Australian
Competition &
Consumer
Commission

Declaration of the wholesale ADSL service under Part XIC of the *Competition and Consumer Act 2010*

Final Decision

February 2012

Contents

List of abbreviations and acronyms

ACCC	Australian Competition and Consumer Commission
ACMA	Australian Communications and Media Authority
ADSL	Asymmetric digital subscriber line
AGVC	aggregating virtual circuit
ATM	asynchronous transfer mode
CAN	customer access network
CBD	central business district
CCA	*Competition and Consumer Act 2010* (Cth)
CCC	Competitive Carriers' Coalition
CMUX	customer multiplexer
CSP	carriage service provider
DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexer
ESA	exchange service area
ETCs	early termination charges
FTTP	fibre to the premises
HFC	hybrid fibre-coaxial
IPTV	internet protocol television
ISP	internet service provider
LCS	local carriage service
LLU	local loop unbundling
LPGS	large pair gain system
LSS	line sharing service

LTIE	long-term interests of end-users
MSAN	multi-service access node
NBN	National Broadband Network
NBN Co	NBN Co Limited
NZCC	New Zealand Commerce Commission
POI	point of interconnect
PSTN	public switched telephone network
PSTN OA	public switched telephone network originating access
PSTN OTA	public switched telephone network originating and terminating access
RBBP	Regional Backbone Blackspots Program
RIM	remote integrated multiplexer
SAOs	standard access obligations
SDSL	symmetric digital subscriber line
SIOs	services in operation
SSU	structural separation undertaking
ULLS	unconditioned local loop service
Unbundled lines	ULLS and LSS lines
VLAN	virtual local area network
WLR	wholesale line rental

Executive summary

ADSL is the dominant fixed-line broadband technology in Australia, accounting for around 83 percent of fixed-line broadband services in operation.[1] Telstra is the dominant supplier of wholesale ADSL and has maintained a retail market share of around 45 percent of fixed-line broadband services over time.[2]

Telstra's supply of wholesale ADSL services has been the subject of repeated complaints from access seekers over the past 10 years. Concerns have been raised about the terms and conditions on which Telstra supplies wholesale ADSL and the ability of access seekers to compete in retail fixed-line broadband markets.

In late 2010, following the consideration of new complaints from access seekers, the ACCC considered the possibility of an inquiry into declaration of the wholesale ADSL service. However, in early 2011 the ACCC chose to "wait and see", noting the potential for pricing issues to be resolved through commercial negotiations.

During the ACCC's consideration of Telstra's Structural Separation Undertaking (SSU) in 2011, access seekers continued to raise concerns about Telstra's supply of wholesale ADSL with the ACCC both publicly and confidentially. Commercial negotiations have not resolved the issues raised in 2010, and despite incremental improvements in competition through new infrastructure deployment, Telstra remains the dominant supplier of fixed-line wholesale and retail broadband.

Against this backdrop, on 16 December 2011, the ACCC commenced a public inquiry into whether wholesale ADSL should be declared. The ACCC has decided to declare the wholesale ADSL service; this report sets out the ACCC's findings from the declaration inquiry and reasons for the decision.

Telstra retains a dominant position in both retail and wholesale markets. At a wholesale level, Telstra currently supplies around 63 percent of all ADSL services in operation.[3] At a retail level, Telstra has a fixed-line broadband market share of approximately 45 per cent. [4] The ACCC considers that, despite the deployment of competitive infrastructure in some geographic areas over the past decade, on a national basis, competition for the supply of wholesale ADSL services is not effective.

Based on submissions received in response to the Discussion Paper and information obtained more broadly, the ACCC considers that declaration will promote the long-term interests of end-users. In particular:

- **Promotion of competition –** the ACCC has had ongoing concerns about the level and structure of Telstra's wholesale ADSL pricing, Telstra's ability to leverage its market power in the supply of wholesale ADSL services to impede competition through restrictive contractual terms, and potentially anti-competitive price discrimination between wholesale ADSL access seekers. Declaration is likely to promote competition by providing the ACCC with the

[1] Australian Bureau of Statistics (ABS), *Internet Activity, Australia*, June 2011.
[2] Telstra Full Year Results Announcement 2011, 11 August 2011.
[3] This is discussed in further detail in section 3.3 below.
[4] Telstra, *Full Year Results Announcement 2011*, 11 August 2011 http://www.telstra.com.au/abouttelstra/investor/calendar/annual-results-announcement-4.xml .

ability to address these concerns and will provide certainty in the lead-up to the NBN.

- **Any-to-any connectivity –** the ACCC does not consider that declaration will have any impact on the achievement of any-to-any connectivity.
- **Economically efficient use of, and investment in, infrastructure –** supply of the wholesale ADSL service is technically feasible, as evidenced by the fact that Telstra currently supplies such services on a commercial basis.

  In having regard to Telstra's legitimate commercial interests, the ACCC noted that Telstra has already made the investments required to supply the service on a national basis. The fact of declaration will not of itself impact upon Telstra's ability to exploit economies of scale and scope or its ability to make a return on its investment.

  Expansion of the 'footprint' in which wholesale ADSL services are supplied using competitive infrastructure has slowed markedly in recent years, and significant further expansion is unlikely. Declaration of wholesale ADSL is therefore unlikely to affect incentives for efficient investment in infrastructure.

The ACCC has decided to declare the wholesale ADSL service for a period of five years. The ACCC will commence an inquiry into the making of a final access determination and move quickly to make an interim access determination.

1 Introduction

Under section 152AL of the *Competition and Consumer Act 2010* (Cth) (CCA), the Australian Competition and Consumer Commission (ACCC) may declare an eligible service following a public inquiry under Part 25 of the *Telecommunications Act 1997* (Cth) (Telco Act), provided the Commission is satisfied that the making of the declaration will promote the long-term interests of end-users of carriage services or services provided by means of carriage services. **Appendix A** sets out the legislative framework for declaration in detail.

On 16 December 2011, the ACCC commenced a public inquiry under Part 25 of the Telco Act into whether to declare the wholesale ADSL service. The wholesale ADSL service is an input used in the supply of fixed-line broadband internet services to end-users. This inquiry was initiated in response to ongoing competition concerns raised with the ACCC by industry in relation to Telstra's supply of wholesale ADSL services.

The ACCC has decided to declare that the wholesale ADSL service is a declared service under section 152AL of the CCA. This report sets out the ACCC's findings from the declaration inquiry and the ACCC's reasons for decision. The ACCC is satisfied the declaration of the wholesale ADSL service will promote the long-term interests of end-users of carriage services or of services provided by means of carriage services.

This report is structured as follows:

- **Section 2** is background to the wholesale ADSL service, background to the ACCC's consideration of declaration of the wholesale ADSL service, and the declaration inquiry process.

- **Section 3** outlines the ACCC's findings and final decision in relation to whether declaration of the wholesale ADSL service is in the long-term interests of end-users.

- **Section 4** sets out the details of the service description for the wholesale ADSL service and duration of declaration.

2 Background

2.1 What is ADSL?

In Australia, Telstra operates a near-ubiquitous customer access network (CAN) from the exchange building to the premises. Despite the introduction of competition in telecommunications services in Australia in 1991, the CAN has remained a bottleneck facility in relation to the provision of various wholesale services. Telstra and other service providers use the CAN to supply a range of fixed-line services – including digital subscriber line (DSL) services – to end-user premises.

DSL technology, in broad terms, enables the supply of high bandwidth services such as broadband internet access. It is currently the dominant technology for fixed internet connections in Australia.[5]

ADSL (asymmetric) services have a high downstream data rate coupled with a lower rate upstream and are typically used by residential or small business consumers. **Appendix B** explains the main features and functionalities which distinguish an ADSL service, and outlines different types of ADSL services.

Since its introduction to Australia in 2000, the take up of ADSL services has grown to over 4.8 million services in operation.[6]

2.2 Methods of supply of ADSL services and broadband services

Wholesale ADSL is used as an input into the supply of retail ADSL services to end-users. It is one of several methods of providing ADSL services over Telstra's CAN.

Internet service providers (ISPs) can supply ADSL services in a number of ways:

- acquiring wholesale ADSL from Telstra
- use of the ULLS/LSS services in conjunction with digital subscriber line access multiplexers (DSLAMs)
- acquiring wholesale ADSL from alternative providers.

Appendix B explains these service supply options in detail.

In addition to Telstra, other access providers - such as Optus and AAPT - currently offer wholesale ADSL services to third-parties (in addition to self-supply) within their ADSL network footprints. However, many access providers have invested in DSLAMs largely for the purpose of self-supply. The reach and functionality of these other networks differs greatly between operators with providers other than Telstra having much smaller ADSL footprints than Telstra. As discussed in section 3.3, the supply of wholesale ADSL services is highly concentrated with Telstra as the dominant provider.

In each of these potential supply models, the service provider must combine the relevant access service (ULLS, LSS, or wholesale ADSL) with additional transmission services, internet connectivity and downstream applications support in order to supply a retail end-user service.

ADSL is not the only form of broadband in Australia. Other access network infrastructure in Australia includes hybrid fibre-coaxial (HFC) cable, optical fibre, and wireless broadband networks.

[5] By June 2011, ADSL technology accounted for 83 per cent of fixed internet connections in Australia: ABS, *Internet Activity, Australia*, June 2011.
[6] ACCC, data obtained under CAN RKR, December 2011.

2.3 Telstra's supply of wholesale ADSL

Telstra currently supplies wholesale ADSL services at some 2800 ADSL-enabled exchanges nationally. Each exchange serves an exchange service area (ESA).

Wholesale ADSL services comprise both a local access component from the network termination point at the customer premise to the local exchange, and a backhaul transmission component between the local exchange and the point of interconnection with the access seeker's network, which is typically a CBD exchange in the relevant state.

This backhaul transmission is aggregated such that data from the service provider's end-users, including end-users physically connected to different DSLAMs, is combined into a single 'stream' for delivery to the access seeker. The backhaul interface can be either an AGVC or VLAN (using either ATM or Gigabit Ethernet as the transport protocol respectively). The access seeker acquires an interface and then acquires capacity over that interface to a specified throughput that it chooses.

In acquiring a wholesale ADSL service an access seeker must pay both a 'port charge' for the local access component and a variable AGVC charge for the backhaul component.

At a wholesale level, Telstra charges some wholesale customers different prices for ports in different geographic areas[7]. The ACCC understands that Telstra characterises ESAs into 'Zone 1' or 'Zone 2/3' for its wholesale customers (hereafter TW Zone 1 or TW Zone 2/3) based on whether there is actual or potential DSLAM-based competition.[8] This is discussed further at section 3.4.3.

2.4 The ACCC's prior consideration of Telstra's supply of wholesale ADSL services

Over the last decade, the ACCC has conducted several investigations into the terms and conditions on which Telstra has supplied wholesale ADSL services to access seekers.

In early 2001, the ACCC issued a competition notice to Telstra in relation to wholesale ADSL price increases.[9] The competition notice was revoked by the ACCC in May 2002 after Telstra made appropriate reductions to its wholesale ADSL pricing.

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[7] Herbert Geer Lawyers (on behalf of Adam Internet, iiNet, Internode, Primus, and TransACT), *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (Herbert Geer Lawyers submission), January 2012, pp.3-5; Macquarie Telecom, *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (Macquarie Telecom submission), January 2012, p.4.

[8] Out of more than 2,800 Telstra ADSL-enabled exchanges, Telstra has classified 555 ESAs as Zone 1 and 2,226 ESAs as Zone 2 or Zone 3 (Note the remaining ADSL-enabled exchanges are not allocated to a TW Zone. The vast majority of these have very few DSL SIOs.)

[9] Competition notice: The ACCC may issue a notice stating that (1) a specified carrier or carriage service provider has engaged, or is engaging, in a specified instance of anti-competitive conduct or in a particular kind of anticompetitive conduct (a Part A competition notice) (s 151AKA), or (2) a specified carrier or carriage service provider has contravened, or is contravening, the competition rule, and setting out the particulars of that contravention (a Part B competition notice) (s 151AL). The competition rule states that a carrier or carriage service provider must not engage in anti-competitive conduct.

In March 2004 the ACCC issued a competition notice to Telstra in relation to its retail ADSL price reductions which were not accompanied by wholesale price reductions. The matter was resolved in February 2005 after Telstra agreed to reduce its wholesale prices, pay wholesale customers $6.5 million in compensation, and establish a formal broadband retail pricing notification protocol for the ACCC (which has now expired).[10]

In December 2005 the ACCC issued a discussion paper seeking comments on whether any wholesale fixed-line broadband services should be declared.[11] In June 2006 the ACCC decided not to declare a wholesale ADSL service, on the basis that to do so could adversely affect competition by delaying the uptake of ULLS.[12]

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In July and August 2010, the ACCC received further complaints regarding Telstra's pricing of its wholesale and retail ADSL products.[13] ISPs alleged that Telstra was engaging in vertical price squeeze conduct by reducing its retail ADSL pricing without a corresponding reduction in its wholesale ADSL pricing. In addition, ISPs alleged that unreasonable non-price conditions or restrictions were attached to Telstra's supply of wholesale ADSL services.

On 20 October 2010, following consideration of the above complaints, the ACCC sought comment on whether it should commence a declaration inquiry in respect of wholesale ADSL services.[14] The ACCC received a number of submissions from interested parties. The ACCC consulted further with industry from December 2010 until February 2011.

On 18 April 2011, the ACCC publicly stated that it would not conduct a wholesale ADSL declaration inquiry at that time and would instead adopt a 'wait and see' approach.[15] The ACCC reached this conclusion based on several industry and regulatory developments. In particular, there was evidence of some further infrastructure investment as a result of the Regional Backbone Blackspots Program (RBBP) and the potential for further investment as a result of the Interim Access Determinations for the ULLS and domestic transmission capacity service (DTCS) services. The ACCC also noted that there had been some improvement in the level of Telstra's wholesale ADSL pricing, and there appeared to be potential for commercial negotiations to result in further improvement.

In July 2011 Telstra submitted a SSU under section 577A of the Telco Act to the ACCC for assessment. Telstra proposed interim equivalence and transparency measures for its regulated services, including wholesale ADSL which is a regulated

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[10] ACCC, *Media release: Resolution of Broadband Competition Notice*, 21 February 2005.
[11] ACCC, *A strategic review of the regulation of fixed network services – An ACCC Discussion Paper*, December 2005.
[12] ACCC, *A strategic review of the regulation of fixed network services – ACCC position paper*, June 2006, pp. 88, 90.
[13] For example, complaint by Herbert Geer Lawyers on behalf of iiNet and Internode, 9 July 2010. Available at: http://www.zdnet.com.au/story_media/339304519/ADSL2+%20price%20squeeze%20-%20Internode%20-%20ACCC%20(V3).pdf.
[14] ACCC, *Open letter re proposed declaration inquiry regarding wholesale ADSL* , 20 October 2010. Available at http://www.accc.gov.au/content/index.phtml/itemId/952604 .
[15] Ibid.

service due to the *Telecommunications (Regulated Services) Determination (No.1) 2011*. [16]

During the public consultation on the SSU and pre-lodgement discussions regarding Telstra's revised SSU, access seekers continued to raise competition concerns with the ACCC about the terms and conditions on which Telstra supplied wholesale ADSL services.

It has become apparent from concerns raised in access seekers' submissions[17] that commercial negotiations have not resolved the issues flagged in late 2010. DSLAM deployments have slowed markedly in recent years, and despite incremental improvements in competition through new DSLAM deployment around the margins, Telstra remains the dominant supplier of fixed-line broadband services.

2.5 Declaration inquiry process

The ACCC commenced its inquiry into whether to declare the wholesale ADSL service on 16 December 2011 with the publication of a Discussion Paper. Submissions on the issues raised in the Discussion Paper were sought from interested parties by 19 January 2012.

The ACCC received seven submissions from interested parties, and a letter from Telstra on 8 February 2011 in response to certain statements in other parties' submissions. A full list of submissions received by the ACCC is included at **Appendix C**. Public versions of the submissions (where available) are on the ACCC website.[18] The ACCC thanks all submitters for their contributions to the consultation process.

In addition, the ACCC issued a notice to Telstra pursuant to subsections 155(1)(a) and (b) of the CCA (section 155 notice) on 4 January 2012 in order to obtain information about the terms and conditions on which Telstra supplies wholesale ADSL services to access seekers. This was relevant to the assessment of whether declaration would promote the LTIE. The ACCC can issue section 155 notices for the performance of a function, or the exercise of a power, conferred on the ACCC by or under Part XIC of the CCA.[19] Telstra provided the ACCC with the requested information on 12 January 2012.

The ACCC has had regard to Telstra's response to the section 155 notice and to all submissions in forming its views on whether to declare the wholesale ADSL service under Part XIC of the CCA. As stated in these reasons for decision, the ACCC has also had regard to other relevant information before it.

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[16] Section 577A(3) of the Telco Act.
[17] Herbert Geer Lawyers submission, p.3; Macquarie Telecom submission, p.5; AAPT, *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (AAPT submission), January 2012, Pub. p. 5/Conf.p.5.
[18] See: http://www.accc.gov.au/content/index.phtml?itemId=1003999.
[19] Section 155(9) of the CCA.

3 Consideration of the LTIE

In deciding whether to declare wholesale ADSL, the ACCC must consider whether declaration would promote the long-term interests of end-users (LTIE) of carriage services, or of services supplied using carriage services.[20]

When determining whether something promotes the LTIE, regard must be had to the extent to which it is likely to result in the achievement of the following objectives:

- promoting competition in markets for listed services[21]
- achieving any-to-any connectivity in relation to carriage services that involve communication between end-users[22]
- encouraging the economically efficient use of, and economically efficient investment in, infrastructure.[23]

The ACCC's approach to the LTIE criteria is outlined in more detail in **Appendix A**.

3.1 Promotion of competition – overview of approach

Subsection 152AB(2) of the CCA requires the ACCC to consider whether declaration of an eligible service is likely to result in the achievement of the objective of promoting competition in markets for listed services.

Subsection 152AB(4) of the CCA provides that, in determining the extent to which declaration is likely to result in the objective of "promoting competition", regard must be had to the extent to which declaration will remove obstacles to end-users gaining access to listed services.[24]

In order to determine the likely effects of declaration of the wholesale ADSL service on competition, the ACCC first identifies markets likely to be affected by the service declaration, then assesses the current state of competition in those markets. The ACCC then considers the likely future state of competition in the relevant market with and without service declaration.

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[20] Section 152AL of the CCA.

[21] See subsection 152AB(2) of the CCA. In determining the extent to which a particular thing is likely to result the achievement of promoting competition, regard must be had to other matters listed in subsections 152AB(4) of the CCA.

[22] This is the ability of end-users of different networks to communicate — the value of the network to an end-user depends on the number of other users that network allows the end-user to reach. Without any-to-any connectivity, smaller networks could only offer services to their own end-users, and would therefore find it difficult to attract new users, regardless of their long-term efficiency.

[23] See subsection 152AB(2) of the CCA. In determining the extent to which a particular thing is likely to result the achievement of encouraging the economically efficient use of, and the economically efficient investment in, the infrastructure, regard must be had to other matters listed in subsections 152AB(6) and (7A) of the CCA.

[24] Subsection 152AB(5) provides that subsection 152AB(4) does not, by implication, limit the matters to which regard may be had.

3.2 Relevant markets

In the Part XIC declaration inquiry context, identification of the relevant markets provides the ACCC with a field within which it can meaningfully analyse the effectiveness of competition. Once the boundaries of the relevant markets have been identified, the ACCC can then consider the state of competition in these markets, and whether competition will be promoted by declaration of the wholesale ADSL service.

It is important to note that Part XIC of the CCA does not require the ACCC to precisely define the scope of relevant markets for the purpose of a declaration inquiry.[25] It may be sufficient to broadly identify the scope of the markets likely to be affected by the relevant service declaration. Accordingly, a market definition analysis under Part XIC of the CCA should be seen in the context of determining whether declaration would promote competition.[26]

A market includes any goods or services that are substitutable for, or otherwise competitive with, the goods and services under analysis.[27] Typically, the ACCC considers the product, geographic, functional and temporal dimensions of a market.

When considering whether a product is substitutable, the ACCC may consider customer attitudes, the function or end-use of the technology, past behaviours of buyers, relative price levels, and physical and technical characteristics of a product.[28]

In the Discussion Paper the ACCC considered that market evidence suggests that the relevant wholesale and retail product markets include bundled fixed telephone (PSTN) and high speed broadband services, including copper as well as HFC and optic fibre based services. In relation to the geographical dimension, the ACCC considered the relevant markets on a national basis in the Discussion Paper.

