



DOMESTIC TRANSMISSION CAPACITY SERVICE

**An ACCC *Draft Report* on the review of the declaration for the
Domestic Transmission Capacity Service**

PUBLIC VERSION

December 2013



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List of abbreviations

ABS UCL	Australian Bureau of Statistics Urban Centres and Localities
ACCC	Australian Competition and Consumer Commission
C&G	Corporate and Government
CACS Act	<i>Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Act 2010</i>
CAN	Customer Access Network
CBD	Central Business District
CCA	Call Charge Area
CCA	<i>Competition and Consumer Act 2010</i>
CIR	Committed Information Rate
CSP	Carriage Service Provider
CVC	Connectivity Virtual Circuit
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexer
DTCS	Domestic Transmission Capacity Service
ECC	Excess Construction Charge
ESA	Exchange Service Area
FAD	Final Access Determination
FSA	Fibre Serving Area
FSAM	Fibre Serving Area Module
GBCI	General Building Cost Index

HFC	Hybrid Fibre Coaxial
IP	Internet Protocol
LMDS	Local Multipoint Distribution Service
LTIE	Long-Term Interests of End-users
Mbps	Megabits per second
MDF	Main Distribution Frame
MDU	Main Distribution Unit
MLL	Managed Lease Line
MMDS	Multichannel Multipoint Distribution Service
MTAS	Mobile Terminating Access Service
NBN	National Broadband Network
NBN POI	National Broadband Network Point of Interconnection
ODF	Optical Distribution Frame
OFCOM	Office of Communications
NBN Co	National Broadband Network Corporation Ltd
PDH	Plesiochronous Digital Hierarchy
POI	Point of Interconnect
POP	Point of Presence
RBBP	Regional Backbone Blackspots Program
RPO	Regional Post Office
RKR	Record Keeping Rule
RSP	Retail Service Provider

SAO	Standard Access Obligation
SAU	Special Access Undertaking
SDH	Synchronous Digital Hierarchy
SHDSL	Symmetrical High-speed Digital Subscriber Line
SIO	Services In Operation
SLA	Statistical Local Area level
SLC	Special Linkage Charge
TEBA	Telstra Equipment Building Access
Telco Act	<i>Telecommunications Act 1997</i>
ULLS	Unconditioned Local Loop Service
WDM	Wavelength-Division Multiplexing

Executive Summary

The Australian Competition and Consumer Commission (ACCC) has formed the preliminary view that the Domestic Transmission Capacity Service (DTCS) declaration be extended for a further five years until 31 March 2019. It has also decided to vary the service description to more closely align it with the DTCS Final Access Determination (FAD) made in June 2012.

Using a revised competition assessment methodology, the ACCC has undertaken a comprehensive assessment of the state of competition on all DTCS routes (both regulated and currently de-regulated routes).

The DTCS is a high capacity transmission service that enables service providers to provide downstream wholesale and retail services to end users. The DTCS was deemed to be a declared service in 1997 because it was recognised to be an essential input for other services. However, the ACCC has progressively removed regulation in areas that have been found to be competitive. It has maintained regulation of the DTCS in areas where there has not been evidence of effective competition or where access to DTCS services is limited.

The DTCS declaration inquiry is being conducted concurrently with the ACCC's reviews of the regulation of six fixed-line services (the Fixed Services Review) and the mobile terminating access service (MTAS review).

The ACCC invites submissions from interested parties on the preliminary findings of this inquiry and the draft decision. Submissions are due on Friday, **14 February 2014**.

The ACCC proposes to vary and extend the declaration of the DTCS for five years

The ACCC considers that it is in the long-term interests of end-users (LTIE) that the DTCS continues to be declared. This view is consistent with the submissions received during the inquiry that declaration of the DTCS should continue.

Transmission networks are generally capital intensive and require large sunk investments, which makes it economically inefficient to duplicate network infrastructure in some markets.

Further, transmission networks underlie nearly all other telecommunications services and are an essential input for the supply of downstream retail and wholesale services. Because Telstra remains the dominant supplier of transmission services, particularly in regional areas, making sure that access seekers can achieve any-to-any connectivity is critical if they are to be able to provide downstream services in different locations.

It will be particularly important as the National Broadband Network (NBN) is rolled out that competitive transmission services are available to carry traffic between the NBN points of interconnection (NBN POIs) and the points of presence (POP) of retail service providers (RSPs).

For these reasons, the ACCC considers that continuing to declare the DTCS will promote competition and further investment in the DTCS markets. This will lead to lower prices for access seekers who rely on the DTCS as an essential input into the provision of other services. The ACCC considers that extending the declaration for five years will provide certainty to industry.

The ACCC has undertaken a comprehensive assessment of competition on transmission routes

As noted above, the ACCC has undertaken a comprehensive assessment of the state of competition in the DTCS market and related downstream markets in order to determine the scope of regulation of access to the DTCS.

It has revised its methodology for assessing competition in the DTCS market and applied the methodology to all DTCS routes, both routes and exchange service areas (ESAs) that are declared and routes and ESAs that have been excluded from regulation. The revised methodology is intended to provide a far more comprehensive assessment of levels of effective competition on transmission routes.

By applying the revised methodology, the ACCC is proposing to remove regulation from routes where there is sufficient evidence of competition and where the ACCC considers that removing regulation is likely to promote new entry and investment. Where there is insufficient evidence of competition on routes that are currently excluded from regulation, the ACCC is proposing to re-declare routes.

The ACCC has taken into account stakeholder submissions on the current state of competition on regulated and deregulated DTCS routes and the appropriate framework for assessing competition.

The ACCC acknowledges that the methodology it applied to test the state of competition in previous DTCS inquiries focused predominantly on the number of fibre providers present in an ESA. In previous decisions, it considered that the presence of more than three providers (including Telstra) on a DTCS transmission route was evidence of competition or contestability.

Since the last inquiry, the ACCC has had access to a wider range of data about the state of competition in transmission markets. This has enabled it to assess the level of competition in DTCS markets more effectively. The data that it has examined during this inquiry includes:

- time series data on optic fibre infrastructure collected under the Audit of Telecommunications Infrastructure Assets - Record Keeping Rules 2007 (the infrastructure RKR)
- information collected under the Telstra Customer Access Network (CAN) RKR
- more detailed pricing and service availability information (such as that collected under access agreements lodged with the ACCC), and
- pricing information collected by the ACCC during its inquiry into making the DTCS Final Access Determination (FAD).

Much of the data that has been examined during the inquiry is commercial-in-confidence. However, the ACCC has set out in this report, how the revised methodology for assessing competition has been applied.

The revised methodology to assess competition

The revised methodology takes the previous approach as a starting point. That is, there must be a minimum of three fibre providers at, or within a very close proximity, to a Telstra

exchange. Once this initial threshold is met, the ACCC proposes to apply a number of additional quantitative and qualitative assessments. These include an assessment of:

- the three fibre providers must be independent of each other
- the proximity of competing fibre providers to a Telstra exchange
- whether the route is being serviced by at least three of the four largest transmission providers
- whether there is direct connectivity from that exchange to a Central Business District (CBD) ESA
- whether there is sufficient demand in that area to indicate likelihood of new investment and the potential for competition to develop
- the level of price competition in the area, and
- whether there is evidence of transmission services being supplied from the ESA.

In some cases, an ESA may have marginally failed to meet the revised competition assessment. For example, a competing fibre provider may be further away from a Telstra exchange but still be on a main transmission route. In other cases, a strict application of the revised methodology may have resulted in removing regulation from an ESA when other considerations suggest that maintaining regulation of that ESA was in the LTIE. In these cases where there was no clear cut result in the application of the revised competition methodology outlined above, the ACCC took into account additional considerations to form a view as to whether the route was competitive.

The ACCC considers that the revised competition methodology better enables the ACCC to gauge actual levels of service availability on a DTCS route or the potential for existing or new providers to offer a competing service. It also takes into account levels of demand and the potential for infrastructure investment to occur. This means that the ACCC is able to better assess actual competition when deciding whether it is appropriate to withdraw regulation. It also allows the ACCC to assess whether it is appropriate to continue to exclude routes that are currently deregulated from declaration.

The ACCC proposes to remove regulation from some metropolitan and regional DTCS routes and to re-declare some regional routes

By assessing all routes and ESAs that are currently regulated and routes and ESAs that are deregulated, the ACCC has a more comprehensive picture of competition across the DTCS market. The ACCC notes that that this is the first time the ACCC has undertaken an assessment of competition of this kind for the DTCS at *all* ESAs.

There are currently 88 metropolitan ESAs¹ and 23 regional routes which are currently excluded from regulation. The metropolitan and regional ESAs which are currently deregulated meet the ACCC's revised competition methodology. It is proposed that these routes continue to be excluded from the scope of regulation.

¹ This does not include the Campbelltown ESAs which is currently classified in the DTCS service description as a *regional* ESAs but is reclassified as a metropolitan ESA in the DTCS Final Access Determination (made in June 2012).

In this review the ACCC has found that an additional 112 metropolitan ESAs and eight regional routes satisfy the requirements of the new competition methodology. A total of three regional routes that are currently deregulated failed to meet the revised methodology and the ACCC is proposing to re-declare these routes. This means that there will be a total of 200 metropolitan ESAs and 27 regional routes that will be excluded from regulation.

The last time the ACCC reviewed the scope of regulation was in its assessment of *Telstra's domestic transmission capacity service exemption application*, November 2008 (2008 Telstra Exemption Decision). At that time, the ACCC's assessment of competition was limited to only those ESAs and routes applied for by Telstra in its exemption applications.² Further, the ACCC notes that there has been new infrastructure investment by transmission providers including Pipe Networks (owned by TPG) and Nextgen Networks (through the Government's Regional Backbone Blackspots Program (RBBP)) since the last review of the DTCS declaration in 2009. These investments have improved competition in the DTCS market.

The ACCC proposes to maintain regulation of tail-end DTCS services

The ACCC proposes to maintain regulation of all tail-end DTCS services, as these services continue to exhibit enduring bottleneck characteristics. A tail-end service is essentially the last link of a transmission service which connects an end-user premise to a transmission point of presence. The ACCC accepts the views of access seekers, that there are no effective substitutes for these services and that regulation will promote competition.

The ACCC proposes to vary the DTCS service description to align it to the DTCS FAD

As noted above, the ACCC proposes to vary the current DTCS service description to align it with the DTCS FAD made in June 2012. The ACCC considers this would be in the LTIE and will provide increased certainty and continuity in regulation of the DTCS.

The ACCC also proposes to amend the current service description to remove ambiguity in some general definitions, improve the general clarity of the service description and account for legislative changes introduced by the *Competition and Consumer Act 2010* (CCA).

The ACCC proposes a transitional period before the removal of regulation and re-declaration of routes take effect

The ACCC proposes a transitional period of 9 months before the proposed de-regulation of ESAs and some regional routes and re-declarations take effect. This will allow stakeholders sufficient time to make any necessary adjustments, or make alternative arrangements for access to transmission services.

² Individual and Class exemptions are no longer available under the *Competition and Consumer Act 2010* (CCA).

1 Introduction

1.1 Purpose

The ACCC is conducting a review of the DTCS declaration, which is set to expire on 31 March 2014. The ACCC is required to conduct this review during the 18 month period preceding its expiry date, pursuant to section 152ALA of the CCA. The purpose of this review is to determine whether the declaration should be remade, extended, revoked, varied, allowed to expire or extended and then allowed to expire.³

In July 2013 the ACCC published *An ACCC Discussion Paper reviewing the declaration for the Domestic Transmission Capacity Service* (the Discussion Paper) for comment by interested parties. The public submissions that were lodged are available from the ACCC's website at www.accc.gov.au.

In this Draft Report the ACCC sets out its preliminary views having assessed whether declaring the DTCS would promote the LTIE and having considered the submissions made to the Discussion Paper. The ACCC is seeking comments from interested parties on the ACCC's Draft Decision before it makes a final decision.

1.2 The ACCC's approach

The ACCC may declare a service if it is satisfied that declaring the service will promote the LTIE. In order to determine whether the LTIE is satisfied, the ACCC must have regard to the extent to which maintaining, varying or revoking the existing declaration is likely to result in:

- the promotion of competition in markets for listed services
- any-to-any connectivity in relation to carriage services that involve communication between end-users, and
- the economically efficient use of, and the economically efficient investment in, the infrastructure by which telecommunications services are supplied and any other infrastructure by which telecommunications services are, or are likely to become, capable of being supplied.⁴

These three criteria and the legislative background are discussed further in [Appendix 4](#) to this Draft Report.

1.3 Structure of this paper

This Draft Report is structured as follows:

- **Section 2** provides a background to the declared DTCS, how it has been regulated to date and the implications of the current DTCS FAD on the declaration review of the DTCS.
- **Sections 3 to 7** set out submissions and ACCC preliminary views on whether continued declaration of the DTCS is in the LTIE. It also sets out the ACCC's preliminary views on the state of competition in the DTCS market.

³ See sub-section 152ALA(7) of the CCA.

⁴ See sub-section 152AB of the CCA.

- **Section 8** sets out the views of interested parties and ACCC's preliminary views on the DTCS service description.
- **Section 9** sets out the ACCC's overall views on the current DTCS declaration inquiry.
- Appendix 1 sets out the current DTCS service description.
- Appendix 2 sets out the proposed DTCS service description (changes in mark-up).
- Appendix 3 sets out the proposed DTCS service description (clean version).
- Appendix 4 discusses the legislative criteria for the LTIE.
- Appendix 5 illustrates the proposed new competition methodology adopted by the ACCC to determine the scope of DTCS regulation.

1.4 Fixed Services Review and other related inquiries

The ACCC is also conducting a declaration review of the fixed line services (in the Fixed Services Review) and a declaration review of the MTAS. The services covered by the Fixed Services Review are the unconditioned local loop service (ULLS), line sharing service, wholesale line rental, local carriage service, and the public switched telephone network originating access and terminating access service.

Where appropriate, the ACCC has adopted a consistent approach to the issues raised in the declaration reviews of the DTCS, the Fixed Services Review and MTAS.

1.5 DTCS Final Access Determination

The ACCC will be commencing a public inquiry into the DTCS FAD in early 2014 should the ACCC decide to maintain regulation of the DTCS. The CCA requires the ACCC to hold a public inquiry about a proposal to make an access determination for a declared service where the declaration is in force under section 152AL and where an access determination has previously been made in relation to the declared service.⁵ The ACCC is required to begin an access determination inquiry during the period beginning 18 months before the expiry date of the access determination and ending 6 months prior to the expiry of the access determination. The current DTCS FAD expires on 31 December 2014.

1.6 Timetable for the inquiry

The ACCC requests written submissions by **5.00 pm Friday 14 February 2014**.

After considering submissions from interested parties, the ACCC will publish a final decision on whether to maintain, vary or revoke the existing DTCS declaration.

1.7 Making submissions

The ACCC encourages industry participants, other stakeholders and the public more generally to consider and make submissions on the issues set out in this Draft Report.

⁵ See sub-section 152BCI(3) of the CCA.

To foster an informed and consultative process, **all** submissions will be considered as public submissions and will be posted on the ACCC's website. Interested parties wishing to submit commercial-in-confidence material to the ACCC should submit both a public and a commercial-in-confidence version of their submission. The public version of the submission should clearly identify the commercial-in-confidence material by replacing the confidential material with an appropriate symbol or 'c-i-c'.

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2 Background to the review

The ACCC is conducting a review of the DTCS declaration to ensure that regulation remains appropriate to the current and future communications sector in Australia. This section examines the background to the regulation of the DTCS.

2.1 Transmission services

Transmission services underlie almost every telecommunications service. The term ‘transmission’ refers to high capacity data links that are used by carriers or carriage service providers (CSPs) to carry large volumes of communications traffic over long distances. Types of traffic which may be carried via transmission networks include voice, data or video communications.

Wholesale transmission services essentially allow access seekers to connect customers in places where they do not own their own transmission infrastructure. Transmission services therefore enable carriers and CSPs to connect their core networks with points of service delivery (such as exchanges or end customer premises) around Australia.

2.2 The declared DTCS

The DTCS is a high capacity transmission service differentiated from other transmission services on the basis that it:

- is a wholesale input into the provision of other services and not a resale service. That is, the DTCS service must be used in combination with an access seeker’s infrastructure to provide other end-to-end services
- is a point-to-point service
- may be provided over a number of transmission mediums including copper, fibre and microwave
- is a high capacity service acquired at different data rates above 2 megabits per second (Mbps)
- is symmetric, that is it has the same data rate in both directions, and
- is an uncontended service - this means that the capacity of the service is dedicated to one access seeker only and not shared.

Only specific types of transmission services fall within the service description for the DTCS. [Appendix 1](#) sets out the current service description of the DTCS.

The DTCS is an important input to enable service providers to provide downstream retail and wholesale services.

DTCS route categories

The ACCC uses broad geographic route categories to identify separate DTCS markets. Following the conclusion of the last DTCS declaration review in 2009 (2009 DTCS Declaration) the ACCC recognised the following types of transmission services:

- inter-capital transmission – transmission predominantly between call charge areas (CCAs) in different mainland capital cities (Melbourne, Sydney, Perth, Brisbane, Adelaide and Canberra, but not Darwin or Hobart)
- ‘other’ transmission (including capital–regional routes) – transmission between different CCAs other than inter-capital transmission (as above)
- inter-exchange transmission – transmission within a single CCA between a point of interconnection (POI) at an access provider’s exchange where the POI and exchange are in the same CCA, and
- tail-end transmission – transmission within a single ESA between a customer location and a POI on the access seeker’s network, or if Telstra provides the tail-end service, between a customer location or a POI and the Telstra exchange.⁶

2.3 Why regulate the DTCS?

The DTCS was deemed to be a declared service in 1997 because it was recognised to be an essential input for other services. The ACCC has considered the DTCS to be an enduring bottleneck in certain areas for the following reasons:

- Transmission networks are generally capital intensive and require large sunk investments. This makes it economically inefficient for competitors to duplicate existing transmission network infrastructure in certain geographic markets.
- Transmission networks underlie virtually every telecommunication service and are a critical input for the supply of all other downstream retail and wholesale telecommunications services, particularly on geographic routes which are considered to be natural monopolies or which are otherwise uncompetitive.
- Telstra remains the dominant supplier of transmission services across Australia, particularly in regional areas. Therefore, access to the DTCS on geographic routes, which are considered to be natural monopolies or which are otherwise uncompetitive, is critical to ensure that access seekers can achieve end-to-end connectivity to provide downstream services in different locations.
- Transmission services will also be necessary to support the delivery of NBN services. RSPs providing end-users with NBN voice and data services will require transmission services to carry traffic between the 121 NBN POIs⁷ and their POPs, usually located in a capital city location.

While the ACCC has removed regulation in areas that have been found to be competitive, it has maintained regulation of the DTCS where it is not satisfied that there is effective competition or where access to DTCS services is limited.

2.4 The history of declaring the DTCS

Declaration of the DTCS has previously been found to be in the LTIE because it:

- promotes any-to-any connectivity between networks

⁶ ACCC, *Domestic Transmission Capacity Service – An ACCC final report reviewing the declaration of the domestic transmission capacity service*, March 2009, p. 3.

⁷ An NBN POI is the inter-network location where end-user traffic is handed over from the NBN to the RSP.

- promotes competition in downstream markets and ensures that access seekers can gain access to those transmission routes that are not competitive, and
- encourages the economically efficient investment in infrastructure (for example, by avoiding unnecessary duplication).

The DTCS was deemed a declared service in June 1997⁸ and was extended or varied in 1998, 2001, 2004, 2009 and 2010 to exempt or exclude specific routes found to be competitive and to include other technologies which are used to deliver the declared DTCS (such as the Ethernet interface).

Deregulated DTCS routes

As noted above, in previous inquiries, the ACCC has assessed the level of competition in transmission markets and removed from the DTCS declaration routes which have been found to be competitive. This included inter-capital city transmission routes between Brisbane, Sydney, Canberra, Melbourne, Adelaide and Perth. In 2004, the ACCC also removed regulation on 14 capital-regional routes found to be competitive.

In 2008, in response to exemption applications from Telstra⁹, the ACCC removed regulation on a further nine capital-regional routes, inter-exchange transmission in 72 metropolitan ESAs and inter-exchange transmission in 16 Central Business District (CBD) ESAs (2008 Telstra Exemption Decision).¹⁰ In March 2009, the ACCC varied the DTCS declaration to reflect the ACCC's final decision on Telstra's exemption applications.

Competition criteria used to assess competition

To assist its assessment of competition, the ACCC identified criteria that it applied to assess capital-regional (or regional) and metropolitan/CBD inter-exchange (or metropolitan) DTCS routes to determine whether those routes were sufficiently competitive and should be excluded from the declaration.

Capital-regional criteria

In the 2008 Telstra Exemption Decision, the ACCC defined the criteria for regional/capital-regional routes to be a fibre route to have:

- two or more fibre providers in addition to Telstra, within 1 km of the regional town's regional post office (RPO), and
- a connection to an optical fibre network connecting the regional town to a capital city.¹¹

Rationale for the capital-regional criteria

Entry into a transmission market is related to the ability of a carrier or CSP to connect with the Telstra customer access network (CAN) via a Telstra exchange. Determining how many

⁸ ACCC, *Deeming of Telecommunications Services: A Statement Pursuant to Section 39 of the Telecommunications (Transitional Provisions and Consequential Amendments) Act 1997* (Deeming Statement), June 1997, p. iv.

⁹ Under the now repealed section 152AT of the CCA.

¹⁰ ACCC, *Telstra's domestic transmission capacity services exemption applications*, Final decision (Telstra DTCS Exemption Decision), November 2008, p. 6.

¹¹ ACCC, *Telstra DTCS Exemption Decision*, November 2008, pp. 3-4.

fibre providers are located in close proximity to the exchange is considered to be a good indicator of the degree of contestability on a route. Because RPOs are generally located in the same location or in close proximity to a Telstra exchange (and are more easily identifiable), it was determined that the RPO would be nominated to measure the number of fibre providers within close proximity to the exchange.¹²

Nominating a distance of 1 kilometre from the RPO was considered reasonable because it was recognised that infrastructure owners were unlikely to enter the market if they were required to build additional fibre links (or ‘spurs’) greater than 1km from their existing network locations. Contestability was considered more likely when barriers to entry, in terms of the construction costs of a fibre link or spur line connecting a town with a passing fibre route, were lower.¹³

Inter-exchange criteria

In the 2008 Telstra Exemption Decision the ACCC defined the competition criteria for metropolitan/inter-exchange transmission routes to have:

- a point of interconnect at a Telstra exchange in an ESA by two or more fibre providers, in addition to Telstra, and
- a fibre network which connects that ESA with other ESAs and an ESA in a CBD.¹⁴

Rationale for the inter-exchange criteria

The presence of at least three fibre providers (including Telstra) on metropolitan transmission routes, each of which has a point of interconnection at a Telstra exchange, was considered necessary for a route to be competitive or contestable. This recognised high sunk cost of building fibre networks in metropolitan areas and obtaining access to Telstra’s exchange buildings.¹⁵

In addition, it was considered that to be able to offer competitive metropolitan/inter exchange transmission services, the two additional networks should connect all the deregulated ESAs in a contiguous cluster to the CBD ESA.

