



Submission in response to the ACCC's  
Discussion Paper

## **Domestic Transmission Capacity Service**

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## Section 1. Executive summary

- 1.1 The current approach to the regulation and pricing of the Domestic Transmission Capacity Service (DTCS) has failed to adequately promote the long-term interest of end-users (LTIE). The regulation of DTCS has not sufficiently focused on promoting competition in related downstream markets. It has failed to adequately regulate the enduring bottlenecks in the ubiquitous fixed-line network that have given rise to such problems.
- 1.2 Optus submits the Australian Competition and Consumer Commission's (ACCC) should revise its current approach to DTCS pricing in the new DTCS Declaration. Optus continues to believe the current approach to DTCS Declaration and pricing detracts from the long-term interest of end-users (LTIE). A regulatory decision that sets regulated prices above the commercial price charged by the dominant player is inconsistent with the LTIE. Optus' concerns have been borne out in practice with increased prices for Access Seekers and Telstra avoiding its DTCS obligations by making nominal changes to its transmission services to move these outside the scope of the declaration.
- 1.3 The influence of the DTCS on related downstream markets will become more important as the data demands of modern telecommunications networks increase. A significant revision in the principles underlying ACCC's previous DTCS Declaration can remedy current market distortions. If the current approach is maintained, Optus believes there is a real risk that related markets that use DTCS as an input will be less competitive and impose significant harm on end-users.
- 1.4 Optus suggests that the decision to adopt a one-size-fits-all approach to pricing the services within the DTCS FAD was at least partly influenced by the breadth of services included in the DTCS Declaration. Assumptions that increased prices for tail-ends would be offset by decreased prices for long haul transmission are not borne out in practice. It needs to be recognised that the different elements of the DTCS affect different downstream markets: and this has had a detrimental impact on the LTIE.
- 1.5 Optus submits that the DTCS declaration should be separated into two different declarations that more directly relate to the specific downstream markets impacted by the service to remedy these problems. Optus submits that the declared DTCS should be separated into a declared *trunking* service and a declared *terminating* service:
  - (a) Domestic Transmission Trunking Service provides dedicated transmission capacity between Access Seekers' Points-of-Presences (PoP) in different locations. It comprises metro PoP connectivity; metro-regional PoP connectivity; and inter-capital PoP connectivity.
  - (b) Domestic Transmission Terminating Service provides dedicated symmetric connections between end-user premises and an Access Seeker's PoP. Such connectivity typically occurs within the same broad area, e.g. within the same metro area, but is not restricted to a terminating link within the same Telstra ESA.
- 1.6 Optus submits that the declaration of a separate Domestic Transmission Terminating Service will enable the ACCC to better remedy the wholesale network bottleneck that has resulted in less competition in the related downstream Corporate and Government (C&G) and mobile markets. The ACCC will also be in a better position to determine appropriate cost-based pricing for terminating services; including installation charges; monthly rental; and special linkage charges.

- 1.7 The inadequacy of current Domestic Transmission Terminating Service regulation can be seen in the dominant market shares of Telstra in the C&G market. Optus notes that the level of metropolitan connectivity has not altered since 2004 – **[CiC]**. The lack of competitive entry demonstrates the high barriers to entry in providing direct fibre connections to businesses. The persistent dominance of Telstra in the physical infrastructure connecting businesses; combined with Telstra’s persistent market power in the C&G markets (**[CiC]**) suggests that current regulatory options have not promoted the LTIE.
- 1.8 Similarly, enabling non-Telstra mobile operators to provide comparable backhaul services to regional and remote base stations will facilitate better competition and services for rural end-users and will promote competition in related downstream retail mobile market. Optus notes that Telstra now has around 50% subscriber market share in the national mobile market, with a much larger share in regional and rural areas.
- 1.9 Optus submits that the current DTCS definition could be used as the basis for the separate declared Domestic Transmission Trunking Service. Optus believes there is merit in updating the current service definition to remain relevant in the current transmission market. Optus submits that following amendments to the current definition:
- (a) Reference to *uncontended basis* should be replaced with *dedicated capacity*. The increase use of fibre is making the concept of dedicated link redundant. Many users could have a guaranteed 2Mbps or 8Mbps within the same fibre trunking link.
  - (b) DTCS description be amended to prevent Telstra from avoiding its obligations by adding on ‘managed’ services — the definition should include a clarification that the inclusion of managed services to provide fault identification/rectification does not exclude the service from regulation.
  - (c) Optus reiterates its support for the three player test for removal of regulation in specific transmission trunk routes. A further criterion should be added requiring competition in at least two distinct physical routes between two end points.
- 1.10 Optus submits that the separate Domestic Transmission Terminating Service Declaration and the Domestic Transmission Trunking Service Declaration should continue for a further five years.
- 1.11 The NBN is unlikely to have any material impact on the DTCS during the timeframe of this further declaration. Firstly, the timeframe of the NBN roll-out means that by 2019 a significant number of premises will likely be dependent on non-NBN network connections to provide connectivity. Secondly, whilst the NBN will replace the copper customer access network (CAN) and broadband services over the HFC networks, it does not replace point to point fibre connections. All communications providers are able to compete against NBN in the provision of terminating services to C&G customers. Given this it is unlikely that the C&G market will be a priority focus for NBN Co. This is reflected in its initial product offerings which are largely consumer focused.

## Section 2. DTCS Declaration has failed to promote LTIE

- 2.1 The ACCC adopted a unique approach to pricing the declared the DTCS in the 2011 Final Access Determination (FAD). The FAD pricing utilised a linear regression against a limited subset of available sources (i.e. domestic benchmarking). Optus advised the ACCC that the proposed FAD would result in inefficient outcomes and would likely cause damage to competition in the long term. In response the ACCC acknowledged that:

*Staff noted that the FAD prices generated by the regression model for shorter distance, low data rate metropolitan and metropolitan **tail-end services may be higher than some commercially negotiated prices** currently observed in the market. However, the ACCC is of the view that, **over all declared DTCS services, the FAD will lower wholesale access charges for transmission services**, particularly in regional areas where a lack of access to competitive DTCS services has resulted in higher access costs. This should flow through to lower prices for communications services<sup>1</sup>. [emphasis added]*

- 2.2 In making this statement the ACCC had assumed that Access Seekers purchase an equal share of all DTCS categories, notwithstanding any differences in regions where services are purchased, different bandwidths, and different distances. Such an assumption is incorrect and potentially discriminates against providers that have built out networks to a greater number of Telstra exchanges. This approach rewards Access Seekers that have not invested in transmission capabilities. Optus does not believe that such an approach is consistent with the intention of Part XIC.
- 2.3 Moreover, this view does not take into account the impact on related downstream markets. Optus notes that tail-end services directly impact the Corporate and Government (C&G) market, whereas long distance transmission services impact on wide variety of telecommunications markets. Competitive damage caused to the downstream C&G market is not offset by advantages in other downstream markets. Optus also notes the ACCC has not produced any evidence or data to support its claim that overall end-users are no worse off.
- 2.4 Almost *all* Access Seekers<sup>2</sup> commented in the FAD process that prices for 2Mbps links below 30km distances were significantly higher than current commercial rates. The ACCC did not directly respond to these observations, other than to state it has the ability to make BROCs if needed.<sup>3</sup> Recent OECD data supports the position of Access Seekers. The data in Figure 1 show that only Japan and Slovak Republic have higher costs for 2Mbps leased line than Australia. The cost of an Australian 2Mbps leased line is around 2.2 times greater than the OECD average.
- 2.5 The OECD publishes a range of performance indicators for telecommunication services in OECD countries, including PSTN, mobile and leased lines. The leased line basket includes transparent end-to-end leased lines from the incumbent operators — including two tail-ends and one trunking line. Virtual circuits can be included in cases where traditional leased circuits do not exist anymore; xDSL services, however, fall outside the scope of the basket.

