – media release*, 6 August 2019, <https://www.accc.gov.au/media-release/underperforming-broadband-services-still-a-problem-for-some-consumers>, viewed 18 September 2020.

Chart 8: MBA Report 6 August 2019 average daily outages lasting over 30 seconds across all RSPs



Source: MBA Report 6 August 2019, p. 8, <https://www.accc.gov.au/regulated-infrastructure/communications/monitoring-reporting/measuring-broadband-australia-program/previous-performance-reports>.

The observations above suggest to us that the greater information available to consumers through the MBA program has increased the level of competition in the broadband market, which has resulted in overall improvement in the quality of broadband services.

4.5. Objective #4: Assessing reasonableness of speed claims

The MBA program has assisted the ACCC in carrying out its compliance and regulatory functions. Through the pilot program and other market enquiries prior to the commencement of the MBA program, we identified that there was a noticeable trend in deteriorating broadband performance during peak periods, with some RSPs doing better than others, and that some consumers were experiencing poor service performance.

4.5.1. An important part of a three-pronged approach

The MBA program has complemented other ACCC actions focused on consumer issues in the provision of broadband services. These have included:

- the publication of the [Broadband speed claims industry guidance \(Industry Guidance\)](#) in 2017, (updated in 2019); and
- our role in promoting compliance with and enforcement of the Australian Consumer Law (ACL) which is contained in Schedule 2 of the *Competition and Consumer Act 2010* (Cth).

Together, these form part of a three-pronged approach that has supported our commitment to truth in advertising relating to broadband speeds.

The ACCC's Industry Guidance is a best practice guide for RSPs on how to advertise broadband services and includes a suggested methodology for measuring typical busy period speeds across a speed plan. Following the release of this Industry Guidance, it has become common practice in Australia for RSPs to advertise broadband speeds by reference to a 'typical busy period speed'. This is a demonstrable shift in industry practice, since

previously RSPs largely advertised speeds in terms of a maximum attainable speed using 'up to' speed claims. Using data through the MBA program, we have been able to assess whether RSPs are delivering the performance promised.

Given this reasonable adoption of the speed claims guidance by RSPs and a good level of engagement with the MBA program, consumers have also been beneficiaries, noting that these benefits having not been limited just to those consumers that have swapped service providers. Even those consumers who have remained with their current provider have benefited from speeds that more closely match the expectations that they formed when making their purchase decisions.

4.5.2. Use of MBA program in our compliance and enforcement role

The ACL is underpinned by the principle that consumers should receive what was represented to them and what they paid for, and that suppliers are responsible for the delivery of the promised service. The MBA program has assisted us in keeping RSPs accountable to their performance claims as we are able to test anecdotal performance claims against an objective, real-world data set, to then monitor whether consumer expectations are likely to be met and whether RSPs are competing fairly.

The MBA program has therefore served as a mechanism to alert the ACCC to potential misleading and deceptive conduct issues, for example by indicating whether an RSP has been consistently not delivering advertised speeds which has the potential for consumer harm. The MBA reports benchmark the results of RSPs against their busy hours advertised speed claims to highlight whether these claims will then need to be reviewed.

The MBA data has been utilised by the ACCC on a number of occasions in seeking information from RSPs in respect to their advertised broadband speed and performance claims which we have considered from an ACL context. Without the MBA program data, the ability to monitor the reasonableness of speed claims would be materially weakened. Refer to Case Study 8.

Case Study 8 – 'Congestion-free' claims removed from Aussie Broadband's NBN advertising

The data and insights that have been made available from the MBA program have assisted the ACCC in its compliance and enforcement functions.

An example of this has been where the MBA program has indicated that all RSPs in the program experienced congestion from time to time. In this context, we were concerned that Aussie Broadband's claims that it had offered "congestion-free NBN™" and a "congestion-free network" might lead consumers to believe that Aussie Broadband's services would not ever experience congestion, when that was not the case given that how well networks are managed effect the extent of congestion.³⁰

Aussie Broadband made these statements widely in its advertising, including throughout its website, Facebook posts and advertisements, targeted emails and direct mail-out letters.

³⁰ ACCC, *Congestion-free' claims removed from Aussie Broadband's NBN advertising – media release*, 7 September 2018, <https://www.accc.gov.au/media-release/congestion-free-claims-removed-from-aussie-broadbands-nbn-advertising>, viewed 18 September 2020.