2.5 The DTCS Final Access Determination and its interaction with the declaration

An access determination may provide that any or all of the Standard Access Obligations (SAOs)¹⁶ will not apply to a particular carrier or CSP when providing the declared service.¹⁷ The provisions may be unconditional or subject to such conditions or limitations as are specified in the access determination.¹⁸

¹² ACCC, Telstra DTCS Exemption Decision, November 2008, p. 52.

¹³ ACCC, Telstra DTCS Exemption Decision, November 2008, p. 51.

¹⁴ ACCC, Telstra DTCS Exemption Decision, November 2008, p. 3.

¹⁵ ACCC, Telstra DTCS Exemption Decision, November 2008, p. 78.

¹⁶ Standard access obligations are set out in section 152AR of the CCA.

¹⁷ Explanatory Memorandum to the *Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Act 2010* (CACS Act), pp. 169-170.

¹⁸ See sub-sections 152BC(3)(h) and (i) of the CCA.

In June 2012 the ACCC released the DTCS FAD which includes both price and non-price terms of access to the declared DTCS.¹⁹ The DTCS FAD sets the price terms of access to the DTCS for different capacities, geographic route categories, distances and for services supplied on a both a protected and unprotected basis.

The price terms of the DTCS FAD were determined using a regression model, based on a domestic benchmark of DTCS prices collected from service providers during 2011. Competitive pricing information collected from industry was used to develop a benchmark of prices for uncompetitive/declared routes. However the aggregated pricing information collected from service providers during the DTCS FAD inquiry did not use the same classifications as the service description. It also became evident during the DTCS FAD inquiry that the existing DTCS service description did not provide sufficient clarity on a number of aspects. For example, the DTCS service description:

- lists the ‘exempt capital cities’ or ‘regional centres’ that are excluded from regulation but does not define the geographic boundary of these areas. This creates uncertainty as to where a deregulated DTCS route starts and finishes, and
- is intended to include ‘protected’ DTCS services however the service description does not expressly define ‘protection’

Therefore, in order to develop the price terms of the DTCS FAD the ACCC:

- defined the geographic boundaries of capital cities and regional centres listed in the DTCS service description
- revised the DTCS route categories to that previously identified in the 2009 DTCS Declaration and service description, and
- defined what is intended by a ‘protected’ DTCS service.

2.5.1 Geographic boundaries defined in the DTCS FAD

Section 8.1.1 to this paper sets out submissions and ACCC preliminary views on how the capital cities and regional centres listed in the DTCS service description should be defined and whether the DTCS FAD could be used as a guide to develop these geographic boundary definitions.

Capital city boundaries in the DTCS FAD

In the DTCS FAD the ACCC applied a radial distance from the central point of a CBD ESA of each capital city based on the spread of continuous urban development from the CBD ESA. The ESAs which fell within the radial boundaries of each capital city were identified as ‘metropolitan’ and ESAs outside these boundaries were identified as ‘regional.’ For example, the DTCS FAD defined Melbourne as all ESAs within a 45km radius of the Kooyong ESA.²⁰

¹⁹ ACCC, Final Access Determination No. 1 of 2012 (DTCS), 21 June 2012.

²⁰ ACCC, Explanatory Statement to the DTCS Final Access Determination (FAD), June 2012, pp. 17-18.

Regional centre boundaries in the DTCS FAD

The DTCS FAD lists the ESAs which make up the geographic boundary of each deregulated regional centre listed in the DTCS service description.²¹ The ACCC defined the regional centre boundaries by the central ESA in that regional centre. Where there was no obvious central ESA or the urban development of that regional centre covered more than one ESA, the ACCC used more than one ESA to define the regional centre. In defining regional centre boundaries the ACCC also had regard to the availability of competing fibre infrastructure in those regional centres and the extent to which access seekers may readily interconnect with a transmission service provider.²²

2.5.2 DTCS route categories identified in the DTCS FAD

As noted above, the price terms of the DTCS FAD were determined using a regression model based on a domestic benchmark of DTCS prices collected from service providers in 2011. In order to better identify competitive services to benchmark from the pricing dataset collected from service providers during the DTCS FAD inquiry the ACCC revised the DTCS route categories identified in the 2009 DTCS Declaration. The DTCS FAD reclassified the route categories as either metropolitan, regional, inter-capital, regional tail-end or metropolitan tail-end.

Section 8.1.2 to this paper sets out submissions and ACCC preliminary views on whether the DTCS route categories identified in the DTCS FAD should be adopted in the DTCS service description.

2.5.3 Definition of ‘protected DTCS services’ in the DTCS FAD

Transmission services can be provided on a ‘protected’ basis, whereby the network provider is able to provide continuity of service in the event of a service disruption (for example, due to equipment failure or due to the cable being cut). Although not expressly stated or defined in the DTCS service description, the declared DTCS includes both protected and unprotected DTCS services.

The DTCS FAD includes price terms of access for protected services and defines protection as:

geographic path diversity in the inter-exchange component of a transmissions service only; it does not extend to the tail-end component of transmission services.²³

Section 8.1.4 to this paper sets out submissions and ACCC preliminary views on whether the DTCS service description should be varied to include a definition for protection.

2.6 Access to facilities for the DTCS

Access to facilities such as ducts and the Telstra Equipment Building Access (TEBA) space are necessary for service providers to interconnect their equipment and access the declared

²¹ This information is available in the ‘DTCS Route Category Workbook’ available on the ACCC website, at www.accc.gov.au.

²² ACCC, Explanatory Statement to the DTCS FAD, June 2012, p. 20.

²³ ACCC, Explanatory Statement to the DTCS FAD, June 2012, p. 28.

DTCS. In order to determine whether remaking, extending, varying the existing DTCS declaration, allowing it to expire or extending the declaration and then allowing it to expire will be in the LTIE, the ACCC considers it necessary to ensure that facilities are readily accessible and provided on equivalent terms.

Section 3.5 to this paper sets out submissions and ACCC preliminary views on whether there are any impediments for access to facilities including access to ducts and TEBA in relation to the DTCS or whether there are any other issues relating to facilities access.

The ACCC notes that access to facilities is also being considered in the context of the Fixed Services Review.

3 State of competition in DTCS markets

This section of the report examines the current state of competition in the DTCS markets and related downstream markets. It considers the relevant markets for the DTCS including an assessment of the substitutes and potential substitutes for DTCS and the current market structure.

3.1 Identifying relevant markets for the DTCS

As noted in the Discussion Paper, the ACCC considers that defining markets relevant for transmission services will allow the ACCC to meaningfully analyse the effectiveness of competition, and the likely effect of maintaining, varying or revoking the existing declaration.

The responses from submissions to the discussion paper are set out below.

Views of interested parties

In 2009 the ACCC identified the relevant markets as the range of retail services (that can be supplied using transmission services) which are delivered over optical fibre including national long distance, international call, data and Internet Protocol (IP)-related markets. The ACCC also found that mobile services (including voice and data) were relevant downstream markets, as continuing growth in mobile data usage increases the use of transmission capacity.

Submitters agree with the downstream markets identified by the ACCC in the 2009 Declaration Decision.²⁴

Nextgen submits that the ACCC should have regard to NBN POIs and local wholesale markets.²⁵ iiNet adds that Corporate and Government (C&G) end-users could be considered as a separate market or submarket in each downstream market as C&G end-users have particularly demanding requirements requiring stringent service levels, such that potential alternative transmission technologies are less likely to be acceptable DTCS substitutes.²⁶ The C&G market was also raised in Optus' submission along with the wholesale and retail mobile market which Optus identifies both as specific markets directly impacted by the DTCS tail-end service.²⁷

²⁴ Telstra Corporation Limited, *Submission to the Commission's Discussion Paper reviewing the declaration for the Domestic Transmission Capacity Service*, 30 August 2013 (Telstra, Public Submission on the Discussion Paper), p.19, iiNet Limited, *ACCC Discussion Paper reviewing the declaration for the Domestic Transmission Capacity Service, Submission by Herbert Geer Lawyers on behalf of: iiNet Limited*, 30 August 2013 (iiNet, Submission on the Discussion Paper), p.3, Vodafone Hutchison Australia Limited, *Declaration of the Domestic Transmission Capacity Service, Response to the Australian Competition and Consumer Commission*, 30 August 2013 (VHA, Public Submission on the Discussion Paper), p.10, Macquarie Telecom Pty Ltd, *Domestic Transmission Capacity Service*, 2 September 2013 (Macquarie, Public Submission on the Discussion Paper), p.3, NBN Co Limited, *NBN Co Submission on ACCC Discussion Paper reviewing the Declaration for the Domestic Transmission Capacity Service*, August 2013 (NBN Co, Submission on the Discussion Paper), p.4, SingTel Optus Pty Limited, *Submission in response to the ACCC's Discussion Paper*, 30 August 2013 (Optus, Public Submission on the Discussion Paper), p.11.

²⁵ Nextgen Group, *Discussion paper reviewing the declaration for the DTCS*, 13 September 2013 (Nextgen, Submission on the Discussion Paper), p.3.

²⁶ iiNet, Submission on the Discussion Paper, p.3.

²⁷ Optus, Public Submission on the Discussion Paper, p.12.

Telstra submits that it is not necessary to define the relevant markets with absolute precision because the necessity of transmission as an input to the supply of a range of downstream services is well established.²⁸ Telstra also notes that the relevant downstream markets are not only supplied over optical fibre.²⁹

In relation to the geographic dimensions of the market, VHA considers it necessary to define a national market for transmission services in addition to defining individual routes for the geographic markets. VHA notes that over-segmentation of the geographic market definition ignores the market power Telstra derives through its vertical integration and economies of scale over its entire fibre transmission network.³⁰

ACCC preliminary views

The ACCC's preliminary view is that the markets identified in 2009 remain the relevant markets for the DTCS. The ACCC considers that the C&G market will require transmission services with similar characteristics as other residential and business service markets (although at higher capacities) as all will use transmission services as an input to the provision of downstream services. The ACCC considers that the higher quality of services demanded in the C&G market is best addressed through quality of service provisions that are commercially negotiated.

The ACCC's preliminary view is that the broad geographical transmission categories identified in the 2009 Declaration Decision remain appropriate for identifying particular transmission markets. To align the service description with the DTCS FAD however, the ACCC proposes to adopt the geographical descriptions of the routes such that capital-regional and inter-regional markets will be described as regional routes and the CBD and inter-exchange routes will be described as metropolitan routes.

The ACCC has also considered geographic substitutes for the DTCS; the ACCC considers that as access seekers continue to purchase the DTCS on a point to point route basis a national market for the DTCS is not an appropriate market for assessment of competition.

3.2 Substitutes and potential substitutes to the DTCS

The product dimensions of a market refer to the good and/or service supplied in that market and the potential sources of substitutes. In establishing the relevant product dimensions of a market, the ACCC has had regard to factors including but not limited to, the physical and technical characteristics of the product and potential substitutes, costs of switching purchases between the product and potential substitutes, costs of switching production to a substitute product and the relative price levels and price movements of the product compared to potential substitutes.³¹

In the 2009 Declaration Decision, the ACCC concluded that optical fibre remained the dominant technology for the provision of all transmission services. In the Discussion Paper the ACCC sought views on the viability of alternative technologies for the provision of the DTCS and availability of substitutes to the DTCS in the market.

²⁸ Telstra, Public Submission on the Discussion Paper, p.19.

²⁹ Telstra, Public Submission on the Discussion Paper, p.19.

³⁰ VHA, Public Submission on the Discussion Paper, p.10.

³¹ Merger Guidelines Draft 2008, p. 15.

Views of interested parties

There are a range of views about the development of substitute products. Telstra notes that there are some new Ethernet-based technologies other than Ethernet over Synchronous Digital Hierarchy (SDH) which are emerging substitutes to the DTCS but that development is still nascent.³² Telstra submits that microwave, satellite and copper bonding technologies are close substitutes in some market segments. Telstra submits that since 2009:

- microwave technology has evolved and is now a close substitute to optical fibre transmission in CBD, metropolitan and some regional areas. Telstra notes that the microwave has an advantage over fibre in that it is free from topographical constraint albeit with some environmental limiting factors that can impact performance³³
- satellite technology has increased in bandwidth capacity and decreased in cost, making it a stronger competitor for optical fibre transmission in certain circumstances,³⁴ and
- copper bonding technology is a close substitute for optic fibre transmission tail-end services. By way of example, Telstra notes that AAPT's Mid-Band Ethernet service uses up to eight copper pairs bonded together to provide symmetric tail services of up to 80Mbps via ULLS and has similar levels of performance as an SDH tail-end service.³⁵

iiNet and Macquarie submit that there are no effective substitutes for the DTCS in any of the current geographic markets.³⁶ iiNet considers that alternative technologies such as microwave, satellite or Symmetrical High-speed Digital Subscriber Line (SHDSL) via the ULLS cannot compete with fibre's capacity because alternative technologies do not usually meet the geographic point-to-point requirements that are achieved via the DTCS.³⁷ As such, they do not provide a commercial constraint on the demand for optical fibre.

VHA adds that while Multichannel Multipoint Distribution Service (MMDS) technology is useful for short distances it suffers from line of sight problems and is reliant on the availability of sufficient spectrum. In relation to Local Multipoint Distribution Service (LMDS) technology, VHA notes that it does not have the bandwidth required for high capacity transmission services, especially as LMDS is a shared technology.³⁸

However VHA submits that dark fibre and Wavelength-Division Multiplexing (WDM) technology should be declared on the basis that both services will become increasingly important inputs for the supply of mobile services due to the exponential increase in demand for data by end-users.³⁹ VHA notes that when acquired at the right price, both services can be useful for improving the scalability and robustness of transmission solutions in the access network.⁴⁰

³² Telstra, Public Submission on the Discussion Paper, p.19.

³³ Telstra, Public Submission on the Discussion Paper, pp.11 to 12.

³⁴ Telstra, Public Submission on the Discussion Paper, p.12.

³⁵ Telstra, Public Submission on the Discussion Paper, pp.12 and 21.

³⁶ iiNet, Submission on the Discussion Paper, p.4, Macquarie, Public Submission on the Discussion Paper, p.3.

³⁷ iiNet, Submission on the Discussion Paper, p.4.

³⁸ VHA, Public Submission on the Discussion Paper, p.15.

³⁹ VHA, Public Submission on the Discussion Paper, p.11.

⁴⁰ VHA, Public Submission on the Discussion Paper, p.12.

NBN Access Services

The National Broadband Network Corporation Ltd (NBN Co) currently offers a Layer 2 Ethernet bitstream service between the end-user premise and the NBN POI, called the NBN Access Service. NBN Access Services provide an end-user with connectivity to the NBN and is available in downstream and upstream bandwidth combinations of 12/1Mbps, 25/5Mbps, 25/10Mbps, 50/20Mbps and 100/40 Mbps.⁴¹

NBN Co submits that a possible substitute to the 5 Mbps DTCS is a combination of 100/40 Mbps Access Virtual Circuit (Traffic Class (TC)-4), 5 Mbps of Symmetric Access Capacity (TC-1) and 5 Mbps of connectivity virtual circuit (CVC) (TC-1), available on the NBN Co Fibre Access Network where services have been activated over that network.⁴² NBN Co submits that it intends to introduce additional higher uncontended speed tiers and additional relevant products, such as the Enterprise Ethernet Service, but that the pricing and detailed technical specifications are still being developed.⁴³

AAPT submits that it is too premature given the current rate of the NBN rollout to assess the availability of any new substitute fibre products that may be introduced by NBN Co.⁴⁴ Macquarie does not consider that the NBN Access Service is a comparable substitute for the DTCS⁴⁵ while iiNet questions the economic feasibility of NBN services considering the need to provision a separate CVC with enough capacity.⁴⁶

Telstra considers that asymmetrical high bandwidth services could be close substitutes for symmetric services up to lower (upload) speeds but notes that the assessment of competitive tension should not be limited to NBN based services as other higher bandwidth services are being used as alternatives.⁴⁷

ACCC preliminary views

The ACCC's preliminary view is that while some of the technologies cited by submitters may be a substitute to the DTCS in certain circumstances and markets, none provide enough of a competitive constraint to the DTCS to be regarded as an effective substitute in a particular market. Briefly, the ACCC considers that:

- there are limitations of Digital Subscriber Line (DSL) services over copper (including availability and weaker service-level agreements) and geographic limitations of the ULLS which means that it is not an effective substitute for DTCS tail-end services in all circumstances
- in practice there are limited circumstances in which wireless Ethernet and satellite services meet DTCS service description criteria and even where they do, such technologies are not widely used to provide the DTCS because of the lower reliability

⁴¹ NBN Co, <http://www.nbnco.com.au/get-an-nbn-connection/wholesale-speeds.html>, accessed 3 December 2013.

⁴² NBN Co, Submission on the Discussion Paper, p.4.

⁴³ NBN Co, Submission on the Discussion Paper, p.4.

⁴⁴ AAPT Limited, *Submission by AAPT Limited (September 2013) to Australian Competition and Consumer Commission, Domestic Transmission Capacity Service, "An ACCC Discussion Paper reviewing the declaration for the Domestic Transmission Capacity Service" (July 2013)* (AAPT, Public submission on the Discussion Paper), p.5.

⁴⁵ Macquarie, Public Submission on the Discussion Paper, p.7

⁴⁶ iiNet, Submission on the Discussion Paper, p.5.

⁴⁷ Telstra, Public Submission on the Discussion Paper, p.21.

and capacity provided by wireless technologies. The ACCC also notes that mobile network operators are upgrading their microwave backhaul to mobile towers with optical fibre to meet growing data demands rather than deploying additional wireless solutions

- WDM is an optical fibre transmission technique that can be used to transmit Ethernet, SDH and Plesiochronous Digital Hierarchy (PDH) (even simultaneously) therefore any DTCS service which is supplied using WDM transmissions is already captured under the service description, and
- while dark fibre is capable of being used as an input to provide transmission services, it is nevertheless an unconditioned product which requires an access seeker's connecting equipment and management system in order to replicate the DTCS. As such, dark fibre is not a DTCS service nor is it a direct substitute.

NBN Access Services

The ACCC notes that it has no data on the performance of NBN Co's residential services in the market and NBN Co has yet to offer residential services on a wide scale. The ACCC also considers that there is a risk that a service that does not have a committed information data rate (CIR) and which involves a contended component (such as the 100/40 service with TC-4) may not be able to reliably provide the same quality of service as the DTCS at peak congestion periods. As such, the ACCC does not consider that NBN Co's residential products are a full substitute for the DTCS even though they may be offered at very high data rates. The ACCC will however monitor the performance of such services as the NBN is rolled out.

In terms of NBN Co's Ethernet Enterprise Service, the ACCC considers that while these services are likely to be a substitute for the DTCS in the future, the service is not yet available in the market, nor is it sufficiently defined to be considered as part of the future DTCS market within the next few years.

3.3 Market structure

Market structure is an important determinant of a competitive market. When examining the DTCS market structure, the ACCC has assessed whether the current number of participants in transmission services is likely to change via new market entry or existing players exiting the market. Competition is promoted when market structures are altered such that the exercise of market power becomes more difficult. This may be because barriers to entry have been lowered (permitting more efficient competitors to enter a market and thereby constrain the pricing behaviour of the incumbents) or because the ability of firms to raise rivals' costs is restricted.⁴⁸

In the Discussion Paper, the ACCC has sought submissions on whether Telstra's excess network capacity could be a potential barrier to entry on certain DTCS routes. The ACCC was further interested in views on the impact of the NBN on new market entry in DTCS markets.

⁴⁸ ACCC, *Fixed Services Review, A second position paper – Public version, April 2007*, p. 73.

Views of interested parties

Barriers to entry

The cost of transmission infrastructure, Telstra's monopoly in certain markets and use of market power are identified by submissions as significant barriers to entry into transmission markets.

Access seekers identify the high cost of building infrastructure as a barrier to entry into the transmission market. VHA notes that transmission networks require large upfront investments, making it economically inefficient for competitors to duplicate existing network infrastructure in certain geographic markets.⁴⁹

Optus highlights the high cost of building access fibre infrastructure, particularly in tail-end transmission markets and in metropolitan areas where it is less economical to build because of greater distances and expected lower revenues. Optus cites the C&G market as an example of Telstra's dominance in building access fibre infrastructure. Telstra currently has around [cic] [cic].⁵⁰ Optus submits that the combination of Telstra's dominance in the physical infrastructure connecting businesses and market power in the C&G market shows that the LTIE is not being adequately promoted by current regulation.⁵¹

VHA considers Telstra's network is the only viable supplier of transmission services for access seekers wishing to provide a national service to end-users in downstream markets. It also submits that Telstra is able to exploit its market power and benefit from economies of scale because:

- it is the only provider of services in certain geographic markets
- other providers do not offer product equivalents and may not be able to offer equivalent speed over the entire route
- access seekers experience cost benefits (including service efficiencies and reduced transaction costs) from utilising one supplier as the provider of transmissions services and face difficulties when building a ubiquitous, networked solution based on multiple suppliers
- Telstra prices its services in a way designed to secure national bundled deals.⁵² Telstra prices [cic] [cic], thereby significantly limiting the ability of other infrastructure owners to provide a genuine competitive constraint,⁵³ and
- competitors wishing to offer national services are required to 'cobble together' a number of arrangements. Their costs and business plans are made unnecessarily complicated and are reflective of higher input prices which in turn must be passed through into their retail offers.⁵⁴

⁴⁹ VHA, Public Submission on the Discussion Paper, p.8.

⁵⁰ Optus, Confidential Submission on the Discussion Paper, p.15.

⁵¹ Optus, Public Submission on the Discussion Paper, p.14.

⁵² VHA, Public Submission on the Discussion Paper, pp.7-8.

⁵³ AAPT, Confidential Submission on the Discussion Paper, pp.6-7.

⁵⁴ Competitive Carriers' Coalition Inc, *Submission on Domestic Transmission Capacity Service*, 30 August 2013 (CCC, Submission on the Discussion Paper), p.1.

