

The logo for Optus, consisting of the word "OPTUS" in a bold, teal, sans-serif font.

Submission in response to  
ACCC Discussion Paper

**Declaration for the  
Domestic Transmission  
Capacity Service**

Public Version

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## Section 1. EXECUTIVE SUMMARY

- 1.1 Optus welcomes the opportunity to provide comments in relation to the ongoing need to declare the domestic transmission capacity service (DTCS). The DTCS has been a long standing declared service which many access seekers have utilised to offer competitive services in related downstream markets.
- 1.2 In saying that, however, the benefits of the DTCS Declaration to industry has been somewhat diminished through the pricing construct adopted in the final access determinations. Optus has long called for reform to the pricing the various DTCS products.
- 1.3 Many of the problems associated with pricing come from the fact that the DTCS service itself is not reflective of the way wholesale transmission services are acquired and used in related downstream markets. The single DTCS service encompassing all forms of data transmission – from 2 Mbps local lines to 100 Gbps inter-capital express trunking links – into one declared wholesale service has not led to optimal pricing across the full range of transmission products.
- 1.4 Optus submits that there is a sufficient break in the supply and demand substitution between certain transmission products that would warrant separate declarations. To that end, we submit that market evidence shows there are three separate wholesale transmission markets:
  - (a) Market for low bandwidth service (less than 10 Mbps), typically 2 Mbps lines used primarily for corporate and government access services;
  - (b) Market for high bandwidths greater than 10 Mbps and below 1 Gbps, reflecting transmission services used in several downstream markets; and
  - (c) Market for very high bandwidths greater than 1 Gbps, reflecting inputs into carrier services typically inter-capital and other high capacity trunking routes.
- 1.5 Optus notes that many of the views in the discussion paper reflect observations on the second market identified above. The regulation of the DTCS appears to under-play the other two markets at the low and very high bandwidth levels – notwithstanding the fact that data in the last FAD showed over half of all transmission lines were at 2 Mbps bandwidth.
- 1.6 While we acknowledge that it is open to the ACCC to adopt different pricing methodologies for the different transmission services captured by the omnibus DTCS declaration, the ACCC has failed to do so in its last two FAD Inquiries. Optus submits that declaring multiple transmission services would promote the LTIE through:
  - (a) Promoting competition in downstream markets by enabling wholesale inputs to better reflect the true cost of supply; and
  - (b) Encouraging efficient use of, and investment in, infrastructure through setting more efficient price signals that better reflect build-buy considerations.
- 1.7 Outside of changes listed above, Optus does not support changes to the description of the DTCS service. Concepts like ‘dedicated and not shared’ are integral to the design of the product and separate transmission services from other regulated bandwidth services. Changes to these terms risk double-regulation of transmission products.

## Section 2. DTCS SHOULD BETTER REFLECT DOWNSTREAM MARKETS

- 2.1 The DTCS is currently defined as an omnibus transmission service that covers all dedicated transmission links greater than 2 Mbps. The Discussion Paper notes that the DTCS is used as an input into a wide range of downstream markets.
- 2.2 Optus observes that the examples quotes in the discussion paper do not relate to products that are supplied by the majority of all transmission lines – 2 Mbps lines; which represent over half of all industry transmission lines. The failure to recognise different transmission products continues to be the central flaw in the regulation of DTCS.
- 2.3 An implicit assumption in the wide-ranging DTCS description is that all included transmission services are substitutable (supply and demand) across the identified downstream markets in which they are used. That is, end-users across all downstream markets consider the price of 2 Mbps and 1 Gbps when deciding what transmission product to use.
- 2.4 Optus disagrees with this assumption. Market evidence demonstrates that there are clear breaks in the chain of substitution across different bandwidths of transmission services. That is, not all downstream markets view all bandwidths of transmission as substitutes; further, not all suppliers of transmission view all bandwidths as substitutable.
- 2.5 Optus recommends the ACCC investigate the extent to which the wider transmission market demonstrates clear breaks in demand and supply substitution across the bandwidths of declared services.

### **Level of substitution defines scope of market**

- 2.6 An assessment of the level of substitution is key to defining the market, including the consideration demand side substitution, supply side substitution, and in some circumstances, indirect substitution, namely “chain” of substitution, all over both the product and the geographic dimension.<sup>1</sup>
- 2.7 This section briefly looks at how an assessment of the level of substitution across products and geographies is used to determine the size of the relevant market in the context of transmission markets.

### Determining level of substitution

- 2.8 Substitution involves switching from one product to another in response to a change in the relative price, service or quality of two products (holding unchanged all other relevant factors, such as income, advertising or prices of third products).<sup>2</sup> In telecommunications, the ability of any given provider to increase prices is constrained by demand substitution and supply substitution.

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<sup>1</sup> The ACCC 2017, Merger guideline (November 2008 – updated 2017), <https://www.accc.gov.au/system/files/Merger%20guidelines%20-%20Final.PD>

<sup>2</sup> The ACCC draws on the conceptual framework provided by the hypothetical monopolist test (HMT) to define the relevant markets, particularly in relation to demand-side substitution. The HMT determines the smallest area in product and geographic space within which a hypothetical current and future profit-maximising monopolist could effectively exercise market power.