Aussie Broadband website home page banner: displayed from at least 30 January 2018 to 11 July 2018.

In response to our concerns, Aussie Broadband subsequently removed the statements across its advertising which described its broadband services as “congestion-free”.

The ACCC has been able to use the MBA data to monitor levels of compliance with the ACL in the context of RSPs making claims about broadband quality. The ACCC considers that overall the usefulness to consumers and veracity of performance claims in the market, particularly in relation to broadband quality, has improved since the introduction of the MBA program.

We have also seen the media make use of the MBA program to question the veracity of RSP advertising, refer to Case Study 9.

Case Study 9 – MyRepublic NBN Speed Claims

Gizmodo Australia noted in an article that MyRepublic’s home page and NBN landing page strongly implied that it was number one in the ACCC’s average typical evening speed report; but that according to the most recent MBA report at the time MyRepublic’s average evening speed had dropped and resulted in it no longer being the top of the league table.³¹

Gizmodo Australia reached out to MyRepublic to question the advertising on the February 19. On February 20 all advertising regarding the outdated average evening speeds had been removed from the webpages.

Overall, the ACCC considers that the outcomes of the MBA program have been achieved and include:

- Being able to meaningfully report on the performance of fixed-line broadband services in Australia based on independent and robust testing results.
- Improved consumer preparedness to engage with higher speed broadband services, as was illustrated in chart 1.
- Making greater information available to consumers on broadband performance, which has increased the level of competition between RSPs in relation to broadband quality.
- Observed overall improvement in the quality of broadband services, and good levels of compliance with the ACL in terms of RSPs living up to their performance claims.

³¹ Tegan Jones, ‘MyRepublic Removes Questionable NBN Speed Claims From Its Website [Updated]’, *Gizmodo Australia*, 20 February 2020, <https://www.gizmodo.com.au/2020/02/myrepublic-nbn-advertising/>, viewed 18 September 2020.

- RSP have had considerable engagement with the MBA results, for example RSPs have:
 - requested access to the Whitebox summary data for deeper examination, which we have released on data.gov.au starting with MBA Quarterly Report 10
 - approached us to assist in promoting the program to their customers with a view to attracting a sufficient panel to be included in the reports
 - used the results in their advertisements
 - provided feedback on new metrics, methodological or presentation changes
 - requested assistance to understand factors behind their performance.
- Observed decrease in consumer complaints on broadband service performance suggests consumer satisfaction with broadband service performance.
- We have been able to use MBA data to carry out our compliance and regulatory functions.

4.5.3. Discussion questions

In light of the above discussion on MBA program objectives and outcomes, the ACCC welcomes stakeholder views on the following questions.

- 1) To what extent has the program produced worthwhile outcomes and has met its objectives? (effectiveness)
- 2) What have been the particular features of the program that made a significant difference to achieving its intended outcomes? (impact evaluation)
- 3) What unintended outcomes (positive and negative) have been produced? (impact evaluation)
- 4) Do the outcomes of the MBA program represent value for money? (efficiency)
- 5) What level of engagement have you had or expect to have with the MBA program and its outputs (reports, data release)? (engagement)

5. The MBA program – where to from here?

This section discusses the ongoing requirement for the MBA program over the next few years as broadband markets continue to evolve, and the potential options for modifying the MBA program to respond to these changing markets, if extended.

In assessing whether to extend the MBA program it is useful to consider:

- Whether the improved consumer and market outcomes are sufficiently established that they would continue in the absence of the MBA program and be able to support other technologies and networks that have emerged (or are likely to emerge in the market), including whether other readily available data or tools could be used.
- Whether the current scope of the MBA remains ‘fit for purpose’ in an evolving and expanding communications landscape, and if not what the extended MBA program could entail?

5.1. Ongoing requirement for the MBA program

As discussed above, broadband markets are now more efficiently meeting consumer demand following the commencement of the MBA program. That said, many of the factors

that led to the introduction of the MBA program remain relevant today, and will likely be a feature of broadband markets over the next few years at least.

In this regard, it is clear that broadband access speeds will continue to be a principal way for broadband service providers to differentiate their product offers and pricing, with most service providers offering a broader range of plans of differentiated quality. This has included the development of intermediate retail speed tiers and additions of new wholesale speed tiers on the NBN.