3.2.1 Functional dimension

The LTIE test directs the ACCC's attention to the markets in which competition is likely to be promoted. This will generally be the markets for downstream services (retail markets) rather than the market in which the eligible service is supplied (wholesale markets). For the purpose of considering this declaration, the ACCC has considered both the wholesale and retail markets.

3.2.2 Product dimension

Assessing the product dimension of the relevant market will require consideration of the characteristics or functions of the product in both the retail and wholesale markets.

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[25] See ACCC, *Telecommunications services – Declaration provisions – a guide to the declaration provisions of Part XIC of the Trade Practices Act*, July 1999, pp. 41-42; *Foxtel Management Pty Ltd v Australian Competition and Consumer Commission* [2000] FCA 589 at [172] per Wilcox J.

[26] See ACCC, *Telecommunications services- Declaration provisions – a guide to the declaration provisions of Part XIC of the TPA*, 1999.

[27] Section 4E of the CCA.

[28] See ACCC, *Merger* Guidelines, November 2008, p.19 for a useful list of information the ACCC may consider when identifying close substitutes to the relevant product.

SUBMISSIONS

Telstra submitted that other broadband suppliers compete with Telstra using a range of alternative methods and technologies such as alternative fixed networks (fibre and HFC), DSL (ULLS/LSS and wholesale ADSL) and non-Telstra owned wireless networks.[29]

Macquarie Telecom submitted that the relevant market is for downstream (retail) services and includes both ADSL and substitutable services.[30] However, Macquarie Telecom did not make a submission on what services it considered are substitutable.

Herbert Geer Lawyers (on behalf of Adam Internet, iiNet, Internode, Primus and TransACT) submitted that the relevant retail and wholesale product market includes bundled fixed telephone and high speed broadband, which can be provided over copper, HFC, optic fibre, and to some degree, wireless services.[31]

AAPT submitted that the relevant markets are the retail and wholesale markets for broadband services which include both ADSL and substitutable services.[32] However, AAPT did not provide any views around what services are substitutable.

Optus submitted that the relevant retail and wholesale markets include both ADSL and substitutable services.[33] However, Optus considers that there are relatively few services which are substitutable for ADSL. In Optus' view the following alternative services do not provide a fully effective substitute to a wholesale ADSL service:[34]

- HFC – Optus' HFC network does not provide national coverage and is not available for resale, therefore the substitutability of Optus' HFC network to Telstra's CAN is limited in scope.

- Optical fibre – The current fibre footprint is very small and therefore the constraint imposed by optical fibre on the pricing of ADSL services is limited.

- Wireless broadband – Optus submits that mobile wireless broadband is a complementary service to fixed-line broadband. Furthermore, fixed wireless networks and satellite are not in wide use for broadband. Therefore the degree of substitution between wireless broadband and ADSL is limited.

ACCC'S FINDINGS

To define the relevant retail and wholesale markets, the ACCC commenced with the services in question and considered what products are substitutable.

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[29] Telstra, *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (Telstra submission), January 2012, Pub.p.8/Conf. p. 9.
[30] Macquarie Telecom, *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (Macquarie Telecom submission), January 2012, p. 2.
[31] Herbert Geer Lawyers (on behalf of Adam Internet, iiNet, Internode, Primus, and TransACT), *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (Herbert Geer Lawyers submission), January 2012, p. 2.
[32] AAPT, *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (AAPT submission), January 2012, Pub. p. 4/Conf.p.4.
[33] Optus, *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (Optus submission), January 2012, Pub. p. 4/Conf. p. 4.
[34] Optus submission, Pub. pp. 18-21/Conf. pp. 26-29.

The ACCC considers that for the purpose of this analysis the relevant retail and wholesale product markets include high speed broadband services, including copper as well as HFC and optic fibre based services. However, the extent to which these substitutes are a constraint at the wholesale level may depend on their availability in wholesale markets.

HFC

HFC is a combination of optical fibre and coaxial cable which can be used to provide high speed fixed-line broadband services, as well as TV and phone services. There are two major HFC networks in Australia owned by Telstra and Optus, predominantly covering east coast metropolitan areas. Optus' HFC network passes 2.4 million premises, of which 1.4 million premises are serviceable.[35] By contrast, Telstra's network passes 2.7 million premises.[36]

The ACCC has previously considered that, from a consumer perspective, whether broadband services are provided over HFC, fibre or copper is unlikely to be a material factor in their decision-making process.[37] Similarly, a survey conducted by the ACMA into consumer attitudes indicates that consumers generally do not distinguish between different types of broadband.[38] From a functional or end-use perspective, the services supplied over HFC and optic fibre technologies support similar downstream applications to ADSL.[39]

In terms of the relative price levels, broadband plans are marketed based on speed and are neutral to whether the underlying input is HFC or ADSL. For example, Optus advertises its broadband plans by price and data allowance but does not specify the broadband technology on which the plan is based on.[40] Telstra also markets its broadband plans based on speed, price and data allowance, with no differentiation in price between ADSL and cable for services supplied at the same speed.[41]

HFC technology is substitutable for ADSL at the retail level. At the wholesale level, Optus' and Telstra's HFC networks do not provide national coverage and are not configured to provide wholesale access services. Further, because they are not configured to provide wholesale access services, the constraint they offer is an indirect one through retail competition. As such, the effectiveness of HFC as a constraint on wholesale ADSL pricing may be limited in scope.[42]

For the purpose of the wholesale ADSL inquiry, the ACCC considered HFC broadband services as part of the same market as retail ADSL services. The ACCC has sought to reflect this in its data analysis. In some cases data including HFC and ADSL services is not available and the ACCC has used ADSL-only data. However, including HFC data does not significantly reduce Telstra's retail or wholesale market share because Telstra is also a significant provider of HFC services.

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[35] Optus submission, Pub. p. 20/Conf. p.20, NBN Co's Corporate Plan 2011-2013, p.42.
[36] NBN Co Corporate Plan 2011-2013, p.42.
[37] ACCC, *Telstra's local carriage service and wholesale line rental exemption applications, Final Decision and Class Exemption*, August 2008, p. 48.
[38] ACMA, *Telecommunications Today – Consumer attitudes to take-up and use*, September 2007, p. 18.
[39] See ACCAN, *NBN: Guide for Consumers – The basics: The internet and broadband*, April 2011, p. 4.
[40] See Optus broadband plans and pricing, https://www.optus.com.au/shop/broadband/topbroadbandplans.
[41] Telstra, Our Customer Terms - Part C - ADSL and Part B – Cable of the Standard Form of Agreement.
[42] Optus submission, Pub. p. 20/Conf. p. 28.

Optical Fibre

Optical fibre delivers broadband internet services by transmitting information as light pulses, and is capable of carrying information at greater data rates than copper wire. This technology is currently not in wide use for residential purposes but is being used in the NBN.

For similar reasons stated above for HFC, evidence of customer attitudes and the functional or end-use of the optical fibre technology suggest that it is a substitute for ADSL.

However, the current footprint of fibre networks used to supply residential consumer services is very small with optical fibre servicing only 0.3% of residential broadband subscribers in Australia.[43] The ACCC considers that whilst optical fibre is in the relevant market, the effect of its constraint on the pricing of ADSL services may be limited.

Wireless

Wireless broadband services can be offered over a mobile broadband network, a fixed wireless network, or satellite. The quality of wireless broadband services is generally dependent on the degree to which the spectrum (used for delivery within a cell-based service area) is shared by other users in that service area.

Telstra submitted that wireless networks are a constraint in its supply of wholesale fixed-line broadband services as the use of wireless technology is continuing to grow as a competitive threat to fixed network technology, particularly with the increasing popularity of end-user devices such as smart phones and tablets.[44]

However, for the purpose of the current analysis, the ACCC does not consider wireless broadband to be in the same market as fixed-line broadband services.

From a functional or end-use perspective, the degree of substitutability between fixed and wireless broadband depends on the particular downstream application. For example, wireless may not support data intensive applications such as video streaming as well as ADSL2+ or HFC. There is also a substantial disparity in data allowances and per gigabyte pricing between wireless and fixed line broadband. Despite the rapid growth of wireless broadband, fixed-line broadband penetration has remained static.[45] This suggests that wireless broadband is being largely adopted as a supplementary broadband connection to households with fixed line broadband or as a broadband connection to households who may never have considered fixed line broadband an option.

ADSL

For the purposes of the wholesale ADSL inquiry, the ACCC considered that all forms of ADSL1 and ADSL2+ are in the relevant market. On the supply side, these technologies are supplied using the same underlying infrastructure. As discussed below, there is no material difference in competitive conditions if considering low speed and high speed services. On the demand side, it should be noted that ADSL1 may not support data intensive applications such as video streaming as well as ADSL2+.

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[43] ABS, *Internet Activity, Australia*, June 2011.
[44] Telstra submission, Pub.p.9/Conf. p. 9.
[45] ABS, *Internet Activity, Australia*, June 2011.

Bundling

Bundling of services is common in the telecommunications industry, as evidenced by current retail market offers by ISPs. For example, data shows that Telstra's customers commonly purchase both fixed voice and fixed internet products from Telstra.[46]

In its recent inquiry into varying the exemption provisions in the final access determination for WLR, LCS, and PSTN OA services, the ACCC had regard to recent trends which indicated both increasing demand for data services by retail customers and an increasing adoption of bundled voice and broadband services, especially by residential customers.[47]

At a wholesale and retail level, Telstra only provisions ADSL services where there is also a PSTN service on the line.[48] This has lead to some competition concern raised by access seekers.[49]

The ACCC does not consider it necessary to determine if there is a bundled or stand alone market for the purpose of this declaration inquiry. However, the ACCC notes that the provisioning of wholesale ADSL only where a PSTN service is supplied could be a relevant to the terms and conditions set as part of any Final Access Determination.

The wholesale market for fixed-line broadband

The ACCC considers that the wholesale market for fixed-line broadband services can be further categorised into two segments.

The first segment of the overall wholesale market for fixed-line broadband is the self-supply of fixed-line wholesale broadband services. This category includes ISPs that use their own ULLS/LSS networks or last-mile access networks (such as HFC) to self supply.

The second segment of the overall wholesale market for fixed-line broadband consists of ISPs that resell fixed-line wholesale broadband services. That is, ISPs that provide wholesale ADSL services to other ISPs by using their own ULLS/LSS networks and/or resale of wholesale ADSL from Telstra.

Telstra has submitted that it is constrained in the overall wholesale market for fixed-line broadband. Telstra submitted that it does not consider it necessary for there to be an active competitive market for resale services in order to constrain Telstra because the threat of entry by infrastructure-based access seekers and the constraints imposed by self-supply of services suffice.[50]

The ACCC accepts Telstra's submission that both self-supply of fixed-line wholesale broadband services and resale of wholesale ADSL via ULLS/LSS networks should be considered as possible competitive constraints on Telstra. Both are considered in the state of competition section below.

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[46] ACCC, data obtained under Telstra Bundling RKR.
[47] ACCC, *Inquiry into varying the exemption provisions in the final access determinations for the WLR, LCS and PSTN OA services*, December 2011, Pub. p.23.
[48] Telstra letter to the ACCC, 8 February 2012, Pub. p.3. Available at http://www.accc.gov.au/content/index.phtml/itemId/1022756 .
[49] Herbert Geer Lawyers submission, p. 5.
[50] Telstra submission, Pub. p.21/Conf. p.21.

3.2.3 Geographic dimension

Delineation of the relevant geographic markets involves the identification of the area or areas over which a carrier or carriage service provider (CSP) and its rivals currently supply, or could supply, the relevant product.

In the Discussion Paper the ACCC proposed that for the purpose of conducting an LTIE analysis as part of the declaration inquiry the relevant markets could be considered on a national basis.

SUBMISSIONS

A large majority of submissions received support the view that for the purpose of analysis of the LTIE the market should be considered on a national basis.[51]

Telstra submitted that the relevant market is national as Telstra competes nationally in supplying broadband services to end-users, including by offering uniform national retail prices.[52] However, Telstra also submitted that, should the ACCC decide to declare wholesale ADSL, the geographic scope of the service description should be restricted to areas in which there has not been, or is unlikely to be, competitive DSLAM roll-out.[53]

AAPT submitted that the ESA does not represent the appropriate geographic dimension for assessing the state of competition because consideration at the ESA level would artificially dilute Telstra's market power by ignoring the commercial reality that a single ESA fails to provide the requisite economies of scale to justify the roll-out of a competitive wholesale offering. Furthermore, regulation on a geographically segmented basis may have the perverse effect of reducing competition in the competitive areas.[54]

Herbert Geer Lawyers submitted that the LTIE assessment should be undertaken on a national basis particularly as RIMs and pair gain systems are common in many metropolitan ESAs and prevent the competitive provision of ADSL services via the LSS or ULLS to a significant numbers of end-users.[55]

Optus submitted that the LTIE assessment should be undertaken on a national basis and that access seekers' competition concerns are not specific to certain ESAs, rather, they relate to Telstra's overall conduct. Furthermore, the presence of RIMs or large pair gain systems (LPGS) in many metropolitan ESAs provides good reason for the ACCC not to exclude metropolitan ESAs from the scope of the declaration.[56]

On the other hand, TPG submitted that the geographic dimension should be limited to non-metropolitan locations and metropolitan locations where Telstra has created a technical barrier to supply of competitive broadband services by the installation of RIM/LPGS technologies. Those areas are distinct from the remaining market for

[51] Macquarie Telecom submission, p. 2; Herbert Geer Lawyers submission, p. 2; AAPT submission, Pub. p. 4/Conf. p.4; Optus submission, Pub. p. 4/Conf. p.4; Telstra submission, Pub. p.9/Conf. p. 9.
[52] Telstra submission, Pub. p.9/Conf. p. 9.
[53] Ibid, Pub. p.17/Conf, p. 18.
[54] AAPT submission, Pub. p. 5/Conf. p.5.
[55] Herbert Geer Lawyers submission, pp. 2-3.
[56] Optus submission, Pub. p. 14/Conf. p.15.

broadband due to the distortions created by the cost of backhaul, population density and Telstra's own technical decisions.[57]

ACCC'S FINDINGS

In assessing the relevant geographic markets, the ACCC may examine the relative price levels and price movements of different geographic sources of supply, competitive conditions within different geographic areas, and the cost to customers of obtaining supply from alternative regions.[58]

In the context of its recent regulatory decisions about fixed-line services (including its inquiry into varying the exemption provisions in the final access determination for WLR, LCS, and PSTN OA services), the ACCC has considered the most appropriate geographic unit upon which to assess competition is the ESA.[59] However, the Australian Competition Tribunal has made clear that while an exchange based approach may be appropriate in some contexts there may be circumstances where an alternative approach is preferable.[60]

In the current case, the ACCC considers it appropriate to assess the potential effect of declaration on a national basis. The ACCC notes that there is variance in competitive conditions between different geographic areas. The availability of effective alternatives to Telstra wholesale ADSL varies between exchange service areas. A number of competing ADSL networks have been built in metropolitan ESAs, although the reach and functionality of these networks differs between operators. In rural and regional ESAs competing ADSL networks have not been deployed to any material extent.

However, for the following reasons the ACCC is of the view that the relevant markets for present purposes are the national wholesale and retail markets for fixed-line broadband internet services:

- despite some variance in competitive conditions between geographic areas Telstra still maintains its dominance even when considered on a less aggregated basis (see section 3.3.1 below)
- concerns about the commercial terms on which Telstra provides access to the wholesale ADSL service continue to arise on a national basis
- while some allegations of anti-competitive conduct by Telstra received in the past have focused on rural and regional areas, some allegations were not specific to Telstra's conduct in certain TW Zones/Bands but rather related to Telstra's conduct overall as a supplier of wholesale ADSL services
- the large majority of submissions – including from Telstra – support adopting a national market definition.

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[57] TPG, *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (TPG submission), January 2012, Pub. p. 1/Conf.p.1.
[58] See ACCC, *Merger Guidelines*, November 2008, p.19 for a useful list of the types of information the ACCC may consider to identify close substitutes in relation to defining the relevant geographic regions.
[59] ACCC, *Fixed Services Review: a Second Position Paper*, April 2007, p. 31; ACCC, *Inquiry into varying the exemption provisions in the final access determination for WLR, LCS and PSTN OA*, December 2011, pp.39-40.
[60] *Application by Chime Communications Pty Ltd (No 2)* [2009] ACompT 2, 27 May 2009, para 109-110.

As noted above, Telstra has submitted that while the appropriate market is national the ACCC should seek to limit the service description to certain geographic areas. Telstra's submissions on this point are further considered in relation to the service description of wholesale ADSL in section 4.2.

Therefore, in light of submissions and the above analysis the ACCC is of the view that the relevant markets for present purposes are the national wholesale and retail market for fixed-line broadband internet services.

3.3 State of competition

In order to assess the likely impact of declaration on competition, the ACCC first examined the present effectiveness of competition. In the Discussion Paper the ACCC considered that Telstra retains a dominant position in the supply of retail and wholesale ADSL services which has inhibited the development of competition in the relevant wholesale and retail markets.

3.3.1 Fixed-line wholesale broadband services

As discussed in section 3.2.2 the ACCC considers there to be two segments within the market for wholesale fixed-line broadband services:

- The self-supply of fixed-line wholesale broadband services is made up of access seekers that supply their own broadband services through their own ULLS/LSS network or last-mile access networks (such as HFC). This form of competition can be considered as a potential substitute for wholesale ADSL and a potential competitive constraint, although these infrastructure-based providers may not provide services to third-parties.

- The resale of fixed-line wholesale broadband services includes access seekers that, in addition to self-supply, supply wholesale broadband services to ISPs using their own ULLS/LSS networks.

Given the limited geographic deployment of competitive DSLAMs, access seekers purchase wholesale ADSL from Telstra or an alternative supplier in areas outside of their network footprint. Telstra participates in both segments of the overall wholesale fixed-line market.

SUBMISSIONS

Telstra submitted that the relevant national broadband market is already highly competitive. Telstra submitted that it is effectively constrained in its supply of wholesale services by other providers' supply of broadband internet services using a range of alternative methods and technologies.[61] In its submission, Telstra also stated that the deployment of DSLAMs and the availability of alternative fixed line services (such as fibre networks and the Optus HFC) demonstrate the competitiveness of the broadband market.[62]

[61] Telstra submission, Pub.pp.9-10/Conf. pp.9-10.
[62] Ibid, Pub. p.10/Conf.p.10.

Telstra also submitted that it does not consider it necessary for there to be an active competitive market for resale of wholesale broadband services in order to constrain Telstra.[63] Telstra considers that competitive constraints provided by threat of entry by infrastructure-based access seekers and self-supply of services have resulted in a highly competitive market for resale of wholesale ADSL services.[64]

Optus submitted that Telstra's dominance in both the wholesale and retail broadband market is largely due to the lack of substitutes available, Telstra's level of integration and Telstra's pricing conduct.[65] Optus submitted that competition has not developed in the market for resale of wholesale broadband services because of Telstra's significant geographic coverage and its ability to price its own services in order to deter access seekers from purchasing from competitors.[66]

The CCC submitted that the lack of regulation of wholesale ADSL services has had serious detrimental effects on competition.[67] The CCC submitted that disputes concerning wholesale ADSL disrupt an access seeker's business and there is no certainty as to future trade profitability where there is a price squeeze.[68] The CCC also submitted that in some instances Telstra requires access seekers to acquire aggregation and transmissions services from Telstra. In addition, the CCC submitted that Telstra has sought to make access or favourable pricing for ADSL2+ conditional on access seekers agreeing not to acquire further ULLS.[69]

AAPT submitted that currently there are insufficient competitive constraints on Telstra to ensure a wholesale ADSL service or an effective substitute is made available on a national basis on reasonable terms and conditions to access seekers.[70]

Herbert Geer Lawyers (on behalf of iiNet, TransACT, Internode, Primus and Adam Internet) submitted that Telstra leverages its dominant position to favour its own retail business, while its wholesale pricing structure attacks competitors who own their own network.[71]

TPG submitted that Telstra has repeatedly obtained an advantage over its competitors by pricing its wholesale ADSL such that it is difficult for competitors to compete at the retail level and by creating unnecessary business constraints around the supply of wholesale ADSL services.[72]

ACCC'S FINDINGS

The ACCC is of the view that while competition has developed to an extent in certain areas, there are a range of price and non-price issues which suggest there is less than robust competition in the relevant national market:

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[63] Ibid, Pub.p.21/Conf.p.21.
[64] Ibid.
[65] Optus submission, Pub. p.5/Conf.p.5.
[66] Ibid, Pub. p.6/Conf.p.6.
[67] Competitive Carriers Coalition, *Submission in response to the ACCC's discussion paper into whether wholesale ADSL services should be declared* (CCC submission), December 2011, p.1.
[68] Ibid.
[69] Ibid.
[70] AAPT submission, Pub. p.10/Conf.p.10.
[71] Herbert Geer Lawyers submission, p.3.
[72] TPG submission, Pub. p.1/Conf.p.1.