- 2.9 Demand substitution (end-user switching) is usually regarded as the most important competitive constraint affecting firms. For example, the EC Notice on the definition of relevant market for the purposes of Community competition law, states: “*demand substitution constitutes the most immediate and effective disciplinary force on the suppliers of a given product, particularly in relation to their pricing decisions.*”<sup>3</sup> Thus, evaluating whether demand substitution exists constitutes the core element of any market analysis.
- 2.10 To be included in the relevant market, a product in a particular geographic region (or a group of products or regions) must be a close substitute in demand. A transmission service in a particular geographic region is a close demand-side substitute if a significant proportion of sales would be likely to switch in response to a small but significant increase in the price of the merger party’s product, quickly and without significant switching costs.
- 2.11 In cases where only a small proportion of sales is likely to switch for example, the alternative product or geographic region (or group of alternative products or regions) is not part of the relevant market. Qualitative and quantitative information should be requested and carefully investigated from transmission customers and the provider to examine substitution possibilities.
- 2.12 Substitution and market power can be further analysed by the imposition of a small but significant and non-transitory increase in price (SSNIP), using a hypothetical monopolist, to characterise above the price level that would prevail at the base case, assuming the terms of sale of all other products are held constant.<sup>4</sup> If this hypothetical monopolist supplier of this product cannot profitably institute a SSNIP because end-users are switching to alternative products, the next closest demand substitute is added, and continues. The result is a collection of products expanded until a hypothetical monopoly supplier of all those products could profitably institute a SSNIP.
- 2.13 Supply-side substitutes should also be considered in defining the product and geographic dimensions of the transmission market. A service may be considered a supply-side substitute if the supply process for that product can be switched quickly and without significant cost to supply a demand-side substitute for the product, if there is a price rise to the product.
- 2.14 In addition to direct substitution, the boundary of a market can also take into account whether chains of substitution, a form of indirect substitution, exist. This is when a ‘chain’ of services in the product dimension or a ‘chain’ of regions in the geographic dimension exists. In the context of transmission markets the ACCC should consider examining whether there are clear “breaks” in the chain, looking at whether there are large discontinuities in the products offered, their functionalities, costs and prices. I.e. products on one side of the break are not close substitutes for those on the other side of the break.
- 2.15 As a chain of substitution expands, the proportion of customers that can switch to neighbouring links in the chain (marginal end-users) will tend to decrease and at some point, a hypothetical monopolist controlling the chain would find a SSNIP profitable regardless of those switching customers. Further, where price discrimination is possible, a market may be limited to the captive customers at the centre of a chain or circle of

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<sup>3</sup> See, Official Journal of the European Communities, 1997, Commission Notice on the definition of relevant market for the purposes of Community competition law, paragraph 13. Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:31997Y1209\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:31997Y1209(01))

<sup>4</sup> A SSNIP in the context of the Hypothetical Monopolist Test usually consists of a price rise for the foreseeable future of at least 5 per cent above the price level that would prevail without the merger.

substitution. The further removed from the product or region under investigation, the less likely it is that an indirect substitute will be included in the relevant market.

### Other markets utilise chain of substitution approach

- 2.16 It is also instructive to examine how other jurisdictions utilise the key concepts of substitution, direct and indirect, to examine the limits of transmission markets. Jurisdictions such as the UK, in defining relevant markets for transmission services, they first set out a broad market for high quality access, and explains that a “chain of substitution” may link services of different bandwidth and technology.<sup>5</sup>
- 2.17 In the UK, where they rely on a chain of substitution analysis, Ofcom imposes a SSNIP in a candidate market, and if demand-side substitution to, or supply side substitution from, alternative services is sufficient to render the price increase unprofitable, then the market should be widened to include the closest substitute services.<sup>6</sup> Ofcom noted that “if the evidence suggests clear breaks in the chain of substitution then this could justify the definition of separate relevant product markets”.<sup>7</sup>
- 2.18 The takeaway for the ACCC is they should ascertain whether any breaks in the chain of substitution observed across the full range of bandwidth services contained in the omnibus DTCS.

### **Identifying relevant wholesale markets**

- 2.19 Optus generally agrees with the ACCC’s views on the broad markets impacted by transmission services. However, Optus disagrees that this broad approach is the end of the analysis. Rather, evidence suggests that specific elements of the DTCS impact on specific markets in different ways.
- 2.20 The key question is whether there are distinct types of transmission that have characteristics that mean it cannot be substituted with other types of transmission products.
- 2.21 The Discussion Paper highlights different downstream markets that acquire transmission products, including business grade services, residential broadband; mobile services, and corporate and government services.
- 2.22 Optus generally agrees with the characteristics of these different markets. We note the markets above are generally consistent with the way in which Optus acquires and supplies wholesale transmission products.
- 2.23 Optus considers that the key question whether some or all of these markets have unique characteristics that result in some types of transmission products being substitutable and others that are not. For example, do end-users in the business access market consider

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<sup>5</sup> BCMR 2015, Business Connectivity Market Review – Annexes to the Review of competition in the provision of leased lines, 15 May 2015