Excess capacity

In relation to network capacity, Telstra submits that excess capacity does not pose a barrier to market entry. Excess capacity, where it exists, is available and utilised to meet growing demand and is likely to exert a downward pressure on prices for transmission services.⁵⁵

Nextgen submits that network capacity could be viewed as potential barrier to entry as demand can be met by providers with excess capacity without the need for further investment.⁵⁶

iiNet observes that it is reasonable to expect that if there is sufficient demand on a DTCS route to encourage a new entrant, this would be countered by existing operators increasing capacity to absorb the demand prior to the new entrant's build.⁵⁷

Macquarie reasons that a rational investor would only invest if there was likelihood of unsatisfied future demand. Macquarie notes that the more tangible barrier to entry is the transition to the NBN as transmission will only be required between NBN POIs.⁵⁸

NBN and market structure

Submitters identified the likely effects of the NBN on the DTCS market structure as:

- a high concentration of traffic on backhaul routes between NBN POIs and between NBN POIs and the transmission hub in the relevant capital city,⁵⁹ and
- the availability of effective substitutes for some declared services⁶⁰ such as tail-end services.⁶¹

Submitters agree that the rollout of the NBN is not likely to impact the DTCS in the short term. NBN Co submits that consideration of the effects of the NBN should occur where they can be confidently predicted. It notes that while it is providing some services with comparable features to the DTCS, the impact on the DTCS market at this stage is uncertain.⁶²

Nextgen considers it difficult to assess the likely impact of the NBN where there is still uncertainty over key aspects of the NBN rollout, the Special Access Undertaking (SAU) and NBN Co's application of uniform national wholesale access pricing for products that may be a substitute for the DTCS.⁶³ VHA also notes that the NBN is not sufficiently progressed for its likely effects to be predicted.⁶⁴

Optus does not expect that the NBN would impact materially on issues relating to trunking services (inter-regional or inter-capital connectivity) but it may affect the terminating service by providing alternative connectivity options for end-users in related downstream markets,

⁵⁵ Telstra, Public Submission on the Discussion Paper, p.25.

⁵⁶ Nextgen, Submission on the Discussion Paper, p.4.

⁵⁷ iiNet, Submission on the Discussion Paper, p.10.

⁵⁸ Macquarie, Public Submission on the Discussion Paper, p.12.

⁵⁹ NBN Co, Submission on the Discussion Paper, p.7, Telstra, Public Submission on Discussion Paper, pp. 3 and 21, iiNet, Submission on the Discussion Paper, p.5, Macquarie, Public Submission on the Discussion Paper, p.7, Nextgen, Submission on the Discussion Paper, p.2.

⁶⁰ NBN Co, Submission on the Discussion Paper, p.8.

⁶¹ NBN Co, Submission on the Discussion Paper, pp.7-8, Telstra, Public Submission on Discussion Paper, p. 3.

⁶² NBN Co, Submission on the Discussion Paper, pp.7-8.

⁶³ Nextgen, Submission on the Discussion Paper, p.2.

⁶⁴ VHA, Public Submission on Discussion Paper, p. 12.

such as the mobile and the C&G markets.⁶⁵ However Optus considers that the impact on terminating services may be limited because:

- the timeframe of the NBN rollout means that by 2019 a significant number of premises will likely be dependent on non-NBN network connections to provide connectivity, and
- the NBN will replace the CAN and broadband services over Hybrid Fibre Coaxial (HFC) networks and not point-to-point fibre connections. The Optus and Telstra migration agreements do not relate to C&G markets or mobile customers therefore, all access providers are able to compete against the NBN in the provision of terminating services to C&G customers. Given this, Optus considers it unlikely that the C&G market will be a priority for NBN Co and this is reflected in NBN Co's initial product offerings which are consumer focussed.⁶⁶

A number of submissions consider that there is a potential to remove regulation of the DTCS as a result of the NBN, but that it is too early to predict when that will occur. AAPT submits that the removal of regulation of the DTCS on some routes should not occur because the rollout of the NBN is premature and also because Telstra continues to be the dominant provider in the metropolitan, regional and rural transmission markets in which the DTCS is still an enduring bottleneck.⁶⁷ iiNet submits that it is premature to roll back regulation on the basis of anticipated builds by other fibre operators.⁶⁸ In relation to investment in transmission infrastructure it was submitted that:

- RSPs will only invest in locations closer to the NBN POIs when demand is sufficient and this is not likely to happen until there is a substantial rollout⁶⁹
- investment in transmission network infrastructure is likely to be concentrated on connecting NBN POIs with capital city POPs⁷⁰
- service providers may choose to locate a POP in regional locations in response to increased traffic⁷¹
- investment on current uncompetitive routes is likely to be reduced⁷²
- there is no incentive to invest in transmission capacity in places other than between the NBN POIs,⁷³ and
- until the NBN rollout is complete, access seekers will be increasingly dependent on Telstra's existing transmission capacity.⁷⁴

ACCC preliminary views

The ACCC considers that the high sunk costs in the transmission market continue to represent a significant barrier to entry, making it economically inefficient to duplicate

⁶⁵ Optus, Public Submission on Discussion Paper, p. 22.

⁶⁶ Optus, Public Submission on Discussion Paper, pp. 22 and 23.

⁶⁷ AAPT, Public Submission on the Discussion Paper, pp.2 and 4.

⁶⁸ iiNet, Submission on the Discussion Paper, p.5

⁶⁹ AAPT, Public Submission on the Discussion Paper, p.5, iiNet, Submission on the Discussion Paper, p.5.

⁷⁰ iiNet, Submission on the Discussion Paper, p.5, CCC, Submission on the Discussion Paper, p.2.

⁷¹ AAPT, Public submission on the Discussion Paper, p.4.

⁷² CCC, Submission on the Discussion Paper, p.2.

⁷³ Macquarie, Public submission on the Discussion Paper, p.7.

⁷⁴ Macquarie, Public submission on the Discussion Paper, p.7.

existing network infrastructure in some markets, particularly where there is less demand. The ACCC also considers that as optical fibre is likely to remain the dominant technology across all transmission services high barriers to entry in many DTCS markets will remain.⁷⁵

In relation to the NBN the ACCC agrees with submitters that the rollout of the NBN is still in its early stages and has had little impact on the structure of the DTCS market at this point in time.

3.4 Assessing competition for the DTCS

The current DTCS service description excludes particular routes which the ACCC has found to be competitive. For example, the deemed service did not include transmission routes between major capital cities (inter-capital routes). In 2004, several capital-regional routes were found to be competitive and excluded and in 2009, further capital-regional routes and some inter-exchange transmission in several metropolitan and CBD areas were also excluded from the service description.

In each of these decisions, the ACCC considered that the presence of Telstra plus at least two other fibre providers on a particular route was evidence of competition or contestability such that that route could be removed from declaration. This is known as the T+2 approach.

During the 2008 Exemption Decision the ACCC also identified additional criteria that it applied to regional and metropolitan routes to test competition. These included:

- (a) capital-regional criteria – a regional route which has:
 - (i) two or more providers (in addition to Telstra) within 1 km of the regional town's RPO, and
 - (ii) a connection to an optical fibre network connecting the regional town to a capital city.

- (b) inter-exchange criteria – a metropolitan route which has:
 - (i) a point of interconnect at a Telstra exchange in an ESA, and
 - (ii) a fibre network which connects that ESA with other ESAs and an ESA in a CBD.

In its 2009 Declaration Decision, the ACCC found that effective competition did not exist in the tail-end market and that the relevant markets for many inter-exchange services (or metropolitan services, as identified by the DTCS FAD) exhibited limited contestability.⁷⁶

In the Discussion Paper the ACCC sought views on the state of competition in the DTCS market. The ACCC sought views on current levels of competition on both deregulated and regulated DTCS routes, whether the ACCC should maintain the T+2 approach in assessing competition and whether the NBN has impacted the state of competition.

⁷⁵ ACCC, *An ACCC Final Report on reviewing the declaration of the domestic transmission capacity service* (2009 DTCS Declaration Decision), May 2009, p. 20

⁷⁶ ACCC, 2009 DTCS Declaration Decision, May 2009, p. 20.

3.4.1 The T+2 approach

In previous inquiries the ACCC has applied the T+2 approach to assess whether particular transmission routes were competitive and should be excluded from the scope of the declaration. As discussed further below, a number of submitters considered that the T+2 approach should be reviewed to ensure that it assessed *effective* competition on routes. The criteria in previous inquiries focused chiefly on the presence and number of fibre providers on a particular route. The ACCC has taken a preliminary view to review its competition criteria to make sure that it also includes additional quantitative and qualitative factors that measure the services available on particular routes and actual levels of competition.

Views of interested parties

Access seekers argue that although the current T+2 approach is a good starting point for measuring competition, without other factors, it places too much weight on a simple ‘count’ of fibre providers and does not reflect the true state of competition on all routes that have been deregulated. Submissions from access seekers suggested that any competition test should focus on the existence of effective competition rather than the potential for competition to emerge on a particular route.

AAPT submits that if the T+2 approach is to be retained, access seekers should have better transparency of, and information about which providers were present on a particular route to facilitate engagement with those alternate providers. AAPT also submits that utility companies should not be included in the criteria as the provision of transmission services is not their core business.⁷⁷

iiNet made submissions that the criteria for both regional routes and metropolitan routes should be reviewed. In relation to the capital-regional criteria, iiNet considers that the ACCC should examine actual connection to the exchange or in the case of NBN POIs that are not located at an exchange, to the NBN POI rather than the number of providers with fibre within 1 kilometre from the RPO. iiNet considers there should be at least three providers with a connection to the exchange or NBN POI, each of which provides protected services on that route.⁷⁸

Nextgen identify the presence of multiple providers that have different areas of commercial focus such as mobile network operators, fibre wholesalers and utility companies as being a key driver of competition on regional routes. Nextgen also considers that a minimum of three independent providers was necessary for a route to be considered competitive. Given the current state of infrastructure, Nextgen considers the use of the RPO to be outdated as a geographical point of reference for assessing competition. It suggests that the ACCC have regard to ESAs, transitioning to NBN Fibre Serving Areas (FSA) and the approach employed in the FAD as a replacement measure.⁷⁹

Macquarie submits that effective competition can only occur where an alternative to Telstra’s infrastructure actually exists and is readily available, rather than infrastructure which is potentially available. Potential providers may not be able to supply a service or it may not be economical to supply a service because the capacity sought is too small. Macquarie considers

⁷⁷ AAPT, Public Submission on the Discussion Paper, pp.8-9.

⁷⁸ iiNet, Submission on the Discussion Paper, p.6.

⁷⁹ Nextgen, Submission on the Discussion Paper, pp.1 and 4.

that to be counted as one of the ‘two or more providers in addition to Telstra’, the operator must have network infrastructure which is actually connected to Telstra’s network infrastructure at the regional end.⁸⁰

Macquarie agrees with iiNet and Nextgen that the RPO point of reference is no longer appropriate. Macquarie submits that regional routes should only be considered to be competitive where:

- there are at least two providers in addition to Telstra who are able to provide a service
- Telstra’s spare capacity on a given route is less than 65 per cent (assessment of spare capacity to be undertaken by the ACCC by way of a record keeping rule), and
- alternative fibre providers have network infrastructure which is actually connected to Telstra’s network infrastructure at the regional end.⁸¹

Optus also supports the T+2 approach as a starting point for assessing competition. It however proposed competition criteria for trunking routes which include three providers which offer different physical links; that is, at least two different physical or geographic routes. Optus reasons that two different physical routes will ensure that there is adequate redundancy on the route.⁸² Optus advises that [cic] [cic]⁸³

VHA considers that the T+2 approach has delivered inefficient outcomes and has failed to measure contestability. It suggests that the criteria needs to assess competing services being supplied, not just the infrastructure. VHA considers that:

- the presence of T+4 (and above) on routes should be exempt from regulation if all infrastructure owners are demonstrably providing the DTCS on these routes
- T and T+1 must always be declared, and
- T+2 and T+3 routes are presumed to be declared although this presumption can be rebutted by a detailed assessment of the actual level of competition in the market.

VHA proposes that the ACCC make an assessment of competition as follows:

- Telstra to provide verifiable information to the ACCC as to costs, level of competition, volume and cost allocation of self-supply (as the level of self-supply goes to scale advantages and hence sustainability of any competition)
- consideration of whether alternative fibre providers, particularly if they are utilities, actually pose a competitive constraint having regard to both price and non-price terms of supply (including SLAs), in particular whether the alternate providers are able to cost effectively build tails to the infrastructure, and
- analysis and verification by the ACCC of the information provided, including via industry consultation, and publication by the ACCC of its decision.⁸⁴

⁸⁰ Macquarie, Public Submission on the Discussion Paper, pp.4 and 9.

⁸¹ Macquarie, Public Submission on the Discussion Paper, p. 9.

⁸² Optus, Public Submission on the Discussion Paper, p.21.

⁸³ Optus, Confidential Submission on the Discussion Paper, p.23.

⁸⁴ VHA, Public Submission on the Discussion Paper, p.13.

NBN Co and Telstra argue that the T+2 approach is appropriate. NBN Co notes that it had observed lower prices on routes with three or more providers.⁸⁵ However, NBN Co states that the criteria would only be effective if the three providers are independent of each other and each fibre provider is actively involved in delivering wholesale transmission services. Telstra considers that the T+2 approach is likely to be an overly conservative indicator of effective competition. It referred to market evidence which suggests that in some cases the initial entry of a competitive provider on a route previously served only by Telstra resulted in price-based competition. In Telstra's view, the ACCC should consider the circumstances of those routes and ESAs where there are two or more providers (T+1 test). Telstra cited the ACCC's Advice to Government on NBN POIs, which nominated at least two competitors with optical fibre as being the starting point for a POI location, in support of a T+1 test.⁸⁶

Telstra submits that the competition criteria should take into account the competitive effects of NBN POIs on regional routes.⁸⁷ Telstra considers that the entry of NBN Co is fundamentally changing the competitive dynamics of the transmission market and will create strong incentives for carriers to extend services to the regions served by the NBN POI.

Telstra argues that the nomination of the RPO as a test of geographical presence should be reconsidered on the basis that:

- the installation of transmission fibre is economically viable over much longer distances, particularly when considering the benefits of providing backhaul to a capital city
- the existing competition criteria does not fully take into account the competitive effects of close substitute technologies which make spurs over longer distances economically feasible, and
- where NBN POIs are located in regional centres, there is greater commercial incentive for a competitor to locate transmission to the NBN POI and, consequently, it is likely to create contestability for supply of the service.⁸⁸

ACCC preliminary views

The ACCC has considered submissions about the previous T+2 approach used to assess competition on metropolitan and regional routes. It acknowledges the concerns raised in submissions that the T+2 approach may not provide an assessment of *actual* competition on particular routes, but rather focuses on potential competition that may develop given the presence of alternative network infrastructure.

The ACCC therefore proposes to revise the competition assessment methodology to consider additional quantitative and qualitative factors which may be used to inform or provide an indication of, actual levels of competition at an ESA or route. Using confidential information collected under the CAN RKR, Infrastructure RKR and information collected through access agreements⁸⁹ the ACCC has developed additional factors for inclusion in the competition methodology which will allow the ACCC to gauge potential levels of demand and the levels of service availability at an ESA or route.

⁸⁵ NBN Co, Submission on the Discussion Paper, p.10.

⁸⁶ Telstra, Public Submission on the Discussion Paper, pp.8-9.

⁸⁷ Telstra, Public Submission on the Discussion Paper, pp.9-10 and 23.

⁸⁸ Telstra, Public Submission on the Discussion Paper, p. 15.

⁸⁹ See sections 152 BEA and BEB of the CCA.

The section below outlines the ACCC's proposed competition assessment methodology.

3.4.2 The Revised Competition Assessment Methodology

The ACCC proposes a revised methodology for assessing competition in the DTCS market in order to determine levels of effective competition on particular transmission routes.

The revised methodology requires, as a starting point, that there be a minimum of three independent fibre providers, that is, T+2 fibre providers, at, or within a very close proximity, to a Telstra exchange. Once this initial threshold is met, the ACCC proposes to apply a number of additional quantitative and qualitative assessments to determine whether a route should be declared or deregulated.

The revised competition methodology allows the ACCC to undertake a more comprehensive assessment of competition and where appropriate, determine whether continued declaration or deregulation is warranted, taking into account a number of additional factors discussed below.

T+2 as a starting point

The ACCC considers that the presence of at least T+2 fibre providers should be the starting point of an assessment of competition. This means that there must be a minimum of at least two fibre providers (in addition to Telstra), in order for that ESA or route to be considered for deregulation.

The ACCC considers that optic fibre is the dominant technology used to supply the DTCS and that the presence of multiple fibre providers can provide a constraint on transmission prices. For this reason it is proposed that the number of fibre providers on a route be assessed in order to determine contestability.

The ACCC does not consider it appropriate to adopt a T+3 or T+4 approach as suggested by VHA, as the characteristics of the transmission market are such that new market entry at this point in time is unlikely and any new investment in the market is likely to be focussed on augmenting existing networks rather than the construction of new networks.

Most recent investment in transmission has been made by smaller network operators seeking to expand their network reach within metropolitan areas and through the government's RBBP.⁹⁰ The ACCC therefore considers it appropriate to maintain a fibre count of at least three providers as a starting point.

Additional quantitative and qualitative factors

Independence of fibre providers

The ACCC accepts the view proposed by NBN Co that the fibre providers included in the competition methodology should be independent fibre providers. An independent fibre provider is an entity that is not related to or owned by another fibre provider. For example, Pipe and Soul Communications Pty Ltd (Soul) are a subsidiary of TPG Telecom Ltd.

⁹⁰ The Blackspot locations are Emerald and Longreach in Queensland, Geraldton in Western Australia, Darwin in the Northern Territory, Broken Hill in New South Wales, Victor Harbour in South Australia and South West Gippsland in Victoria.

Therefore Pipe and Soul have been counted as the one entity under the new competition methodology.

A requirement for at least three independent fibre providers ensures that there is effective choice to access seekers in their purchase of transmission services.

Potential for interconnection and proximity to the point of interconnection

The ACCC accepts submissions that it is no longer appropriate or necessary to maintain geographical references to RPO or to assess competition from RPOs. This is because information now available to the ACCC under the Infrastructure RKR allows the ACCC to identify the exact locations of Telstra exchange sites and NBN POI sites (where they are housed outside of the Telstra exchange).

Under the revised competition methodology, the point of interconnection from which competition will be assessed is the Telstra exchange site or NBN built POI. In order for a competitor to be included in the fibre count under the new competition methodology, the fibre competitor must be located at or be within very close proximity to the Telstra exchange or NBN built POI.

The ACCC maintains that the requirement to be within very close proximity for interconnection at the exchange (or NBN POI) is necessary, because:

- the entry into a transmission market is related to the ability of a carrier to connect with the Telstra CAN via a Telstra exchange, and
- there are high sunk costs of building fibre networks (particularly in metropolitan areas) and obtaining access to Telstra's exchange buildings.

By taking account only of those fibre providers who are actually present at the exchange (or within a very close proximity), this will better ensure that transmission services are actively available from that exchange or are likely to become available.

Compared to the approach taken in the 2004 DTCS Declaration Review and the 2008 Telstra Exemption Decision, this is a much stricter approach to assessing competition. The ACCC considers that this revised approach responds to those access seeker concerns that the ACCC may have prematurely deregulated routes in the anticipation that those routes would become contested, rather than limiting its assessment to only those routes where fibre competitors are actually present.

Presence of major transmission providers

The ACCC accepts the views of access seekers that competition depends on the ability and willingness of the fibre providers to actually offer services on a particular route. The ACCC therefore proposes not to include fibre providers such as utility companies and rail corporations (who provide transmission services over their own fibre networks) in its assessment of competition. Given their limited networks and that most are not interconnected with main telecommunications transmission hubs, such providers do not provide sufficient competitive constraint to Telstra.

The ACCC considers that routes serviced by the four major transmission infrastructure providers can be assumed to be a relatively good proxy for service availability. This is

because the major transmission providers typically enjoy a wider network coverage and offer a wider range and quality of transmission products. Smaller, regional based providers and utility companies such as Ergon and Queensland Rail (who have fibre which is limited to small, discrete geographical areas) have been excluded from the fibre count.

This assessment also addresses those access seeker concerns regarding the availability of commercial transmission services and the capacity for service providers to deliver services on the deregulated routes.

Connectivity to CBD ESAs

The ACCC examined whether each fibre competitor included in the fibre count on that route (irrespective of whether the route is metropolitan or regional) is connected to a capital city ESA. Connectivity to capital city ESAs is important as transmission traffic needs to be either handed over to the access seeker's POPs which are typically located in capital city locations or the traffic needs to be switched at a main transmission hub located in CBD ESAs.

While the ACCC previously considered this information in the 2008 Telstra Exemption Decision when it examined competition on metropolitan routes, this was not considered in the assessment of competition on regional routes. Under the previous capital-regional criteria used in 2004 DTCS Declaration Review and 2008 Telstra Exemption Decision, the competition assessment methodology only required that the competing fibre providers connect to an optic network which connects that regional town with a capital city.

The proposed new competition methodology requires that each competing fibre provider at the exchange (irrespective of whether the exchange is in a metropolitan or regional ESA) has a fibre path connecting that ESA with a CBD ESA. This requirement will ensure that there are at least three different sources of supply to a CBD ESA. The ACCC considers that this assessment will address those access seeker concerns that alternative transmission providers actually have the capability to offer competing services to the incumbent, because there is competing infrastructure along the end-to-end route.

Assessment of demand

Using information collected under the CAN RKR, the ACCC compiled information on the ULLS band classification, number of the fixed line services in operation (SIOs) and number of Digital Subscriber Line Access Multiplexers (DSLAMs) at each ESA. The ACCC considers that fixed line SIOs and DSLAM numbers are a good proxy for assessing existing demand for transmission services. It also indicates where the potential for infrastructure investment is likely to emerge in order to meet demand. This is because competitors who have a ULL presence at an exchange will have an incentive to either invest in their own transmission infrastructure or acquire transmission services to carry that traffic back to a POP in the capital city.

The ACCC also observed that there is a degree of correlation between the number of DSLAMs and fixed line SIOs in an ESA; the greater the number of SIOs, the greater the number of DSLAMs in that ESA. ESAs with less than 5000 SIOs typically have two or less DSLAMs. The ACCC therefore observed potential demand levels and the potential for transmission infrastructure investment by examining those ESAs which have a minimum of 5000 SIOs and a minimum of two DSLAMs.

The ACCC has proposed that regulation be maintained at those ESAs and routes which failed to have a minimum of two DSLAMs and 5000 SIOs.

The ACCC also considered population density information for each ESA to identify high traffic areas. While population density information is not available at an ESA level, the ACCC examined the level of population density per square kilometre on a wider geographic basis, such as Statistical Local Area levels (SLAs), as recorded by the Australian Bureau of Statistics. SLAs are Local Government Areas or part thereof. Using a Geospatial analysis software called MapInfo, the ACCC overlaid population density information to ESA boundaries to gauge population density levels at ESAs. This also provided an indication of the potential level of demand for transmission services although it was not a determinative factor in our consideration

Pricing information and Telstra zoning of ESAs

The ACCC also considered transmission pricing information that was available from a number of sources. The ACCC was able to assess price information collected during the DTCS FAD inquiry, price information contained in access agreements lodged with the ACCC, anecdotal price information received in response to the Discussion Paper and Telstra's price zone classification structure to gauge the level of price competition.

