

Telstra's domestic transmission capacity service exemption applications

Draft decision

September 2008

Public version



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Abbreviations

AAPT AAPT Limited

ACCC Australian Competition and Consumer Commission

ADSL Asymmetrical Digital Subscriber Line

CAM Customer access module

CAN Customer access network

CBD Central business district

CCAs Call charge areas

CCC Competitive Carriers Coalition

c-i-c Commercial in confidence

CRA CRA International

CLA Critical loss analysis

CSP Carriage Service Provider

CTN Consumers Telecommunications Network

Declaration Guide ACCC's 1999 Guide to the Declaration Provisions of

Part XIC of the Act

DSL Digital Subscriber Line

DSLAM Digital subscriber line access multiplexer

DTCS domestic transmission capacity service

DTCS 2004 ACCC, Review of the DTCS declaration, 2004

Declaration Review

DWDM Digital wave density multiplexing

ESA Exchange service area

First Application Exemption application lodged by Telstra on 4 August

2007

First Application ACCC discussion paper for the first application

Discussion Paper

FSR2 ACCC, Fixed Services Review, April 2008

GPO General Post Office

HFC network Hybrid Fibre Coaxial network

IEN Inter-Exchange Network

Infrastructure Audit ACCC, Audit of Telecommunications Infrastructure

Audit - Record-Keeping-Rule 2007, 19 December 2007.

Internode Systems Pty Ltd

LCS Local Carriage Service

LTIE Long term interests of end-users

NSW New South Wales

Mbps Megabytes per second

MDF Main distribution frame

MTH Main transmission hub

MES Minimum efficient sale

Metro Metropolitan

MSAN Multi-service access node

Optus SingTel Optus Limited

PipeNetworks Pipe Networks Limited

POI Point of Interconnection to the Telstra network

PowerTel PowerTel Limited

PSTN OA Public Switched Telephone Network Originating Access

RKR Record keeping rule

SAOs Standard access obligations

Second set of The four exemption applications lodged by Telstra on

Applications

21 December 2007

Second Application ACCC discussion paper in response to the 21 December

Discussion Paper 2007 exemption application lodged by Telstra

SHDSL Single Pair High Speed Digital Subscriber Line

SIO Service In Operation

SSNIP Small but significant non-transitory increase in price

TEBA Telstra Equipment Building Access

Telstra Corporation Limited

Telstra CAN data ACCC, Telstra Customer Access Network Record

Keeping and Recording Rules 2007, 1 September 2007.

The 1996

Telecommunications

Bill

Trade Practices Amendment (Telecommunications) Bill

1996

the Act Trade Practices Act 1974

Telecommunications Infrastructure Audit The Infrastructure Audit and the Telstra CAN data.

UK United Kingdom

ULLS Unconditioned local loop service

WLR Wholesale Line Rental

xDSL Digital Subscriber Lines - technologies enabling

broadband services to be provided over copper wires -

ADSL, VDSL, HDSL, SHDSL

Summary

Background

This document sets out the ACCC's draft decision on Telstra's applications for individual exemption from the standard access obligations (SAOs) relating to the supply of the domestic transmission capacity service (DTCS) in certain areas.

On 24 August 2007, Telstra lodged an application under section 152AT of the *Trade Practices Act* 1974 (Act) for an individual exemption from SAOs in relation to the supply of the DTCS on 20 capital-regional routes (**First Application**). **Appendix A** lists these capital-regional routes.

On 21 December 2007, Telstra lodged an additional four applications for individual exemption from the SAOs in relation to the supply of the DTCS (**Second set of Applications**) in terms of:

- inter-exchange transmission in 17 capital city areas for all declared bandwidths;
- tail-end transmission in 17 capital city areas for all declared bandwidths;
- inter-exchange transmission in 115 metropolitan areas or regional centres for all bandwidths; and
- tail-end transmission in 128 metropolitan areas for bandwidths up to 2 Mbps.

These nominated areas are identified by ESA in Telstra's Second set of Applications and are listed in **Appendix A**.

The ACCC is jointly considering the First Application and Second set of Applications due to the commonality of issues and the similar supporting materials relied upon by Telstra. In this decision, the ACCC considers and discusses matters specific to each application in separate sections as necessary.

The DTCS was deemed a declared service under Part XIC of the Act on 30 June 1997. The DTCS is a generic transmission service used for the carriage of voice, data or other communications. The minimum bandwidth in the current declaration is 2 Mbps. Carriers/carriage service providers generally use the DTCS as a wholesale input to set up their own networks for aggregated voice or data channels, or for integrated data traffic (such as voice, video, and data).

The ACCC is able to 'declare' certain services.² Upon declaration, an access provider is required to meet the SAOs set out in section 152AR of the Act, such as supplying the service on request, as well as taking reasonable steps to ensure that the technical and operational quality of the service are equivalent. Terms of access can be governed by commercial negotiation, the terms of an accepted undertaking or, in the absence of an

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ACCC, Deeming of Telecommunications Services, June 1997, p.30.

² The Trade Practices Act 1974 (TPA), subsection 152AL(3).

accepted undertaking (or relevant term in an accepted undertaking), by the ACCC in determination of an access dispute.

The ACCC has the power under section 152AT of the Act, upon application by a carrier or carriage services provider, to make an order exempting the carrier or carriage service provider from the SAOs for a declared service. The ACCC also has the power under section 152AS of the Act to determine that the members of a specified class of carrier or class of carriage service provider are exempt from the SAOs for a declared service.

The ACCC may grant exemption where it is satisfied that doing so will promote the long-term interests of end-users (LTIE) as defined in section 152AB of the Act.³ An exemption order may be unconditional or subject to conditions or limitations as are specified in the order.⁴

The ACCC notes that the upcoming review of the DTCS declaration may consider similar issues raised in this draft decision. Where issues raised in assessing Telstra's exemption applications relate more broadly to the continued regulation of the DTCS, the ACCC considers that these issues are better dealt with in the context of the DTCS declaration review.

Bottlenecks and the removal of regulation

In general the ACCC considers that transmission networks are enduring bottlenecks. There are high sunk costs involved in building transmission networks potentially making it economically inefficient to duplicate existing transmission network infrastructure. It is also the case that in order to supply downstream services such as voice and internet services using the declared unbundled local loop service (ULLS), access to a backhaul transmission network using a service such as the DTCS is essential.

However, where there is empirical evidence of providers other than Telstra building alternative transmission networks, the ACCC considers that the existence of actual or potential competitors in the relevant geographic and product market means that it is likely that a particular transmission market is no longer a bottleneck and that removal of regulation in that market may be in the long-term interests of end-users due to the enhanced possibilities for more robust facilities based competition.

Would granting exemptions promote the long-term interests of end-users?

The relevant test for the ACCC to use in determining whether to grant the exemption applications is set out in section 152AT of the Act. The test is whether the ACCC is satisfied that the granting of the exemption applications will promote the LTIE of

³ TPA, subsection 152AT(3) and (4) and subsection 152AS(4).

⁴ TPA, subsection 152AS(2) and 152AT(5).

carriage services or of services provided by means of carriage services. The same test applies to assessing a class exemption under section 152AS.

In preparing its draft decision, the ACCC has had regard to (and only to, as mandated by section 152AB(3)) the objectives set out in section 152AB(2). A summary of the ACCC's preliminary conclusion on each of these objectives is set out in this section.

Promotion of competition

The ACCC has assessed whether granting the exemption applications will result in the promotion of competition in relevant markets. For the purpose of assessing the First and Second set of Applications a key relevant market is the wholesale supply of DTCS delivered over optical fibre. The ACCC accepts that ULLS could be a possible substitute for tail-end transmission services at 2 Mbps in some cases. However, for the purposes of assessing the Second set of Applications the ACCC does not consider transmission provided over ULLS to be a close substitute.

The product market may be further delineated into types of transmission service. The type of transmission services relevant to the assessment of the First Application is transmission across different call charge areas, specifically transmission along distinct routes from a capital city to a regional centre or town. For the purpose of assessing the First Application the ACCC limits the geographic market for a capital-regional route to be a route from a capital city to within a 1 km radius of a general post office (GPO) of a regional town.

The Second set of Applications concerns inter-exchange transmission and tail-end transmission respectively. The ACCC defines the geographic scope of tail-end transmission to be the customer access network (CAN) for the purpose of assessing the Second set of Applications. With respect to inter-exchange transmission, the ACCC prefers Telstra's submission that the CBD, or band 1 ESAs of a capital city, constitute a separate inter-exchange market. For metropolitan inter-exchange transmission, the ACCC also prefers Telstra's definition of:

- a cluster of contiguous ESAs, each of which contain inter-exchange fibre transmission infrastructure that includes a CBD ESA for that capital city; or
- an ESA containing inter-exchange fibre transmission infrastructure that is, or is contiguous with, an ESA that is connection to the CBD of the closest capital city by a fibre-optic regional transmission route.

Using the geographic markets outlined above as a basis, the ACCC has examined data obtained from record keeping rules (RKRs) to assess whether effective competition exists in those transmission markets. In summary:

■ First Application - capital-regional routes: The ACCC considers that evidence of two distinct capital-regional optical fibre routes, in addition to Telstra, that pass within 1 km of the GPO of a regional town is sufficient to establish the existence of effective competition or contestability in the market for capital-regional transmission services for that route.

For the purposes of establishing a capital-regional route the ACCC included distinct routes, sections of which are owned by different infrastructure owners.

- Second set of Applications inter-exchange transmission in Metropolitan areas: The ACCC considers that evidence of two optical-fibre networks, in addition to Telstra, which have a point of interconnect at a Telstra exchange in an ESA and a connection to a CBD is sufficient to establish the existence of effective competition or contestability in the market for metropolitan inter-exchange transmission services for that ESA.
- Second set of Applications inter-exchange transmission in CBD areas: The ACCC considers that evidence of two optical-fibre networks which have a point of interconnect at a Telstra exchange in a CBD ESA connecting to another exchange in an CBD ESA is sufficient to establish the existence of effective competition or contestability in the market for CBD inter-exchange transmission services for that ESA.
- Second set of Applications tail-end transmission in metropolitan areas: The ACCC considers that there is insufficient evidence to conclude that tail-end transmission markets are competitive. This is based on the conclusion that transmission supplied using the ULLS is not a *close* substitute for DTCS tail-end transmission at 2 Mbps. Further the ACCC concludes that even if ULLS could be considered a substitute for DTCS tail-end at 2 Mbps, it would still not be in the LTIE to grant the exemptions. This is on the basis that although Telstra has provided evidence regarding DSLAM presence at Telstra exchanges and technical information regarding the ability of a DSLAM to provide tail-end transmission at 2 Mbps, there is no evidence that in practice any DSLAM owners have entered or are likely to enter the tail-end transmission market at a retail or wholesale level.
- Second set of Applications tail-end transmission in CBD areas: The ACCC is of
 the view that Telstra is still the dominant provider of connections to tail-end
 transmission customers and there is not effective competitive supply to the tail-end
 transmission market in CBD areas.

The ACCC concludes that where there is effective competition or contestability in a transmission market, granting an exemption from the DTCS in that market will not be detrimental to the objective of promotion of competition. On the contrary, competition may be promoted where regulation is removed as existing optical fibre infrastructure owners, which meet the competition criteria set out above, may be encouraged to supply transmission services to meet demand arising due to SSNIP by Telstra or due to the increasing take up of downstream services.

Any to any connectivity

The ACCC concludes that granting or declining the exemption will have little impact on the objective of any-to-any connectivity.

Efficient use of, and investment in, infrastructure

In considering whether granting the exemptions in the First and Second set of Applications would promote the efficient use of, and investment in, infrastructure, the ACCC notes that there is a strong relationship between encouraging "competition" and encouraging "efficiency".

The ACCC considers that operators with existing optical-fibre networks which meet the 1 km criterion for a capital-regional route or have a point of interconnect at a Telstra exchange for inter-exchange transmission but which are not currently providing services to that transmission market, would need to make additional investments to enter into the market. This investment would either be:

- for capital-regional transmission markets: the building of a fibre link to connect a regional town with an existing optical-fibre network which is connected to a capital city
- for capital-regional and inter-exchange transmission markets: the upgrade of existing network infrastructure to increase capacity to offer wholesale services.

The ACCC considers that the presence of optical fibre networks which meet the 1 km criteria for a capital-regional route or have a point of interconnect at a Telstra exchange for inter-exchange transmission is a strong indication that transmission services are capable of being provided using that optical fibre without prohibitive sunk costs.

The ACCC considers that future demand for transmission services is likely to increase and that the removal of the regulated DTCS in markets which are competitive and/or contestable may provide an incentive for owners of optical fibre networks to make such an investment either to meet increasing demand or in response to a SSNIP of the Telstra DTCS. The ACCC is of the view that removing regulation in these circumstances could provide increased competitive tension at the wholesale level which would constrain Telstra's ability to price its DTCS services above competitive levels in areas where exemptions are granted. This would result in a more efficient use of existing infrastructure and, where required, efficient investment in new infrastructure.

The ACCC considers that on capital-regional routes and in metropolitan and CBD ESAs which are not competitive and/or contestable, Telstra continues to face little competitive restraint when negotiating terms and conditions of access to the DTCS. In these ESAs, Telstra is likely to have little incentive to set prices at levels consistent with those expected in a competitive market. On this basis the ACCC concludes that maintaining regulation in those cases is more likely to result in the efficient use of existing infrastructure.

Conclusion

The ACCC has considered the extent to which granting the exemptions in the First Application and Second set of Applications will promote any or all of the objectives required to be considered under sections 152AS and 152AT of the Act.

The ACCC is not satisfied that granting exemption from the DTCS is in the LTIE for the supply of:

- capital-regional transmission on all capital-regional routes in the First Application
- inter-exchange transmission between all band 2 ESAs in metropolitan areas or between all band 1 ESAs in the Second set of Applications or
- tail-end transmission in any ESA in the Second set of Applications.

However, on balance, the ACCC has concluded that granting the exemptions is in the LTIE, limited to:

- capital-regional transmission on 9 of 20 capital regional routes applied for exemption specified in **Appendix D**.
- inter-exchange transmission in CBD areas between all except one band 1 CBD ESAs in Perth, Melbourne, Brisbane, Sydney, Adelaide and Canberra (16 ESAs in total) as set out in **Appendix D**.
- inter-exchange transmission for 70 of 115 ESAs in metropolitan areas as set out in Appendix D:
 - between 16 ESAs and the Melbourne CBD
 - between 47 ESAs and the Sydney CBD
 - between 5 ESAs and the Brisbane CBD
 - between 2 ESAs and the Perth CBD

These orders will come into effect one year after the date of the final decision on the First and Second set of Applications.

The ACCC notes that this draft decisions only relates to the standard access obligations, as they relate to the DTCS, under Part XIC of the Act. The telecommunications-specific anti-competitive conduct provisions of Part XIB of the Act continue to apply.

1. Timetable and public inquiry process

1.1 Consultation process to date

The ACCC has released two discussion papers seeking submissions from interested parties:5

- in relation to the First Application on 18 October 2007 and
- in relation to the Second set of Applications on 14 February 2008.

A number of interested parties made submissions in response to the discussion papers. A list of the submissions received by the ACCC is in **Appendix B**.

Telstra made submissions in support of the First and Second set of Applications, as well as submissions responding to both discussion papers and in response to other party's submissions to the First and Second Discussion Papers.

Telstra, Optus and PipeNetworks provided the ACCC with commercial-in-confidence material. Telstra, Optus and PipeNetworks have stated that they will provide interested parties with access to commercial-in-confidence material upon executing a confidentiality undertaking(s). Template confidentiality undertakings are available on the ACCC website for this consultation. Parties interested in obtaining access to confidential material should contact the following representatives in the first instance.

Company	Contact name	Contact email
Telstra	Paul McLachlan	paul.mclachlan@team.telstra.com
Optus	Carolyn Yan	carolyn.yan@optus.com.au
PipeNetworks	Louise Bolger	Louise.Bolger@staff.pipenetworks.com

The ACCC requests that correspondence relating to confidentiality undertakings be copied to Caitlin Garner of the ACCC at caitlin.garner@accc.gov.au.

The ACCC also made information requests under section 152AU of the Act about both the First and Second set of Applications.

The table below provides a chronology of significant dates for the First and Second set of Applications.

⁵ TPA, subsection 152AT(9)(a).

Table 1-1 Chronology of events

DATE	ACTION			
First Application				
24 August 2007	First Application lodged with the ACCC.			
18 October 2007	The ACCC released the First Discussion Paper.			
9 November 2007	Closing date for submissions from interested parties in relation to the First Discussion Paper.			
4 January 2008	The ACCC issued Telstra with an information request in relation to the First Application.			
28 March 2008	Telstra responded to the information request relating to the First Application.			
11 April 2008	3 month extension of statutory period for ACCC to make decision.			
23 April 2008	The ACCC informed Telstra that its response to the information request in relation to the First Application was inadequate.			
2, 10 and 19 June 2008	Telstra provided further information to the information request relating to the First Application			
11 July 2008	Date Telstra fulfilled its response to the ACCC information request and further information request			
Second set of Applications				
21 December 2007	Second set of Applications (set of four individual applications) lodged with the ACCC.			
14 February 2008	The ACCC released the Second Discussion Paper.			
14 March 2008	Closing date for submissions from interested parties in relation to the Second Discussion Paper.			

28 March 2008	The ACCC issued Telstra with an information request in relation to the Second set of Applications.
17 and 31 July 2008	Telstra provided further information to the information request relating to the Second set of Applications
12 August 2008	The ACCC informed Telstra that its response to the information request in relation to the Second set of Applications was inadequate.
3, 5 and 9 September 2008	Telstra provided additional information in response to the information request in relation to the Second set of Applications. The ACCC is currently considering the extent to which this material responds to the information requests.

1.2 Consultation process for draft decision

The ACCC now seeks further submissions from interested parties wishing to comment on this draft decision. Submissions should be lodged with the ACCC by no later than close of business on 13 October 2008.

The ACCC will consider all submissions before making its final decision on the applications for exemption.

The ACCC has a six month period to decide whether to make an order exempting the Telstra from the SAOs in relation to the supply of the DTCS in certain nominated areas. However the six month period does not include any period where the ACCC has published the application and invited people to make submissions within a specific time limit, or where there is an outstanding response to an information request. The ACCC may also extend, or further extend the six month period in certain circumstances.

After considering the application, the ACCC must either make a written exemption order or refuse the application.⁹

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⁶ TPA subsection 152AT(10).

⁷ TPA subsection 152AT(11).

⁸ TPA subsection 152AT(12).

⁹ TPA subsection 152AT(3).

1.3 Lodging a submission

The ACCC prefers submissions to be lodged electronically and in a PDF, Microsoft Word or (if appropriate) Microsoft Excel format. Submissions should be text-searchable and allow the use of the 'copy-and-paste' function.

Electronic submissions can be made to:

Robert Wright

General Manager
Compliance and Regulatory Operations
Communications Group
Australian Competition and Consumer Commission
robert.wright@accc.gov.au

and should be copied to:

Caitlin Garner

Compliance and Regulatory Operations
Communications Group
Australian Competition and Consumer Commission
caitlin.garner@accc.gov.au

Submissions may also be lodged in hard copy and addressed to:

Robert Wright

General Manager Compliance and Regulatory Operations Communications Group Australian Competition and Consumer Commission GPO Box 520 Melbourne VIC 3001

Any questions about this Draft Decision should firstly be directed to Caitlin Garner at caitlin.garner@accc.gov.au or 03 9290 1485

1.4 Confidentiality claims on submissions

To allow for an informed and open consultation, the ACCC will treat all submissions as non-confidential, unless the author of a submission requests that the submission be kept confidential. In such a case, the author of the submission should provide both a confidential and non-confidential version of the submission. Non-confidential submissions will be published on the ACCC's website.

In addition, the ACCC notes that it is unlikely to accept confidentiality claims over economic thought or arguments as it considers public debate over economic arguments is essential to the assessment process.

The ACCC recognises that interested parties may need to protect commercial-in confidence-material. It is therefore not opposed to a requirement that parties wishing to gain access to confidential information execute confidentiality undertakings.

The ACCC will soon be implementing procedural rules under section 152ELA of the Act and anticipates that such rules, including rules relating to the confidentiality of documents given to the ACCC, will apply to the assessment of exemption applications in the future.

In the event that a party which has submitted a confidential submission does not agree to provide an interested party with its confidential information, that party should advise the ACCC that the party has been unable to gain access to the confidential submissions. The ACCC will then act to resolve the dispute.

1.5 Structure of the report

The rest of this report is structured as follows:

- Section 2 outlines the relevant legislative framework for consideration of the Telstra's exemption applications.
- **Section 3** provides background on the regulation of the DTCS.
- **Section 4** summarises the first and Second set of Applications, including expert reports and statements.
- **Section 5** outlines the relevant market for the purposes of evaluating the applications for exemption.
- **Section 6** provides competition analysis on the applications for exemption.
- **Section 7** provides analysis of any-to-any connectivity.
- **Section 8** provides analysis of economically efficient use of, and economically investment in, infrastructure.
- **Section 9** sets out the ACCC's conclusion on whether granting the exemptions promotes the long term interests of end users and draft decision on Telstra's individual exemption applications.
- **Section 10** outlines the proposed timing of the proposed exemption to be granted.
- **Section 11** sets out the ACCC draft decision regarding the granting of a class exemption.

2 Legislative framework

This section describes the relevant legislative framework to assess Telstra's applications for exemption of the SAOs in supplying the DTCS for certain nominated areas.

2.1 Declaration of a service

Part XIC of the Act establishes an industry specific regime for regulated access to telecommunications services. The primary objective of Part XIC is to promote the long-term interests of end users of carriage services or services provided by means of carriage services.

There is no general right of access to telecommunication services. The rights and obligations under Part XIC only apply in respect of 'eligible services' which are 'declared' by the Commission.

The ACCC can declare a service if it is satisfied that the declaration will promote the long-term interests of end-users of carriage services or service provided by means of carriage services (the LTIE test).

Following the declaration of a service, standard access obligations, as set out in section 152AR of the Act, apply to any carrier or carriage service provider who supplies that service to itself or to other persons. One of these obligations is to supply the declared service, on request, to any service providers, along with specified ancillary services. In the event that parties are unable to negotiate access to declared services, a party can notify the ACCC that a dispute exists and the ACCC can arbitrate the terms and conditions of access to that service. In instances where an access provider has submitted an accepted undertaking to govern the terms and conditions of access, the ACCC cannot make a determination in arbitration that is inconsistent with the undertaking.

In summary, the SAOs require that an access provider, if requested by a service provider, must:

- supply the declared service
- take all reasonable steps to ensure that the technical and operational quality of the service supplied to the service provider is equivalent to that which the access provider is supplying to itself
- take all reasonable steps to ensure that the fault detection, handling and rectification which the service provider receives in relation to the declared service is of equivalent technical and operational quality as that provided by the access provider to itself
- permit interconnection of its facilities with the facilities of the service provider

- take all reasonable steps to ensure that the technical operational quality and timing
 of the interconnection is equivalent to that which the access provider provides to
 itself
- take all reasonable steps to ensure that the service provider receives interconnection 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
- if a standard is in force under section 384 of the *Telecommunications Act 1997*, take all reasonable steps to ensure that the interconnection complies with the standard
- if requested by the service provider, provide billing information in connection with matters, or incidental to, the supply of the declared services
- if an access provider supplies an active declared service by means of conditionalaccess customer equipment, the access provider must, if requested to do so by a service provider supply any service that is necessary to enable the service provider to supply carriage services and/or content services by means of the declared service and using the equipment.

2.2 Individual and class exemptions

Under section 152AT of the Act, a carrier or carriage service provider may apply to the ACCC for a written order exempting it from any or all of the SAOs that apply to a declared service – an individual exemption. The ACCC must not grant such an exemption order unless the ACCC is satisfied that the making of the order will promote the LTIE.¹⁰

If the ACCC is of the opinion that an order made in respect of an application for an individual exemption is likely have a material effect on the interests of a person, the ACCC must publish the application and invite submissions on whether the application should be accepted. ¹¹

After considering the application for an individual exemption, and submissions received in response to it, the ACCC must make a written order exempting the carrier or carriage service provider from one or more of the standard access obligations, or refuse the application. It is noted that where the ACCC makes a decision refusing an application, the ACCC must provide the carrier or carriage service provider with a statement of reasons as to why the application has been refused.

Where the ACCC makes an order for an individual exemption, the order/determination may be unconditional, or subject to such conditions or limitations as are specified in it.¹²

¹⁰ TPA subsection 152AT(4).

¹¹ TPA subsection 152AT(9).

¹² TPA subsection 152AT(5).

Under section 152AS of the Act, the ACCC can determine that each member of a specified class of carrier (eg, current and future carriers supplying the DTCS in specified areas), or a specified class of carriage service provider, are exempt from any or all of the standard access obligations — a class exemption.

A class exemption under section 152AS of the Act similarly can only be made if the ACCC believes that the exemption will be in the LTIE. However the exemption applies to a specified class of carrier or carriage service provider, and there is no six month time limit on consideration of a class exemption.

The ACCC considers that if it is in the LTIE to grant an exemption to Telstra in any areas specified by its applications, a class exemption for all carriers and carriage service providers in the same areas is in the LTIE. Further discussion of the proposed class exemption is set out in section 11.

2.3 The ACCC's approach to the LTIE test

In determining whether granting the exemptions from the SAOs will promote the LTIE, regard must be had to the three primary objectives identified by section 152AB:

- 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, 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.¹³

Section 152AB also provides further guidance in interpreting these objectives. The three objectives are discussed further in **Appendix C**.

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See section 152AB of the TPA.

3 Background on regulation of the DTCS

The section sets out background on the key features of the DTCS and some developments in the regulation of the DTCS.