Broadband speeds will also remain an area of keen interest to a significant proportion of consumers. In particular, there has been an increase in number of end-users using broadband to access video on demand services, video conferencing services and online gaming applications, all of which require good quality broadband access. Hence, consumers will continue to seek out broadband plans not just by price and data inclusions but also quality attributes that they need to reliably access these online applications.

The COVID-19 pandemic has accelerated these existing trends and demonstrated broader economic and social benefits from the availability of these applications. The requirement for extensive and robust connectivity has shown to be essential for households and businesses for social connectivity, working, learning, entertainment and commerce. While still uncertain, there is potential for this increased level of interest to persist at higher than previously anticipated levels, particularly as many businesses and employees have successfully adapted to new ways of working.

Most recently, the introduction of very high-speed plans over the NBN is particularly relevant given this will represent the first practicable opportunity for consumers to access broadband speeds of this order of magnitude.

It is also clear that there will be a continuing need for network operators to continue to invest in order to meet this increasing demand. This will include expanding the footprint and deepening capacity of existing access and backhaul networks, and investing in recent technologies such as 5G fixed wireless. Similarly, there is an ongoing need for service providers to make efficient use of these investments so that consumers can access the plans that they need at the quality and prices that represent good value to them.

There is also potential for new service providers to enter broadband markets due to further investment in networks and product support, and maturity of the market. For instance, the conclusion of the NBN scale build, the introduction of service standards backed by rebates and other operational support improvements have the clear potential to reduce the complexity of supplying NBN services and thereby lower entry barriers.

In these market conditions, robust and independent speeds and quality data that provide transparency over wholesale and retail broadband markets will assist consumers, network operators, service providers, regulators and policy makers. Importantly, this information will encourage much more competitive and efficient broadband markets and greater coordination and targeting of policy and regulatory effort in those areas where markets are not delivering efficient outcomes for consumers.

As compared to a situation where MBA program data was not available, it is unlikely that an alternative program would emerge. The closest substitutes to the MBA that are currently available offer less detailed or reliable insights into broadband markets. For instance, these data can be application specific, or rely upon crowd-sourced data that can introduce various biases.

Further, the business case for a commercial performance monitoring and reporting service that would fulfil the transparency objectives of the MBA case is unclear. For example, the cessation of CHOICE's Honesty Box program may indicate an underlying reluctance of network operators and service providers to support a service that will provide public visibility over their speed and quality metrics.

Hence, in the absence of the MBA program, there is a heightened risk of market failure associated with increased levels of information asymmetry between service providers and consumers.

To provide some examples of how this could occur, network operators, service providers and policymakers would have limited independent evidence with which to assess the validity of anecdotal evidence of poor performance on both current and emerging technologies. Identifying and targeting responses to the specific elements of the supply chain causing poor performance may also be more difficult.

Similarly, the MBA program has been a key source of information to target ACCC monitoring activities over marketing claims, as well as allow service providers themselves to have confidence that their competitors are making reliable marketing claims. This evidence base facilitates service providers continuing to invest in network capacity and compete on broadband speeds and other quality attributes. In turn, having transparent and reliable market data on speeds and quality is likely to facilitate market entry by new providers and encourage efficiency and investment.

In summary, the risks we see emerging include:

- Lack of transparency about access network and RSP network performance.
- High quality broadband performance information will no longer be easily available to industry, consumers and policy makers to assess its efficiency and effectiveness. Consumers are likely to identify this as a key information gap.
- Reduced capacity with the potential inability to monitor and verifying claims about speed performance where services are thought to have fallen short of expectations.
- Consumers may not have access to reliable:
 - pre-sale information about broadband service performance and hence consumers are at risk of making ill-informed purchasing decisions; and
 - post-sale information to verify performance and hence consumers are at risk of not receiving what they paid for.

5.1.1. Discussion questions

- 6) To what extent do the risks outlined above reflect the likely impacts from the discontinuation of the MBA program?
- 7) What other data or market-led tools could assist in promoting the outcomes that the MBA has achieved, and are these sufficient to drive the consumer and market outcomes expected currently and into the future?

