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Dear Ms Ross / Mr Wright

Macquarie Telecom's Submission to the Superfast Broadband Access Service Declaration inquiry

1. Executive Summary

Macquarie Telecom (**Macquarie**) welcomes the opportunity to provide submissions in respect of the Australian Competition and Consumer Commission's (**ACCC**) discussion paper titled "*Superfast Broadband Access Service Declaration Inquiry*", dated May 2015 (**Discussion Paper**).

The key points from Macquarie's submissions are as follows:

1.1 Background and Context – a changed landscape

Macquarie strongly supports the declaration of a Superfast Broadband Access Service (**SBAS**) and considers the declaration of SBAS is critical given the changes to the regulatory and technology landscape over the past few years.

It is critical that regulation of the fast-moving telecommunications sector is dynamic and responsive to issues which arise as a result of changed circumstances – some of which were never anticipated or envisaged by policy makers the Government or the industry as a whole.

In order to fully appreciate the key themes of Macquarie's submissions and the rationale behind the specific responses to the ACCC questions in the Discussion Paper, it is essential to acknowledge the key changes to the regulatory and technology landscape for superfast broadband that have occurred in recent years.

1.1.1 NBN Level Playing Field Provisions not effective

It is clear that NBN level playing field / anti-cherry picking provisions of Part 7 and Part 8 (**NBN Level Playing Field Provisions**) are not as effective as originally anticipated.

The short-comings and loopholes of the legislation were underscored with TPG's extension of its network to deploy fibre to the basement infrastructure to some 500,000 apartments in major Australian capital cities, in a move which competes directly with National Broadband Network (**NBN**) Co's plans to conduct similar rollouts under the NBN.

At the time the NBN legislation was enacted, it was clearly contemplated that conduct such as TPG's would be prevented under the operation of the NBN Level Playing Field Provisions. However, the fact that the NBN Level Playing Field

Provisions were ineffective in that case undermines the underlying assumption that superfast broadband access should be provided on a wholesale basis only and requires a re-evaluation of regulatory approach.

TPG's conduct led to the implementation of the *Carrier Licence Conditions (Networks supplying Superfast Carriage Services to Residential Customers) Declaration 2014 (Carrier Licence Conditions)* as an interim "stop-gap" measure to address the short comings of the NBN Level Playing Field Provisions.

1.1.2 A move away from FTTP

The previous Labor Government had planned to connect 93 per cent of premises directly to fibre (fibre-to-the-premises, or **FTTP**). In this scenario, fibre would be connected directly to each dwelling or business in a multi-tenanted building.

When the Coalition came to power, it affirmed its commitment to the NBN, however, in a vastly different form implementing the so called "multi-technology mix" which will see FTTP to around 1.5 million premises; FTTN and HFC to the remainder of the fixed-line footprint; fixed wireless and satellite solutions to certain regional areas. This change included a change to a FTTB approach for multi-tenanted buildings.

The move away from FTTP has a dramatic impact on the regulatory landscape for superfast broadband. In particular, the NBN Level Playing Field Provisions no longer operate effectively, particularly in the context of multi-tenanted buildings. Multi-tenanted buildings, whether they are businesses, residential or a combination of both, represent an important competitive battleground, offering as they do the ability to potentially reach a high number of customers for a comparatively low infrastructure investment.

1.1.3 Advances In Technology and Technology Challenges

In addition, advances in vectored VDSL technology have had a dramatic impact. Providers are able to achieve very high speeds over existing in-building copper infrastructure. While roll outs of this kind were not attractive or viable under the previous FTTP plans that envisaged the installation of new fibre connections to each unit of a multi-tenanted building, under the MTM approach, such roll-outs compete directly with that intended NBN approach.

However, a key issue with the adoption of a vectored VDSL approach is that once a provider moves into a multi-tenanted building, it is simply not technically feasible to have a second operator providing services over the same in-building copper infrastructure. In other words, there is an overwhelming "first mover" advantage. The competition implications of this are clear, and are discussed in detail in Macquarie's submissions.

1.1.4 The cumulative effect of the impact of recent changes

It is clear from the outline above, that the regulatory and technology landscape is significantly different than anticipated by policy makers, the government and the industry as a whole at the time the NBN legislation was enacted. Macquarie submits that it is vital for regulation to be dynamic and responsive and adapt as the regulatory and technology landscape evolves.

If the landscape had not changed, as set out above, the NBN Level Playing Field Provisions would have operated effectively. While the focus of the NBN Level Playing Field Provisions has always been on providing access to residential customers rather than businesses, this was likely to have been less significant under the previous paradigm. In particular, in the absence of the ability to target

residential customers, the role out of new business-only focussed FTTB networks would be unlikely to be viable. The ineffectiveness of the NBN Level Playing Field Provisions therefore has an effect on competition in both residential and business markets.

