Broadband Speed Claims Industry Guidance

nbn submission to the ACCC in response to the 'Consultation on revising the Broadband Speeds Claims – Industry Guidance'

March 2022

1 nbn Response - Overview

nbn welcomes the opportunity to respond to the ACCC's 'Consultation on revising the Broadband Speeds Claims – Industry Guidance' (**Guidance**). To date, the Guidance has assisted in promoting more competitive and efficient markets for the provision of services delivered over the **nbn**™ network. **nbn** notes that this Guidance is only one part of the ACCC's broader strategy to continue to ensure that end users have information that readily identifies the performance and speed characteristics of retail broadband services and plans.

nbn has considered the proposed updates to the Guidance and is of the view that any future updates or changes to the Guidance should be considered in the context of the long-term interests of end users (**LTIEs**) and Australia's highly dynamic broadband market which is becoming increasingly competitive over time. Australia's broadband market is currently experiencing rapid technological change, changes in market structure and changing consumer preferences so it remains important that the ACCC continues to further refine the Guidance on an ongoing basis to reflect market dynamics and provide the most relevant outcomes for end users.

It is particularly important that there is consistent, symmetrical regulation across services provided over the **nbn**™ network and competing alternative fixed and wireless networks. This approach represents good regulation and will provide consumers with consistent information when comparing the performance of services provided over both the **nbn**™ network and competitor networks.

Regarding the proposed enhancements to the Guidance, **nbn** would like to make the following comments.

1.1 Busy period upload speeds

nbn acknowledges that upload speed and performance has become increasingly important during COVID-19 as many Australians have transitioned to working from home and there has been an overall increase in residential traffic as a result. Therefore, **nbn** is supportive of the inclusion and greater visibility of upload speeds in marketing of retail broadband products to consumers.

However, there is an important distinction between how busy hour download speed and upload speed is affected by provisioning on the **nbn**™ network. This is primarily because CVC is provisioned symmetrically, meaning that if an RSP provisions a given amount of CVC to ensure that their customers are not experiencing congestion in the downstream component of their services, there is an equivalent amount of bandwidth provisioned for upstream performance. Therefore, it is extremely unlikely that a given CVC would enter congestion in the upstream as a result of RSP provisioning. In addition, the busy hour for upload speeds may be more variable and less predictable than the busy hour for download speeds.

Certain access technologies may, from time to time, experience congestion or service variability in the upstream due to the technical or physical attributes of that technology. Hybrid Fibre Coaxial (**HFC**) can experience congestion at a HFC segment level due to concentration of high usage customers and the shared nature of HFC spectrum. **nbn** monitors these HFC segments extremely closely and has a capacity management program to ensure that any sustained congestion is relieved as soon as possible. Similarly, customers on a wireless network may also experience periods of congestion on a cell if there are sufficient simultaneous high usage customers. RSPs are able to access line speed information, including upload capability, for individual AVCs on copper technologies via the Service Health Summary.

Due to the advanced codecs of many consumer applications, such as video-conferencing, which at least in part rely on upload speed for performance, there is little evidence to suggest that marginal changes in busy hour upload speeds would have a material impact on consumer experience for these applications. Other broadband use cases, such as gaming or repeated transfer of large files into cloud-based storage, may be more noticeably impacted by variation in upload speed. While there are differing impacts for various applications, **nbn** notes that overall upload speed capability is nonetheless an increasingly relevant consideration for end users when selecting between speed tiers or alternative broadband products that may have comparable downstream performance.

In relation to RSP marketing, we do maintain that overall upload speeds are important for end users and RSPs should provide accurate information to end users about the upload capability of the service in their marketing. We support greater visibility of upload speeds in RSP marketing, but in a way that does not increase the burden on RSPs selling **nbn** products. We consider that end users will benefit from greater visibility and information on upload speed capabilities for the services that they are purchasing.

1.2 Fixed wireless broadband services

The current broadband market in Australia contains a number of increasingly competitive fixed wireless offerings, both 4G and 5G, from wireless network operators, many of which are marketed directly as alternatives to **nbn** residential products. As a result, it is important that consumers are presented with accurate and consistent marketing and performance claims across all fixed wireless broadband products, particularly given the variety of factors which may impact an end user's service experience on a wireless network.

One example of inconsistent comparison across networks, is for **nbn** products to be advertised with a headline 'typical evening speed', whereas competing wireless products are commonly advertised with a headline of 'speeds up to' which would suggest an off-peak maximum speed. In the case of 5G offerings the difference between the peak maximum speed, advertised peak busy hour speed and the actual speeds a given end user can achieve could be significant, and there is no minimum standard of performance as a percentage of peak advertised speed. Certain 5G fixed wireless products claim to be able to achieve high download speeds but have significant variability in real world performance and the potential that only a fraction of users would be able to achieve the advertised speeds. Additionally, those fixed wireless products have other significant advantages from a marketing perspective as there is no requirement for a minimum speed that is a percentage of the advertised speed, no rebates for the customer if the service is not performing, and no requirements for the network operator to improve the service if the minimum speeds are not met. Consistent requirements across networks with how speeds are characterised and marketed to consumers represents consistent regulation and will provide end users with accurate, reliable and standardised information when comparing the performance of competing networks.