5.2. The scope of a future MBA program

5.2.1. Potential for expansion into additional technologies and alternative networks

The MBA currently reports on the performance of nine RSP's fixed-line NBN services and does not cover services supplied over NBN Co's fixed wireless and satellite access technologies.

NBN fixed wireless services have experienced well documented performance issues. In the absence of independent performance data from the MBA program, the ACCC has sought to address fixed wireless congestion issues through engagement with NBN Co and by providing advice to consumers.³²

While NBN Co provides fixed wireless congestion information to RSPs and public metrics on its website as part of the ACCC's NBN wholesale service standards inquiry,³³ this information does not provide actual performance information at the individual service level and it does not include upload performance data.

The information that NBN Co provides to RSPs identifies fixed wireless cells performing below NBN Co's network design standard, which is to provide services to an average throughput of at least 6 Mbps during the busy hours³⁴ (and less than 0.25 per cent packet loss on backhaul links).³⁵ The information provided in NBN Co's public metrics does not include average throughput data and is limited to identifying the percentage of fixed wireless cells that fall within various monthly busy hour cell performance categories.

Incorporating NBN fixed wireless services under a continued MBA program would provide additional data to assist in identifying any performance issues on this network. It would also enable consumers to make more informed purchasing decisions, and would provide consumers, industry and policy makers with robust, independent and comparable information on the performance of fixed wireless broadband services in Australia. More broadly, incorporating the fixed wireless network into the program would allow more consumers in regional and rural Australia to also benefit from the MBA program giving them an even footing alongside Australians in metropolitan areas on the fixed-line NBN.

The ACCC has received a number of complaints from consumers in relation to fixed wireless performance and queries as to why the current program does report on fixed wireless performance. The expansion of the program to fixed wireless has also been raised in a number of public forums, including at the Joint Standing Committee on the NBN.³⁶ Submissions to the ACCC's wholesale service standards inquiry acknowledged the importance of accurate and timely fixed wireless performance information and that greater transparency would help RSPs to provide better information to their customers and enable customers to make more informed purchasing decisions.³⁷

³² See ACCC website, *Using NBN fixed Wireless*, <https://www.accc.gov.au/consumers/internet-landline-services/broadband-speeds/using-nbn-fixed-wireless>.

³³ See ACCC website, *NBN wholesale service standards inquiry*, <https://www.accc.gov.au/regulated-infrastructure/communications/national-broadband-network-nbn/nbn-wholesale-service-standards-inquiry>.

³⁴ NBN Co, *Media release: NBN Co unveils new plans for its Fixed Wireless network*, 18 December 2018, <https://www.nbnco.com.au/corporate-information/media-centre/media-statements/nbn-co-unveils-new-plans-for-fixed-wireless-network>, viewed 21 September 2020.

³⁵ NBN Co, *Monthly progress report (customer experience)*, July 2020, <https://www.nbnco.com.au/corporate-information/about-nbn-co/updates/dashboard-july-2020>, viewed 21 September 2020.

³⁶ Joint Standing Committee on the National Broadband Network, 5 June 2018.

³⁷ ACCC, *NBN wholesale service standards inquiry – Position paper*, 2 April 2020, <https://www.accc.gov.au/regulated-infrastructure/communications/national-broadband-network-nbn/nbn-wholesale-service-standards-inquiry/position-paper>.

Expanding the program to cover services supplied over NBN Co's fixed wireless access technology would assist the ACCC in carrying out its compliance and regulatory functions and, in particular, assist in assessing the reasonableness of fixed wireless speed claims. In this regard, we note that the ACCC's broadband speed claims industry guidance was expanded in May 2019 to apply to services supplied over fixed wireless networks.³⁸ The inclusion of fixed wireless services in the MBA program would enable the ACCC to better assess RSPs' fixed wireless advertising and would provide RSPs with a further point of reference in developing their advertising claims. NBN Co does not provide RSPs with maximum attainable speed information for fixed wireless services, and MBA reporting would provide both RSPs and consumers with information about the typical performance of fixed wireless services.

As the communications market continues to evolve, consumers will increasingly be offered broadband services by new providers and over different or new technologies. Infrastructure-based competition to the NBN continues to expand geographically, both from other fixed-line network operators and emerging 5G networks.