The NBN Level Playing Field Provisions were designed to allow infrastructure competition in the business market. However, with the development of vectored VDSL technology such infrastructure based competition is not possible over the existing in-building copper infrastructure. Once one provider moves first into a multi-tenanted building to provide superfast broadband over the existing in-building copper network, the whole building becomes incontestable for other providers.

This is not an issue in large CBD office towers where in-building fibre infrastructure is already in place. However, vast numbers of businesses are located in multi-tenanted buildings that are still reliant on in-building copper infrastructure, and it is clear that, for many of these buildings, vectored VDSL will provide the most effective means of providing broadband access for the medium term. Businesses in buildings of this type would include small and medium businesses as well as the branch offices or locations of larger businesses and government departments.

Macquarie submits that the declaration of SBAS is critical in addressing the changed landscape. It is vital that wholesale obligations are put into place to address the creation of potential bottlenecks in these locations. Unless wholesale obligations are mandated via a SBAS, the first mover provider into a multi-tenanted building will determine the choice of service for all end customers, residential and corporate.

1.2 Macquarie supports the declaration of SBAS

Given the background and context above, Macquarie strongly supports the declaration of a Superfast Broadband Access Service (**SBAS**). Superfast broadband is critical to the future of Australia's digital economy. The importance of superfast broadband has been enshrined in legislation and the Government's commitment to the National Broadband Network (**NBN**).

Macquarie submits that regulation must adapt and change to address the evolution in the regulatory and technology landscape. Declaration of SBAS is an essential addition for ensuring competition in the market for superfast broadband.

Declaring SBAS will promote the Long Term Interest of End-Users (**LTIE**) because such a declaration will likely result in:

- the promotion of competition in the relevant markets; and
- encouraging the efficient use of and investment in infrastructure by which the service is supplied, or are capable of being supplied.

Whenever Vectored VDSL technology is used within a multi-tenanted building, there is a "first mover" advantage for the access provider which creates an enduring bottleneck. Macquarie's submissions clearly evidence why a declaration of SBAS is required to address this issue.

1.3 Customer Type

In Macquarie's view, the competition issues arising from the provision of vectored VDSL services to multi tenanted buildings are identical regardless of whether the end user is a residential or business customer. The issues discussed above will affect residential,

business or mixed use buildings equally. As also noted above, the full range of businesses, from small businesses to branches of very large businesses will all be affected.

Both the NBN level playing field / anti-cherry picking provisions of Part 7 and Part 8 (**NBN Level Playing Field Provisions**) of the *Telecommunications Act 1997 (Telco Act)* and the *Carrier Licence Conditions (Networks supplying Superfast Carriage Services to Residential Customers) Declaration 2014 (Carrier Licence Conditions)* operate so that regulation only applies to networks servicing particular customer types (i.e., residential and 'small business' in the case of the NBN Level Playing Field Provisions and residential customers only in the case of the Carrier Licence Conditions).

Macquarie is firmly of the view that, in this context, regulation based on customer type should be abandoned. Our submissions illustrate that:

- as the SBAS is a wholesale service, the access provider should be indifferent to the wholesale customer's end-user type (e.g., residential and small business customer, SMEs and larger corporate and government customers);
- it is not appropriate to determine the relevant markets based on the end customer type because whenever Vectored VDSL technology is used within a multi-tenanted building, there is a "first mover" advantage for the access provider which creates an enduring bottleneck;
- this enduring bottleneck will exist regardless of whether the multi-tenanted building is tenanted by residential end customers, business end customers or a mixture of both; and
- the enduring bottleneck is created by the implementation of Vectored VDSL technology over existing in-building copper infrastructure and the "first mover" advantage.

1.4 The whole regulatory landscape must be considered

Macquarie understands that the ACCC is specifically focussed on whether SBAS should be a declared service. However, Macquarie submits that the underlying issues cannot be viewed in isolation and the whole regulatory landscape (and changes to that landscape) must be considered.

The Discussion Paper provides a helpful overview of the regulatory landscape for superfast broadband, particularly in relation to the operation of the NBN Level Playing Field Provisions and the Carrier Licence Conditions and how these regimes operate in a mutually exclusive manner.

Macquarie understands from page 13 of the Discussion Paper that one of the ACCC's "key consideration for this declaration inquiry is whether there is a need for regulation of networks that are capable of supplying superfast carriage services following the expiry of the Carrier Licence Conditions (31 December 2016)."