- The level and structure of prices for wholesale ADSL services, including that access charges are high when compared to prevailing retail charges;
- Inefficient price discrimination between access-seekers that has the potential to prevent effective competitors from using their scale to sharpen their retail pricing and put the incumbent under pressure; and
- Telstra's ability and incentive to leverage its dominant position in the supply of wholesale ADSL services to discourage competitive conduct.

These issues are discussed further in section 3.4. As the vertically integrated incumbent with significant national market share, Telstra has strong incentives to engage in entry-deterring or expansion-deterring conduct.

Level of competition in the self-supply of fixed-line wholesale broadband services

At a wholesale level, Telstra operates the only near ubiquitous ADSL network. Telstra's ADSL network covers over 90 per cent of Australian homes and businesses.[73] Telstra also owns and operates a HFC network that can currently be used to supply cable broadband services to approximately 2.7 million premises.[74]

It appears clear that Telstra has and will continue to retain a dominant position in the supply of wholesale fixed-line broadband services. In the majority of ESAs, Telstra remains the only wholesale provider of wholesale fixed-line broadband access and backhaul services. Data indicates that currently, Telstra is the only wholesale provider of wholesale ADSL services in approximately 2200 exchanges.[75]

Table 1 Telstra's wholesale ADSL market share by band (excludes HFC)

ULL Band	Telstra ADSL	Next largest competing ADSL network	Non-Telstra ISPs
Band 1	31.9%	**[c-i-c]**	68.1%
Band 2	51.5%	**[c-i-c]**	48.5%
Band 3	95.0%	**[c-i-c]**	5.0%
Band 4	99.5%	**[c-i-c]**	0.5%

Source: Data obtained under Telstra CAN RKR, December 2011

Table 2 ADSL market shares of non-Telstra competitors by band (excludes HFC)

Carrier	Market share of on-network ADSL lines (i.e. lines on own infrastructure)			
	Band 1	Band 2	Band 3	Band 4
[c-i-c]	**[c-i-c]**	**[c-i-c]**	**[c-i-c]**	**[c-i-c]**
[c-i-c]	**[c-i-c]**	**[c-i-c]**	**[c-i-c]**	**[c-i-c]**

[73] ACCC, data obtained under CAN RKR, December 2011; Telstra, *Fact Sheet: Data Solutions DSL Internet Grade*, available online at: http://telstrawholesale.com/download/document/telstra-wholesale--internet--factsheet-1.pdf .
[74] NBN Co, Corporate Plan 2011- 2013, p.42.
[75] ACCC, data obtained under CAN RKR, December 2011.

Carrier	Market share of on-network ADSL lines (i.e. lines on own infrastructure)			
[c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c]	[c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c]	[c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c]	[c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c]	[c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c] [c-i-c]

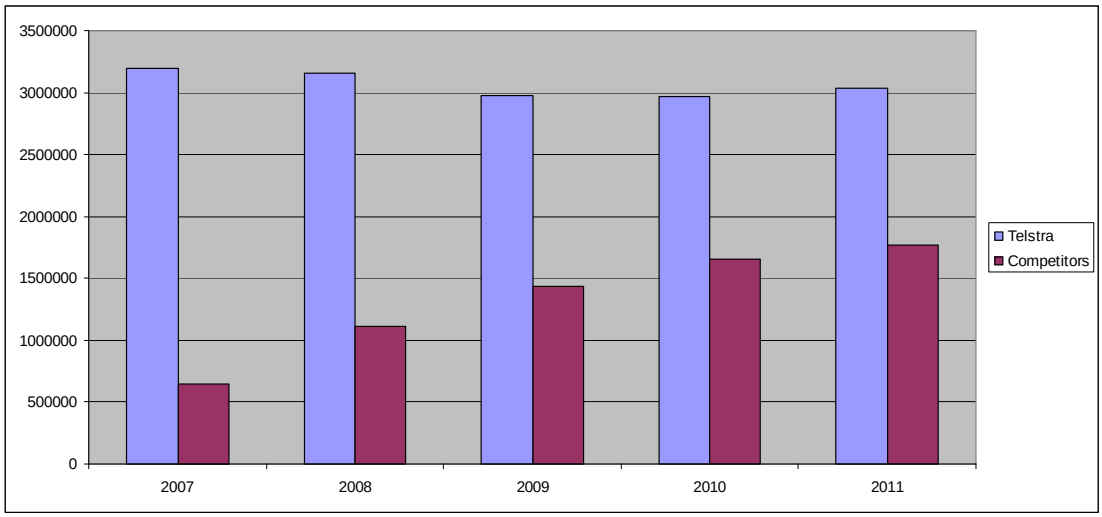
Source: Data obtained under Telstra CAN RKR, December 2011

[c-i-c]

Tables 1 and 2 illustrate that, at a wholesale level, Telstra has service in operation market shares that significantly exceed those of any other providers that have a presence in the relevant bands.[76] Therefore, as noted above in section 3.2.3, while there is some variance in competitive conditions between geographic areas Telstra still maintains its dominance even when considered on a less aggregated basis.

Where access seekers have used the declared ULLS and LSS services to invest in competing ADSL networks to self-supply broadband services, Telstra has retained significant share of SIOs. In contrast to Telstra's 3 million plus SIOs Telstra's competitors combined have around 1.7 million SIOs as shown in Figure 1 below.

Figure 1 Trend for total ADSL SIOs provided by Telstra and competitors



Source: Data obtained under Telstra CAN RKR, 2007 to 2011

Table 3 below illustrates the significant ADSL market share that Telstra has in comparison to the market share of the next three largest competing ADSL networks in ULLS Band 1 – 4 areas. Telstra's ADSL network currently supplies around 63 percent of all retail and wholesale ADSL SIOs. In metropolitan areas (ULLS Bands 1 and 2),

[76] Ibid.

Telstra's ADSL network supplies around 50 percent of these SIOs, and it supplies around 96 percent of such SIOs in regional areas (ULLS Bands 3 and 4).[77]

In contrast, the three largest competing ADSL networks each supply between 8 to 13 percent of ADSL SIOs, and the remaining ADSL networks supply around 7 percent of total services between them.

Table 3 Telstra wholesale ADSL market shares based on CAN RKR data

	Telstra	[c-i-c]	[c-i-c]	[c-i-c]
National market share	63.1%	[c-i-c]	[c-i-c]	[c-i-c]
Share in bands 1 and 2	50.9%	[c-i-c]	[c-i-c]	[c-i-c]
Share in bands in 3 and 4	96.0%	[c-i-c]	[c-i-c]	[c-i-c]
Number of exchanges with a DSLAM presence	2800	[c-i-c]	[c-i-c]	[c-i-c]

Source: Data obtained under Telstra CAN RKR, December 2011.

If market shares are calculated for those ESAs served by competing infrastructure (i.e. TW Zone 1), Telstra's ADSL network retains a share of around 48 percent of SIOs, with the nearest competing ADSL network supplying around 20 percent of SIOs within this footprint.[78]

In terms of geographic reach, Telstra's ADSL network reaches around 90 per cent of Australian homes and businesses. Of the approximately 2800 ESAs that are enabled to provide ADSL services, access seekers have only deployed DSLAMs in 584 of these, most of which are in Bands 1 and 2.[79] Access seekers have a geographic reach of approximately two thirds of premises nationally and are reliant on Telstra's wholesale ADSL services in regions where they do not have any ULLS/LSS infrastructure.[80] However, this data does not factor in lines that are inaccessible to access seekers due to the use of RIM/LPGS technologies.

The footprint of competing ADSL networks has expanded slowly over the last two years, reflecting a growth rate of only one or two ESAs per month.[81] Further, the ACCC is of the view that significant further deepening or expansion of the footprint of

[77] Ibid.
[78] Ibid.
[79] Ibid.
[80] Ibid. Calculated based on number of SIOs with at least one access seeker divided by total number of SIOs nationally. This calculation has been based on using SIOs as a proxy for households.
[81] ACCC, data obtained under Telstra CAN RKR, 2009 to 2011.

current competing ADSL networks is unlikely due to the saturation of markets viable for investment and barriers to entry in other regions (discussed further below).

Access seeker submissions on the terms and conditions on which Telstra supplies wholesale ADSL and the ACCC's analysis of documents obtained from the section 155 notice issued to Telstra[82] suggest that Telstra has the ability to leverage its dominant position so that it is difficult for access seekers to compete with Telstra's retail ADSL offerings. For example, the ability of access seekers to compete is impeded by high wholesale ADSL pricing and the imposition of terms and conditions that discourage competitive conduct. The competition concerns arising from Telstra's terms of wholesale ADSL supply are discussed in section 3.4.

The ACCC considers that Telstra has significant market share in the supply of wholesale ADSL services and due to its dominant position and vertical integration, it has the incentive to set terms and conditions in its supply of wholesale ADSL which allow it to retain its significant market share.

Level of competition in resale of fixed-line wholesale broadband services

In observing the level of competition in this segment of the wholesale market, the ACCC considers that a strong competitive resale market has not developed. While some suppliers – such as Optus and AAPT - do offer ULLS-based wholesale ADSL to other ISPs in their respective footprints, the ACCC does not consider that these amount to a material competitive constraint on Telstra in the national market for the supply of fixed-line broadband.

The lack of competition in the resale market may be attributed to the smaller footprints of competing networks resulting from high barriers to entry and Telstra's ability to set terms and conditions for the provision of wholesale ADSL which make it difficult for alternative suppliers to compete on a national basis.

As discussed above, Telstra has substantial market share and geographic reach in the provision of wholesale ADSL services. Considering the number of resale wholesale ADSL services supplied, Telstra provides **[c-i-c] [c-i-c]** [83] [84] [85] As discussed below, the ACCC considers that it is unlikely that the resale footprint will materially expand.

In addition, the ACCC's analysis suggests that the structure of Telstra's wholesale ADSL price offerings also make it difficult for alternative suppliers to compete as ULLS-based broadband providers. These terms and conditions have been discussed in section 3.4.5.

The submissions by Optus and AAPT, and review of the terms and conditions on which Telstra supplies wholesale ADSL services, lead the ACCC to consider that it is evident that Telstra has incentive and ability to stifle the development of competition in the wholesale fixed broadband market.

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[82] Response to s.155 notice issued to Telstra on 4 January 2012.
[83] Telstra submission, Conf. p.12.
[84] Optus submission, Conf. pp.6-7.
[85] ACCC, data obtained under CAN RKR, December 2011; AAPT, *Fixed line services geographic exemptions – request for market information*, 21 September 2011.

Factors contributing to the observed state of competition

As discussed above in 3.2.2, Telstra has submitted that the threat of entry by infrastructure-based providers is a constraint on Telstra in the fixed-line wholesale broadband market.

The ACCC does not consider there to be a substantial threat of further expansion or deepening of the competitive footprint by infrastructure-based access seekers due to a number of factors that create barriers to entry.

One barrier to further deepening or expansion is the lack of competitive backhaul which presents an impediment to entry in many ESAs. The Implementation Study for the National Broadband Network states that "unavailability of competitively priced backhaul is a bottleneck to providing affordable, high-speed broadband services in Australia today".[86] Backhaul is a necessary component in providing an ADSL service over unbundled lines and connects the CAN to the broader network. Although some DSLAM investment has been made outside of CBD and metropolitan ESAs, it has generally taken place in areas where there is significant competitive backhaul infrastructure resulting in competitive backhaul pricing.[87]

In the last year, even with the commissioning of competing transmission links on the Regional Backbone Blackspot Program (RBBP) routes, competing ADSL networks entered fourteen new RBBP ESAs, in addition to a background growth rate of twelve ESAs.[88] Herbert Geer Lawyers have submitted that the RBBP makes it economically viable for access seekers with existing customer bases on Telstra wholesale ADSL to migrate to their own networks into areas covered by the RBBP. However, Herbert Geer Lawyers submitted that there is no business case to install DSLAMs in the bulk of rural and regional ESAs (which are not covered by the RBBP) due to a lack of existing market share and lack of an addressable market in those ESAs.[89]

The ACCC considers that absent a supervening event like the RBBP, it is unlikely for there to be a material expansion of the footprint as indicated by the low growth rate in unbundled lines in Bands 3 and 4 and in the number of ESAs serviced by competitive infrastructure and over time in figure 2 and 3 below. Further, the ACCC accepts Herbert Geer Lawyers' submission that despite the availability of backhaul, the lack of scale in regional and rural ESAs makes it difficult to obtain a commercial rate of return on DSLAM investment. Figure 2 below shows that there has been minimal growth in ADSL provided over ULLS/LSS in rural and regional areas.

The cost of backhaul infrastructure in regional and rural areas is likely to represent a considerable barrier to entry for DSLAM deployment. The two factors which are likely to inhibit backhaul investment in regional and rural areas are: the size of the market that could be served by the infrastructure and the cost to build the route. In many rural and

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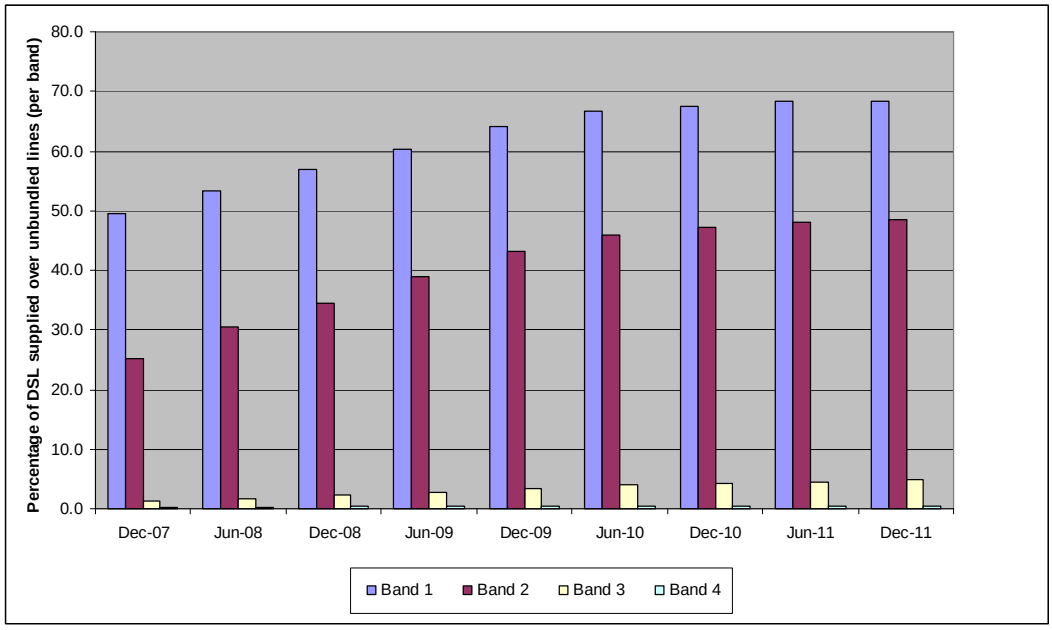
[86] McKinsey & Co and KPMG (prepared for DBCDE), *Implementation Study for the National Broadband, Communications and the Digital Economy on the "Backhaul Blackspots Initiative Stakeholder Consultation Paper"*, May 2009, p.323.
[87] ACCC, data obtained under CAN RKR December 2011 and Infrastructure RKR.
[88] ACCC, data obtained under CAN RKR, December 2010 to December 2011 and DBCDE, Regional Backbone Blackspots Program, http://www.dbcde.gov.au/funding_and_programs/national_broadband_network/national_broadband_network_Regional_Backbone_Blackspots_Program .
[89] Herbert Geer Lawyers submission, pp.15-16.

regional areas the addressable market is small, and may be unlikely to provide the necessary scale for more than one provider to spread sunk costs. These are high, and in some cases insurmountable, barriers to entry into backhaul markets.

Further, Herbert Geer Lawyers submitted that while the reduced ULLS prices for regional and rural Band 3 ESAs in the ACCC's Final Access Determination have made it more viable for access seekers to provide ULLS in Band 3, Telstra is the dominant backhaul provider in that area.[90] TPG also submitted that it is unlikely to invest in DSLAM infrastructure in the regional centres as the price payable for backhaul makes the investment uneconomic.[91]

As indicated by Figure 2 below, while access seekers have had success in entering ULLS Bands 1 and 2, there are barriers to entry to ULLS Bands 3 and 4 which make investment in these areas not feasible. It is unlikely that there is a substantial threat of further expansion or deepening of the competitive footprint from potential competitors, as the market in areas which entry was feasible have now matured, therefore, new entry is unlikely. TPG submitted that as the market becomes fully saturated and the NBN draws nearer, the business case for expansion of DSLAM infrastructure becomes very difficult.[92]

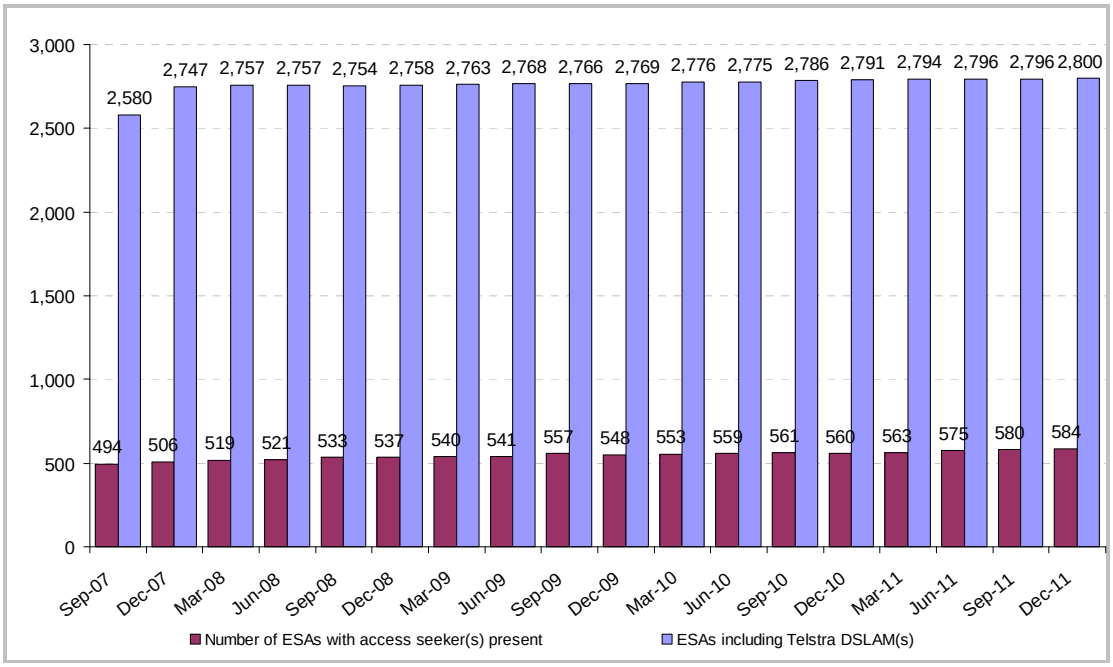
Figure 2: ULLS/LSS services in each Band as a percentage of total ADSL[93] services provided for each Band.[94]



Source: Data obtained under Telstra CAN RKR, December 2007 to December 2011

[90] Ibid, p.16.
[91] TPG submission, Pub p.5/Conf.p.5.
[92] Ibid.
[93] These DSL services include ADSL and services marketed as 'business DSL'. The majority of DSL services are ADSL services.
[94] ACCC, data obtained under the CAN RKR, December 2007 to December 2011.

