2018 Regional Telecommunications Review - Regional Telecommunications Independent Review Committee

Submission by Aussie Broadband

August 2018

About Aussie Broadband

Aussie Broadband is a small, high quality internet service provider based out of the Latrobe Valley in Gippsland, Victoria.

To date, we are the only ISP outside the big four to build a network to all 121 NBN POIs across Australia. We provide services via all NBN technologies other than satellite with a focus on a congestion-free, quality network and all-Australian support. We are the fifth largest provider of new fixed wireless NBN services.

Whilst our services can and do cover nearly all Australians, we have a particular affinity with rural and regional Australia. Many of our leadership team and staff – including our Managing Director Phillip Britt – receive their home NBN via fixed wireless.

Summary of submission

We note that in parts, the RTIRC Issues Paper presumes that rural resident have access to decent internet services, that issues are able to be overcome on an individual basis, and that benefits are able to be delivered.

We think the elephant in the room here is the performance capacity of the fixed wireless network.

In some ways, the fixed wireless network is a victim of its own success. Most of it was rolled out early in the peace and before there was a full understanding of what we now call "The Netflix Effect". Today, significant demands from users has placed considerable strain on the network. This could be viewed as a strong indicator of the speed of upgrades required across the NBN network in years to come. NBN is not a "set piece" roll-it-out-and-we're-done project. Like anything else in IT, its second phase will require constant upgrades, review and clever re-design.

The fixed wireless program is hitting that second phase now.

Aussie Broadband firmly believes that the fixed wireless program requires a significant government-funded capital injection and a clever approach to ongoing upgrades if it is to deliver the same benefits to rural and regional customers as fixed-line solutions do to their urban cousins.

Underpinning issue: a publicly-agreed definition of congestion

To be frank, any conversation about the fixed wireless network performance is difficult without a publicly-agreed definition of congestion.

Current definitions in the telco universe include:

- 6Mbps, judged by measuring the average throughput of all end-users in a cell in the busiest hour, averaged over a month (NBN)
- below a 40% drop in evening speed between 7-11pm (ACCC's monitoring program)
- below a 15-25% drop in speeds during peak hours (what our customers very clearly tell us)

The fact that there is no agreed industry standard on what constitutes "congestion" leads to confusion for customers and stakeholders.

We think there is a place for government to adopt standard definitions - that consumers will understand and agree with – that could be a basis for open and frank discussions on congestion hot spots and issues.

Our proposed definitions are:

- **severe congestion** - averaging less than 50% of ordered speed for 12 hours or more per day
- **congestion** - less than 40% of ordered speed during evening hours (7-11pm), as per ACCC standards
- **light congestion** - between 20-40% of ordered speed during evening hours (7-11pm)

To take into account other issues associated with network performance, we also think these definitions would be useful:

- **Prolonged congestion** – anything that lasts over an hour
- **Reoccurring congestion** – anything occurring on more than two consecutive nights