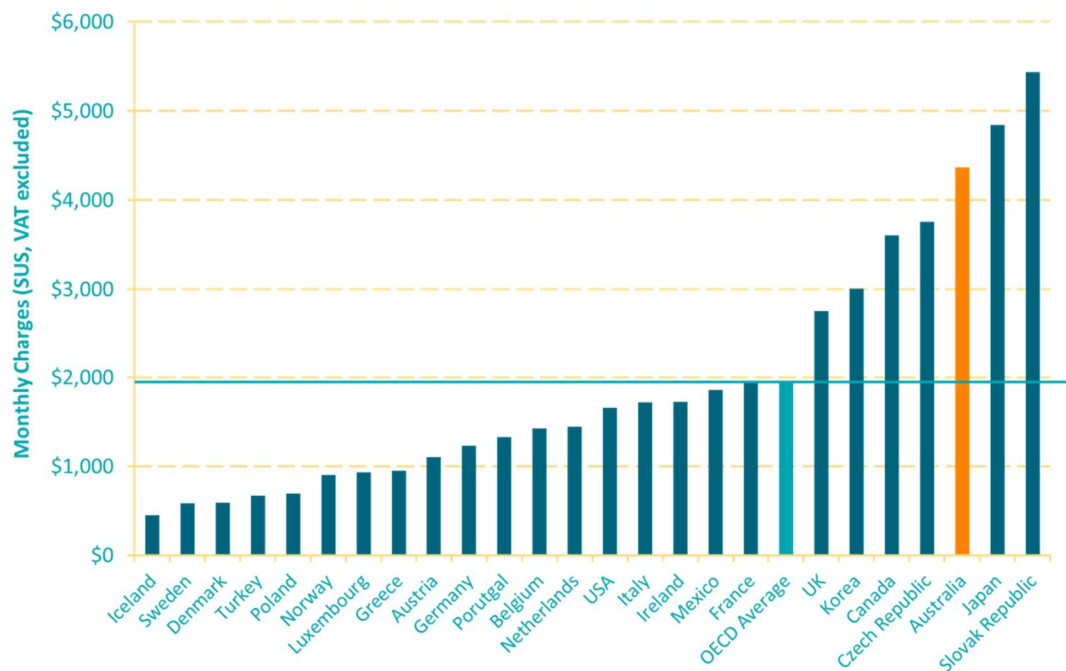
<sup>1</sup> ACCC, Final Access Determination for the Domestic Transmission Capacity Service, Explanatory Statement June 2012, p.5.

<sup>2</sup> Optus, AAPT, Macquarie Telecom, Primus and VHA.

<sup>3</sup> ACCC, Final Access Determination for the Domestic Transmission Capacity Service, Explanatory Statement June 2012, pp.14-5.

Non-recurring charges (installation) are excluded from the basket. Only monthly rental charges are included.<sup>4</sup>

Figure 1 National Average Leased Line Charges 2Mbps (\$US)



Source: OECD 2013 Communications Outlook

## Current Declaration and FAD has not promoted LTIE

- 2.6 Optus submitted during the DTCS Final Access Determination (FAD) Inquiry that the proposed pricing would enable Telstra to increase prices and as a result, it would have a negative impact on competition in related downstream markets. Optus submitted:

*Optus is fundamentally concerned with aspects of the model that result in prices for a band of services that are significantly higher than those currently offered by Telstra. For the regulator to set regulated prices at a level higher than those set by Telstra itself in the absence of any competitive threat would defy logic and sound regulatory policy. Given Telstra's substantial market power and its incentive and opportunity to monopoly price, the ACCC's prices should be significantly below those offered by Telstra under a non-competitive construct. Where the output of the ACCC's modelling would lead to increased charges relative to those currently offered, the ACCC's approach to setting prices should be reconsidered (or a no detriment policy applied) for this band of services.<sup>5</sup>*

- 2.7 Optus raised concerns about the following implications arising from the regression model in the FAD:

<sup>4</sup> OECD, 2010 . Revision of the Methodology for Constructing Telecommunication Price Baskets, DSTI/ICCP/CISP(2009)14/FINAL. For 2Mbps leased lines; the national weighting assumes 50% are 2km, 18% are 20km, 6% are 50km, 8% are 100km, 10% are 200km, and 8% are 500km. Circuits above 2 km shall include two 2 km local tail circuits within the defined distance. Circuits are assumed to be within or out of the major city in the country.

<sup>5</sup> Optus, 2012, Optus Submission in response to ACCC's draft Final Access Determination for the Domestic Transmission Capacity Service, p.1.

- (a) The modelled prices for DTCS services provided at the lower bandwidth and short distances are significantly above current market rates;
- (b) The treatment of tail-end service pricing remains problematic. For example, the price of existing 'equivalent' standalone tail-end services would be subject to significant price increases;
- (c) In respect of the price terms set out DTCS prices for both a protected and unprotected route, the observed discount of 7.5% for any given unprotected service is significantly below the **[CiC]** currently observed in the market; and
- (d) Lower installation charges should be set, given that the draft FAD sets out price terms for connection charges that are in excess of current prices in the market

2.8 Unfortunately, these expectations have materialised over the period since the implementation of the DTCS FAD. **[CiC]**

2.9 **[CiC]**

Figure 2 **[CiC]**

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2.10 **[CiC]**

2.11 **[CiC]**

2.12 **[CiC]** This is an indication that the declaration has failed to promote competition, and as a result will further erode the LTIE.