3.1 The Domestic Transmission Capacity Service

DTCS can be distinguished according to the transmission points involved in the delivery of transmission services within the Telstra network architecture:

- *Tail-end transmission:* this refers to transmission services provided *within* an ESA, and in the CAN. This transmission occurs between a customer location and some POI on the access seeker's network. Where Telstra provides tail-end DTCS the transmission is between the customer location or POI and the Telstra exchange.
- Inter-exchange transmission: this refers to transmission services provided in a single call charge area (CCA) between a POI located at, or virtually co-located with, an access provider's local exchange. It occurs within an ESA (if there is more than one exchange in the ESA) and across ESAs. Inter-exchange transmission can be used for backhaul, where a major central site (usually a trunk exchange in CBD areas of capital cities), will act as an aggregation point to manage traffic flow to and from outlying exchanges.
- Transmission provided across different CCAs: this refers to transmission services provided along inter-capital, capital-regional and inter-regional routes.
 Transmission on these routes is aggregated at a major central site, for instance at a trunk exchange (major exchange), to manage the transport of traffic to and from CCAs.

These types of transmission services, and examples of supply of these services using different POIs, are illustrated in **Figure 1** below.

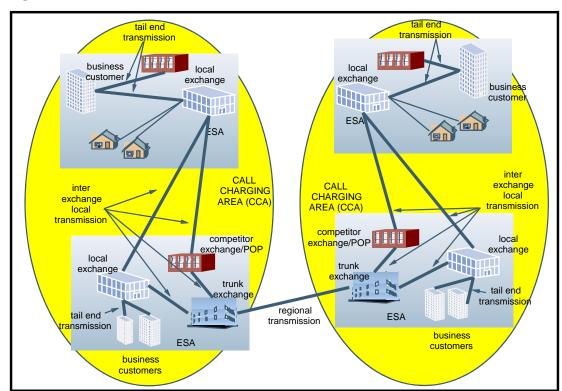


Figure 1 Provision of transmission services

3.1.1 Transmission network configuration

Transmission networks are generally configured to:

- efficiently manage traffic flows and
- minimise the risk of transmission failure.

To efficiently manage traffic, major back-haul transmission networks will generally connect to a major central site or main transmission hub (MTH). A significant proportion of network traffic flows to, or through, the major central sites which are located in the CBDs of the major cities. Linkages at these major central sites ensure that traffic can be delivered between east and west coasts, between capital cities and internationally.¹⁴

A ring structure, which aggregates traffic and ensures continuity of service, is a key feature of a transmission network. Aggregation of transmission flows also occurs at smaller central sites. Aggregation of major switching systems (for telephony or data traffic and between the fixed and mobile networks) with the major central sites in the five major cities also occurs.

The ring structure of transmission networks also provides for protection. In a ring, each traffic flow will have its 'worker' path and its 'protection' path. The protection path may remain idle until transmission fails or planned maintenance needs to occur.

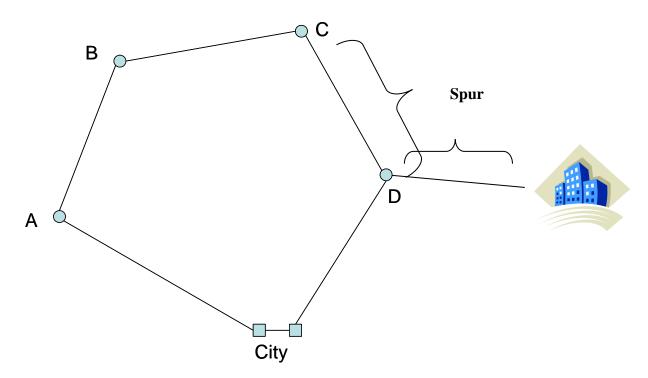
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Australia's links to international networks are via undersea cables which terminate in Sydney, Perth and South Headland.

Figure 2 provides a diagrammatic representation of one ring. Using the capital-regional route as an example, each ring generally passes through two nodes in the major cities (using two nodes provides redundancy). Rings may overlap and several of them may be used to provide the aggregate traffic capacity for a large regional centre. In the diagram, a working path between A and the city will consume capacity all the way around the ring, and protection will be provided in the other direction within the ring should the current direction fail.

The diagram also illustrates how a spur may be represented within a ring structure. A spur can be considered as transmission infrastructure deployed between two POIs. The use of the term 'point-to-point link' refers to transmission between two POIs.

Figure 2 Regional ring and spurs



Transmission rings will pass through the exchange building in a town. It may or may not need equipment in the exchange (the cable might simply pass straight through, depending upon cable distances). There may be intermediate locations where equipment is required between exchange buildings. Similar rings exist in metropolitan areas and in the CBD servicing smaller areas with a higher concentration of consumers.

3.2 DTCS Declaration

The Domestic Transmission Capacity Service (DTCS) was deemed a declared service under Part XIC of the Act on 30 June 1997. The declared service did not include transmission capacity on major 'inter-capital' routes (specifically defined as routes between the cities of Brisbane, Sydney, Canberra, Melbourne, Adelaide and Perth).

¹⁵ ACCC, Deeming of Telecommunications Services, June 1997 – p.30.

On 4 November 1998, the ACCC varied the declared DTCS following a public inquiry process. ¹⁶ The variations involved, *inter alia*, the inclusion of the major inter-capital routes with the exception of those between Melbourne, Canberra and Sydney. The ACCC also established a monitoring program to assess aspects of market structure and market conduct on all the inter-capital routes. The monitoring program began in March 1999 and involved periodically collecting data (on a voluntary basis) from both Telstra and Optus.

In May 2001, following a public inquiry, the ACCC decided to vary the declaration to remove the remaining defined inter-capital routes (i.e. Brisbane, Adelaide and Perth), on the basis that increasing/impending entry was stimulating competition on these routes. The monitoring program was extended to monitor whether competition developed as expected on these inter-capital routes by including the new carriers providing transmission services.

3.2.1 DTCS 2004 Declaration Review

In its 2004 review of the DTCS declaration (the DTCS 2004 Declaration Review), the ACCC decided that the DTCS declaration should be allowed to expire and be replaced with a new declaration.¹⁷

The DTCS 2004 Declaration Review left out of the scope of the declaration:

- inter-capital routes between Brisbane, Sydney, Canberra, Melbourne, Adelaide and Perth and
- 14 nominated capital-regional routes (Table 3-1 lists these routes).

However, the ACCC decided to continue to include CBD inter-exchange or CBD tailend transmission within the DTCS declaration.

¹⁶ ACCC, Competition in data markets – Inquiry Report, Chapter 4, November 1998.

Under section 152ALS of the TPA, the ACCC is required to specify an expiry date for all existing declarations, within 5 years of when they commenced. The ACCC decided upon an expiry date of March 2004 for the DTCS declaration.

Table 3-1 Capital-regional routes removed from declaration in 2004¹⁸

NSW	Victoria	QLD	SA
Sydney-Albury	Melbourne-Ballarat	Brisbane-Toowoomba	Adelaide-Murray Bridge
Sydney-Lismore	Melbourne-Bendigo	Brisbane-Gold Coast	
Sydney-Newcastle	Melbourne-Geelong		
Sydney-Grafton	Melbourne-Shepparton		
Sydney-Wollongong			
Sydney-Taree			
Sydney-Dubbo			

The ACCC took the view that there was sufficient competition on all inter-capital routes, including the east-west routes, such that they should remain outside the scope of declaration and the associated monitoring program should be discontinued. This decision was based on evidence of at least three infrastructure competitors and at least two carriers/carriage service providers that had secured long-term contractual arrangements with surplus capacity to resell transmission capacity services on the exempted routes¹⁹

For capital-regional routes, the ACCC's decision was based on evidence of at least three optical fibre suppliers either serving the regional centres or in very close proximity (within 1 km or less from the GPO of a regional centre for a given capital-regional route). The ACCC took the view that the presence of at least three suppliers serves as evidence of sufficient competition and/or contestability to warrant removal of that route from declaration.²⁰

In coming to this conclusion, the ACCC had regard for the competitive environment that might be faced by an owner of a network which had the potential to supply capital-regional routes. It used an example of a particular network (the Nextgen network) that passed very close to major regional centres. The ACCC considered that, in the absence of ongoing declaration, were Telstra or Optus to seek to attempt to exercise market power on these routes by increasing prices or denying access, this would prompt Nextgen's more rapid entry into these markets and a shift in demand to it from access seekers. The ACCC also noted that the cost of extending its network to service these regional centres was not likely to be prohibitive. ²¹

In making the decision to maintain declaration of CBD inter-exchange and CBD tailend transmission, the ACCC considered that there was not effective competition and/or sufficient contestability in the markets for inter-exchange and tail-end transmission services. The ACCC noted that economies of scope exist between the two services and

²¹ Ibid., p. 26.

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ACCC, Transmission Capacity Service – Review of the declaration for the domestic transmission capacity service – Final Report, April 2004, p.52 (DTCS 2004 Declaration Review).

¹⁹ ACCC, DTCS 2004 Declaration Review, p.4.

²⁰ Ibid., p. 26.

therefore CBD tail-end transmission may be particularly affected if CBD interexchange was exempt from declaration in those nominated areas.²²

3.2.2 Framework for reviewing future regulation of declared services

Since the DTCS 2004 Declaration Review, the ACCC has expressed its views on the future regulatory framework of fixed line services in the ACCC's second position paper on the *Fixed Services Review* (FSR2). ²³ While the FSR2 focuses on the regulation of the ULLS, PSTN OTA, LCS, LSS and WLR, it provides guidance on an appropriate forward-looking framework for the review of existing service declarations under Part XIC of the Act. The aspects of FSR2 of relevance to considering Telstra's exemption applications are discussed in this next sub-section, and more generally throughout the rest of the report.

Presence of enduring bottlenecks

In the FSR2, the ACCC considered that *ex ante* access regulation under Part XIC should focus on those elements of the fixed-line network that continue to represent 'enduring bottlenecks'. The ACCC considered that an enduring bottleneck would generally refer to a network element or facility that exhibits natural monopoly characteristics and is 'essential' to providing services to end-users in downstream markets in a way that promotes the LTIE.²⁴

Where an enduring bottleneck does not persist, the ACCC stated that it would be inclined to progressively withdraw *ex ante* access regulation where it has evidence that continued declaration is not required to promote the LTIE. The ACCC noted that its proposed approach was:

... also based on the principle that, for services or network elements which are not enduring bottlenecks, competitors that do not wish to invest in their own infrastructure will, more than likely, have the opportunity to enter into commercially negotiated arrangements for access with third parties (or the incumbent) without the need for *ex ante* regulatory intervention. In this regard, the withdrawal of access regulation at certain network layers does not necessarily suggest that these forms of competition will cease, or that their price will necessarily be raised excessively by the access provider. Rather, it is recognition that *ex ante* regulation is no longer required to ensure that these services are competitively priced at or near their underlying costs.²⁵

Greater empirical analysis in assessing state of competition

One of the key elements of the framework to review existing service declarations is greater application of empirical analysis to consider both the state of *actual* competition in the relevant markets and the *potential* for effective competition.

In the FSR2, the ACCC noted that in light of emerging infrastructure investment, there was a need to obtain empirical data more systemically for future decisions under Part XIC of the Act. The ACCC made reference to the *Audit of Telecommunications Infrastructure Audit - Record-Keeping-Rule 2007* ('Telecommunications Infrastructure

²² Ibid., p.5.

²³ ACCC, Fixed Services Review—a second position paper, April 2007 (FSR2).

ibid, pp. 16–17.

²⁵ Ibid, p. iii.

Audit') which provides a more systematic collection of telecommunications infrastructure information. ²⁶ This information relates to the nature and location of competing infrastructure. The ACCC noted that this information will assist the ACCC in future considerations of Part XIC matters, including its ability to geographically delineate markets where this is warranted by robust empirical evidence.

Information in the Infrastructure Audit was obtained as a result of the ACCC releasing a record keeping rule in December 2007. There are two phases to the reporting process:

Phase 1 (Telstra CAN data): Telstra is required to report quarterly on SIO, ULLS and LSS take-up – broken down by individual competitors using these services and ESAs. The ACCC has received four rounds of Telstra CAN RKR data so far, for September 2007, December 2007, March and June 2008. The ACCC has published CAN data for September 2007.

Phase 2 (Infrastructure Audit): Twenty-two specified carriers are required to report annually on the locations of their core network (fibre, microwave) and CAN infrastructure (copper, fibre, HFC, radio). Carriers were required to report on the geographic extent of each of the sub-groups of infrastructure. The first round of reporting for the Infrastructure Audit, for the period to January 2008, was received in March 2008.

The ACCC has relied on information from the Telecommunications Infrastructure Audit in assessing Telstra's First and Second Set of Applications.

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ACCC, Audit of Telecommunications Infrastructure Audit - Record-Keeping-Rule 2007, 19 December 2007.

4 Summary of Telstra's exemption applications and supporting submissions

A full list of all material Telstra submitted in support of the First and Second set of Applications is provided in **Appendix B**.

4.1 Telstra's First Application for exemption—capital-regional DTCS

On 24 August 2007, Telstra lodged an application under section 152AT of the Act for an individual exemption from the SAOs in relation to the supply of the DTCS on 20 capital-regional routes. A list of these routes is provided in **Appendix A**.

4.1.1 Telstra's submissions in support

Criterion for determining the state of competition

Telstra submits that there is no compelling reason why a 1 km radius from the GPO of a regional town, rather than a greater distance, should mark the boundary for including or excluding a fibre optic network as a competitor or potential competitor to supply capital-regional transmission services to that town.²⁷ Telstra suggests instead that the relevant criteria should be based on the relative cost of extending an existing fibre network to a regional centre, compared to the overall cost of building the complete capital-regional route. This submission is supported by material prepared by Mr Smart of CRA International (CRA) and Market Clarity.

Mr Smart proposal, based on critical loss analysis theory (CLA), is that competition and contestability along a particular capital-regional route should be measured using a '5 per cent rule'.²⁸ This rule includes any fibre network as providing competition or potential competition for the market for capital-regional transmission if its distance from a regional town is less than 5 per cent of the total route distance between the capital city and the town.²⁹ For example, under Telstra's proposed 5 per cent rule, if the distance between the capital city and the regional centre is 200 km then an alternative fibre owner with a network within a 10 km radius of the regional GPO should be counted as a competitor.

Mr Smart supports his proposition with a theoretical model including assumptions and specific formulae. Details of the model's assumptions and formulae are available in the public version of the CRA submission on the ACCC website. In summary, Mr Smart states that:

Telstra, Domestic Transmission Capacity Service Exemption Application – supporting submission (public and confidential versions), August 2007 (Supporting Submission to First Application).

M Smart for CRA International, *Economic report on domestic transmission capacity service exemptions*, (public and confidential versions), 23 August 2007 (*CRA Economic Report*).

²⁹ Telstra, Supporting Submission to First Application (public version), August 2007, p. 7.

...the definition of the [capital-regional] transmission market should include all potential entrants who have fibre networks located within a critical distance z* of the [regional centre]. This critical distance is the largest distance over which a competitor could enter charging its own average avoidable costs, and undercut the hypothetical monopolist incumbent's SSNIP price.³⁰

Mr Smart notes that this calculation is based on a number of conservative assumptions, including a 5 per cent small but significant non-transitory increase in price (SSNIP).

Mr Smart states that the rationale behind the 5 per cent rule is:

...casual inspection of posted transmission prices shows them to be strongly and approximately linearly related to route distance... On higher priced routes, all else being equal, a longer (and therefore more expensive) spur construction would be justified to enter the market.³¹

Telstra submits that the proposed 5 per cent rule is preferable to one based on an arbitrary distance because it takes into account route specific factors such as the relative costs of building the spur compared to the cost of the whole route.

With regard to the number of competitors which are required to indicate whether a capital-regional route is competitive or not, Telstra submits that, following the ACCC's rationale in the DTCS 2004 Declaration Review, the presence of at least three optical fibre networks is sufficient evidence of effective competition, but that competition may also be effective at a lower threshold.³²

Telstra's relies on a Market Clarity report which indicates at least two alternative optical fibre infrastructure providers, plus Telstra, meet the proposed 5 per cent rule for the 20 capital-regional routes included in the First Application.³³ On 28 March 2008 Telstra advised the ACCC that two of the capital-regional routes included in the First Application (Sydney-Bega and Sydney-Penrith routes) did not meet its proposed 5 per cent rule.

Effect on the long-term interests of end-users

Telstra submits that the ACCC should exempt regulation on the capital-regional routes nominated in the First Application as this would be consistent with previous decisions, would reduce uncertainty about the regulatory regime and reduce the risks of over regulation.

In relation to promoting competition, Telstra submits that exempting the nominated routes from the DTCS declaration would not have an adverse impact on competition along the nominated capital-regional routes. Rather, it would improve competition in the provision of DTCS more generally by encouraging facilities based competition which delivers consumer benefits such as greater choice of service and lower prices to customers.

M Smart, CRA Economic Report (public version), p. 5.

³¹ Ibid., p. 7.

Telstra, Supporting Submission to First Application (public version), August 2007, p. 5.

Market Clarity, *Telecommunications Fibre Backhaul Infrastructure Summary for Selected Route* (public and confidential versions), 22 August 2007 (*Fibre Backhaul Report*).

Telstra's view is that any-to-any connectivity between end users of telecommunications services is not likely to be affected if the exemptions were granted.

With regard to promoting efficient use of, and investment in infrastructure, Telstra argues that continued declaration on routes where there is effective competition in the provision of that service can reduce efficient investment more broadly in the market. It submits that the ACCC took this view in the DTCS 2004 Declaration Review and that on this basis continuing declaration on the nominated routes can harm the LTIE through distorting efficient investment incentives.

4.2 Telstra's Second set of Applications for exemption – interexchange and tail-end DTCS

On 21 December 2007, Telstra lodged an additional four applications for individual exemption from the SAOs in relation to the supply of the DTCS in terms of:

- inter-exchange transmission in 17 capital city areas for all declared bandwidths
- tail-end transmission in 17 capital city areas for all declared bandwidths
- inter-exchange transmission in 115 metropolitan areas or regional centres for all bandwidths and
- tail-end transmission in 128 metropolitan areas for bandwidths up to 2 Mbps.

These areas are identified by ESA in Telstra's Second set of Applications. The list of all ESAs in Telstra's Second set of Applications is provided in **Appendix A**.

4.2.1 Telstra's submissions in support

Criterion for determining the state of competition

Telstra describes:

• inter-exchange transmission as transmission between Telstra's exchanges that is across and between ESAs and

tail-end transmission as being transmission supplied between a local exchange and the end customer's premises within that ESA area. 34

Telstra notes that these two services meet different customer requirements and are sold both individually and as bundles.

Telstra notes that for the purposes of these applications it relies on the availability of competitive optic fibre networks as a measure to assess the state of competition in the provision of transmission services in CBD and metropolitan areas.

Telstra, Submission to the Australian Competition and Consumer Commission – Telsra's Domestic Transmission Capacity Service Exemption Applications – Supporting Submission (public and confidential versions), 21 December 2007 (Supporting Submission to Second set of Application).

In relation to inter-exchange transmission, Telstra adopts a benchmark that competition is effective wherever three competing fibre owners (two fibre owners in addition to Telstra) are present within a given ESA.

Telstra has relied on a report from Market Clarity to identify the number of alternative fibre optic infrastructure providers (the Alternative Access Fibre Report) in ESAs in both CBD and metropolitan areas. ³⁵

Telstra has also relied on a report by Market Clarity that identifies fibre deployments in buildings (Market Clarity Fibre Deployment Report) to support its exemption application for tail-end DTCS in CBD areas. ³⁶

Inter-exchange transmission in CBD areas

Telstra's application for CBD areas relies on the Market Clarity Fibre Access Report which identifies three fibre-based providers in 14 of the 17 CBD ESAs nominated for exemption from inter-exchange DTCS. In relation to the remaining three ESAs not serviced by three optic fibre owners, Telstra submits that inter-exchange services can be reached via neighbouring ESAs.

Inter-exchange transmission in metropolitan areas

Telstra also relies on the Market Clarity Fibre Access Report in its exemption application for metropolitan areas. The report identifies 128 ESAs with three alternative fibre optic infrastructure providers, however, Telstra limited its application to 115 ESAs which:

- make up a contiguous set of ESAs that adjoin the CBD ESAs of a capital city or
- in regional centres that are connected to a capital city by a regional route that is either exempt from the DTCS declaration or the subject of an exemption application.

Tail-end transmission in CBD areas

Telstra submits that there are sufficient possible alternative suppliers of tail-end transmission in capital cities. Telstra cites the Market Clarity Fibre Deployment Report to demonstrate that since 2001 the proportion of buildings connected with non-Telstra optic fibre has increased and that this is now sufficient evidence of available alternative supply.

Tail-end transmission in metropolitan areas

Telstra submits that competition for the supply of tail-end transmission in metropolitan ESAs is widespread. Telstra suggests that competitors can use the ULLS to provide symmetric transmission services – such as SHDSL – to end users. Telstra has only included in its application ESAs that have at least one competitor DSLAM. Telstra

Market Clarity, Research report- Access fibre availability, transmission services and inter-exchange network connectivity (confidential version only), 19 December 2007 (Access fibre availability report).

Market Clarity, Fibre Deployment confidential report (confidential version only), 19 December 2007 (Fibre deployment report).

submits that the presence of at least one competitor DSLAM imposes a significant competitive constraint on its pricing of tail-end transmission services.

Effect of the applications on the long term interests of end-users

On the criterion of promoting competition, Telstra submits that facilities-based competition is preferable to other forms of competition as it allows for greater innovation and more robust competition and that granting the exemptions where facilities based competition already exists would promote further incentives to that end.

Telstra submits that, given the exemptions are premised on the existence of alternative sources of supply, there is unlikely to be any detrimental impact on any-to-any connectivity.

In relation to encouraging efficient use of, and investment in, infrastructure, Telstra argues that the removal of regulation will encourage more extensive infrastructure investment. In doing so it relies on evidence of alternative infrastructure, which Telstra submits exercises significant constraint upon market participants. Moreover, Telstra suggests that regulation will never provide the same incentives for efficient investment in infrastructure because of the potential risks involved. Telstra identified these risks as including truncation of returns, regulatory dependence, arbitrage, and asymmetric mispricing impacts on regulated access services. Telstra also submits that removal of regulation will reduce the costs of regulation which distort investment incentives.

5 Market definition

Market definition is an integral part of analysing competition in a market, as it provides the ACCC with a field within which it can meaningfully analyse the effectiveness of competition.

5.1 The ACCC's general approach to market definition

The *Draft Merger Guidelines*³⁷ outline the ACCC's current approach to market definition. The ACCC is currently undertaking public consultation on a revision of its *Merger Guidelines*. The ACCC is also guided by the views it canvassed in the FSR2.

Section 4E of the Act provides that a market includes any goods or services that are substitutable for, or otherwise competitive with, the goods or services under analysis.

Substitution involves switching from one product to another in response to a change in the relative price, service or quality of the product/service subject of the inquiry. There are two types of substitution: demand-side substitution, which involves switching by customers; and supply-side substitution, which involves switching by suppliers.

A method to determine if a product or service is a close demand-side substitute is to use the 'SSNIP' test in relation to a hypothetical monopolist. This test establishes the smallest 'product' and 'geographic' space over which a hypothetical monopolist could impose a 'small but significant non-transitory increase in price' (SSNIP) without reducing its profits. A SSNIP in the context of the hypothetical monopolist usually consists of a non-transitory price rise of 5 to 10 per cent above the price level that would prevail with competition.

A product in a particular geographic region (or a group of products or regions) is a close substitute if a significant proportion of sales or supply capacity would be likely to switch to the substitute in response to a small but significant increase in the price of the product in question, quickly and without significant investment or switching costs.

The type of information the ACCC will have regard to when identifying close product substitutes, and close substitutes of the relevant geographic region, is outlined in the Draft Merger Guidelines.³⁸

The ACCC is also guided by the commercial realities test to ensure that market(s) which it identifies accurately reflect the arena of competition. In this regard, in the *Australia Meat Holdings Case*³⁹ it was held that 'any geographic market ...must be one that corresponds to the commercial realities of the industry and represents an economically significant trade area. Because a geographic market determination looks

ACCC, Merger Guidelines (Draft), February 2008 (Draft Merger Guidelines).

³⁸ Ibid., p. 15.

Australia Meat Holdings v Trade Practices Commission, (1989) ATPR 40-932 at 50,091 and 50,092.

to actual trade patterns, it is not required that geographical boundaries be drawn with exactitude'.⁴⁰

Market definition is purposive, which means that the definition of a relevant market cannot be separated from the particular issue under consideration. Market definition always depends on the specific facts and circumstances of the relevant issue, and current evidence from market participants will often be critical. Decisions relating to market definition in previous, albeit similar, inquiries will provide only limited guidance.

It is important to note that Part XIC of the Act does not require the ACCC to precisely define the scope of relevant markets for the purpose of assessing an exemption application. In exemption inquiries, it may be sufficient to broadly identify the scope of the relevant markets likely to be affected by the making of the exemption order. Accordingly, a market definition analysis under Part XIC of the Act should be seen in the context of shedding light on how exemption would or would not promote competition rather than in the context of developing "all purpose" market definitions.⁴¹

5.2 The product dimension

The product dimension of a market refers to the good and/or service supplied in that market and the potential sources of substitutes.

The DTCS description provides an initial starting point for determining the product market boundaries. In particular, the service description:

- is technology-neutral; that is, the service description does not specify a particular technology medium in the provision of transmission services and
- allows access to the service at defined bit rates. This indicates that the service is provided at a 'conditioned' state, not as the underlying medium - the access provider would use its own equipment to provide the defined service to the access seeker.

Of importance is the distinction between the declared DTCS that must be provided by Telstra if requested by an access seeker, and a transmission service offered by competitors. In particular, a non-Telstra competitor may choose to offer an access seeker transmission services as defined in the DTCS declaration (service as supplied by Telstra) or in an unconditioned state without use of equipment in providing the service (i.e. dark fibre). The product market is both the declared DTCS, that is transmission services provided in a 'conditioned' state and transmission services provided in an unconditioned state.

The ACCC considers transmission services provided in an unconditioned state are close substitutes for the DTCS. Although the customer will need to provide its own connecting equipment and management system in order to replicate the DTCS, these

⁴⁰ Ibid., ARPR 40-932 at 50,091 and 50,092.