There is already evidence that 5G home broadband services are being marketed as a substitute for fixed-line NBN services. For example, Optus's 5G home broadband service³⁹ advertises download speeds and data inclusions comparable to its NBN services at a similar price point. There is a lack of independent and reliable information on e.g. 5G home broadband service. This is likely to be preventing full consumer engagement in the competitive process and can lead to consumer harm by increasing product search and transactional costs, given that services are typically sold on a minimum term basis with early exit fees.

The potential from consumer harm remains relevant as there are also currently no independent tools to verify and compare the performance claims made by mobile networks offering home broadband services. There is likely to be an increasing need and expectation from consumers to be able to access information about how these services will perform and thereby benefit both consumer and competition outcomes.

More broadly, infrastructure-based competition may benefit if the MBA is extended to new technologies as consumers will be able to have more confidence in the performance to expect from them. Benchmarking these networks against NBN performance may provide incentives for industry investment to address geographic areas or technologies where performance compares poorly to broader benchmarks, or assist in targeting policy responses.

In light of the above, a renewed MBA may improve competition and market outcomes for a wider range of consumers if it is broadened in scope to cover these additional networks. This would enable consumers to assess the relative performance of competing networks as well as retailers.

The variable nature of the performance of wireless technologies initially presented a barrier to extending the MBA program to NBN fixed wireless services, requiring a much larger sample size than fixed line services to generate comparably reliable results. However, increased investment in this network has resulted in more stable, homogenous network performance, which could provide for statistically reliable results using smaller cohorts. Assistance from stakeholders could assist in obtaining the required panel sizes in a timely manner.

³⁸ ACCC, *Broadband speed claims: Industry guidance*, May 2019, <https://www.accc.gov.au/publications/broadband-speed-claims-industry-guidance>.

³⁹ Optus, *5G Home Internet*, <https://www.optus.com.au/broadband-nbn/5g-home-broadband/5g-home-broadband-plan?SID=con:hwbb:afeat:nov19:fixed:5GHome:Optu5G>, viewed 14 September 2020.

5.2.2. Discussion questions

- 8) If the MBA program is extended to NBN Co's fixed wireless network how could the ACCC work with partners to build these cohorts quickly?
- 9) Should an extended MBA program continue to focus solely on NBN services? What are the benefits in extending the program to capture competing networks? If so, should they be fixed-line only or seek to cover wireless home broadband services including those being deployed by mobile network operators as well?
- 10) The ADSL network has been used as comparator for NBN fixed-line services in MBA program reports. As ADSL is being displaced, what network or networks would be a suitable benchmark comparator to the NBN network?

5.3. Other potential augmentations of the program

Whether an extended MBA continues to focus on the NBN fixed-line network or is extended to other networks, there are a range of other enhancements that could be considered to ensure the program can continue to provide reliable, informative and timely data to consumers, industry and policymakers to meet their various needs and demands.

In many cases, poor broadband performance is caused by factors not within the NBN or RSP networks but within the consumers' premises or hardware. The capability of the testing infrastructure is advancing to capture new services and technologies. A future MBA program could employ diagnostics on these broader factors that impact performance to better inform and educate consumers to resolve issues themselves. A number of potential augmentations of the program are canvassed below.

5.3.1. Ensuring representative, timely and accessible market information and engaging consumers

The below questions seek feedback on how the MBA program can continue to reflect the market and provide useful and accessible data. This has included helping to identify issues with consumer experience that may otherwise not be detected. This is likely to be achieved through incorporating a greater number of RSPs in the program by the recruiting and retaining of more volunteers. Consumers' engagement with the program may be promoted by the inclusion of new metrics, more accessible presentation and timely reporting.

5.3.2. Discussion questions

- 11) Which RSPs who are not currently being reported on could be considered for inclusion in an extended program, and why? How can sufficient volunteers be attracted to enable the proposed inclusion?
- 12) What short and long term strategies could assist in promoting interest and continued engagement with the program to ensure that the panel accurately reflects the market as a whole?
- 13) Are there any metrics that are not currently included in MBA reports that would provide valuable information to consumers and direct industry and policy responses?
- 14) Are there any further tests or reporting mechanisms that would assist in detecting systemic consumer experience or other network issues to promote their timely resolution? Is this test a cost effective option?

15) In MBA Report 3, a comparison was made between MBA data from urban and regional Australia.