## Section 3. The DTCS description needs to change

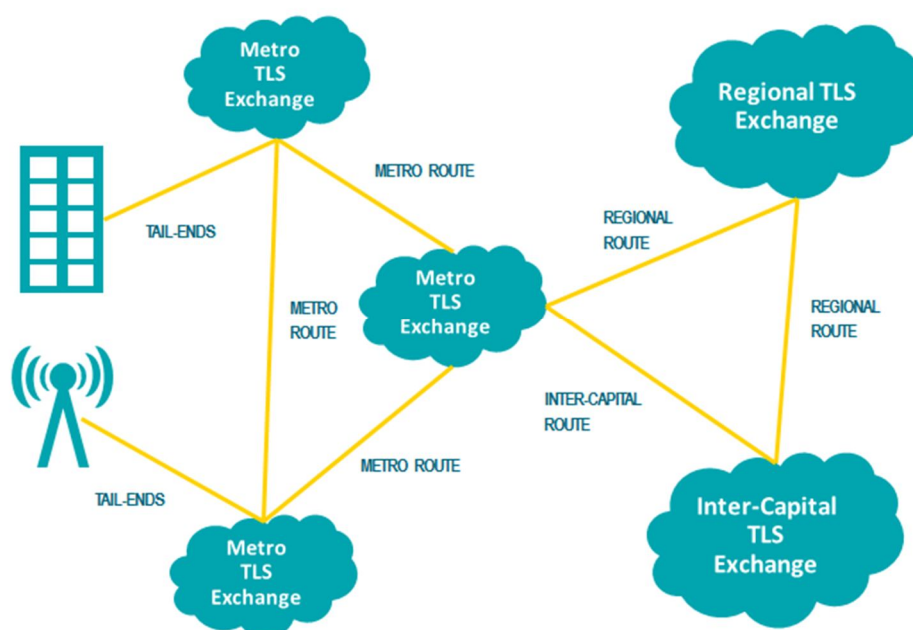
- 3.1 The central problem with the current DTCS Declaration is the 2011 FAD pricing, which resulted in regulated prices significantly greater than commercial rates for elements of the DTCS. As a result, Telstra has been given an opportunity to exploit its monopoly power in short distance transmission and tail-end services to impose higher prices on Access Seekers.
- 3.2 Optus suggests that the decision to adopt a one-size-fits-all approach to all services within the DTCS FAD was at least in some part influenced by the breadth of services included in the DTCS Declaration. To address these problems Optus believes that the DTCS Declaration should be separated into two different Declarations that are more directly related to the downstream markets impacted by the services. This will enable service-specific remedies that will better promote competition in the related markets impacts by the different services.
- 3.3 The current DTCS description is overly focused on the current Telstra network and defining transmission between Telstra network elements rather than focusing on access to services and routes required by Access Seekers. Optus notes that the Declaration and the FAD refer to different elements. While it may appear an arcane matter, Optus submits that the terminology (especially regarding tail-ends) may have an important impact. At this stage, however, Optus refers to the FAD terminology to demonstrate the impact of the DTCS on related economic markets, since it is the DTCS FAD pricing that affects the ability of Access Seekers to use DTCS to compete in related markets.
- 3.4 The current DTCS FAD pricing distinguishes between the following elements;
- (a) Inter-capital routes;
  - (b) Regional routes;
  - (c) Metropolitan routes; and
  - (d) Tail-end services, a route wholly with a single ESA.<sup>6</sup>
- 3.5 This is illustrated in Figure 3.
- 3.6 All of these services are regulated in the same manner, and subject to the same benchmarking analysis. It implicitly assumes that the services are equally in demand by Access Seekers, and impact the same downstream related markets in the same manner. It also assumes that end-users that suffer higher prices for services using one DTCS service also face lower prices for services that utilise other DTCS services — thereby being unaffected on a net basis.

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<sup>6</sup> ACCC, Explanatory Statement to the DTCS FAD, June 2012, p. 16.



Figure 3 Current DTCS services



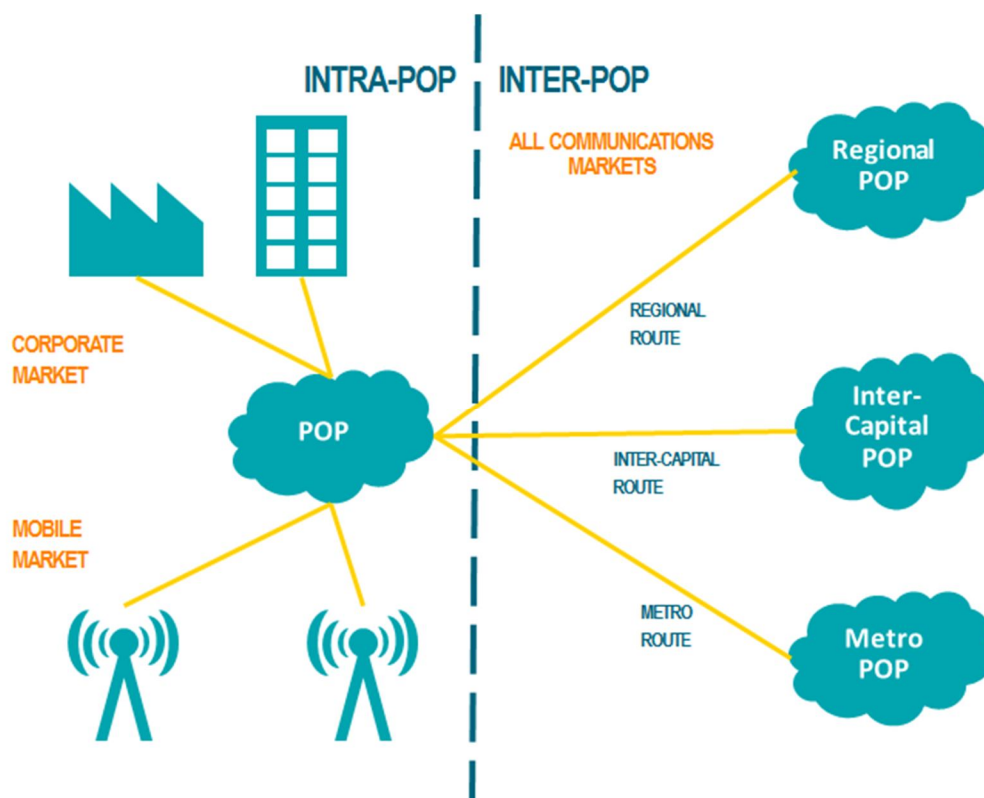
Source: Optus 2013

- 3.7 Optus submits that the definition of the transmission elements should better reflect the requirements of Access Seekers. The Declaration should ultimately reflect bottleneck services that Access Seekers can use to supply services in related downstream markets. Access Seekers require access to Telstra's transmission network to move traffic between different Points-of-Presence (PoP) where Access Seekers do not have a self-supplied transmission link. Importantly, Access Seekers' PoP locations may not exactly reflect Telstra's PoP locations (i.e. Telstra exchanges).
- 3.8 There are essentially two types of DTCS services:
- (a) End-premise to PoP (DTCS terminating links); and
  - (b) PoP to PoP (DTCS trunking).
- 3.9 The PoP to PoP traffic could be within the same metropolitan area, or between metro-regional, or inter-capital. Optus sees that the specific route definition approach in the current DTCS regulations is relevant to the PoP to PoP traffic.
- 3.10 Optus notes that the Telstra AN lease construct is an end-user to PoP product. It comprises elements of tail-ends and IEN where needed. The ACCC noted that the market did not seem to sell tail-end service separate from IEN. This may be true if one defines a tail-end as being from end-user to nearest Telstra exchange.<sup>7</sup> However, Access Seekers require connectivity between an end-user and its PoP. If, for example, an Access Seeker's PoP was located within the exchange to which the end-user was connected, no IEN would be required. Telstra also sells end-user to PoP connectivity (AN leases) and trunking services separately.