The ACCC considers it is appropriate to have regard to the Telstra zone pricing structure for DTCS services in examining whether an ESA is subject to effective competition. Telstra prices DTCS services on a zone based approach in categories including CBD, Zone 1, Zone 2 and Zone 3. Zones further away from the CBD typically reflect lower levels of demand and higher prices.

Where an ESA has demonstrated an actual or likely low levels of demand (e.g. as suggested by low DSLAM numbers, SIOs and low population density) and is classified as a Telstra Zone 3, the ACCC has proposed to maintain regulation of that ESA.

Availability of transmission services

If the routes and ESAs satisfied the criteria outlined above, the ACCC then assessed whether there were active transmission services available on that route or ESA. Using granular pricing data gathered from the DTCS FAD inquiry and through access agreements lodged with the ACCC, the ACCC examined whether transmission services are being supplied in an ESA. Where there was evidence of alternative services to Telstra being supplied in an ESA, the ACCC formed the preliminary view that the route or ESA was competitive and could be excluded from regulation.

Other relevant considerations

Having applied the revised methodology outlined above, the ACCC then reviewed the results of the competition assessment on a case-by-case basis to examine whether there were ESAs which could be removed from regulation even though they may not have met the revised methodology. The ACCC considered matters such as the level of urban development, the geographic terrain or the existence of a major route connecting that town to a capital city destination. To make its assessment the ACCC examined additional data such as satellite information available through its MapInfo software.

For example, although the ESA of Mudgeeraba in QLD meets all the criteria in the revised competition assessment methodology, it only has one alternative fibre provider to Telstra within a very close proximity to the exchange. However, the ACCC notes that there are a total of five fibre competitors within a 150m radius of the exchange. Further, Mudgeeraba is on a major fibre corridor to Brisbane. For these reasons, the ACCC considers that removing Mudgeeraba from the scope of regulation will not be detrimental to competition.

The ACCC also reviewed those ESAs which are currently deregulated but fail to meet the new competition methodology, in order to assess whether there are additional considerations which warrant the continued deregulation of those ESAs.

Appendix 5 provides an illustration of the proposed new competition methodology.

3.4.3 Assessment of competition on currently deregulated and regulated DTCS routes

In the Discussion Paper, the ACCC sought views on the level of competition on the currently deregulated DTCS routes and currently regulated (declared) DTCS routes.

Views of interested parties

The section below summarises stakeholder views on the state of competition in currently deregulated and declared routes.

Currently deregulated DTCS routes

Telstra submits that deregulation of eligible DTCS routes has promoted competition by attracting new entrants, new investments and a larger range of technological substitutes which compete intensely, resulting in lower prices for end-users.⁹¹

Other submissions argue that regulation was lifted prematurely in several areas and that deregulated routes should either be reversed or reduced in number.⁹² VHA, Macquarie, Nextgen and the CCC submitted that:

- there is a lack of effective competition on some deregulated routes, in particular on capital-regional and inter-exchange routes⁹³
- the test used to grant exemptions failed to accurately measure the level of contestability in those markets. The mere existence of infrastructure does not translate into willingness to supply a wholesale service or an ability to compete with the bundled offers provided by Telstra.⁹⁴ The decision to deregulate routes has also not caused owners of alternative infrastructure to respond by making alternative wholesale transmission services available⁹⁵

⁹¹ Telstra, Public Submission on the Discussion Paper, p.26.

⁹² VHA, Public Submission on the Discussion Paper, pp. 7 and 9, AAPT, Public Submission on the Discussion Paper, p.5. Macquarie, Public Submission on the Discussion Paper, p.1, CCC, Submission on the Discussion Paper, p.1.

⁹³ Macquarie, Public Submission on the Discussion Paper, p.2. VHA, Public Submission on the Discussion Paper, p.12.

⁹⁴ VHA, Public Submission on the Discussion Paper, pp.7, 9 and 12-13. Macquarie, Public Submission on the Discussion Paper, pp.1-2. CCC, Submission on the Discussion Paper, p.1.

⁹⁵ CCC, Submission on the Discussion Paper, p.2.

- Telstra continues to charge prices substantially above the regulated price on regulated routes⁹⁶
- deregulation adds another layer of complexity without delivering any real benefit to the LTIE⁹⁷
- re-regulation of currently deregulated competitive routes would have no negative impact on the LTIE as access seekers are likely to seek to contract with access providers at prices which are lower than the DTCS FAD on competitive routes.⁹⁸

Macquarie advises that [cic] [cic].⁹⁹ Macquarie however notes that competition on capital-regional routes may be masked by the fact that alternative providers may only be able to provide a point to point service by combining with a Telstra tail-end service. Macquarie argues that there is an incentive for access seekers to favour Telstra in this situation as it has a readily available service while the alternative provider may not.¹⁰⁰ Macquarie also notes that as the NBN is rolled out, transmission services will be more concentrated on connectivity between NBN POIs and that it is more likely that some routes are, or will, become less competitive as a result. Macquarie submits that such routes should be added to the scope of the DTCS declaration.¹⁰¹

Currently declared DTCS routes

Level of competition on metropolitan routes

AAPT submits that deregulation of any DTCS routes within the metropolitan transmission markets should be reversed,¹⁰² while iiNet submits that it is not aware of any metropolitan DTCS routes that are competitive and which could be removed from the scope of the DTCS declaration.¹⁰³

Macquarie notes that Telstra is frequently the only effective wholesale provider on outer metropolitan areas and there are more than 20 Sydney and Melbourne metropolitan ESAs at which non-Telstra wholesale suppliers do not offer a DTCS service.¹⁰⁴ Macquarie submits that given the rollout of the NBN, there is no basis for considering that any metropolitan routes would become more competitive to warrant deregulation. Macquarie argues that on the contrary, transmission services are likely to be concentrated on connectivity between NBN POIs.¹⁰⁵

Telstra submits that competition has increased significantly since the ACCC last considered these issues.¹⁰⁶

⁹⁶ VHA, Public Submission on the Discussion Paper, p. 9, AAPT, Public Submission on the Discussion Paper, pp.5-6. Nextgen, Submission on the Discussion Paper, p.1.

⁹⁷ AAPT, Public Submission on the Discussion Paper, p.7.

⁹⁸ AAPT, Public Submission on the Discussion Paper, p.8.

⁹⁹ Macquarie, Confidential Submission on the Discussion Paper, p.8.

¹⁰⁰ Macquarie, Public Submission on the Discussion Paper, p.8.

¹⁰¹ Macquarie, Public Submission on the Discussion Paper, p.8.

¹⁰² AAPT, Public Submission on the Discussion Paper, p.2.

¹⁰³ iiNet, Submission on the Discussion Paper, p.6.

¹⁰⁴ Macquarie, Public Submission on the Discussion Paper, p.10.

¹⁰⁵ Macquarie, Public Submission on the Discussion Paper, p.10.

¹⁰⁶ Telstra, Public Submission on the Discussion Paper, p.23.

Level of competition on regional routes

iiNet submits that it is not aware of any regional DTCS routes that are competitive and which could be removed from the scope of the DTCS declaration.¹⁰⁷ Macquarie supports that view and submitted that there is no basis for considering any regional DTCS routes would become more competitive and could be removed from the scope of the DTCS declaration.¹⁰⁸ VHA also notes that competition is focused on the ‘backbone’ transmission and substantially less so on ‘tails’. It argues that the further away the site is from the ‘backbone’ fibre rings, the less the competitive constraint on Telstra.¹⁰⁹

Telstra submits that competition has increased substantially since 2009 when the list of deregulated ESAs was last updated and that a significant number of additional routes now meet the ACCC’s T+2 approach. Telstra submits that there are now [cic] [cic] that satisfy the T+2 approach and should be subject to deregulation.¹¹⁰

ACCC preliminary views

The ACCC has applied the revised competition methodology discussed above to all deregulated and declared DTCS routes to determine whether those routes would meet the new methodology.

Currently deregulated DTCS routes

The majority of currently deregulated ESAs and routes meet the requirements of the revised competition methodology. The ACCC considers that these ESAs and routes remain effectively competitive and should remain excluded from the scope of regulation.

Re-declaration of DTCS routes

In applying the revised competition methodology, the ACCC has identified a total of three routes which are currently deregulated and fail to meet the revised competition methodology. These are regional routes from the following ESAs in Queensland:

Maryborough, Bundaberg and Rockhampton

The ACCC’s application of the revised competition methodology to Maryborough, Bundaberg and Rockhampton is set out below:

- Count of fibre providers: The ESAs of Maryborough, Bundaberg and Rockhampton each have minimum of three or more fibre providers in the ESA.
- Independence of fibre providers: The T+2 fibre providers at Maryborough, Bundaberg and Rockhampton are independent fibre providers and are not related or owned by the same parent company.
- Potential for interconnection: The T+2 fibre providers at Maryborough, Bundaberg and Rockhampton are all either at or within a very close proximity to the Telstra exchange.
- Presence of major fibre providers: While Bundaberg has three of the top four transmission providers at the exchange, Maryborough and Rockhampton only have two of the top four transmission providers at the exchange. The ACCC is not satisfied

¹⁰⁷ iiNet, Submission on the Discussion Paper, p.6.

¹⁰⁸ Macquarie, Public Submission on the Discussion Paper, p.8.

¹⁰⁹ VHA, Public Submission on the Discussion Paper, p.8.

¹¹⁰ Telstra, Confidential Submission on the Discussion Paper, pp. 8 and 22.

that the alternative service providers at Maryborough and Rockhampton can offer an alternate transmission service to a capital city destination on its own infrastructure.

- **Connectivity to CBD ESAs:** Only two of the top four transmission providers provide connectivity from Maryborough, Bundaberg and Rockhampton back to a CBD ESA in Queensland. The ACCC considers that this may limit the effective supply of transmission services from these regional ESAs to Brisbane.
- **Assessment of demand:** While Maryborough, Bundaberg and Rockhampton have a low population density per square kilometre, the ESAs have a minimum of two of more DSLAMs and have more than 5000 fixed SIOs in operation.
- **Pricing information and Telstra zoning of ESAs:** The confidential information currently available to the ACCC indicates that there may be limited contestability on these regional routes. The ACCC invites submissions from interested parties to provide details of any pricing information at these regional ESAs.
- **Availability of transmission services:** Confidential information available to the ACCC indicates that there may be limited availability of transmission services at Maryborough, Bundaberg and Rockhampton.
- **Other relevant considerations:** In a confidential submission to the ACCC, one access seeker submitted that there is only one alternative supplier on the Brisbane-Bundaberg and Brisbane- Maryborough route and that there is limited competition on these routes.

The ACCC has therefore taken a preliminary view to re-declare these routes as it was not satisfied that the relevant requisites of the revised competition methodology have been met. The ACCC seeks stakeholder submissions on the ACCC's proposal to re-declare these regional routes.

Currently declared DTCS routes

Metropolitan routes to be deregulated

The ACCC has identified that a total of 200 metropolitan ESAs satisfy the requirements of the revised competition methodology and should be removed from the scope of DTCS regulation. These ESAs are listed in [Table 1](#) in [Appendix 2](#).

Regional routes to be deregulated

The ACCC has identified a total of 27 regional routes that satisfy the revised competition methodology and are sufficiently competitive to warrant removing regulation. These ESAs are listed in [Table 2](#) in [Appendix 2](#).

3.4.4 Tail-end services

Tail-end DTCS is a type of declared transmission service. The ACCC has maintained declaration of tail-end DTCS services on the basis that these services have not been found to be competitive. In the Discussion Paper the ACCC sought views on whether it is appropriate to maintain declaration of tail-end DTCS in CBD ESAs and whether there are any available substitutes for the tail-end DTCS.

Views of interested parties

Telstra submits that it is not appropriate to continue to declare DTCS tail-end services in the 16 CBD ESAs on the basis that the services are not an enduring bottleneck. Telstra points to the presence of alternative fibre providers and availability of close substitutes such as microwave and copper bonding using ULLS. Telstra also notes that the costs for connecting fibre are not significant and that Telstra's costs for connecting fibre between a CBD fibre access point and building within 500 metres range between [cic] [cic].¹¹¹

Optus, iiNet and Macquarie do not consider there to be any effective substitutes for tail-end services.¹¹² iiNet adds that ULLS, SHDSL, HFC, LMDS and MMDS are not viable substitutes in most situations, particularly for C&G end-users which require highly reliable services and would not accept the lower service levels of alternative technologies.¹¹³

iiNet submits that it is appropriate to maintain regulation of tail-end services in the 16 CBD ESAs and that the removal of regulation would likely result in higher prices for end-users of downstream services that rely on tail-end DTCS. iiNet argues that the market remains heavily dominated by Telstra and is not competitive. iiNet notes that although there are other fibre networks in the CBD, Telstra is the only carrier with cabling into most, if not all, buildings. iiNet also considers that Telstra, as the incumbent, is able to gain easier access to buildings than other carriers because it is a well-known entity. In contrast, competitive carriers will experience delay and considerable levels of negotiations with building owners in order to gain access. iiNet also notes that the high costs of cabling to and into buildings is a significant barrier to entry and carriers undertaking such builds will also incur high ongoing costs in utilising Telstra's underground duct network.¹¹⁴

Nextgen submits that the ACCC should maintain regulation of tail-end services in CBD ESAs. Nextgen notes that most of the fibre within CBD areas is 'patchwork' in nature. This is likely to be sustained in the short term as it is unlikely to be economically efficient for multiple transmission providers to develop the tail-end infrastructure to meet the needs of all end-users within this market. It submits that these scenarios highlight the need for ongoing regulation of tail-end services.¹¹⁵

Optus submits that Telstra remains dominant in providing building connectivity in CBD areas and that not much has changed since the 2004 DTCS Declaration Review.¹¹⁶ Optus notes that Telstra has fibre connected close to [cic] [cic] of buildings while Optus has around [cic] [cic].¹¹⁷

VHA notes that competition is focused on the 'backbone' transmission and substantially less so on 'tails'.¹¹⁸ Macquarie submits that the ACCC should maintain regulation because of the ubiquity of Telstra's CAN which is a bottleneck for providing services to end-users and also because there are no effective substitutes.¹¹⁹

¹¹¹ Telstra, Confidential Submission on the Discussion Paper, p.23.

¹¹² Optus, Submission on the Discussion Paper, p.18. iiNet Submission on the Discussion paper, p.7, Macquarie Public Submission on the Discussion paper, p.11.

¹¹³ iiNet Submission on the Discussion paper, p.7.

¹¹⁴ iiNet, Submission on the Discussion Paper, p.7.

¹¹⁵ Nextgen, Submission on the Discussion Paper, p.4.

¹¹⁶ Optus, Public Submission on the Discussion Paper, p. 14.

¹¹⁷ Optus, Confidential Submission on the Discussion Paper, p.15.

¹¹⁸ VHA, Public Submission on the Discussion Paper, p.8.

¹¹⁹ Macquarie, Public Submission on the Discussion Paper, p.10.

ACCC preliminary views

The ACCC agrees with submitter views that there are no effective substitutes for tail-end services. For the reasons outlined in Section 3.2 of this paper and the 2008 Telstra Exemption Decision, the ACCC does not consider that tail-end transmission provided using ULLS or microwave technology is a close substitute for the provision of the DTCS. The 2008 Telstra Exemption Decision noted the limitations of ULLS being a close substitute for tail-end DTCS, including:

- supply constraints, including customer access modules (CAM) being located outside the exchange, or exchange capping occurring
- deterioration of transmission signal strength due to distance limitation and the presence of LPGS equipment
- concerns over the disparity between the quality of service and other contractual non-price terms, and
- observed increasing demand for tail-end DTCS despite its higher cost than ULLS services.¹²⁰

The ACCC considers that barriers to entry of deploying fibre infrastructure for tail-end transmission remain high. The ACCC's preliminary view is to continue to declare tail-end services.

3.4.5 Impact of the NBN on the level of competition for the DTCS

RSPs providing end-users with NBN Access Services will require transmission services to carry traffic from an NBN POI¹²¹ to their POP usually located in a capital city location. The number and location of the NBN POIs define the boundaries of NBN Co's network and determines the extent to which backhaul is required by each RSP.

The ACCC considers it likely that competition in DTCS markets will be impacted by the NBN during the next declaration period. In the Discussion Paper the ACCC sought views on whether there was already increased demand for transmission services at or near NBN POIs and the nature of any DTCS investments made at NBN POIs. It also considered the level of competition on backhaul routes from NBN POIs.

Views of interested parties

iiNet and Macquarie argue that it is too early in the rollout of the NBN to form a view about the impact on the market.¹²² Similarly Nextgen considers it too early to make any assessment for the following reasons: the majority of the NBN POIs are still under development; RSPs are still able to take advantage of CVC rebates during the initial NBN rollout periods; temporary POIs are still being used; and demand is highly fragmented due to incomplete rollouts in FSAs.¹²³

Telstra submits that a lower competition threshold for backhaul routes from NBN POIs should be applied on the basis that backhaul suppliers providing services to NBN POIs are

¹²⁰ ACCC, Telstra DTCS Exemption Decision, November 2008, p. 36.

¹²¹ An NBN POI is the inter-network location where end-user traffic is handed over from the NBN to the RSP.

¹²² iiNet, Submission on the Discussion Paper, p.5, Macquarie, Public submission on the Discussion Paper, p.8.

¹²³ Nextgen, Submission on the Discussion Paper, p.2.

offering unbundled aggregation to a customer's POP which obviates the need for an RSP to locate equipment in the NBN POI.¹²⁴

The ACCC has not received any submissions on current DTCS investments at NBN POIs. As discussed above however, a number of access seekers have however made submissions on the likelihood of investments being made as the NBN is rolled out.

ACCC preliminary views

The ACCC's preliminary view is that the rollout of the NBN is not yet progressed to a scale that has made an impact on competition for the DTCS and, as such, it is not necessary to revise the DTCS service description to address the NBN specifically.

The ACCC does not consider it necessary to have a separate route category for NBN POIs back to a capital city as submitted by NBN Co as the current declaration already covers these routes. The ACCC notes that at the expected time of the final DTCS declaration decision in March 2014, 114 of the 121 NBN Co POIs are expected to be active.¹²⁵

3.4.6 Competition on backhaul routes from NBN POIs

Under the current DTCS declaration, 51 of the 121 NBN POIs are located in deregulated ESAs.

Views of interested parties

Telstra submitted that all backhaul routes from NBN POIs should be deregulated given that the NBN POIs were selected on the basis of existing or expected competition. Telstra submitted that 80 per cent of NBN POIs already satisfy the T+2 approach and should be deregulated. While the remaining 20 per cent of NBN POIs may not yet satisfy the T+2 approach, Telstra argues that they should also be deregulated given the expected increase in traffic volumes and the investment incentives to connect to NBN POIs.

NBN submitted that the following NBN-specific competition criteria should be applied on backhaul routes from NBN POIs:

- the relevant NBN POI must be active
- the backhaul route from that NBN POI must be served by three or more independent fibre providers, and
- each fibre provider (1) must have a presence at the POI and (2) deliver transmission services suitable for access seekers who wish to connect at the NBN POI.

NBN Co notes that, as at the end of July 2013, 63 of NBN Co's 121 POIs were active, 101 are forecast to be active by the end of December 2013, and 114 by the end of March 2014 (when the existing DTCS declaration expires). NBN Co considers it likely that there will be a number of NBN POIs in respect of which the relevant backhaul routes should remain declared until it is established that they are effectively competitive having regard to the NBN-relevant competition criteria that NBN Co proposes.¹²⁶

¹²⁴ Telstra, Public Submission on the Discussion Paper, p.22.

¹²⁵ NBN Co, Submission to the Discussion Paper, p.2.

¹²⁶ NBN Co, Submission on the Discussion Paper, p.10.

NBN Co also considers that the ACCC could deregulate additional routes over the period of the declaration, as and when the NBN-relevant competition criteria are satisfied, by either varying the declaration or providing in the DTCS FAD that the Category A SAOs do not apply to a carrier or CSP on certain NBN backhaul routes.¹²⁷

iiNet submits that the assessment of competition for NBN POIs should be based on whether a fibre provider is actually connected to the NBN POI rather than being close to it.

ACCC preliminary views

The ACCC has assessed competition from the Telstra exchange located in each ESA when applying its revised competition assessment methodology. It is the ACCC's preliminary view that a total of 75 NBN POIs will be located in the ESAs proposed for deregulation.

3.5 Access to facilities for the DTCS

The ACCC notes that competition is promoted in markets for the DTCS where access to the relevant facilities is enabled in a timely and cost effective manner. The ACCC also notes that access to facilities for the DTCS will be important in accessing NBN services as access seekers may need to interconnect their existing transmission infrastructure from the TEBA space to the NBN Co allocated exchange space in order to access the NBN Access Service. In the Discussion Paper the ACCC asked stakeholders whether there were any barriers to entry for access to facilities relating to the DTCS.

Views of interested parties

Submissions list the following barriers to entry for access to facilities providing interconnection with the DTCS:

- High access to duct charges.¹²⁸ AAPT submits that [cic] [cic]¹²⁹
- restrictive or cumbersome access terms imposed by Telstra.¹³⁰ AAPT notes that [cic] [cic]¹³¹
- unnecessary delay in getting access. iiNet notes that it often takes an access seeker up to 90 days to access and install equipment in a Telstra exchange due to Telstra's requirements relating to queuing and the design and construction process,¹³² and
- practical limitations of the negotiation/arbitration model under Schedule 1 of the *Telecommunications Act 1997* (Telco Act). iiNet submits that resolution of access disputes under Schedule 1 of the Telco Act can take considerable time and that access seekers cannot spend months or years attempting to resolve disputes with an access provider as they may have to enter into an agreement with Telstra, even where the terms are considered unfavourable. iiNet also notes that there is no mechanism under the Telco Act by which the ACCC can make upfront FADs that can operate as a fall back provision in the event that carriers cannot agree on access terms.¹³³

¹²⁷ NBN Co, Submission on the Discussion Paper, p.10.

¹²⁸ AAPT, Public Submission on the Discussion Paper, p.11, iiNet, Submission on the Discussion Paper, p.9

¹²⁹ AAPT, Confidential Submission on the Discussion Paper, p.11.

¹³⁰ AAPT, Public Submission on the Discussion Paper, p.13, iiNet Submission on the Discussion Paper, p.8.

¹³¹ AAPT, Confidential Submission on the Discussion Paper, p.13.

¹³² iiNet, Submission on the Discussion Paper, p.8.

¹³³ iiNet, Submission on the Discussion Paper, p.8.