- a) Are these geographic splits useful for industry and policymakers?
- b) What other comparisons would be helpful for industry and policymakers in their decision making?

5.3.3. MBA program data

The MBA Quarterly Reports consist of a technical report with data presented to consumers through the [ACCC's interactive dashboard](#). In September 2020, we also commenced publishing underlying more granular MBA data on *data.gov.au* for interested stakeholders to use.

5.3.4. Discussion questions

16) In regards to the MBA program data:

- a) Is it sufficiently accessible and useful for consumers?
- b) Is it likely that intermediaries, comparator service providers and other market participants will or are likely to make use of the data to help inform consumers?
- c) How can we help to promote greater proliferation of the data to promote a better functioning of the market?

17) MBA reports are released quarterly, including with a MBA Monthly Report that covers a period of three months and details the daily network level performance of each month.

- a) Is this frequency sufficient?

5.3.5. International comparisons

International comparisons of broadband performance are of interest to consumers and policymakers. International benchmarks could also provide an indicator of the relative performance of Australia's connectivity to ensure key services are delivered to a similar quality to consumers overseas. There are however, a number of drawbacks with these international comparisons not being able to take into account context specific factors and market conditions, limiting the usefulness of international comparisons.

The current MBA testing provider, Sam Knows, provides broadband performance measuring services to regulators in many jurisdictions worldwide such as in New Zealand, the United Kingdom, United States and Brazil. As in Australia, these measurements include a wide range of tests to applications and other metrics in addition to simple download speeds. This data could potentially be drawn on to assess how Australia's broadband market and performance compares with similar countries, particularly with reference to specific applications.

5.3.6. Discussion questions

18) Is there value in harnessing SamKnows' international data to provide policymakers and the market with data on how Australia compares with these jurisdictions? If so, what measures are most important to compare and how could they be presented?

5.3.7. Responding to market changes – small and medium sized businesses

Pivoting the MBA program to provide data to wider users of telecommunication services could assist those users make better more informed decisions and promote more efficient outcomes in more markets.

Broadband connectivity and e-commerce has become increasingly important to a broader segment of small and medium sized Australian businesses. At the same time, with more Australians working from home as a response to the pandemic, residential broadband services have become an extension of business networks for many employees and have been required to support the same productivity applications.

The MBA program has traditionally focused on metrics important to residential broadband users. However, in July 2020 the ACCC released its first [Critical Services Report](#) which also examined how fixed line NBN services were supporting consumers' use of productivity applications (video conferencing) at a time when many employees were relying on these applications when working remotely.

5.3.8. Discussion questions

As NBN Co introduces new products, are there any that should be incorporated into the MBA more quickly to anticipate consumer preferences and market developments?

- 19) Is the current residential focus of the MBA relevant to small and medium businesses? Would a specific panel of business volunteers and the addition of new performance metrics provide data that is more relevant to their needs?
- 20) For RSPs who offer services to small and medium enterprises, would you be willing to assist with expanding the program to measuring performance on business services?

5.3.9. Ongoing integrity of the program and data

The strength of the MBA program is its independent, reliable and transparent data provided by the robust volunteer recruitment, testing methodology and reporting processes. There are however potential risks that the ACCC has managed and continues to be alive to including during the COVID-19 pandemic when adjustments and mitigation strategies were employed as a result of the high levels of congestion on certain testing infrastructure. In addition new technologies and services provided by RSPs may not necessarily be fully captured or accounted for in the current testing infrastructure.

5.3.10. Discussion questions

- 21) Are there any further enhancements to the testing methodology or testing infrastructure that would further promote the ongoing integrity and reliability of the MBA data and results?
- 22) The ACCC released a [Statement of Expectations](#) in August 2019 setting out a number of principles to provide assurance over the veracity and independence of the program.
 - a) Is this a sufficient safeguard against misuse of the program by RSPs?
 - b) Are there any further actions that should be taken, either through technical/methodological aspects of the program, or via stronger commitments from participants?
- 23) Subject to safeguards being in place to protect the integrity and independence of the program, would RSPs be open to:

- a) assisting the ACCC to build interest in the program among their customers to ensure monitored cohorts reflect the broadband market as accurately as possible, and network owners as part of nominating their network as benchmark comparator to the NBN?
- b) deploying a software-based testing client, embedded into their customers' equipment, to expedite the growth of a broad reporting panel?