Figure 3: Telstra and access seeker number of ESAs with DSLAM(s) present



Source: Data obtained under Telstra CAN RKR, September 2007 to December 2011

Further barriers to entry in relation to DSLAM deployment are created through Telstra's use of RIM and large pair gain system (LPGS) technologies which are widespread throughout the copper network. Currently, 11 percent of copper lines are supplied using RIM/LPGS technologies.[95] Lines with RIM/LPGS technologies are widely distributed throughout the CAN, and practically all ESAs are subject to some RIM technologies.[96] Data indicates that 8 percent of lines in TW Zone 1 ESAs and 15 percent of lines in TW Zone 2/3 ESAs are affected by RIMs.[97]

While in many cases Telstra can provide subscribers on these lines with ADSL services, the use of RIM/LPGS creates significant difficulties for competing ADSL network operators. This is because Telstra's cabinets are not designed to accommodate third-party DSLAM equipment, and hence network operators would need to install their own cabinet and obtain ULLS or LSS services via a cross-connect cable. The relatively high costs associated with installing this infrastructure and the limited number of serviceable customers results in unprofitable deployment of DSLAMs.[98]

Optus and Herbert Geer Lawyers (on behalf of iiNet, Internode, TransACT, Adam Internet and Primus) have submitted that lines affected by RIM/LPGS technologies can only be accessed through broadband via Telstra's network and prevent the competitive provision of ADSL via ULLS or LSS to a significant number of end-users.[99] For

[95] ACCC, data obtained under the Infrastructure RKR.
[96] Ibid.
[97] Ibid.
[98] Herbert Geer Lawyers submission, pp.15-16.
[99] Optus submission, Pub. p.15/Conf. p.15; Herbert Geer Lawyers submission, p.2.

example, Internode has refrained from deploying a DSLAM in Bordertown due to a very high RIM ratio which would make the investment unprofitable.[100]

In addition, Telstra's decision to install ADSL2+ equipment on top of the existing street side RIM cabinets as part of its 'Project Top Hat' indicates that Telstra will over time increase the number of ADSL services that could only be supplied by the Telstra DSL network.[101]

The relatively high costs associated with installing infrastructure, and the limited number of serviceable customers creates high barriers to competitive network entry and typically results in wholesale ADSL being the only input available to service providers wishing to supply end-users in RIM affected areas.

Having considered the barriers to entry in the fixed-line wholesale broadband market, the ACCC does not accept Telstra's submission that it is sufficiently constrained due to the threat of entry by infrastructure-based competitors.

In light of submissions from access seekers and the above analysis, the ACCC does not consider that the fixed-line wholesale (including both self-supply and resale of fixed-line wholesale broadband services) broadband market is particularly competitive.

The emergence of the National Broadband Network

On 7 April 2009, the Government announced that it intended to establish a company, the National Broadband Network Corporation Ltd (NBN Co), to build and operate a wholesale-only, open access NBN.

The Government has stated that its objective is for NBN Co to build a fibre-to-the premises access network that connects at least 93 per cent of Australian premises, with a minimum fibre coverage obligation of 90 per cent of premises. The remainder of premises will be served via NBN Co's fixed wireless and satellite services as well as by Telstra's existing copper network.

In the long-term, the NBN should resolve the competition concerns relating to wholesale ADSL services as the copper CAN will be decommissioned and NBN Co will be a regulated wholesale-only provider of fixed-line broadband services.

NBN Co intends to progressively roll out fibre in regions within its footprint over a nine year deployment schedule.[102] As the NBN rolls out Telstra will progressively migrate its customers from its copper access network onto the NBN.

Given the progressive nature of the NBN rollout, the ACCC considers that until the NBN has been fully deployed the competition concerns identified in relation to the supply of wholesale ADSL are unlikely to be alleviated.

Alternative sources of fixed broadband supply

As noted in section 3.2, the ACCC has included alternative networks such as HFC and optic fibre in the relevant markets.

Telstra submitted that it is effectively constrained in its supply of wholesale services by competitors that supply broadband services using a range of technologies, in particular

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[100] Herbert Geer Lawyers submission, p.4.
[101] Telstra, *Telstra will start rolling out Top Hats in November*, 25 October 2011 http://exchange.telstra.com.au/?p=15830 .
[102] NBN Co Corporate Plan 2011-2013, pp.77-79.

the Optus HFC network and the fibre networks and fibre loops deployed in CBD and metropolitan regions.[103]

The ACCC considers that the extent to which HFC and optic fibre based services are a constraint at the wholesale level depends on their availability in wholesale markets.

As discussed in section 3.2, Optus' HFC network does not provide national coverage and neither Telstra nor Optus provide wholesale access services on their HFC networks.

Optic fibre networks have mainly been deployed in CBD/metropolitan areas, which are also areas where a majority of access seekers have deployed competitive infrastructure. Therefore, the constraint of optic fibre may be limited as competitors are already present in the CBD and metropolitan areas.

Further, as noted in Optus' submission, the combined footprint of fibre networks serving residential end-users is very small and is therefore only a limited constraint on the pricing of ADSL services.[104] Optical fibre services only 0.3% of residential broadband subscribers in Australia. [105].The ACCC considers that whilst optical fibre is in the relevant market, the effect of its constraint may be limited.

Therefore, the ACCC does not accept Telstra's submission that its supply of wholesale broadband services is effectively constrained by competitors supplying HFC and optic fibre services.

Telstra has also submitted that the competition in CBD and metropolitan areas (from the operation of fibre networks and Optus' HFC network) have had the effect of forcing the national price of Telstra's retail ADSL downwards.[106] As a result Telstra submits that is offers regional retail customers the same competitive price as in the CBD.[107]

The ACCC accepts that Telstra's nationally consistent retail price passes on some of the benefits of DSLAM-based competition in CBD and metropolitan areas to end-users in regional and rural areas. However, these benefits do not appear to have flowed through to the wholesale market. In addition, Telstra is largely unconstrained in rural and regional areas and so does not face strong competitive constraint in the national market.

A more competitive rural and regional wholesale ADSL market could be expected to deliver greater benefits to consumers nationally. Furthermore, while rural and regional areas receive some of the benefit of retail pricing pressure created in the CBD and metropolitan areas by presence of competing DSLAMs, they do not receive a range of benefits which actual competition in these locations would deliver.

Therefore, the ACCC does not accept Telstra's submission that any constraint in the CBD and metropolitan areas have flowed through to the national market.

3.3.2 Level of competition in fixed-line retail broadband services market

As noted in the Discussion Paper, the ACCC considers that in assessing the state of competition in a wholesale market, it is also relevant to take account of retail market

[103] Telstra submission, Pub. pp. 9-10/Conf. pp.9-10.
[104] Optus submission, Pub. p.20/Conf. p.28.
[105] ABS, *Internet Activity, Australia*, June 2011.
[106] Telstra submission, Pub. p.10/Conf. p.10.
[107] Ibid.

outcomes. This reflects the key rationale for access to essential infrastructure - that of promoting more competitive downstream markets by enabling the supply of upstream inputs on terms and conditions more reflective of competitive outcomes. Further, the overarching aim of promoting the LTIE guides the ACCC to be particularly mindful of the impact of declaration of a service on the supply of services at the retail level.

One relevant factor when considering the state of competition is the market shares of competitors within the relevant market. Telstra remains the dominant provider of retail fixed broadband services nationally with a market share of approximately 45 per cent.[108] As shown by Table 4 below, the three largest competing fixed-line broadband service providers have retail market shares of **[c-i-c] [c-i-c]**

Table 4 Retail market shares of top ten fixed-line broadband providers (including HFC)[109]

Provider	Approximate Market Share
Telstra retail	45%
[c-i-c]	**[c-i-c]**
[c-i-c]	**[c-i-c]**
[c-i-c]	**[c-i-c]**
[c-i-c]	**[c-i-c]**
[c-i-c]	**[c-i-c]**
[c-i-c]	**[c-i-c]**
[c-i-c]	**[c-i-c]**
[c-i-c]	**[c-i-c]**

Source: Data obtained under division 12 RKR, 2010-2011; Data obtained under Telstra CAN RKR, December 2011; Telstra response to s.155 notice issued 12 January 2012.

Another relevant consideration is the retail pricing of ADSL products. The ACCC considers that pricing responses and outcomes for consumers of fixed-line broadband services can provide information on the level of actual competition in a market. This can be considered in terms of the product pricing and product offers currently offered by retail service providers.

Currently, ADSL product offerings vary depending on whether they are supplied over Telstra's network ('off-net') or over an access seeker's own network via ULLS/LSS ('on-net'). The methods of supply of ADSL services are discussed further in section

[108] Telstra, *Full Year Results Announcement 2011*, 11 August 2011 http://www.telstra.com.au/abouttelstra/investor/calendar/annual-results-announcement-4.xml .
[109] Note figures include Telstra and Optus' respective HFC SIOs.

2.2. The difference between the pricing of products on-net and off-net reflects the difference in the costs that an access seeker incurs if it buys wholesale ADSL from Telstra compared with if it supplies itself over its own network.

ISPs such as Internode, Adam Internet and iiNet offer substantially greater value in terms of price per gigabyte of data quota when providing services on-net rather than off-net. Telstra submitted that the average data allowance in bundled plans offered by access-seekers on-net has increased 2,627 percent since September 2007, from 5.5GB to 150GB.[110]

Internode offers a 200GB service for $49.95 on-net but charges $89.95 for half this quota (100GB) in off-net areas. Similarly, iiNet offers a 50GB+50GB service on-net for $59.95 but charges $79.95 for this service off-net. In addition, TPG submitted that while it provides unlimited ADSL2+ on-net, it has withdrawn this (previously higher priced) offering for off-net customers due to the high costs of VLAN.[111]

Generally, on-net offerings are better value per gigabyte than off-net offerings. Access seekers have submitted that they sustain losses in off-net areas and customer churn to Telstra.[112] Consistent with retail pricing, there is significant evidence that access seekers are more successful in the retail market when supplying services on-net. This can be inferred from the concentration of access seekers customer base on-net rather than off-net:

Table 5 Concentration of access seeker customer base on-net

Access seeker	Percentage of customer base on-net
[c-i-c]	**[c-i-c]**[113]
[c-i-c]	**[c-i-c]**[114]
[c-i-c]	**[c-i-c]**[115]
[c-i-c]	**[c-i-c]**[116]
[c-i-c]	**[c-i-c]**[117]
[c-i-c]	**[c-i-c]**[118]

Overall, the ACCC is of the view that Telstra has maintained its retail market dominance over time and competitors to Telstra have significantly lower market share.

[110] Telstra submission, Pub. p.12/Conf. p.12.
[111] TPG submission, Pub. p.3/Conf. p.3.
[112] Herbert Geer Lawyers submission, Confidential Annexure 2.
[113] Ibid, p.2.
[114] Ibid.
[115] Ibid.
[116] Ibid.
[117] Ibid, p.3.
[118] AAPT submission Conf. p.6.

3.3.3 Conclusion on state of competition

Having had regard to submissions from interested parties and the above analysis, the ACCC considers that the relevant markets do not display the characteristics of effectively competitive markets.

In particular the ACCC concludes that:

- concentration levels - Telstra retains a dominant market share in the wholesale and retail fixed-line broadband market with a market share of around 63 percent at the wholesale level and approximately 45 percent at the retail level. The level of competition in the provision of fixed broadband services varies across the nation. Access seekers have a significantly lower market share in rural and regional areas (Bands 3 and 4) and have a modest market share in the CBD and metropolitan areas (Bands 1 and 2).
- barriers to entry - despite the differences in the levels of competition, access seekers face barriers to entry in both the CBD and metropolitan areas and rural and regional areas. Moreover, Telstra still controls the infrastructure by which the overwhelming majority of fixed broadband services are provided and because of its vertical integration Telstra enjoys a strong position in fixed broadband services.
- relevant behavioural features – as the vertically integrated incumbent with significant national market share, Telstra has the incentive and ability to engage in entry-deterring or expansion-deterring conduct through the terms and conditions for the supply of wholesale ADSL.

Accordingly, it is the ACCC's view that the national wholesale and retail markets for the provision of fixed-line broadband markets are not effectively competitive overall.

3.4 Extent to which declaration would promote competition in relevant markets

In determining whether the declaration of a wholesale ADSL service will promote the LTIE, the ACCC must have regard to the extent to which declaration is likely to promote competition in the relevant markets. As part of this assessment the ACCC considered the likely future state of competition in the relevant markets with and without the declaration.

In the Discussion Paper, the ACCC highlighted long-standing concerns regarding:

- the level and structure of prices for the wholesale ADSL service
- anti-competitive price discrimination between access seekers not based on efficiency
- Telstra's ability and incentive to leverage its dominant position in the supply of wholesale ADSL services to discourage competitive conduct and the use of competitive infrastructure where it is efficient.

As part of considering the future state of competition the ACCC has considered the roll-out of the NBN as relevant as it is likely to have significant implications for the relevant markets.

In determining the extent to which declaration of wholesale ADSL is likely to result in the achievement of the objective of promoting competition, the ACCC has had regard to the extent to which declaration will remove obstacles to end-users of listed services gaining access to listed services.[119]

SUBMISSIONS

The ACCC received a number of detailed submissions regarding this criterion.

In summary:

- Telstra submitted that declaration would not promote competition. Telstra submitted in relation to specific competition concerns noted by the ACCC that its pricing conduct does not reflect leveraging conduct and that there is no systematic evidence of price discrimination between access seekers. In addition, Telstra submitted that the deployment of the NBN does not significantly change the environment and therefore, does not raise sufficient concerns to warrant declaration of the wholesale ADSL service.[120] Telstra also submitted that its SSU (if accepted) would address the concerns raised by access seekers by making a number of commitments which impose obligations that are equivalent to the Standard Access Obligations (SAOs).[121]
- Optus submitted that declaration of wholesale ADSL would promote competition in the short term and medium term, with the transition to the NBN.[122]
- The CCC submitted that declaration of the wholesale ADSL service is critical to successful retail broadband competition with the rollout of the NBN. The CCC further submitted that Telstra will be able to continue its retail ADSL growth through its ownership of the copper access network.[123]
- AAPT submitted that without regulation Telstra will have the opportunity to exercise its market power in a number of ways such as setting access charges that lead to price squeeze opportunities; favouring its own retail services and limiting the technical capabilities available to competitive operators.[124]
- Herbert Geer Lawyers (on behalf of Internode, iiNet, Adam Internet, TransACT and Primus) submitted that in the future, the telecommunications industry will experience major efforts by access seekers to increase market share in the lead up to the NBN roll-out.[125] Herbert Geer Lawyers also submitted that declaration of wholesale ADSL is vital in providing access to cost-based wholesale ADSL prices to limit Telstra's ability to leverage its current market dominance in a manner that has potential to damage future wholesale competition on the NBN.[126]

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[119] Section 152AB(4) of the CCA.
[120] Telstra submission , Pub. pp. 12-14/Conf. pp.14-17.
[121] Ibid, Pub. p.4/Conf. p.4.
[122] Optus submission, Pub, p.3/Conf. p.3.
[123] CCC submission, p.2.
[124] AAPT submission, Pub. p.10/Conf. p.10.
[125] Herbert Geer Lawyers submission, pp.11-12.
[126] Ibid.

- TPG submitted that declaration will promote competition and would allow TPG to expand its market offerings and offer differentiated products.[127]

Submitting parties also provided detailed information in support of the above views in relation to specific competition concerns noted by the ACCC in the Discussion Paper. These submissions are considered in the ACCC's findings below.

ACCC'S FINDINGS

The ACCC considers that declaration is likely to result in the achievement of the objective of promoting competition by addressing long-standing competition concerns arising from underlying structural issues.

3.4.1 Relationship of wholesale ADSL declaration inquiry to other regulatory processes

As a preliminary point, in considering the future with and without declaration it is relevant to consider whether in the future without declaration, other regulatory processes have the potential to improve competition.

This section outlines how the ACCC has taken into account other regulatory and enforcement processes and powers in its analysis of whether declaration is likely to promote competition.

SSU

Telstra submitted that the ACCC's acceptance of the SSU does not require or depend upon its declaration of wholesale ADSL.[128] Telstra also submitted that the terms of the SSU address the Commission's concerns and provide a compelling reason for the ACCC not to declare wholesale ADSL.[129]

As previously acknowledged by the ACCC, the ACCC's consideration of whether to declare wholesale ADSL is discrete from its assessment of the SSU and the ACCC must only declare the wholesale ADSL service if it is in the LTIE to do so.[130]

However, as noted in the Discussion Paper, declaration of the wholesale ADSL service has implications for the ACCC's assessment of Telstra's SSU. This is because Telstra's proposed SSU provides for different price terms to apply depending on whether the wholesale ADSL service is a declared service.[131]

The ACCC has publicly stated its view that the proposed SSU price equivalence arrangements to apply to wholesale ADSL when it is not a declared service appear comparatively weak to those arrangements that applied to services that are declared

[127] TPG submission, Pub. p.5/Conf.p.5.
[128] Telstra submission, Pub. p.9/Conf. p.9.
[129] Ibid, Pub. p.29/Conf.p.17.
[130] ACCC, *Discussion paper into whether wholesale ADSL services should be declared under Part XIC of the Competition and Consumer Act*, December 2011, p.29.
[131] If the wholesale ADSL service is a declared service, Telstra will adopt the price terms that will be specified in the ACCC's pricing decision as the basis for meeting its price equivalence obligations, in the same way as it has proposed for the existing declared services. If, however, the wholesale ADSL service is not a declared service, the proposed SSU provides that Telstra will adopt price terms based on a methodology set out in the SSU. That methodology is a retail minus methodology set out in the SSU.

service.[132] This is because Telstra would retain considerable latitude in developing and applying the pricing methodology, the proposed measures do not prevent Telstra from engaging in discriminatory behaviour, and the ACCC would be limited in its ability to direct Telstra to change its pricing conduct under the equivalence commitment.

Therefore, the ACCC does not accept Telstra's submission that the SSU will address the ACCC's concerns in relation to Telstra's supply (and pricing) such that declaration is unnecessary.[133]

Part XIB

On a related point, Telstra submits that if the ACCC receives complaints about specific competition concerns – such as the level of Telstra's wholesale prices relative to its retail prices or in relation to leveraging conduct - those complaints should be investigated and dealt with under Part XIB of the CCA.

As discussed in section 2.4, the ACCC has previously issued two competition notices in relation to wholesale ADSL competition concerns. While the ACCC has not issued a competition notice or instituted Part IV/XIB in relation to recent price squeeze allegations, it has acknowledged ongoing concerns about Telstra's price and non-price conduct with respect to wholesale ADSL. In this regard, it is relevant to note that Part XIB and Part XIC impose different tests – while Part XIB generally uses a "substantial lessening of competition" threshold Part XIC is a forward-looking analysis concerned with whether intervention is in the LTIE.

The ACCC agrees that should Telstra contravene the competition rule contained in s.151AK it could issue a competition notice and seek to enforce this in the Federal Court.

However, the ACCC notes that, pursuant to s.151AP of the CCA, the ACCC must have regard to the *Competition Notice Guidelines* when deciding whether to issue a Competition Notice under Part XIB. Those guidelines state that the ACCC will assess whether compliance with the competition rule could be more quickly and effectively achieved by initiating the declaration process under Part XIC, among other actions under the CCA. In particular, the guidelines state that in some circumstances, Part XIC may be a preferable way of addressing a matter where structural issues are involved and the issuing of a competition notice will not resolve these issues if other parties and new entrants seek access to the service at a later time.

The recurrence of competition concerns throughout the last decade, and the matters outlined in relation to the state of competition above, suggest underlying structural issues more appropriately dealt with under Part XIC.[134] This is because declaration, and the provision of regulated access, can promote competition even where conduct does not breach specific anti-competitive conduct provisions.

3.4.2 Level of wholesale ADSL pricing

Telstra has strong incentives to engage in entry-deterring or expansion-deterring conduct to maintain and grow its retail market share. This has given rise to a number of specific concerns about the level and structure of prices for the wholesale ADSL

[132] ACCC, *Telstra's Structural Separation Undertaking Discussion Paper*, December 2011, pp.10-11.
[133] Telstra submission, Pub.pp.15-16/Conf. pp.16-17.
[134] see ACCC, *Telecommunications Competition Notice* Guidelines, February 2004, p.23.

service and the impact of those prices on the development of effective competition in wholesale and retail markets. Declaration of wholesale ADSL has the potential to promote competition in wholesale and retail fixed-line broadband markets by constraining Telstra's ability to act on its underlying incentives and providing greater certainty to access seekers that the wholesale ADSL service will be supplied on competitive terms.