AAPT argues that given that Telstra will own and operate the passive infrastructure which AAPT will be reliant upon for access to facilities at the bulk of the NBN POI locations, there are a myriad of ways in which Telstra will be able to take advantage of its position to the detriment of AAPT, other access seekers and the LTIE. For these reasons, AAPT submits that facilities access should be declared.¹³⁴

Telstra argues that there is no need for any further regulation because:

- facilities access to the DTCS is already regulated via the Telco Act, Facilities Access Code,¹³⁵ Telstra's Structural Separation Undertaking and 'Access to Telstra Exchange Facilities RKR' and therefore any additional regulation runs the risk of either being inconsistent or duplicative¹³⁶
- the existing regime works well. In the past decade there have only been [cic] [cic] duct access disputes and [cic] [cic],¹³⁷ and
- the ACCC does not have the power to declare access to facilities that are subject to Part 3 or Part 5 of Schedule 1 to the Telco Act and under Part XIC of the CCA because it could not have been Parliament's intention to have two different access regimes applying to access to the same facilities.¹³⁸ Telstra notes that despite making considerable changes to both Acts, Parliament has not sought to combine the two regimes.¹³⁹

ACCC preliminary views

The ACCC acknowledges that facilities access is an area of general concern for access seekers. The ACCC also considers that more issues may emerge as RSPs seek connection to NBN POIs, the vast majority of which are located in Telstra exchanges.

The ACCC is giving further consideration to whether to commence an inquiry into the declaration of facilities access services. In doing so, the ACCC will take into account the existing regulatory regime established under the Telco Act and the ACCC's ability to specify terms and conditions for access to facilities through the FADs for declared fixed line services.

Access seekers may also acquire facilities access services that are not ancillary to an active declared service. For example, access seekers may require exchange access to install mobile telephone equipment or transmission equipment. With respect to such services, the ACCC notes that the Telco Act imposes a general facilities access obligation on carriers.¹⁴⁰ The Telco Act also provides the ACCC with the power to arbitrate a dispute where there is a failure to agree on the terms and conditions of access and a failure to agree on the appointment of an arbitrator.¹⁴¹ The ACCC has also set non-price terms of access in a code of access to certain facilities (telecommunications transmission towers, sites of telecommunications transmission towers and underground facilities designed to hold lines).¹⁴²

¹³⁴ AAPT, Public Submission on the Discussion Paper, pp.10-11.

¹³⁵ ACCC, *A Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities*, 1999.

¹³⁶ Telstra, Public Submission on the Discussion Paper, pp. 16 and 24.

¹³⁷ Telstra, Confidential Submission on the Discussion Paper, p.16.

¹³⁸ Telstra, Public Submission on the Discussion Paper, p. 17.

¹³⁹ Telstra, Public Submission on the Discussion Paper, p. 18.

¹⁴⁰ Section 61 of the Telco Act,

¹⁴¹ Subclauses 18(1) and 36(2) of Schedule 1 to the Telco Act.

¹⁴² ACCC, *A Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground facilities*, October 1999. This Code was varied on 18 September 2013.

The Telco Act does not, however, provide for upfront price and non-price terms of access to facilities in an access determination.

The ACCC notes submissions from access seekers in relation to the effectiveness of the current facilities access regime and considers that, despite there being relatively few disputes over access to facilities, there may be some further issues to be examined with respect to the most effective way to regulate facilities access services. The ACCC considers that its declaration powers under Part XIC of the CCA apply to facilities access services, which would allow the ACCC to directly set terms and conditions of access in a FAD (which would apply where there is no commercial agreement).

If the ACCC considers it necessary to set access terms and conditions for facilities access services (such as those that are ancillary to declared fixed line services or the DTCS) the ACCC will seek submissions during the relevant FAD inquiry on which services should be regulated as ancillary to the declared services and on the appropriate terms and conditions. The ACCC may consider further facilities access service issues as part of a future declaration inquiry, depending upon the nature of submissions received during the course of the relevant FAD inquiries.

3.6 Special Linkage Charge

Special Linkage Charge (SLCs) are additional charges levied by Telstra where it is required to extend its network boundary point so that a wholesale customer is able to deliver services to its customer premise. A few submitters have raised transparency issues as to how costs are calculated for Telstra's SLC.¹⁴³

Views of interested parties

VHA submits that SLCs should be included in the DTCS and within the scope of declaration¹⁴⁴ and the CCC considers that the declaration process should establish how SLCs will be captured to ensure they reflect underlying costs and equivalence obligation.¹⁴⁵

VHA proposes that SLCs be cost based and reflect Telstra's ability to reuse and/or resell the infrastructure. VHA notes that should the ACCC revise its approach for DTCS pricing, the ACCC may need to explicitly deal with SLCs in its model to avoid the risk of double dipping. VHA considers that this may require some modelling of efficient 'time and materials' costs which is the approach adopted in the United Kingdom by the Office of Communications (Ofcom). VHA notes that Ofcom has subjected its Excess Construction Charges (ECCs), the SLC equivalent to price controls by:

- imposing a one-off reduction to ECCs to align them with underlying costs and prevent over-recovery
- removing capitalised ECCs from the asset base to address double recovery of ECC costs
- setting the start charges for various ECCs on a forward-looking incremental cost basis, and

¹⁴³ CCC, Submission on the Discussion Paper, p.2, Macquarie, Confidential Submission on the Discussion Paper, p.11, VHA, Public Submission on the Discussion Paper, p.14.

¹⁴⁴ VHA, Public Submission on the Discussion Paper, p.14

¹⁴⁵ CCC, Submission on the Discussion Paper, p.2.

- following this adjustment of prices to more closely reflect costs, Ofcom then imposed a cap of GBCI-0% on each ECC used for leased line services (the General Building Cost Index (GBCI) was the relevant inflation index used).¹⁴⁶

Telstra has submitted to the ACCC that SLCs are not arbitrary but based on the cost of connecting access seekers to the transmission network where there is no appropriate existing infrastructure. Telstra further explains that SLCs are applied when the delivery of a service requires capital expenditure to extend the Telstra network beyond what is funded as part of a standard installation. Telstra also states that its retail business units have an analogous process. For example, enterprise customers are charged for network or infrastructure extensions required in order for Telstra to provide relevant telecommunications services (this is typically referred to as a capital contribution rather than a SLC).

ACCC's preliminary views

The ACCC notes access seeker concerns about the lack of transparency and processes associated with the provisioning of SLCs. The ACCC considers that while this issue may warrant regulatory intervention, SLCs are primarily a pricing matter and would be best addressed in the upcoming DTCS FAD inquiry which will commence in early 2014.

The ACCC's preliminary view is that it is not necessary to specify SLCs within the DTCS service description in order to consider the issue in the DTCS FAD inquiry.

3.7 Conclusion on the state of competition

The ACCC considers that generally, barriers to entry into the DTCS market remain high with significant sunk costs incurred with the risk of uneconomic returns, although the ACCC notes that contestability is increasingly evident in some transmission markets. In terms of the impact of the NBN, the ACCC agrees with submissions that it is too early to determine the impact of the NBN at this stage in the rollout, although it is likely to have an impact on the structure of DTCS markets and levels of DTCS competition in the future. The ACCC proposes to continue to monitor the effects of the NBN on DTCS markets as it is rolled out.

There are currently 88 metropolitan ESAs¹⁴⁷ and 23 regional routes which are currently excluded from regulation. The ACCC's preliminary view on the state of competition for the DTCS is that an additional 112 metropolitan ESAs and 8 regional routes are competitive and should be excluded from regulation. In addition, three regional routes should be re-declared. In total, 200 metropolitan ESAs and 27 regional routes would be deregulated (these ESAs are listed at [Appendix 2](#)).

In terms of the remaining transmission markets, the ACCC does not consider that there are conditions conducive to effective competition to warrant their removal from the scope of the declaration.

The ACCC notes that the declared DTCS is largely characterised by significant barriers to entry, limited supply or demand side substitutability and a dominant incumbent. The ACCC

¹⁴⁶ VHA, Public Submission on the Discussion Paper, pp.14-15.

¹⁴⁷ This count does not include the Campbelltown ESAs which is currently classified in the DTCS service description as a *regional* ESAs but is reclassified as a metropolitan ESA in the DTCS Final Access Determination (made in June 2012).

considers it is critical that access seekers are able to gain access to the DTCS at a reasonable price to ensure continued innovation and vigorous competition in downstream services. This access must be balanced against providing the correct incentives for efficient investment in the market to ensure the long-term interests of end-users are also addressed.

4 The ACCC's assessment against the LTIE

In deciding to declare a service, the ACCC must be satisfied that declaring a service will promote the LTIE of end-users of telecommunications services. In deciding whether declaration is likely to promote the LTIE, the ACCC must have regard to the extent to which declaration is likely to result in the achievement of the following three objectives:

- promoting competition in markets for telecommunications services
- achieving any-to-any connectivity, and
- encouraging economically efficient use of, and investment in, infrastructure by which the service is supplied or capable of being supplied.

4.1 Approach to the LTIE test

To determine whether the LTIE will be better promoted with declaration or without declaration, the ACCC is required to consider the effects of regulated access to particular services in each relevant market as well as make an overall assessment of the benefits expected to flow to end-users from declaration.

The ACCC notes that Part XIC of the CCA does not require the ACCC to precisely define the scope of the relevant markets in a declaration inquiry. The ACCC's approach to market definition in the context of this declaration inquiry is discussed in Section 3.1 of this Draft Report.

Once the relevant markets have been defined, the next step is to assess the state of competition in relevant markets. In assessing the state of competition, the ACCC considers dynamic factors such as the potential for sustainable competition to emerge and the extent to which the threat of entry (or expansion by existing suppliers) constrains pricing and output decisions. The state of competition in relevant markets is discussed in Section 3.4 of this Draft Report.

Promoting competition in markets for telecommunications services

When conducting a declaration inquiry, the ACCC is required under subsection 152AB(2) of the CCA to consider whether declaration of a service is likely to promote competition in relevant markets. In assessing whether declaration will promote competition in markets for telecommunications services, the ACCC considers that it is useful to consider the likely state of competition in the future both with declaration and without declaration.

Achieving any-to-any connectivity

The objective of any-to-any connectivity is achieved when each end-user is able to communicate with other end-users, whether or not they are connected to the same telecommunications network.¹⁴⁸ The ACCC notes that the relevance of any-to-any connectivity in achieving the LTIE is only relevant in the declaration context with respect to certain services. The Explanatory Memorandum the Trade Practices Amendment (Telecommunications) Bill 1996 stated that the objective of any-to-any connectivity will only be relevant when considering whether a particular service promotes the LTIE of a carriage

¹⁴⁸ Subsection 152AB(8) of the CCA.

service that involves communications between end-users.¹⁴⁹ When considering other types of services (such as carriage services which are inputs to an end-to-end service) this criterion will have little relevance and will therefore be given little, if any, weight. The achievement of any-to-any connectivity is particularly relevant when considering services that require interconnection between different networks.

Efficient use of, and investment in, infrastructure

In determining the extent to which declaration is likely to encourage the economically efficient use of, and investment in, infrastructure, subsections 152AB(6) and (7) of the CCA provide that regard must be had (but is not limited) to the technical feasibility of providing and charging for the services, the legitimate commercial interests of the supplier(s) of the services, and the incentives for investment in infrastructure. These are discussed further below.

Economic efficiency has three components:

- Productive efficiency refers to the efficient use of resources within each firm to produce goods and services using the least cost combination of inputs.
- Allocative efficiency is the efficient allocation of resources across the economy to produce goods and services that are most valued by consumers.
- Dynamic efficiency refers to efficiencies flowing from innovation leading to the development of new services or improvements in production techniques. It also refers to the efficient deployment of resources between present and future uses so that the welfare of society is maximised over time.

Facilitating access plays an important role in ensuring that existing infrastructure is used efficiently where it is inefficient to duplicate the existing networks or network elements. This is likely to be where infrastructure has natural monopoly characteristics and is a bottleneck for the supply of downstream services. The ACCC considers an access regime must not discourage investment in networks or network elements where such investment is efficient.

Technical feasibility

In assessing the technical feasibility of supplying and charging for a service, the ACCC considers:¹⁵⁰

- the technology that is in use, available or likely to become available
- whether the costs that would be involved are reasonable or likely to become reasonable, and
- the effects or likely effects of supplying and charging for the service on the operation or performance of telecommunications networks.

The ACCC assesses the technical feasibility of supplying the relevant service by examining the access provider's ability to provide the service and considering experiences in other jurisdictions.

¹⁴⁹ Explanatory Memorandum, Trade Practices Amendment (Telecommunications) Bill, 1996, pp. 40-41.

¹⁵⁰ Subsection 152AB(6) of the CCA.

The legitimate commercial interests of the infrastructure operator

An infrastructure operator's legitimate commercial interests relate to its obligations to the owners of the firm, including the need to recover the costs of providing services and to earn a normal commercial return on the investment in infrastructure. Allowing for a normal commercial return on investment provides an appropriate incentive for the access provider to maintain, improve and invest in the efficient provision of the service.

Paragraph 152AB(6)(b) of the CCA also requires the ACCC to have regard to whether providing access may affect the infrastructure operator's ability to exploit economies of scale and scope. Economies of scale arise from a production process in which the average (or per unit) cost of production decreases as the firm's output increases. Economies of scope arise where it is less costly for one firm to produce two (or more) products than it is for two (or more) firms to each separately produce the relevant products. The ACCC assesses the effects on an infrastructure operator's ability to exploit both economies of scale and scope on a case-by-case basis.

Incentives for efficient investment

Infrastructure operators should have the incentive to invest efficiently in the infrastructure by which the services are supplied (or are capable or likely to become capable, of being supplied). In assessing incentives for investment, regard must be had (but is not limited) to the risks involved in making the investment.¹⁵¹

Access regulation may promote efficient investment in infrastructure by avoiding the need for access seekers to duplicate existing infrastructure where duplication would be inefficient. It reduces the barriers to entry for competing providers of services to end-users and promotes efficient investments by these service providers in related equipment that is required to provide services to end-users.

¹⁵¹ Subsections 152AB(7A) and (7B) of the CCA.

5 Will declaration promote competition?

The ACCC considers that, in the context of assessing whether an ESA or route should be excluded from the DTCS declaration, it should consider whether excluding the route or area would promote competition. In determining the extent to which excluding a route/area from the declaration is likely to promote competition, the ACCC must have regard to the extent to which it will remove obstacles to end-users gaining access to carriage services or to services provided by means of carriage services (subsection 152AB(4)).

The ACCC considers that where there is the presence of competition, both actual and potential, removing regulation will not be detrimental to the objective of promoting competition and will likely promote facilities based competition as it would send correct signals to the market that regulation will be removed where facilities based competition is occurring or likely to occur.

Currently, access seekers may acquire DTCS transmission services from transmission providers:

- selling conditioned or managed transmission services (for example, Telstra, Optus, Nextgen, AAPT and Pipe Networks) or if available ‘dark’ fibre
- a competitor re-selling DTCS transmission services supplied by Telstra or another operator on commercially negotiated terms (for example Telstra’s Managed Lease Line service), or
- a competitor re-selling DTCS transmission services supplied by an operator using a regulated product (for example, Telstra’s Data Advantage service).

As set out in the section 3.4 of this document, the ACCC considers that there is already effective competition in the provision of transmission services on some inter-capita routes, regional routes and transmission between some metropolitan ESAs. In other areas, operators with existing optical-fibre networks that are located within very close proximity to an exchange but who are not currently connected to or providing transmission services would need to make additional investments to enter the market. This investment would either be through:

- the building of a link to connect the access seekers network with the access providers network, and/or
- the upgrade of existing capacity to offer wholesale services.

The ACCC considers that where there is actual competition or the potential for competition and/or contestability in an area this additional investment is more likely to be encouraged if regulation is removed. This is on the basis that effective competitive market forces are more likely in an unregulated environment to encourage access seekers to seek transmission services from alternative providers and for those providers to make the necessary efficient investments in order to meet that demand.

The impact on access seekers would depend on:

- whether access seekers acquiring a currently a service on a currently declared route could acquire a similar service from another access providers

- the likelihood of transmission providers that have existing infrastructure would undertake any additional investment needed to provided services, and
- whether there would be stronger competitive pressure to existing transmission providers as new entrants acquire the necessary scale to provide more competitive services.

While it is difficult to predict behaviour in relation to the possibility of entry into the DTCS transmission market in those areas that are deregulated, the ACCC considers that the presence of transmission networks in those areas that meet the ACCC's competition assessment is a strong indication that transmission services are capable of being provided using that optical fibre without prohibitive sunk costs. Where the ACCC has information, through the competition assessment and other sources, that a particular DTCS transmission route/area may not be able to be used to supply wholesale DTCS services, the ACCC has not regarded that route to be competitive.

The ACCC considers that the removal of regulation on routes and in areas where there is evidence of competition and/or the presence of a major input into providing transmission services (that is, optical fibre) this would provide incentives for transmission providers (generally those other than Telstra) and who currently do not provide services to provide services directly or upgrade their networks in order to do so. On this basis the ACCC considers that removing regulation on those routes that meet the competition assessment outlined in this review would also remove obstacles in the sense of protection (in the form of regulated prices) and create incentives for existing transmission providers to invest and provide services in those deregulated areas.

6 Will declaration achieve any-to-any connectivity?

Any-to-any connectivity is achieved only if each end-user is able to communicate with other end-users supplied with the same service or a similar service, whether or not the end-users are connected to the same telecommunication network. In determining whether to remake, vary or extend the current declaration, the ACCC must make an assessment as to whether this is likely to achieve any-to-any connectivity in relation to carriage services that involve communication between end-users.

Views of interested parties

The ACCC did not receive any submissions which commented on the issue of any-to-any connectivity.

ACCC preliminary views

The ACCC considers that regulation of DTCS routes which lack competition will ensure continued any-to-any connectivity between services. The ACCC also considers that deregulation of competitive routes as set out in this Draft Report will not impede the achievement of any-to-any connectivity between end-users.

The ACCC notes that the proposed competition criteria for both regional and metropolitan routes takes account of a competitor's proximity to the Telstra CAN and access to a capital city so that competitors are able to link their network traffic with a major central site or main transmission hub (typically located in a capital city).

The ACCC also notes that the proposed changes to the DTCS service description to align with the DTCS FAD, where appropriate, will promote clarity and consistency between the way the DTCS is defined and priced. In doing so it will also encourage greater interconnection between networks and promote the objective of any-to-any connectivity.

Finally, the ACCC notes that in order to achieve the objective of any-to-any connectivity in relation to the DTCS, access seekers need to be able to access network facilities such as ducts and TEBA. Without access to facilities (which are predominately Telstra owned) carriers may be limited in their ability to interconnect their network and equipment with other carrier network and equipment and provide telecommunications services on a wide scale basis. Although the ACCC does not consider that the issues raised in submissions will impede any-to-any connectivity, it is committed to continue to monitor facilities access issues with a view of conducting a separate inquiry if necessary.

7 Will declaration encourage the efficient use of and investment in infrastructure?

In assessing whether to remake, vary or extend the current declaration the ACCC must consider whether it is likely to encourage the economically efficient use of, and economically efficient investment in:

- infrastructure by which listed services are supplied, and
- any other infrastructure by which listed services are, or are likely to become, capable of being supplied.¹⁵²

In considering this objective, the ACCC must have regard to the following matters:

- the technical feasibility of supplying and charging for the eligible service
- the legitimate commercial interests of the access provider
- incentives for investment in new infrastructure to supply eligible services, and
- incentives for investment in new infrastructure which could be used to supply the eligible service and the risks involved in making the investment.

The key issue is whether deregulating would create an environment whereby the participants have increased incentives to undertake efficient use of, and efficient investment in, infrastructure.

Views of interested parties

Macquarie submits that there is little commercial or policy imperative to duplicate Telstra's transmission network in light of the transition to the NBN.¹⁵³

Similarly the CCC submits that investment on current uncompetitive routes is likely to be reduced and that the argument that routes should be regarded as 'potentially' competitive and deregulated in the hope that this will encourage alternative suppliers to enter the market is weakened.¹⁵⁴

Telstra submits that the level of investment by existing players and new entrants has grown leading to increased competition. Telstra submits that:

- Pipe Networks/TPG has more than doubled its length of installed cable between 2009 and 2013 to 3,800 kilometres, and a utilisation rate of 26 per cent. Pipe Networks/TPG also reported in 2013 to have invested \$66.9 million and connected a total of more than 1,500 buildings and over 100 data centres
- Vocus has had a 178 per cent increase in its fibre network since December 2011 and an utilisation rate of 5.6 per cent
- Amcom reports additional fibre network investment of \$11.3 million in 2013
- VicTrack has rolled out a number of fibre transmission networks including:

¹⁵² Sub-section 152AB(2)(e) of the CCA

¹⁵³ Macquarie, Public submission on Discussion Paper, p.1

- the 1,221.5 kilometre 10Mbps wide area network connecting all metropolitan Melbourne train stations with a scalable service to 1Gbps in 2011-12, and
- 196 kilometres between Geelong and Warnambool by mid-2013 as part of the Victorian Fibre Strategy, and
- the Commonwealth Government has invested \$250 million in the RBBP.¹⁵⁵

ACCC preliminary views

Economically efficient use of, and investment in, infrastructure

The ACCC seeks to ensure that the DTCS declaration encourages the efficient use of, or investment in, infrastructure used to supply DTCS transmission services.

The ACCC considers that incentives for efficient investment in existing and new infrastructure are predominantly driven by demand for transmission services and the potential return on investment from providing those services. An infrastructure based supplier of transmission services will typically consider the demand characteristics of a potential customer area and weigh this consideration against the cost of further augmenting its network or investing in new infrastructure to supply that area. There is evidence that the demand for the carriage of data is increasing with a corresponding increase in demand for transmission services.

Given the ubiquitous nature of Telstra's network the ACCC considers that operators with existing optical fibre networks would be encouraged to invest in deregulated areas where demand is sufficient to encourage entry. This investment is likely to be in the form of either:

- the establishment of a presence in the exchange to offer a wide variety of transmission services (both the DTCS and other services)
- augmentation of existing infrastructure to reach new markets, or
- the upgrade of existing infrastructure to provide the capacity necessary to provide wholesale services.

The ACCC considers that the presence of optical fibre infrastructure is an indication that the sunk costs necessary for the provision of DTCS transmission services is not prohibitive. Further, the removal of regulation is likely to provide the incentive for other access providers to invest in infrastructure to capture part of the market and for access seekers to seek out alternative suppliers. The ACCC is cognisant of the risks of undertaking new investment but that this risk is minimised or reduced where fibre providers are already located within very close proximity to an exchange.

The ACCC considers that there has been some investment in transmission infrastructure since the last declaration review of the DTCS in 2008-2009. This has mainly been due to the government's investment in backhaul under the RBBP. In addition, existing transmission providers continue to augment their networks by investing in links to service new exchange areas and some regional centres. The ACCC is also aware of proposed new investments in some regional areas of Australia. However, the ACCC recognises that, at times, large sunk investments are required to install additional transmission infrastructure and/or capacity. In this sense, the level of demand has been a key factor in the assessment of competition.