Another consideration in the marketing of fixed wireless broadband services is the number of factors that can influence an end user's experience of the service (which the ACCC has detailed in a comprehensive list in Question 8 of its consultation paper). All the items in Question 8 can impact in some way the performance of a fixed wireless broadband service. For example, services provided over higher frequency bands may be able to provide higher peak speeds but are also significantly more susceptible to interference from weather or an obstructed line of sight to the base station. Also fixed wireless access network cell congestion can impact both upload and download speeds, however the impact could be exacerbated by cells that service both mobile and fixed wireless products.

If alternative fixed wireless networks are going to be marketed as **nbn** alternatives or as 'Home Internet', presented side by side with **nbn** products for comparison, there needs to be greater clarity and consistency around marketing requirements. Service performance metrics should be conducted on a like for like basis with **nbn** metrics, qualitative metrics such as 'suitable for X people' should be standardised, and there should be greater transparency on how traffic may be de-prioritised by the provider in the cases of cell congestion.

As a result of all these factors, it is important that customers are presented with both relevant and standardised information on both **nbn** services and competing services provided over alternative fixed wireless broadband networks. **nbn** is supportive of the Guidance being enhanced to include other fixed wireless operators.

nbn thanks the ACCC for the opportunity to respond to this consultation and would be pleased to have further discussion with the ACCC in regard to any aspect of this submission.

2 Specific Reponses to ACCC Questions

1) How does the busy period for upload speeds affect the service quality experienced by end-users, including on higher speed services?

During the busy hour, in the instances when there is congestion, there can be an impact on upload speed. This may not have any noticeable impact on the end-user customer experience depending on what applications the end-user is using.

2) Are there any significant barriers to RSPs providing typical busy period upload speed information for:

a) fixed-line broadband services,

b) fixed wireless broadband services?

nbn has no further comments in response to this question.

3) What four-hour period in a 24 hour period is the busy period for upload speeds for:

a) fixed-line broadband services,

During periods of lockdown, based on **nbn** data for Victoria, upstream throughput peaked twice during the day once at 11am and again at 2pm.

In the pre-COVID period, the peak upstream throughput aligned with the downstream busy hour of 7-11pm.

b) fixed wireless broadband services?

Recent **nbn** throughput data for February 2022 on the **nbn** Fixed Wireless network, suggests that peak upstream throughput aligned with the downstream busy hour of 7-11pm. However, this may be different for alternative wireless networks where cells may be jointly used both for mobile and fixed wireless products. In these cases, there may be multiple shorter periods of peak throughput during a 24-hour period, such as during morning and afternoon commuting times, in addition to the evening peak period.

4) How many services should constitute a sample for testing upload speeds, noting that the Guidance currently suggests 75 services for download speeds.

A sample should be sufficiently large and diverse enough such that the results of testing cannot be skewed by the performance of individual services, and representative of the total user base. For larger populations of customers or larger networks 75 services is a relatively small sample size. If an upload or download speed testing sample contains only those users who have passed a service qualification test, then that should be clearly communicated alongside the speed claims associated with that sample.

5) What constraints on a line or cell affect upload speeds in a way that deteriorates service quality experienced by an end-user?

If a cell or node is experiencing congestion, for the period that the network segment is congested there may be a reduction in upload speeds. Similarly, if there is a fault on a line, then upload speeds could be affected. It is unlikely that end-users using web, communication and streaming applications, including video-conferencing, would notice the impacts of these variations in upload speed. RSPs can access information about the status of a line via the Service Health Summary tool.

6) What additional amendments to the Guidance would assist RSPs to provide upload speed information about their fixed line and fixed wireless services to consumers?

nbn has no further comments in response to this question

7) How are the following attributes, other than speeds, noticeably different to consumers on fixed line and fixed wireless broadband services, and between fixed wireless technologies? What other attributes are relevant?

a) availability and drop outs

b) latency.

A fixed wireless service has inherently more variable throughput and latency than a fixed line service.

8) How are the following factors likely to influence how a fixed wireless broadband service will operate in practice? What other factors are relevant?

All of the listed factors could influence how a fixed wireless broadband service will operate in practice. A fixed wireless service has inherently more variable throughput and latency than a fixed line service, and all the listed factors could increase this variability. In the case of **nbn** Fixed Wireless services, all services are professionally installed and use an external antenna, so these considerations would not be a factor. The **nbn** Fixed Wireless network also does not share cell capacity with mobile networks, so network cell congestion can more reliably be tracked, managed and improved.

9) Are there any significant barriers to RSPs disclosing to consumers any of the factors above that may affect the speeds receive in fixed wireless broadband services?

nbn has no further comments in response to this question.

10) Are there applications that are less well supported by fixed wireless broadband services on different fixed wireless access networks? If so, in what way?

nbn has no further comments in response to this question.

11) To what extent do RSPs offer standalone plans on alternative fixed wireless access networks?

Telstra, Optus, TPG and Vodafone all offer standalone fixed wireless services on alternative fixed wireless access networks.

12) What additional amendments to the Guidance would assist RSPs to disclose to consumers factors that may affect the speeds, download and upload, they would expect to receive on fixed wireless broadband services?

For instances where an end user is purchasing a service on a hybrid modem, such as an **nbn** fixed line service with 4G backup, it should be made clear under what circumstances the end user will be switched over from the fixed line to fixed wireless connection, which network the end user is on at any given moment, as well as the potential service degradation when switching from a fixed line network to a fixed wireless network. There should also be greater consistency between labels given to products such as '**nbn** Broadband', '5G Broadband', or 'Home Internet', that may be provided over a fixed line or fixed wireless network.