<sup>7</sup> Optus has a sub-set of AN leases that have a zero km IEN element. This is where the Optus PoP is located at the nearest Telstra exchange.

- 3.11 Optus submits that the DTCS should be separated into a *trunking* service and a *terminating link* service (i.e. tail-ends).<sup>8</sup> Trunking services provide transmission connectivity, typically at higher capacity, between Access Seekers' Points-of-Presences (PoP) in different locations. This is shown in the inter-PoP side of Figure 4. It comprises metro PoP connectivity; metro-regional PoP connectivity; and inter-capital PoP connectivity.
- 3.12 Terminating services provide connections between end-user premises and an Access Seeker's PoP. This is shown in the intra-PoP side of Figure 4. Such connectivity typically occurs within the same broad area, e.g. within the same metro area, but is not restricted to a terminating link within the same Telstra ESA. Each of these services impact on different related markets in different ways.
- 3.13 This section shows that the traditional approach of defining broad markets is suitable when regulating trunking services — which impact upon a broad range of related downstream markets; but terminating link services require a more specific definition due to the impact of these decisions on specific downstream markets.

Figure 4 DTCS and related markets



Source: Optus

- 3.14 The DTCS service is a wholesale bottleneck service used to supply transmission trunking and transmission terminating services to a range of related downstream economic markets. The central economic problem is the bottleneck nature of the DTCS service combined with the vertical integration of Telstra in both the transmission and related markets. As a result, Telstra has the *incentive* and *ability* to use its ownership of the bottleneck DTCS to damage competition in related downstream markets.

<sup>8</sup> This is also consistent with the manner in which the European Commission treats ex ante regulation of transmission market: see Market 6 (2003); and Market 6 (2007).

- 3.15 The ACCC has taken the view that it is not required to identify specific markets that would be impacted by the declaration of the DTCS and that it is sufficient to broadly describe the markets that are likely to be impacted.<sup>9</sup> Since 2004 the ACCC has identified the relevant markets impacted by DTCS as being the range of retail services (that can be supplied using transmission services), including national long distance, international call, data and IP-related markets. In the last Declaration decision the ACCC concluded:

*Commission is of the view that the markets identified in its DTCS 2004 Final Report, and reiterated in the Final Exemption Decision are still the relevant markets for DTCS, for the purposes of evaluating whether declaration would promote competition. In addition, the Commission considers that mobile services, including voice and data, are relevant downstream markets, as submissions have indicated that continuing growth in mobile data use will drive increasing use of transmission capacity.<sup>10</sup>*

#### Specific markets impacted by DTCS trunking services

- 3.16 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. As noted above, the failure to recognise this in previous decisions has in part led to the failure of the current DTCS regulations.
- 3.17 Moreover, it is only at the trunking level where competition exists for specific routes, and where investment occurs, within the DTCS markets. For example, expanding the number of Telstra exchanges where PoP are present, and self-building fibres between PoP. It is at this level where the ACCC has queried what criteria should be applied to determine whether competition exists. Optus outlines its position on assessing the level of competition in specific trunking routes in paragraph 4.39.
- 3.18 Optus agrees that trunking services impact on a range of related retail markets (that can be supplied using transmission services), including national long distance, international call, data and IP-related markets. Optus therefore submits that the trunking service element of the current DTCS Declaration be separately declared as the *Domestic Transmission Trunking Service*.

#### Specific markets impacted by DTCS terminating services

- 3.19 While Optus agrees that the trunking services impacts on a range of retail telecommunications markets, the same cannot be said for the DTCS terminating service that connects end-user premises with Access Seekers' PoP. While the market for access for residential end-users is regulated through the fixed-line services declarations — specifically access and resale services — the market for access to C&G end-users and mobile base stations is not addressed by an equivalent service.
- 3.20 Optus submits that the terminating service element of the current DTCS Declaration be separately declared as the *Domestic Transmission Terminating Service*. The terminating service provides connections between end-user premises and an Access Seeker's PoP. Such connectivity typically occurs within the same broad area, e.g. within the same metro area, but is not restricted to a terminating link within the same Telstra ESA. The terminating service directly impacts the: wholesale and retail mobile market through the provision of

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<sup>9</sup> ACCC, 2009, Final Report on reviewing the declaration of the domestic transmission capacity service, p.8.

<sup>10</sup> ACCC, 2009, Final Report on reviewing the declaration of the domestic transmission capacity service, p.9.

Base Station (BTS) connectivity and backhaul services; and the C&G market by providing symmetric high bandwidth data connections and dedicated capacity.<sup>11</sup>

- 3.21 This sub-section looks at the level of competition in the downstream markets related to the provision of the Domestic Transmission Terminating Service. It demonstrates that Telstra is dominant in related markets, and therefore has the incentive and ability to use the terminating service to damage competition in the related downstream markets.

### *Competition in the mobile market*

- 3.22 As noted above, the mobile market is directly impacted by the supply of the Domestic Transmission Terminating Service — that is, connecting base stations to PoP using Telstra's infrastructure. The need to utilise Telstra's network is particularly strong in regional and rural Australia where it is uneconomical to overbuild fibre links.
- 3.23 [CiC]
- 3.24 [CiC]
- 3.25 This section sets out the market developments since the last declaration decision. Optus finds that:
- (a) Total mobile market growth has stalled as the market has reached saturation;
  - (b) Revenue growth is increasingly driven by data usage, but as data usage grows so too does the need to invest in network upgrades and achieve minimum efficient scale;
  - (c) Telstra has increased its market shares in all the relevant metrics since 2009, the market share of Telstra has increased by 8 percentage points to 50% since June 2009, reversing the trend seen in the 2009 declaration Inquiry;
  - (d) Company and market data show that Telstra's market share of revenue has similarly increased over the period since 2009, growing from 42% to 51% in June 2013. The share of market EBITDA is more concentrated than total service revenue; Telstra had a market share of 65% at December 2012, growing from a 54% market share in June 2009. That is, during the period of the last declaration, Telstra's share of mobile profits has increased by 9 percentage points, or 20%.<sup>12</sup> Optus notes that access to connection services on a competitive basis with competition pricing is vital to ensure that these industries can embrace the benefits of data connections.
  - (e) Telstra has acquired around 70% of all net additions since June 2010, acquiring most of the subscribers that moved from VHA;
  - (f) Competition in the market has moved towards network quality and coverage; and
  - (g) Telstra's commanding share of revenue and mobile EBITDA, in combination with its fixed network and \$16.5b of additional revenue due to NBN-related payments, means its position in the mobile market is likely to continue during the period of the declaration.

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<sup>11</sup> Terminating links comprise links from end-user premises to Access Seekers' PoP, whereas tail-ends connect end-user premises to the nearest Telstra exchange, irrespective of whether there is a Access Seeker PoP within the exchange.

<sup>12</sup> Optus Business, 2012, *Future of Business Report: Research and findings*.