The level of prices is high

The ACCC is of the view that the level of prices charged for wholesale ADSL is above what would be expected in a competitive market, and this reflects Telstra's strong position in the national market**.** The fact that wholesale ADSL charges are positioned over a very wide spread between access seekers,[135]even taking into account differences between various components in a multi-part tariff, suggests that considerable margin is available in the prices Telstra charges many of its wholesale customers. Further, the level of Telstra's prices is high compared to Telstra's retail prices suggesting that Telstra itself faces a significantly lower internal cost of supply.

The relative levels of Telstra's wholesale and retail prices

As discussed previously in this Final Decision, concerns have regularly been raised by access seekers about the level of Telstra's wholesale ADSL prices relative to Telstra's retail ADSL charges. These concerns relate to the ability of access seekers to compete with Telstra in downstream retail markets. While the existence of complaints is not necessarily demonstrative of an underlying competition issue, as the vertically integrated incumbent with significant national market share Telstra has strong incentives to engage in entry-deterring or expansion-deterring conduct to maintain and grow its retail market share.

In the context of the current inquiry, access seekers have continued to raise concerns about Telstra's retail and wholesale pricing. In particular:

- AAPT submitted that it was unable to offer truly competitive retail ADSL services as it was unable to match Telstra retails offers. AAPT submitted that Telstra is able to make a retail business offer for ADSL2+ for $30, while **[c-i-c] [c-i-c]** [136]
- **[c-i-c] [c-i-c]**[137] [138]
- Internode submitted that Telstra's wholesale pricing has made it difficult to match Telstra's retail offers. **[c-i-c] [c-i-c]** [139]
- Adam Internet also submitted that it loses approximately $21 per month per subscriber when it acquires wholesale ADSL from Telstra.[140]

The ACCC's view is that the above evidence supports the conclusion that declaration could promote competition by addressing concerns about the level of Telstra's wholesale pricing relative to its retail pricing.

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[135] Response to s.155 notice issued to Telstra on 4 January 2012.
[136] AAPT submission, Conf. p.7.
[137] Optus submission, Conf pp.7-8 and pp.20-21.
[138] Ibid, pp.8 and 21.
[139] Herbert Geer Lawyers, Confidential Annexure 4, pp.1-3.
[140] Herbert Geer Lawyers submission, p.3.

In particular, the **[c-i-c] [c-i-c]** [141]

Telstra's conduct also clearly affects the ability of access seekers to compete with entry-level plans. In addition to port and AGVC charges, access seekers incur network and overhead costs, an installation charge, and – to provide a bundle of services – WLR charges. Given that WLR charges are $22.84,[142] even without considering network and overhead costs, many of the wholesale ADSL charges would make it difficult to replicate Telstra's entry level bundled phone and ADSL $59.95 offer.

Cycle of delay in revision of wholesale and retail prices

Another related pricing concern stems from the apparent cycle whereby material delays occur between the release of new Telstra retail broadband pricing and the finalisation of negotiations around Telstra wholesale ADSL pricing. Depending on the relative level of the charges, the delay can cause access seekers to have to choose between offering retail prices above Telstra's and risking a loss of market share or reducing retail prices to replicate Telstra's offers and making negative margins while they await new wholesale pricing. This conduct also gives Telstra extra leverage in negotiations as the longer the delay the more urgently access seekers need to finalise wholesale prices.

Such delays have remained characteristic of the pricing conduct in ADSL markets. For example, following Telstra's retail price reductions in mid 2010:

- TPG's prices were not revised for four months. TPG submits that the delay in revision of wholesale pricing resulted in a significant number of its "off-net" customers moving to Telstra.[143]
- Internode's prices were not revised for twelve months.[144]
- iiNet has publicly stated that off-net services were impacted by lack of competitive wholesale offer until the end of December 2010.[145]

Telstra has strong incentives to delay wholesale pricing negotiations in order to grow its retail market share. In this regard, from 1 July 2010 to 30 December 2010 Telstra's total retail customer base increased by 139,000 SIOs.[146]

Telstra has previously submitted to the ACCC that it cannot revise its wholesale ADSL pricing before releasing new retail pricing because this would disclose its plans to its retail competitors.[147] However, it is not clear why wholesale price reductions should only occur following retail price reductions. In a competitive market and in the absence of a vertically integrated wholesaler and retailer, it seems more likely that competition on wholesale ADSL pricing and realised cost efficiencies in the supply of the service

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[141] Optus submission, Conf. pp.21-25.
[142] ACCC, *Final Access Determination No.6 of 2011 (WLR)*, 2010, p.23.
[143] TPG submission, Pub. pp.2-3/Conf. pp.2-3.
[144] Herbert Geer Lawyers submission, p.5.
[145] iiNet, *Investor Presentation*, http://investor.iinet.net.au/irm/Company/ShowPage.aspx?CPID=1422&EID=83532977&PageName=Investor, 21 February 2011, slide 14.
[146] Telstra retail fixed broadband has increased from 2,255,000 to 2,394,000 SIOs (increase of 139,000). However, the number of Telstra wholesale broadband SIOs decreased from 1,003,000 to 919,000 SIOs (decrease of 84,000).
[147] Telstra letter to the ACCC in response to the ACCC's open letter, 27 October 2010, available at http://www.accc.gov.au/content/item.phtml?itemId=954624&nodeId=00e1a3a2b51f5b2f7efb1ba5757c5940&fn=Telstra.pdf .

would be the catalyst for price reductions. In circumstances where a rival wholesaler offered improved pricing to access seekers, Telstra would have to respond to avoid losing wholesale business over the longer term. Similarly, in a competitive market a wholesaler would have an incentive to pass on any new cost efficiencies in order to grow market share.

Concerns about the relative levels of Telstra's wholesale and retail pricing have commonly occurred following Telstra's retail price reductions, given Telstra enters wholesale price negotiations after retail price reductions and has strong incentives to delay those negotiations.

During the transition to the NBN, the ACCC considers that Telstra is likely to further reduce its fixed-line broadband retail pricing as competition intensifies prior to migration.

Given the above, without declaration there is likely to be increased uncertainty as to the relative levels about Telstra's wholesale retail pricing resulting in softened retail competition. In the future with declaration, competition is likely to be promoted as current concerns would be addressed by providing certainty to access seekers that wholesale ADSL will be supplied on efficient terms.

3.4.3 Structure of wholesale ADSL pricing

The structure of Telstra's wholesale ADSL pricing has also been the source of competition concern.

Pricing based on availability of competitive alternatives

For most wholesale customers, Telstra structures its wholesale pricing to provide different wholesale prices for services supplied in different geographic "zones".[148]

Telstra does not provide a transparent definition for a 'Zone'. However, it is commonly understood[149] to be based on the availability of competitive infrastructure. The ACCC understands this common understanding is correct because Telstra's Zone 2/3 ESAs (as per the "ADSL enabled exchange list) correlate very strongly with the presence of competitor infrastructure with practically all Zone 2/3 exchanges being outside the current competitive footprint.[150]

It is important to note that that Telstra's zones are different to the "bands" used to classify ESAs into CBD, metropolitan, regional, and rural areas. For example, rural and regional band 3 and 4 exchanges that have attracted competitive investment are classified by Telstra as Zone 1. While bands are based on an objective criteria – the number of services in operation per square kilometre[151] – ESAs are classified into zones at Telstra's on discretion.

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[148] Response to s.155(1)(a) notice issued to Telstra on 4 January 2012.**[c-i-c] [c-i-c]**

[149] For example, see Herbert Geer submission, p.16; Letter from Herbert Geer Lawyers on behalf of Internode and iiNet to the ACCC dated 9 July 2010, p.6. (available online at http://www.zdnet.com.au/story_media/339304519/ADSL2+%20price%20squeeze%20-%20Internode%20-%20ACCC%20(V3).pdf).

[150] Telstra ADSL-enabled exchanges (http://telstrawholesale.com.au/download/document/access-broadband-adsl-en-ex.xls); ACCC, data obtained under CAN RKR, December 2011.

[151] ACCC, *Snapshot of use of Telstra's customer access network*, http://www.accc.gov.au/content/index.phtml/itemId/853517 .

Telstra prices wholesale ADSL higher for TW Zone 2/3 than in TW Zone 1.[152] The **[c-i-c] [c-i-c]** [153]

Access seekers have additionally submitted the following:

- Herbert Geer Lawyers submitted that Telstra's port prices in TW Zone 1 are significantly lower than in TW Zone 2 and 3 in order to limit the threat to its retail business posed by competitive alternatives. Telstra is able to charge higher prices in TW Zone 2/3 with the knowledge that access seekers have no alternative supply option to switch to for wholesale ADSL.
- **[c-i-c] [c-i-c]**[154]

The ACCC considers that Telstra's wholesale ADSL prices are based on the availability of effective alternative infrastructure as opposed to being based on the underlying costs of supply with Telstra offering sharper pricing only where competitive alternatives are available.

While it is uncontroversial that access line prices may vary between geographic locations, it does not appear that zones are based upon significant differences in the economic characteristics affecting the cost of service provision but on the presence of competitive alternatives.

Further, there is evidence that Telstra has used the zone construct to impose terms and conditions directed at stifling the development of effective national competition. As discussed in section 3.4.5, Telstra has sought to use the "zone" construct to impose terms and conditions with the potential to leverage Telstra's market power. For example, by offering **[c-i-c] [c-i-c]**[155]

AGVC pricing

A further concern in relation to the structure of prices arises in relation to the two-part tariff (see section 2.3). Telstra requires wholesale customers who purchase the local access component of the wholesale ADSL service to also purchase a backhaul transmission component - AGVC or VLAN - to transport aggregated traffic to their point of presence.[156]

Access seekers have raised concerns that Telstra's AGVC charges are high for wholesale customers and Telstra retail does not face a similar marginal cost. In particular:

- TPG submitted that the price which Telstra charges for backhaul does not appear to bear any correlation to actual cost.[157] TPG submitted that based on its own experience with fibre networks, the price currently charged for AGVC by Telstra ($58.66 per Mbps) significantly exceeds Telstra's actual costs of carriage.[158]

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[152] Response to s.155(1)(a) notice issued to Telstra on 4 January 2012. **[c-i-c] [c-i-c]**
[153] Response to s.155 notice issued to Telstra on 4 January 2012.
[154] Optus submission, Conf. p.7.
[155] Response to s.155 notice issued to Telstra on 4 January 2012.
[156] Telstra, Factsheet: DSL Internet Grade, http://www.telstrawholesale.com.au/download/document/dsl-internet-grade-factsheet.pdf .
[157] TPG submission, Conf. p.1/Pub. p.1.
[158] Ibid.

- Internode also submitted that the bundling of AGVC and ADSL wholesale prevent access seekers from purchasing backhaul from other carriers. Internode submitted that Optus' backhaul charge is a small fraction of Telstra's AGVC charges. Internode submits that **[c-i-c] [c-i-c]**[159] [160]

Telstra submitted that while it does not incur the same marginal cost as access seekers, it has incurred significant upfront capital cost in providing sufficient backhaul.[161] Therefore, Telstra is of the view that while wholesale customers face higher marginal costs than Telstra, they benefit from avoiding the upfront outlays to which Telstra is subject.[162]

There are a wide range of AGVC charges (and associated port prices). In the context of Telstra's proposed SSU Telstra has publicly acknowledged that, to remain equivalent to the price charged by Telstra the AGVC price component will need to fall as retail customer usage increases.[163]There has been a history of concerns raised by access seekers that Telstra's AGVC charges have not tracked down over time relative to the growth in customer usage. [164]

High AGVC charges can restrict the nature of service offerings made by access seekers. As access seekers order AGVC capacity in accordance with their bandwidth (data rate) requirements, access seekers are put at a disadvantage, particularly in terms of their ability to offer large data quotas or data-intensive services to customers on off-net plans due to the need for greater backhaul capacity. This may, for instance, prevent access seekers from competing in emerging content delivery markets.

On this point:

- TPG submitted that the pricing for VLAN is prohibitive, and given Telstra does not provide wholesale customers a multicast facility, TPG is prevented from supplying products such as IPTV.[165]
- Herbert Geer Lawyers submitted that through high AGVC pricing, Telstra has effectively indirectly restricted access seekers from offering high quota plans which makes access seeker offerings less appealing to consumers.[166] Herbert Geer Lawyers also submitted that as a result of significant AGVC costs and lack of availability of multicast, Telstra's ADSL competitors could not consider offering a comparable service IPTV that is unmetered as BigPond TV is when supplied via Telstra's T-Box.[167]

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[159] Herbert Geer Lawyers submission, Conf. Annexure 6.
[160] Ibid.
[161] Telstra submission, Conf. p.31/Pub. p.27.
[162] Ibid.
[163]Telstra, *Guide to Telstra's price-related interim equivalence and transparency obligations*, 5 September 2011. Available at http://www.accc.gov.au/content/item.phtml?itemId=1007091&nodeId=4729a3b85d4adcb0d931c6a482ffcf92&fn=A%20Guide%20to%20Telstra's%20price-related%20interim%20equivalence%20and%20transparency%20obligations.pdf .
[164] Internode, *Internode Blog – Price Squeeze update*, 24 September 2010, http://blog.internode.on.net/2010/09/24/price-squeeze-update/ ; TPG submission, Pub. pp.2-3/Conf. pp.2-3.
[165] TPG submission, Conf. p.3/Pub. p.3.
[166] Herbert Geer Lawyers submission, p.4.
[167] Ibid, p.7.

- Internode has stated that based on Telstra's current AGVC price requirements of Fetch TV, it would cost Internode approximately $44 per month per subscriber to provide Fetch TV to its subscribers using Telstra wholesale ADSL services.

Given the above, without declaration high AGVC charges could negatively affect the development of competition in downstream markets. The ACCC considers that with declaration the availability of efficient AGVC pricing would promote competition for the supply of data intensive ADSL services.

Early Termination Charges

Finally, regarding Telstra's structure of prices the ACCC's Discussion Paper also raised potential concerns about early termination charges (ETCs) which it sets for cancellation of a wholesale ADSL service prior to the completion of a fixed term.

In response, Herbert Geer Lawyers submitted that ETCs are not a significant factor when deciding to churn customers onto an access seeker's own network as this cost is recoverable, but that it could pose an issue during the lead-up to NBN.[168] AAPT and Macquarie Telecom both submitted that ETCs could discourage churn to alternative networks in some circumstances. Telstra submitted that it only imposes an ETC for disconnection of customers within six months of activation and therefore considers that this is likely to be a small proportion of an access seeker's customer base.[169]

Telstra only appears to waive those charges where a customer moves to Telstra's fibre access broadband product, but not a product provided by a competitor.[170] Such charges could raise competition concerns during the migration to the NBN.

CONCLUSION ON LEVEL AND STRUCTURE OF PRICING

The ACCC considers that declaration is likely to promote competition by ensuring that wholesale ADSL is provided on efficient terms, addressing competition concerns regarding both the level and structure of Telstra's wholesale ADSL pricing. As a vertically integrated operator, Telstra currently does not have strong incentives to price competitively in the wholesale market and in the future without declaration, it has the ability to engage in conduct directed at protecting its retail market share. Declaration is likely to promote competition as the underlying cost of wholesale ADSL is an essential factor in the ability of competitors to compete with Telstra. In the future with declaration, the availability of wholesale ADSL on regulated terms is likely to promote competition by encouraging market entry and expansion by efficient operators.

In considering whether declaration is likely to result in the achievement of the objective of promoting competition in markets for listed services, the ACCC considered that denying service providers access to necessary wholesale ADSL services on reasonable terms is a significant obstacle to end-users gaining access to broadband services. Declaration can remove such obstacles by facilitating the entry of service providers, thereby providing end-users with additional services to choose from at better prices.

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[168] Ibid, p.8.
[169] Telstra submission, Conf. p.16/ Pub. p.15.
[170] Response to s.155(1)(a) notice issued to Telstra on 4 January 2012; Telstra submission, Pub. p.15/Conf. p.16.

3.4.4 Inefficient Price discrimination

The ACCC considers that price discrimination against access seekers that is not based on cost efficiencies can damage competition. In particular, discrimination on the basis that an access seeker chooses to use their own infrastructure or gain supply from an alternative wholesale provider reduces competition and inhibits the development of effective and efficient markets that might otherwise emerge.

The spread of wholesale ADSL prices and inefficient price discrimination

The existing range of wholesale ADSL prices in the market suggests that declaration of wholesale ADSL, and the supply of wholesale ADSL at regulated rates, has the potential to promote competition by ensuring that *all* access seekers could obtain access to an efficient price.

Telstra submits that there is no 'systematic price discrimination' on the basis of the volume of the wholesale ADSL services acquired or whether an access seeker is predominantly a reseller or a builder.[171] Telstra has submitted an expert report by Dr Paul Paterson of Castalia Strategic Advisors which concluded that **[c-i-c] [c-i-c]** [172]

However, the ACCC does not accept that 'systematic price differences' are necessary for price discrimination to give rise to legitimate competition concerns. This is because price discrimination targeted at only a few potentially vigorous and effective competitors can substantially dilute competitive outcomes overall and result in impaired outcomes for end-users. A range of prices offered to other relatively minor competitors may dilute this data. The ACCC considers that the confidential report submitted by Telstra by Castalia Strategic Advisors does not allow for strong conclusions to be drawn. For example, because the confidential report **[c-i-c] [c-i-c]**

Table 6 illustrates the prices Telstra charges **[c-i-c] [c-i-c]**

Table 6: Telstra prices for ADSL2+ ports and AGVC

	Total ADSL SIOs	Wholesale ADSL SIOs	ULLS/LSS lines	ADSL2+ port price TW Zone 1	ADSL2+ port price TW Zone 2/3	AGVC per Mbps charge
[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

Volumes rounded to the nearest 1,000.

[171] Telstra submission, Pub. p.14/Conf. p.15..
[172] Ibid, Conf. Annexure C, p.5.

[c-i-c] [c-i-c] [173]

In the analysis undertaken by Castalgia Strategic Advisors, **[c-i-c] [c-i-c]** [174]

The Commission's concern is that variance in price terms between access seekers that is not based on cost efficiencies has the potential to inhibit effective competition. In the regulation of the NBN network, parliament has acknowledged its concerns about discrimination between access seekers, with non-discrimination provisions introduced into Part XIC of the CCA that generally prohibit NBN Co from discriminating between access seekers. In the explanatory memorandum to the NBN Access Bill as introduced on 25 November 2010, the Government states that the objective of the provisions is to effectively prohibit discrimination, while also promoting economically efficient outcomes that do not lessen competition.

[c-i-c] [c-i-c]

Telstra submitted that more efficient wholesale customers are rewarded by Telstra and that more efficient wholesale customers tend to pose a greater threat of bypassing Telstra's wholesale ADSL supply by building a ULLS/LSS network.[175] However, **[c-i-c] [c-i-c]**

Telstra submits that the different wholesale prices it offers its access seekers are reflective of the different business models, customer profiles, and technology choices.[176] However, Telstra has not provided information supporting how the existing prices are justified based on the different circumstances of its wholesale customers or how such conduct can be justified based on cost efficiencies.

[c-i-c] [c-i-c]

[c-i-c] [c-i-c][177] [178]

That this discrimination is occurring is also supported by a number of other terms and conditions associated with the supply of wholesale ASDL that operate to maintain higher prices for larger competitors.

A common feature of Telstra's wholesale ADSL supply contracts are **[c-i-c] [c-i-c]**[179]

There is evidence which suggests that Telstra has **[c-i-c] [c-i-c]** [180] [181] [182]

Another clause commonly imposed by Telstra is a **[c-i-c] [c-i-c]** [183]

In the context of the wholesale ADSL market, the effect of these clauses is to maintain and protect anti-competitive price discrimination.

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[173] Optus submission, Conf. p.10.
[174] Telstra submission, Conf. Annexure C, pp.10-11.
[175] Ibid, Pub. p.15/Conf. p.16.
[176] Ibid.
[177] TPG submission, Conf. p.3.
[178] Ibid.
[179] Response to s.155 notice issued to Telstra on 4 January 2012.
[180] Optus submission, Conf. p.9.
[181] Response to s.155 notice issued to Telstra on 4 January 2012 and Optus submission, Conf. p.9.
[182] Optus submission, Conf. p.9
[183] Response to s.155 notice issued to Telstra on 4 January 2012.