See ACCC, Telecommunications services- Declaration provisions – a guide to the declaration provisions of Part XIC of the TPA, 1999 (Declaration Guide).

costs are not sunk as the equipment can be removed from the fibre network and reused or sold.

The ACCC understands that optical fibre is generally a preferred technology medium due to its ability to transport large volumes of traffic. It also does not have some of the deployment constraints that face other technologies. ⁴² However, the ACCC notes that the choice of technology medium may require the weighing of competing factors.

The service description also states that DTCS is used for the carriage of certain communications from one transmission point to another transmission point, where a transmission point can be defined as a point of interconnection (POI), a customer transmission point or an access seeker network location.

In line with this service description, DTCS can be distinguished according to the transmission points involved in the supply of transmission services within the Telstra network architecture. Section 3 of this paper describes these transmission services as tail-end transmission, inter-exchange transmission and transmission across different CCAs (the latter is generally referred to as inter-capital, capital-regional, and interregional routes).

The ACCC notes that Telstra has also distinguished transmission services in this fashion in both exemption applications. As the purpose of delineating market boundaries is to shed light on how the exemption will affect competition, the ACCC, having regard to relevant submission, considers it worthwhile distinguishing the services in this way when considering the relevant product market(s).

Of relevance in setting the product dimension is considering what the service is used for. The ACCC understands that access providers of the DTCS:

- supply the service to carriers/CSPs
- use the capacity themselves to deliver their own downstream retail services and
- use the capacity themselves for redundancy purposes.

Submissions indicate that some of the key requirements of transmission services from an end-customer's point of view are sufficient capacity (bandwidth) particularly on major routes, and reliability of service. On the latter point, businesses often require redundant paths for transmission capacity to ensure guaranteed continuity of service.

Substitutability of technology mediums to provide DTCS

The ACCC understands that DTCS can be provided on several technology mediums including terrestrial optical fibre cables, satellite, digital microwave, copper and submarine cable.

For instance, in some cases, if line of sight difficulties can be overcome, microwave could be more cost effective to install relative to optical fibre due to lower deployment costs and scalability, though these cost advantages appear to be diminishing due to the declining cost of optical fibre deployment.

With regard to its First Application, Telstra submits that in many cases, transmission supplied over microwave and satellite is substitutable for DTCS supplied over fibre but that consideration of the supply substitutability of these technology mediums is not relevant for the purpose of this exemption application:

However, even if transmission over microwave and satellite were deemed not to be perfect substitutes on a particular route or market, that has no bearing on the case for granting Telstra's application for exemption over the 20 capital-regional routes where there are at least 3 optical fibre operators. ⁴³

Similarly, with regard to the Second set of Applications, Telstra submits that it has assumed that only fibre-optic cable (including submarine cable) is part of the relevant product market(s) for the supply of transmission services at all bandwidths:

Such a view is conservative in the sense that other means of delivering transmission (such as satellite and digital microwave transmission) might well in fact be substitutes for transmission via fibre optic cable. 44

However, Telstra submits that the ULLS can be considered an adequate substitute for tail-end DTCS at 2 Mbps bandwidth in metropolitan and regional exchange service areas.⁴⁵

As delineation of market boundaries is for the purpose of shedding light on how the exemptions are likely to affect competition, the ACCC agrees that examination of the substitutability of the technology possibilities for the provision of the DTCS should be confined to Telstra's request for exemption. In this regard, for the purpose of assessing Telstra's exemption applications, the ACCC does not intend to consider the substitutability of optical fibre with other technologies, except for copper at 2 Mbps.

Is the ULLS a close substitute for tail-end DTCS?

A number of submissions addressed the issue of whether the ULLS is substitutable for tail-end DTCS. This issue is relevant to Telstra's Second set of Applications for tail-end transmission in metropolitan areas for up to 2 Mbps.

Telstra submits that in metropolitan areas, tail-end transmission services are generally acquired at the lower bandwidth of 2 Mbps since each tail-end can only service the end users located in the building that the service is connected to. Telstra submits that most end customers in metropolitan areas require no more than 2 Mbps tail-end services. In CBDs, where the buildings are larger and more end users are located, bandwidths higher than 2 Mbps are required. ⁴⁶

Telstra submits that the use of ULLS permits DTCS at 2 Mbps to be provided via a symmetrical DSL service using a DSLAM.⁴⁷ It submits that the high demand levels at

Telstra, Submission to the Australian Competition and Consumer Commission – Telstra response to questions from ACCC Discussion paper of October 2007 (public version only), November 2007, p. 5 (Submission to First Discussion Paper).

⁴⁴ Telstra, Supporting Submission to Second set of Application (public version), p. 28.

⁴⁵ Ibid., p. 13.

⁴⁶ Ibid., p. 5-6.

¹⁷ Ibid., p. 5 and 6.

lower bandwidths means that copper can be used in most metropolitan areas making ULLS a close substitute for optical fibre in the provision of tail-end transmission.⁴⁸

PipeNetworks agrees that a substitute service for tail-end DTCS could be provided over ULLS where it is capable of providing a bandwidth of 2 Mbps.⁴⁹

Telstra acknowledges that the ability to supply symmetric DSL over the copper CAN is distance dependent:

... given the widespread deployment of SHDSL equipment in metropolitan and CBD areas ... and the availability of a spare copper pair to enable cost-effective bonding...the end-user will typically need to <u>be within</u> an approximate distance of [c-i-c begin] [c-i-c end] km of the nearest local exchange for transmission of a 2 Mbps symmetrical service to be feasible. ⁵⁰

Although Telstra has provided a confidential distance threshold over which symmetric DSL can be transmitted it is a well known fact of engineering that 'SHDSL [protocol] supports symmetric rate-adaptive transmission ranging from 192 kbps at 20,000 ft (6km) to 2.312 Mbps at 10,000 ft (3 km)'. 51

The ACCC notes that transmission services can be provided on the ULLS through the use of SHDSL equipment, which conditions the copper network.

Telstra also submits that the signal attenuation which prevents SIOs outside of the required distance from the exchange from being reached, affects all carriers, including Telstra, equally.⁵²

Similarly, Optus submits that the DTCS provides a guaranteed speed of at least 2 Mbps whilst the ULLS cannot necessarily provide equivalent bandwidth as the quality/speed of service data deteriorates as the copper line travels further from the exchange.⁵³

Submissions commented on other physical and operational constraints of providing transmission services on ULLS:

■ Internode and Optus argue that the presence of RIMs and pair gain systems means that a copper line may not be DSL enabled⁵⁴

⁴⁸ Ibid., p. 6.

⁴⁹ PipeNetworks, *Telstra's transmission exemption applications* (public and confidential versions), 14 March 2008 (*Submission to Second Discussion Paper*).

Telstra, Supporting *Submission to Second set of Application*, p. 14 (public version) and p. 15 (confidential version).

R Horak, Telecommunications and data communications handbook, Wiley, 2007, p. 443.

Telstra, Supporting *Submission to Second Application*, p. 14 (public version) and p. 15 (confidential version).

Optus, Optus submission to Australian Competition and Consumer Commission on Telstra's 2007 exemption applications for tail-end and inter-exchange transmission capacity services (public and confidential versions), April 2008, p. 14 (public version) (Submission to Second Discussion Paper).

Internode, Telstra's Transmission Exemption Application – Submission by Internode, 17 March 2008, p. 4 – 5 (Submission to Second Discussion Paper); Optus, Submission to Second Discussion Paper (public version), p. 15-16.

- Internode and Optus raise the issue of 'exchange capping' when certain exchanges are deemed to be 'full' and access seekers are unable to deploy equipment to provide the ULLS from those exchanges⁵⁵
- Optus submits that the termination point of the ULLS cannot be physically extended, whilst it is possible to extend a spur when supplying the DTCS⁵⁶
- Internode cite the lack of an effective migration process between LSS and ULLS as limiting the extent to which ULLS could be used to provide a substitute for tail end DTCS⁵⁷ and
- Optus submits that the ULLS cannot provide a service as reliable as the DTCS due to distinct differences in the contractual levels of service assurance and provisioning time. It also mentions interfacing problems with Telstra's automated ULLS provisioning and billing systems.⁵⁸

The ACCC notes that, Telstra has made a supplementary submission which includes a critique of Internode's submissions, regarding the limitations of ULLS as a substitute for tail-end DTCS.⁵⁹

In considering the issue of whether the ULLS is an alternative substitute for tail-end DTCS, the ACCC notes that it is technically feasible for the ULLS to provide transmission services. However, of particular relevance is the degree to which the ULLS is a *close* substitute for tail-end DTCS at 2 Mbps.

A number of factors suggest that the ULLS may not be a close substitute for tail-end DTCS in some cases.

The ACCC notes that, in contrast to the DTCS declaration description, the ULLS declaration description makes specific reference to the POI on the network in the provision of the declared service. In particular, the ULLS declaration description states that the use of communications wires is to be between an end-user's premises and:

 \dots a point on a telecommunications network that is a potential point of interconnection located at or associated with a customer access module and located on the end user side of the customer access module.

This may suggest that the ULLS is a substitute for tail-end DTCS only where the DTCS is provided from the same POI referred to in the ULLS declaration description, namely a remote access unit that is associated or located with a customer access module (CAM). The ACCC understands that the access seeker's POI in the provision of tail-

Internode, *Submission to Second Discussion Paper*, p. 4 – 5; Optus, Submission to Second Discussion Paper (public version), p.16.

⁵⁶ Optus, Submission to Second Discussion Paper (public version), p. 16.

Internode, Submission to Second Discussion Paper, p. 5-6.

Optus, Submission to Second Discussion Paper (public version), p.16.

Telstra, Submission to the Australian Competition and Consumer Commission - Response to Submissions of Interest Parties on ACCC Discussion paper (public version).

ACCC, Declaration inquiry for the ULLS, PSTN, OTA and ULLS – Final Determination, July 2006, Appendix 2.

end transmission services is usually the local exchange but this is not always the case – for instance, the POI may be virtually co-located at the exchange. Where the POI is located within the access provider's exchange, the ACCC agrees that there are supply constraints such as exchange capping that affect the ability for the ULLS to be a close substitute for tail-end DTCS.

The ACCC also agrees that availability of symmetric transmission using the ULLS is dependent on distance of the end-user's premises from the exchange and is another factor that limits the substitutability between the ULLS and tail-end DTCS. The distance limitation is a technical issue and is due to the deterioration of transmission signal strength and quality caused by attenuation of high frequency signals transmitted over copper wires.

The ACCC also notes that as business customers are mostly the end-users of DTCS services, a guaranteed service is of critical importance. In this regard, equivalent quality of service is relevant when considering the substitutability between transmission services delivered over the ULLS and tail-end transmission. The ACCC notes comments from access seekers that service assurance and provisioning time for DTCS is distinctly better than that for ULLS. The ACCC recognises that the extent to which contractual non-price terms are a barrier is partly a function of the negotiation between parties, nonetheless these contractual terms can represent a constraint in the ULLS being both a demand and supply substitute for tail-end DTCS.

Should the product market be delineated according to the type of transmission service?

Telstra submits that a single or separate product market for inter-exchange and tail-end transmission is possible:

...inter-exchange transmission and pure tail-end transmission (as distinct from bundled tail and inter-exchange transmission) would not appear to be substitutes, as they perform different functions. That is, it is not possible to substitute transmission between two local exchanges for transmission from an exchange to an end-customer premises. However, it may be appropriate to consider them as part of a broader product market for transmission, given the efficiencies of scope in providing (or purchasing) the two services together, or on the grounds of commercial realities. ⁶¹

In the DTCS 2004 Declaration Review, the ACCC took the view that economies of scope exist in the provision of these services. The ACCC understands that interexchange and tail-end transmission services can be purchased as stand-alone products and also in combination with each other. Although information provided by Telstra shows that services are to some extent purchased separately, the ACCC maintains the view that there are likely to be economies of scope when tail-end and inter-exchange services are purchased together.

The ACCC considers that it is not necessary to form a definitive view as to whether separate product markets exist for inter-exchange and tail-end transmission services. However, the ACCC notes that the lack of demand and supply substitutability between the two services provides a valid case for defining separate product markets for these services.

⁶¹ Telstra, Supporting Submission to Second set of Application (public version), p. 28.

Summary of product market

The ACCC considers the product market to be that for the wholesale supply of DTCS delivered over optical fibre. The ACCC recognises that it may be technically feasible for the ULLS to be a substitute for tail-end DTCS. However, there are constraints that suggest that they are not always close substitutes. The ACCC notes that the degree of substitutability between the ULLS and tail-end DTCS will depend on the extent that the physical and operational constraints in the provision of the ULLS can be overcome.

The ACCC also notes that the product market can be further delineated based on the type of transmission service. In this regard, separate product markets may exist for inter-exchange transmission services, tail-end transmission services and transmission services provided across different CCAs, with the latter referring to transmission services provided along routes.

5.3 Functional market

The functional dimension of a market refers to the activity, or group of activities, involved in the supply chain. To define the functional market, the vertical stages of production and/or distribution need to be identified by considering whether there are efficiency gains from vertical integration and whether substitution possibilities at adjacent vertical stages can constrain the exercise of market power. Where there are overwhelming efficiencies of vertical integration between two or more stages, it is inappropriate to define separate functional markets.

As noted in the product market discussion, the DTCS is a wholesale input for the provision of communications services.

Telstra submits that, for the purpose of the exemption applications, it proposes to adopt the ACCC's functional definition of the relevant market(s) set out in the DTCS 2004 Declaration Review. ⁶² In that report, the ACCC stated that there is a wholesale transmission market, which includes access seekers that purchase capacity for resale at the wholesale level.

Telstra also submits that the relevant downstream market could be, as defined in the DTCS 2004 Declaration Review, the market for national long distance, international call, data and IP-related markets. Telstra notes that the downstream market could be defined more broadly.⁶³

Internode submits that the relevant markets are those for wholesale and retail broadband and telephone services to residential and business customers. ⁶⁴

Optus submits that:

Optus uses the DTCS as an input into its supply of downstream fixed line services to business, wholesale and mobile customers. ⁶⁵

⁶² Ibid., p. 30.

⁶³ Telstra, Submission to First Discussion Paper (public version), p. 5.

Internode, Submission to Second Discussion Paper, p. 4.

Optus notes that the proposed exemption for tail-end DTCS would impact on:

...the markets in which telecommunications services are supplied to large corporate and government customers, on mobile services and also (by affecting wholesale) on mass market telecommunications services. 66

The ACCC considers that the clear existence of non-vertically integrated providers and access seekers suggests that there are not overwhelming efficiencies from vertical integration. Both vertically integrated and non-vertically integrated providers supply DTCS as a wholesale input to access seekers, and also may use the service themselves. The ACCC understands that access seekers can purchase either dark (unused optical fibre) or lit (conditioned) optical fibre. Where dark fibre is used the customer provides their own connecting equipment and management system in order to light or condition the optical fibre. While most access seekers purchase lit optical fibre, the ACCC understands that the leasing of dark fibre as an alternative to building infrastructure has become increasingly common.

The ACCC also notes the relevance of downstream markets as these markets may be affected by the competitive dynamics upstream. The ACCC considers that the relevant downstream market is the range of retail services (that can be provided using transmission services) delivered over optical fibre. This includes the national long distance, international call, data and IP-related markets. Mobile and local call services can also be provided downstream using DTCS as an input and are therefore included in the downstream retail market.

5.4 Temporal market

The temporal dimension of the market refers to the period over which demand and supply substitution possibilities should be considered.

Technological developments in expanding the bandwidth capabilities of optical fibre are relevant. The ACCC understands that the introduction of DWDM has significantly expanded the capacity available on optical fibre. As a consequence of DWDM, the ACCC considers that the scope of the market should include the wide range of downstream services available from transmissions services delivered over optical fibre.

Future developments to expand the capabilities of optical fibre at the testing stage or that are unlikely to emerge in the market for some time, are not considered in determining the market boundaries.

Telstra submits that the ACCC should take into account new entrants signalling their intention to enter the market:

This should include new entrants who can construct alternative optical fibre infrastructure within less than a year. It should also reflect the impact on competition of new entrants commencing

Optus, Submission to Second Discussion Paper (public version), p. 5.

Ibid., p. 6.

projects with longer lead times, where the commencement of such projects in itself could affect competitive dynamics. ⁶⁷

The ACCC notes that the temporal dimension of the market is the foreseeable future. This ensures that the assessment of competition in the relevant market(s) better reflects actual competitive dynamics such as credible entry.

5.5 Geographic market

The delineation of the relevant geographic market(s) involves identification of the area or areas over which the transmission service is and could be supplied and to which customers can practically turn to.

5.5.1 First Application

For the First Application, as noted previously, Telstra indicates that they are prepared to adopt the views on markets expressed by the ACCC in its DTCS 2004 Declaration Review. In that report, the ACCC took the view that:

...the geographic scope of non-intercapital transmission markets is hard to define due to the diversity of routes between transmission points, although as a conservative approach, each capital-regional point-to-point transmission route is considered a separate geographic market for the purposes of this inquiry. ⁶⁸

The ACCC continues to hold the view that capital-regional routes are distinct from the other routes (namely, inter-capital, regional-regional). The ACCC understands access seekers are likely to purchase the DTCS based on routes. In particular, a point to point capital-regional route is not likely to be demand substitutable for another route (e.g. Melbourne-Geelong is not substitutable for Melbourne-Bendigo). Although, the ACCC notes that a particular capital-regional route may be served by more than one geographically distinct transmission ring or point-to-point route.

Competitive constraints (for instance, type, intensity and magnitude of competition) also vary between each capital-regional route. ⁶⁹ In this regard, the ACCC considers that each of the nominated capital-regional routes is a separate geographic market in itself.

Further delineation of the geographic market

For the purposes of assessing the First Application, the geographical market can be delineated further to better reflect the competitive conditions along a capital-regional route.

In the DTCS 2004 Declaration Review, the ACCC concluded that the geographic boundary to assess the presence of alternative suppliers is within 1 km or less from the GPO of a regional centre for a given capital-regional route.

Telstra, Supporting Submission to Second set of Application (public version), p. 30.

⁶⁸ ACCC, DTCS 2004 Declaration Review, p. 20.

⁶⁹ ACCC, *FSR2*, p. 34-35.

Telstra proposes an alternative method, proposing to apply 'Critical loss analysis' (CLA) to further delineate the geographic boundaries of the relevant market. Telstra has developed a proposed 5 per cent rule based on CLA whereby any carrier with a fibre network within a distance (from the regional centre) of 5 per cent of the route distance (between the capital city and the regional centre) should be counted as a competitor in the market.

In this regard, the geographic market would vary depending on the boundaries set by the 5 per cent rule. Section 4 provides a summary of CLA and the 5 per cent rule.

Critical Loss Analysis and the 5 per cent rule

The ACCC has a number of significant concerns with Telstra's application of CLA and the proposed 5 per cent rule.

Firstly, the ACCC considers that the theoretical model, on which Mr Smart's arguments are based, is mis-specified. This is based on the position that for a correct evaluation of average or marginal cost, inclusion of volumes/quantities produced is required. However this position is not reflected in Mr Smart's analysis.

Mr Smart does acknowledge that other factors are relevant to transmission route cost and that costs may be route-specific:

..while fibre-optic cabling costs tend to be route-specific to some degree, it is common practice among telecommunications carriers to employ rules of thumb for general costing purposes in which cost for a given route is a linear function of route distance, acknowledging the existence of some distance-independent costs associated with terminating equipment. ⁷¹

However, the exclusion of volumes in the cost decision implies that traffic volumes on routes are not a consideration for an entry decision, which the ACCC understands is clearly not the case. Optus makes a similar point - that the average cost of serving a transmission route depends on a number of factors, of which distance is only one factor.⁷²

The ACCC also notes that exclusion of volume/quantity considerations in the cost decision means it is likely that a demand and supply substitutability analysis has not been undertaken. For instance, it seems likely that an entrant, when considering whether to build infrastructure to supply a particular route, will take account of the potential customers it could attract as reflected in the volume of traffic on that particular route.

Secondly, in the view of the ACCC, Mr Smart appears to have incorrectly applied the concept of CLA. Mr Smart uses the CLA concept to determine the threshold of when a potential entrant will build a new spur from the entrant's existing fibre route to the new

Telstra, Supporting Submission to First Application (public version), p. 7.

M Smart, Domestic transmission capacity service exemptions - response to Optus Submissions (public and confidential versions), 27 March 2008, p. 4 (public version) (CRA response to Optus submission).

Optus, Optus Submission to Australian Competition and Consumer Commission on Telstra's exemption application for the domestic transmission capacity service (public and confidential versions), November 2007, p. 15 (public version) (Submission to First Discussion Paper).

termination point on a particular transmission routes based on the total construction costs of that new spur investment. The ACCC does not consider that the CLA concept can simply be applied in this context. CLA is typically a measure of demand-side substitutability in response to a sustained price increase (or SSNIP) by a supplier and is specifically a concept in relation to the concept of (price) elasticity of demand.

The ACCC also notes Mr Smart's comment that, in applying the 5 per cent rule, it cannot be inferred that a firm with a fibre network within 5 per cent of a regional centre would actually enter the market:

It is important to recognise that this analysis, which is intended to determine the outer boundaries of substitution possibilities, does not rely on any assumptions or theories about behaviour of firms. No inference can be drawn that a firm with fibre located within z* (the critical distance) of a regional centre would actually enter on the basis of a 5% SSNIP. All that can be inferred is that such an entrant could capture a volume of traffic exceeding the critical loss at a price that was no lower than its own average cost. 73

The ACCC's view is that if the 5 per cent rule can only show that an entrant could capture a volume of traffic exceeding the critical loss, a conclusion of credible entry does not follow. The entry decision for a firm is likely to depend on several factors such as irreversible investments necessary to enter a new market and the possible price reaction by the incumbent to the firm's entry and the level of custom that is likely to be obtained as a result.

Optus also submits that Telstra's application of CLA assumes that the SSNIP and resultant critical loss in a short run context, when it is long run that is of interest. Optus also considers that CLA had not taken account of supply substitutability factors such as lead times, significance of sunk investment in building new fibre optic spur lines:

CRA assumes that the SSNIP test is a short run test. This is implied based on CRA's view that the appropriate "marginal cost of transmission is very close to zero" in the Lerner index. Optus notes that the relevant SSNIP in this circumstance is not a short run test. The correct economic measure of cost in the case of the entry decision is the long run incremental cost of supplying services as this reflects the opportunity cost to the entrant of providing capacity to the market. Only post entry would the short run marginal costs (which Optus agrees is close to zero) be the relevant indicator. ⁷⁴

Thirdly, Mr Smart submits that the rationale for the proposed 5 per cent rule is based on a relationship between the distance of the route and the price charged for transmission on that route.

In essence what is proposed here is a market definition rule based on the ratio of the spur length to the entire route distance, rather than on the absolute length of the spur line. The intuition behind this approach is related to the fact that casual inspection of posted transmission prices shows them to be strongly and approximately linearly related to route distance: the longer the route, the higher the price. On higher priced routes, all else being equal, a longer (and therefore more expensive) spur construction would be justified to enter the market. The linearity of relationships between posted transmission prices and route distances on one hand and between spur construction costs and spur distances on the other gives rise to the proposed rule based on distance ratios.⁷⁵

⁷³ M Smart, CRA Economic Report (public version), p. 6.

Optus, Submission to First Discussion Paper (public version), p. 7.

M Smart, CRA Economic Report (public version), p. 7.

The ACCC is not persuaded by this argument. As noted previously, an entrant is likely to consider a number of factors such as the likely demand for its transmission services when deciding whether to supply on a particular route. This means that for example, that on some high traffic routes, the route distance may be of less importance to the entry decision - the likely custom they receive from serving a particular area may outweigh the construction cost of the spur line.

The ACCC considers that Telstra's proposed 5 per cent rule is based very heavily on route distance (and therefore cost of construction) being the only determinant for entry. This does not reflect market dynamics. The ACCC also notes that application of the 5 per cent rule means that for each route, the 'critical distance' (the distance that is 5 per cent of the route distance) will differ depending on the route distance. This critical distance has no bearing on the market dynamics that may operate in the area being served.

Optus submission

Optus proposes that a threshold distance of 4 to 5 km from the town centre be adopted to assess the state of competition.

Optus proposes that a threshold of around 4 or 5 km from the regional town centre would be appropriate. However, such a threshold should be applied in a flexible manner. For a very small centre, for example, a shorter distance (perhaps 1 km) would be sensible, due to the smaller size of the built up area of the town within which existing networks are likely to exist which can provide last mile capability (and the smaller number of potential customers). In a very large centre, a longer distance would be appropriate.

In either case, the appropriate test should be whether the network owner would need to make significant, irreversible new investments in order to supply the market. If so, then it is not within the market. ⁷⁶

Summary on First Application geographic market

In summary, the ACCC has significant concerns with the underlying assumptions behind application of CLA in this context and the 5 per cent rule. The ACCC does not consider that it is in the LTIE to adopt the proposed 5 per cent rule for defining the geographic market boundaries for the purpose of the first application. In particular, the ACCC is of the view that competition will not be promoted or the efficient use of, and investment in, infrastructure encouraged where regulation is removed in areas where there is no possibility of credible entry of alternative carriers/CSPs.

The ACCC notes Telstra's argument that the 1 km rule is arbitrary:

Telstra argues that there is no compelling reason why 1 km, should set the market boundary for including or excluding a fibre optic network in a competitor count.⁷⁷

However, the ACCC considers that the application of the 1 km criterion is in the LTIE. Contestability is more credible 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, are lower. Such costs will be lower when a competitor fibre is located within a 1 km radius of the

Telstra, Supporting Submission to First Application (public version), p. 6.