- 3.26 Telstra have stated that its “mobile business may be negatively affected by the opportunity the NBN presents to other mobile carriers to improve backhaul arrangements.”<sup>13</sup> This is implying Telstra currently has monopoly over access of the backhaul in relation to mobile services, suggesting that the NBN will introduce competition which could negatively impact on Telstra’s revenue.
- 3.27 An analysis of the current state of competition shows that competition has reduced since 2009, with Telstra extending its market power in the mobile market. Further, Telstra’s market position is likely to continue due to its share of mobile EBITDA and NBN-related payments, which enable Telstra to outspend its competitors on network investments while maintaining profitability.
- 3.28 Optus submits that the dominance of Telstra has increased during the period of the last DTCS Declaration.

### *Competition in the corporate and government market*

- 3.29 Optus submits that there needs to be recognition of the separate ‘corporate and government’ (C&G) market and the direct impact regulation of Domestic Transmission Terminating Service will have upon the ability of Access Seekers to compete against the vertically integrated dominant supplier, Telstra.
- 3.30 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.
- 3.31 This market makes extensive use of DTCS tail-ends (Domestic Transmission Terminating Service). 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]**
- 3.32 **[CiC]**
- 3.33 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 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*

<sup>13</sup> Telstra, 2011, *Explanatory Memorandum for the resolution under item 2 of the Annual General meeting on 18 October 2011: Telstra’s participation in the rollout of the National Broadband Network*.

*Commission considers that this market share remains too high to consider the market to be competitive.*<sup>14</sup>

- 3.34 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]**.
- 3.35 Because Telstra's network is already connected to every (or almost every) 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.
- 3.36 Reflecting its dominance in physical connections to corporate premises, Telstra has a commanding market share in the C&G market. **[CiC]**
- 3.37 In the Final Decision on the Exemption Applications the ACCC noted Telstra's dominance, stating:

*Although there is evidence to suggest the presence of optical fibre network owners in the CBD, the ACCC concludes that Telstra, even if it does not supply 100 per cent of buildings in a CBD is still the dominant provider of connections to tail-end transmission customers.*<sup>15</sup>

- 3.38 The ACCC concluded that the market for tail-end transmission over in metropolitan areas was not currently competitive.<sup>16</sup> Optus notes that the level of competition has not altered since 2004. The lack of competitive entry demonstrates the high barriers to entry in providing direct fibre connections to businesses. The persistent dominance of Telstra in the physical infrastructure connecting businesses; combined with Telstra's persistent market power in the C&G market shows that the current suite of regulatory options has not promoted the LTIE.
- 3.39 Optus submits that the connectivity required to provide services to C&G end-users, which is substantially different from that required for consumer end-users, warrants recognition of the C&G market as a standalone market that purchases a sub-set of the DTCS.
- 3.40 Direct regulation of the Domestic Transmission Terminating Service through a separate Declaration would promote competition within the C&G market. The failure to address Telstra's dominance has prevented Access Seekers from delivering services to business end-user and to match Telstra's ability to offer WOB propositions.

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<sup>14</sup> ACCC, 2004, Review of the declaration for the domestic transmission capacity service Final Report, p.29

<sup>15</sup> ACCC, *Telstra's domestic transmission capacity service exemption applications*, Final decision (Public Version), November 2008, page 55.

<sup>16</sup> ACCC, *Telstra's domestic transmission capacity service exemption applications*, Final decision (Public Version), November 2008, page 56.



## Section 4. DTCS Service descriptions

- 4.1 The current DTCS Declaration consists of a single market that includes all transmission services. This has led to the failure of the DTCS regulations to promote competition in some specific related markets. In particular, Optus has demonstrated that this approach has failed to promote the LTIE in related downstream C&G and mobile markets, which are dependent on access to monopoly leased line terminating links.
- 4.2 Optus therefore recommends that the current DTCS Declaration be separated into two distinct declarations:
- (a) *Domestic Transmission Trunking Service*, connecting Access Seekers' PoP in different locations. It comprises metro PoP connectivity; metro-regional PoP connectivity; and inter-capital PoP connectivity; and
  - (b) *Domestic Transmission Terminating Service*, connecting end-users' premises and an Access Seeker's PoP.
- 4.3 Such an approach will bring the Australian treatment of transmission services into line with the European approach. Optus sees there are many benefits of doing this, including the ability to analyse a larger set of evidence to ensure the optimal regulation for the Australian market.
- 4.4 This section outlines the DTCS markets in Europe, and highlights the detailed analysis from the UK regulator, Ofcom. It will show that separate trunking and terminating services is standard practice. This section will outline Optus' proposal for the different services and proposes service descriptions that could be used in the separate declarations of the services.

### Treatment of DTCS markets in Europe

- 4.5 The European Commission (EC) has identified the DTCS market within Europe as one of the markets subject to ex ante regulation.<sup>17</sup> The wholesale market for leased lines (dedicated connections and capacity), as it is known, was identified in 2003 and again in 2007. The EC defined the main characteristics of the service:
- The key elements in the demand for and supply of dedicated connections are service guarantees, bandwidth, distance and the location or locations to be served.*<sup>18</sup>
- 4.6 The EC identified two separate markets for leased lines: the terminating segments of a leased circuit (also called local tails or local segments); and the trunk segment.
- 4.7 In 2003, leased line markets comprised both terminating access (Market 13: Wholesale terminating segments of leased lines) and trunking access components (Market 14: Wholesale trunk segments of leased lines) were included in the list of markets susceptible to ex ante regulation. It was assessed that there were sufficiently high barriers to entry in both

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<sup>17</sup> In the EU it is referred to as wholesale terminating segments of leased lines.

<sup>18</sup> European Commission, 2007, Explanatory Note accompanying documents to the Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services, s.4.2.3.

these markets to warrant ex-ante regulation.<sup>19</sup> The EC also noted further market segmentation is possible between high and low bandwidth leased lines.<sup>20</sup>

4.8 In 2007, when the market was most recently reviewed, the EC concluded that the trunking element of leased lines in several markets are provided by several companies and as such failed the second limb of the three test criteria: effective competition over time. However, the EC also noted that such an analysis may not apply to all routes, and it is open to individual markets to assess the extent to which individual routes meet the three criteria test.<sup>21</sup>

4.9 With respect to terminating segments, the EC repeated its 2003 conclusion that this market is not effectively competitive and should remain subject to ex ante regulation. It was noted that the case for regulation of terminating segments across the EU is “more obvious” than the trunking segment. The EC noted that the terminating segment rely on the incumbent’s ubiquitous access network and that:

*The control over the ubiquitous access network continues to provide the incumbent with a legacy advantage on the terminating segments of the leased line market that new entrants, across the EU, have not yet overcome.*<sup>22</sup>

4.10 The EC concluded that the an EU-wide market comprising wholesale terminating segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity should be subject to ex ante regulation (Market 6).

#### Examples from EU markets

4.11 All EU markets have declared the market for terminating segment of leased lines (equivalent to the Domestic Transmission Terminating Service) as a separate market from the trunking segment. Optus also notes that while the trunking segment was removed from the list of EU-wide ex ante markets in 2007, many EU markets have retained its regulation due to the competition characteristics in their market. Optus also notes that EU markets are free to further disaggregate leased line markets into low and high bandwidth segments, where the level of substitution in downstream related markets requires such segmentation. It is therefore instructive to analyse how some of the EU markets have implemented the EU recommendations.

