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Classification: Public

This submission is provided in response to the ACCC's 2022 consultation on revising the *Broadband Speed Claims – Industry Guidance*. Swoop thanks the ACCC for the opportunity to provide comments on its proposals.

Background about Swoop (ASX:SWP)

Swoop Holdings Limited sells retail and wholesale residential and business fixed line and fixed wireless broadband services. Swoop's subsidiaries include Cirrus Communications, NodeOne, Beam, Speedweb, Countrytell, Community Communications, DCS Internet, Anycast Networks, Luminet and VoiceHub. We have owned and operated fixed wireless networks since 2004, we also own and operate fixed-line fibre networks and sell residential and business fixed-line broadband services on the OptiComm and NBN networks. Of particular relevance to the ACCC's consultation is Swoop's deep experience in operating fixed wireless networks.

Proposed ACCC Policy

Swoop considers that the proposed guidance regarding fixed wireless services will be beneficial to consumers and offer the following comments:

- **Key benefits to consumers of the ACCC's guidance**

Currently, there is a lot of marketing selling high download speeds for broadband services on fixed wireless networks (even compared to fibre services) that does not translate to real world performance. Misaligned customer expectations on the useability of these services for day-to-day applications undermines consumer trust in the technology.

Fixed wireless has a number of technical benefits in some use cases, but overall, the socio-economic benefits of a real choice in technology for customers is critical, distrust in fixed wireless undermines this.

- **Swoop's Position**

Being a wireless ISP operating a 'fixed' wireless network we can control and guarantee customer outcomes more effectively than mobile network operators. There are several reasons behind this. Foremost, we ensure all customer service installations are of a standard that ensures the equipment will run at peak performance. We also have much greater control over load/congestion, as customers do not typically roam between cells. Customer experience can also be more effectively monitored as telemetry is available for every segment of the customer's connection. This is a particularly good opportunity to offer/advertise stability over all our wireless products due to our end-to-end network control.

With tighter control of our network and individual customer connections we can avoid and remediate all issues much more effectively. Operating a quality focused network is only valuable if there is trust in the product, with underperforming offerings from competing wireless technology types, the ACCC's guidance has clear benefits to the customer by providing clarity around the expected performance, and quality of the product they are buying, ensuring that confidence in wireless technology is not undermined by false or misleading claims from competitors' offerings.

Continued consultation between providers and the ACCC is crucial to ensuring the guidance is balanced and achieves its purpose of providing useful and accurate information to consumers so that they can choose a broadband service that meets their needs. Swoop welcomes the opportunity to engage with and assist the ACCC to meet this objective.

Response to the ACCC's questions

Our answers to the ACCC's questions follow. We are happy to meet with the ACCC to discuss our submission and provide further data.

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

On Swoop's networks, service quality is unaffected by our busy upload period. Our fixed wireless transport network is dimensioned to support our peak download traffic which is typically 5x our upload.

Our fixed wireless last mile supports approximately 33/67 upload/download ratio, when compared to common fixed line plans this is typically a superior upload capability.

Radio technology allows for this traffic distribution weighting to be adjusted for specific use cases. While some operators only aim for high download speeds which is attractive for marketing, customers risk not having sufficient upload capability.

The problem that needs to be addressed is that some networks that are marketed with unrealistic speeds and the last mile segment of the network is not dimensioned for appropriate upload capability.

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

A) fixed-line broadband services?

The cost of implementing speed testing is a relevant factor and the comments in part B are also relevant to fixed-line broadband services.

B) fixed wireless broadband services?

The cost of implementing speed testing is a relevant factor, particularly for small to medium sized providers.

Currently, there are also supply chain issues that would affect providers' ability to implement testing. In particular, we are experiencing difficulty in sourcing CPE devices that are capable of being used in speed testing scenarios.

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

A) fixed-line broadband services?

B) fixed wireless broadband services?

The busy period for upload speeds for both fixed-line and fixed wireless services is between 10am and 2pm, reflecting peak times for business and education use.

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

The larger the sample, the more expensive a testing system is to implement and operate. We consider that regular testing of 75 services is appropriate for large providers but that the sample size should be smaller for other providers. We consider that it would be appropriate for providers with less than 75,000 services in operation (**SIOs**) to test sample sizes of 25 SIOs. This would reduce the unbalanced regulatory impost on smaller providers and still provide a reasonable sample size.