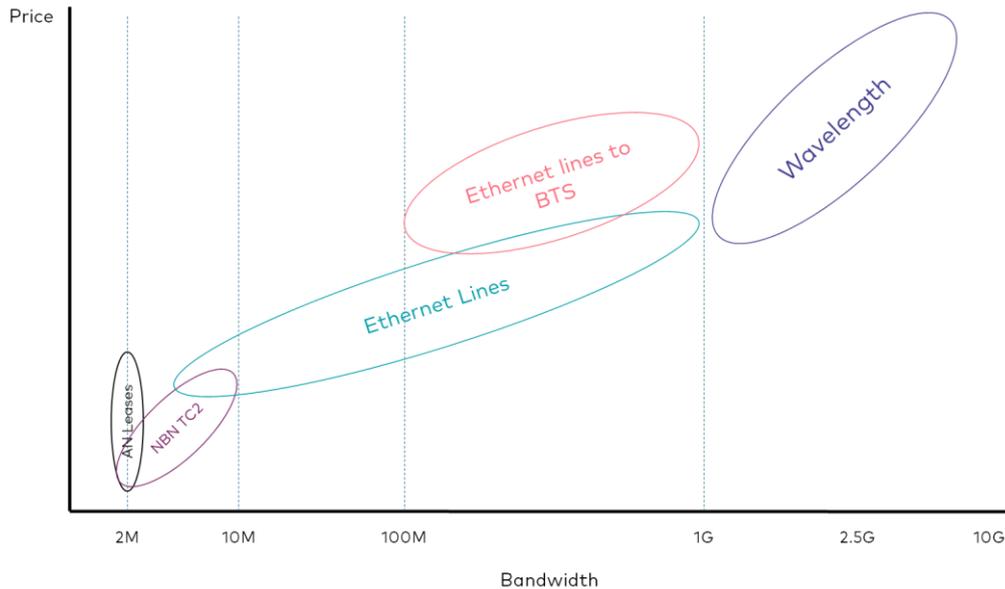
<sup>6</sup> Ofcom apply the Modified Greenfield Approach when carrying out the market definition exercise. The market definition exercise is therefore conducted in relation to a hypothetical scenario in which there are no ex ante SMP remedies in the reference market(s), but ex ante SMP remedies in other markets continue to apply. For example, they assume that remedies imposed in the Wholesale Local Access (WLA) market apply and that therefore BT is required to provide LLU, VULA, SLU and PIA.

<sup>7</sup> BCMR 2015, Business Connectivity Market Review – Annexes to the Review of competition in the provision of leased lines, 15 May 2015, Paragraph A8.17.

both 2 Mbps and 1 Gbps services when making buying decisions for their transmission service.

- 2.24 Based on our understanding of the wholesale transmission market (as both an acquirer and supplier of services) – **[CiC]** – we can broadly identify the following features of the wholesale transmission market.

Figure 1 Identifying types of wholesale transmission inputs



Source: Optus

- 2.25 Traditionally, we see three clear segments in the market;
- (a) Services for low bandwidth access lines, typically 2 Mbps lines;
  - (b) Medium to high bandwidth ethernet lines, which also includes ethernet backhaul to base stations; and
  - (c) Very high bandwidth wavelength services that are input into carrier services.
- 2.26 In addition to these traditional markets, we may see during the period of the next declaration the take up of NBN TC2 business products, which could present substitution potentials for some low bandwidth access products. Although we note that the NBN product is not a transmission product and does not fall within the definition of DTCS.
- 2.27 The distribution of transmission links acquired by Optus is shown below. This shows the number of links acquired at the different bandwidth that are covered by the DTCS declaration.

Figure 2 Distribution of transmission bandwidths **[CiC]**

Source: Optus

- 2.28 The use of these bandwidths, at a broad level, can be separated into two types of transmission services; access and trunking.
- (a) An access transmission service connects an end-user location and a network node (POP, exchange, other).

- (b) A trunking service connects two network elements, and are not considered to be part of a network's access network. These services would include high-speed express inter-capital routes, metropolitan rings, regional trunks, BTS trunks.

- 2.29 The different types of services are relevant for use in downstream markets. For instance, access services can be used to supply services to end-users (including corporates and governments). Trunking services are acquired by CSPs and carriers to connect network nodes (including base stations). In some cases, large corporations can use trunking services to connect large data server locations where they self-supply communications and data products.
- 2.30 We discuss the features of these different products below.