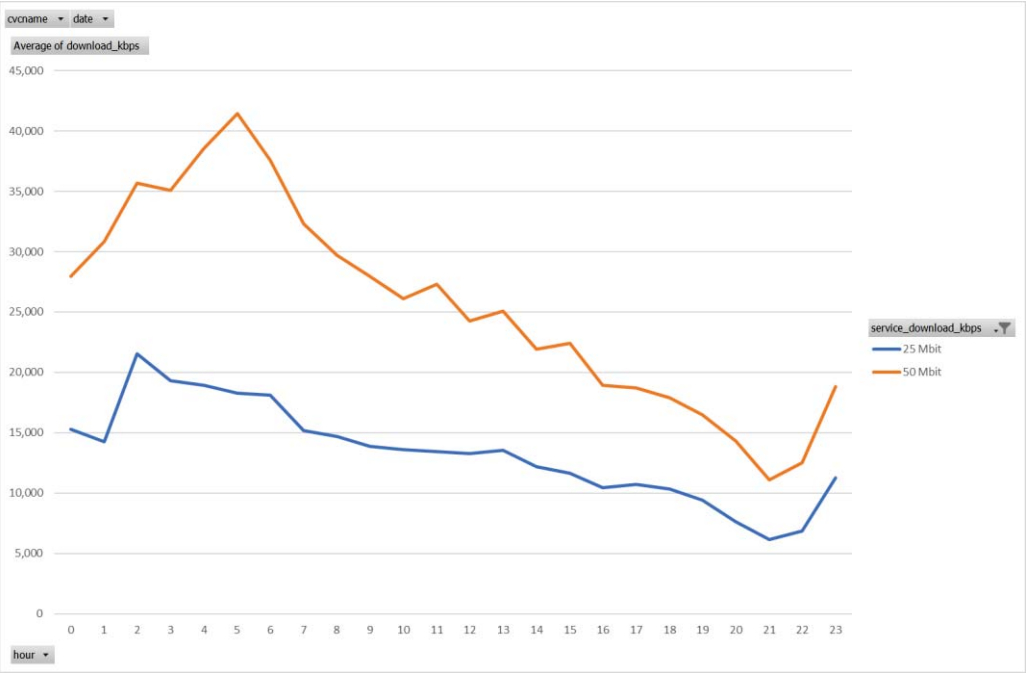
Fixed wireless performance

Aussie Broadband has conducted two recent analyses of the current performance of the fixed wireless network.

Analysis of our customers using our definitions

Aussie Broadband conducted analysis during February 2018 of 29,000 business-as-usual speed tests submitted by 1600 Aussie Broadband fixed wireless customers.

Our analysis shows that customers on both 50/20 and 25/5 plans **averaged less than half their ordered speed for half the day**. The only time they were likely to experience close to full speeds was somewhere between 2 and 5am.



Given these customers represent about 16% of our fixed wireless customers, and there would be another cohort who are experiencing the same thing but not submitting speed tests, we conservatively estimate that at least 18% of NBN's fixed wireless network is experiencing what we call **severe congestion.**

Given that NBN has just over 240,000 customers connected to fixed wireless, this is an issue that is likely to be affecting more than 43,000 rural or regional customers on a regular basis.

Anecdotally, our customer support team say they have yet to see any customer whose tower cell has been through an upgrade receive a significantly better service – we believe largely due to the Netflix effect. Any improvement in performance is almost immediately used up by existing customers and new customers connecting to tower cells. It's worth noting that only 39% of potential fixed wireless customers have connected to the network to date.

Analysis of NBN statistics

Using data sources listed below, we have also analysed the fixed wireless network's performance according to NBN's definition of unacceptable congestion (6Mpbs or less etc).

This analysis shows that 11.2% of fixed wireless NBN customers – or nearly 27,000 people - are on unacceptably congested cells.

Note:

- Service Class 6 indicates that an NTD/antenna has been installed at the premises, not that they are currently connected to the nbn network
- This data assumes all Service Class 6 services are currently connected to the NBN network

Sources:

- nbn Weekly progress report - nbn-rollout-metrics-19072018.pdf - https://www.nbnco.com.au/corporate-information/about-nbn-co/corporate-plan/weekly-progress-report.html (Public)
- NBN Congested cell report - 18 July 2018 (Commercial-in-Confidence)
- NBN Location IDs report, Aussie Broadband, 18 July 2018 (Commercial-in-Confidence)
- Aussie Broadband Fixed Wireless customer information (Commercial-in-Confidence)

Issue three: wholesale cost models

At the time of writing, NBN will soon release fixed wireless wholesale bundle prices, which is a definite improvement on the current situation where bundles are available for fixed line, but not fixed wireless services.

Whilst we still don't know the final fixed wireless bundled prices, indications are that the price will still be more expensive than that for fixed line services.

If fixed wireless prices are still more expensive, many customers in rural and regional Australia will most likely be paying more for a lower-quality service when compared to their city counterparts.