Macquarie submits that there is clearly a need for regulation of networks that are capable of supplying superfast carriage services following the expiry of the Carrier Licence Conditions. However, even if a suitable declaration was to come into force for SBAS which covered all high speed broad band networks regardless of end customer type, such a declaration would not address the shortcoming of the NBN Level Playing Field Provisions.

In other words, Macquarie submits that Part 7 and Part 8 of the Telco Act need to be amended to apply more broadly and also to be agnostic as to end-customer type.

Macquarie's has provided detailed responses in respect of the specific questions from the Discussion paper in Section 2 below.

2. Responses to specific questions in Discussion Paper

1. ***What are the relevant markets for the purpose of this Discussion Paper and the application of the LTIE test?***

Macquarie considers that the relevant markets are the wholesale and retail markets for the provision of high speed broadband services. At a retail level, this includes both residential and small business customers, SMEs and larger corporate and government customers.

In other words, in the case of superfast broadband access service (**SBAS**), it is not appropriate to make the distinction between different end customer types. In defining the market, a key factor is whether or not the end user can switch from one service to another (demand-side substitution). The use of VDSL/vectoring technology acts as an impediment to end user substitution and therefore as an impediment to competition because the technical features of the product mean that several providers cannot gain the benefits of the technology using the existing in-building copper infrastructure within a building. As a result, the first provider into such a building will be the only accessible provider of that service. Unless that provider is required to offer the service to other access seekers on an open-access wholesale basis, all end user will be tied to that provider while in that building. In this case it is the nature of the service which affects competition, not the nature of the end user customer.

For the purpose of the Discussion Paper and the application of the LTIE, the circumstance which should be addressed is wherever VDSL/vectoring technology is used in combination with the existing in-building copper infrastructure to provide high speed broadband services.

As noted above, as the SBAS is a wholesale service, the access provider should be indifferent to the wholesale customer's end-user type (e.g., residential and small business customer, SMEs and larger corporate and government customers).

Macquarie submits that it is not appropriate to determine the relevant markets in this case based on the end customer type because whenever vectored VDSL technology is used within a multi-tenanted building, there is a "first mover" advantage for the access provider which creates an enduring bottleneck. This enduring bottleneck will exist regardless of whether the multi-tenanted building is tenanted by residential end customers, business end customers or a mixture of both.

Macquarie submits that there is sound precedent for disregarding end-customer type for the purpose of market definition and competition analysis in a similar context. In the ACCC's "*Final Report on the Review of the Declaration for Domestic Transmission Capacity Service*" dated March 2014 (**DTCS Final Report**) the ACCC determined at page 26:

The ACCC does not consider that defining separate product markets according to types of customers served (for example, C&G customers) is likely to significantly contribute to the competition analysis for the purposes of declaration. The ACCC acknowledges that the tail-end component, whilst able to be purchased separately is often combined (bundled) with an inter-exchange component for use in an access seeker's network.

The ACCC notes Optus' submission that the DTCS declaration assumes that all related downstream markets face similar market conditions and customer requirements. However, the ACCC considers that transmission services are an input into a large variety of downstream markets (including the C&G sector) and that the transmission services used for the C&G market have similar characteristics to transmission services used in other residential and business service markets (albeit at higher capacities).

Macquarie considers that a similar analysis applies in the case of the SBAS.

2. *Would declaring a superfast broadband access service promote the long-term interests of end users? Please give reasons, referring to the implications for competition, any-to-any connectivity (where relevant) and the efficient use of and investment in infrastructure.*

Macquarie considers that such a declaration would promote the long term interests of end-users (LTIE). The implications for competition are particularly acute where existing copper wiring in multi-tenanted buildings is used to provide Vectored VDSL services. Where an operator runs fibre to such a building in order to service one tenant in such a building, and uses Vectored VDSL to provide a service to that tenant, it becomes virtually impossible for an alternative providers to provide competing services to tenants in that building.

As detailed above, whenever Vectored VDSL technology is used within a multi-tenanted building, there is a "first mover" advantage for the access provider which creates an enduring bottleneck. Further it is not an efficient use of investment and infrastructure to invest in duplicate access infrastructure – whether VDSL2 technology or another high speed access technology -- in such circumstances, nor is it technologically feasible.

Accordingly, it is in the LTIE for such declaration to be in place in such circumstances to ensure effective competition can occur in downstream retail markets and promote the efficient use of infrastructure.

3. *Do any superfast broadband networks represent, or are they likely to represent in the future, a bottleneck for providing broadband services to end-users? Please give reasons referring to the state of competition in broadband (and other relevant) markets, any-to-any connectivity and the efficient use and investment in infrastructure.*

Macquarie submits that superfast broadband networks already represent, and are likely to represent in the future, a bottleneck for providing broadband services to end-users.