It is likely that some areas of Australia will continue to remain underserved by alternative DTCS services and will continue to be supplied only by Telstra. Maintaining regulation in these areas, where investment in new transmission services is unlikely to occur due to the high costs of providing services will enable access to DTCS services on regulated terms and at regulated prices. Areas which do not meet the competition assessment thresholds and where Telstra faces little competitive constraint in negotiating terms and conditions of access will remain regulated and available to access seekers at regulated prices. This will also encourage the efficient use of existing infrastructure (that is, Telstra's network) in areas where competition for DTCS service is low or non-existent.

In terms of the NBN, the ACCC notes that while it has the potential to change the market dynamics in a way which will promote further investment this has yet to occur. The ACCC considers that the NBN is likely to increase the volume of traffic that will be carried on transmission networks and that this may increase the ability for prospective entrants to achieve the economies of scale that would make entry more economically viable. The ACCC also considers that NBN POIs may form an important location from which DTCS investment and competition is likely to emerge. This is because the DTCS will be necessary to support the delivery of NBN services, particularly by providing backhaul from the 121 NBN POIs to RSP POPs. Where there is new market entry, the ACCC anticipates that this may be concentrated at or near NBN POIs.

The ACCC notes that in the future transmission services are likely to be concentrated in a smaller number of locations particularly as the rollout of the NBN aggregates demand at the 121 NBN POIs. However, this is also likely to encourage additional investment in infrastructure as the transmission providers ensure they have infrastructure and capacity to provide wholesale DTCS services at the NBN POIs.

8 The DTCS service description

8.1 Clarifying the DTCS service description

The ACCC considers that it would be in the LTIE to align the DTCS service description where appropriate with some of the definitions made in the 2012 DTCS FAD. The DTCS FAD categorised ESAs and routes between ESAs for pricing purposes and was guided by the way DTCS services are currently sold in transmission markets. As a consequence, the DTCS FAD developed an improved approach to the way geographic boundaries are set and how the route categories are defined.

8.1.1 Defining geographic boundaries in the DTCS service description

The ACCC has previously removed routes from the DTCS service description which have been found to be competitive, including routes between transmission points located in:

- an ‘exempt capital city’ (inter-capital routes). An exempt capital city is defined in the service description as Adelaide, Brisbane, Canberra, Melbourne, Perth or Sydney, and
- specified ‘regional centres’ to Sydney, Melbourne, Brisbane and Adelaide (Capital-regional routes).

The current service description however does not specify the geographic boundaries of the listed ‘exempt’ capital cities or ‘regional centres’ and this creates uncertainty as to where a deregulated DTCS route starts and finishes. The ACCC sought views in the Discussion Paper to determine the geographic boundaries of each capital city and regional centre listed in the service description.

The DTCS FAD defines the geographic boundaries of capital cities and regional centres listed in the service description by listing the ESAs which make up each capital city and regional centre. The ACCC notes however that the ESAs listed in the FAD are for pricing purposes only and have not been subject to a competition assessment. That is, the FAD identifies how a service between any two ESAs will be categorised so that it can be priced accordingly. For example, under the DTCS FAD, the ESA of Mascot is identified as metropolitan and the ESA of Bega is identified as regional. Therefore a route between Mascot and Bega will be classified and priced as a regional DTCS route.

Views of interested parties

Submitters broadly agree that the approach adopted in the DTCS FAD should be applied to the DTCS Declaration¹⁵⁶ although AAPT considers that it should only be for the purpose of guiding how a declared DTCS route should be classified for pricing purposes, and not for deregulation.¹⁵⁷ AAPT submits that the ACCC should reverse the DTCS regulatory forbearance for the metropolitan, regional and rural transmission markets altogether.¹⁵⁸ NBN Co submits that as the NBN is rolled out, ESAs as a geographic unit may become less relevant and that the ACCC should consider moving to the Australian Bureau of Statistics

¹⁵⁶ Macquarie, Public Submission on the Discussion Paper, p.3, NBN Co, Submission on the Discussion Paper, p.5, Nextgen, Submission on the Discussion Paper p.1, VHA, Public Submission on the Discussion Paper, p. 11. Telstra, Public Submission on the Discussion Paper, p.20.

¹⁵⁷ AAPT, Public submission on the Discussion Paper, p.9.

¹⁵⁸ AAPT, Public submission on the Discussion Paper, p.9.

Urban Centres and Localities (ABS UCL) as a possible alternative for the subsequent declaration.¹⁵⁹

ACCC preliminary views

The ACCC proposes to align the definition of geographic boundaries in the service description with the DTCS FAD by listing the relevant ESAs that make up each ‘exempt capital city’ and regional centre listed in the service description. As previously noted in the Discussion Paper, the ACCC considers that the geographic boundaries identified in the DTCS FAD reflect the way the DTCS is marketed and sold. The ACCC considers that the DTCS FAD and declaration should define routes, whether for the purpose of pricing or defining the scope of regulation, in a similar manner, in order to provide certainty and continuity.

The ACCC agrees with NBN Co that it should consider other geographic units as the NBN is rolled out but considers at this stage ESAs are still the most relevant geographic unit.

8.1.2 Aligning the DTCS service description with the route categories identified in the DTCS FAD

As discussed in Section 2.5 to this paper, the DTCS service description and DTCS FAD identify different geographic route categories.

The DTCS service description identifies particular inter-capital, capital-regional and inter-exchange (metropolitan and CBD areas) routes in order to exclude them from regulation while the DTCS FAD seeks to align route categories more closely to the way they are sold in the market in order to price them. The geographic classifications used in the DTCS FAD are as follows:

- *inter-capital routes* - routes from an ESA within the boundary of a capital city to an ESA within the boundary of another capital city
- *regional routes* - routes where either or both the beginning (A-end) and end of a route (B-end) are outside the boundary of a capital city
- *metropolitan route* - routes where both the A-end and B-end are within the boundary of a capital city
- *tail-end services*:
 - a regional tail-end route - a route wholly within a single ESA outside the boundary of a capital city, and
 - a metropolitan tail-end route - a route wholly within a single ESA inside the boundary of a capital city.¹⁶⁰

In the Discussion Paper the ACCC sought views on whether the revised geographic route categories used in the DTCS FAD should also be adopted into the DTCS service description.

¹⁵⁹ NBN Co, Submission on the Discussion Paper, p.5.

¹⁶⁰ ACCC, Explanatory Statement to the DTCS FAD, June 2012, p. 16.

Views of interested parties

Most submissions support the adoption of the revised geographic route categories used in the DTCS FAD in the DTCS service description.¹⁶¹ In relation to tail-end services, NBN Co and VHA submit that the ACCC should consider amending the DTCS service description to explicitly bundle tail-end services with regional or metropolitan routes as this is how the product is often bought.¹⁶² Optus also submits that the definition for tail-end services should make clear that it includes the provision of a connection between the end-user's premise and the Main Distribution Frame (MDF) located within a Main Distribution Unit (MDU).¹⁶³ In addition to these submissions, NBN Co and Optus propose new route categories.

New route category: Backhaul route from NBN POIs to capital city transmission hub

NBN Co proposes a new route category within the DTCS declaration. The route relates to backhaul routes from NBN POIs to the relevant capital city transmission hub. NBN Co defines the:

- relevant capital city as the capital city in the state or territory in which the POI is located. Where the capital city is not on a deregulated inter-capital route, it is proposed that the capital city be the closest capital city to the NBN POI on a deregulated inter-capital route (this would make Brisbane the relevant capital city for Darwin and Melbourne the relevant capital city for Hobart and Launceston), and
- transmission hub as a recognised point of concentration, such as a specific CBD or metropolitan transmission exchange, internet exchange or recognised carrier neutral data centre. Carrier neutral is where carriers can exchange traffic without facing limitations due to building access, floor space, cabling, etc. NBN Co proposes that where there is more than one possible transmission hub in a relevant capital city, the hub that is maximally served by competing wholesale transmission providers on the routes to all NBN POIs be used.¹⁶⁴

New route categories: domestic transmission terminating and trunking services

Optus submits that the DTCS declaration should be separated into two declarations:

- the Domestic Transmission Terminating Service – 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 POP which may or may not be located in the nearest Telstra exchange, and
- the Domestic Transmission Trunking Service - a point-to-point symmetric transmission service with dedicated capacity for the carriage of communications from one POP to another POP.¹⁶⁵

¹⁶¹ Macquarie, Public Submission on the Discussion Paper, p.5, NBN Co, Submission on the Discussion Paper, p.6, Nextgen, Submission on the Discussion paper, p.2, Telstra, Public Submission on the Discussion Paper, p.20, VHA, Public Submission on the Discussion Paper, p.11.

¹⁶² NBN Co, Submission on the Discussion Paper, p.7, VHA Public Submission on the Discussion Paper, p.11.

¹⁶³ Optus, Public Submission on the Discussion Paper, p.18.

¹⁶⁴ NBN Co, Submission on the Discussion Paper, pp.8-9.

¹⁶⁵ Optus, Public Submission on the Discussion Paper, pp. 19 & 21.

A POP would be defined:

- under the Domestic Transmission Terminating Service as 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, and
- under the Domestic Transmission Trunking Service as a physical point of presence in Australia between a network operated by a carrier or a CSP and another network operated by a carrier or a CSP that allows interconnection of communications traffic.¹⁶⁶

Under both definitions dedicated means the required bandwidth capacity that 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.¹⁶⁷

Optus proposes two declarations for the DTCS on the basis that it considers them to be more directly related to the downstream markets impacted by the services and, as a result, more able to provide service specific remedies that will better promote competition in the related markets.¹⁶⁸

Optus submits that the central problem with the current DTCS Declaration is the 2012 DTCS FAD pricing which resulted in regulated prices significantly greater than commercial rates for elements of the DTCS. Optus suggests that the DTCS FAD adopted a one-size-fits-all approach and that this was at least in some part influenced by the breadth of services included in the DTCS declaration.¹⁶⁹ It is also submitted that:

- the current DTCS declaration is overly focused on the current Telstra network and defining transmission between Telstra network elements rather than on access to services and routes required by access seekers, and
- the current DTCS declaration consists of a single market that includes all transmission services and that this has led to the failure of DTCS regulation to promote competition in specific related markets such as the C&G and mobile markets which are dependent on access to monopoly leased line terminating links.¹⁷⁰

Optus notes that this approach is used in some parts of Europe and will enable analysis of a larger set of evidence to ensure optimal regulation for the Australian market. It will also provide the ACCC with a better position from which to determine cost-based pricing for terminating services, including installation charges, monthly rental and SLCs.¹⁷¹

ACCC preliminary views

The ACCC notes that submitters are in general agreement that the ACCC should adopt the route categories which are set out in the DTCS FAD and the definitions associated with each route category. The ACCC considers it appropriate in order to provide certainty and

¹⁶⁶ Optus, Public Submission on the Discussion Paper, pp. 19 and 21.

¹⁶⁷ Optus, Public Submission on the Discussion Paper, pp. 19 and 21.

¹⁶⁸ Optus, Public Submission on the Discussion Paper, p. 8.

¹⁶⁹ Optus, Public Submission on the Discussion Paper, p. 8.

¹⁷⁰ Optus, Public Submission on the Discussion Paper, pp. 8 and 15.

¹⁷¹ Optus, Public Submission on the Discussion Paper, pp. 3, 8 and 15.

continuity with the ACCC's pricing structure of the DTCS and that this may assist parties during commercial negotiations for access to the DTCS. The ACCC, when assessing levels of competition on particular inter-capital, regional or metro routes, also proposes to subject all A-end and B-end ESAs within the capital city and regional centre boundaries (as set out in the DTCS FAD) to a competition test (see Section 3.4).

Tail-end services

The ACCC agrees with VHA and NBN Co that the DTCS definition of tail-end services should recognise the market practice of bundling a tail-end service with other routes. The ACCC notes that the DTCS FAD only priced tails which are sold as stand-alone products and in doing so, recognised that the price of inter-capital, regional or metro routes already incorporated the price of a tail component.

This enables access seekers the option of acquiring that component of the link that is competitive separately to the component incorporating the tail-end DTCS.

The ACCC therefore proposes to adopt the DTCS FAD definition of tail-end services which is that they are a route wholly within a single ESA. The ACCC notes that a tail-end service can be a service between a wholesale customer POP and another wholesale customer POP (a POP-to-POP service), and a service from a wholesale customer POP to an end-user location (a POP-to-end-user service). In both cases, the POP may or may not be co-located in a Telstra exchange.¹⁷²

The ACCC has considered the submission made by Optus that the tail-end definition should include 'a connection between the end-user's premise and the MDF located within the MDU'. The ACCC however notes that the DTCS service description is agnostic as to the technology and equipment used to provide the DTCS. The ACCC also notes that all tail-end services which use the copper network require access to an MDF in order to connect to an access seeker's network and that the proposed definition of tail-end services does not preclude this from occurring. The ACCC regulates tail-end transmission services where they are sold as stand-alone services provided wholly within an ESA between a customer location and a point of interconnect on the access seeker's network (either as a wholesale customer POP-to-POP service or POP-to-end-user service) irrespective of whether they use an MDF or optical distribution frame (ODF).

New route category: Backhaul route from NBN POIs to capital city transmission hub

The definition of the DTCS reflects the geographic markets in which it is sold. The ACCC considers that the present definition of the DTCS already provides for backhaul routes between NBN POIs and customer (whether wholesale or RSP) POPs as either regional, inter-capital or metro routes depending on the location of the POI and customer POP. The ACCC does not consider it therefore necessary to create a new route category at this point in time but will reassess its position once the NBN is rolled-out further.

¹⁷² An example of a POP-to-POP tail-end transmission service is Telstra's x162 service (with no inter exchange component). It runs from a wholesale customer POP to another wholesale customer POP, which may or may not be in a Telstra exchange. An example of a POP-to-end-user tail-end transmission service is Telstra's x163 service (with no inter-exchange component), which runs from a wholesale customer POP to an end-user.

New route categories: domestic transmission terminating and trunking services

The ACCC notes that current DTCS geographic route types are based on the different markets in which the DTCS is sold and as such, reflects local market conditions, including different transmission network structures and Australia's geography and topography.

The ACCC notes Optus' submission that tail-end services are priced too high and that this affects downstream markets such as the C&G and mobile markets. The ACCC however considers that price issues can be more readily addressed in the upcoming DTCS FAD inquiry rather than in the declaration inquiry and a restructure of DTCS route types.

The ACCC also considers that there is little to be gained from aggregating current trunk route types (inter-capital, regional and metro) into one trunk route in order to re-categorise them as metro POP connectivity, metro-regional POP connectivity and inter-capital POP connectivity routes.

In relation to tail-end services, the ACCC proposes to adopt the same approach used in the DTCS FAD. The ACCC considers that by only pricing tail-end services which are sold as stand-alone products, the ACCC is able to differentiate between tail-end services bought for the purpose of connecting a customer to a carrier's POP or between carrier POPs within the same ESA and those which are more widely bought, and priced, as part of a bundle with either metro, regional and inter-capital routes.

The terminating service described by Optus will essentially aggregate current DTCS metro services with tail-end services and as such, provide one product for two markets with separate characteristics. The ACCC considers that by differentiating between tail-end services which are sold as standalone services and services which are bundled with a tail component, the DTCS is better able to reflect different market conditions and transmission network structures, and in doing so, cater for different access seeker requirements. The ACCC also notes the widespread support amongst submissions for the adoption of the DTCS FAD approach to route categories and definitions in the DTCS declaration.

8.1.3 Sydney – Campbelltown route

The deregulated Sydney-Campbelltown route is currently identified as a competitive 'capital-regional' route in the DTCS service description. However, the DTCS FAD identifies Campbelltown as a metropolitan area because the Campbelltown ESA falls within the Sydney capital city boundary. For pricing purposes, the ACCC determined that Campbelltown is more akin to the characteristics of a metropolitan route rather than as a capital-regional route.¹⁷³ In the Discussion Paper the ACCC sought views on whether the DTCS service description should reclassify the Sydney-Campbelltown route as a deregulated 'metropolitan route'.

Views of interested parties

NBN Co and Telstra submit that it has no objections to the reclassification of the Sydney-Campbelltown route as a deregulated 'metropolitan route'.¹⁷⁴ Macquarie submits that the

¹⁷³ ACCC, Explanatory Statement to the DTCS FAD, June 2012, p. 18.

¹⁷⁴ NBN Co, Submission on the Discussion Paper, p.6, Telstra, Public Submission on the Discussion Paper, p.20.

reclassification would be appropriate provided that it is consistent with Macquarie's suggested competition criteria (set out in Section 3.4.1).¹⁷⁵ Macquarie further adds that competition is not necessarily effective on metropolitan routes to and from Campbelltown as transmission services will be increasingly concentrated between NBN POIs and access providers have little incentive to invest elsewhere.¹⁷⁶

ACCC preliminary views

The ACCC considers that Campbelltown is part of Sydney having regard to the geographic boundaries which are set out in the DTCS FAD and supported in this inquiry by stakeholders. The ACCC therefore considers it appropriate that the Sydney-Campbelltown route be reclassified in the DTCS service description as a metropolitan route. Section 3.4 to this is Draft Report discusses the new competition methodology developed by the ACCC to assess competition. The ACCC notes that the Sydney-Campbelltown route satisfies the competition assessment under the new competition methodology and that it should continue to remain excluded from the scope of regulation.

8.1.4 Defining 'Protection' in the service description

Although the declared DTCS includes both protected and unprotected DTCS services, the DTCS service declaration does not define the features of a protected DTCS service. In the Discussion Paper the ACCC sought views on whether it is necessary to include a definition for protection in the DTCS service description and if so, whether this should align with the definition provided in the DTCS FAD.

The DTCS FAD defines 'protection' as:

geographic path diversity in the inter-exchange component of a transmissions service only; it does not extend to the tail-end component of transmission services.¹⁷⁷

Views of interested parties

Many submitters consider it appropriate to include a definition for protected DTCS services in the DTCS service description by adopting the definition for protection provided in the DTCS FAD.¹⁷⁸

NBN Co and Telstra submit that there is no need to define protection as both protected and unprotected services are included within the scope of the DTCS service description.¹⁷⁹ NBN Co adds that by leaving the definition of protection open this would cater for any changes to the definition which could be managed through the DTCS FAD¹⁸⁰ while Telstra submits that protection is a commercial issue and is constantly evolving.¹⁸¹

¹⁷⁵ Macquarie, Public Submission on the Discussion Paper, p.5

¹⁷⁶ Macquarie, Public Submission on the Discussion Paper, p.5.

¹⁷⁷ ACCC, Explanatory Statement to the DTCS FAD, June 2012, p. 28.

¹⁷⁸ AAPT, Public Submission on the Discussion Paper, p.9, iiNet, Submission on the Discussion Paper, p.4, Macquarie, Public Submission on the Discussion Paper, p.5, Nextgen, Submission on the Discussion Paper, p.2, VHA, Public Submission on the Discussion Paper, p.11.

¹⁷⁹ NBN Co, Submission on the Discussion Paper, p.6, Telstra, Public Submission on the Discussion Paper, p.20.

¹⁸⁰ NBN Co, Submission on the Discussion Paper, p.6.

¹⁸¹ Telstra, Public Submission on the Discussion Paper, p.20.

ACCC preliminary views

The ACCC does not consider it necessary to define protection in the service description, given that the declaration extends to both protected and unprotected services and protection is well defined for pricing purposes in the DTCS FAD.

8.1.5 Relevance of ‘contention’ and ‘symmetry’

In September 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.¹⁸² The declared DTCS is intended to capture high capacity backhaul services in which the supply and quality of service is controlled by the access seeker (not the service provider).¹⁸³

The ACCC did not define the term ‘symmetric’ in the service description on the basis that the ACCC considers that it is widely understood by the telecommunications industry to mean the same data rate in both directions. In the Discussion Paper the ACCC sought views on whether it was still appropriate to define the declared DTCS as ‘symmetric’ and ‘uncontended’ or whether it should be described by another measure.

Views of interested parties

Submitters consider it appropriate to continue to define the declared DTCS in the DTCS service description as ‘symmetric’ and ‘uncontended’¹⁸⁴ while Macquarie considers it appropriate to describe the declared DTCS as ‘a service capable of operating as a permanent dedicated point-to-point service.’¹⁸⁵ Macquarie also notes that if an access provider offers a contended service which is designed to be an equivalent transmission service, this service should not fall outside the DTCS service description.¹⁸⁶

Optus submits that ‘uncontended’ should be replaced with ‘dedicated capacity’ because the increased use of fibre is making the concept of dedicated link redundant and many users could have a guaranteed 2Mbps or 8Mbps within the same fibre trunking link.¹⁸⁷

ACCC preliminary views

The ACCC considers it appropriate to retain the words ‘uncontended’ and ‘symmetric’ when defining the DTCS and notes that most submitters agree with this approach.

The ACCC also does not consider it necessary to use the word ‘dedicated’ instead of ‘uncontended’ as proposed by both Optus and Macquarie on the basis that the DTCS declaration already defines uncontended as ‘dedicated and not shared’. In terms of the definition proposed by Macquarie, the ACCC notes that it does not exclude services

¹⁸² ACCC, *An ACCC Final Report on reviewing the declaration of the domestic transmission capacity service*, September 2010 (DTCS Declaration Variation), p. 16.

¹⁸³ ACCC, DTCS Declaration Variation, September 2010, p. 19.

¹⁸⁴ AAPT, Public Submission on the Discussion Paper, p.10, iiNet, Submission on the Discussion Paper, p.4, NBN Co, Submission on the Discussion Paper, p.6, Nextgen, Submission on the Discussion Paper, p.2, Telstra, Public Submission on the Discussion Paper, p.20, VHA, Submission on the Discussion Paper, p.11.

¹⁸⁵ Macquarie, Public Submission on the Discussion Paper, p.6.

¹⁸⁶ Macquarie, Public Submission on the Discussion Paper, p.6.

¹⁸⁷ Optus, Public Submission on the Discussion Paper, p.4.

transmitted via asymmetric network interfaces and as such, could capture other bitstream services such as DSL services. The ACCC is also concerned that varying the service description as proposed by Macquarie might capture services which, although capable of being of the same quality as the DTCS, are not.

8.1.6 Transmission point

Under the DTCS service description access providers are not required to provide transmission capacity between transmission points which do not connect, or intersect with, their networks.¹⁸⁸ The DTCS service description provides the following definitions for a transmission point:

a **transmission point** is any of the following

- (a) a point of interconnection
- (b) a customer transmission point
- (c) an access seeker network location

a **point of interconnect** is a physical point of interconnection in Australia between a network operated by a carrier or carriage service provider and another network operated by a service provider

a **customer transmission point** is a point located at customer equipment at a service provider's customer's premises in Australia (for the avoidance of doubt, a customer in this context may be another service provider)¹⁸⁹

an **access seeker network location** is a point in a network operated by a service provider that is not a point of interconnection or a customer transmission point

In the Discussion Paper the ACCC sought comments on whether the above descriptions for a 'point of interconnect', 'an access seeker network location' and 'a customer transmission point' in the DTCS service description are sufficiently clear and whether it may be appropriate to consider a revised description for these terms.