4.12 For example, the Austrian regulator recently concluded that there should be one market for leased lines comprising both low and high bandwidth services. In response, BEREC (Body of European Regulators of Electronic Communications) in June 2013 concluded that *competitive conditions are not homogeneous in the low and high capacity market segments* (i.e. up to and including 2 Mbps and above 2 Mbps of bandwidth), and could justify a further delineation of

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<sup>19</sup> Inclusion within the ex ante markets occurs if the market meets the three criteria test: high barriers to entry; no movement toward effective competition over time; relative efficiency of competition law and ex ante regulation.

<sup>20</sup> European Commission, 2002, Explanatory Memorandum to the Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services, p.28.

<sup>21</sup> Op cit., n.18.

<sup>22</sup> Op cit., n.18.



markets according to bandwidth<sup>23</sup>. In BEREC's view, it was not established that there is a high degree of demand side substitution between low and high bandwidth on the market in Austria. The proposal to combine both bandwidths into a single market was therefore rejected. Optus notes the direct connection between wholesale bottleneck regulation and retail market definition.

- 4.13 In the UK, both terminating and trunk segments are regulated. Ofcom identified that Leased Lines provide *dedicated symmetric* transmission capacity between fixed locations.<sup>24</sup> Ofcom identified three broad types of wholesale leased lines services:
- (a) End-to-end services: linking two end-user sites, typically over short distances;
  - (b) Terminating segments: linking an end-user's site to the Access Seeker's network node, enabling the Access Seeker to assemble an end-to-end service using a combination of wholesale inputs and its own network; and
  - (c) Trunk segments: segments of leased lines carried over aggregated links between major network nodes.<sup>25</sup>
- 4.14 Ofcom has recognised two trunking markets (regional and national) and ten terminating segments markets.<sup>26</sup> Ofcom analysed the relevant market (business connectivity) for terminating segments and identified that there were distinct markets for different bandwidth connections, such that there was not sufficient demand and supply substitution to warrant condensing the markets.
- 4.15 Ofcom separated the wholesale markets into:
- (a) Traditional interface symmetric broadband — relates to ATM, SDH and PDH;
  - (b) Alternative interface symmetric broadband — relates to Ethernet; and
  - (c) Multiple interface symmetric broadband — relates to WDM products.
- 4.16 Ofcom makes distinctions and defines separate markets for traditional interface (TI) products (ATM, SDH and PDH products) at different bandwidths:
- (a) Low bandwidth services (2Mbps of bandwidth up to and including 8Mbps);
  - (b) Medium bandwidth (above 8Mbps to and including 45Mbps);
  - (c) High bandwidth (above 45Mbps up to and including); and
  - (d) Very high bandwidth (622Mbps).
- 4.17 Ofcom identified a wholesale market for low bandwidth alternative interface symmetric broadband origination up bandwidths up to and including 1Gbps.

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<sup>23</sup> BEREC Opinion on Phase II investigation pursuant to Article 7 (3) of Directive 2002/21/EC as amended by Directive 2009/140/EC: Case AT/2013/1442 Wholesale terminating segments of leased lines (Market 6) in Austria. 3 June 2013.

<sup>24</sup> Ofcom, 2013, Business Connectivity Market Review.

<sup>25</sup> Ofcom, 2013, Business Connectivity Market Review, p.25.

<sup>26</sup> See Annex 7, of Ofcom, Business Connectivity Market Review.

- 4.18 Ofcom has also defined a new product market for very high bandwidth services, and refer to it as 'Multiple Interface' or 'MI' leased lines, which includes services with bandwidths greater than 1Gbps and services of any bandwidth delivered with WDM equipment at customers' premises.
- 4.19 Optus notes the direct link between wholesale regulated services and downstream economic markets. This further suggests that the ACCC should reconsider the "one market" declared under the DTCS and disaggregate it into separate markets that reflect the use of the bottleneck services in downstream related markets. Optus recommends that the DTCS Declaration be separated into two distinct declarations that better reflect the nature of demand in related downstream markets.

### **Terminating segment should be a separate declaration**

- 4.20 It has been demonstrated that terminating segments impact directly on specific downstream related markets — namely the C&G and mobile markets. Wholesale terminating segments of the DTCS impact on these markets in a different manner from the DTCS trunking service. It is not correct for the ACCC to state that higher prices for tail-ends will be offset by lower prices for long distance transmission, so Access Seekers will be better off. The ACCC has erred in assuming that all elements of the DTCS impact on the related downstream markets in the same manner.
- 4.21 Optus has also shown that Access Seekers do not equally partake in the different downstream markets impacted by the range of DTCS services. The current FAD approach to lower prices in trunking services but increase prices in terminating link services — resulting in improved competition in the transmission market but less competition in the C&G and mobile markets. As noted in the EU, however, it is the terminating segments where the enduring monopoly bottleneck will remain due to the reliance on the incumbent's ubiquitous access networks.
- 4.22 Optus submits therefore that the current DTCS service description is not consistent with competition policy which requires wholesale bottleneck regulation be related to downstream related economic markets. The current DTCS approach does not promote the LTIE within the C&G or mobile markets.
- 4.23 Therefore, Optus strongly believed that the ACCC should adopt a specific Domestic Transmission Terminating Service. The terminating services provide a symmetric dedicated transmission link between an end-user's customer premise and an Access Seeker's PoP connecting to the Telstra network.
- 4.24 As noted above, terminating services address almost exclusively the downstream C&G market. Because Telstra's network is connected to almost every CBD building, it generally does not face access problems faced by other carriers. The high cost of building access fibre infrastructure is a significant barrier to entry in tail-end transmission capacity.
- 4.25 The ACCC should maintain regulation of terminating link services in the 17 CBD ESAs. This is because the market for tail-end DTCS is still heavily monopolised by Telstra and there is no substitute for it on the current market. The definition should also make clear that it includes the provision of a connection between the end-user's premise and the MDF located within the MDU.
- 4.26 Optus also supports the use of technology neutral terms in the service description. The focus of regulation should be on a service provided to the end-user user and not the kind of technical establishment between the two customer interfaces or the product description on the market respectively. It does not matter whether the link is over copper or fibre, or using

SDH/PDH or Ethernet technology. The focus of the regulation must be on the function of the bottleneck service and how it is used by the end-user in the C&G and mobile markets.