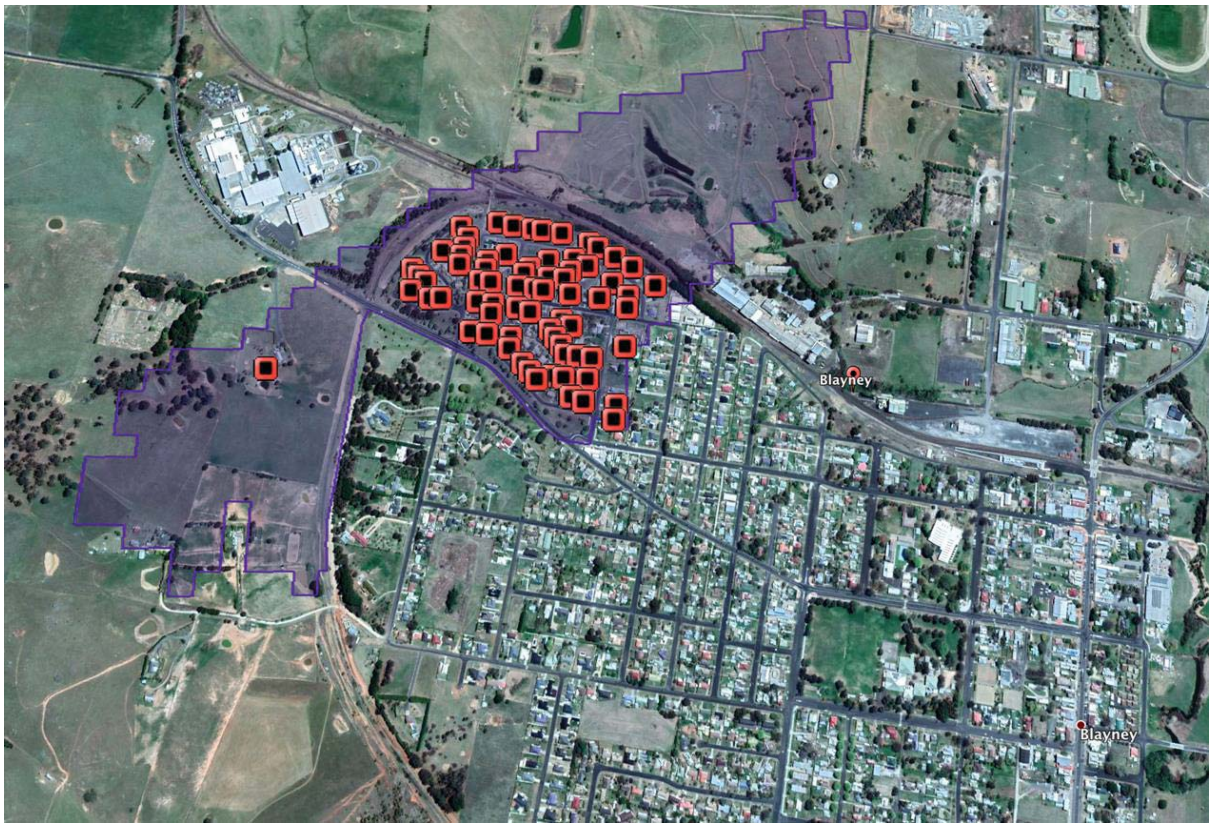
Solutions

Aussie Broadband is not interested in getting into a blame game. We're interested in promoting agnostic solutions that will give customers, government and NBN the best bang for their buck.

Whilst NBN has long-term plans for upgrading the capacity of the fixed wireless network, we believe that there is also scope to revisit the fixed wireless footprint.

Many denser rural township areas or parts of township areas (quarter acre blocks or less) allocated to fixed wireless in the early part of the NBN rollout could now be serviced via lower cost FTTN or FTTC technology. Examples of townships affected by this kind of issue include Blayney, Gilgai and Griffith in NSW, Toongabbie and Glengarry in Victoria, Kalbar in Queensland and Port Wakefield in SA.

The map below of Blayney shows clearly how a part of the town is currently using congested fixed wireless, whilst neighbours are on other technologies (most likely fibre to the node).



Retrofitting this area would free up the fixed wireless network to better service customers in peri-urban areas (larger blocks around the edge of towns, and further out).

It also has the potential to increase NBN's Average Revenue Per User by shifting customers to higher-capacity technologies.

We recommend:

- that Government funds NBN to conduct an urgent Phase Two review of the fixed wireless footprint, including cost-benefit analyses of alternative technology types for denser areas on a location-by-location basis.
- that Government adopt the definitions of congestion we have proposed, or similar, so that we have a level playing field for conversations about the performance of fixed wireless
- that fixed wireless wholesale bundles are on price parity with fixed line bundles