The scope of the Carrier Licence Conditions is extremely narrow. The obligation of access providers not to discriminate between its own retail arm and other wholesale customers in respect of supplying 'super fast carriage services' or specified broadband services is strictly limited to those parts of the 'designated telecommunications network' servicing residential customers only. The parts of the network used to supply business customers, essentially any customer that has an ABN and carries out a business or enterprise, even from home, public bodies and large charities are excluded. This means that carriers who discriminate against other wholesale providers in supplying to business customers are not in breach of the Carrier Licence Conditions.

However, clearly such conduct is anti-competitive, creates a bottleneck and not in the LTIE regardless of the type of the end customer.

The ACCC has stated at page 13 of the Discussion Paper that:

... the key consideration for this declaration inquiry is whether there is a need for regulation of networks that are capable of supplying superfast carriage services following the expiry of the carrier licence conditions (31 December 2016).

Macquarie submits that there is clearly a need for regulation of networks that are capable of supplying superfast fast carriage services due to the enduring bottlenecks which are being created. The ACCC must ensure that the scope of such a declaration is broader than the Carrier Licence Conditions and covers all superfast broadband networks regardless of the end-customer type.

The Explanatory Statement for the Carrier Licence Conditions states at page 36:

This Declaration is intended to capture networks that are targeting residential customers, rather than local access lines that supply such services wholly or principally to business or government customers. This reflects the fact that, historically, the fixed-line residential local access network has been the focus of competition concerns.

Macquarie respectfully submits that it is clearly not appropriate to continue to focus regulation based on the type of the end-customer. Macquarie submits that regulation should instead focus on the provision of equivalent access of network infrastructure on an equivalent and non-discriminatory manner. The type of end-customer is not an appropriate consideration when considering an infrastructure based wholesale service such as SBAS.

As submitted above, the DTCS Final Report clearly illustrates it is not always appropriate to focus competition analysis on the end customer type. In its determination on page 26 of the DTCS Final Report, the ACCC clearly outlines why, in that case, residential and business service markets have the same characteristics "albeit at higher capacities" for business customers.

Macquarie Telecom submits that the same applies in the case of SBAS. The characteristic of residential and business customers in this context are essentially the same.

With DTCS, the ACCC developed a methodical approach to identifying which routes were competitive and which routes were not competitive based on certain criteria (as summarised by the revised competition assessment methodology set out on page 14 of the DTCS Final Report). In the same way, it would be open to the ACCC to develop a very simplified methodology regarding what areas or buildings should be regulated under the SBAS.

Application of Parts 7 and 8 of the Telco Act

The same rationale applies to the application of the operation of the anti-cherry picking / level playing field provisions of Parts 7 and 8 of the Telco Act. While there was comprehensive consultation over these provisions, they have been in operation for some time and it is clear that they are not as effective as they could be.

The Discussion Paper notes at page 18 new regulatory framework and amendments to the Telco Act which are intended to take place from 2017. However, these proposed amendments do not fully address Macquarie's concerns and Macquarie submits that these provisions need to be comprehensively reviewed and overhauled.

The anti-cherry picking / level playing field provisions of Parts 7 and 8 of the Telco Act only apply to superfast networks supplying "residential or small business customers" (which is very narrowly defined to only capture businesses with less than 15 employees). For the reasons set out above, the carve out of certain types of customers is not appropriate.

Macquarie submits that the default position under **any regulation** of SBAS (whether a declaration made by the ACCC or Parts 7 and 8 of the Telco Act) is that regulation should be structured to ensure that, where infrastructure based competition is not feasible, bottlenecks are not created based on a first mover basis.

It is simply not economically viable to duplicate infrastructure in many cases. The only exception to regulation should be in a small number of CBD areas where facilities based competition already exists or is clearly feasible.

The focus on regulation based on customer type in this context, has proven to be unsuccessful. The reality is that medium and large businesses and other organisations such as supermarket chains, banks, government departments and agencies have branch offices all across Australia in buildings in which facilities based competition does not exist. Such customers are also impacted where bottlenecks are created.

In addition, the economics of servicing a multi-dwelling building which is purely residential, purely business or a mixture of both are not materially different. Accordingly, it is simply not appropriate for regulation of SBAS to continue to draw distinctions based on the end customer type.

4. Do you consider that any existing wholesale commercial terms and conditions of access to superfast broadband networks inhibit competition? If so, what have been the effects on the ability of access seekers to compete? In the future, what are the likely effects on the ability of access seekers to compete?