#### Possible definition

- 4.27 The definition of the regulated service should be based on the essence of this service. Optus reiterates that **[CiC]**
- 4.28 Optus suggests the following definition:
- (a) Domestic Transmission Terminating Service is a dedicated, fixed-bandwidth, symmetric data connection from the network termination point at an end-user's premise and the Access Seeker's MDF at the closest point of presence (PoP). For clarification this may or may not be located in the nearest Telstra local exchange.
  - (b) The Domestic Transmission Terminating Service is a wholesale input into the provision of other services and may be acquired at different capacities above 2Mbps.
  - (c) PoP is a point where one communications provider interconnects with another communications provider for the purposes of connecting their networks to third party end-users in order to provide services to those end-users.
  - (d) Dedicated means that the required bandwidth capacity has been reserved for the use of the end-user. This may be either through a dedicated physical link, or through guaranteed bandwidth on a non-dedicated physical link.
  - (e) Symmetric means end-user can upload data at the same data rate at which the end-user can download data.
  - (f) For clarification, the inclusion of managed services to provide fault identification/rectification and/or quoting tool does not exclude the service from being a Domestic Transmission Terminating Service.

#### **DTCS service descriptions should be used for trunking and needs to be tightened**

- 4.29 Optus submits that the ACCC should separately declare the point-to-point transmission between Access Seekers' PoP. This market definition aligns closely with both the European model and the UK model as discussed. This allows the backhaul trunking service to be priced more efficiently. It also allows this segment to be undeclared should the ACCC deem this product to be competitive in the future, without impacting on the regulation on the terminating services.
- 4.30 The current DTCS service description could continue to be used as the basis for the Domestic Transmission Trunking Service description. This has been the service for which the ACCC has set FAD pricing and has generally assumed the DTCS covers. In saying that, however, the service description needs to be tightened to prevent exploitation by the dominant provider.
- 4.31 The current DTCS Declaration defines the service as:

*The domestic transmission capacity service is a service for the carriage of certain communications from one transmission point to another transmission point via **symmetric network interfaces on a permanent uncontended basis** by means of guided and/or unguided electromagnetic energy, except communications between:*

- (a) one customer transmission point directly to another customer transmission point

- (b) *one access seeker network location directly to another access seeker network location.*<sup>27</sup>

4.32 It has been highlighted above problems Optus has faced dealing with Telstra in relation to DTCS services. One common problem is that Telstra slightly tweaks a service and claims that it is no longer captured by the Declaration. For example, Telstra has made it clear that it does not see a basic managed service as falling within the DTCS declaration, but the ACCC believes that the DTCS is a *high capacity managed transmission service*.

4.33 The ACCC explains further what it believes comprises the DTCS declared service:

*The DTCS is a type of high capacity managed transmission service. Only specific types of transmission services fall within the service description for the DTCS. The declared DTCS:*

- is symmetric in that it has the same data rate in both directions.*
- is an uncontended service – which means that the capacity of the service is dedicated to one access seeker and not shared amongst others.*
- is a point-to-point service – that is, it is provided from one transmission point directly to another transmission point.*
- may be acquired at different capacities above 2.048Mbps.*
- is a wholesale input into the provision of other services (that is, it is not a resale service).*
- although not specified in the DTCS service description, includes ‘protected’ services (see discussion in Section 2.6.3 to this paper).*
- is identified using broad geographic route categories (discussed below).*

*Typical DTCS services include high capacity services linking corporate headquarters or high capacity links aggregating internet services for internet service providers. The declared DTCS does not include contended and asymmetric services such as business grade Asymmetric Digital Subscriber Line services used to provide internet access for small businesses.*<sup>28</sup>

4.34 Optus submits that the DTCS service description needs to be tightened. Optus is concerned that the current definition in the Declaration is not necessarily consistent with how the ACCC explains the DTCS in the Discussion Paper.

4.35 Optus recommends that the ACCC look at the service definitions used in the EU for leased line terminating and trunking segments. Optus notes the definitions are broad and technology neutral. The definitions typically focus on the service that the end-user expects to receive — irrespective of the network over which it is delivered.

### Possible definition

4.36 Optus submits that the definition of the Domestic Transmission Trunking Service should be based on the core characteristics of the service as used by Access Seekers. Optus notes that

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<sup>27</sup> ACCC, 2013, DTCS Declaration Inquiry, Appendix A.

<sup>28</sup> ACCC, 2013, DTCS Declaration Inquiry, p.5.

trunk segments concerns leased lines or leased line sections on the wholesale level which connect two Access Seekers' PoP.

- 4.37 In addition, trunk leased lines transmit the data streams of several users together (with a fixed capacity provided permanently for each user) and transport larger volumes of information.
- 4.38 Optus suggests the following definition:
- (a) The Domestic Transmission Trunking Service is a point-to-point symmetric transmission service with dedicated capacity for the carriage of communications from one Point of Presence (PoP) to another PoP.
  - (b) a PoP is a physical point of presence in Australia between a network operated by a carrier or a carriage service provider and another network operated by a carrier or a carriage service provider that allows interconnection of communications traffic.
  - (c) The Domestic Transmission Trunking Service may be provided on a protected or unprotected basis.
  - (d) For clarification, the inclusion of managed services to provide fault identification/rectification does not exclude the service from being a Domestic Transmission Trunking Service.
  - (e) For clarification, the Domestic Transmission Trunking Service includes dedicated capacity to an Access Seeker over shared uncontended transmission links.

#### Competition on specific routes

- 4.39 The ACCC asks interested parties whether the current approach to assess competition on specific trunking routes remains relevant. Specifically:
- (a) Whether it remains appropriate for the capital-regional criteria to require a minimum of three fibre providers; whether the geographical location from which competitive fibre networks must be located continues to be RPOs; and whether contestable distance remains 1km.
  - (b) Whether it remains appropriate for the inter-exchange criteria to require a minimum of three fibre providers; that competitors be located at a Telstra exchange; and that ESAs be connected in a contiguous cluster and adjoin a CBD ESA.
- 4.40 Optus supports the continuation of the three carrier rule. Optus also believes that the three carrier rule should be amended to better reflect reality of transmission route protections – especially for capital-regional routes.
- 4.41 Optus recommends that an additional criterion be included in the test for trunking routes. The additional criterion should require that there be at least two different physical routes in addition to three owners of different physical links. The focus on at least two different physical routes will ensure that there is adequate redundancy on the route. Optus notes that for many trunking routes the different owned links may all go through the same single point.
- [CiC]**

## Section 5. Impact of NBN on DTCS services

- 5.1 The roll-out of the NBN is not likely to impact upon the DTCS services during the timeframe of the next five years. This section looks at the impact of NBN on:
- (a) The Domestic Transmission Trunking Service; and
  - (b) The Domestic Transmission Terminating Service.
- 5.2 Optus will demonstrate that neither of these services will be impacted by the NBN: which focuses on replacing the consumer copper customer access network and does not extend to trunking transmission or point to point fibre connections. As a result, Optus submits that the NBN should not impact upon decisions relating to the DTCS services.