Optus, Submission to First Discussion Paper (public version), p. 12.

region's GPO than if Telstra's proposed 5 per cent rule or an increased threshold of 4-5 km was used. In this respect, the ACCC notes Optus' submission that:

A firm that cannot currently serve the market without making significant, irreversible new investments is defined as being outside the boundaries of the market. While an entrant might subsequently decide to make the investments necessary to enter the market, this is a possibility that must be considered at a later stage. Due to the sunk costs involved and the time taken to enter the market, a potential entrant cannot be counted as a competitor that currently exercises an important constraint on the regulated firm in the event that regulation was withdrawn. 78

In particular the ACCC notes that Optus considers the construction of a new spur line (as contemplated by Telstra's proposed 5 per cent rule) would involve significant, irreversible new investment, indicating that presence of a capital-regional fibre route that met Telstra's proposed 5 per cent rule could not provide a substitute for Telstra's capital-regional DTCS in the regional town in question:⁷⁹

Building a new spur line involves the construction of new fibre optic infrastructure, which constitutes significant, irreversible new investment. Typical costs include the hire of tractors to plough land and lay cable, in addition to the cost of fibre and electronics. [Start c-i-c] [End c-i-c] Given the scale of sunk costs involved and the time required, we conclude that building a new spur line is an example of a new entry decision – not a supply side substitution decision.⁸⁰

The ACCC considers that entry to a transmission market is also related to the ability of a carrier/CSP to connect with a Telstra CAN. Regional GPOs are, in general, located in close proximity to the Telstra exchange in the regional town. Therefore, by adopting criteria that takes into account proximity to a regional GPO, the ability of a carrier/CSP to connect to a Telstra exchange, and access the CAN is also being considered. In this regard the ACCC notes Optus' submission rejecting Telstra's proposed 5 per cent rule and its comment that:⁸¹

....From the perspective of usual business practice, a network is generally regarded as capable of serving a town if it reaches the built-up area of town, within which existing networks are likely to exist which can provide last mile capability. Viewed in this way, the ACCC's 1 km rule of thumb is reasonable, although perhaps slightly conservative. 82

The ACCC notes that the 1 km criterion was found to be in the LTIE in the 2004 DTCS Declaration Review. Taking into account relevant submissions the ACCC concludes that using the 1 km criterion to assess the level of competition is reasonable and continues to be in the LTIE, on the basis that entry to a transmission market is credible when the magnitude of investment in sunk costs required to access a CAN via a Telstra exchange is limited.

5.5.2 Second set of Applications

Telstra submits that tail-end transmission services in each CBD or metropolitan ESA is a distinct geographic market:

Optus, Submission to First Discussion Paper (public version), p. 9

⁷⁹ Ibid., p.10.

Optus, Submission to First Discussion Paper (confidential version), p. 10.

Optus, Submission to First Discussion Paper (public version), p. 6.

⁸² Ibid., p. 12.

This is for the simple reason that tail-end transmission in any given ESA cannot be regarded as a substitute for tail-end transmission in another ESA. 83

Optus considers that Telstra's geographic market definition for both tail-end and interexchange transmission is too broad. Optus submits that each market for tail-end transmission capacity must be limited to a single route between two points on the network (for example, a POI to a single end user's home or business premises). The basis for Optus' argument is that there is significant investment required to supply other customers in the same ESA:

...the geographical market for the supply of tail-end DTCS between a POI and a single end user address *cannot* be expanded to include suppliers with infrastructure capable of supplying services equivalent to the DTCS to other nearby addresses in the same ESA, since such infrastructure is not capable of supplying to the premises in question, and cannot be made capable of doing so without substantial, costly and time-consuming investment. ⁸⁴

The ACCC notes that Telstra has provided supplementary submission including a critique of Optus' geographic market definition.⁸⁵

In considering the geographic market boundary, the ACCC notes that tail-end transmission services are provided in the CAN and that a customer's options for alternative tail-end transmission services, such as ULLS, are constrained by the supply offerings in the CAN. From the supplier's point of view, the ACCC considers that suppliers of tail-end transmission services are likely to have regard to the number of potential customers (beyond those customers it is actually providing an individual tail-end transmission service) when installing infrastructure at the POI. Once a carrier has installed equipment to service a particular customer premise, it is likely to have a strong incentive to maximise the number of customers that it services in a CAN in order to spread its fixed costs over the widest possible base.

In this regard, the ACCC takes a much narrower view of the geographic market compared to Telstra's definition but considers the relevant geographic market to be wider in scope than Optus' proposed definition of the relevant geographic market of tail-end transmission services.

Telstra submits that, for CBD inter-exchange transmission services, there are separate geographical markets in each of the CBD areas of Sydney, Melbourne, Brisbane, Adelaide and Perth.

These CBD areas can be regarded as geographically distinct from their surrounding metropolitan ESAs, given differences in the technological characteristics of supply to these areas (including differences in duct space availability, distances from Telstra exchanges and 'teledensities').⁸⁶

Telstra submits that the broader metropolitan area of each capital city can be regarded

M Smart for CRA International, *Points in reply to submissions by Optus, Internode, PIPE and AAPT on Telstra's DTCS exemption applications for CBD/Metro IEN and tail transmission* (public version), p. 12-13.

⁸³ Telstra, Supporting Submission to Second set of Application (public version), p. 29.

Optus, Submission to Second Discussion Paper (public version), p. 8.

Telstra, Supporting Submission to Second set of Application (public version), p. 29.

as a distinct geographical market for the purposes of the exemption applications.87

Telstra also considers that the inter-exchange transmission market in metropolitan areas of each capital city can be defined further as:

- a cluster of contiguous ESAs, each of which contains inter-exchange fibre transmission infrastructure that includes a CBD ESA for that capital city or
- an ESA containing inter-exchange fibre transmission infrastructure that is, or is contiguous with, an ESA that is connected to the CBD of the closest capital city by a fibre-optic regional transmission route.

Telstra submits that the metropolitan inter-exchange transmission market is defined in this way because the contiguity and connectivity requirements set out above ensure that fibre-based inter-exchange transmission can take place between any two exchanges situated within the relevant inter-exchange market at a Capital City. 88

Optus considers that each market for inter-exchange transmission services must be limited to a single route between two exchanges for the same reasons it uses to argue for a narrower market for tail-end transmission services.⁸⁹

As noted previously, the ACCC considers that suppliers of transmission services will have regard to potential customers when investing in infrastructure. In particular, in the supply of inter-exchange transmission services, it is likely that suppliers will have some regard to interconnection possibilities at adjoining exchanges. In this regard, the ACCC considers that the geographical market for inter-exchange transmission services extends beyond the route between two exchanges as defined by Optus. The ACCC also considers that in CBD areas the competitive environment is likely to be distinctly different from other areas such as metropolitan and regional areas. For instance, the smaller distance from the customer to the POI and the greater number of potential customers in CBD areas relative to metropolitan areas, suggests that each CBD area can be defined as a separate geographic market.

In considering whether there is a metropolitan inter-exchange transmission market, the ACCC notes that the provision of inter-exchange transmission services in metropolitan areas (and CBD areas) requires interconnection with a CBD exchange (as the aggregation point). Telstra has submitted that the relevant geographic market is based on how ESAs connect to the CBD exchange when supplying the inter-exchange transmission service.

The ACCC accepts that as the ability to service customers relies on connectivity with the CBD exchange, decisions to supply particular metropolitan ESAs will depend on whether the ESAs involved in the supply of the inter-exchange service are connected to the CBD exchange. Therefore, the ACCC adopts Telstra's proposed definition of inter-

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Optus, Submission to Second Discussion Paper (public version), p. 8.

³⁷ Ibid.

M Smart, CRA International Statement of Michael Smart of CRA International on the economic considerations for Metro and CBD domestic transmission capacity service exemptions (public and confidential versions), 20 December 2007, p. 12 (public version) (CRA Report for Metro and CBD).

exchange transmission services in metropolitan areas for the purposes of assessing the Second set of Applications.

5.6 Conclusion

The table below summaries the ACCC's consideration of the market boundaries for the purposes of assessing both exemption applications.

Market	First exemption application	Second exemption application
Product	The supply of transmission services delivered over optical fibre.	The supply of transmission services delivered over optical fibre. However, it is recognised that ULLS could be a possible substitute for tail-end transmission services at 2 Mbps in some cases. Separate product markets for inter-exchange and tail-end transmission services.
Functional	Separate wholesale market for transmission services. The relevant downstream market is the range of retail services (that uses transmission services) delivered over optical fibre. This includes the national long distance, international call, data and IP-related markets.	Same as first exemption application.
Temporal	Long term but most weight on the foreseeable future.	Same as first exemption application.
Geographic	Each capital-regional route Telstra has applied for exemption is a separate geographic market. Geographic market is also defined as that area within 1 km or less of the region's GPO in a given regional area.	The market for tail-end transmission services in the customer access network (CAN). The market for inter-exchange transmission service in each of the CBD areas of the capital cities. The market for inter-exchange transmission services in metropolitan areas of capital cities which can be further delineated according to: A cluster of contiguous ESAs, each of which contains interexchange fibre transmission infrastructure that includes a CBD ESA for that capital city; or An ESA containing inter-exchange fibre transmission infrastructure that is, or is contiguous with, an ESA that is connected to the CBD of the closest capital city by a fibre-optic regional transmission route

6 Competition analysis

Once relevant markets have been defined, competition in the relevant markets is assessed. The competition analysis for each exemption application is discussed separately in this section as appropriate.

Assessing the state of competition should not merely be a static description but should also take into account dynamic factors such as the potential for sustainable competition to emerge and continue, and the extent to which the threat of entry or expansion constrains pricing and output decisions.⁹⁰

In the FSR2, the ACCC considered that continued declaration of a service is not likely to promote competition or the LTIE where competition in relevant markets is determined to be 'effective'. The ACCC considers that 'effective' competition is the appropriate benchmark for telecommunications markets and that perfect competition will in all likelihood not emerge in the foreseeable future in fixed-line telecommunications markets.

Further, it is the ACCC's view that effective competition is more likely where there is efficient facilities based competition and that facilities based competition is more likely to promote the LTIE than access-based competition. This is because facilities-based rivals are generally able to differentiate their services and compete more vigorously across greater elements of the network and supply chain. The ACCC also considers that facilities-based competition is more likely to lead to enduring benefits for end-users. Accordingly, not declaring the service (or, equally, the granting of exemptions), where facilities-based competition is feasible, would be likely to lead to more sustainable and innovative forms of competition.

Where competition in a market for the supply of a wholesale access service is effective, and is likely to remain so, declaration of the service in those markets is unlikely to be necessary to ensure services are supplied to access seekers, and ultimately end-users, at competitive prices and of the requisite quality. However, if there is not effective competition, declaration or continued regulation will generally be expected to be necessary to achieve these outcomes and to preserve competition in markets for downstream services.

This section analyses the extent and effectiveness of competition identified in the transmission capacity markets by examining the following factors for each of the markets under consideration:

-	concentration levels;

barriers to entry

prices and costs;

⁹⁰ ACCC, *FSR*2, p. 40.

- arbitrations brought before the ACCC; and
- competition in downstream markets.

Finally, the question of whether granting the exemptions in the First and Second set of Applications would promote competition is assessed by considering a 'future with' and a 'future without' the exemptions being granted.

6.1 Concentration levels

6.1.1 Capital-regional routes

Telstra's views

Telstra submits that capital-regional routes with at least three optical fibre networks within a distance (from the regional centre) of five per cent of the route distance between the capital city and the regional centre should be exempt from declaration – the proposed 5 per cent rule. ⁹¹ Telstra's proposed 5 per cent rule is summarised in Section 4 and discussed further in relation to market definition in Section 5.

Out of the 18 routes nominated by Telstra as meeting its 5 per cent rule, Telstra submitted that 10 were within 1 km of a regional GPO and could be supplied by it and at least two other fibre owners which it identified in a confidential submission.⁹²

Optus' Views

Optus submits that Telstra's submission, including the report prepared by Market Clarity submitted in support with Telstra's First Application, represents a misleading view of the current level of competition for transmission services along many routes listed for exemption.⁹³

Furthermore, Optus notes that the Market Clarity report states that it has determined the number of competing carriers by using its in-house 'Telecommunications Infrastructure Database'.⁹⁴ Optus notes this database is not publicly available, not subject to any form of evaluation by external parties and, to Optus' knowledge, is not a database that is familiar to the telecommunications industry as a resource.⁹⁵

Optus attempted to identify the carriers providing a transmission capacity service along the listed routes. ⁹⁶ Optus considers many of the identified carriers do not provide a transmission capacity service that is comparable to the service provided by either

See for example, Telstra, Supporting Submission for First Application (public version), p. 8.

Telstra, letter to the ACCC titled 'Telstra's domestic transmission capacity service "DTCS" exemption application of 24 August 2008' (public and confidential versions) 19 June 2008 (Supplementary response to information request for First Application dated 19 June 2008).

Optus, Submission to First Discussion Paper (public version), p 17.

⁹⁴ Ibid. (public version), p 20.

⁹⁵ Ibid. (public version).

lbid. (confidential version), p. 22.

Telstra or Optus, and therefore cannot be considered to exert competitive constraint on Telstra.⁹⁷

The ACCC's Views

The ACCC has set out its draft reasons in section 5 for considering that where there exist two infrastructure owners, other than Telstra, that have an existing optical fibre network that passes within a 1 km radius from a regional town's GPO, on a given capital-regional route, the competition or likelihood of competition provided by these alternative infrastructure owners is likely to exert sufficient constraint on Telstra's conduct on that route.

The ACCC examined data received from the Infrastructure RKR to determine which capital-regional routes currently meet the 1 km criteria.

When examining the Infrastructure RKR data it became apparent that there are a number of towns that have fibre networks connected to a capital city in close proximity but which do not meet the 1 km criteria. Some of these towns are connected to the passing fibre network with an optical fibre link owned by a different fibre owner.

In the DTCS 2004 Declaration Review, the ACCC included the Nextgen network as a potential provider that was likely to impose competitive constraint on Telstra and Optus on the basis that it passed very close to many regional centres and that the cost of extending that network to service those regional centres was not likely to be prohibitive. Accordingly, the ACCC considers that where a optical fibre link has been built from within 1 km of the GPO of a regional town to an existing Nextgen or other optical fibre network passing close to a regional town (but not meeting the 1 km criteria) then the combined link from the town and the link to the capital city should be considered together as a competing route.

In response to an information request by the ACCC, Telstra supplied a confidential Market Clarity report which identified fibre networks which it said met the 1 km rule in relation to capital-regional routes that were proposed for exemption. 98 Where the ACCC did not have information from the Infrastructure RKR on the location of these fibre routes it made direct enquires to the owners identified by Market Clarity as being within 1 km of a regional town nominated for exemption.

The ACCC notes that the Market Clarity reports provided by Telstra are subject to confidentiality restrictions and the information supplied to the ACCC identifying fibre providers has not been included in even the confidential versions of the report available to parties other than the ACCC. The ACCC considers that due to the restrictions placed on the Market Clarity information access seekers have not had adequate opportunity to assess and interrogate the accuracy of that information, as well as to provide comments. In light of this, the ACCC places greater reliance on fibre infrastructure information obtained under the Infrastructure RKR and direct inquiries made to infrastructure providers identified by Market Clarity.

⁹⁷ Ibid. (public version), p 20.

Telstra, Supplementary response to information request for First Application dated 19 June 2008 (confidential version).

Using the methodology outlined above, the ACCC identified the following nine out of the nominated twenty capital-regional routes as being served by Telstra and two other optical fibre network owners.

Queensland	New South Wales	South Australia	
Brisbane-Townsville [c-i-c-begin] [c-i-c-end]	Sydney-Campbelltown [c-i-c-begin] [c-i-c-end]	Adelaide-Port Augusta [c-i-c-begin] [c-i-c- end]	
Brisbane-Rockhampton [c-i-c-begin] [c-i-c-end]	Sydney-Gosford [c-i-c-begin] [c-i-c-end]		
Brisbane-Bundaberg [c-i-c-begin] [c-i-c-end]	Sydney-Coffs Harbour [c-i-c-begin] [c-i-c-end]		
Brisbane-Maryborough [c-i-c-begin] [c-i-c-end]	Sydney-Goulburn [c-i-c-begin] [c-i-c-end]		

Of the routes considered uncompetitive:

- six (Cairns, Warragul, Bega, Penrith, Tamworth and Wauchope) did not have two
 competitors, in addition to Telstra, serving the town's ESA with a capital-regional
 fibre route and
- five (Gladstone, Mackay, Wangaratta, Armidale and Wagga Wagga) had at least two alternative fibre networks passing through the town's ESA, but did not have two, in addition to Telstra, that passed within 1 km of the town's GPO.

Of the capital-regional routes where the distance from the towns GPO was relevant, the ACCC considers that none of these routes are competitive on the basis that entry to the transmission market is not sufficiently credible where the POP of the alternative fibre owner is further than 1 km from the regional town's GPO.

Information about the owners of fibre networks on the routes proposed for exemption is sourced from confidential information. As such the identity of the fibre owners is confidential and can not at be released publicly at this time. The ACCC intends to request fibre owners which offer services on the proposed exempt capital-regional routes consent to the public release of their identity.

6.1.2 Inter-exchange transmission

Telstra's view

Telstra's applications for exemption from inter-exchange transmission in ESAs in CBD and metropolitan areas rely on the Access Fibre Report by Market Clarity and advice from by Mr Smart of CRA International (CRA).

The Market Clarity Access Fibre Report does not differentiate between optical fibre used for inter-exchange transmission or other purposes for areas outside NSW (additional confidential data for Victoria was provided to the ACCC following an

information request). Based on a comparative analysis of Market Clarity data on fibre used for inter-exchange transmission NSW and data on access fibre nationally, Mr Smart has inferred there would be no material barriers by a competitor owning access fibre in that ESA from establishing an alternative inter-exchange service. Mr Smart submits that the presence of access fibre in an ESA indicates that a carrier's ability to surmount entry barriers would be lower for establishing inter-exchange fibre. Accordingly, Mr Smart infers that the number of access fibre owners in an ESA is equivalent to the number of inter-exchange providers.⁹⁹

Applying Mr Smart's analysis, Telstra asserts that in each of the ESAs in relation to which it has applied for exemption, there exist two inter-exchange infrastructure access fibre providers in addition to itself.¹⁰⁰ In response to an information request by the ACCC, Telstra informed the ACCC that the ESA of Cronulla no longer met the exemption criteria in its application.¹⁰¹

CBD

In relation to CBD inter-exchange transmission Telstra submits that competition is effective wherever three competing fibre owners (including Telstra) are present within an ESA. 102

The Market Clarity Fibre Access Report only provides evidence of two alternative fibre access operators in 14 of the nominated CBD ESAs. Telstra submits that for the remaining three ESAs it is confident that more competitors are in fact present. ¹⁰³ Alternatively, Telstra submits the three ESAs can be reached from neighbouring Band 1 or Band 2 ESAs. ¹⁰⁴

Metropolitan

Telstra submits that in metropolitan ESAs the appropriate criterion to assess the state of competition is that competition is effective where there are two alternative fibre access providers present and where an ESA:¹⁰⁵

- makes up part of a contiguous set of ESAs that adjoin the CBD ESAs of a capital city or
- in a regional centre, is connected to a capital city by a route that is either exempt from the DTCS declaration or the subject of an exemption application.

⁹⁹I M Smart, CRA Report for Metro and CBD (public version), p. 18.

Telstra, letter to the ACCC titled 'Telstra's Metro and CBD domestic transmission capacity service (DTCS) exemption applications – Attachment criteria for selection of ESAs in Exemption Area' (public and confidential versions), p. 2 (public version) (Supplement to Telstra response to information request for Second set of Application dated 17 July).

Telstra, Supplement to Telstra response to information request for Second set of Application dated 17 July (public version), p 10.

Telstra, Supporting Submission to Second set of Application (public version), p. 10.

¹⁰³ Ibid.

¹⁰⁴ Ibid.

Telstra, Supporting Submission to Second set of Application (public version), p. 12.

Industry views

A number of submissions raised concerns about the methodology used by Mr Smart to identify the presence of alternative inter-exchange transmission providers along the nominated inter-exchange routes that are the subject of the applications.

Optus' submits that the presence of three or more fibre operators somewhere in a given ESA is not necessarily sufficient to constrain the price of DTCS on a route between two points.¹⁰⁶

Optus also submits that the evidence relied upon by Telstra, for both its applications for inter-exchange and tail-end transmission, is unreliable and may over estimate the amount of relevant fibre infrastructure in a given ESA. Optus suggests that Telstra's supporting evidence:¹⁰⁷

- is based on an unverifiable survey of carriers given the report does not disclose details such as addresses for each fibred building thereby making it difficult to verify the robustness of the results and the statistical reliability of the methodology.
- does not demonstrate that the fibre infrastructure in the survey is capable of providing services equivalent to the DTCS – such as sufficient capacity and quality of service.
- does not show whether the fibre reported in the survey is capable of being interconnected with carrier networks (for example at a Telstra exchange). Optus suggests that the fact a fibre route passes in close proximity to a potential point of interconnection (POI) does not necessarily mean the fibre is accessible there must be a 'drop in point' for an access seeker to interconnect with existing fibre.
- does not set out whether the fibre infrastructure reported in the survey is available at a wholesale level to third parties.

Despite Optus' reservations over the methodology applied by Telstra to identify competitive inter-exchange routes, Optus submits that it is nevertheless possible that there is sufficient inter-exchange transmission infrastructure in the proposed exemption areas to preserve competition in the absence of declaration. However, Optus suggests that Telstra's approach would need to be scrutinised if it were to apply more widely to other ESAs assessed in any broader review into regulation. Description

Concerns raised by Optus over Telstra's supporting evidence for levels of concentration were also noted by Internode. Internode submits that despite the existence of fibre owned by other providers in the relevant ESAs, it is not aware whether any of the fibre contains excess capacity or which fibre networks actually interconnect with Telstra exchanges. ¹¹⁰ Internode submits that Market Clarity Access Fibre Report is insufficiently detailed to enable any form of accurate assessment to be made about the

Optus, Submission to Second Discussion Paper (public version), p. 10.

¹⁰⁷ Ibid, p. 10-11

Optus, Submission to Second Discussion Paper (public version), p. 4.

¹⁰⁹ Ibid, p. 4.

Internode, Submission to Second Discussion Paper, p. 2.

possibility of interconnection between Telstra exchanges and fibre owned by other providers.

AAPT/Powertel submits that the mere presence of two additional competing fibre owners in an ESA does not mean that transmission services are competitive in that ESA. AAPT/Powertel submits that effective competition is not a function of the number of competitors in a market but whether the granting of exemption will promote competition—such that competition is stimulated or improved in some way.¹¹¹ AAPT/Powertel also notes that it is important to consider whether the additional competing fibre owners actually supply wholesale transmission services over their fibre.

PipeNetworks submission notes that it does not consider CBD inter-exchange transmission to be an enduring bottleneck and in this regard endorses the evidence presented by Telstra regarding levels of competition. PipeNetworks submits that it is able to replicate inter-exchange transmission services in CBD areas and select metropolitan areas where it has a presence in an ESA.¹¹²

Telstra's response

In refuting the claims made by Optus and Internode regarding the data used in the Market Clarity, Telstra has outlined the two stage methodology used to gather the data and assess the existence of inter-exchange network optical fibre 113

Telstra also contend that Optus and Internode are mistaken with regard to the necessary disclosures which an independent expert must be made and have therefore made an assumption the report is unreliable or based on conjecture.¹¹⁴

Telstra also cites a critique by Mr Smart's of AAPT/Powertel's analysis of the measure of competition. 115

The ACCC's view

Using fibre maps obtained through the Infrastructure RKR and CAN RKR, the ACCC has applied the underlying logic in the "1 km criterion" used for capital-regional transmission to derive criteria for establishing competitive inter-exchange transmission networks. The proposed criteria is evidence of two optical-fibre networks, in addition to Telstra, which have a point of interconnect at a Telstra exchange in an ESA and a fibre network to a CBD. Further, only ESAs which are connected in a contiguous cluster that adjoins a CBD ESA are proposed to be exempted.

AAPT and PowerTel, Submission by AAPT Ltd and PowerTel Ltd to the Australian Competition and Consumer Commission in response to the discussion paper Telstra's transmission exemption applications, February 2008.

PipeNetworks, Submission to Second Discussion Paper (public version), p. 3.

Telstra, Submission to the Australian Competition and Consumer Commission - Response to Submissions of Interest Parties on ACCC Discussion paper (public version), p 3, 15.

¹¹⁴ Ibid., p. 2.

M Smart for CRA International, Points in reply to submissions by Optus, Internode, PIPE and AAPT on Telstra's DTCS exemption applications for CBD/Metro IEN and tail transmission (public version), p. 16.

The rationale behind these criteria is that most transmission traffic will need to go through a main transmission hub (MTH) at a CBD exchange. Further, ensuring the presence of at least two continuous alternative networks which connect all ESAs exempted and that each of those ESAs is part of a contiguous cluster provides the most assurance that the alternative networks will be able to offer competitive inter-exchange transmission services.

The ACCC has placed limited reliance on data provided by Market Clarity in support of the Second set of Applications as it has not been able to verify the identify of optical fibre owners that Market Clarity reports as being present in a particular ESA. The ACCC also notes that Telstra encouraged it to consider the applications having regard to industry information available to it from other sources.¹¹⁶

Identification of competitor numbers in CBD areas

The ACCC has assessed the state of competition for the provision of inter-exchange DTCS in CBD areas. The criteria used to measure competition are based on the geographic and product market definitions. Where there exists evidence of two optical-fibre networks, in addition to Telstra, which link Telstra exchanges in Band 1 CBD ESAs there is sufficient existing competition to restrain Telstra's conduct. The following 16 CBD ESAs have been identified as meeting these criteria:

NSW	QLD	SA	VIC	WA
CITY SOUTH	CHARLOTTE	FLINDERS	BATMAN	PIER
DALLEY	EDISON	WAYMOUTH	EXHIBITION	WELLINGTON
HAYMARKET	ROMA STREET		LONSDALE	
KENT	SPRING HILL			
PITT				

The ACCC has identified the following infrastructure owners as competitive or potentially competitive in each CBD inter-exchange market: [c-i-c-begin] [cic-end]

Information about the owners of fibre networks between CBD ESAs proposed for exemption is sourced from confidential information. As such the identity of the fibre owners is confidential and can not at be released publicly at this time. The ACCC intends to request fibre owners which offer services on the proposed exempt CBD ESAs consent to the public release of their identity.