Yes. Macquarie considers that wholesale commercial terms and conditions of access to superfast broadband networks already inhibit competition and will continue to do so unless an appropriate declaration is put in place by the ACCC.

Macquarie is particularly concerned about the "first mover" advantage in multi-dwelling buildings. Macquarie is keen to ensure that whichever access seeker is the "first mover" in a building, is required to offer wholesale SBAS of equivalent terms to wholesale customers.

For example, if any access provider offers an upgraded or faster service to retail customers in multi tenanted building.

In order to ensure that access seekers / wholesale customers are not disadvantaged, the ACCC must ensure that the terms and conditions of supply of the declared SBAS require access providers to inform access seekers of proposed upgrades or changes to SBAS:

- at the same time it notifies its retail arm of such upgrades, changes or new SBAS; and
- at least 3 months before the access seeker notifies retail customers / potential retail customers in the building of such upgrades, changes or new SBAS. This window will allow access seekers/wholesale customer to have the ability to effectively compete for the business of the retail customers for such services.

This would ensure that, to the greatest extent possible, access seekers were truly placed on a level playing field with the retail arm of access providers.

5. If the ACCC were to declare a superfast broadband access service:

(a) What would be an appropriate service description?

Macquarie submits that an appropriate description for SBAS would ensure that the service description is linked to wherever Vectored VDSL (or equivalent technology) is deployed using FTTB and using existing in-building copper wiring.

The service description should be "speed neutral", and capture all speeds provided by an access provider connecting VDSL2 / vectoring technology to existing copper networks. In other words, the ACCC should ensure that the service description for SBAS is not limited to set speeds, but is broad enough to capture any speed which an access provider provides is / is capable of providing to end retail customers.

(b) Should the service description be technology neutral?

See response to question 5(a) above. Macquarie reiterates that the service description for SBAS needs to be "speed neutral".

(c) What specifications, if any, should the service description include? For example, should the service description include specifications as to quality of service (such as speed)?

See responses to Questions 5(a) and 5(b) above. The service description must contain specifications which require access providers to provide superfast broadband speeds to access seekers / wholesale customers at the same speeds at which it supplies its own retail arm / end retail customers.

(d) Which types of services should be captured and/or excluded by the service description? Please give reasons, referring to the implications for competition, any-to-any connectivity (where relevant) and the efficient use of and investment in infrastructure.

Macquarie submits that the declaration should apply broadly and capture any connection to any building. The only exclusions (i.e., regulated buildings) under the declaration should be buildings where facilities based competition already exists.

(e) Do you consider that the LBAS service description is an appropriate starting point for a SBAS service description which may apply to a broader range of services or network providers?

No. Macquarie does not consider that the LBAS service description is an appropriate starting point. The LBAS service description covers speeds which are significantly lower than what is offered in the current market. Further, the LBAS description is not capable of being responsive to or adapting to the changing market.

6. If the ACCC were to declare a superfast broadband access service:

(a) Should the service description cover the SBAS nationally, or be limited in geographic scope? Please give reasons why/why not.

(b) Will carrier-specific exemptions promote the LTIE? Please give reasons why/why not.

Macquarie submits that the service description should be national and not include any carrier exemptions (other than the NBN which only supplies services on a wholesale basis only). Any carrier specific exemptions would not promote the interests of the LTIE because they will effectively allow the relevant carrier to avoid providing an open access wholesale service and create a bottleneck.

7. What is an appropriate duration for the declaration? Please give reasons.

Macquarie submits that an appropriate duration for the Declaration would be four years with a mandated 2 year interim review. The purpose of the interim review would be for the ACCC to access whether the Declaration was operating effectively and as intended and whether there had been any material changes in the industry or technology developments impacting the operation of the Declaration.

8. Having regard to the potential sources of regulatory burden listed above, would declaration of an SBAS lead to a substantial increase in regulatory burden on your

business? If so, please provide details and where possible evidence of the likely increase in regulatory burden.

Macquarie does not anticipate a significant regulatory burden if SBAS was to be declared.

Further Macquarie supports the ACCC's view at page 24 of the Discussion Paper that:

The ACCC considers that the only costs that are likely to arise as a result of declaration are administrative costs that may be incurred by businesses undertaking their own internal compliance processes to ensure that they are supplying services in a manner that meets the obligations in the CCA.

Macquarie submits that any minimal administrative burdens borne by access seekers will be far out-weighted by enhanced competition in the market and the LTIE that will be delivered by a SBAS declaration.

If you have any questions regarding these submissions please do not hesitate to contact me.

Yours sincerely

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