Telstra submits that to the extent that price discrimination occurs it is likely to be pro-competitive. Telstra submitted that offering lower wholesale ADSL prices to resellers allows them to "compete more intensely for retail ADSL customers". Telstra submits that if an access seeker were to build ULLS/LSS networks it would most likely do so in areas where there are already multiple ULLS/LSS builders and therefore it would be unable to compete relative to pure resellers who have a lower cost base.[184]

The ACCC understands Telstra's submission as being that by offering lower wholesale ADSL prices to resellers, those resellers are less likely to consider building their own ULLS/LSS networks and this is pro-competitive given the maturity of the market.

However, the ACCC's primary concern is not that Telstra provides lower prices to resellers, but rather that access seekers who do own and build ULLS/LSS networks are given inferior terms of access without an appropriate basis on efficiency grounds.

Telstra's submission acknowledges that access seekers who build their own ULLS/LSS networks pose a greater threat of bypassing Telstra's wholesale ADSL service.[185] Telstra therefore has both the incentive and ability to discriminate against access seekers who have their own ULLS/LSS networks.

As a final point, Telstra has submitted that differences in individual price terms and conditions do not on their own amount to discrimination, and has referred to the New Zealand's Commerce Commission's guidelines on Telecom's non-discrimination obligations under the Telecom Separation Undertakings. The New Zealand Commerce Commission (NZCC) has stated that in determining whether differential treatment amounts to discrimination the Commission will be guided by the objectives of promoting competition, equivalence and efficient investment in infrastructure.[186] In addition, the Commission stated that terms which exclude service providers from favourable terms available to other service providers or act to the detriment of a class of service providers over another in order to benefit Telecom's business can amount to price discrimination.[187]

The ACCC agrees with the NZCC that not all differences in price terms and conditions are of competitive concern. If the New Zealand Commerce Commission's price discrimination guidelines were applied, the ACCC considers that the above analysis does not lead to the conclusion that Telstra's pricing conduct is not of competitive concern.

CONCLUSION ON INEFFICIENT PRICE DISCRIMINATION

The ACCC considers that in the future without declaration, Telstra's pricing conduct has the potential to prevent effective competitors from using their scale to sharpen their retail pricing and put the incumbent under pressure. In order to secure its market share and competitive advantage, Telstra has incentives and the ability to charge higher prices to access seekers that it considers pose a greater competitive threat to its retail supply of ADSL. The ACCC is of the view that declaration of wholesale ADSL is

[184] Telstra submission, Conf. p.15/Pub. pp.14-15.
[185] Ibid, Conf. p.16/Pub. p.15.
[186] New Zealand Commerce Commission, *Consultation on draft guidance on Telecom's non-discrimination obligations under the Telecom Separation Undertakings*, December 2009, p.6.
[187] Ibid, p.6.

likely to remove Telstra's ability to price discriminate between access seekers in order to protect its own market share, and by doing so will improve competition in the future.

3.4.5 Leveraging conduct

Declaration is likely to promote competition by addressing Telstra's ability and incentive to leverage its dominant position in the supply of wholesale ADSL services to discourage competitive conduct and the use of competitive infrastructure where it is efficient to do so.

The terms and conditions on which Telstra supplies wholesale ADSL contracts are largely confidential. Therefore, in applying the LTIE test the ACCC has had regard to confidential information that it has obtained through submissions and through a section 155 Notice issued to Telstra on 4 January 2012.

Terms and conditions that could inhibit competition

In an open letter to industry the ACCC has previously publicly noted concerns about the ability of and incentive for Telstra to leverage its position as sole supplier to discourage the use of competitive infrastructure.[188] This concern was informed by **[c-i-c] [c-i-c]**[189] The ACCC considers that such conduct suggests underlying structural issues. Such conduct, even if not successfully implemented by Telstra in all cases has the potential to delay negotiations and increases uncertainty amongst access seekers as to their terms of access.

Telstra has confidentially submitted that:

> **[c-i-c] [c-i-c]**[190]

However, evidence collected through this declaration inquiry supports the contention that Telstra currently imposes terms and conditions on the supply of wholesale ADSL that may discourage competitive conduct and the efficient use of DSLAM infrastructure.

Zone-based terms and conditions

As explained above, TW Zone 1 exchanges are exchanges where competitive infrastructure has been installed. Some wholesale ADSL supply contracts contain clauses that use the 'zone' construct to provide rebates for achieving a certain number of services in TW Zone 1.

[c-i-c] [c-i-c][191] [192] [193]

[c-i-c] [c-i-c] [194] [195]

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[188] ACCC open letter dated 20 October 2010, http://www.accc.gov.au/content/item.phtml?itemId=952606&nodeId=806389e6db7f2a96b3f192bcf414a6a2&fn=ACCC%20letter%20re.%20proposed%20wholesale%20ADSL%20inquiry.pdf .
[189] **[c-i-c][c-i-c]**
[190] Telstra submission, Conf. Annexure C, p.5.
[191] Response to s.155 notice issued to Telstra on 4 January 2012; Optus submission, Conf. p. 7.
[192] Optus submission, Conf. pp.9-11.
[193] Ibid.
[194] Response to s.155 notice issued to Telstra on 4 January 2012.
[195] Optus submission, Conf. p.7.

The ACCC considers that these terms have the potential to discourage the use of existing, lower-cost, sources of supply. These clauses can weaken wholesale competition because access seekers are discouraged from using own ULLS/LSS networks or an access seeker's ULLS/LSS network. Given the lower retail prices associated with ULL/LSS based retail offerings (as described in section 3.3.2), this conduct can result in higher prices for consumers.

ULLS/LSS Return offers

Telstra's Wholesale ADSL supply contracts contain clauses specifically directed at offering lower prices conditional on services being transferred from self-supply on to Telstra network.

For example, in its contract with **[c-i-c] [c-i-c]** [196]

Further, Herbert Geer Lawyers also submitted that in mid 2010, Telstra had offered an access seeker a significant discount on port prices for any services that were migrated from LSS (from access seeker's own infrastructure or another access seekers infrastructure) to Telstra wholesale ADSL.[197] Herbert Geer Lawyers submitted that these types of offers are commonly made to access seekers who are pure resellers and are intended to encourage access seekers without their own infrastructure to target end-users connected to access seekers' DSLAMS.[198]

Herbert Geer Lawyers submitted that such terms and conditions will lead to access seekers being reluctant to invest in their own infrastructure in geographic areas where it would financially viable to do so because it will negatively impact the wholesale ADSL rates that they are charged by Telstra.[199] Further, Herbert Geer Lawyers submitted that Telstra's terms and conditions encourage access seekers with DSLAM infrastructure to divest that infrastructure in order to obtain Telstra's lower wholesale ADSL rates.[200]

The ACCC considers that these terms and conditions have the effect of encouraging access seekers to purchase wholesale ADSL from Telstra instead of providing broadband services using their existing ULLS/LSS networks or seeking supply from an alternative wholesale ADSL provider. Given that the access seeker has already invested in the ULLS/LSS network it would be inefficient if it were to stop providing broadband services over their own network. These terms also have the effect of maintaining Telstra's position as the dominant provider of wholesale ADSL.

Terms in relation to alternative sources of wholesale ADSL supply

Telstra also supplies wholesale ADSL on terms that could have the effect of limiting competition in the wholesale ADSL resale market. In particular, **[c-i-c] [c-i-c]** [201]

In this context, access seekers are disincentivised from purchasing wholesale ADSL from other wholesale providers in various Bands. **[c-i-c] [c-i-c]**

Optus has submitted that the inability of ULLS-based ADSL providers to compete effectively with Telstra at the wholesale level can be attributed to **[c-i-c] [c-i-c]** [202]

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[196] Response to s.155 notice issued to Telstra on 4 January 2012.
[197] Herbert Geer Lawyers submission, p.10.
[198] Ibid.
[199] Ibid, p.9.
[200] Ibid.
[201] Response to s.155 notice issued to Telstra on 4 January 2012.

[c-i-c] [c-i-c]

[c-i-c] [c-i-c] [203] [204]

[c-i-c] [c-i-c]

CONCLUSION ON LEVERAGING CONDUCT

The ACCC considers that in the future without declaration of wholesale ADSL services, the terms and conditions on which Telstra offers wholesale ADSL2+ have the potential to impede competition in retail and wholesale markets. While a particular term or condition may not amount to a "substantial lessening of competition" under other Parts of the CCA, the range and variety of terms and conditions Telstra has sought to apply, in conjunction with the current state of competition, suggest that Telstra's ability to leverage its dominant position has the potential to diminish competition. In particular, in the future without declaration, Telstra has strong incentives and the ability to seek to impose such terms during the transition to NBN, as discussed in the following section. The future state of the market with declaration will assist in establishing conditions by which competition will be promoted as all access seekers will have access to wholesale ADSL services on efficient terms.

3.4.6 Promotion of competition during the transition to the NBN

Another relevant consideration in the future with and without declaration is the deployment of the NBN. The ACCC considers availability of wholesale ADSL services on reasonable terms while the NBN is being deployed as important to the development of effective retail-based competition in the medium to long term. This is primarily because regulated wholesale ADSL could potentially enable access seekers to effectively compete with Telstra for retail customers. They would do so with the knowledge that when the NBN becomes available those customers may be retained and migrated onto the NBN access infrastructure.

Therefore, there is a risk that in the future, without declaration of wholesale ADSL services, Telstra could engage in conduct during the transition to the NBN such as leveraging its dominant position to tie wholesale ADSL and NBN Layer 3 markets.[205] For example, Telstra has signalled its intention to bundle NBN services with backhaul to provide a Layer 3 service over the NBN.[206] Telstra has an incentive to provide discounts on wholesale ADSL pricing on condition that ISPs purchase NBN services from Telstra instead of NBN Co or other wholesalers. Such conduct could distort the development of competition at the network layer over the NBN as other DSL network operators could not replicate Telstra's bundled offers.

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[202] Optus submission, Conf. p.7.
[203] Ibid.
[204] Ibid, p.8.
[205] On the NBN access seekers may acquire a bundle of wholesale services from a service provider – such as Telstra – who is directly connected to the NBN. This could include, for example, an access provider supplying a service including a NBN Co Layer 2 bitstream service in conjunction with aggregation, routing services, or transmission to other access seekers.
[206] Telstra newsletter, December 2011, http://telstrawholesale.com.au/news/newsletter/dec2011/nbn/index.htm .

In this regard:

- Optus submitted that it is concerned that Telstra will gain a competitive advantage by locking its customers in long term contracts before transferring them across to the NBN.[207]
- The CCC also submitted that it is imperative for there to be a competitive retail environment for the roll out of the NBN. [208]
- Similarly, AAPT submitted that it is crucial for access seekers to establish a pre-existing subscriber base prior to the rollout of the NBN. AAPT also submitted that Telstra has a strong incentive and ability to discriminate against wholesale customers in favour of its own retail business unit, in order to increase its customer base to migrate to the NBN.[209]
- TPG submitted that Telstra's price squeeze conduct will secure increased market share in regional and rural areas which are areas that access seekers will seek to gain market share in when the NBN is rolled out.[210]
- Herbert Geer Lawyers submitted that while all retail service providers are able to "lock-in" customers in the transition to the NBN, Telstra has a greater ability to lock in a significant market share as a result of its existing dominant market share.[211] Internode has publicly stated that ISPs need to have at least a 10 percent share in broadband services in order to be able to connect with the 121 points of interconnect in order to provide services over the NBN.[212]

The ACCC is of the view that declaration of the wholesale ADSL service may allow access seekers to build the customer scale necessary to compete in emerging markets such as multimedia content, cloud-computing, IPTV and other new technologies. In the medium to long term, such value-added services are expected to become a greater focus for competition.

The transition period will likely be a key customer acquisition point as during this time end-users will seek replacement or new broadband services. Access seekers will be looking to achieve economies of scale in the NBN environment in order to promote product innovation and differentiation, and to engage in effective competition with Telstra.

Consequentially, during the transition period Telstra will have strong incentives to restrict competition so as to maintain/increase its market share at a retail, and wholesale level in order to migrate as many of these services as possible to Telstra fibre services over the NBN and at the same time deny competitor's critical scale.

Overall, the gradual deployment of the NBN appears to suggest that declaration of a wholesale ADSL service would promote competition.

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[207] Optus submission, Conf. p.10/Pub. p.9.
[208] CCC submission, p.2.
[209] AAPT submission, Conf. p.10/Pub. p.10.
[210] TPG submission, Conf. p.4/Pub. p.4.
[211] Herbert Geer Lawyers submission, p.11.
[212] *End of the line seen for smaller ISPs,* Australian Financial Review, 9 January 2012.

3.4.7 Conclusion on promotion of competition

In light of the above, the ACCC considers that declaration of wholesale ADSL is likely to result in the achievement of the objective of promoting competition in markets for fixed-line broadband services. In particular, declaration will:

- enable the ACCC to regulate the terms of access to wholesale ADSL services including the level and structure of pricing such that wholesale ADSL inputs are available to access seekers on efficient terms and conditions
- address contractual restrictions likely to impede competition in both retail and wholesale fixed-line broadband markets
- create conditions in which efficient access seekers are able to effectively compete for customers during the lead-up to the NBN.

3.5 Any-to-any connectivity

In determining whether declaration promotes the long term interests of end users, regard must be had to the extent to which declaration is likely to result in the achievement of the objective of any-to-any connectivity in relation to carriage services that involve communication between end users.

Subsection 152AB(8) of the CCA 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 each other whether or not they are connected to the same network.

SUBMISSIONS

Macquarie Telecom submitted that declaration of the wholesale ADSL service will promote any-to-any connectivity because declaration will promote the use of ADSL services in retail markets which in turn enables end-users to connect with each other.[213]

Herbert Geer Lawyers (on behalf of Adam Internet, iiNet, Internode, Primus and TransACT) submitted that if the proposed service description for wholesale ADSL service was amended to ensure connectivity with access seekers' existing facilities, then declaration would not have an impact on the existing level of any-to-any connectivity.[214]

AAPT submitted that declaration of wholesale ADSL would help achieve the any-to-any criteria.[215]

Telstra agreed with the Commission that when considering services that do not require user-to-user connections such as wholesale ADSL, this criterion is generally less important.[216]

[213] Macquarie Telecom submission, p.7.
[214] Herbert Geer Lawyers submission, p.14.
[215] AAPT submission, Pub. p.13/Conf. p.13.
[216] Telstra submission, Pub. p.33/Conf. p.37.

ACCC'S FINDINGS

The ACCC does not consider that declaration of the wholesale ADSL service will have an impact on the achievement of any-to-any connectivity.

3.5.1 Conclusion on any-to-any connectivity

The ACCC does not consider that declaration of wholesale ADSL services will have an impact on the objective of achieving any-to-any connectivity. Therefore, this objective will be achieved to the extent that it is currently being achieved.

3.6 Economic efficiency

The third objective under section 152AB is to encourage the economically efficient use of, and economically efficient investment in, the infrastructure used for the supply of listed services or any other infrastructure by which listed services are, or are likely to become, capable of being supplied. 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.

An access regime may play an important role in ensuring that existing infrastructure is used efficiently where it is inefficient to duplicate networks or network elements. However, an access regime should not discourage investment in networks or network elements where such investment is efficient.

In considering whether declaration of a wholesale ADSL service is likely to result in the achievement of the objective of encouraging the economically efficient use of and investment in relevant infrastructure, the ACCC must have regard to:

- whether it is, or is likely to become, technically feasible for the service to be supplied and charged for, having regard to:
    - the technology that is in use, available or likely to become available; and
    - whether the costs that would be involved in supplying, and charging for, the services are reasonable or likely to become reasonable; and
    - 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(s) of the service, including the ability for the supplier(s) 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.[217]

These factors are discussed below.

3.6.1 Technical feasibility

The ACCC must have regard to whether it is, or is likely to become, technically feasible for the service to be supplied and charged for, having regard to the matters set out in section 152AB(6)(a).

Telstra currently supplies and charges for wholesale ADSL services at all ADSL-enabled exchanges.

None of the submissions in response to the Discussion Paper commented on the technical feasibility of supplying or charging for the service.

The ACCC considers that it is technically feasible for the service to be supplied and charged for having regard to the following facts:

- The technology to supply the service is already in use and currently used to supply a commercial wholesale ADSL service.
- The costs involved in supplying and charging for the services are likely to be reasonable given that the service is already supplied on a commercial basis.
- Supplying and charging for wholesale ADSL would not appear to negatively impact the operation or performance of telecommunications networks given that the service is already supplied.

3.6.2 Legitimate commercial interests of the access provider

The ACCC must have regard to the legitimate commercial interests of the supplier(s) of the service, including the ability for the supplier(s) to exploit economies of scale and scope

SUBMISSIONS

Optus submitted that declaration of wholesale ADSL would not be contrary to Telstra's legitimate commercial interests. In fact, declaration would promote take-up of the wholesale ADSL service, thereby enhancing Telstra's ability to exploit economies of scale.[218]

Other stakeholders did not comment on this criteria.

ACCC'S FINDINGS

In some circumstances the potential declaration of a service may raise concerns about the access provider's ability to exploit economies of scale and scope. That is, requiring an access provider to invest in a particular network in order to provide declared services may inhibit broader investment opportunities.

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[217] Section 152AB(6) of the CCA.
[218] Optus submission, Pub, p.13/Conf. p.13.

However, the ACCC does not consider this problematic in relation to the wholesale ADSL service, as Telstra will not be required to invest in a new network or any additional infrastructure to provide wholesale ADSL.

The ACCC considers a supplier's legitimate commercial interests will be met where it can expect to earn an appropriate return commensurate with risk on capital employed. In terms of risk, the ACCC notes that wholesale ADSL services are provided using Telstra's CAN, which is also used to provide many of its other services. It is not clear, therefore, that the risk characteristics associated with the use of the CAN for wholesale ADSL services would differ materially from those associated with any other CAN-dependant service.

In terms of return on investment, Telstra already supplies wholesale ADSL services wherever it has deployed the necessary infrastructure. The fact of declaration would therefore not (of itself) alter Telstra's ability to make a return on its investment. While the terms of an access determination for the wholesale ADSL service may affect return on investment, the ACCC will be required to have regard to the legitimate commercial interests of the access provider in making such a determination.[219]

3.6.3 Incentives for investment in infrastructure

The ACCC must have regard to 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. Declaration of an eligible service may impact on an access provider's network maintenance, improvement and expansion decisions.

In the Discussion Paper the ACCC considered the impact of declaration of the wholesale ADSL service on incentives for investment in DSLAM infrastructure. The ACCC also had regard to the impact of the NBN rollout on incentives in investment in DSLAM infrastructure.

SUBMISSIONS

Telstra submitted that declaration of wholesale ADSL would stifle incentives for investment in infrastructure:

- in regional and rural areas, where DSLAM deployment has previously been limited by averaged ULLS pricing
- in alternate broadband technologies such as wireless networks.[220].

The CCC submitted that the business case for DSLAM deployment will become increasingly marginal or uneconomic as the NBN is rolled out.[221] All other submissions apart from Telstra's made similar arguments,[222] though access seekers varied in their opinions on whether *any* further DSLAM deployment is likely to be efficient and economically viable going forward.

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[219] Section 152BCA(1)(b) of the CCA.
[220] Telstra submission, Pub. p.11/Conf. p.11
[221] CCC submission, p.2.
[222] Macquarie Telecom submission, p.8; TPG submission, Pub. p.5/Conf. p.5; AAPT submission, Pub. p.11/ Conf. p.11; Herbert Geer Lawyers submission, p.17; Optus submission, Pub. pp.11-12/Conf. pp.12-13.

Optus submitted that it would not be efficient for access seekers to make further large scale investments in DSLAMs in the lead up to the NBN, and that declaration would therefore promote efficient use of existing infrastructure including Telstra's network.[223]

Herbert Geer submitted that access seekers will continue to deploy DSLAMs where efficient irrespective of declaration.[224] Herbert Geer also contended that declaration could be expected to increase revenue streams which can then be used for greater investment in infrastructure and services required for transition to the NBN.[225] AAPT made a similar submission.[226]

TPG submitted that it was unlikely to invest in DSLAM infrastructure in regional areas, but would maintain its metropolitan strategy of expanding DSLAM infrastructure to meet demand. TPG considered that declaration could promote investment in core networks if the service description was appropriately defined.[227]

ACCC'S FINDINGS

The ACCC's regulation of the ULLS and LSS services recognises the benefits associated with infrastructure-based competition. As part of the Fixed Services Review in 2005-06 the ACCC decided not to declare a wholesale ADSL service on the basis that to do so would adversely affect competition by delaying the uptake of ULLS.[228]

Telstra submits that it is unlikely that the current "highly competitive" market for ADSL services would have evolved if the ACCC had imposed declaration as the market developed.[229] Whether or not this is true, the ACCC considers that developments over the last 5 years support the view that declaration of the wholesale ADSL service at this time would have little—if any—negative effect on incentives for efficient investment in infrastructure.