Telstra, Application for exemption in respect to the domestic transmission capacity service – response to information request 28 March 2008 (public and confidential versions), 30 June 2008, p. 2 (public version) (Response to request for information for Second set of Application).

Identification of competitor numbers in metropolitan areas

As discussed in section 5 the ACCC accepts Telstra's geographic market definition for inter-exchange transmission as being the set of ESA which are geographically contiguous and:

- adjoin a CBD ESA of a capital city or
- in a regional centre, are connected to a capital city by a regional route that is either exempt from the DTCS declaration or the subject of an exemption application.

The ACCC considers that in order for such a market to be considered competitive, each ESA must be connected to each other ESA and to the capital city by two optical fibre networks in addition to Telstra, and that both networks must have points of interconnect located at a Telstra exchange in each ESA in the geographic market.

Using these criteria, the ACCC identified the following 70 metropolitan ESAs to be competitive:

State	ESAs deemed to be competitive
NSW	ASHFIELD, BALGOWLAH, BANKSTOWN, BLACKTOWN, BURWOOD, CAMPSIE, CARRAMAR, CASTLE HILL, CHATSWOOD, COOGEE, CREMORNE, EAST, 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, SEVEN HILLS, SILVERWATER, ST LEONARDS, UNDERCLIFFE, WAVERLEY
VIC	ASCOT, BRUNSWICK, CAULFIELD, COBURG, ELSTERNWICK, FOOTSCRAY, HEIDELBERG, MALVERN, MORELAND, NORTH MELBOURNE, PORT MELBOURNE, PRESTON, RICHMOND, SOUTH MELBOURNE, ST KILDA, TOORAK
QLD	PADDINGTON, SOUTH BRISBANE, TOOWONG, VALLEY, WOOLLOONGABBA
WA	SOUTH PERTH, SUBIACO

The ACCC has identified the following infrastructure owners as competitive or potentially competitive in each ESA of a Metropolitan inter-exchange market: [c-i-c-begin] [c-i-c-end]

Information about the owners of fibre networks between metropolitan ESAs proposed for exemption is sourced from confidential information. As such the identity of the fibre owners is confidential and can not at be released publicly at this time. The ACCC intends to request fibre owners which offer services on the proposed exempt metropolitan ESAs consent to the public release of their identity.

6.1.3 Tail-end transmission

Telstra's views

CBD

Telstra relies on the Market Clarity CBD Fibre Deployment Report to assert that market concentration levels are relatively low in relation to CBD tail-end transmission. The data presented by Telstra shows the number of Telstra fibre connections in CBD areas and an aggregated number of fibre connections for all carriers who responded to the Market Clarity survey. Telstra submitted additional confidential information in response to an ACCC information request. The additional information shows the number of buildings in the CBD area and the number of non-Telstra operators included in the Market Clarity survey and the number not included but known to be present in the CBD.

Telstra notes that the information in the Market Clarity report should:

Be interpreted with care as it is based on a number of non-Telstra operators that are known to be present but chose not to participate in the survey. 119

Although Telstra claims that the data indicates a high number of non-Telstra fibre connections it notes that:

...this excludes a number of key operators, in particular, Optus...It is possible that there is some (potentially significant) overlap among non-Telstra operators in terms of the buildings connected (i.e. the same building may have multiple connections). 120

Metropolitan

Telstra submits that ESAs with competitive supply of tail-end transmission have itself plus two optical fibre owners present in the ESA as well as the presence of at least one competitor DSLAM in a Telstra exchange in the ESA.¹²¹

Telstra limited its application to 2 Mbps services in metropolitan areas on the basis that due to lower population densities the availability of fibre infrastructure is poor. 122

Industry views

CBD

In response to the discussion paper on the Second set of Applications, Optus and Internode consider that Telstra has not provided sufficient information to assess the degree to which competitor infrastructure is available. ¹²³ PipeNetworks submits that it is able to replicate tail-end transmission services in CBD areas and to some extent in

Telstra, Submission to Second Discussion Paper (public version), p. 14.

Telstra, Response to request for information for Second set of Application (confidential version), p. 13.

Telstra, Response to request for information for Second set of Application (public version), p. 13.

¹²⁰ Ibid

Telstra, Supporting submission to Second set of Application (public version), p. 14-15.

¹²² Ibid., p. 13.

Optus, Submission to Second Discussion Paper (public version), p. 10; Internode, Submission to Second Discussion Paper, p. 1.

metropolitan areas. In support of its submission PipeNetworks provided confidential information regarding its presence at CBD exchanges.¹²⁴

Internode contends that the Market Clarity CBD Fibre Deployment Report is of limited use in assessing Telstra's exemption application and does not provide evidence that competitive fibre tails exist or that where fibre is present that it is available for use for the supply of tail-end transmission. This claim is based on the absence of details in the report on fibre availability such as:

...whether this fibre is between POPs located on different floors of the building, between a POP and a radiocommunications device located in or atop the building, providing an internal link or local area network that only service one customer in different locations in a single building or CBD, or between a customer in the building and the building's MDF. ¹²⁵

Internode also states that it understands that Telstra has fibre connections to the vast majority of CBD buildings and that a significant percentage of these buildings are only connected to Telstra's network. 126

Optus also submits that:

It may very often be the case that after Optus has secured a customer using a Telstra transmission service, it will subsequently become feasible to build access fibre, for example if a second customer in the same building is acquired. Alternatively, in a case where capacity is exhausted in a particular building and a particular customer demands extra services, it may take time to build the necessary infrastructure. In this case, Optus may find it necessary to use the DTCS on a temporary basis. 127

Other industry submissions in relation to concentration levels for fibre infrastructure have been summarised in the Concentration levels – inter-exchange transmission section.

Metropolitan

Submissions regarding tail-end transmission in metropolitan areas note the ubiquity of Telstra's copper network and lack of evidence of competing infrastructure. 128

Telstra's response

In submissions in response, Telstra contends that some industry participants have misinterpreted the data presented in the BIS Shrapnel report on CBD infrastructure and that the report does not state that all buildings have Telstra fibre connections.¹²⁹

Telstra submits that criticism of the methodology used by Market Clarity is based on a misunderstanding of the approach taken. Telstra further contends that Internode have ignored the introductory section of the Market Clarity report which states the questions

PipeNetworks, Submission to Second Discussion Paper (public version), p. 2.

¹²⁵ Internode, Submission to Second Discussion Paper, p. 1.

¹²⁶ Internode, Submission to Second Discussion Paper, p. 3.

Optus, Submission to Second Discussion Paper (public version), p. 18-19.

PipeNetworks, Submission to Second Discussion Paper (public version), p. 3; Optus, Submission to Second Discussion Paper (public version), p. 25; Internode, Submission to Second Discussion Paper p. 7

Telstra, Response to Submissions of Interest Parties on ACCC Discussion paper (public version), p. 3-4.

it posed in undertaking the survey of CBD fibred buildings. 130 Telstra also reiterates that the Market Clarity survey only counts buildings with accessible optical fibre tailend connections. 131

In additional submissions in response, Telstra provided a report by Mr Smart of LECG which used confidential information on building termination points connected to Telstra's fibre network to conclude that:

- (i) Telstra's fibre tail coverage is not ubiquitous in metropolitan areas;
- Telstra's first mover advantage in fibre tail construction in metropolitan areas has been (ii) exaggerated by interested parties such as Optus and Internode in their submissions; and
- (iii) Any perceived shortcomings of ULLS as a means of providing for 2 Mbps tail transmission do not necessarily translate into enhanced market power for Telstra in fibre tail transmission. 132

The ACCC's Views

CBD

The ACCC agrees with submissions from Optus and Internode that the information provided by Telstra with regard to concentration levels of fibre tails in CBD areas is of limited use. In particular, it is not possible to determine from the information, how many buildings are served by fibre other than Telstra or how many fibre connections there are to any one building. The ACCC notes that although PipeNetworks submits it is able to replicate tail-end transmission services, the ACCC is not satisfied that evidence of alternative fibre infrastructure at a Telstra exchange is sufficient to conclude that there is competitive supply of tail-end transmission services from that exchange.

The ACCC also notes submissions regarding the use of Telstra's DTCS as a mechanism to gain a customer base before building tail-end transmission infrastructure. This issue was a factor in the conclusion of the DTCS 2004 Declaration Review that the CBD tail-end transmission market was not competitive. Further, the ACCC does not consider that there are other declared services, such as the ULLS, which are a viable alternative to tail-end DTCS.

Although there is evidence to suggest the presence of optical fibre network owners in the CBD, the ACCC concludes that Telstra, even if it does not supply 100 per cent of buildings in a CBD is still the dominant provider of connections to tail-end transmission customers. Taking into consideration submissions on this issue, the ACCC conclusion is that the market for tail-end DTCS in CBD areas is not competitive. 133

Metropolitan

Telstra has provided evidence regarding DSLAM presence at Telstra exchanges and technical information regarding the ability of a DSLAM to provide tail-end

Telstra, Response to Submissions of Interest Parties on ACCC Discussion paper (public version)), p.

¹³¹ Ibid., 16.

Telstra, letter to the ACCC titled 'Telstra's CBD and Metro domestic transmission capacity service (DTCS) Exemption Applications', 25 August 2008.

ACCC, DTCS 2004 Declaration Review, p. 29.

transmission at 2 Mbps. However, the ACCC is not aware of any information that in practice any DSLAM owner has entered or is likely to enter the tail-end transmission market at a retail or a wholesale level. The ACCC concludes that there are many more copper connections than fibre connections in band 2 areas, however, the number of copper connections does not necessary reflect the size or state of competition in the market for tail-end transmission in metropolitan areas.

As discussed in section 5, the ACCC does not consider that tail-end transmission provided using ULLS is a close substitute for the provision of DTCS. However, even if ULLS were considered a substitute for tail-end DTCS, the ACCC is not aware of any evidence that would suggest that are any DSLAM operators have entered or intend to enter the market for tail-end transmission. Accordingly, the ACCC concludes that the market for tail-end transmission over copper medium in metropolitan areas is not competitive.

Taking into account the information from Telstra regarding the number of fibre connections in metropolitan areas and access seeker submissions regarding the lack of evidence of competing infrastructure, the ACCC concludes that market for tail-end transmission over optical fibre in metropolitan areas is not currently competitive.

6.2 Barriers to entry

High concentration levels do not necessarily mean that competition is ineffective. Where a market is characterised by low barriers to entry, the behaviour of incumbent firms may be constrained by the threat of potential competition, thereby producing behaviour that is consistent with market outcomes even in the absence of significant actual competitors. However, significant barriers to entry for new suppliers to a market will generally make it more difficult for potential competitors to enter the market. This increased difficulty of entry will in turn generally dampen the competitive constraint that the threat of entry by potential competitors will have on market incumbents. Significant barriers to entry and high concentration levels may therefore indicate that the threat of entry is less likely to constrain the behaviour of incumbent firms. In this situation, actual entry is more likely to be necessary to ensure effective competition.

Potential barriers to entry in transmission markets include:

- the high sunk cost nature of infrastructure investment
- ability to interconnect with other networks and
- the existence of spare capacity in the network.

Contestability

Where barriers to entry are low, it can be argued that a market is effectively competitive by being contestable, that is by virtue of credible threats of easy entry by potential competitors, even when there are few actual competing providers at a given point in time.

In the DTCS 2004 Declaration Review, the ACCC considered the presence of the Nextgen inter-capital transmission network in close proximity to many of the nominated regional centres was a key factor in coming to the view that these markets were sufficiently contestable to warrant the removal of the declaration on these routes.¹³⁴

The ACCC also observed that while there were some factors which indicated the CBD tail-end transmission market was contestable there were other features of the market which indicated the need for ongoing declaration to help promote competition in the CBD tail-end market.¹³⁵

Excess capacity

The ACCC's DTCS 2004 Declaration Review also commented on the presence of excess capacity along a particular route as being a potential barrier for alternative providers to enter the market. At that time, the ACCC noted that it was not aware of incumbent firms using excess capacity to deter new entrants from establishing rival networks on particular routes. The DTCS 2004 Declaration Review also noted that transmission networks are generally constructed to accommodate traffic requirements that are far in excess of current demand for the purposes of offering redundancy and to cater for future bandwidth needs. Nothing submitted in the course of this process indicates that this feature of optic fibre networks has changed since last investigated by the ACCC.

Redundancy

The ACCC acknowledges that a feature of transmission networks is the ability to provide a protected transmission service through the availability of at least two geographically distinct transmission paths between the points of transmission. However, where geographically distinct transmissions paths are operated by different providers the ACCC's view is that redundancy can be provided on a point to point network by an access seeker purchasing services from different providers. The ACCC is aware through industry inquiries that in practice a protected transmission service is obtained in this way.

6.2.1 Capital-regional routes

Telstra's Views

Telstra argues that the level of competitive build on the regional routes included in the exemption is supportive of the view that the barriers to entry to the provision of transmission services are not high. In Telstra's view this is highlighted by the number of access providers that have significant plans to expand their optical fibre footprint in rural Australia. 136

Telstra submitted information regarding capacity on seven of the nominated capitalregional routes for exemption that it estimated to have the highest traffic demand. The

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ACCC, DTCS 2004 Declaration Review, p. 33.

¹³⁵ Ibid.

¹³⁶ Telstra, Supporting Submission to First Application (public version), p. 11.

information shows that except for one, all high traffic routes have more than **[begin c-i-c] [end c-i-c]** spare capacity. ¹³⁷ Further, Telstra submitted information showing the potential maximum capacity for each of the capital-regional routes is substantially in excess of utilized capacities. ¹³⁸

Telstra also argues that excess capacity on existing networks is not a barrier to entry as evidenced by the large and increasing number of competitors prepared to invest in transmission on the exemption routes. Telstra argues that because variable costs are a small proportion of total costs it is unlikely that once a competitor is present on a regional route it would exit the market in response to a reduction in demand, rather it is more likely that it would retain its infrastructure until demand is restored.¹³⁹

Optus Views

Optus believes that there are significant high sunk costs in the construction of transmission networks. ¹⁴⁰ Optus states that building a new spur lines (as posited in Telstra's proposed 5 per cent Rule would involve the construction of new fibre optic infrastructure, with significant costs, would constitute significant, irreversible new investment. Indeed, Optus argues that a firm that cannot currently serve the market without making significant, irreversible new investments should be defined as being outside the boundaries of the market. ¹⁴¹

The ACCC's view

In the DTCS 2004 Declaration Review, the ACCC noted that, as with all transmission infrastructure, building a fibre link or spur linking a regional town to an existing optical fibre network connected to a capital city involves significant sunk costs such as those involved with trenching and laying optical fibre. ¹⁴² Further, the ACCC rejected that high costs per se are a barrier to entry, but accepted that their 'sunk' nature could serve as a barrier to entry. ¹⁴³ Having regard to the to the submissions of all parties, the ACCC maintains this view and notes that where a carrier or carriage service provider can sign up customers prior to building a network, barriers to entry relating to sunk costs will generally be reduced (all other things being equal).

The ACCC considers that an existing capital-regional or inter-capital fibre network which is a distance of at most 1 km from a GPO of a regional town does not face a barrier to entry that is so high as to make the market for capital-regional transmission services in that market incontestable. The ACCC is of the view that a competitor that meets this criterion could be considered a constraint on the behaviour and pricing of the incumbent.

Telstra, letter to the ACCC 'Telstra's domestic transmission capacity service exemption application: request for further information' (public and confidential versions), 28 March 2008. Attachment 1 - Telstra, Response to Information Request dated 28 March (public and confidential versions), 28 March 2008 (Response to information request for First Application – Attachment 1), p. 6 (public version), p. 7 (confidential version).

Telstra, Response to information request for First Application – Attachment 1, p. 8 (public version).

Telstra, Supporting Submission to First Application (public version), p. 11.

Optus, Submission to First Discussion Paper (public version), p. 10.

¹⁴¹ Ibid., p. 9.

¹⁴² ACCC, DTCS 2004 Declaration Review, p. 31.

¹⁴³ Ibid.

The ACCC's view is supported by evidence arising since the DTCS 2004 Declaration Review, which indicates that a number of fibre links from regional towns have been built to connect with Nextgen and other optical fibre networks. This indicates that where there are existing optical fibre networks that meet the 1 km criteria for a particular regional town, barriers to entry to that capital-regional market are reduced. The market is contestable because an infrastructure owner could build a link from the regional town to the optical fibre network which meets the 1 km criterion, without incurring excessive sunk costs.

6.2.2 Inter-exchange transmission

Telstra's view

Telstra relies on the evidence of existing alternative infrastructure as evidence of low barriers to entry to inter-exchange transmission markets. 144

Industry views

Optus indicates that it uses DTCS to provide a transmission link between its point of interconnection (POI) and an end user's premises. Optus notes that if its POI is located in the same ESA where an end user's premises resides then it only requires a tail-end transmission product. However, where Optus' POI is not housed in the nearest ESA to the end user it purchases a product which combines inter-exchange transmission and tail-end transmission. 145

Optus notes that costs and projected revenues will vary between inter-exchange routes, and some routes will be able to support more infrastructure than others. However, Optus argues that given inter-exchange routes generally carry significantly greater traffic than tail end POI-to-premises routes, investment in these inter-exchange routes is more likely to be economically feasible. 146

Further, Internode argues that:

It is significantly more expensive to install fibre in built up city areas than on inter-city routes so the 1 km or less proximity to a GPO of a regional centre has little bearing in such environments when considering the level of difficulty and cost of installing connecting fibre. 147

Internode also submits that fibre optic owners and providers identified by Telstra as being competitors do not have the capacity or coverage to replicate DTCS, particularly at the level required to provide wholesale services. 148

Internode submits that Telstra's network contains large amounts of unused excess capacity which would allow Telstra to compete vigorously with any new entrant. Internode suggests that this feature, in addition to the uncertainty surrounding the

Internode, Submission to Second Discussion Paper, p 7.

¹⁴⁴ Telstra, *Response to Second Discussion Paper*, p. 7-8 (public version).

Optus, Submission to Second Discussion Paper (public version), p. 5.

Ibid., p. 1.

scope, nature and ownership of a proposed fibre-to-the-node (FTTN) deployment, would add to a potential entrant's fear about entering the market.¹⁴⁹

Internode suggests that it is necessary to consider the importance of redundancy in the network. Internode notes that many customers – particularly high end spend businesses – will not connect to a network that lacks the protection from network failure. Therefore, a credible inter-exchange alternative would need to provide a path of redundancy which Internode submits is a significant cost for network owners. ¹⁵⁰

Optus notes that a common impediment for alternative fibre optic providers to offering alternative inter-exchange services – that may be common in both CBD and metropolitan areas – is the inaccessibility of providing a suitable POI. Optus notes alternative providers are having increasing difficulty in gaining reasonable access to exchanges given the limited amount of Telstra equipment building access (TEBA) space.¹⁵¹

PipeNetworks also notes that there is a significant degree of difficulty involved with connecting alternative infrastructure to Telstra's exchanges. PipeNetworks considers that barriers to exchange access are largely due to:

- a number of Telstra exchanges being declared as full or 'capped' and Telstra's refusal to alleviate the situation by creating more space or expanding the resources available to access seekers and
- TEBA access agreements preventing PipeNetworks from entering a Telstra exchange for the purpose of selling capacity to other providers. ¹⁵²

The ACCC's view

The ACCC commented in the DTCS 2004 Declaration Review that a possible barrier to entry – common to all transmission products – is the high sunk cost involved in constructing the necessary infrastructure. Further, the ACCC noted that while it may be possible to resell or reuse multiplexing equipment and other associated electronic equipment, the trench construction and the laying of optical fibre represents a sunk cost. Having regard to the to the submissions of all parties, the ACCC continues to consider the sunk nature of costs involved with establishing an alternative interexchange network as a barrier for carriers to enter a transmission market.

The ACCC notes that its DTCS 2004 Declaration Review commented on the complementary aspects of tail-end transmission and inter-exchange transmission and the economies of scope that may arise from being able to purchase the services together. The DTCS 2004 Declaration Review recognised the benefits of acquiring one bundled transmission service providing a connection from the end user's premises transmission point to the service provider's own network.

¹⁵⁰ Ibid.

¹⁴⁹ Ibid.

Optus, Submission to Second Discussion Paper (public version), p. 11.

PipeNetworks, Submission to Second Discussion Paper (public version), p. 1-2.

¹⁵³ ACCC, DTCS 2004 Declaration Review, p. 30.

¹⁵⁴ Ibid, p. 28.

Since the DTCS 2004 Declaration Review the ACCC is aware of an increasing prevalence of alternative providers offering transmission services capable of substituting for Telstra's inter-exchange DTCS in some areas. The ACCC considers this trend as evidence of users increasingly considering inter-exchange transmission as a discrete service capable of being purchased independently from tail-end transmission if offered at competitive rates. The competitiveness of alternative services to the incumbent's DTCS is dependent on the ability of the alternative provider to mitigate possible costs of having an additional POI.

The ACCC notes that accessing Telstra's exchanges is an issue of increasing importance for competing inter-exchange providers.

Due to the high sunk cost of building fibre networks in metropolitan areas and obtaining access to Telstra's exchange buildings, the ACCC considers that only existing optical fibre networks with a POI at a particular Telstra exchange can reasonably be considered to be able to contest the market for inter-exchange transmission in that ESA.

Tail-end transmission 6.2.3

Telstra

Telstra submits that the barriers to entry to install fibre in CBD areas for the purpose of supplying tail-end transmission are low. Telstra cites supporting material which calculates the period over which an investment would be 'paid back' where ducts are leased from Telstra and where new ducts are built. These calculations are based on the price of transmission products and the costs of building and leasing ducts. 155

Telstra has provided evidence for procedure for leasing its duct space. 156 Telstra also submits that evidence of competitor DSLAMs indicates that costs for DSLAM installation are not significant. 157

Industry view

CBD

Optus and Internode submit that there are relatively high entry barriers in tail-end transmission markets.158

Optus argues that Telstra's conclusions concerning the low costs associated with rolling out tail-end transmission infrastructure are based on a flawed analysis which fails to establish the economic feasibility of investment in access infrastructure. According to Optus, the capital costs and projected revenues associated with building access fibre to

¹⁵⁵ Telstra, Supporting Submission to Second set of Application (public version), p. 14-15.

Telstra, Response to request for information for Second set of Application (public version), p. 17.

Telstra, Supporting Submission to Second set of Application (public version)., p. 15.

Internode, Submission to Second Discussion Paper, p. 7; Optus, Submission to Second Discussion Paper (public version), p. 25.

CBD buildings are highly variable. As a result there are many buildings to which it will not be economically feasible for multiple operators to build access fibre.¹⁵⁹

Optus notes that current transmission prices should be considered in the context that Telstra may reduce its price in response to the installation of competitive infrastructure. ¹⁶⁰

Internode also submits that Telstra has the incumbent advantage when negotiating access to buildings to install connections which is often refused to smaller carriers. Further, Internode argues that carriers need to sign up customers before having the right to install equipment in a building. Internode suggests that this is why it is common for carriers to secure a customer using a Telstra transmission service before installing their own equipment.¹⁶¹

Metropolitan

PipeNetworks points to issues of exchange capping discussed in section 5 as constituting barriers to entry for supply of DTCS using the ULLS. 162

Optus submits that tail-end transmission supplied using ULLS is not a substitute for tail-end DTCS. 163

Telstra's response

In response, Telstra submits that the analysis undertaken by Optus indicates lower sunk costs than those provided by Telstra for connecting optical fibre to CBD buildings. Further, Telstra claims that the evidence present by Optus actually supports the analysis of Telstra's payback period analysis. ¹⁶⁴ Telstra has provided a critique of Optus' costing for CBD fibre tail rollout and a response to criticisms of its costings. ¹⁶⁵

Telstra re-iterates that the areas selected for exemption from CBD tail-end DTCS was based on evidence of three or more distinct fibre networks in the ESA, and that payback periods for the construction of fibre links to CBD buildings are short. ¹⁶⁶

Telstra also claims that the Market Clarity CBD Fibre Deployment Report shows that Telstra's CBD infrastructure has already been duplicated. 167

The ACCC's view

CBD

The ACCC is concerned that the information provided by Telstra regarding the period required to pay back investments in duct leasing and building does not take into

Optus, Submission to Second Discussion Paper (public version), p. 15.

¹⁶⁰ Ibid., p. 19.

¹⁶¹ Internode, Submission to Second Discussion Paper, p. 5.

PipeNetworks, Submission to Second Discussion Paper (public version), p. 3.

Optus, Submission to Second Discussion Paper (public version), p. 25.

Telstra, Response to Second Discussion Paper (public version), p. 10.

¹⁶⁵ C Lordan, Response to Cost Issues raised in the Optus DTCS Exemptions Statement April 2008 (public version).

¹⁶⁶ Telstra, Response to Second Discussion Paper (public version), p 12.

¹⁶⁷ Ibid.

account demand for transmission services. In particular, the pay back calculations do not take account of increased competition likely to reduce the price of transmission services, extending the period over which an investment could be recouped. The ACCC also notes that Telstra's analysis does not include the pay back period for a 2 Mbps service.

Given Telstra's assumptions regarding investment costs and returns, the ACCC does not consider that Telstra has provided sufficient evidence for it to conclude that barriers to entry in the CBD tail-end market are low. Further, the ACCC has no other information which would satisfy it, nor is it aware of other information which could be obtained which would satisfy it that barriers to entry in the CBD tail-end market are low.

Metropolitan

As discussed in section 5, the ACCC does not consider that tail-end transmission provided using ULLS is a close substitute for the provision of DTCS. As such, the ACCC considers that in the metropolitan tail-end transmission market barriers to entry are dependent on the costs of deploying fibre infrastructure and that these sunk costs remain high.