### **Low bandwidth services**

- 2.31 The first type of services that can be seen above are low bandwidth services greater than 2 Mbps and less than 10 Mbps. This market relies upon 2 Mbps lines – that is, for bandwidths less than 10 Mbps, provider typically utilise multiple lines of 2 Mbps services. An 8 Mbps service would comprise four 2 Mbps lines combined.
- 2.32 The clear majority of services that Optus acquires are at 2 Mbps bandwidth – with **[CiC]** of all links at this bandwidth. These low bandwidth services can be delivered over copper and fibre, and utilise SDH and ethernet technologies. Please note that obligations to migrate to NBN apply only to copper services. Where an existing fibre links remains, Telstra can continue to offer DTCS.
- 2.33 Optus submits that the low bandwidth market is dominated by 2 Mbps lines; and is likely to do so until after the NBN is fully rolled out and the migration process is complete. **[CiC]**
- 2.34 Importantly, we are seeing very little demand response from businesses to move to higher bandwidths. We anticipate in the future we may see more movement above 2 Mbps, we do not expect much movement from below to above 10 Mbps.
- 2.35 We do see a break in the acquisition for medium bandwidth services, i.e., 10 Mbps and above. We also observe that the gapping between bandwidths increased from 2 Mbps for service below 10 Mbps to gaps of 10 Mbps for services up to 100 Mbps.
- 2.36 These low bandwidth services are primarily used for access services. Optus, for example, does not use sub-10 Mbps links within its trunking network.

### **Medium to high bandwidth services**

- 2.37 The second group of services observed in the market are services 10 Mbps up to 1 Gbps services. These services are typically used to connect network nodes and/or to provide regional backhaul. We also observe these lines are ethernet-based fibre lines, compared to the sub-10 Mbps market which utilises copper and fibre and ethernet and SDH.
- 2.38 Importantly, we note that where a wholesaler (i.e. Optus) sees the MLL ethernet links as an access product it is typically used to connect major data locations – either a business' server locations or connection to data centres. Optus also acquires these services to aggregate traffic back from Telstra exchanges to our own network elements.
- 2.39 Optus acquires medium to high bandwidth links for the purpose of base station backhaul and to provide connectivity between data-intensive network nodes.

- 2.40 For the non-base station transmission links, **[CiC]** These links can be used for provision of high capacity access links to large corporations, or can be used in a carrier setting as backhaul and to connect network nodes.
- 2.41 For base station transmission links, **[CiC]**
- 2.42 We also observe there is a distinct sub-market for ethernet backhaul to base stations. These have unique characteristics of distance and bandwidth, which are both higher than that observed in the market for ethernet transmission lines to non-base stations.
- 2.43 While there is a difference in the typical demand characteristics of base station and non-base station medium transmission lines, there is one clear observation that these lines do not include lines greater than 1 Gbps. **[CiC]**

### **Very high bandwidth services**

- 2.44 The third group of transmission products that can be observed are those for services greater than (or equal to) 1 Gbps. These very high bandwidth products are primarily acquired for Optus' carrier transmission services. That is, to supply carrier grade trunking either as a transmission ring or to provide high capacity links between regional centres or inter-capital routes. We note that these bandwidths are also typically seen for connectivity to NBN POIs.
- 2.45 **[CiC]**
- 2.46 We find that end-users who demand services above 1 Gbps are typically demanding carrier services, or require geographic and carrier diverse redundancy links. These links are not primarily used for provision of access services to end-user businesses or non-CSP use.
- 2.47 There is a boundary question whether to include or exclude 1 Gbps services in the very high bandwidth group. Optus suggests 1 Gbps should be included as they tend to have the same demand characteristics of the other very high bandwidth services – namely they are primarily for entry level carrier services. Optus, for example, may choose between 1 Gbps and 10 Gbps backhaul links from NBN POIs; or for aggregation traffic from regional areas.

### **Supply-side characteristics of transmission technologies**

- 2.48 The previous section looked at the various transmission types and markets from a demand and acquisition perspective – i.e., how Optus as an acquirer of wholesale transmission inputs acquires different types of transmission. In addition to being an acquirer of transmission, Optus also builds significant amount of transmission equipment. This equipment is used mainly for supply of transmission services within our own networks. Nonetheless, it is instructive to see how different types of transmission bandwidths and products are seen as potential substitutes from the supply side.
- 2.49 In addition to the demand-side drivers of different transmission types, it is also instructive to look at the supply-side to examine how suppliers of transmission products (including both internal and external supply) to see the level of substitution between different bandwidths. That is, would a small but non-transitory price increase promote additional supply of the bandwidth, including whether suppliers would move from different bandwidths.
- 2.50 Traditionally, the trunking service (connecting network nodes) has had a higher bandwidth requirement than the access links. From a supply perspective, Optus has a focus on 1 Gbps and above ethernet services. **[CiC]**

2.51 Optus finds that there are distinct features for each of these two types of services. This implies that there could be a break in the chain of substitution at some level of bandwidth that are seen as substitutes between access and trunking purposes.

2.52 **[CiC]**

2.53 We find that the competitive dynamics, including the demand and supply characteristics, show there is a break in substitution at the 1 Gbps bandwidth.

### **Existing FAD implicitly accepts breaks in the market**

2.54 Finally, Optus observes that the current FAD implicitly accepts that there are different transmission products within the omnibus DTCS declaration because the:

- (a) FAD does not regulate prices for services with a bandwidth greater than 1 Gbps; and
- (b) FAD adopted a structural break in the pricing model for 2 Mbps services.

2.55 The key question for the ACCC in this inquiry, is whether making the split explicit in the declaration process would better enable related FADs to promote the LTIE through the adoption of explicitly different pricing methodologies.