Significant expansion of competitive footprint unlikely

As discussed in section 3.3 evidence indicates that expansion of the collective "footprint" of competitive DSLAM deployments has slowed significantly in recent years—with growth of only one to two ESAs per month. It is arguable that ESAs which have not attracted DSLAM investment to date exhibit natural monopoly characteristics.

Specifically, the comparatively low population density in many ESAs makes it difficult to obtain a commercial rate of return on a new DSLAM investment because there are relatively few potentially addressable customers per DSLAM. In this regard, Telstra may have an irreversible first-mover advantage in many regional and rural ESAs. Further, the lack of competitively priced backhaul services in many regional and rural areas is a significant barrier to DSLAM-based entry.

As outlined above, access seeker submissions also contend that irrespective of declaration, the deployment of the NBN would act as a dampener on any DSLAM

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[223] Optus submission, Pub. p.11/ Conf. p.12
[224] Herbert Geer Lawyers submission, p.15.
[225] Ibid, p.17.
[226] AAPT submission, Pub. p.13/Conf. p.13
[227] TPG submission, Pub. p.5/ Conf. p.5.
[228] ACCC, *A strategic review of the regulation of fixed network services – ACCC position* paper, June 2006, pp. 80, 90.
[229] Telstra submission, Pub. p.34/ Conf. p.38.

network expansion plans. The ACCC accepts Telstra's submission that the timeframe for expected completion of the NBN provides a sufficient window of opportunity for certain further DSLAM investments to be recovered. However, while NBN Co will be publishing 3-year forecasts of expected deployment regions, these are not binding and may not provide sufficient certainty to access seekers considering deployment of DSLAMs into new ESAs—especially where the business case is marginal to begin with.

In this regard, the ACCC has previously considered that an efficient access seeker could make a return on its DSLAM investment within two years.[230] However, there is some recent evidence to suggest that this payback period may have underestimated the time necessary to recover DSLAM investments due to long lead times involved.[231]

Submissions by access seekers in the ACCC's inquiry into varying the exemption provisions in the final access determinations for the WLR, LCS, and PSTN OA services suggest that in forecasting the payback period, factors such as planning, funding and construction, require consideration and result in longer lead times.[232] Therefore, some access seekers consider that it is unlikely that they can recover the investment cost of a DSLAM before the NBN is rolled out.[233]

In summary, given that expansion has slowed and will be discouraged further by the NBN, the ACCC considers it unlikely that declaration of the wholesale ADSL service would have a material negative effect on broader deployment of competitive DSLAM networks.

Efficient DSLAM deployment expected to continue

While significant expansion of the combined competitive DSLAM footprint appears unlikely (with or without declaration), there is some evidence that access seekers may continue to invest in DSLAMs in certain areas regardless of the availability of a regulated wholesale ADSL service.

To the extent that there are non-price benefits associated with DSLAM investments—such as an enhanced ability to differentiate products, increased functionality or service quality options—these would remain relevant to access seeker investment decisions post-declaration.

Herbert Geer Lawyers (on behalf of iiNet, TransACT, Internode, Primus and Adam Internet) submits that while DSLAM deployment business case assessments would change with a potentially lower wholesale ADSL comparison price, a positive projected return would still motivate investment.[234] This would most likely occur where competitive backhaul was available, and as such it may be limited to metropolitan

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[230] ACCC, *Telstra's local carriage service and wholesale line rental exemption applications – Final decision and class exemptions*, August 2008, p. 74.
[231] Submission by Optus in response to the ACCC's issues paper on inquiry into varying the exemption provisions in the final access determinations for the WLR, LCS and PSTN OA services, October 2011, Pub. p.6/Conf. p.6.
[232] Ibid, Conf. p.7/Pub. p.6.
[233] Macquarie Telecom, *Submission in response to the ACCC's issues paper on inquiry into varying the exemption provisions in the final access determinations for the WLR, LCS and PSTN OA services*, October 2011, p. 14; *Optus, Submission in response to the ACCC's issues paper on inquiry into varying the exemption provisions in the final access determinations for the WLR, LCS and PSTN OA services*, October 2011, Pub. p.6/ Conf. p.6.
[234] Herbert Geer Lawyers submission, p.15.

ESAs where access seekers meet a customer scale threshold for the first time, or ESAs where new backhaul is deployed.[235]

In the UK, there has been strong take-up of local loop unbundling (LLU) services—broadly equivalent to the ULLS—notwithstanding the availability of regulated wholesale broadband access.[236] Regulation is being scaled back as competition criteria are met in particular regions; however, competitive infrastructure deployment occurred *even while* regulated terms were available for the wholesale broadband access service.

Effect of declaration on non-DSLAM infrastructure investment

In addition to the effect on investment in wholesale ADSL-related infrastructure, it is relevant to consider the effect (if any) that declaration may have on investment in infrastructure used to supply other listed services.

Telstra submits that declaration may limit the incentives for access seekers to invest in alternate infrastructure used to provide broadband services, such as wireless networks.[237] As discussed in section 3.2.2, the ACCC considers that wireless broadband is generally a complement rather than a substitute for fixed-line broadband, and as such declaration would be unlikely to materially impact on incentives for investment in wireless networks.

Submissions suggest that access seekers are currently turning their attention to investments in infrastructure and services that will offer a competitive advantage on the NBN. This includes development of value-added services and investment in core network infrastructure and systems as well as transmission infrastructure.[238]

3.6.4 Efficient use of infrastructure

SUBMISSIONS

Most submissions did not specifically comment on the extent to which declaration would result in achievement of the objective of encouraging the economically efficient use of infrastructure—focusing instead on incentives for investment in infrastructure.

However, Optus submitted that declaration of wholesale ADSL would encourage the efficient use of existing infrastructure including Telstra's copper network during the transition to the NBN.[239]

ACCC'S FINDINGS

To the extent that the entire actual and potential demand for ADSL in an ESA can be served by Telstra's existing DSLAM deployments, declaration could dissuade economically inefficient investment by access seekers. That is, availability of wholesale ADSL on regulated terms may prevent access seekers from making

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[235] See for example Herbert Geer Lawyers submission, p.15.
[236] Ofcom, *Review of wholesale broadband access markets – final explanatory statement and notification*, 21 May 2008, p.14-15; OfCom, *The Communications Market 2010: UK*, http://www.ofcom.org.uk/static/cmr-10/UKCM-5.33.html .
[237] Telstra submission, Pub. p.11/Conf. p.11.
[238] Ibid, Pub pp.12-13/Conf. p.13.; Optus submission, Pub. p.12/Conf. p.13; TPG submission, Pub. p.4/Conf. p.4; Herbert Geer Lawyers submission, p.17.
[239] Optus submission, Pub. p.12/Conf. p.13

investment decisions based on distorted cost of supply comparisons. This will result in more efficient use of Telstra's existing infrastructure, in circumstances where Telstra's existing infrastructure can efficiently service the entire demand.

The availability of wholesale ADSL on efficient terms would also likely promote further take-up of ADSL services due to the improved competitiveness of offers available to end-users. This could lead to more efficient use of existing ADSL infrastructure.

3.6.5 Conclusion on efficient use of and investment in infrastructure

The ACCC considers that incentives for investment in DSLAM infrastructure are significantly different to 2005-06, when the ACCC last formally considered declaration of the wholesale ADSL service.

DSLAM deployment has slowed markedly and only incremental expansion around the margins is expected. Where it is efficient to continue to invest in DSLAM infrastructure the ACCC considers access seekers are likely to continue to do so. Accordingly, it seems unlikely that declaration would have an effect on investment in such infrastructure.

The ACCC considers that declaration of wholesale ADSL is likely to result in the achievement of the objective of encouraging the economically efficient use of, and the 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.

3.7 ACCC decision on whether declaration of wholesale ADSL is in the LTIE

Having conducted a public inquiry under Part 25 of the *Telecommunications Act 1997* about a proposal to make a declaration of the wholesale ADSL service, and considered the various matters to which it must have regard under section 152AB of the CCA, the ACCC is satisfied that the making of the declaration of the wholesale ADSL service will promote the long-term interests of end-users of carriage services or of services provided by means of carriage services.

In particular:

- The ACCC considers that declaration is likely to promote competition by addressing long-standing competition concerns arising from underlying structural issues.
- Telstra currently does not have strong incentives to price competitively in the wholesale market and has the incentive and ability to engage in conduct directed at preventing its rivals from competing vigorously for retail market share. Further, the terms on which Telstra currently supplies wholesale ADSL services have the potential to impede competition in both retail and wholesale markets.
- The availability of wholesale ADSL on regulated terms is likely to promote competition by encouraging market entry and expansion by efficient operators and provide end-users with additional service offerings to choose from.

- The ACCC does not consider that declaration of wholesale ADSL services will have an impact on the objective of achieving any-to-any connectivity. Therefore, this objective will be achieved to the extent that it is currently being achieved.
- The ACCC considers that declaration of wholesale ADSL is unlikely to affect incentives for efficient investment in infrastructure and may encourage efficient use of existing infrastructure.
- Significant further expansion of the competitive DSLAM footprint is unlikely but, where additional investment is efficient, the ACCC considers it likely that access seekers will continue to install DSLAMs. Declaration could also result in more efficient use of Telstra's existing infrastructure.
- Telstra currently supplies and charges for wholesale ADSL, and as such declaration does not raise concerns around technical feasibility. The fact of declaration will not of itself impact upon Telstra's ability to exploit economies of scale and scope or its ability to make a return on its investment.

4 The service declared

4.1 Coverage

The ACCC commenced this declaration inquiry in response to concerns about competition in the supply of fixed-line broadband services and the commercial terms on which Telstra offers access to the wholesale ADSL service.

The declared service could be specified as national in scope. Alternatively, the ACCC could develop a service description that was specific to certain geographic areas. This would require the ACCC to apply objective criteria to exclude some ESAs from declaration.

In the Discussion Paper the ACCC outlined that it considered there was a national market for fixed-line broadband services and that it would appear appropriate for the service description to cover the supply of wholesale ADSL services on a national basis.[240] However, the ACCC sought submissions from interested parties on whether the service description should cover wholesale ADSL services nationally, or be limited in geographic scope.

SUBMISSIONS

Telstra submitted that if the ACCC declares wholesale ADSL, the declaration should be restricted to areas in which there has not been, or is unlikely to be, competitive DSLAM roll-out. Telstra proposed a test as to whether "effective competition" has developed. Specifically, Telstra argued that the declaration should exclude 285 ESAs

[240] ACCC, *Discussion paper into whether wholesale ADSL services should be declared under Part XIC of the Competition and Consumer Act,* December 2011, pp.25-26.

that meet a modified version of the Australian Competition Tribunal's threshold test for the WLR/LCS and PSTN OA exemptions.[241]

TPG submitted that the service description should be limited to non-metropolitan areas and areas where RIM or Pair Gain systems have restricted the supply of competitive ADSL2+ services.[242]

Optus submitted that the coverage of the service description should be national in scope as access seekers' competition concerns are not specific to certain ESAs and are in regard to Telstra's overall conduct. Furthermore, the presence of RIMs or large pair gain systems in many metropolitan ESAs provides good reason for not excluding metropolitan ESAs from the scope of the declaration.[243]

AAPT also submitted that the service description should cover wholesale ADSL services nationally.[244]

ACCC FINDINGS

Having considered the market on a national basis (see section 3.2.3), the ACCC considers that declaration of a wholesale ADSL service is in the LTIE. This reflects that should the wholesale ADSL service be declared, declaration is likely to promote competition in the supply of high speed broadband services throughout Australia.

Telstra submitted that the ACCC should adopt a national market for the purpose of assessing whether declaration is in the LITE. However, Telstra then contends that – as summarised above – the ACCC should then separately consider whether effective competition has developed on a per-ESA basis.

The ACCC considers that, as submitted by Telstra,[245] investment in alternative infrastructure has been uneven across Australia. In particular, the availability of the declared services of ULLS and LSS has attracted considerable investment in certain ESAs where barriers to entry are lower.

However, the ACCC considers that given the application of the LTIE test on a national basis suggests service declaration is in the LTIE, it is appropriate to declare the service on a national basis. While the level of competition varies between ESAs, concerns about the commercial terms on which Telstra provides access to the wholesale ADSL services continue to arise on a national basis. This suggests that there is not effective competition as, notwithstanding the availability of substitutes in certain areas, Telstra has been able to impose terms and conditions that differ from those that would be expected to apply in a competitive market.

In particular:

- The ACCC has considered that service declaration could promote competition by addressing the level of prices. This concern extends to the level of pricing in TW Zone 1 exchanges, even if Telstra's pricing is higher in areas where it is not subject to infrastructure based competition.

[241] Telstra submission, Pub. pp.18-20Conf. pp.19-23.
[242] TPG submission, Pub. p.5/ Conf. p.6.
[243] Optus submission, Pub. p.14/ Conf. p.15.
[244] AAPT submission, Pub. pp.2, 14/ Conf. pp.2. 14.
[245] Telstra submission, Pub. p.17/ Conf. p.18.

- Concerns about the relative levels between Telstra's retail and wholesale prices have arisen on a national basis. While some allegations have focussed on rural and regional areas (e.g. the ACCC's 2010 investigation), some allegations were not specific to Telstra's conduct in certain zones/bands but rather related to Telstra's conduct overall as a supplier of the wholesale ADSL service.

Further, a national service declaration would ensure that lines affected by RIMs and pair gains are contestable. As outlined in section 3.3.1 the use of RIMs to supply around 11 percent of premises creates significant difficulties for competing ADSL network operators.

Lines with RIMs are widely distributed throughout the CAN, as practically all ESAs are subject to some RIM technologies including those proposed by Telstra to not be subject to service declaration.[246] Closer analysis reveals that some of Telstra's proposed ESAs have high levels of lines affected by pair gains. For example the **[c-i-c] [c-i-c]** ESAs are proposed for exemption by Telstra in its submission,[247] although data reported by Telstra shows that **[c-i-c] [c-i-c]** in those ESAs are non-MDF lines (pair gains) and essentially only contestable by Telstra.[248] Telstra's submission does not make any allowance for considering lines affected by pair gains.

The ACCC does not consider that Telstra has made a compelling case that the 285 ESAs should be excluded from the wholesale ADSL declaration. The ACCC considers that having applied the LTIE test on a national basis and being satisfied that declaration will promote the LTIE, it is appropriate to declare the service nationally.

However, the ACCC notes that the access determination inquiry will provide a further opportunity to consider whether different terms and conditions of access should be determined for various ESAs, or whether certain ESAs should be excluded altogether.[249] At this stage it would seem that further information would be required to support any contention that the exclusion of certain ESAs is warranted.

4.2 Service description

The ACCC set out principles for developing a service description in the Discussion Paper.[250] These principles can be summarised as follows:

- While some degree of technical specification will be required, the ACCC's preference is to make the service description in terms which are as functional as possible.
- The eligible service should be described in a manner which provides sufficient clarity for application of the SAOs.

[246] Ibid.
[247] Ibid, Conf. Annexure B, pp.41-50.
[248] ACCC, data obtained under the Infrastructure RKR.
[249] Section 152BC(3)(h) and (i), section.152BC(6) of the CCA.
[250] ACCC, *Telecommunications services – Declaration provisions: A guide to the declaration provisions of the Trade Practices Act*, July 1999, pp.27-28.

- The service should be technically feasible to supply and charge for. Additionally, the service should be one which potential access providers are supplying to themselves and others.
- Terms and conditions of access should not be included in the service description.

Considering these principles, the ACCC set out a proposed a service description in the Discussion Paper at p.27-28.

SUBMISSIONS

A large majority of submissions support the view that the service description should cover wholesale ADSL services nationally.[251]

Telstra proposed some amendments to the ACCC's service description as set out in the Discussion Paper in its submission to align the service description more closely with the *Telecommunications (Regulated Services) Determination (No. 1) 2011*.

Telstra has proposed the following amendments:[252]

- Inserting "internet-grade best efforts" into the description of "asymmetric digital subscriber line access service" to clarify that the availability or performance of the service to be supplied may vary, depending on the capacity, distance to the DSLAM, technical capability or other technical matters affecting the network.
- Inserting a definition of ADSL technology by referring to the ITU-TG.992 Recommendations which will provide greater clarity regarding the service to be supplied.
- Inserting "twisted pair" that "runs from the end-user network boundary to the nearest upstream exchange or RIM or CMUX" to ensure the service being referred to is one which is provided over a twisted metal pair, as opposed to other technology.
- Inserting "has an underlying voiceband PSTN service operating over it" to ensure consistency between provision of the service over different declared services.
- Inserting "over a transport layer to aggregate communications to the point of interconnection" to more closely align with the Ministerial Determination.
- Amending the definition of "network network interface" to refer instead to "point of interconnection" to more closely align with the Ministerial Determination.

Optus submitted that the proposed service description set out in the ACCC's Discussion Paper appeared reasonable but – Optus considered – failed to incorporate the AGVC service. Optus submitted that to regulate a wholesale ADSL service without incorporating AGVC would provide Telstra with the opportunity to use VLAN pricing to deter access seekers from accessing the ADSL service. Optus further submitted that the service description should state that access seekers are allowed to purchase

[251] Macquarie Telecom submission, p. 8; AAPT submission, Pub. p.14/Conf. p.14; Herbert Geer Lawyers submission, p.18; Optus submission, Pub. p.14/ Conf. p.15.
[252] Telstra submission, Pub. pp.25-27/ Conf. pp.21-23.

wholesale ADSL as an unbundled service without the need to purchase a WLR service.[253]

Herbert Geer Lawyers (on behalf of Adam Internet, iiNet, Internode, Primus and TransACT) proposed an amendment to the definition of 'network-network interface that is a point of interconnection' in its submission as the definition set out in the ACCC's Discussion Paper appears to mean that Telstra has discretion to choose exactly where in a State or Territory the POI with an access seeker will be located.[254]

AAPT considered that the appropriate service to be declared is for a Layer 2, technology neutral wholesale broadband access service. AAPT further submitted that the service description should give access seekers the flexibility to choose service functionality including whether to add other services over the top, such as voice. Accordingly, the service description should clarify that there is no requirement for the end user to also have a phone line in place. Furthermore, the service description should ensure that Telstra's existing wholesale ADSL service offerings (including ADSL2+) are covered.[255]

Macquarie Telecom agreed with the service description set out in the ACCC's Discussion Paper.[256]

The ACCC also received some submissions in relation to the application of the service description to potential providers other than Telstra. In this regard:

- Optus also submitted that if wholesale ADSL service were to be declared, the ACCC should exercise restraint in applying the declaration to resale by ULLS-based broadband providers, which would amount to double regulation.[257]

- AAPT also submitted that the declaration should only apply to Telstra and not other potential providers as this would act to discourage rather than promote competition.[258]

ACCC'S FINDINGS

As per the Discussion paper, the ACCC will adopt a service description that makes clear each of the following matters:

- The service ends at the network boundary point at the end-user premises, and hence does not include the modem or in-premise wiring.
- The point of interconnection is at a network-to-network interface that is in the same state/territory from which the access provider would serve the area in which the end-user is located
- The service is supplied by means of digital subscriber line technology and uses asymmetric upstream and downstream data rates
- The access service is provided over a metallic line/path

[253] Optus submission, Pub. p.15/ Conf. p.16
[254] Herbert Geer Lawyers submission, p. 17.
[255] AAPT submission, Pub. p. 3/ Conf. p. 3.
[256] Macquarie Telecom submission, p. 8.
[257] Optus submission, Pub. pp. 3,15/Conf. pp.3,14.
[258] AAPT submission, Pub. pp. 2,14/Conf. pp. 2,14.

- The service would, from the perspective of the access seeker, be a point-to-point layer two service
- Minimum or maximum data transfer rates are not mandated

In light of submissions, the ACCC has made various changes to the draft service description in the Discussion Paper to arrive at the final service description.