6.3 Prices and costs

Telstra's view

Telstra submits that average industry transmission prices obtained from Telsyte show a decline in the period from 2003 to 2007 and that this trend indicates that there is competitive pressure on Telstra in DTCS markets. 168 However, Telstra acknowledges that where cost data is not reliable or publicly available, pricing information is limited as an indicator of competitive restraint. 169

Telstra's capital-regional pricing consists of [start c-i-c]. [end c-i-c]

Telstra's inter-exchange and tail-end pricing involves [start c-i-c] [end c-i-c].

Access seeker view

AAPT/Powertel acknowledges that there has been a decline in tail-end transmission prices in CBD areas, but asserts that prices in metropolitan and regional areas remain high. 170 PipeNetworks noted that its alternative transmission services are competitive in exchanges where it has a presence, suggesting that competition in DTCS is placing pressure on prices over time. 171

The ACCC's view

Telstra has not provided evidence that its prices for DTCS have fallen over time. Following an information request, Telstra submitted a price list for its wholesale inter-

Telstra, Supporting submission to Second set of Application (public version), p. 16.

AAPT and PowerTel, Submission to Second Discussion Paper, p. 3.

PipeNetworks, Submission to Second Discussion Paper (public version), p. 4.

capital transmission dated July 2001.¹⁷² The ACCC understands that the prices submitted are the same as those considered by the ACCC in the DTCS 2004 Declaration Review.

The ACCC considers that it may be the case that average industry prices for interexchange and tail-end transmission have fallen to some extent in the period since the DTCS 2004 Declaration Review. However, the ACCC does not have sufficiently detailed price or cost information, nor has such information been provided in any submissions to make further conclusions.

6.4 Downstream markets

Telstra's view

Telstra's submission notes that downstream services reliant on transmission as an input have steadily decreased in price. Accordingly, Telstra suggests that the pricing and availability of transmission services have not inhibited competition among providers of these downstream services.

In relation to capital-regional routes, Telstra submits that downstream markets would be largely unaffected by granting the exemption, as the existence of three optical fibre networks on the relevant route means that competition in the wholesale transmission market is effective.¹⁷³ Accordingly, Telstra submits, transmission prices should not increase post exemption.¹⁷⁴

Telstra submits information that the take-up of DTCS services has increased since the service was last reviewed. Telstra also notes that while the number of wholesale transmission services has increased over the past four years, it does not follow that Telstra's wholesale market share has increased. 175

In relation to capital-regional transmission Telstra has provided a comparison between take-up levels at January 2004 and December 2007 of different bandwidth capacities along the nominated routes that it has sought exemption. Table 6-1 below shows the take-up for the selected capital-regional routes. The table is derived from Telstra's Records Automation for Special Services (RASS) ordering system.

Table 6-1: Number of capital-regional DTCS activations for January 2004 and December 2007 Begin [c-i-c]

[c-i-c] end

Source: Telstra, Response to information request dated 4 January 2008, March 2008

Telstra has also supplied information on the number of wholesale inter-exchange transmission and tail-end transmission services in the ESAs that it has sought

Telstra, Response to information request dated 4 January (confidential version), Appendix 4.

Telstra, Submission to First Discussion Paper (public version), p. 7.

¹⁷⁴ Ibid

¹⁷⁵ Telstra, *Response to Information Request dated 28 March* (public and confidential versions), p. 16 (public version) (*Response to information request for Second set of Application*).

exemption at January 2004 and February 2008. Table 6-2 provides a summary of the number of inter-exchange, tail-end and bundled inter-exchange and tail-end transmission services for both periods.

Table 6-2: Number of wholesale Telstra DTCS tail-end and inter-exchange services Begin [c-i-c]

[c-i-c] end

Source: Telstra, Response to information request dated 28 March 2008, 30 June 2008

Access seeker views

Internode submits that declaration of the DTCS ensures that downstream markets can be reached. However it also notes that it is likely that Telstra retains a significant cost advantage in providing the DTCS that hinders the ability for other companies to compete in that market.¹⁷⁶

AAPT/Powertel also submits that if the ACCC were to grant the exemptions proposed in the Second Set of Applications, then Telstra may either cease to supply the DTCS or increase the price significantly. Such an outcome would severely inhibit AAPT/Powertel and other access seekers from competing in downstream wholesale and retail markets and consumers would be worse off as a result.¹⁷⁷

Optus submits that if declaration of DTCS on the relevant transmission capacity routes is removed assuming that there are adequate substitutes then there will not be sufficient competitive constraint on Telstra's pricing of transmission capacity services. It submits that competition in downstream markets, such as long distance calling, will suffer as a result.¹⁷⁸

Optus notes that it uses the DTCS as an input into the supply of downstream services to business, wholesale and mobile customers. Optus considers the key DTCS product it purchases from Telstra is the 'AN lease' which is a tail-end DTCS product. The AN lease enables Optus to provide a transmission link between its POI and an end-users premises. Optus notes that this service corresponds to either a tail-end service or a bundled inter-exchange and tail-end product depending on the position of its POI. 179

Optus uses tail-end DTCS for 180:

- (a) business customers principally for the purpose of redundancy only
- (b) wholesale customers and
- (c) backhaul for Optus' mobile network

¹⁷⁶ Internode, Submission to Second Discussion Paper, p.8

AAPT and PowerTel, Submission to Second Discussion Paper, p. 1

Optus, Submission to First Discussion Paper (public version), pp. 21-22.

Optus, Submission to Second Discussion Paper (public version), p. 5.

¹⁸⁰ Ibid.

Optus suggests that the proposed exemption for tail-end DTCS would impact on some particular markets to which telecommunications services are supplied – namely large corporate and government customers, on mobile services and also (by affecting wholesale) on mass market telecommunications services.¹⁸¹

Optus notes that it purchases inter-exchange leases from Telstra where the volume of traffic is not sufficient to make construction of Optus inter-exchange infrastructure economic.¹⁸²

PipeNetworks submits that in those ESAs where it has a presence, competition in downstream markets is effective.¹⁸³

Optus submits that capacity demands on major capital-regional routes are high and, with increasing take-up of broadband, increasing rapidly.¹⁸⁴

The ACCC's view

The DTCS is a wideband or broadband carriage service for aggregated voice and data channels, therefore it is a key input for downstream services including voice and broadband internet services, available over both fixed and wireless platforms.

The ACCC notes that information from Telstra indicates that since 2004 activations of Telstra's DTCS has increased significantly. The ACCC considers that the increasing presence of alternative infrastructure on certain routes suggests that demand for transmission along those routes is likely to be sufficiently robust to sustain more than one infrastructure provider of transmission service.

The ACCC notes that the increase in demand for DTCS is likely to be a result of:

- an increase in the total number of voice services in operation (mobile voice and fixed voice services) and
- a significant increase in take-up and use of internet services.

Growing consumer demand for services dependent on transmission capacity may also be a result of declining prices paid by end users for PSTN voice, mobile voice and broadband internet services. The ACCC notes that:

- prices for PSTN services decreased by 3 per cent in 2006-07 continuing a long term trend for price declines in PSTN calling products.¹⁸⁵
- Prices for GSM mobile services also decreased by 2.3 per cent in 2006-07 also continuing an identifiable trend since 2003-04.¹⁸⁶

¹⁸² Ibid, p. 6

66

¹⁸¹ Ibid.

PipeNetworks, Submission to Second Discussion Paper (public version), p. 4.

Optus, Submission to First Discussion Paper (public version), p. 18.

ACCC, Changes in the prices paid for telecommunication services 2006-07, p. 79

¹⁸⁶ Ibid, 95.

The Spectrum/Internet Industry Association (IIA) Broadband Index noted in its April 2008 release that retail prices have changed very little in the last 18 months. 187

The ACCC notes access seeker concerns with the impact of any removal of regulation on the availability of DTCS as an input into the supply of downstream services. However, the ACCC considers that these concerns only apply where Telstra is the only provider or potential provider of transmission services on a capital-regional route or in an ESA.

6.5 Arbitrations

Telstra asserts that the lack of arbitrated disputes in relation to DTCS indicates sufficient competition in DTCS markets.¹⁸⁸

AAPT/Powertel and Internode both argue that the lack of access disputes does not indicate that access seekers are happy with commercially negotiated outcomes of disputes with Telstra. The submissions cite the length and cost of arbitration and lack of indicative prices as reasons for not notifying DTCS access disputes for arbitration. 189

The ACCC is not currently arbitrating any disputes in relation to the DTCS. Three disputes which have been notified to the ACCC regarding the DTCS since the DTCS 2004 Declaration Review have all been withdrawn. The ACCC does not consider the lack of current access disputes necessarily indicates that markets for the supply of DTCS are competitive.

6.6 Promotion of competition

In assessing whether granting the exemptions in the First Application and Second set of Applications will promote competition, a useful tool involves comparing the current state of competition with the 'future with' exempting the nominated capital-regional routes and ESAs with the 'future without' granting the exemptions.

The ACCC considers that, in the context of assessing exemption applications, the concept of promoting competition refers to whether the opportunities and environment for competition with the exemptions, will be better than they would be absent the exemption, rather than whether competition will in fact "increase". 190

In determining the extent to which granting exemptions 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)).

Internode, Submission to Second Discussion Paper, p 7; AAPT and PowerTel, Submission to Second Discussion Paper, p. 3-4.

Spectrum/Internet Industry Association, *Broadband Index 6th Edition Q1 2008*, 24 April 2008, p. 1.

Telstra, Supporting Submission to Second set of Application (public version), p. 16.

See Sydney International Airport [2000] ACompT 1 at [106] and Seven Networks (No 4) [2004] ACompT 11 at [123] – [124].

Submissions

Telstra submits that granting the First Exemption Application will not be detrimental to the objective of promoting competition and will promote facilities based competition. However, Optus rejects Telstra's assessment of the current state of competition and contends that removal of regulation on routes where there is insufficient competition will have a negative effect on the objective of promoting competition. However, Iran Promoting Competition and Contends that removal of regulation on routes where there is insufficient competition will have a negative effect on the objective of promoting competition.

In relation to the Second set of Applications, Telstra also argues that removing regulation is the best way to promote facilities based competition as it would send the correct signal to the market that regulation will be removed where facilities or quasifacilities based competition is present. ¹⁹³ All submissions argue that removal of regulation would harm competition for the supply of tail-end DTCS, although PipeNetworks limits this to situations where a substitute for tail-end DTCS cannot be supplied. In relation to inter-exchange Internode and AAPT/Powertel argue that competition will not be promoted by the removal of regulation.

ACCC's views

Retail level

To assist in determining whether granting the exemptions will promote competition at the retail level the ACCC has examined what the state of competition is likely to be in a 'future without' and a 'future with' the granting of the exemption applications.

Currently at the retail level, consumers may acquire transmission services from:

- optical fibre infrastructure owners selling conditioned transmission services (for example: Telstra, Optus, Nextgen, AAPT) or unconditioned transmission services or 'dark' fibre (for example: PipeNetworks)
- a competitor re-selling transmission services supplied by Telstra or another operator on commercially negotiated terms or
- a competitor re-selling transmission services supplied by an operator using regulated access to the DTCS supplied by Telstra.

As set out in the 'concentration levels' section, the ACCC considers that there is already effective competition in the provision of transmission services on some capital-regional routes and for inter-exchange transmission between some ESAs. However, operators with existing optical-fibre networks which meet the 1 km criterion for a capital-regional route or are located at a Telstra exchange for inter-exchange transmission but which are not currently providing transmission services would need to make additional investments to enter into the market. This investment would either be:

• for capital-regional transmission markets: the building of a fibre link to connect a regional town with an existing optical-fibre network which is connected to a capital city

¹⁹¹ Telstra, Supporting Submission to First Application (public version), p. 12.

Optus, Submission to First Discussion Paper (public version), p. 25.

¹⁹³ Telstra, Supporting Submission to Second set of Application (public version), p. 17-18.

• for capital-regional and inter-exchange transmission markets: the upgrade of existing network infrastructure to increase capacity to offer wholesale services.

The ACCC considers that where there is already effective competition and/or contestability in a market 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 consumers to seek transmission services from alternative providers and for those providers to make the necessary efficient investments in order to meet that demand.

'Future with'

If the exemptions were to be granted, consumers would be able to acquire transmission services from the same suppliers, except those reselling a regulated transmission service from Telstra.

The impact on consumers of a 'future with' compared to a 'future without' granting the proposed exemptions will depend on:

- whether access seekers currently obtaining regulated transmission services can obtain the service on similar terms from a commercially negotiated agreement
- the likelihood of optical fibre owners that have existing networks which could offer competitive transmission services but which require additional investment to do so will in fact undertake the required investment
- whether there would be stronger competitive pressure from existing infrastructure based providers of transmission services as they gain more scale possibly resulting in more competition in the supply of transmission services at the wholesale level and subsequently downstream markets.

Availability of commercially negotiated supply of transmission services

Through industry inquiries the ACCC understands that transmission services are offered on some capital-regional routes and in some ESAs at competitive rates by suppliers other than Telstra, including Optus, Nextgen and PipeNetworks.

Likelihood of entry into supply of transmission services using existing optical fibre infrastructure

It is difficult to predict behaviour in relation to the possibility of entry into the transmission market were the exemptions to be granted. However, the ACCC believes that the presence of optical fibre networks which meet the 1 km criteria for a capital-regional route or are located at a Telstra exchange for inter-exchange transmission is a strong indication that transmission services are capable of being provided using that optical fibre without prohibitive sunk costs.

Increased competitive pressure

It is the ACCC's view that if granting the exemptions encouraged entry into the market for the supply of transmission services by existing optical fibre owners that this is likely to translate into increased competition at the retail level.

Comparing 'future without' to 'future with'

The ACCC considers that the removal of the regulated DTCS on the capital-regional routes and for inter-exchange transmission between the ESAs listed in **Appendix D** will provide an incentive for owners of optical fibre networks to provide transmission services or upgrade their networks in order to do so. This is on the reasoning that if there is a SSNIP in provision of the DTCS and there is capacity on existing fibre networks (or the ability to easily create such capacity) it would seem likely that these infrastructure owners would supply a wholesale transmission service to access seekers, which could provide a competitive tension on Telstra's price of DTCS. On this basis the ACCC is of the view that granting the exemptions set out in **Appendix D** will result in a future which creates an environment that encourages increased competition in the supply of transmission services.

Wholesale level

The question of whether granting the exemptions in the First and Second set of Applications is important as the DTCS is an input to the supply of downstream services.

'Future without' and 'Future with'

If the exemptions were not granted, access seekers would be able to acquire transmission services from the same sources as a retail customer as well as the regulated DTCS from Telstra. Otherwise, the ACCC considers that the same conclusions about a 'future without' and a 'future with' regulated DTCS services at the retail level apply to the wholesale level.

Comparing 'future without' to 'future with'

For the same reasons as at the retail level, the ACCC concludes that granting exemptions on the capital-regional routes and for inter-exchange transmission between the ESAs listed in **Appendix D** will result in a future which creates an environment that encourages increased competition in the supply of wholesale transmission services.

Will granting the exemptions remove obstacles to end-users gaining access to "the services" in question?

As discussed above, the ACCC considers that the granting of exemption from DTCS on the capital-regional routes and for inter-exchange transmission between the ESAs listed in **Appendix D** will result in the promotion of competition in the supply of transmission services. On this basis the ACCC is of the view that granting the exemptions will also remove obstacles (in the sense of price-related barriers) to endusers obtaining access to transmission services on the capital-regional routes and for inter-exchange transmission between the ESAs listed in **Appendix D**.

7 Any-to-any connectivity

The objective of 'any-to-any' connectivity is achieved if, and only if, each end-user of a service that involves communication between end-users is able to communicate, by means of that service or a similar service, with every other end-user even where they are connected to different telecommunication networks.¹⁹⁴

The ACCC has also noted that:

When considering other types of services (for example, carriage services which are an input to an end-to-end service or a distributive service such as the carriage of pay television) it will be given 'little, if any, weight'. ¹⁹⁵

Industry Submissions

First Application

Telstra submits in regard to the August Applications that the exemptions would not have a bearing on any-to-any connectivity.¹⁹⁶

Optus did not comment on any-to-any connectivity. However, CTN raised concerns that the needs of people with disabilities are considered and incorporated into a network design and that 'any-to-any connectivity between deaf people encompasses a broader view of technology platforms'. 197

Second set of Applications

Telstra submitted in regard to the December Applications that the exemptions would not have a bearing on any-to-any connectivity.

...given that the Exemption Applications are premised upon the existence of adequate alternative sources of supply, there is unlikely to be any detrimental impact on any-to any connectivity. ¹⁹⁸

Internode points to the fact that Telstra has a ubiquitous network, including the copper CAN which is not replicated completely by any other infrastructure owner. 199 Internode states that:

If access seekers were unable to utilise this network, they would have great difficulty connecting to their customers because of gaps in alternative networks. 200

Further, Internode submits that:

71

See section 152AB(8) of the TPA.

¹⁹⁵ ACCC, Declaration Guide, p. 53.

¹⁹⁶ Telstra, Supporting submission to First Application (Public Version), August 2007, p. 20.

¹⁹⁷ Consumers Telecommunications Network, Letter to ACCC titled '*Telstra*'s transmission exemption applications', 9 November 2007, p. 2-3.

Telstra, Supporting Submission to Second set of Application (Public Version), December 2007, p. 20.

¹⁹⁹ Internode, Submission to Second Discussion Paper, p 9.

²⁰⁰ Ibid.

It is very unlikely that all other DCT providers connect to each other. As such, until significant amounts of fibre is deployed it will not be possible to connect to other DCT providers. ²⁰¹

No other submissions were made concerning any to any connectivity.

Telstra's response

Telstra noted in their response to the concerns raised that any exemption in this area would be contrary to the ACCC's view in its 2004 declaration.²⁰²

ACCC's views

The DTCS is an input to the delivery of end-to-end services. As such the ACCC considers that the any-to-any criterion should be given less weight than is given to promoting competition and economically efficient use of, and the economically efficient investment in, telecommunications infrastructure.

The ACCC considers that there is evidence of alternative infrastructure in some capital-regional routes and ESAs proposed for exemption, as set out in **Appendix D**. The ACCC does not expect that granting an exemption from the SAOs in relation to the supply of the DTCS where alternative infrastructure exists will detract from the achievement of any-to-any connectivity.

²⁰¹ Ibid

²⁰² Telstra, Response to Second Discussion Paper, (public version), p 21.

8 Economically efficient use of, and economically efficient investment in, infrastructure

In determining whether granting the exemption orders will promote the LTIE, the ACCC must have regard to the extent to which granting the exemption is likely to result in the objective of encouraging the economically efficient use of, and economically efficient investment in:

- the 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.²⁰³

In considering these objectives, the ACCC must have regard to the following matters:

- the technical feasibility of supplying and charging for the eligible service
- legitimate commercial interests of the access provider
- incentives for investment in the existing infrastructure used to supply the eligible service and
- incentives for investment in new infrastructure which could be used to supply the eligible services.²⁰⁴

There is a strong relationship between the assessment of promotion of competition and the assessment of encouraging the efficient use of, and the economically efficient investment in infrastructure.²⁰⁵

In the ACCC's view, the phrase 'economically efficient use of, and economically efficient investment in... infrastructure' requires an understanding of the concept of economic efficiency. This concept consists of three components:

- *Productive efficiency* this is achieved where individual firms produce the goods and services that they offer at least cost.
- Allocative efficiency- this is achieved where the prices of resources reflect their underlying marginal costs so that resources are allocated to their highest valued uses (i.e. those that provide the greatest benefit relative to costs).
- Dynamic efficiency- this is achieved when firms and industries make timely investments in and changes to technology and products in response to changes in consumer tastes and in productive opportunities.

²⁰⁴ TPA, s. 152AB(6) and 7(A).

²⁰³ TPA, s. 152AB(2)(e).

In the context of s. 152AB(2)(c) and (e) of the TPA.

The Tribunal has noted that:

The inclusion of the term "economically" in s. 152AH(1)(f) suggests that the concepts of allocative, productive and dynamic efficiency should be considered. Allocative efficiency will be best promoted where the price of a service reflects the underlying marginal cost of providing the service. ²⁰⁶

The key question is the extent to which granting the exemptions are likely to encourage productive, allocative and dynamic efficiency. Whether such efficiencies will be, in fact, improved, is highly relevant to, but not determinative of, this issue. It is highly relevant in that the 'efficient use of' criterion substantially reflects the economic concepts of allocative efficiency and productive efficiency, and the 'efficient investment in' criterion closely overlaps with the economic concept of dynamic efficiency. It is, however, not ultimately determinative of the issue, as the determinative criteria are the legislative criteria for the promotion of the LTIE which are informed substantially, but not exclusively, by economic concepts of efficiency. The key issue therefore is whether granting the exemptions will create an environment whereby the participants have increased incentives to undertake efficient use of, and efficient investment in, infrastructure.²⁰⁷

As the level of competition in upstream transmission markets increases, whether it is through declaration of a service or through market forces, productive and dynamic efficiency should increase because competition should stimulate service providers both to innovate and to reduce the costs of providing services. Competition would also be expected to lead to improved allocative efficiency more closely with underlying marginal costs as access providers and access seekers seek to align the final prices paid by end-users, as a mechanism to compete in the downstream market.

8.1 Technical feasibility of supplying DTCS

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

- whether supplying, and charging for, the services is feasible in an engineering sense (i.e. having regard to the technology that is in use or available);
- the costs involved in supplying, and charging for the services, and whether these costs are reasonable and
- the effects or likely effects that supplying, and charging for, the services would have on the operation or performance of telecommunications networks.

Given that access providers already supply the DTCS, the ACCC does not believe the granting (or otherwise) of the exemptions has a bearing on the technical feasibility of supplying or charging for the DTCS. This is because granting an exemption will not

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²⁰⁶ Telstra Corporation Limited [2006] ACompT at [94].

ACCC, *Declaration Guide*. While this publication specifically referred to declaration provisions of the Act, the ACCC is of the view that the relevant comments made are equally applicable to assessment of exemption applications.

have a bearing on the ability of access providers to offer the service if they choose to do so.

The ACCC observed in its competition analysis that there are some capital-regional routes and ESAs where the ACCC considers that there is effective competition and that this is likely to be translated into increased competition in downstream markets. When markets are more competitive, service providers have a greater incentive to reduce prices in order to gain market share.

8.2 Legitimate commercial interests of suppliers of the service

In relation to considering the legitimate commercial interests of an access provider, Telstra submits that the correct approach is to ask whether the service provider will be able to earn an appropriate commercial return from providing the service. Telstra's position is that where there are competitive conditions, market forces will prevent Telstra from making more than a 'reasonable risk adjusted return on its efficient costs.' 209

In this case, the issue is whether granting the exemption would be contrary to Telstra's legitimate business interests. The issue of whether Telstra may be able to earn a return greater than a risk adjusted competitive return is a related but separate question that is relevant to considering how competitive its operating environment is. The fact that Telstra has made the exemption application would tend to suggest that an exemption is not likely to be contrary to its legitimate business interests.

The ACCC notes that consideration of an access provider's legitimate commercial interests is a key issue when developing appropriate pricing principles for the DTCS - an issue that will be discussed in depth as part of the DTCS 2008 Declaration Review.

8.3 Incentives for investment

Submissions - First Application

In considering the effect on the incentives of suppliers for transmission services to invest in existing or new infrastructure from granting or refusing the exemption applications, Telstra asserts that 'regulation can harm the LTIE through distorting efficient investment incentives.' In Telstra's view maintaining regulation discourages investment in infrastructure as it has an asymmetric effect on returns by restricting earnings in 'good years' and not compensating for below average returns in 'bad years'. On these grounds removing regulation where there is existing competition is,

Telstra, Supporting Submission to First Application (Confidential Version), August 2007, p. 13.

²⁰⁸ Ibid., p. 13.

²⁰⁹ Ibid

Telstra, Submission to First Discussion Paper (public version), p. 10.

in Telstra's opinion, likely to increase an access provider's incentives to upgrade and invest in its infrastructure and in alternative infrastructure to deliver the DTCS.²¹²

Telstra submits that granting the exemption will not have any effect on the efficient use of infrastructure but will promote facilities based competition by encouraging investment in competing infrastructure. 213 Telstra points to the existence of competition amongst fibre operators on routes nominated for exemption as an incentive for operators to maximise use of optical fibre infrastructure. 214

Optus addresses issues of investment with respect to the First Application in its submissions on the distance thresholds for geographical market definition. ²¹⁵ Optus submits that the owner of an optical fibre network which lies a significant distance away from a regional centre would need to build a spur line to take advantage of a change in market conditions and that this constitutes a significant, irreversible new investment.²¹⁶ Optus submits further, the cost required to build a new spur line to the regional town could exceed expectations of revenue and that this would make investment by competing carriers uneconomic.²¹⁷

Optus also draws attention to the risk that Telstra may reduce its prices after a spur has been built by a competitor, stranding the new entrant's assets. Optus also notes that on many routes two competitors may not be viable.²¹⁸

Submissions - Second set of Applications

Telstra submits that granting the Second set of Applications exemptions is likely to remove disincentives for it to invest, and enhance its incentives to maintain, improve and expand its fixed network infrastructure.²¹⁹ It also submits that granting the exemptions in the Second set of Applications would encourage facilities-based competition. This is based on the argument that granting the exemptions would increase certainty of returns on Telstra's investment in new infrastructure and that Telstra's competitors would have an increased incentive to invest as 'they could not rely on regulatory errors in access prices for Telstra's infrastructure.' 220

PipeNetworks agrees with Telstra's assertion that granting the exemptions in the Second set of Applications would encourage efficient investment and states that it would invest in further infrastructure where there is a demonstrated customer demand.²²¹ However, PipeNetworks submits that in order to realise efficient investment

²¹² Ibid., p. 11. Telstra, Submission to First Discussion Paper (public version), November 2007, p. 10.

Optus, Submission to First Discussion Paper (public version), p. 6-13.

²¹⁶ Ibid., p. 10.

²¹⁷ Ibid., p. 12.

²¹⁸ Ibid., p. 16.

Telstra, Submission to Second Discussion Paper (public version), p. 19-20.

Ibid., p. 15, 19.