2.56 The previous section has shown that there is a clear break across all types of wholesale transmission products. These breaks occur at:

- (a) Transmission acquired at bandwidths less than 10 Mbps;
- (b) Ethernet transmission services acquired at bandwidths greater than 10 Mbps up to 1 Gbps; and
- (c) Wavelength services delivering super high bandwidths greater than 1 Gbps, and increasingly greater than 10 Gbps.

2.57 Section 3 discusses the benefits of separately declaring transmission services with a bandwidth of 2 Mbps.

### **Assessing competition in downstream markets**

2.58 In the above sections, we have provided evidence that there are three distinct types of transmission products with unique characteristics that would warrant three separate economic markets. In this section, we show that the three separate transmission products impact different downstream markets.

2.59 We show that:

- (a) Low bandwidth transmission impacts competition in the corporate and government market. Declaration of this service remains important given Telstra's dominance in the access network for the medium term.
- (b) Medium bandwidth transmission services impact both access and trunking markets; and as such, we recommend the ACCC continue the current omnibus DTCS approach within this market; and
- (c) Very high bandwidth services markets largely impact carrier trunking markets and are subject to high levels of self-supply. Competition, therefore, remains high in this market. Declaration remains important to ensure carriers can continue to acquire diversity and provide service to more remote areas.

## Low bandwidth transmission impacts competition in the corporate and government market

- 2.60 Optus submits that low bandwidth transmission products directly impact the related downstream market for corporate and government (C&G) communications.
- 2.61 The C&G market is a separate market specially catering for business with at least 200 customers and government agencies. This market is particularly sensitive to the availability of access to Telstra telecommunications infrastructure; more so than the consumer market where needs are less complex and more localised services, allowing infrastructure based competition. The competitive drivers unique to C&G customers include:
- (a) Procurement of services on a 'whole of business' (WOB) basis with preferences for single billing, multiple services and products included on a single invoice and single point of contact for all telecommunications needs;
  - (b) Requirements for ubiquitous coverage of specialised and complex features on top of basic telephony services; and
  - (c) High incumbent inertia with enduring impacts due to high costs of changing providers.
- 2.62 This market makes extensive use of DTCS 2 Mbps access links (tail-ends). The ability to compete in this market is greatly dependent on being able to offer data connectivity at required bandwidths on a national basis. **[CiC]**
- 2.63 **[CiC]**
- 2.64 The proportion of connections required to be purchased off Telstra should not be surprising given the dominance of Telstra in building connectivity in the central business areas. The ACCC recognised in 2004 that Telstra has a dominant position in connectivity within business areas:
- The Commission notes that it remains the sole supplier of fibre to around 55 per cent of buildings and has the vast majority of directly connected customers in CBD areas. The Commission considers that this market share remains too high to consider the market to be competitive.<sup>8</sup>*
- 2.65 The situation has not changed since then. Optus submits the current declaration needs to be maintained because Telstra, as the incumbent, still enjoys a significant first mover advantage over other carriers in accessing buildings. Telstra's fibre network is connected close to **[CiC]** of buildings. The corresponding figure for Optus is around **[CiC]**.
- 2.66 Because Telstra's network is already connected to **[CiC]** CBD building, it generally does not face the above problems faced by other carriers. The high cost of building access fibre infrastructure is a significant barrier to entry in tail-end transmission capacity and in metropolitan areas the barriers to entry are even greater, since greater distances and lower expected revenues mean that it is likely to be less economic to build fibre access infrastructure compared to CBD areas.

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<sup>8</sup> ACCC, 2004, Review of the declaration for the domestic transmission capacity service Final Report, p.29.

- 2.67 Finally, we observe that the NBN could impact the market for C&G connectivity, and in particular the demand for 2 Mbps access transmission lines. We have four observations on this:
- (a) NBN services are likely only going to impact the provision of services only after the full roll-out of the NBN;
  - (b) Migration of business;
  - (c) Ongoing quality of service issues surrounding the NBN are likely to delay business migration to NBN services;
  - (d) NBN services remain shared and non-dedicated, it remains to be seen what the level of substitution will be between NBN and DTCS services.
- 2.68 Optus does not anticipate that the migration of 2 Mbps access transmission lines onto the NBN is going to occur fully within the period of the next declaration.

### Medium bandwidth services impact large C&G and downstream mobile markets

- 2.69 The provision of medium bandwidth services (up to 1 Gbps) primarily impacts the provision of trunking services between network nodes – and not between a network node and an end-user premises.
- 2.70 The declaration of DTCS has provided the greatest benefit in markets that rely upon medium bandwidth transmission inputs. Specifically:
- (a) DTCS regulation has benefitted the market for mobile services as it has enabled greater use of fibre backhaul. As demonstrated above, medium bandwidth transmission services play an important role in the provision of mobile backhaul **[CiC]**
  - (b) We also observe that there may be some access and trunking links which require medium bandwidth services – these typically relate to bandwidths below 50 Mbps. **[CiC]** Regulation of these bandwidth inputs has enabled Optus to offer services in areas where it is uneconomical or inefficient to deploy medium bandwidth transmission links