### Impact of the NBN on the Domestic Transmission Trunking Service

- 5.3 The Domestic Transmission Trunking Service relates to transmission services between Access Seekers' PoP. It comprises metro PoP connectivity; inter-regional connectivity and inter-capital connectivity. Optus does not expect that NBN would impact materially on issues relating to inter-regional or inter-capital connectivity.
- 5.4 Trunking services will be impacted through the deployment of the 121 NBN Pols around the country. Access Seekers will require transmission links between their core network locations and the Pols at which they wish to interconnect to NBN. Optus notes that the vast majority of NBN Pols will be located within Telstra exchanges and will thus enable Telstra to utilise its existing fibre networks to supply traffic. To the extent that there is not sufficient competitive pressure for any one of the 121 Pols, regulation will need to be maintained.
- 5.5 Optus therefore does not see any need to vary the Domestic Transmission Trunking Service as a result on the NBN deployment. Optus believes that the existing competition tests could continue to be used to assess whether anyone particular route is sufficiently competitive so as to remove regulation.

### Impact of the NBN on the Domestic Transmission Terminating Service

- 5.6 The roll-out of the NBN may impact upon the market for the supply of the Domestic Transmission Terminating Service by providing alternative connectivity options for the end-users in the related downstream markets: namely, mobile market and the C&G market.
- 5.7 However, two main factors imply that the terminating service will not be materially impacted by roll-out of NBN:
- (a) First, the timeframe of the NBN roll-out means that by 2019 a significant number of premises will likely be dependent on non-NBN network connections to provide connectivity.<sup>29</sup>
  - (b) Second, the NBN will replace the copper customer access network (CAN) and broadband services over the HFC networks. The NBN does not replace point to point fibre connections, nor do the Optus or Telstra migration agreements relate to C&G or

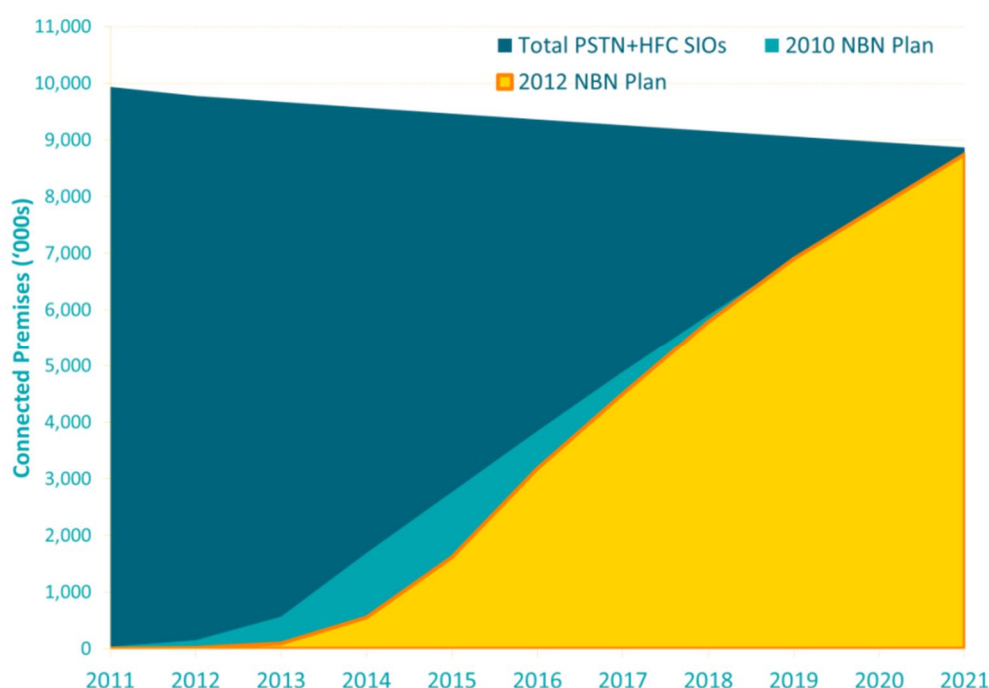
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<sup>29</sup> Please see Optus' submission to the 2013 Fixed Services Review for a more detailed description of the impact of the NBN roll-out of the Telstra copper customer access network.

mobile customers. All communications providers are able to compete against NBN in the provision of terminating services to C&G customers. Given this it is unlikely that the C&G market will be a priority focus for NBN Co. This is reflected in its initial product offerings which are consumer focused.

- 5.8 According to the latest NBN Co roll-out plan, there will remain a sizeable number of households that would remain dependent on the existing CAN for their fixed-line connections during the next five years. Given recent delays in the NBN roll-out, it is possible that copper-based connections will be higher than anticipated and remain for a longer period. For example, in 2015 according to NBN Co figures there is likely to be around 9 million total connections, of which only 1.6 million will be NBN connections. By 2019, there is likely to still be 2 million households that are not connected to the NBN.

Figure 5 Total fixed-line network and NBN connections



Source: NBN Co, Telstra, Optus. Total current SIOs decrease at the same rate as observed over recent years. This reflects the growing trend of mobile only households and the removal of multiple lines from premises.

- 5.9 Further, Optus notes that there is no requirement for any service provider to either decommission their fixed point to point fibre links, or to migrate end-users from these networks onto the NBN. This will have two important implications for the DTCS; firstly, the C&G market is unlikely to be a priority for NBN Co; and, secondly once the NBN provides an alternative access mechanism, businesses may still face some practical and transactional impediments in migrating across to the NBN.
- 5.10 The Telstra-NBN Co Definitive Agreement sets out that Telstra will receive payments for disconnecting, progressively, copper-based Customer Access Network services and broadband services on its HFC cable network. In addition, the obligation under the Subscriber Agreement requiring Telstra to exclusively use the NBN as the fixed line connection to premises in the NBN fibre footprint does not apply where Telstra provides point to point fibre services using Telstra fibre in operation, or fibre installed by Telstra in accordance with a right of first refusal process with NBN Co.<sup>30</sup>

<sup>30</sup> Telstra, Media Release: Telstra signs NBN Definitive Agreements, 23 June 2011.



5.11 [CiC]

5.12 [CiC]

5.13 Optus submits that the trunking service and terminating service declarations should continue for the maximum five year period until 2019. The ACCC will be in a better position to assess the impact of NBN on the declarations closer to 2019. Should evidence arise demonstrating that regulation is no longer needed, the ACCC could vary the terms of the declarations.



## Section 6. Length of the DTCS declaration

6.1 Optus submits that the DTCS declarations should be declared for the maximum duration to ensure certainty for Access Seekers and thus End users for the longest possible period possible.

6.2 Currently, under 152ALA in the CCA:

(a) the principle that the expiry date for a declaration should occur in the period:

(i) beginning 3 years after the declaration was made; and

(ii) ending 5 years after the declaration was made;

unless, in the Commission's opinion, there are circumstances that warrant the expiry date occurring in a shorter or longer period;

6.3 That is, the regulatory period that can be set by the ACCC is limited to 5 years, so therefore a declaration should not be more than this. Depending on how the declaration is to be structured, maybe a shorter 3 year term may be warranted. A shorter declaration may be relevant for this declaration due to possible changes to the delivery of the NBN.

6.4 Optus submits that the DTCS Declarations — trunking and terminating services — should continue for the maximum five years. As explained above, the roll-out of NBN would not impact on either of the services. The services are likely to remain a durable infrastructure bottleneck for the next five years. Optus notes that should specific routes become competitive during the timeframe of the trunking declaration, the ACCC could vary terms of declaration.