These changes are:

- inserting "internet-grade best efforts" into the description of "asymmetric digital subscriber line access service,
- inserting a definition of ADSL technology by referring to the ITU-TG.992 Recommendations,
- inserting "twisted pair" that "runs from the end-user network boundary to the nearest upstream exchange or RIM or CMUX",
- inserting "over a transport layer to aggregate communications to the point of interconnection", and
- amending the definition of "network network interface" to refer instead to "point of interconnection".

The ACCC considers that these changes, proposed by Telstra, should be accepted as they provide greater clarity to the service description and are consistent with the ACCC's principal concern to ensure that existing wholesale ADSL service offerings are covered in the service description.

The ACCC notes Optus' submission that the draft service description failed to incorporate the AGVC/VLAN service. In the Discussion Paper, the ACCC proposed that the service description include Telstra's "DSL Internet Grade" service which encompasses ADSL-based end-user access and transport of traffic to the wholesale customer's point of presence (AGVC). For the avoidance of doubt, it is the ACCC's intention that AGVC is included in the service description such that AGVC pricing can be set through any access determination.

However, the ACCC does not intend to accept other changes proposed in submissions for the reasons set out below.

Firstly, the ACCC does not consider it appropriate to specify whether a PSTN service must be provided over the line on which a wholesale ADSL service is provisioned. This would appear to be a term or condition of access which – consistent with the general principles outlined above – is more appropriately considered in any access determination. The ACCC also notes that Telstra has submitted that because of Telstra's core systems and platform design, ADSL services can only be provisioned where a PSTN service has been provisioned at the end-users' premises.[259]

Secondly, the ACCC considers it appropriate to declare an ADSL-specific service rather than a technology-neutral service as proposed by AAPT. The ACCC's LTIE assessment has been based on the supply of wholesale ADSL services specifically, and declaration of a technology-neutral service would raise a range of issues not examined in this context.

[259] Telstra letter to the ACCC, 8 February 2012, Pub. p.3.

Finally, Optus and Herbert Geer Lawyers propose amending the definition of point of interconnection to remove any suggestion that Telstra has the discretion to choose exactly where in a State or Territory the point of interconnection with an access seeker will be located. The ACCC considers that this is a term and condition of access which should not be included in the service description but rather specified in an access determination.

Finally, the ACCC notes submissions it has received from AAPT and Optus regarding the application of service declaration to other providers of wholesale ADSL. While the ACCC considers declaration of a wholesale ADSL service is in the LTIE, the ACCC considers it appropriate to consider this issue in its inquiry into making an FAD for the wholesale ADSL service.[260]

In light of submissions, the service description for the wholesale ADSL service is provided below.

Service Description

The wholesale asymmetric digital subscriber line service (wholesale ADSL service) is an internet-grade, best efforts point to point service for the carriage of communications in digital form between a point of interconnection and an end-user network boundary that:

(a) is supplied by means of Asymmetric Digital Subscriber Line (ADSL) technology over a twisted metallic pair that runs from the end-user network boundary to the nearest upstream exchange or RIM or CMUX; and

(b) uses a static layer 2 tunnelling protocol (L2TP) over a transport layer to aggregate communications to the point of interconnection.

Definitions

Where words or phrases used in this declaration are defined in the *Competition and Consumer Act 2010* or the *Telecommunications Act 1997*, they have the meaning given in the relevant Act.

In this Appendix:

Asymmetric Digital Subscriber Line technology or **ADSL** means the protocols, recommendations and standards set out in the ITU-TG.992 Recommendations.

Layer 2 has the same meaning as in the Open System Interconnection (OSI) Reference Model for data exchange.

a **point of interconnection** means an interface that is:

(a) a physical point of interconnection which allows the interconnection of facilities in accordance with subsection 152AR(5) of the *Competition and Consumer Act 2010*; and

[260] Section 152BC(3) of the CCA

(b) located in the same state/territory that the access provider associates with the exchange service area in which the **end-user network boundary** is located.

an **end-user network boundary** means the boundary point of the telecommunications network that is:

(i) associated with the end-user premise; and

(ii) ascertained in accordance with section 22 of the *Telecommunications Act*.

4.3 Duration of declaration

A declaration under section 152AL must specify an expiry date. The ACCC must consider what is an appropriate expiry date for declaration. In specifying an expiry date the ACCC must have regard to the principle that an expiry date for a declaration should occur in the period:

- beginning 3 years after the declaration was made; and
- ending 5 years after the declaration was made.[261]

The ACCC has discretion to specify an expiry date for a declared service that is shorter than three years or longer than five years if it considers that circumstances warrant it.[262]

The ACCC's discretion is part of the changes that were introduced into the CCA in 2010 in order to enable the ACCC to provide longer-term regulatory certainty, where appropriate, to promote competition and investment.[263]

SUBMISSIONS

There were a range of views as to the expiry date that should be specified.

Telstra submitted that the duration of the declaration should be aligned with that already set for the fixed line services, i.e. 31 July 2014. This would provide an opportunity for both the ACCC and industry to assess whether or not continued declaration of the service is necessary beyond that time. Telstra further submitted that in light of market conditions and supply trends as the NBN roll-out gathers pace, declaration for a longer period would be inappropriate.[264]

Optus submitted that the declaration should expire on 31 July 2014, which is consistent with the expiry date of other fixed line services declarations including WLR, LCS, PSTN OA, PSTN TA, LSS and ULLS. Furthermore, Optus submitted that this expiry date will provide access seekers the regulatory certainty in the lead up to the NBN.[265]

[261] Section 152ALA(2)(a) of the CCA.
[262] Section 152ALA (2) of the CCA.
[263] Explanatory Memorandum to the *Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Act 2010* (Cth), p.167.
[264] Telstra submission, Pub. p.24/ Conf. p.28.
[265] Optus submission, Pub. p. 15/ Conf. p. 16.

Macquarie Telecom submitted that in line with other ACCC service declarations, the duration of the declaration should be for a period of three years.[266]

AAPT submitted that the duration of the declaration should be aligned with the term of Telstra's SSU as this will ensure that longer-term regulatory certainty will remain in place during the transition to the NBN.[267]

Herbert Geer Lawyers (on behalf of Adam Internet, iiNet, Internode, Primus and TransACT) submitted that the duration of the declaration should reflect the estimated NBN construction timetable available at the time of declaring wholesale ADSL, with added time to allow for construction delays.[268]

TPG submitted that the appropriate duration of the declaration should be the period between now and completion of the NBN.[269]

ACCC'S FINDINGS

The ACCC considers that the duration of declaration of the wholesale ADSL service should be for a period of five years.

The ACCC canvassed a longer duration in the Discussion Paper, to put in place declaration during the transition to the NBN. While AAPT, Herbert Geer Lawyers and TPG submitted that declaration should cover the period until roll-out of the NBN is complete,[270] other parties (Telstra, Optus, and Macquarie Telecom) supported a shorter period. The ACCC considered that the submissions did not cause the ACCC to form an opinion that there are circumstances that warrant a departure from the general principle that service declaration should be between three to five years.

Both Telstra and Optus submitted that any wholesale ADSL service should be declared until 31 July 2014 in line with the expiry dates of other fixed line services declarations (such as WLR, LCS and PSTN OA).[271] The ACCC does not consider that consistency with other fixed line services declarations is a sufficient reason to warrant a duration of less than three years and would unnecessarily result in the ACCC re-examining the declaration within a short time-frame.

Macquarie Telecom submitted that declaration should be for a period of three years.[272] However, the ACCC considers that adopting the higher end of five years consistent with the general principle stated in the legislation will provide a greater degree of certainty during the transition to the NBN. Declaration for a period of five years would mean that the declaration would expire in 2017, which is in close proximity to the NBN completion date or Designated Date (1 July 2018).

The service description outlined in section 4.2 is specific to copper-based service. As the NBN is progressively built over a nine-year deployment schedule, Telstra will progressively migrate its customers from the copper access network onto the NBN. As

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[266] Macquarie Telecom submission, p. 8.
[267] AAPT submission, Pub. p.15/ Conf. p.15.
[268] Herbert Geer Lawyers submission, p. 18.
[269] TPG submission, Pub. p.6/Conf. p.6.
[270] AAPT submission, Pub. p.15/Conf. p.15; Herbert Geer Lawyers submission, p.18; TPG submission, Pub. p.6/Conf. p.6.
[271] Telstra submission, Pub. p.24/ Conf. p. 28; Optus submission, Pub. p.15/ Conf. p.16.
[272] Macquarie Telecom submission, p. 8.

a result, during the five year period of declaration Telstra may cease to have an obligation to supply the wholesale ADSL service in particular regions as it ceases to supply the relevant active declared service to itself.

Appendix A: Legislative framework and the ACCC's approach to the LTIE test

Part XIC of the *Competition and Consumer Act 2010* (Cth) establishes a regime for regulated access to carriage services and services that facilitate the supply of carriage services.

Once a service is declared:

- An access provider supplying the declared service to itself or another person must also supply the service, upon request, to service providers in accordance with the standard access obligations set out in section 152AR.
- The ACCC must commence a public inquiry within 30 days regarding making an access determination for that service.[273] Access determinations can cover a broad range of terms and conditions but must specify price or a method of ascertaining price.[274]

Section 152AL(1) allows the ACCC to declare a specified eligible service[275] if it:

- holds a public inquiry about its proposal to make a declaration
- prepares a report about the inquiry
- publishes that report within a 180 day period ending when the declaration is made, and
- is satisfied that the making of the declaration will promote the LTIE of carriage services or of services provided by means of carriage services.

In particular, the ACCC must decide whether declaring wholesale ADSL would promote the LTIE of carriage services, or of services supplied using carriage services. When determining whether something promotes the LTIE, regard must only be had to the extent to which it achieves 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[276]
- encouraging the economically efficient use of, and the economically efficient investment in, infrastructure.[277]

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[273] Section 152BCI(1) of the CCA.
[274] Sections 152BC(3) and 152BC(8) of the CCA.
[275] An "eligible service" is (a) a listed carriage service (as defined by the *Telecommunications Act 1997* (Cth) (Telco Act)); or (b) a service that facilitates the supply of a listed carriage services (as defined by the Telco Act), where the service is supplied, or is capable of being supplied, by a carrier or a carriage service provider (whether to itself or to other persons): section 152AL(1) of the CCA.
[276] This is the ability of end-users of different networks to communicate — the value of the network to an end-user depends on the number of other users that network allows the end-user to reach. Without any-to-any connectivity, smaller networks could only offer services to their own end-users, and would therefore find it difficult to attract new users, regardless of their long-term efficiency.

The following discussion outlines in more detail the LTIE criteria.

1 Promoting competition

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 benefits of competition to end-users are lower prices, better quality and a better range of services over time.

Subsection 152AB(4) of the CCA provides that, in determining the extent to which declaration is likely to result in the objective of "promoting competition", regard must be had (but is not limited) to the extent to which declaration will remove obstacles to end-users gaining access to listed services.

The ACCC considers that denying service providers access to necessary wholesale services on reasonable terms is a significant obstacle to end-users gaining access to services. Declaration can remove such obstacles by facilitating the entry of service providers, thereby providing end-users with additional services to choose from.

Below are some concepts relevant to the consideration of promoting competition in markets for listed services.

Market Power

Competition may be inhibited where the structure of the market gives rise to market power. Market power is the ability of a firm or firms to constrain or manipulate the supply of products from the levels and quality that would be observed in a competitive market for a significant period of time.

An access regime such as Part XIC addresses the structure of a market, limiting or reducing the sources of market power, by allowing third parties to negotiate access to certain services on reasonable terms and conditions. Competition is promoted when market structures are altered such that the exercise of market power becomes more difficult. For example, barriers to entry may have been lowered (permitting more efficient competitors to enter a market and thereby constraining the pricing behaviour of the incumbents) or because the ability of firms to raise rivals' costs is restricted.

Identifying the relevant markets

To assist in determining the impact of the declaration on markets, the ACCC will first need to identify the relevant markets and then assess the likely effect on competition in each market.

Section 4E of the CCA provides that the term "market" includes a market for the goods or services under consideration as well as any other goods or services that are substitutable for, or otherwise competitive with, those goods or services. The ACCC's approach to market definition is discussed in its 2008 Merger Guidelines, is canvassed in its information paper, *Anti-competitive conduct in telecommunications markets*,

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[277] See subsection 152AB(2) of the CCA. In determining the extent to which a particular thing is likely to result the achievement of promoting competition and encouraging the economically efficient use of, and the economically efficient investment in, the infrastructure, regard must be had to other matters listed in subsections 152AB(4), (6) and (7) of the CCA.

August 1999 and is also explored in the ACCC's second *Fixed Services Review position paper*, April 2007.

Assessing the impact of the declaration on relevant markets

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

2 Any-to-any connectivity

Subsection 152AB(8) states 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, with other end-users whether or not they are connected to the same network.

The any-to-any connectivity requirement is particularly relevant when considering services that involve communications between end-users. When considering services which do not require user-to-user connections (such as carriage services that are inputs to an end-to-end service or distribution services, such as the carriage of pay television), this criterion is generally less of an issue.

3 Efficient use of, and investment in, infrastructure

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

Economic efficiency has three components:

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

An access regime may play an important role in ensuring that existing infrastructure is used efficiently where it is inefficient to duplicate the existing networks or network elements. An access regime must also not discourage investment in networks or network elements where such investment is efficient.

Paragraph 152AB(6) requires the ACCC to have regard to a number of specific matters in examining whether declaration is likely to lead to achievement of the objective in paragraph 152AB(2)(e). Some of these are outlined below.

Technical feasibility

In assessing the technical feasibility of supplying and charging for a service, the ACCC has considered the:

- technology that is in use, available or likely to become available
- costs involved, and whether it is reasonable or likely to become reasonable
- effects or likely effects on the operation or performance of telecommunications networks.

The ACCC will look to an access provider to assess whether it is technically feasible to supply the relevant service, and will also consider experiences in other jurisdictions.

The legitimate commercial interests of the supplier

A supplier's legitimate commercial interests are its obligations to the owners of the firm, including the need to recover the cost of providing services and to earn a normal commercial return on the investment in infrastructure. The 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.

Paragraph 152AB(6)(b) 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 where it is less costly for one firm to produce two (or more) products than it is for two (or more) firms to each separately produce the relevant products.

Declaration is more likely to impact on a supplier's ability to exploit economies of scope than economies of scale. A limit in the capacity available to the owner may constrain the number of services that the owner is able to provide using the infrastructure and thus prevent the realisation of economies of scope associated with the production of multiple services. In contrast, economies of scale may simply result from the use of the capacity of the network and be able to be realised regardless of whether that capacity is being used by the owner or by other carriers or CSPs. The ACCC has assessed the effects on the supplier's ability to exploit both economies of scale and scope on a case-by-case basis.

Incentives for investment

Firms should have the incentive to invest efficiently in the infrastructure by which the services are supplied (or are capable, or are likely to become capable, of being supplied).

Access regulation may promote efficient investment in infrastructure. It reduces the barriers to entry for other (competing) businesses as well as reducing the barriers to expansion by competing businesses. The ACCC must also consider the effects of any expected disincentives to invest arising from anticipated increases in competition.

Appendix B: Overview of DSL

DSL technologies enable access seekers to provide end-users with broadband carriage services. There are a number of features or functionalities which distinguish the DSL services:

- The service is provided over the existing copper wire infrastructure. The use of legacy copper networks limits the data rates that DSL can support and the maximum data rates that can be provided fall as the distance between the customer and the exchange building increases.
- The service is always on, that is, no dial-up is required (allowing the user to maintain a permanent connection to the network enabling real time delivery of services such as email).
- Users of the service can utilise both voice and data services simultaneously.
- The service enables faster upstream and downstream data rates than dial-up internet.

DSL technologies can be asymmetric or symmetric. ADSL (asymmetric) services have a high downstream data rate service coupled with a lower rate upstream service. This service is typically used by households/consumers. Symmetric DSL services have symmetric Bandwidth capacity and are typically used by businesses.

ADSL2+ is an advanced ADSL technology that can achieve higher data rates than standard ADSL technologies. Whereas "standard" ADSL can only achieve data rates of up to 8 Mbps downstream and 384 Kbps upstream, ADSL2+ can achieve data rates in excess of 20 Mbps downstream and 1 Mbps upstream.

Access seekers can provide ADSL services by purchasing unconditioned local loop service (ULLS) or line sharing service (LSS) and investing in their own DSL (e.g. DSLAMs) and backhaul networks. The ULLS and LSS are declared services.[278] The ULLS provides access to the entire unconditioned local loop whereas the LSS allows access to the high frequency spectrum of the copper line.

Alternatively, a wholesale ADSL service can be acquired by access seekers to provide an ADSL service without the need to deploy their own DSLAM. Telstra currently supplies wholesale ADSL to access seekers in approximately 2800 "ADSL-enabled" ESAs.[279]

Wholesale ADSL services comprise both a local access component, and a transmission component between DSL enabled exchanges and CBD points of interconnect (POI). In this respect, wholesale ADSL services are generally a more bundled service than the services which are currently declared (e.g. ULLS and domestic transmission capacity service (DTCS)).

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[278] ACCC, *Fixed Services Review Declaration Inquiry for the ULLS, LSS, PSTN OA, PSTN TA, LCS and WLR*, July 2009.
[279] Telstra ADSL-enabled exchange list: http://www.telstrawholesale.com.au/products/data-broadband/adsl/adsl-reports-plans/index.htm .

Appendix C: list of submissions received

AAPT, *Submission by AAPT Limited (19 January 2012) to ACCC Discussion Paper into whether wholesale ADSL services should be declared under Part XIC of the Competition and Consumer Act 2010, dated December 2011,* 19 January 2012, Public and Confidential Submission.
Competitive Carriers' Coalition, *Submission into Wholesale ADSL Declaration Inquiry,* 22 December 2011, Public Submission.
iiNet, Internode, Primus, TransACT and Adam Internet, *Submission by Herbert Geer Lawyers on behalf of: Adam Internet Pty Ltd, iiNet Limited, Internode Pty Ltd, Primus Telecommunications Pty Ltd, and TransACT Communications Pty Ltd in response to the ACCC discussion paper of December 2011 into whether wholesale ADSL services should be declared under Part XIC of the Competition and Consumer Act 2010,* 19 January 2012 Public and Confidential Submission.
Macquarie Telecom, *Inquiry into whether wholesale ADSL services should be declared* 19 January 2012, Public Submission.
Optus, *Optus Submission in response to the ACCC's Discussion Paper into whether wholesale ADSL services should be declared under Part XIC of the Competition and Consumer Act 2010,* 19 January 2012, Public and Confidential Submission.
Telstra, *Response to the Commission's Discussion Paper into whether wholesale ADSL services should be declared under Part XIC of the Competition and Consumer Act 2010,* 19 January 2012, Public and Confidential Submission.
Telstra, Letter to the ACCC, 8 February 2012, Public and Confidential Submission.
TPG, *Inquiry Into Declaration Of Wholesale ADSL,* 25 January 2012 Public and Confidential Submission.

Appendix D: Service description for the wholesale ADSL service

The wholesale asymmetric digital subscriber line service (wholesale ADSL service) is an internet-grade, best efforts point to point service for the carriage of communications in digital form between a point of interconnection and an end-user network boundary that:

(c) is supplied by means of Asymmetric Digital Subscriber Line (ADSL) technology over a twisted metallic pair that runs from the end-user network boundary to the nearest upstream exchange or RIM or CMUX; and

(d) uses a static layer 2 tunnelling protocol (L2TP) over a transport layer to aggregate communications to the point of interconnection.

Definitions

Where words or phrases used in this declaration are defined in the *Competition and Consumer Act 2010* or the *Telecommunications Act 1997*, they have the meaning given in the relevant Act.

In this Appendix:

Asymmetric Digital Subscriber Line technology or **ADSL** means the protocols, recommendations and standards set out in the ITU-TG.992 Recommendations.

Layer 2 has the same meaning as in the Open System Interconnection (OSI) Reference Model for data exchange.

a **point of interconnection** means an interface that is:

(a) a physical point of interconnection which allows the interconnection of facilities in accordance with subsection 152AR(5) of the *Competition and Consumer Act 2010*; and

(b) located in the same state/territory that the access provider associates with the exchange service area in which the **end-user network boundary** is located.

an **end-user network boundary** means the boundary point of the telecommunications network that is:

(i) associated with the end-user premise; and

(ii) ascertained in accordance with section 22 of the *Telecommunications Act*.