### Downstream markets impacted by very high bandwidth services

- 2.71 The ACCC highlights recent investments in transmission infrastructure, including:
- (a) Entry into long haul and short haul transmission;
  - (b) Dark fibre links to mobile sites;
  - (c) Fibre links to NBN POIs; and
  - (d) Short links to data centres.
- 2.72 Optus notes that the investments that have occurred in these downstream markets relate to the provision of very high bandwidth services. We also note that they relate to trunking services (i.e., between network nodes). Optus welcomes the observation that there has been increased competitive investment in very high bandwidth transmission services.
- 2.73 As noted above, the level of potential supply substitution is high in the provision of bandwidths greater than 1 Gbps. Optus observes that most new investment occurs at these very high bandwidths. We note that this level of investment has incurred while

most routes over which these services are supplied are unregulated; and that there is no price regulation of bandwidths above 1 Gbps. This light-handed regulation of very high bandwidth has served the market well.

## Section 3. 2 MBPS SERVICES SHOULD BE A SEPARATE SERVICE

- 3.1 Section 2 above has shown that a thorough approach to defining economic markets would result in three separate economic markets for transmission services. Namely,
- (a) Low-bandwidth access;
  - (b) Medium-bandwidth access and trunking; and
  - (c) High-bandwidth trunking.
- 3.2 The ACCC has been presented with evidence that shows the market to acquire wholesale transmission services is clearly segmented into these three distinct markets. Optus submits that market behaviour (both demand and supply) shows there are at least one, and most likely two, breaks in the market for transmission services.
- 3.3 We submit that the current approach to DTCS regulation is well suited for medium and high bandwidth transmission services – where the DTCS declaration and pricing is aimed at medium bandwidth services and very high bandwidth services are effectively unregulated through route exemption and absence of price regulation.
- 3.4 However, the same observation cannot be made about low bandwidth (2 Mbps) services. Evidence presented in the last FAD inquiry clearly demonstrated that the omnibus approach could not adequately deal with pricing issues raised by 2 Mbps services.
- 3.5 Optus acknowledges that we are over-represented in the market for 2 Mbps services. We have long informed the ACCC that this is due to our position in the corporate and government markets. Optus' unique position in this market supports our observation that the 2 Mbps service market is a separate market from other transmission markets.
- 3.6 2 Mbps services represent **[CiC]** of the wholesale transmission lines Optus acquires as an access seeker. Optus submits that the sheer number of services acquired and the very specific use of these inputs in a specific downstream market warrants a separate declaration.

Figure 3 Distribution of wholesale transmission links **[CiC]**

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Source: Optus

### ACCC has accepted 2 Mbps services are different

- 3.7 The ACCC accepted in the last FAD Inquiry that 2 Mbps services differed from the other bandwidth services. The ACCC noted that its original regression analysis of the driver of transmission prices resulted in lower prices for high bandwidth services, but increased regulated prices for low capacity service over short distances.<sup>9</sup> Optus raised concern over the approach that treated 2 Mbps services the same as medium bandwidth services, where the evidence showed there were different drivers of price.

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<sup>9</sup> ACCC, 2016, Public Inquiry to make a Final Access Determination for the Domestic Transmission Capacity Service, FINAL Report, p.53

- 3.8 The ACCC accepted these concerns in the Final FAD Decision.<sup>10</sup> The ACCC acknowledged that 2 Mbps services had features which effectively distinguish them from other transmission services:
- (a) they represent a significant proportion of the 2016 FAD benchmarking dataset
  - (b) they are predominantly SDH services at a speed of 2Mbps
  - (c) they mainly provide end customer connectivity to individual business premises (although they often include an interexchange component to link with the access seeker's network)
  - (d) they are primarily used to provide voice and data services to small to medium government and business enterprises
  - (e) they can be delivered over both copper and fibre technologies
  - (f) while still an important market segment, they are becoming less important as access seekers demand higher capacities and technology changes (although they will remain in the market for some time), and
  - (g) Telstra is the dominant provider.<sup>11</sup>

### **Separate declaration would assist efficient pricing**

- 3.9 The ACCC has utilised statistical analysis in the last two DTCS FADs to set regulated prices. The broad principle is to benchmark prices seen on competitive routes to set the price of transmission services on non-competitive routes. Much time and effort has been put into these inquiries by all interested parties.
- 3.10 However, while the statistical approach has set reasonable prices for some higher bandwidth services, for the clear majority of transmission links – i.e., 2 Mbps links – the statistical analysis has failed to set efficient pricing.
- 3.11 Optus is concerned that the nature of 2 Mbps services shows that these services are inconsistent with the purpose of the ACCC's DTCS pricing regression – namely to set prices for transmission in regulated routes based on the drivers of price in deregulated routes. This is because as the clear majority are provided by the dominant provider Telstra, the price for 2 Mbps does not vary between competitive and non-competitive ESAs; and all 2 Mbps services are priced at the same four price points.<sup>12</sup>
- 3.12 This evidence shows that fundamental differences of 2 Mbps services justifies a separate pricing approach. Optus submits that declaring 2 Mbps access lines as a separate service to the wider DTCS would ensure the ACCC adopts efficient pricing for 2 Mbps lines – and would also prevent 2 Mbps lines influencing the prices of other DTCS services.
- 3.13 Optus continues to hold the view that the LTIE would best be promoted by setting the regulated price for 2 Mbps services on a separate basis than for the other bandwidths captured in the DTCS Declaration. And that the most efficient way in which to ensure separate treatment is to separate the omnibus DTCS declaration.