Views of interested parties

Macquarie, NBN Co and Telstra submit that the current definitions for 'a point of interconnect', 'an access seeker network location' and 'a customer transmission point' in the DTCS service description are appropriate and do not need to be redefined.¹⁹⁰

Nextgen submits that the definition of 'customer transmission point' is unclear and proposes that 'customer transmission point' should be defined as a:

point at which an access provider currently delivers a service to its own customers, wholesale or retail.¹⁹¹

¹⁸⁸ ACCC, *Competition in data markets*, November 1998, p. xiii.

¹⁸⁹ DTCS service description.

¹⁹⁰ Macquarie, Public Submission on the Discussion Paper, p.6, NBN Co, Submission on the Discussion Paper, p.6, Telstra, Public Submission on the Discussion Paper, p.21.

¹⁹¹ Nextgen, Submission on the Discussion Paper, p.2.

ACCC preliminary views

The ACCC notes that submitters, with the exception of Nextgen, either agree to retain current definitions or do not make any submissions. In relation to Nextgen's definition of 'customer transmission point', the ACCC considers that Nextgen's suggestion to define 'customer transmission point' provides further clarity and should be adopted into the service description. Other definitions of transmission points will be retained.

8.1.7 Outdated terminology

In the Discussion Paper the ACCC noted that a number of legislative changes have occurred since the last review of the DTCS declaration and that the service description should be updated to reflect these changes. The legislative changes include:

- the repeal of ordinary class exemptions (sections 152AS) and ordinary individual exemptions (section 152AT) from the CCA, and
- the replacement of the *Trade Practices Act 1974* with the CCA.

The ACCC also considered that it may be appropriate to review references to the term 'exempt' in the DTCS service description given that ordinary class exemption and ordinary individual exemption processes have been repealed from the CCA.

Views of interested parties

NBN Co and Telstra submit that it has no issue with retaining 'exempt' in the current DTCS service description and NBN Co adds that if the term was to change, an appropriate definition could be 'deregulated.'¹⁹²

Macquarie proposes to replace 'exempt' with 'specified' as the term exempt is usually used to describe something which is 'free of obligation' and in the context of the DTCS service description, it is transmission between certain inter-capital routes that are free of obligation and not the cities per se.¹⁹³

ACCC preliminary views

The ACCC proposes to update the service description to account for the legislative changes since the last declaration review. In doing so the ACCC proposes to replace references to the *Trade Practices Act 1974* with *Competition and Consumer Act 2010* and the word 'exempt' with 'deregulated'.

8.1.8 Reference to 'Exchange Service Areas' in the DTCS service description

The existing DTCS service description (and DTCS FAD) uses ESAs to identify the geographic boundaries of telecommunication services and networks¹⁹⁴ while the NBN will be rolled out in regions called Fibre Serving Area Modules (FSAMs). In the Discussion Paper

¹⁹² NBN Co, Submission on the Discussion Paper, p.7, Telstra, Public Submission on the Discussion Paper, p.21.

¹⁹³ Macquarie, Public Submission on the Discussion Paper, p.6.

¹⁹⁴ The DTCS service description uses ESAs to identify the boundaries of deregulated inter-exchange transmission services. The DTCS FAD uses ESAs to identify the boundaries of capital cities and the boundaries of the deregulated regional centres.

the ACCC sought submissions on whether the DTCS service description should continue to use ESAs to identify the geographic boundary of telecommunications networks.

Views of interested parties

Submitters agree that the DTCS service description should continue to be identified by the geographic boundaries of the telecommunications network using ESAs.¹⁹⁵

Nextgen submits that FSAs should also be a consideration.¹⁹⁶ Telstra also considers FSAs as a potential alternative although Telstra notes that ESAs will likely remain the dominant architecture for most of the next regulatory period as currently only 15 FSAMs have been fully or partially activated for service.¹⁹⁷

NBN Co submits that the ongoing use of ESAs as a geographic unit may become less relevant and the approach should be reviewed,¹⁹⁸ however NBN Co notes that ESAs still provide a workable basis for defining many aspects of the DTCS service description at this point.¹⁹⁹ NBN Co considers that it may be appropriate to move to the ABS UCL and constituent ABS sub-area definitions as a possible alternative for the subsequent declaration period as the NBN rollout continues.²⁰⁰

AAPT considers it too premature given the current rate of the NBN rollout to assess whether any future regulatory arrangements for the DTCS should consider the new telecommunications network architecture introduced by the NBN.²⁰¹

ACCC preliminary views

The ACCC considers that while the NBN will increasingly have an impact on the structure of the geographic market for the DTCS, this has not yet occurred. The ACCC agrees therefore with submitters that references to ESAs should be retained in the service description until the NBN is sufficiently rolled out to affect DTCS geographic markets.

8.1.9 Telstra's Managed Leased Line (MLL) service

Submissions from Optus and Macquarie advise that there is ambiguity over whether Telstra's MLL service falls within the remit of the declared DTCS.

Views of interested parties

Macquarie considers MLL to be covered by the current DTCS service description but is concerned about the potential uncertainty to be created as to the extent of which services considered to be substitutes for traditional DTCS, are covered by the service description.²⁰²

¹⁹⁵ iiNet, Submission on the Discussion Paper, p.10, Macquarie, Public Submission on the Discussion Paper, p.13, Nextgen, Submission on the Discussion Paper, p.4, Telstra, Public Submission on the Discussion Paper, p.25.

¹⁹⁶ Nextgen, Submission on the Discussion Paper, p.4.

¹⁹⁷ Telstra, Public Submission on the Discussion Paper, p.25.

¹⁹⁸ NBN Co, Submission on the Discussion Paper, p.5.

¹⁹⁹ NBN Co, Submission on the Discussion Paper, p.13.

²⁰⁰ NBN Co, Submission on the Discussion Paper, p.5.

²⁰¹ AAPT, Public submission on the Discussion Paper, p.5.

²⁰² Macquarie, Public Submission on the Discussion Paper, p.2.

[cic] [cic]²⁰³ Optus proposes that a definition of ‘managed services’ be added to the DTCS service description. The definition should clarify that the inclusion of managed services to provide fault identification/rectification does not exclude the service from regulation.²⁰⁴

ACCC preliminary views

The ACCC notes that the DTCS is a wholesale transmission service in which the supply and quality of service is controlled by the access seeker and although an input into other services, it is not, of itself, a managed service. The ACCC considers that the service description adequately balances the need to define the DTCS so that it extends to wholesale transmission services without capturing services of a lesser quality (such as asymmetric services) or services in which the access provider retains control over the quality of service (such as contended services).

In terms of fault identification and rectification, the ACCC notes that the SAOs require access providers to provide fault detection, handling and rectification of a technical and operational quality and timing that is equivalent to that which the access provider provides to itself when supplying an active declared service such as the DTCS (section 152AR 3(c) of the CCA). As such, the ACCC does not consider these to be characteristics of a managed service.

The ACCC also considers that the service features of the Telstra MLL product meets the requirements of the DTCS service description and is covered by the declaration.

8.2 Length of DTCS declaration

The *Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Act 2010* (CACs Act) amended section 152ALA(2) of the CCA to allow the ACCC to specify an expiry date for a declaration that is more than five years after the declaration is made. However in specifying an expiry date the ACCC must have regard to the principle that a declaration should expire between a three and five year period, unless there are circumstances that warrant the expiry date occurring in a shorter or longer period.²⁰⁵ This amendment is intended to enable the ACCC to provide longer-term regulatory certainty, where appropriate, in order to promote competition and investment.²⁰⁶

Views of interested parties

Submitters broadly agree with a five year regulatory period²⁰⁷ and some submitters consider a three to five year declaration period is warranted.²⁰⁸

²⁰³ Optus, Confidential Submission on the Discussion Paper, p.8.

²⁰⁴ Optus, Public Submission on the Discussion Paper, p.4.

²⁰⁵ See s.152ALA(2) of the CCA.

²⁰⁶ Explanatory Memorandum to the CACS Act), p.167.

²⁰⁷ iiNet, Submission on the Discussion Paper, p.10, Macquarie, Public Submission on the Discussion Paper, p.12, NBN Co, Submission on the Discussion Paper, p.12.

²⁰⁸ Optus, Public Submission on the Discussion Paper, p.25, Telstra, Public Submission on the Discussion Paper, p.25, VHA, Public Submission on the Discussion Paper, p.15.

ACCC preliminary views

The ACCC is of the preliminary view that the DTCS declaration should be maintained for five years, noting that if specific issues arise, particularly relating to the NBN, an inquiry can be commenced to amend or vary the declaration.

The ACCC also proposes that a transitional period of 9 months apply to the newly deregulated metropolitan ESAs and regional routes and the re-declared regional routes, in order to provide access seekers sufficient time to enter into alternative supply arrangements.

9 The ACCC's overall view

The ACCC's preliminary view is that the DTCS is a vital input into a range of downstream services and its importance in ensuring competitive and vigorous competition in downstream markets is likely to increase as demand for such services continues to increase. DTCS over optical fibre is still the preferred transmission medium despite numerous alternate technologies that are sometimes utilised for a similar function.

The ACCC considers that varying the declaration with an expiry in 5 years will ensure that declaration is retained where competition is not effective. As noted earlier the ACCC considers that varying the declaration will promote competition by ensuring that access seekers continue to be provided with the DTCS where competition would otherwise be ineffective. Further, the variation provides access seekers on routes that are to be deregulated a sufficient period to enter into alternative arrangements for continued provision of the service.

The ACCC is aware that the DTCS is a multi-dimensional and dynamic service. During the course of the 5 year declaration changes in market structure and the substitutability of alternative technologies may affect the state of competition in one or more product or geographic markets. To ensure that declaration keeps pace with the rollout of the NBN, and continues to underpin the promotion of the LTIE, the ACCC if necessary has the option of varying the scope of the DTCS through a further declaration inquiry.

In accordance with its obligations under the CCA, the ACCC will, prior to the expiration of this declaration period, review whether the declarations should be remade, extended, revoked, varied or allowed to expire.

Appendix 1: Current DTCS Service Description

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.

Inter-capital routes

- (c) a transmission point in an exempt capital city and a transmission point in another exempt capital city. Exempt capital cities include: Adelaide, Brisbane, Canberra, Melbourne, Perth or Sydney

Capital-regional routes

- (d) a transmission point in Sydney and a transmission point in any of the following regional centres: Albury, Lismore, Newcastle, Grafton, Wollongong, Taree, Dubbo, Campbelltown, Gosford, Coffs Harbour and Goulburn
- (e) a transmission point in Melbourne and a transmission point in any of the following regional centres: Ballarat, Bendigo, Geelong and Shepparton
- (f) a transmission point in Brisbane and a transmission point in any of the following regional centres: Toowoomba, Gold Coast, Townsville, Rockhampton, Bundaberg and Maryborough
- (g) a transmission point in Adelaide and a transmission point in Murray Bridge and, Port Augusta

Inter-exchange transmission (metropolitan areas)

- (h) inter-exchange transmission for the following metropolitan ESAs:
 - (1) in Sydney between transmission points located at an exchange in any of the following ESAs: Ashfield, Balgowlah, Bankstown, Blacktown, Burwood, Campsie, Carramar, Castle Hill, Chatswood, Coogee, Cremorne, East, Eastwood, Edgecliff, Epping, Glebe, Granville, Harbord, Homebush, Hornsby, Hurstville, Kensington, Kingsgrove, Kogarah, Lakemba, Lane Cove, Lidcombe, Liverpool, Mascot, Mosman, Newtown, North Parramatta, North Ryde, North Sydney, Parramatta, Pendle Hill, Pennant Hills, Petersham, Randwick, Redfern, Revesby, Rockdale Rydalmere, Ryde, Seven Hills, Silverwater, St Leonards, Undercliffe, Waverley

- (2) in Brisbane between transmission points located at an Exchange in any of the following ESAs: Paddington, South Brisbane, Toowong, Valley, Woolloongabba
- (3) in Melbourne between transmission points located at an Exchange in any of the following ESAs: Ascot, Brunswick, Caulfield, Coburg, Elsternwick, Footscray, Heidelberg, Malvern, Moreland, North Melbourne, Port Melbourne, Preston, Richmond, South Melbourne, St Kilda, Toorak
- (4) in Perth between transmission points located at an Exchange in any of the following ESAs: South Perth and Subiaco

Inter-exchange transmission (CBD areas)

- (i) inter-exchange transmission for the following CBD ESAs:
 - (1) in Sydney between transmission points located at an Exchange in any of the following ESAs: City South, Dalley, Haymarket, Kent, Pitt and exempted Sydney Metropolitan ESAs as set out in item (h)(1) of this service description
 - (2) in Brisbane between transmission points located at an Exchange in any of the following ESAs: Charlotte, Edison, Spring Hill and exempted Brisbane Metropolitan ESAs as set out in item (h)(2) of this service description
 - (3) in Adelaide between transmission points located at an Exchange in any of the following ESAs: Flinders and Waymouth.
 - (4) in Melbourne between transmission points located at an Exchange in any of the following ESAs: Batman, Exhibition, Lonsdale and exempted Melbourne Metropolitan ESAs as set out in item (h)(3) of this service description
 - (5) in Perth between transmission points located at an Exchange in any of the following ESAs: Bulwer, Pier, Wellington and exempted Perth Metropolitan ESAs as set out in item (h)(4) of this service description

Definitions

Where words or phrases used in this Annexure are defined in the *Trade Practices Act 1974* or the *Telecommunications Act 1997*, they have the meaning given in that Act.

an **access seeker network location** is a point in a network operated by a service provider that is not a point of interconnection or a customer transmission point

a **customer transmission point** is a point located at customer equipment at a service provider's customer's premises in Australia (for the avoidance of doubt, a customer in this context may be another service provider)

network interfaces include Ethernet, Plesiochronous Digital Hierarchy (PDH) and Synchronous Digital Hierarchy (SDH) network interfaces used to provide a transmission rate of 2.048 Megabits per second or above which an access provider provides to itself or others

exchange means a telecommunications exchange and includes the land, buildings and facilities (within the meaning of section 7 of the *Telecommunications Act 1997* (Cth)) that comprise or form part of the exchange

exchange service area or **ESA** has the meaning given to that phrase by the Australian Communications Industry Forum Limited definition in ACIF C559:2006, Part 1

a **point of interconnection** is a physical point of interconnection in Australia between a network operated by a carrier or a carriage service provider and another network operated by a service provider

a **transmission point** is any of the following:

- a) a point of interconnection
- b) a customer transmission point
- c) an access seeker network location

uncontended means dedicated and not shared

Appendix 2: Proposed variations to the DTCS Service Description (marked-up)

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.

Inter-capital routes

- (c) a transmission point from one in an exempt capital city boundary and to a transmission point in another exempt capital city boundary. Exempt Capital cities include: Adelaide, Brisbane, Canberra, Melbourne, Perth or Sydney.

Refer to Table 1 for the exchange service areas (ESAs) which are deregulated in each capital city and Table 3 for the boundaries of each capital city.

Capital-Rregional routes

- (d) — a transmission point in a deregulated regional ESA to a deregulated ESA — Sydney and a transmission point in any of the following regional centres: Albury, Lismore, Newcastle, Grafton, Wollongong, Taree, Dubbo, Campbelltown, Gosford, Coffs Harbour and Goulburn
- (e) —
- (f) — a transmission point in Melbourne in Sydney, Melbourne and a transmission point in any of the following regional centres: Ballarat, Bendigo, Geelong and Shepparton
- (g) —
- (h) — a transmission point in Brisbane and a transmission point in any of the following regional centres: Toowoomba, or Gold Coast, Townsville, Rockhampton, Bundaberg and Maryborough
- (i) —
- (d) — a transmission point in Adelaide. and a transmission point in Murray Bridge and, Port Augusta

Refer to Table 1 for the ESAs which are deregulated in Sydney, Melbourne and a transmission point in any of the following regional centres: Ballarat, Bendigo, Geelong and Shepparton

a transmission point in Brisbane and a transmission point in any of the following regional centres: Toowoomba, or Gold Coast, Townsville, Rockhampton, Bundaberg and Maryborough

a transmission point in Adelaide.

Refer to Table 2 for the list of deregulated regional ESAs.

Inter-exchange transmission (Metropolitan areas) routes

~~(c) in Sydney between transmission points: Ashfield, Balgowlah, Bankstown, Blacktown, Burwood, Campsie, Carramar, Castle Hill, Chatswood, Coogee, Cremorne, East, Eastwood, Edgecliff, Epping, Glebe, Granville, Harbord, Homebush, Hornsby, Hurstville, Kensington, Kingsgrove, Kogarah, Lakemba, Lane Cove, Lidcombe, Liverpool, Mascot, Mosman, Newtown, North Parramatta, North Ryde, North Sydney, Parramatta, Pendle Hill, Pennant Hills, Petersham, Randwick, Redfern, Revesby, Rockdale Rydalmere, Ryde, Seven Hills, Silverwater, St Leonards, Undercliffe, Waverley~~

~~(1) in Sydney between transmission points located at an exchange in any of the following deregulated metropolitan ESAs in Sydney: Ashfield, Balgowlah, Bankstown, Blacktown, Burwood, Campsie, Carramar, Castle Hill, Chatswood, Coogee, Cremorne, East, Eastwood, Edgecliff, Epping, Glebe, Granville, Harbord, Homebush, Hornsby, Hurstville, Kensington, Kingsgrove, Kogarah, Lakemba, Lane Cove, Lidcombe, Liverpool, Mascot, Mosman, Newtown, North Parramatta, North Ryde, North Sydney, Parramatta, Pendle Hill, Pennant Hills, Petersham, Randwick, Redfern, Revesby, Rockdale Rydalmere, Ryde, Seven Hills, Silverwater, St Leonards, Undercliffe, Waverley~~

~~(2) in Brisbane between transmission points located at an Exchange in any of the following deregulated metropolitan ESAs in Brisbane: Paddington, South Brisbane, Toowong, Valley, Woolloongabba~~

~~(3) in Melbourne between transmission points located at an Exchange in any of the following deregulated metropolitan ESAs in Melbourne: Aseot, Brunswick, Caulfield, Coburg, Elsternwick, Footscray, Heidelberg, Malvern, Moreland, North Melbourne, Port Melbourne, Preston, Richmond, South Melbourne, St Kilda, Toorak~~

~~(4) in Perth between transmission points located at an Exchange in any of the following deregulated metropolitan ESAs in Perth: South Perth and Subiaco~~

~~(5) in any of the deregulated metropolitan ESAs in Adelaide~~

~~(4)(6) in any of the deregulated metropolitan ESAs in Canberra~~

~~between transmission points located at an Exchange in any of the following ESAs: Flinders and Waymouth~~

~~Refer to Table 1 for the ESAs which are deregulated in each capital city~~

Inter-exchange transmission (CBD areas)

~~inter-exchange transmission for the following CBD ESAs:~~

~~in Sydney between transmission points located at an Exchange in any of the following ESAs: City South, Dalley, Haymarket, Kent, Pitt and exempted~~

Sydney Metropolitan ESAs as set out in item (h)(1) of this service description

~~— in Brisbane between transmission points located at an Exchange in any of the following ESAs: Charlotte, Edison, Spring Hill and exempted Brisbane Metropolitan ESAs as set out in item (h)(2) of this service description~~

~~— in Adelaide between transmission points located at an Exchange in any of the following ESAs: Flinders and Waymouth.~~

~~— in Melbourne between transmission points located at an Exchange in any of the following ESAs: Batman, Exhibition, Lonsdale and exempted Melbourne Metropolitan ESAs as set out in item (h)(3) of this service description~~

~~— in Perth between transmission points located at an Exchange in any of the following ESAs: Bulwer, Pier, Wellington and exempted Perth Metropolitan ESAs as set out in item (h)(4) of this service description~~

Definitions

Where words or phrases used in this Annexure are defined in the *Competition and Consumer Act 2010 Trade Practices Act 1974* or the *Telecommunications Act 1997*, they have the meaning given in ~~that those~~ Acts

an **access seeker network location** is a point in a network operated by a service provider that is not a point of interconnection or a customer transmission point

a **customer transmission point** is a point located at customer equipment at a service provider's customer's premises in Australia (for the avoidance of doubt, a customer in this context may be another service provider) point at which an access provider currently delivers a service to its own customers (either wholesale or retail)

the DTCS Route Category Workbook forms part of the ACCC's 2012 Final Access Determination for the DTCS and is published at www.accc.gov.au

inter-capital route means a route from an ESA within the boundary of the capital city to an ESA within the boundary of another capital city. Capital city boundaries are listed in Table 3. An inter-capital route may include a tail-end where it is purchased as part of a bundle with the inter-capital route

network interfaces include Ethernet, Plesiochronous Digital Hierarchy (PDH) and Synchronous Digital Hierarchy (SDH) network interfaces used to provide a transmission rate of 2.048 Megabits per second or above which an access provider provides to itself or others

exchange means a telecommunications exchange and includes the land, buildings and facilities (within the meaning of section 7 of the *Telecommunications Act 1997* (Cth)) that comprise or form part of the exchange

exchange service area or **ESA** has the meaning given to that phrase by the Australian Communications Industry Forum Limited definition in ACIF C559:2006, *Part 1 ULLS Performance Requirement Industry Code*

metropolitan route means a route where both the beginning and end of the route -are within a capital city boundary. Capital city boundaries are listed in Table 3. A metropolitan route may include a tail-end where it is purchased as part of a bundle with the metropolitan route

a **point of interconnection** is a physical point of interconnection in Australia between a network operated by a carrier or a carriage service provider and another network operated by a service provider

regional route means a route where either or both the beginning and end of the route are outside a capital city boundary. Capital city boundaries are listed in Table 3. A regional route may include a tail-end where it is purchased as part of a bundle with the regional route

tail-end means a route wholly within a single ESA. A regional tail-end route is a route wholly within a single ESA outside the boundary of a capital city. A metropolitan tail-end route is a route wholly within a single ESA within the boundary of a capital city. A tail-end service is only purchased as a stand-alone product

a **transmission point** is any of the following:

- a) a point of interconnection
- b) a customer transmission point
- c) an access seeker network location

| **uncontended** means dedicated and not shared

Table 1: Deregulated ESAs in each capital city

<u>Deregulated Metropolitan Areas</u>	<u>ESA names</u>
<u>Sydney</u>	<u>Ashfield, Balgowlah, Balmain, Bankstown, Baulkham Hills, Blacktown, Bondi, Botany, Burwood, Campbelltown, Campsie, Carlingford, Carramar, Castle Hill, Chatswood, City South, Coogee, Concord, Cremorne, Cronulla, Dalley, Dee Why, Drummoyne, East, Eastwood, Edensor Park, Edgecliff, Engadine, Epping, Erskine Park, Frenchs Forest, Glebe, Granville, Guildford, Harbord, Haymarket, Homebush, Hornsby, Hunters Hill, Hurstville, Ingleburn, Kensington, Kent, Killara, Kingsgrove, Kogarah, Lakemba, Lane Cove, Lidcombe, Liverpool, Manly, Maroubra, Mascot, Miller, Minto, Miranda, Mosman, Newtown, North Parramatta, Penrith, North Ryde, North Sydney, Parramatta, Peakhurst, Pendle Hill, Pennant Hills, Petersham, Pitt, Pymble, Randwick, Redfern, Revesby, Rockdale, Rose Bay, Rydalmere, Ryde, Seven Hills, Silverwater, Sutherland, St Leonards, St Marys, Undercliffe, Wahroonga, Waverley, Wetherill Park, Willoughby</u>
<u>Brisbane</u>	<u>Acacia Ridge, Albion, Alexandra Hills, Bulimba, Browns Plains, Charlotte, Chermshire, Chapel Hill, Capalaba, Coorparoo, Edison, Eight Mile Plains, Everton Park, Goodna, Inala, Lutwyche, Mitchelton, Mount Gravatt, Nunda, New Farm, Paddington, Petrie, Salisbury, Slacks Creek, South Brisbane, Spring Hill, Sunnybank, Tingalpa, Toowong, Valley, Woolloongabba, Wynnum, Yeronga, Zillmere</u>
<u>Melbourne</u>	<u>Ascot, Batman, Berwick, Blackburn, Brooklyn, Brunswick, Bundoora, Burwood, Camberwell, Canterbury, Carlton, Caulfield, Cheltenham, Coburg, Collingwood, Croydon, Dandenong, Deepdene, East Kew, Elsternwick, Epping, Exhibition, Flemington, Footscray, Glen Iris, Hawthorn, Heidelberg, Highett, Kooyong, Lonsdale, Malvern, Mitcham, Moreland, North Balwyn, Northcote, North Essendon, North Melbourne, Oakleigh, Port Melbourne, Preston, Richmond, Ringwood, South Melbourne, St Kilda, Sunshine, South Yarra, Tally Ho, Thomastown, Thornbury, Toorak, Tullamarine, Wheelers Hill, Windsor, Wantirna</u>
<u>Perth</u>	<u>Bateman, Bulwer, Cannington, Cottesloe, Doubleview, Hilton, Maylands, Pier, South Perth, Subiaco, Victoria Park, -Wellington</u>
<u>Adelaide</u>	<u>Brighton, Croydon, Gepps Cross, Flinders, Golden Grove, Norwood, Salisbury, Stirling, St Peters, Unley, Waymouth, West Adelaide, St Marys</u>
<u>Canberra</u>	<u>Civic</u>

-Table 2: Deregulated Regional ESAs

<u>Deregulated Regional Areas</u>	<u>ESA Names</u>
<u>New South Wales</u>	<u>Albury, Lavington</u> <u>Bathurst</u> <u>Lismore</u> <u>Mayfield, Hamilton, Wolfe, New Lambton, Charlestown</u> <u>Grafton</u> <u>Wollongong, Unanderra, Corrimal, Dapto</u> <u>Taree</u> <u>Dubbo</u> <u>Gosford</u> <u>Coffs Harbour</u> <u>Goulburn</u> <u>Orange</u> <u>Wagga Wagga</u>
<u>Victoria</u>	<u>Ballarat</u> <u>Bendigo</u> <u>Geelong, North Geelong</u> <u>Shepparton</u>
<u>Queensland</u>	<u>Ipswich</u> <u>Toowoomba,</u> <u>Southport, Nerang, Merrimac, Arundel, Bundall, Surfer's Paradise, Robina, Mudgeeraba, -Oxenford</u> <u>Rothwell, Narangba</u> <u>Beenleigh, Loganholme</u> <u>Caloundra, Mooloolaba, Maroochydore</u> <u>Townsville</u>
<u>South Australia</u>	<u>Murray Bridge</u> <u>Port Augusta</u> <u>Smithfield</u>

Table 3: Capital City Boundaries (as defined in the DTCS Route Category workbook)

<u>Adelaide</u>	<u>a 25 km radius from the Waymouth ESA</u>
<u>Brisbane</u>	<u>a 25 km radius from the Edison ESA</u>
<u>Canberra</u>	<u>a 15 km radius from a CBD ESA</u>
<u>Darwin</u>	<u>a 10 km radius from the Nightcliff ESA</u>
<u>Hobart</u>	<u>a 6 km radius from a CBD ESA</u>
<u>Melbourne</u>	<u>a 45 km radius from the Kooyong ESA</u>
<u>Perth</u>	<u>a 30 km radius from the Wellington ESA</u>
<u>Sydney</u>	<u>a 50 km radius from the City South ESA</u>

Appendix 3: Proposed variations to the DTCS Service Description (clean version)

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

Inter-capital routes

- (c) a transmission point from one capital city boundary to a transmission point in another capital city boundary. Capital cities include: Adelaide, Brisbane, Canberra, Melbourne, Perth or Sydney.

Refer to Table 1 for the exchange service areas (ESAs) which are deregulated in each capital city and Table 3 for the boundaries of each capital city.

Regional routes

- (d) a transmission point in a deregulated regional ESA to a deregulated ESA in Sydney, Melbourne, Brisbane or Adelaide.

Refer to Table 1 for the ESAs which are deregulated in Sydney, Melbourne, Brisbane or Adelaide.

Refer to Table 2 for the list of deregulated regional ESAs.

Metropolitan routes

- (e) transmission points:
 - (1) in any of the deregulated metropolitan ESAs in Sydney
 - (2) in any of the deregulated metropolitan ESAs in Brisbane
 - (3) in any of the deregulated metropolitan ESAs in Melbourne
 - (4) in any of the deregulated metropolitan ESAs in Perth
 - (5) in any of the deregulated metropolitan ESAs in Adelaide
 - (6) in any of the deregulated metropolitan ESAs in Canberra

Refer to Table 1 for the ESAs which are deregulated in each capital city

Definitions

Where words or phrases used in this Annexure are defined in the *Competition and Consumer Act 2010* or the *Telecommunications Act 1997*, they have the meaning given in those Acts

an **access seeker network location** is a point in a network operated by a service provider that is not a point of interconnection or a customer transmission point

a **customer transmission point** is a point at which an access provider currently delivers a service to its own customers (either wholesale or retail)

the **DTCS Route Category Workbook** forms part of the ACCC's 2012 Final Access Determination for the DTCS and is published at www.accc.gov.au

inter-capital route means a route from an ESA within the boundary of the capital city to an ESA within the boundary of another capital city. Capital city boundaries are listed in Table 3. An inter-capital route may include a tail-end where it is purchased as part of a bundle with the inter-capital route

network interfaces include Ethernet, Plesiochronous Digital Hierarchy (PDH) and Synchronous Digital Hierarchy (SDH) network interfaces used to provide a transmission rate of 2.048 Megabits per second or above which an access provider provides to itself or others

exchange means a telecommunications exchange and includes the land, buildings and facilities (within the meaning of section 7 of the *Telecommunications Act 1997* (Cth)) that comprise or form part of the exchange

exchange service area or **ESA** has the meaning given to that phrase by the Australian Communications Industry Forum Limited definition in ACIF C559:2006, *Part IULLS Performance Requirement Industry Code*

metropolitan route means a route where both the beginning and end of the route are within a capital city boundary. Capital city boundaries are listed in Table 3. A metropolitan route may include a tail-end where it is purchased as part of a bundle with the metropolitan route

a **point of interconnection** is a physical point of interconnection in Australia between a network operated by a carrier or a carriage service provider and another network operated by a service provider

regional route means a route where either or both the beginning and end of the route are outside a capital city boundary. Capital city boundaries are listed in Table 3. A regional route may include a tail-end where it is purchased as part of a bundle with the regional route

tail-end means a route wholly within a single ESA. A regional tail-end route is a route wholly within a single ESA outside the boundary of a capital city. A metropolitan tail-end route is a route wholly within a single ESA within the boundary of a capital city. A tail-end service is only purchased as a stand-alone product

a **transmission point** is any of the following:

- d) a point of interconnection
- e) a customer transmission point
- f) an access seeker network location

uncontended means dedicated and not shared

Table 1: Deregulated ESAs in each capital city

Deregulated Metropolitan Areas	ESA names
Sydney	Ashfield, Balgowlah, Balmain, Bankstown, Baulkham Hills, Blacktown, Bondi, Botany, Burwood, Campbelltown, Campsie, Carlingford, Carramar, Castle Hill, Chatswood, City South, Coogee, Concord, Cremorne, Cronulla, Dalley, Dee Why, Drummoyne, East, Eastwood, Edensor Park, Edgecliff, Engadine, Epping, Erskine Park, Frenchs Forest, Glebe, Granville, Guildford, Harbord, Haymarket, Homebush, Hornsby, Hunters Hill, Hurstville, Ingleburn, Kensington, Kent, Killara, Kingsgrove, Kogarah, Lakemba, Lane Cove, Lidcombe, Liverpool, Manly, Maroubra, Mascot, Miller, Minto, Miranda, Mosman, Newtown, North Parramatta, Penrith, North Ryde, North Sydney, Parramatta, Peakhurst, Pendle Hill, Pennant Hills, Petersham, Pitt, Pymble, Randwick, Redfern, Revesby, Rockdale, Rose Bay, Rydalmere, Ryde, Seven Hills, Silverwater, Sutherland, St Leonards, St Marys, Undercliffe, Wahroonga, Waverley, Wetherill Park, Willoughby
Brisbane	Acacia Ridge, Albion, Alexandra Hills, Bulimba, Browns Plains, Charlotte, Chermside, Chapel Hill, Capalaba, Coorparoo, Edison, Eight Mile Plains, Everton Park, Goodna, Inala, Lutwyche, Mitchelton, Mount Gravatt, Nunda, New Farm, Paddington, Petrie, Salisbury, Slacks Creek, South Brisbane, Spring Hill, Sunnybank, Tingalpa, Toowong, Valley, Woolloongabba, Wynnum, Yeronga, Zillmere
Melbourne	Ascot, Batman, Berwick, Blackburn, Brooklyn, Brunswick, Bundoora, Burwood, Camberwell, Canterbury, Carlton, Caulfield, Cheltenham, Coburg, Collingwood, Croydon, Dandenong, Deepdene, East Kew, Elsternwick, Epping, Exhibition, Flemington, Footscray, Glen Iris, Hawthorn, Heidelberg, Highett, Kooyong, Lonsdale, Malvern, Mitcham, Moreland, North Balwyn, Northcote, North Essendon, North Melbourne, Oakleigh, Port Melbourne, Preston, Richmond, Ringwood, South Melbourne, St Kilda, Sunshine, South Yarra, Tally Ho, Thomastown, Thornbury, Toorak, Tullamarine, Wheelers Hill, Windsor, Wantirna
Perth	Bateman, Bulwer, Cannington, Cottesloe, Doubleview, Hilton, Maylands, Pier, South Perth, Subiaco, Victoria Park, Wellington
Adelaide	Brighton, Croydon, Gepps Cross, Flinders, Golden Grove, Norwood, Salisbury, Stirling, St Peters, Unley, Waymouth, West Adelaide, St Marys

Canberra	Civic
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Table 2: Deregulated Regional ESAs

Deregulated Regional Areas	ESA Names
New South Wales	Albury, Lavington Bathurst Lismore Mayfield, Hamilton, Wolfe, New Lambton, Charlestown Grafton Wollongong, Unanderra, Corrimal, Dapto Taree Dubbo Gosford Coffs Harbour Goulburn Orange Wagga Wagga
Victoria	Ballarat Bendigo Geelong, North Geelong Shepparton
Queensland	Ipswich Toowoomba, Southport, Nerang, Merrimac, Arundel, Bundall, Surfer's Paradise, Robina, Mudgeeraba, Oxenford Rothwell, Narangba Beenleigh, Loganholme Caloundra, Mooloolaba, Maroochydore Townsville
South Australia	Murray Bridge Port Augusta

	Smithfield
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Table 3: Capital City Boundaries (as defined in the DTCS Route Category workbook)

Adelaide	a 25 km radius from the Waymouth ESA
Brisbane	a 25 km radius from the Edison ESA
Canberra	a 15 km radius from a CBD ESA
Darwin	a 10 km radius from the Nightcliff ESA
Hobart	a 6 km radius from a CBD ESA
Melbourne	a 45 km radius from the Kooyong ESA
Perth	a 30 km radius from the Wellington ESA
Sydney	a 50 km radius from the City South ESA

Appendix 4: Long-term interests of end-users

Section 152AB of the Act states that, in determining whether declaration promotes the LTIE, regard must be had to the extent to which declaration is likely to result in the achievement of the following objectives only:

- promoting competition in markets for listed services
- achieving any-to-any connectivity in relation to carriage services that involve communication between end-users, and
- encouraging the economically efficient use of, and the economically efficient investment in: (i) the infrastructure by which listed services are supplied; and (ii) any other infrastructure by which listed services are, or are likely to become, capable of being supplied.

These objectives are interrelated. In many cases, the LTIE may be promoted through the achievement of two or all three of these matters simultaneously. In other cases, the achievement of one of these matters may involve some trade-off in terms of another of the matters, and the Commission will need to weigh up the different effects to determine whether remaking, extending, revoking or varying the existing declaration, or allowing it to expire promotes the LTIE. In this regard, the Commission will interpret 'long-term' to mean a balancing of the flow of costs and benefits to end-users over time in relation to the criteria. Thus, it may be in the LTIE to receive a benefit for even a short period of time if its effect is not outweighed by any longer term cost.

The following discussion provides an overview of what the Commission must consider in assessing each of these objectives.

Promotion of competition

Subsections 152AB(4) and (5) of the Act provide that, in interpreting this objective, regard must be had to, but is not limited to, the extent to which the arrangements will remove obstacles to end-users gaining access to listed services. The explanatory memorandum to Part XIC of the Act states that:

...it is intended that particular regard be had to the extent to which the...[declaration]... would enable end-users to gain access to an increased range or choice of services.²⁰⁹

The concept of competition is of fundamental importance to the Act and has been discussed many times in connection with the operation of Parts IIIA, IV, XIB and XIC of the Act.

In general terms, competition is the process of rivalry between firms, where each market participant is constrained in its price and output decisions by the activity of other market participants. The Trade Practices Tribunal (now the Australian Competition Tribunal) stated that:

²⁰⁹ Trade Practices Amendment (Telecommunications) Act 1997 (Cth) explanatory memorandum.

In our view effective competition requires both that prices should be flexible, reflecting the forces of demand and supply, and that there should be independent rivalry in all dimensions of the price-product-service packages offered to consumers and customers. Competition is a process rather than a situation. Nevertheless, whether firms compete is very much a matter of the structure of the markets in which they operate.²¹⁰

Competition can provide benefits to end-users including lower prices, better quality and a better range of services over time. Competition may be inhibited where the structure of the market gives rise to market power. Market power is the ability of a firm or firms to constrain or manipulate the supply of products from the levels and quality that would be observed in a competitive market for a significant period of time.

The establishment of a right for third parties to negotiate access to certain services on reasonable terms and conditions can operate to constrain the use of market power that could be derived from the control of these services. Accordingly, an access regime such as Part IIIA or Part XIC addresses the structure of a market, to limit or reduce the sources of market power and consequent anti-competitive conduct, rather than directly regulating conduct which may flow from its use, which is the role of Part IV and Part XIB of the Act. Nonetheless, in any given challenge to competition, both Parts XIB (or IV) and XIC may be necessary to address anti-competitive behaviour.

To assist in determining the impact on markets of remaking, extending, revoking or varying the existing declaration or allowing its expiration, the Commission will first need to identify the relevant market(s) and then to assess the likely effect on competition in each market.

Section 4E of the Act provides that the term ‘market’ includes a market for the goods or services under consideration as well as any other goods or services that are substitutable for, or otherwise competitive with, those goods or services. The Commission’s approach to market definition is discussed in its 2008 Merger Guidelines, is canvassed in its information paper, *Anti-competitive conduct in telecommunications markets*, August 1999 and is also explored in the Commission’s second *Fixed Services Review position paper*, April 2007.

The second step is to assess the likely effect of the proposal on competition in each relevant market. As noted above, subsection 152AB(4) requires that regard must be had to the extent to which a particular thing will remove obstacles to end-users gaining access to listed services.

The Commission considers that denial to service providers of access to necessary upstream services on reasonable terms is a significant obstacle to end-users gaining access to services. In this regard, declaration can remove such obstacles by facilitating entry by service providers, thereby providing end-users with additional services from which to choose. For example, access to a mobile termination service may enable more service providers to provide fixed to mobile calls to end-users. This gives end-users more choice of service providers.

Where existing market conditions already provide for the competitive supply of services, the access regime should not impose regulated access. This recognises the costs of providing

²¹⁰ *Re Queensland Co-operative Milling Association Ltd; Re Defiance Holdings Ltd*, (1976) ATPR 40-012, 17,245.

access, such as administration and compliance, as well as potential disincentives to investment. Regulation will only be desirable where it leads to benefits in terms of lower prices, better services or improved service quality for end-users that outweigh any costs of regulation.

In the context of considering whether remaking, extending, revoking or varying the declaration or allowing its expiration will promote competition, it is appropriate to examine the impact of the existing declaration on each relevant market, the likely effect of altered access obligations (due to the removal of the declaration) on the relevant market, and compare the likely competitive environment in that market before and after the proposed remaking, extension, revocation, variation, or expiration of the declaration. In examining the market structure, the Commission considers that competition is promoted when market structures are altered such that the exercise of market power becomes more difficult; for example, because barriers to entry have been lowered (permitting more efficient competitors to enter a market and thereby constraining the pricing behaviour of the incumbents) or because the ability of firms to raise rivals' costs is restricted.

Any-to-any connectivity

Subsection 152AB(8) of the Act provides that the objective of any-to-any connectivity is achieved if, and only if, each end-user who is supplied with a carriage service that involves communication between end-users is able to communicate, by means of that service, or a similar service, with other end-users whether or not they are connected to the same network. The reference to 'similar' services in the Act enables this objective to apply to services with analogous but not identical functional characteristics, such as fixed and mobile voice telephony services or Internet services which may have differing characteristics.

The any-to-any connectivity requirement is particularly relevant when considering services that involve communications between end-users. When considering other types of services (such as carriage services that are inputs to an end-to-end service or distribution services such as the carriage of pay television), the Commission generally considers that this matter will be given less weight compared to the other two matters.

Efficient use of, and investment in, infrastructure

Subsections 152AB(6) and (7A) of the Act provide that, in interpreting this objective, regard must be had to, but is not limited to, the following:

- whether it is, or is likely to become, technically feasible for the services to be supplied and charged for, having regard to:
 - the technology that is in use, available or likely to become available
 - whether the costs that would be involved in supplying, and charging for, the services are reasonable, or likely to become reasonable
 - the effects, or likely effects, that supplying, and charging for, the services would have on the operation or performance of telecommunications networks

- the legitimate commercial interests of the supplier or suppliers of the services, including the ability of the supplier or suppliers to exploit economies of scale and scope, and
- the incentives for investment in:
 - the infrastructure by which the services are supplied, and
 - any other infrastructure by which the services are, or are likely to become, capable of being supplied.

In considering incentives for investment in infrastructure, the Commission must have regard to the risks involved in making the investment.

Economic efficiency has three components.

- Productive efficiency refers to the efficient use of resources within each firm such that all goods and services are produced using the least cost combination of inputs.
- Allocative efficiency refers to the efficient allocation of resources across the economy such that the goods and services that are produced in the economy are the ones most valued by consumers. It also refers to the distribution of production costs amongst firms within an industry to minimise industry-wide costs.
- Dynamic efficiency refers to the efficient deployment of resources between present and future uses such that the welfare of society is maximised over time. Dynamic efficiency incorporates efficiencies flowing from innovation leading to the development of new services, or improvements in production techniques.

The Commission will need to ensure that the access regime does not discourage investment in networks or network elements where such investment is efficient. The access regime also plays an important role in ensuring that existing infrastructure is used efficiently where it is inefficient to duplicate investment in existing networks or network elements.

The technical feasibility of supplying and charging for particular services

This incorporates a number of elements, including the technology that is in use or available, the costs of supplying, and charging for, the services and the effects on the operation of telecommunications networks.

In many cases, the technical feasibility of supplying and charging for particular services given the current state of technology may be clear, particularly where (as in the present case) the service is already declared and there is a history of providing access. The question may be more difficult where there is no prior access, or where conditions have changed. Experience in other jurisdictions, taking account of relevant differences in technology or network configuration, will be helpful. Generally the Commission will look to an access provider to demonstrate that supply is not technically feasible.

The legitimate commercial interests of the supplier, including the ability of the supplier to exploit economies of scale and scope

A supplier's legitimate commercial interests encompass its obligations to the owners of the firm, including the need to recover the cost of providing services and to earn a normal commercial return on the investment in infrastructure. The Commission considers that allowing for a normal commercial return on investment will provide an appropriate incentive for the access provider to maintain, improve and invest in the efficient provision of the service.

A significant issue relates to whether or not capacity should be made available to an access seeker. Where there is spare capacity within the network, not assigned to current or planned services, allocative efficiency would be promoted by obliging the owner to release capacity for competitors.

Paragraph 152AB(6)(b) of the Act also requires the Commission to have regard to whether the access arrangement may affect the owner's ability to realise economies of scale or scope. Economies of scale arise from a production process in which the average (or per unit) cost of production decreases as the firm's output increases. Economies of scope arise from a production process in which it is less costly in total for one firm to produce two (or more) products than it is for two (or more) firms to each separately produce each of the products.

Potential effects from access on economies of scope are likely to be greater than on economies of scale. A limit in the capacity available to the owner may constrain the number of services that the owner is able to provide using the infrastructure and thus prevent the realisation of economies of scope associated with the production of multiple services. In contrast, economies of scale may simply result from the use of the capacity of the network and be able to be realised regardless of whether that capacity is being used by the owner or by other carriers or carriage service providers. Nonetheless, the Commission will assess the effects on the supplier's ability to exploit both economies of scale and scope on a case-by-case basis.

The impact on incentives for investment in infrastructure

Firms should have the incentive to invest efficiently in infrastructure. Various aspects of efficiency have been discussed already. It is also important to note that while access regulation may have the potential to diminish incentives for some businesses to invest in infrastructure, it may also ensure that investment is efficient and reduce the barriers to entry for other (competing) businesses or the barriers to expansion by competing businesses.

There is also a need to consider the effects of any expected disincentive to investment from anticipated increases in competition to determine the overall effect on the LTIE. The Commission is careful to ensure that services are not declared where there is a risk that incentives to invest may be dampened, such that there is little subsequent benefit to end-users from the access arrangements.

Appendix 5: Proposed new competition methodology