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

Swoop operates a line of sight fixed wireless access network. The off line of sight may be impeded through the introduction of an obstruction, such as new construction or vegetation growth after the service has been delivered, which negatively impacts the service quality.

RF interference also has a negative impact on wireless services and managing such interference is critical to maintaining customer experience.

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?*

Providers should provide details about how a service's upload speed potential will be limited or affected. For example, some providers "groom" upload traffic to conform to a specific speed profile, while others will allow the maximum speed that the equipment can handle (ungroomed). While promoting a lower overall speed, groomed traffic will most likely provide a more consistent and higher overall quality of experience for end-users.

Swoop grooms customer upload traffic, as well as over-dimensioning upload timing on cells to ensure customer satisfaction.

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 dropouts?

These attributes should be equivalent on fixed wireless and fixed-line services.

B) Latency

This should not be a perceptible difference between fixed wireless and fixed-line services.

Various fixed wireless designs will have differing attributes here, some FW technology types do suffer latency increases (i.e. WiMAX which is no longer commonly used) but newer technologies are typically designed to provide fixed line equivalent.

C) Other – Jitter

Jitter should also be considered. Again, there should not be a perceptible difference between fixed wireless and fixed-line services.

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

A) frequency band used

This should not be significant for end-users as network operators should deliver services on a technology that is appropriate for the speed sold to the customer.

This is an insignificant issue in non-RAN networks and of fixed location. Connections are installed to be within a serviceable service tolerance from the start and will maintain operation on this frequency band indefinitely.

B) distance and unobstructed line of sight to base station

These are two very major considerations that need to be controlled at the stage of conducting service qualification and service commissioning to meet the predefined service standard.

C) fixed wireless access network cell congestion

Access and/or cell congestion will negatively impact end-user experience. The actual impact on an end-user will depend on the level of congestion that the network is experiencing at the time.

D) sources of interference

This is a significant factor that can intermittently affect customer experience and upload speeds. The source of interference is often difficult to identify and remediate.

E) weather

Wireless networks are designed to operate within a set of design parameters that allow for weather events. Due to increasing consumer demand many links are being deployed in higher frequency mm-wave bands and even the best designed microwave links may unfortunately be degraded during severe storms leading to slightly degraded performance in extreme conditions.

F) location-specific factors

Generally, this is not a problem unless it results in issues such as a failure to achieve a line of sight or requiring the implementation of multiple paths to a tower. This follows the same guidelines as discussed above in question 8B.

G) use of external antenna

In general, external antennas will improve the service quality. We do not operate services without external antennas, which is standard practice for fixed wireless operators. All our installations are professionally installed within a set of defined parameters to maintain service quality. We do not use portable devices.

H) professional or self-installation

Professional installation delivers a more consistent outcome, however, self-installation offers convenience and a faster service delivery. The method used should be aligned to the expectations of the customer. Currently, all our fixed wireless services are professionally installed due to technology limitations.

I) number of concurrent users

This is no different to a fixed-line service, i.e. if the operator exceeds the service's capability due to a high number of concurrent users, the quality of individual services will suffer. As with all broadband services it is important to ensure that customers receive the appropriate product.

J) placement and quality of Wi-fi modem

This is a significant factor contributing to end-users experiencing a poor service and Wi-Fi problems within end user premises and are responsible for a significant volume of support calls across the broadband industry and affect both fixed-line and fixed wireless services.

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

No. In practice, educating customers on the factors that affect their broadband speeds results in improved customer support outcomes.

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?

Fixed wireless broadband does have some drawbacks for extremely specific use cases. These are typically not application-based use cases. For example, broadcast television over GPON, this is not feasible on packet based fixed wireless services. In some cases, high packet applications with low throughput may suffer due to equipment limitations, however, these limitations can apply in fixed-line networks too.

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

We offer a large array of alternative standalone plans, but as we own a significant amount of fixed wireless infrastructure, we are not a "normal" RSP. Swoop wholesales fixed wireless services to other RSPs that sell it as an alternative to services provided via the NBN or potentially other fixed wireless or fixed line providers.

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?

Like fixed-line networks, fixed wireless networks have different designs and implementations that may affect the speeds that consumers receive. For example, consumers should have access to information that makes it clear what type of network they are using, e.g. consumers should be informed whether their service is provided via a mobile based 5G network or a fixed wireless line of sight network as this has a direct impact on the appropriateness of the service for their specific needs.

Yours faithfully,

Tom Berryman

Chief Technology Officer