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<sup>10</sup> Ibid., p.54

<sup>11</sup> Ibid., p.57

<sup>12</sup> Optus, 2015, Submission in response to Domestic Transmission Capacity Service Final Access Determination, Draft Decision, CONFIDENTIAL VERSION, October, para. 5.16

### Pricing issues were raised in previous FAD

- 3.14 Optus has repeatedly urged the ACCC recognise the basic flaws in the current modelling approach, where it is not possible to rely upon one single econometric model to set efficient prices across all DTCS types, no matter how technically well-designed that statistical model is. The prices for 2Mbps services over short distances should be determined by a different model and that prices should be no higher than Optus' prices on regulated routes.
- 3.15 Optus' expert advisor demonstrated that inclusion of a 2 Mbps dummy variable has a "highly significant" impact and indicates that prices should be around 15% lower for 2 Mbps less than 5km distance.<sup>13</sup> Optus acknowledges the 2016 DTCS FAD accounted for low capacity and short distance separately from all other services via a dummy variable in the regression model.
- 3.16 However, we note that flaws were still identified in the final model in relation to 2 Mbps services. For example, Optus submitted:
- The new models prepared by EI continue to fail the test put by the ACCC in the further consultation paper for 2Mbps services;*
- (a) The models do not predict prices close to or reflective of commercial prices;*
- (b) Does not have good in-sample and out-of-sample goodness-of-fit; and*
- (c) Are not overly simple.<sup>14</sup>*
- 3.17 Optus recommended that prices for 2 Mbps not be set according to the outputs of the flawed regression model. We submitted that it would be more efficient and effective to engage in a separate pricing process for 2 Mbps links rather than trying to fit these services together with all other DTCS services.
- 3.18 Optus supported the use of existing commercial contracts as a price ceiling for DTCS services where there is a clear inability of benchmarking to predict prices. This is clearly the case for 2Mbps pricing. Further, Optus strongly supports the use of multiple inputs to set efficient prices across the range of DTCS products that promote the LTIE. This is particularly so for specific DTCS categories where no model variation has yet accurately replicated historic or current prices, and thus cannot be relied upon to forecast future prices.

### **Separate declaration would assist efficient competition assessments**

- 3.19 The 2015-16 FAD Inquiry did conduct a thorough analysis of the impact 2 Mbps links had on the overall regression pricing approach. In summary, almost all of the issues raised about the regression analysis in the previous FAD Inquiry were directly, or indirectly, related to 2 Mbps lines. The ACCC will recall that many resources were invested in analysing issues related to 2 Mbps lines and how best to deal with these issues within the wider context of the whole DTCS market. Such time and effort does not need to be repeated in the next FAD process.
- 3.20 Optus submits it would be more effective and efficient for the unique issues around 2 Mbps transmission lines to be addressed in a stand-alone pricing process. We acknowledged that the ACCC could choose to do so in a FAD process associated with

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<sup>13</sup> CEG, 2015, Review of the draft decision on DTCS FAD, October, para.61

<sup>14</sup> Optus, 2016, Submission in response to Final Access Determination for the Domestic Transmission Capacity Service, Further Consultation Paper, CONFIDENTIAL VERSION, February, para 1.4

an omnibus DTCS Declaration, in a similar manner to the decision not to regulated prices for services above 1 Gbps.

- 3.21 However, Optus has requested separate treatment for 2 Mbps in the last two FAD processes. The ACCC continues to use regression analysis to set 2 Mbps prices notwithstanding clear evidence that it is no appropriate to do so.
- 3.22 Optus therefore recommends that the LTIE would be best promoted in separating 2 Mbps services from other bandwidths in the DTCS to ensure that the associated FAD treats the pricing of 2 Mbps in a stand-alone fashion.

## Section 4. WHOLESALE NBN MARKETS

- 4.1 This section examines issues related to the wholesale supply of services over the NBN. In summary, Optus finds that the markets for wholesale NBN services are working well and are competitive. Given this, there appears to be no case for any special treatment of NBN POI routes outside the general DTCS regulation.
- 4.2 This section outlines:
- (a) The market for wholesale NBN services, identifying:
    - (i) Market for national aggregation of NBN POI traffic; and
    - (ii) wholesale transmission from NBN POIs;
- 4.3 Optus believes that both markets are effectively competitive, with multiple providers competing to offer services to other RSPs. The competitiveness of these markets demonstrates that there is no justification for further intervention. The broadband aggregation and POI backhaul markets are being supplied by several providers, not just Telstra.
- 4.4 Optus supports the continuation of the current approach to NBN POI routes within the DTCS Declaration. We observe that the transmission supplied on NBN POI routes are very high bandwidth transmission services.