²²¹ PipeNetworks, Submission to Second Discussion Paper (public version), p. 4.

in alternative infrastructure a streamlined process for access to Telstra exchanges is required. 222

Internode submits that the declaration of DTCS has allowed access seekers to build a customer base and revenue stream which is necessary to commence investment in infrastructure. ²²³ Internode also argues that inefficient investment in infrastructure would be required and inefficient use of Telstra's existing capacity would occur if the DTCS was not declared. ²²⁴

Internode also submits it does not anticipate any impact on Telstra's incentives to invest in infrastructure if the exemptions in the Second set of Applications are granted.²²⁵ Further, Internode argues that given the uncertainty surrounding FTTN it is unlikely that anybody would be willing or able to commit to the level of investment required to replicate Telstra's network to provide DTCS.²²⁶

A number of submissions noted that potential customer demand for transmission services is an important factor for a supplier in deciding whether to invest further in infrastructure.

Telstra submits that fibre networks are usually built with excess capacity to cope with future demand as well as current demand and that the current CAN copper network has the capacity to meet existing demand for 2 Mbps tail-end transmission.²²⁷

Optus submits that the ACCC's pricing principles for the DTCS provides price guidance for suppliers of transmission services which is of consideration in a build/buy decision. In particular, Optus notes that the ACCC has set pricing principles for the DTCS according to the efficient cost of supplying the DTCS and including a normal commercial return on investment. Optus submits that the pricing principles 'provide the most accurate signal to guide an access seeker to make its build or buy decision without distortion, and thus promote efficient investment in infrastructure.' Optus submits that

By removing the signal, the proposed exemption can only diminish the incentives for efficient investment. In the case where the access seeker is 'forced' to invest in its network rather than use the more efficient option of using the incumbent's network, it will not satisfy the efficient investment criterion. An economic entity forced to invest can hardly ever be efficient – for if it was an efficient investment, the access seeker would have already invested in these projects. ²²⁹

In relation to tail-end DTCS, Optus submits that due to significant barriers to entry it is unlikely that granting the exemptions in the Second set of Applications would result in any additional investment for the provision of tail-end transmission services and that

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²²² Ibid. p. 5.

Internode, Submission to Second Discussion Paper, p. 10.

²²⁴ Ibid., p. 9.

²²⁵ Ibid., p. 10.

²²⁶ Ibid.

Telstra, Submission to Second Discussion Paper (public version), p. 18-19.

Optus, Submission to First Discussion Paper (public version), p. 20.

²²⁹ Ibid.

additional investment which did occur as a result of granting any exemptions would be inefficient.²³⁰

... even if the proposed exemption did motivate additional investment in infrastructure capable of substituting for the DTCS, it would cause a deterioration in technical efficiency since it would result in the supply of services to some customers through a more costly infrastructure than is currently the case. ²³¹

ACCC view

The ACCC agrees with submissions that incentives for efficient investment in existing and new infrastructure are predominately driven by the price and potential demand for transmission 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. Telstra has submitted evidence of increased demand over the period from 2004 to 2008 as discussed in section 6. In addition, the ACCC considers that future demand for transmission services is likely to increase due to the trend towards uptake of internet services and the convergence of telephony, television and internet services.

The ACCC considers that operators with existing optical-fibre networks which meet the 1 km criteria for a capital-regional route or are located at a Telstra exchange for inter-exchange transmission but which are not currently providing transmission services, would need to make additional investments to enter into the market. This investment would either be:

- for capital-regional transmission markets: the building of a fibre link to connect a regional town with an existing optical-fibre network which is connected to a capital city
- for capital-regional and inter-exchange transmission markets: the upgrade of existing network infrastructure to increase capacity to offer wholesale services.

As discussed in section 6, the ACCC considers that the presence of optical fibre networks which meet the 1 km criteria for a capital-regional route or are located at a Telstra exchange for inter-exchange transmission is a strong indication that transmission services are capable of being provided using that optical fibre without prohibitive sunk costs. Further, the ACCC considers that the removal of the regulated DTCS service may provide an incentive for owners of optical fibre networks to make such an investment either to meet increasing demand or in response to a SSNIP in the provision of the DTCS.

The ACCC notes Optus' concerns regarding the risk of new investment in infrastructure, however, it is of the view that these risks are significantly reduced where the investment required to compete in a transmission market is limited to building at

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²³⁰ Ibid., p. 19.

²³¹ Ibid.

most a 1 km link to connect a regional town with an existing fibre network (for capital-regional transmission) or to upgrade the capacity of an existing optical fibre network.

The ACCC notes that Telstra has not provided any evidence to support its assertions regarding regulation resulting in asymmetric returns or 'regulatory errors in access prices'.

8.4 Conclusion on encouraging economically efficient use of, and economically efficient investment in, infrastructure

The ACCC considers that where there are operators with existing optical-fibre networks which meet the 1 km criteria for a capital-regional route or are located at a Telstra exchange for inter-exchange transmission but which are not currently providing transmission services, removal of regulation will result in an environment that encourages incentives to invest in infrastructure which would result in a more efficient use of existing infrastructure. The ACCC is of the view that removing regulation in these circumstances could provide increased competitive tension at the wholesale level which would constrain Telstra's ability to price its DTCS services above competitive levels in areas where exemptions are granted.

The ACCC considers that on capital-regional routes and in metropolitan and CBD ESAs which do not meet the competition thresholds set out in section 6 Telstra continues to face little competitive restraint when negotiating terms and conditions of access to the DTCS and therefore is likely to have little incentive to set prices at levels consistent with those expected in a competitive market. On this basis the ACCC concludes that maintaining regulation in those cases will result in an environment that encourages the efficient use of existing infrastructure.

9 Conclusion on LTIE

9.1.1 LTIE test

Submissions

Nicholls Legal provided a submission to the ACCC on behalf of the Competitive Carriers' Coalition in relation to a number of exemption applications lodged by Telstra.²³² The submission relate to the proper interpretation of the test for granting exemptions in section 152AT of the TPA.

Nicholls Legal submits that the test in sub-section 152AT(4) of the TPA is a strict test and represents a high hurdle to be overcome by Telstra, for the following reasons:

- the test represents a "higher hurdle" than other tests in Part XIC of the TPA
- the test requires that the ACCC must be "positively satisfied" that the exemption sought will promote the LTIE
- the test is a "strict" test, rather than a "discretionary" one
- the ACCC must be satisfied that the exemption sought will promote the LTIE and
- Telstra bears the onus of proving that the test in sub-section 152AT(4) has been satisfied.²³³

ACCC's views

The relevant test for the ACCC to apply in determining whether to grant an exemption application is set out in section 152AT of the Act. This test requires the ACCC to be satisfied that the granting of exemptions will promote the LTIE of carriage services or of services provided by means of carriage services. The same test applies to assessing a class exemption under section 152AS. The ACCC does not find it necessary to consider whether or not this test involves a "higher hurdle" than other tests in Part XIC.

In determining whether granting the Exemption Applications will promote the LTIE, regard must be had to the extent to which granting the exemptions would be likely to result in the achievement of the following objectives:

- promoting competition in markets for listed services;
- achieving any-to-any connectivity in relation to carriage services that involve communication between end-users; and

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Nicholls Legal, Submission on behalf of the Competitive Carriers' Coalition, Inc. in relation to Telstra's declaration exemption applications, 18 March 2008.

²³³ Ibid., p. 2-3.

encouraging 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.²³⁴

The criteria for assessment of the LTIE is further set out in **Appendix C**.

The ACCC does not consider that it needs to form any view on which party, if any, bears the onus of proving that the relevant test has been satisfied. Regardless of which parties provide relevant information, the only relevant consideration for the ACCC is whether it is satisfied that the making of the order will promote the LTIE of carriage services or of services provided by means of carriage services.

In the FSR2 the ACCC set out the three main steps in the general framework for reviewing existing service declarations, within the LTIE framework:

- *enduring bottlenecks* assessing over which elements of fixed-line networks 'enduring bottlenecks' are likely to persist in the foreseeable future
- assessment of the state of competition assessing the state of competition in the relevant markets (including consideration of the geographic dimension of markets based on up-to-date empirical information) and the extent to which ongoing declaration is required to promote competition in these markets and
- assessment of remaining LTIE criteria— determining whether the declaration (including its current scope) is required to promote the LTIE.

This framework is also relevant to assessing whether granting the exemptions requested in the First Application and Second set of Applications is in the LTIE.

In making its decision, the ACCC has had regard to (and only to, as mandated by section 152AB(3)) the objectives set out in section 152AB(2). The ACCC's conclusion on granting the exemptions requested by Telstra on the LTIE is set out in this section.

9.1.2 Enduring bottlenecks

In the FSR2, the ACCC took the view that *ex ante* regulation under Part XIC of the Act should focus on those elements of the fixed-line network that continue to represent enduring bottlenecks. This is because duplication of these network elements may be economically inefficient and/or the bottleneck nature of the service means that an access seeker cannot provide an end-to-end service without access to an essential service.

For elements of the fixed-line network where an enduring bottleneck does not persist, the ACCC will be inclined to progressively withdraw access regulation where it is confident that declaration is not required to promote the LTIE. This approach is based on the principle that because rivals are able to differentiate their services and compete

²³⁴ See section 152AB of the TPA.

more vigorously across greater elements of the network supply chain, the gains from facilities-based competition (or the credible threat of such competition) are more likely to promote the LTIE.

It is also based on the principle that, for services/network elements which are not enduring bottlenecks, competitors that do not wish to invest in their own infrastructure will more than likely have the opportunity to enter into commercially negotiated arrangements with third parties (or the incumbent) without the need for *ex ante* regulatory intervention.

The ACCC notes that evidence of replicability is not necessarily a sufficient condition to determine the absence of enduring natural monopoly cost conditions. In the first instance, investment in competing facilities does not necessarily mean an infrastructure investment is efficient. Secondly, the existence of alternative infrastructure is insufficient, in and of itself, to warrant the removal/adjustment of regulation; just as the absence of alternative infrastructure is not necessarily sufficient to satisfy a case for the continued declaration of a service.

In terms of information on telecommunications infrastructure in Australia, the infrastructure RKR and CAN Data will assist the ACCC's analysis on the nature and location of enduring bottlenecks across different geographic regions in Australia.

Telstra's views

Telstra submits that DTCS should not be considered an enduring bottleneck. It considers there to be 'workable competition' on a DTCS route where there are at least three optical fibre operators (including Telstra). ²³⁵ Telstra also believes that the presence of two optical fibre competitors (including Telstra) demonstrates that optical fibre based transmission is economical to duplicate on that route. ²³⁶

In relation to tail-end transmission, Telstra submits that transmission of up to 2 Mbps should not be considered an enduring bottleneck as other service providers can replicate it using declared ULLS, in conjunction with DSLAM or other network equipment that can be co-located in a Telstra exchange.²³⁷

Telstra submits that it is also possible that alternative technologies, such as microwave could be included when determining the level of competition in the market. Telstra, however, has not considered the issue of alternative technologies further.²³⁸

Industry's views

Optus considers that the infrastructure by which Telstra provides DTCS is an enduring bottleneck.²³⁹

²³⁵ Telstra, Supporting Submission to First Application (public version), p. 8.

²³⁶ Ibid

Telstra, Submission to First Discussion Paper (public version), p. 4.

Telstra, Supporting Submission to First Application (public version), p. 3.

Optus, Optus Submission to Second Discussion Paper (public version), p. 19.

Optus submits that Telstra's network has ample capacity, and that the existence of alternative infrastructure does not necessarily mean that Telstra's network is not a natural monopoly, since these networks may represent inefficient duplication.²⁴⁰ Optus believes Telstra's network has natural monopoly characteristics and the current access regime leads to an efficient use of the network.²⁴¹

Internode submits that the DTCS for CBD and metropolitan inter-exchange, and tailend services, should be considered an enduring bottleneck. Internode notes that Telstra remains the dominant provider in all these areas.²⁴² Internode believes that upfront and sunk costs of network build remain a barrier to entry for competitors seeking to provide network coverage that can compete with Telstra on an end-user or exchange reach basis.²⁴³

The ACCC notes that Telstra has provided a supplementary submission which includes a critique of Internode's submission that the DTCS remains a bottleneck.²⁴⁴

In relation to CBD inter-exchange and tail-end transmission services, PipeNetworks endorses the evidence presented by Telstra that these services are not enduring bottlenecks. ²⁴⁵ However, with respect to metropolitan services, PipeNetworks submits that there is not strong evidence pointing to the presence of competing DTCS infrastructure in metropolitan and regional areas. ²⁴⁶

The ACCC's view

In general, the ACCC considers that transmission networks are enduring bottlenecks. There are high sunk costs involved in building transmission networks potentially making it economically inefficient to duplicate existing transmission network infrastructure. It is also the case that in order to supply downstream services, access to a transmission network is essential.

Where there is empirical evidence of providers other than Telstra building alternative transmission networks, the ACCC considers that the existence of actual or potential competitors in the relevant geographic and product market is likely to mean that the particular transmission market is no longer a bottleneck.

The ACCC considers that capital-regional routes and metropolitan and CBD ESAs which do not meet the relevant competition criteria remain bottlenecks and that removing regulation in these areas will not result in the efficient use of infrastructure. For these areas, the access provider continues to face little competitive restraint when negotiating terms and conditions of access to the DTCS and therefore is likely to have little incentive to set prices at levels consistent with those expected in a competitive

241 Ibid.

²⁴⁶ Ibid.

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²⁴⁰ Ibid.

²⁴² Internode, Submission to Second Discussion Paper, p. 2.

²⁴³ Ibid

Telstra, Submission to the Australian Competition and Consumer Commission - Response to Submissions of Interest Parties on ACCC Discussion paper (public version).

PipeNetworks, Submission to Second Discussion Paper (public version), p. 3.

market. In other words where an enduring bottleneck persists in the provision of DTCS, the ACCC will be disinclined to remove regulation.

9.1.3 Promotion of competition

The ACCC concludes that where there is effective competition or contestability in a transmission market, granting an exemption from the DTCS in that market will not be detrimental to the objective of promotion of competition. On the contrary, competition and consequentially the LTIE will be promoted where regulation is removed through existing optical fibre infrastructure owners, which meet the competition criteria set out in section 6.1, being encouraged to supply transmission services to meet demand arising due to increases in the price of transmission by Telstra or due to the increasing take up of downstream services.

The ACCC has relied on empirical evidence obtained through the CAN Data and Infrastructure RKR and where appropriate, industry inquiries to determine the existence of optical fibre infrastructure.

9.1.4 Other LTIE criteria

The ACCC concludes that granting or declining the exemption will not impact on the objective of any-to-any connectivity.

In relation to the final LTIE objective, encouraging the economically efficient use of and investment in infrastructure, the ACCC concludes that where there is effective competition or contestability in a transmission market, granting of an exemption from the DTCS in that market will create an environment which encourages incentives to invest in existing optical-fibre networks to increase capacity or build fibre links from regional towns to optical fibre networks which pass within 1 km of a regional town but do not currently provide transmission service to that market and will therefore promote the LTIE.

9.1.5 Conclusion

On the basis of the reasoning in this report the ACCC considers that on balance granting the exemptions set out in **Appendix D** will promote the LTIE. Draft orders for the proposed individual exemptions are set out at **Appendices E**, **F** and **G**.

10 Timing of the exemptions

Submissions

Optus submits that if granted, the exemptions in the Second set of Applications should commence after a period of two years to allow investment opportunities to be considered and customer transition arrangements to be made. Optus also submits this period of time is required for a wholesale transmission market, which would replace the DTCS, to develop.²⁴⁷

Optus also submits that the exemptions for the Second set of Applications, if granted, should apply for a limited period of two years and that monitoring conditions of Telstra's conduct regarding the provision of DTCS be introduced.²⁴⁸

Telstra submits that a phase in period of two years would not be in the LTIE and that any exemption order should not expire before December 2012.²⁴⁹ Telstra submits this period of time would promote regulatory certainty.²⁵⁰

ACCC's view

The ACCC notes that in other exemption applications, a phase in period of 12 months has been applied to allow access seekers time to adjust their business plans and make alternative arrangements.²⁵¹ The ACCC is of the view that the same phase in period should apply to any exemptions granted for DTCS.

This 12 month transition period will provide an opportunity for users of the DTCS in areas which are proposed to be exempted to:

• make any necessary alterations to their current business plans and negotiate supply arrangements with Telstra or a third party on a commercial basis;

and for owners of fibre infrastructure to:

 have sufficient time to expand the capacity of existing fibre networks or invest in other infrastructure that is required to supply capital-regional or inter-exchange services.

The ACCC's draft view is that the exemptions should be granted for a limited period and should expire on 21 December 2012 or the expiry or revocation of the DTCS declaration, whichever occurs first. The ACCC's view is this period of time is sufficient to promote regulatory certainty.

Telstra, Response to Submissions of Interest Parties on ACCC Discussion paper (public version), p 13-14.

Optus, Submission to Second Discussion Paper, p. 22 (public version).

²⁴⁸ Ibid.

²⁵⁰ Ibid.

²⁵¹ ACCC, Future Scope of the Local Carriage Service – Final Decision, 2002.; ACCC, Telstra's local carriage service and wholesale line rental exemption applications – Final Decision and Class Exemption, August 2008.

The ACCC notes that the current expiry date of the DTCS declaration is 31 March 2009 – before the exemption order will commence. Accordingly, if the DTCS declaration was allowed to expire, the exemption order would become redundant. If however, the DTCS declaration was extended or varied, the exemption order will apply in respect of that service.

The ACCC does not consider that, in this case, imposing monitoring conditions as part of the exemption order is appropriate. The ACCC considers, on the basis of existing alternative infrastructure, that the routes and ESAs proposed for exemption are already competitive and/or contestable.

11 Class exemption

In addition to granting individual exemptions from SAOs under section 152AT of the Act, the ACCC is able, under section 152AS, to determine that each of the members of a specified class of carrier or a specified class of carriage service provider is exempt from any or all of the obligations in section 152AR.

Under subsection 152AS(5) of the Act, before making a class exemption, the ACCC must publish a draft of the exemption determination and invite submissions where the ACCC is of the view that the granting of the exemption is likely to have a material effect on the interests of a person. The ACCC publishes a draft of the proposed DTCS class determination at **Appendix H** of this Draft Decision document, and calls for submissions on whether a class exemption should be made, and whether it should be subject to conditions and/or limitations.

Pursuant to subsection 152AS(4) of the Act, the ACCC must not make a class exemption unless it believes that granting the exemption order will promote the LTIE as defined in section 152AB of the Act.

ACCC's Views

The ACCC is of the view that making class exemptions under section 152AS of the Act, with respect to the supply of DTCS in the geographic areas the subject of the individual exemption order, would be in the LTIE for the same reasons that an individual exemption order under section 152AT of the Act is in the LTIE.

Granting the class exemption would be in the LTIE as it will promote facilities based competition in the capital-regional and inter-exchange transmission markets, with the flow-on competition benefits to downstream markets and end-users. The ACCC also considers that a class exemption of the same scope as the individual exemption would promote more efficient use of and investment in infrastructure.

Failing to grant a class exemption once Telstra's individual exemption orders have come into effect would mean that the incentives for fibre infrastructure owners to compete in the market for transmission services and invest in their own infrastructure could be diminished because access seekers could enforce the SAOs related to DTCS from another supplier which offered transmission services in an area proposed for exemption.

Therefore, the ACCC's draft view is that it is in the LTIE to grant class exemptions from the SAOs as they relate to the supply of the DTCS on the capital-regional routes and in the ESAs listed in **Appendix D** pursuant to section 152AS of the Act.

The ACCC draft view is that the class determinations should commence on the same day as Telstra's individual exemption order. The ACCC does not consider that it would promote competition or encourage efficient use of, or investment in, infrastructure for the class exemption to commence any earlier than Telstra's individual exemption orders.

The ACCC draft view is that it does not consider that there is a need to include any conditions on the class exemption.

The ACCC now seeks submissions on grant of a class exemption from the DTCS on the capital-regional routes and in the ESAs listed in **Appendix D**.

Appendix A: Capital-regional routes and ESAs Telstra Proposes for exemption

Table 1: Capital-regional DTCS routes for exemption

Capital City	Regional Town
Adelaide	Port Augusta
Brisbane	Bundaberg
Brisbane	Cairns
Brisbane	Gladstone
Brisbane	Mackay
Brisbane	Maryborough
Brisbane	Rockhampton
Brisbane	Townsville
Melbourne	Wangaratta
Melbourne	Warragul
Sydney	Armidale
Sydney	Bega*
Sydney	Campbelltown
Sydney	Coffs Harbour
Sydney	Gosford
Sydney	Goulburn
Sydney	Penrith*
Sydney	Tamworth
Sydney	Wagga Wagga
Sydney	Wauchope

^{*} Telstra subsequently submitted that fewer than two competitors, including itself, were operating on this route.

Table 2: CBD exchange service areas for exemption from declared DTCS services in respect of inter-exchange and tail-end capacity

CBD Name	Exchange Service Area Name
Sydney	City South
Sydney	Dalley
Sydney	Haymarket
Sydney	Kent
Sydney	Pitt
Brisbane	Charlotte
Brisbane	Edison
Brisbane	Roma Street
Brisbane	Spring Hill
Adelaide	Flinders
Adelaide	Waymouth
Melbourne	Batman
Melbourne	Exhibition
Melbourne	Lonsdale
Perth	Bulwer
Perth	Pier
Perth	Wellington

Table 3: Metropolitan exchange service areas for exemption from declared DTCS services with respect to inter-exchange and tail-end capacity

Sydney	Ashfield, Balgowlah, Balmain, Bankstown, Baulkham Hills, Blacktown, Blakehurst, Botany, Burwood, Campsie, Carlingford, Carramar, Castle Hill, Chatswood, Concord, Coogee, Cremorne, Cronulla*, Dee Why, Drummoyne, East, Edgecliff, Epping, Edensor Park, Eastwood, Five Dock, Frenchs Forest, Glebe, Granville, Harbord, Homebush, Hornsby, Hunters Hill, Hurstville, Kellyville, Kensington, Killara, Kingsgrove, Kogarah, Lakemba, Lane Cove, Lidcombe, Lindfield, Liverpool, Mascot, Matraville, Miranda, Mosman, Northbridge, Newtown, North Parramatta, North Ryde, North Sydney, Parramatta, Peakhurst, Pendle Hill, Pennant Hills, Petersham, Ramsgate, Randwick, Redfern, Revesby, Rockdale, Rooty Hill, Rose Bay, Rydalmere, Ryde, Seven Hills, Silverwater, South Strathfield, St Leonards, St Marys, Undercliffe, Vaucluse, Wahroonga, Waverley, Willoughby
Melbourne	Ascot, Brunswick, Caulfield, Coburg, Elsternwick, Footscray, Heidelberg, Malvern, Moreland, North Melbourne, Newport, Port Melbourne, Preston, Richmond, South Melbourne, St Kilda, Toorak
Brisbane	Paddington, South Brisbane, Toowong, Valley, Woolloongabba,
Beaudesert	Nerang, Ashmore, Southport,
Adelaide	Gepps Cross, Glenunga, Hampstead, Norwood, Prospect, St Peters, Unley, West Adelaide
Canberra	Deakin, Mawson
Perth	Manning, South Perth, Subiaco

^{*} Telstra subsequently submitted that less than two competitors in addition to itself were operating in this ESA.

Table 4: Regional exchange service areas for exemption from declared DTCS services in respect of tail-end capacity

Regional centre Name	Exchange Service Area Name
Albury	Albury
Campbelltown	Campbelltown
Coffs Harbour	Coffs Harbour
Gosford	Gosford
Lismore	Lismore
Newcastle	Newcastle
Penrith	Penrith
Wagga Wagga	Wagga Wagga
Wollongong	Wollongong
Ballarat	Ballarat
Bendigo	Bendigo
Geelong	Geelong
Shepparton	Shepparton

Appendix B: Submissions

Telstra provided a number of submissions in support of the First and Second set of Applications:

First Application

Telstra, *Domestic Transmission Capacity Service Exemption Application – supporting submission* (public and confidential versions), August 2007.

Annexure 1 - Market Clarity, *Telecommunications Fibre Backhaul Infrastructure Summary for Selected Route* (public and confidential versions), 22 August 2007.

Annexure 2 - M Smart, *Economic report on domestic transmission capacity service exemptions*, CRA International (public and confidential versions), 23 August 2007.

Annexure 3 – Statement of [start c-i-c] [end c-i-c].

Annexure 4 – Statutory criteria and market definition.

Annexure 5 – Weblinks for examples of optical fibre transmission networks (public version only).

Second set of Applications

Telstra, Submission to the Australian Competition and Consumer Commission – Telsra's Domestic Transmisison Capacity Service Exemption Applications – Supporting Submission (public and confidential versions), 21 December 2007.

Appendix 1 - Statutory criteria and market definition (public version only).

Appendix 2 - Maps of areas that are the subject of Telstra's exemption applications (public version only).

Appendix 3 - M Smart, CRA International Statement of Michael Smart of CRA International on the economic considerations for Metro and CBD domestic transmission capacity service exemptions (public and confidential versions), 20 December 2007

Appendix 4 - Market Clarity, *Research report- Access fibre availability*, *transmission services and inter-exchange network connectivity* (confidential version only), 19 December 2007.

Appendix 5 - Market Clarity, *Fibre Deployment confidential report* (confidential version only), 19 December 2007.

Appendix 6 – Telsyte report on historic wholesale metro leased line prices (confidential version only).

Appendix 7 - Telsyte report on current wholesale metro leased line prices (confidential version only).

Appendix 8 - Statement of Craig Lordan (public and confidential versions).

Appendix 9 witness statement of [start c-i-c] [end c-i-c] (confidential version only).

Appendix 10 witness statement [start c-i-c] [end c-i-c] (public and confidential versions).

Appendix 11 witness statement [start c-i-c] [end c-i-c] (public and confidential versions).

Appendix 12 witness statement [start c-i-c] [end c-i-c] (public and confidential versions).

Appendix 13 witness statement of [start c-i-c] [end c-i-c] (confidential version only).

Appendix 14 supplementary witness statement of [start c-i-c] [end c-i-c] (confidential version only).