6. Consolidated list of questions

Below we have consolidated the consultation questions that we have asked throughout this consultation paper.

- 1) To what extent has the program produced worthwhile outcomes and has met its objectives? (effectiveness)
- 2) What have been the particular features of the program that made a significant difference to achieving its intended outcomes? (impact evaluation)
- 3) What unintended outcomes (positive and negative) have been produced? (impact evaluation)
- 4) Do the outcomes of the MBA program represent value for money? (efficiency)
- 5) What level of engagement have you had or expect to have with the MBA program and its outputs (reports, data release)?
- 6) To what extent do the risks outlined above reflect the likely impacts from the discontinuation of the MBA program?
- 7) What other data or market-led tools could assist in promoting the outcomes that the MBA has achieved, and are these sufficient to drive the consumer and market outcomes expected currently and into the future?
- 8) If the MBA program is extended to NBN Co's fixed wireless network how could the ACCC work with partners to build these cohorts quickly?
- 9) Should an extended MBA program continue to focus solely on NBN services? What are the benefits in extending the program to capture competing networks? If so, should they be fixed-line only or seek to cover wireless home broadband services including those being deployed by mobile network operators as well?
- 10) The ADSL network has been used as comparator for NBN fixed-line services in MBA program reports. As ADSL is being displaced, what network or networks would be a suitable benchmark comparator to the NBN network?
- 11) Which RSPs who are not currently being reported on could be considered for inclusion in an extended program, and why? How can sufficient volunteers be attracted to enable the proposed inclusion?
- 12) What short and long term strategies could assist in promoting interest and continued engagement with the program to ensure that the panel accurately reflects the market as a whole?
- 13) Are there any metrics that are not currently included in MBA reports that would provide valuable information to consumers and direct industry and policy responses?

- 14) Are there any further tests or reporting mechanisms that would assist in detecting systemic consumer experience or other network issues to promote their timely resolution? Is this test a cost effective option?
- 15) In MBA Report 3, a comparison was made between MBA data from urban and regional Australia.
 - a) Are these geographic splits useful for industry and policymakers?
 - b) What other comparisons would be helpful for industry and policymakers in their decision making?
- 16) In regards to the MBA program data:
 - a) Is it sufficiently accessible and useful for consumers?
 - b) Is it likely that intermediaries, comparator service providers and other market participants will or are likely to make use of the data to help inform consumers?
 - c) How can we help to promote greater proliferation of the data to promote a better functioning of the market?
- 17) MBA reports are released quarterly, including with a MBA Monthly Report that covers a period of three months and details the daily network level performance of each month.
 - a) Is this frequency sufficient?
- 18) Is there value in harnessing SamKnows' international data to provide policymakers and the market with data on how Australia compares with these jurisdictions? If so, what measures are most important to compare and how could they be presented?
- 19) Is the current residential focus of the MBA relevant to small and medium businesses? Would a specific panel of business volunteers and the addition of new performance metrics provide data that is more relevant to their needs?
- 20) For RSPs who offer services to small and medium enterprises, would you be willing to assist with expanding the program to measuring performance on business services?
- 21) Are there any further enhancements to the testing methodology or testing infrastructure that would further promote the ongoing integrity and reliability of the MBA data and results?
- 22) The ACCC released a [Statement of Expectations](#) in August 2019 setting out a number of principles to provide assurance over the veracity and independence of the program.
 - a) Is this a sufficient safeguard against misuse of the program by RSPs?
 - b) Are there any further actions that should be taken, either through technical/methodological aspects of the program, or via stronger commitments from participants?
- 23) Subject to safeguards being in place to protect the integrity and independence of the program, would RSPs be open to:
 - a) assisting the ACCC to build interest in the program among their customers to ensure monitored cohorts reflect the broadband market as accurately as possible, and network owners as part of nominating their network as benchmark comparator to the NBN?

- b) deploying a software-based testing client, embedded into their customers' equipment, to expedite the growth of a broad reporting panel?

7. Next steps

Following this consultation, we will consider submissions and other evidence in preparing a report for the DITRDC's consideration. We intend to provide a report prior to the end of 2020.

The DITRDC will then undertake its own evaluation of the MBA program within the context of broader policy priorities and budgetary conditions and make appropriate recommendations to the Minister.