### Wholesale transmission from NBN POI

- 4.5 The backhaul market from POIs is working well. Optus both sells and acquires backhaul from other providers in this market. A number of NBN POI locations have been assessed as competitive and have been deregulated. Those that have not been regulated are subject to the declared domestic transmission pricing. There is no evidence to support further regulation or allowing the Government monopolist NBN Co to intervene in the wholesale transmission markets.
- 4.6 Competition in the supply of transmission to NBN POIs can be seen in Optus' heavy investment in providing backhaul capacity to the NBN POIs in order to offer its own services as well as to develop and provide wholesale services to other RSPs. Over the three financial years since FY14, Optus has invested more than **[CiC]** in capital expenditure to expand its backhaul services to all 121 NBN POIs. This is on top of the capital expenditure already invested prior to FY2014 to NBN POIs that already had Optus backhaul links.<sup>15</sup> Optus' investment is in addition to several other providers of backhaul, including Telstra, TPG, Vocus, and others.
- 4.7 **[CiC]**
- 4.8 **[CiC]**
- 4.9 In summary, Optus finds that the current number of locations of NBN POIs, together with commercially provided backhaul links, facilitates a functioning and efficient wholesale NBN resale market that enables RSPs to acquire national aggregation products, or wholesale backhaul products at efficient levels.

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<sup>15</sup> Many NBN POIs are in Telstra exchanges, many of which already had Optus fibre links.

- 4.10 Finally, Optus notes the ACCC market assessment in the DTCS declaration that has deemed most of the NBN POIs effectively competitive – and has removed those routes from regulation. Optus notes that this competition assessment should be applied consistently in all the ACCC’s work on this issue. The 2014 declaration inquiry increased the number of competitive NBN POI routes from 51 to 75. Optus further notes that none of the [CiC] POI locations from where Optus acquires backhaul from other providers on commercial terms are part of the deregulated POI list. This indicates that the level of backhaul competition is greater than observed by the ACCC in the 2014 declaration inquiry.

### **Investment in transmission has benefitted NBN resale wholesale services**

- 4.11 Optus Wholesale provides a national product named “Retail Broadband over NBN” to its wholesale partners. This is a Layer 2 aggregation product with a single national hand-off in Sydney.
- 4.12 As at February 2016 Optus had [CiC] wholesale customers acquiring this service, representing around [CiC] of Optus’ NBN subscribers. At October 2016 [CiC] The number of wholesale NBN SIOs has [CiC] Such positive growth numbers are consistent with an effectively competitive and well-functioning wholesale market.
- 4.13 The prices charged [CiC], thereby allowing an efficient and effective way for smaller RSPs to enter and grow the NBN market. Moreover, the use of a NBN aggregation provides smaller RSPs significant advantages over direct purchase from NBN Co. It enables small RSPs to avoid the fixed-charge nature of CVC provisioning, thereby bypassing the need to pre-purchase CVC capacity before it can acquire end-users.
- 4.14 [CiC]
- 4.15 Many other operators offer similar wholesale national aggregation products.
- 4.16 Market evidence demonstrates that the market for NBN aggregation services is working well and is addressing RSP demands. There is no evidence to support regulation or allowing the Government-owned NBN Co to intervene in this wholesale market.

## Section 5. DTCS DESCRIPTION SHOULD REMAIN UNALTERED

- 5.1 The Discussion Paper queries whether elements of the DTCS description should be altered. Optus submits the fundamental aspects of the DTCS should remain unaltered. Importantly, we submit that the difficulties associated with the regulation of DTCS experienced in the last regulatory period arose due to inclusion of 2 Mbps services in the same process as medium and high speed DTCS.
- 5.2 In 2010 the ACCC varied the DTCS service description to insert the terms 'symmetry' and 'uncontended'. These terms clarify that declared DTCS services are provided on a symmetric and permanent basis to a particular access seeker and are not shared with other access seekers. Uncontended is defined as 'dedicated and not shared'.
- 5.3 The ACCC is seeking submissions on whether it is still appropriate to continue to describe the DTCS in these terms.
- 5.4 Optus submits that the dedicated, symmetrical and non-shared aspects of the DTCS are key features that distinguish the service from other regulated bandwidth services. Dedicated and not shared should be maintained to ensure a distinction with SBAS and other bandwidth-based declared services. Optus submits that these terms capture the fundamental product feature of transmission products.
- 5.5 Importantly, there is no need to alter the definition of DTCS as all fibre-based transmission services not included in DTCS are covered by the SBAS declaration. There are no unregulated fibre products in the market – fibre is either covered by DTCS if it is uncontended and dedicated, or its covered by SBAS if it is over a shared network.

### Geographic definition of metro areas

- 5.6 The current DTCS declaration defines metropolitan route as a route where both the transmission points for the beginning and end of the route are within the same capital city boundary. The list of capital city boundaries are listed in Table 3 of the declaration.
- 5.7 Optus has noted that the list of metropolitan areas could be improved for Tasmania. The current metropolitan areas for Tasmania include a 6 km radius from the Bathurst ESA including the ESAs of: Bathurst, Davey, Glenorchy, New Town, Sandy Bay. In other words, metropolitan routes include a select number of ESAs around Hobart.
- 5.8 This has led to some perverse outcomes. **[CiC]**
- 5.9 Optus submits that Launceston should be included as a metropolitan route.