The First Application Discussion Paper:

Consumers; Telecommunications Network, Letter to ACCC titled '*Telstra*'s transmission exemption applications', 9 November 2007.

Telecommunications Consumer Group SA, letter to the ACCC dated 6 November 2007.

Optus, Optus Submission to Australian Competition and Consumer Commission on Telstra's exemption application for the domestic transmission capacity service (public and confidential versions), November 2007.

Telstra, Submission to the Australian Competition and Consumer Commission – Telstra response to questions from ACCC Discussion paper of October 2007 (public version only), November 2007.

The Second Application Discussion Paper:

AAPT and PowerTel, Submission by AAPT Ltd and PowerTel Ltd to the Australian Competition and Consumer Commission in response to the discussion paper Telstra's transmission exemption applications, February 2008.

Internode, *Telstra's Transmission Exemption Application – Submission by Internode*, 17 March 2008.

Optus, Optus submission to Australian Competition and Consumer Commission on Telstra's 2007 exemption applications for tail-end and inter-exchange transmission capacity services (public and confidential versions), April 2008.

PipeNetworks, *Telstra's transmission exemption applications* (public and confidential versions), 14 March 2008.

Telstra, Submission to the Australian Competition and Consumer Commission – Telstra response to questions from ACCC Discussion paper of February 2008 (public version only), November 2007.

Telstra's exemption applications generally

CCC, Submission on behalf of the Competitive Carriers' Coalition, Inc. in relation to Telstra's declaration exemption applications, 18 March 2008.

Response to information request for First Application

Telstra, letter to the ACCC 'Telstra's domestic transmission capacity service exemption application: request for further information' (public and confidential versions), 28 March 2008.

Attachment 1 - Telstra, *Response to Information Request dated 4 January* (public and confidential versions).

Attachment 1, Appendix 1 – PoP details for Bundaburg and Warragul (confidential version only).

Attachment 1, Appendix 2 – Comparison of road distance and fibre distance (public and confidential versions).

Attachment 1, Appendix 3 – Statement of Craig Lordan of Evans and Peck titled 'Estimated optical fibre installation costs within CBD areas' (2007) (public and confidential versions).

Attachment 1, Appendix 4 – Telstra declared and non-declared transmission prices (confidential version only)

Attachment 2.1 – Market Clarity, Letter to Mallesons Stephens Jaques, 6 March 2008 (confidential version only).

Attachment 2.2 - Market Clarity, Letter to Mallesons Stephens Jaques, 11 March 2008 (confidential version only).

Attachment 3 – Draft exemption order (confidential version only).

Attachment 4 - M Smart, *Domestic transmission capacity service exemptions - response to Optus Submissions* (public and confidential versions), 27 March 2008.

Attachment 5 – Statement of [**start c-i-c**] [**end c-i-c**] (confidential version only).

Attachment 6 – Statement of [start c-i-c] [end c-i-c] (confidential version only).

Attachment 7 – Note on calculating transmission spur costs (confidential version only).

Telstra, letter to the ACCC titled 'Telstra's domestic transmission capacity service "DTCS" exemption application of 24 August 2008' (public and confidential versions), 2 June 2008.

Telstra, letter to the ACCC titled 'Telstra's domestic transmission capacity service "DTCS" exemption application of 24 August 2008' (public and confidential versions), 10 June 2008.

Telstra, letter to the ACCC titled 'Telstra's domestic transmission capacity service "DTCS" exemption application of 24 August 2008' (public and confidential versions), 19 June 2008.

Response to information request for Second set of Applications

Telstra, Application for exemption in respect to the domestic transmission capacity service – response to information request 28 March 2008 (public and confidential versions), 30 June 2008

Attachment 1 - Telstra, *Response to Information Request dated 28 March* (public and confidential versions).

Attachment 1, Appendix 1 (1) – Optus Broadlink (public version only).

Attachment 1, Appendix 1 (2) – Pipe Dark Fibre (public version only).

Attachment 1, Appendix 2 – Utility operators with Telco business in Metro and CBDs (public versions).

Attachment 1, Appendix 3 – Statement of [start c-i-c] [end c-i-c] and attachment (confidential version only).

Attachment 1, Appendix 4 – Market Clarity survey question on CBD building fibre connections (confidential version only).

Attachment 1, Appendix 5 – RP Data Commercial report (confidential version only).

Attachment 1, Appendix 6 – Sample contracts (confidential version only) – two documents.

Attachment 1, Appendix 7 – Service description and bandwidth (confidential version only) – two documents.

Telstra, letter to the ACCC titled 'Telstra's Metro and CBD domestic transmission capacity service (DTCS) exemption applications', 17 July 2008.

Attachment- criteria for selection of ESAs in Exemption Area (public and confidential versions).

Attachment – Maps showing ESAs selected for exemption (confidential version only).

Attachment - Market Clarity, Letter to Mallesons Stephens Jaques, 8 July 2008 (confidential version only).

Telstra, letter to the ACCC titled 'Telstra's Metro and CBD domestic transmission capacity service (DTCS) exemption applications: further submissions', 17 July 2008.

Attachment- Telstra, *Telstra's response to submissions of interested parties on ACCC discussion paper*, July 2008 (confidential version).

Attachment – M Smart of LECG, *Points in reply to submissions by Internode*, *PIPE and AAPT on Telstra's DTCS exemption applications for CBD/Metro IEN and Tail transmission*, 30 July 2008 (confidential version only).

Attachment – Craig Lordan of Evans and Peck, Response to cost issues raised in the Optus DTCS exemption statement April 2008, 23 July 2008 (confidential version only).

Attachment - Market Clarity, Letter to Mallesons Stephens Jaques, 11 July 2008 (confidential version only).

Attachment - Statement of [start c-i-c] [end c-i-c] (confidential version only).

Telstra, letter to the ACCC titled 'Telstra's CBD and Metro domestic transmission capacity service (DTCS) Exemption Applications', 25 August 2008.

Attachment – M Smart of LECG, Analysis of extent of transmission tail deployment in metropolitan ESAs (public and confidential versions), 20 August 2008.

Attachment – statement of [**start c-i-c**] [**end c-i-c**] and excel spread sheet attachment (confidential version only).

Attachment – statement of [**start c-i-c**] [**end c-i-c**] and excel spread sheet attachment (confidential version only).

Appendix C: Legislative background

Part XIC of the TPA sets out a telecommunications access regime. This section of the discussion paper outlines the provisions of the access regime relevant to the exemption applications.

1 Declaration and the SAOs

The ACCC may determine that particular carriage services and related services are declared services under section 152AL of the TPA. A carrier or carriage service provider that provides a declared service to itself or other persons is known as an access provider. Once a service is declared, access providers are subject to a number of SAOs pursuant to section 152AR of the TPA. Terms of access can be governed by the terms of an undertaking or, in the absence of an accepted undertaking, by ACCC determination in an access dispute.

In summary, the SAOs require that an access provider, if requested by a service provider, must:

- supply the declared service
- take all reasonable steps to ensure that the technical and operational quality of the service supplied to the service provider is equivalent to that which the access provider is supplying to itself
- take all reasonable steps to ensure that the fault detection, handling and rectification which the service provider receives in relation to the declared service is of equivalent technical and operational quality as that provided by the access provider to itself
- permit interconnection of its facilities with the facilities of the service provider
- take all reasonable steps to ensure that the technical operational quality and timing of the interconnection is equivalent to that which the access provider provides to itself
- take all reasonable steps to ensure that the service provider receives interconnection 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
- if a standard is in force under section 384 of the *Telecommunications Act 1997*, take all reasonable steps to ensure that the interconnection complies with the standard
- if requested by the service provider, provide billing information in connection with matters, or incidental to, the supply of the declared services

• if an access provider supplies an active declared service by means of conditional-access customer equipment, the access provider must, if requested to do so by a service provider supply any service that is necessary to enable the service provider to supply carriage services and/or content services by means of the declared service and using the equipment.

The ACCC must only declare a service if, following a public inquiry, it considers that declaration would promote the LTIE. Section 152AB of the TPA states that, in determining whether declaration promotes the LTIE, regard must be had only to the extent to which declaration is likely to result in the achievement of the following objectives:

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

Section 152AB also provides guidance in interpreting these objectives. The three objectives are discussed further below.

2 Exemptions from SAOs

Exemptions can be granted from the SAOs. This can occur in two ways:

- a class exemption under section 152AS of the TPA
- an individual exemption under section 152AT of the TPA.

In the case of an individual exemption application, a carrier or carriage service provider may apply to the ACCC for a written order exempting it from any or all of the SAOs that apply to a declared service.²⁵²

If the ACCC is of the opinion that the making of an exemption order would be likely to have a material effect on the interests of a person, the ACCC must publish the application for an exemption and invite submissions from the public.²⁵³ The ACCC must consider any submissions received within the time specified.

The ACCC must not grant an exemption order unless the ACCC is satisfied that the making of the order will promote the LTIE. ²⁵⁴ An exemption order can be unconditional or subject to such conditions or limitations as are specified in the order. ²⁵⁵

TPA subsection 152AT(1).

²⁵³ TPA subsection 152AT(9).

²⁵⁴ TPA subsection 152AT(4).

²⁵⁵ TPA subsection 152AT(5).

The ACCC has a six month period in which to make the decision to accept or reject the exemption order.²⁵⁶ However the six month period does not include any period where the ACCC has published the application and invited people to make submissions within a specific time limit, or where there is an outstanding response to an information request.²⁵⁷ The ACCC may also extend the six month period by a further three months in certain circumstances.²⁵⁸

After considering the application, the ACCC must either make a written exemption order or refuse the application.²⁵⁹

A class exemption under section 152AS of the TPA similarly can only be made if the ACCC believes that the exemption will be in the LTIE. However the exemption applies to a specified class of carrier or carriage service provider, and there is no six month time limit on consideration of a class exemption.

3 Long-term interests of end-users

Both a decision to declare a service and a decision to grant an exemption from the SAOs for a declared service—the latter being the matter currently under consideration—can only be made if the ACCC considers that making the declaration or granting the exemption will be likely to promote the LTIE.

As noted above, section 152AB of the TPA states that, in determining whether declaration promotes the LTIE, regard must be had only to the extent to which the exemption is likely to result in the achievement of the following objectives:

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

The objectives are interrelated. In many cases, the LTIE may be promoted through the achievement of two or all 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 ACCC will need to weigh up the different effects to determine whether the exemption promotes the LTIE. In this regard, the ACCC will interpret long-term to mean the period of time necessary for the substantive effects of the exemption to unfold.

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

²⁵⁷ TPA subsection 152AT(11).

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²⁵⁶ TPA subsection 152AT(10).

²⁵⁸ TPA subsection 152AT(12).

TPA subsection 152AT(3).

Promotion of competition

Subsections 152AB(4) and (5) of the TPA 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 TPA states that:²⁶⁰

...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.

This requires the ACCC to make an assessment of whether or not the exemption would be likely to promote competition in the markets for listed services.

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

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:²⁶¹

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.

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 profitably 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 TPA. 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 of potential exemption on downstream markets, the ACCC will first need to identify the relevant market(s) and assess the likely effect of exemption on competition in each market.

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Trade Practices Amendment (Telecommunications) Act 1997 (Cth) Explanatory memorandum.

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

Section 4E of the TPA provides that the term 'market' includes a market for the goods or services under consideration and any other goods or services that are substitutable for, or otherwise competitive with, those goods or services. The ACCC's approach to market definition is discussed in its *Merger Guidelines*, June 1999 and is also canvassed in its second position paper, *Strategic Review of Fixed Services*, April 2007.

The second step is to assess the likely effect of the exemption 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 ACCC 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 and therefore, granting an exemption would generally be appropriate in such circumstances. This recognises the costs of providing 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 endusers that outweigh any costs of regulation.

In the context of considering whether an exemption will promote competition, it is therefore appropriate to examine the impact of the existing declaration on each relevant market, the likely effect of reduced access obligations on the relevant market, and compare the state of competition in that market with and without the exemption. In examining the market structure, the ACCC 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 constrain 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 TPA 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 TPA 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 ACCC generally considers that this criterion will be given less weight compared to the other two criteria.

Efficient use of, and investment in, infrastructure

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

- whether it is technically feasible for the services to be supplied and charged for, having regard to:
 - the technology that is in use or available
 - whether the costs that would be involved in supplying, and charging for, the services are 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 service, including the ability of the supplier or suppliers to exploit economies of scale and scope
- 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 determining the extent to which a particular aspect is likely to encourage the efficient investment in other infrastructure, the ACCC 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 ACCC 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 ACCC will look to an access provider to demonstrate that supply is not technically feasible.

The legitimate commercial interests of the supplier or suppliers, 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 risk-adjusted return on its capital employed on the investment in infrastructure. The ACCC 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 TPA also requires the ACCC 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 and service providers. Nonetheless, the ACCC will assess the effects of 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 reduces 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 of granting an exemption on the LTIE. The ACCC 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 D: Capital-regional routes and ESAs to be exempted

Part A

Capital-regional routes to be exempt from capital-regional DTCS:

New South Wales	Queensland	South Australia
Sydney-Campbelltown	Brisbane-Townsville	Adelaide-Port Augusta
Sydney-Gosford	Brisbane- Rockhampton	
Sydney-Coffs Harbour	Brisbane-Bundaberg	
Sydney-Goulburn	Brisbane- Maryborough	

Part B

CBD ESAs to be exempt from inter-exchange DTCS

NSW	QLD	SA	VIC	WA
CITY SOUTH	CHARLOTTE	FLINDERS	BATMAN	PIER
DALLEY	EDISON	WAYMOUTH	EXHIBITION	WELLINGTON
HAYMARKET	ROMA STREET		LONSDALE	
KENT	SPRING HILL			
PITT				

$\label{eq:metropolitan} \textbf{ESAs to be exempt from inter-exchange DTCS}$

State	ESA to be exempt	
NSW	ASHFIELD, BALGOWLAH, BANKSTOWN, BLACKTOWN, BURWOOD, CAMPSIE, CARRAMAR, CASTLE HILL, CHATSWOOD, COOGEE, CREMORNE, EAST, 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, SEVEN HILLS, SILVERWATER, ST LEONARDS, UNDERCLIFFE, WAVERLEY	
QLD	PADDINGTON, SOUTH BRISBANE, TOOWONG, VALLEY, WOOLLOONGABBA	
VIC	ASCOT, BRUNSWICK, CAULFIELD, COBURG, ELSTERNWICK, FOOTSCRAY, HEIDELBERG, MALVERN, MORELAND, NORTH MELBOURNE, PORT MELBOURNE, PRESTON, RICHMOND, SOUTH MELBOURNE, ST KILDA, TOORAK	
WA	SOUTH PERTH, SUBIACO	

Appendix E: DRAFT ORDER in respect of Telstra's DTCS exemption application of 24 August 2007

Order under paragraph 152AT(3)(a) by the Australian Competition and Consumer Commission in respect of Telstra's DTCS individual exemption application of 24 August 2007

Individual exemption from standard access obligations in respect of DTCS

1. Title

This Order may be cited as Individual Exemption Order No. X of 2008.

2. Commencement and Expiry

- (1) This Order comes into effect 12 months after the date of release of the Commission's Final Decision on Telstra's individual applications for exemption from the standard access obligations set out in section 152AR of the Act in respect of DTCS in certain nominated areas, lodged 24 August 2007.
- (2) This Order will expire on 31 December 2012 or the expiry or revocation of the DTCS Declaration, whichever occurs first.

3. Interpretation

- (3) Unless the contrary intention appears, where words or phrases used in this Order are defined in the *Trade Practices Act 1974*, the *Telecommunications Act 1997* or the instrument declaring the declared service, those words or phrases have the same meaning in this Order.
- (4) In this Order, unless the contrary intention appears –

Act means the Trade Practices Act 1974 (Cth).

Commission means the Australian Competition and Consumer Commission.

DTCS means domestic transmission capacity service declared by the Commission under subsection 152AL(3) of the Act pursuant to the DTCS Declaration.

DTCS Declaration means the Declaration made by the Commission under 152AL(3) of the Act in respect of the DTCS with effect from the 7 April 2004 and published in the Commonwealth of Australia Gazette No. GN 14 of 7 April 2004, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the DTCS Declaration under subsection 152ALA(4).

Final Decision means the written statement setting out the ACCC's final decision titled '*Telstra's domestic transmission capacity service exemption applications – final decision and class exemption*' dated XX 2008.

Telstra means Telstra Corporation Limited (ACN 051 775 556)

4. Exemption

Telstra is exempt from the standard access obligations set out in section 152AR of the Act in respect of the supply of DTCS between:

- (1) a transmission point in Sydney and a transmission point in any of the following regional centres: Campbelltown, Gosford, Coffs Harbour and Goulburn:
- (2) a transmission point in Brisbane and a transmission point in any of the following regional centres: Townsville, Rockhampton, Bundaberg and Maryborough;
- (3) a transmission point in Adelaide and a transmission point in Port Augusta.

[Signed]	
Graeme Julian Samuel	
Chairman	
DATED:	2008

Appendix F: DRAFT ORDER in respect of Telstra's DTCS exemption application of 21 December 2007 in relation to inter-exchange DTCS in metropolitan areas

Order under paragraph 152AT(3)(a) by the Australian Competition and Consumer Commission in respect of Telstra's DTCS individual exemption application of 21 December 2007 relating to Inter-Exchange Transmission Capacity in Metropolitan Areas

Individual exemption from standard access obligations in respect of DTCS

1. Title

This Order may be cited as Individual Exemption Order No. X of 2008.

2. Commencement and Expiry

- (4) This Order comes into effect 12 months after the date of release of the Commission's Final Decision on Telstra's individual applications for exemption from the standard access obligations set out in section 152AR of the Act in respect of DTCS in certain nominated metropolitan areas, lodged 21 December 2007.
- (5) This Order will expire on 31 December 2012 or the expiry or revocation of the DTCS Declaration, whichever occurs first.

3. Interpretation

- (1) Unless the contrary intention appears, where words or phrases used in this Order are defined in the *Trade Practices Act* 1974, the *Telecommunications Act* 1997 or the instrument declaring the declared service, those words or phrases have the same meaning in this Order.
- (2) In this Order, unless the contrary intention appears –

Act means the Trade Practices Act 1974 (Cth).

Commission means the Australian Competition and Consumer Commission.

DTCS means domestic transmission capacity service declared by the Commission under subsection 152AL(3) of the Act pursuant to the DTCS Declaration.

DTCS Declaration means the Declaration made by the Commission under 152AL(3) of the Act in respect of the DTCS with effect from the 7 April 2004 and published in the Commonwealth of Australia Gazette No. GN 14 of 7 April 2004, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the DTCS Declaration under subsection 152ALA(4).

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.

Exchange means a telecommunications exchange owned or controlled by Telstra 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.

Final Decision means the written statement setting out the ACCC's final decision titled '*Telstra's domestic transmission capacity service exemption applications – final decision and class exemption*' dated XX 2008.

Telstra means Telstra Corporation Limited (ACN 051 775 556).

4. Exemption

Telstra is exempt from the standard access obligations set out in section 152AR of the Act in respect of the supply of DTCS:

- (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, 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, 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 the ESAs South Perth and Subiaco

[Signed]
Graeme Julian Samuel
Chairman

DATED: 2008

Appendix G: DRAFT ORDER in respect of Telstra's DTCS exemption application of 21 December 2007 in relation to inter-exchange DTCS in CBD areas

Order under paragraph 152AT(3)(a) by the Australian Competition and Consumer Commission in respect of Telstra's DTCS individual exemption application of 21 December 2007 relating to Inter-Exchange Transmission Capacity in CBD Areas

Individual exemption from standard access obligations in respect of DTCS

1. Title

This Order may be cited as Individual Exemption Order No. X of 2008.

2. Commencement and Expiry

- (1) This Order comes into effect 12 months after the date of release of the Commission's Final Decision on Telstra's individual applications for exemption from the standard access obligations set out in section 152AR of the Act in respect of DTCS in certain nominated CBD areas, lodged 21 December 2007.
- (2) This Order will expire on 31 December 2012 or the expiry or revocation of the DTCS Declaration, whichever occurs first.

3. Interpretation

- (1) Unless the contrary intention appears, where words or phrases used in this Order are defined in the *Trade Practices Act* 1974, the *Telecommunications Act* 1997 or the instrument declaring the declared service, those words or phrases have the same meaning in this Order.
- (2) In this Order, unless the contrary intention appears –

Act means the Trade Practices Act 1974 (Cth).

Commission means the Australian Competition and Consumer Commission.

DTCS means domestic transmission capacity service declared by the Commission under subsection 152AL(3) of the Act pursuant to the DTCS Declaration.

DTCS Declaration means the Declaration made by the Commission under 152AL(3) of the Act in respect of the DTCS with effect from the 7 April 2004 and published in the Commonwealth of Australia Gazette No. GN 14 of 7 April 2004, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the DTCS Declaration under subsection 152ALA(4).

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.

Exchange means a telecommunications exchange owned or controlled by Telstra 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.

Final Decision means the written statement setting out the ACCC's final decision titled '*Telstra's domestic transmission capacity service exemption applications* – *final decision and class exemption*' dated XX 2008.

Telstra means Telstra Corporation Limited (ACN 051 775 556)

4. Exemption

Telstra is exempt from the standard access obligations set out in section 152AR of the Act in respect of the supply of DTCS:

- (1) in Sydney between transmission points located at an Exchange in any of the following ESAs: City South, Dalley, Haymarket, Kent and Pitt.
- (2) in Brisbane between transmission points located at an Exchange in any of the following ESAs: Charlotte, Edison, Roma Street and Spring Hill.
- (3) in Adelaide between transmission points located at an Exchange in any of the following ESAs: Flinders, Waymouth.
- (4) in Melbourne between transmission points located at an Exchange in any of the following ESAs: Batman, Exhibition and Lonsdale.
- (5) in Perth between transmission points located at an Exchange in the ESAs Pier and Wellington.

[Signed]	
Graeme Julian Samuel	
Chairman	
DATED:	2008

[Signed]

Appendix H: DRAFT CLASS DETERMINATION in respect of the DTCS

TRADE PRACTICES ACT 1974

Determination under subsection 152AS(1) by the Australian Competition and Consumer Commission Class exemption from standard access obligations in respect of DTCS

1. Title

This Determination may be cited as Class Exemption Determination No. X of 2008.

2. Commencement and Expiry

- (1) This Determination comes into effect 12 months after the date of release of the Commission's Final Decision on Telstra's individual applications for exemption from the standard access obligations set out in section 152AR of the Act in respect of DTCS in certain nominated areas, lodged 24 August and 21 December 2007.
- (2) This Determination will expire on 31 December 2012 or the expiry or revocation of the DTCS Declaration, whichever occurs first.

3. Interpretation

- (1) Unless the contrary intention appears, where words or phrases used in this Order are defined in the *Trade Practices Act* 1974, the *Telecommunications Act* 1997 or the instrument declaring the declared service, those words or phrases have the same meaning in this Order.
- (2) In this Order, unless the contrary intention appears –

Act means the Trade Practices Act 1974 (Cth).

Commission means the Australian Competition and Consumer Commission.

DTCS means domestic transmission capacity service declared by the Commission under subsection 152AL(3) of the Act pursuant to the DTCS Declaration.

DTCS Declaration means the Declaration made by the Commission under 152AL(3) of the Act in respect of the DTCS with effect from the 7 April 2004 and published in the Commonwealth of Australia Gazette No. GN 14 of 7 April 2004, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the DTCS Declaration under subsection 152ALA(4).

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.

Final Decision means the written statement setting out the ACCC's final decision.

Specified Class of Carriage Service Provider means the class of carriage service provider specified in Item 5 of this Determination.

Specified Class of Carrier means the class of carrier specified in Item 4 of this Determination.

Telstra means Telstra Corporation Limited (ACN 051 775 556).

4. Specified class of carrier

The class of carrier which is specified for the purpose of this Determination is the class of all carriers except Telstra.

Note: Telstra has been granted individual exemptions in Individual Exemption Order No. X of 2008, Individual Exemption Order No. Y of 2008, Individual Exemption Order No. Z of 2008 in the similar terms as this class exemption.

5. Specified class of carriage service provider

The class of carriage service provider which is specified for the purpose of this Determination is the class of all carriage service providers except Telstra.

Note: Telstra has been granted individual exemptions in Individual Exemption Order No. X of 2008, Individual Exemption Order No. Y of 2008, Individual Exemption Order No. Z of 2008 in the same terms as this class exemption.

6. Exemption

Each member of the Specified Class of Carrier and each member of the Specified Class of Carriage Service Provider is exempt from the standard access obligations set out in section 152AR of the Act in respect of the supply of DTCS

- (1) between a transmission point in Sydney and a transmission point in any of the following regional centres: Campbelltown, Gosford, Coffs Harbour and Goulburn;
- (2) between a transmission point in Brisbane and a transmission point in any of the following regional centres: Townsville, Rockhampton, Bundaberg and Maryborough;
- (3) between a transmission point in Adelaide and a transmission point in Port Augusta.

- (4) 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, 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, Seven Hills, Silverwater, St Leonards, Undercliffe, Waverley.
- (5) in Brisbane between transmission points located at an Exchange in any of the following ESAs: Paddington, South Brisbane, Toowong, Valley, Woolloongabba.
- (6) 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
- (7) in Perth between transmission points located at an Exchange in the ESAs South Perth and Subiaco
- (8) in Sydney between transmission points located at an Exchange in any of the following ESAs: City South, Dalley, Haymarket, Kent and Pitt.
- (9) in Brisbane between transmission points located at an Exchange in any of the following ESAs: Charlotte, Edison, Roma Street and Spring Hill.
- (10) in Adelaide between transmission points located at an Exchange in any of the following ESAs: Flinders and Waymouth.
- (11) in Melbourne between transmission points located at an Exchange in any of the following ESAs: Batman, Exhibition and Lonsdale.
- (12) in Perth between transmission points located at an Exchange in the ESAs Pier and Wellington.

[Signed]	
Graeme Julian Samuel	
Chairman	
DATED:	2008