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Commission

Wholesale ADSL service declaration inquiry

Discussion paper

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Contents

List of abbreviations	3
1. Introduction	4
1.1. Purpose	4
1.2. Overview	4
1.3. Consultation	5
1.3.1. Confidentiality	5
1.4. Paper structure	5
2. Assessment framework	7
2.1. Legislative framework	7
2.2. Economic rationale for declaring services	7
2.2.1. Bottleneck and natural monopoly characteristics	7
2.2.2. Promoting competition and economic efficiency	8
2.2.3. Vertical integration	8
2.3. Defining relevant markets and assessing the state of competition	8
3. Background	10
3.1. Declaration of the wholesale ADSL service and past competition concerns	10
3.2. Other related ACCC inquiries and decisions	11
3.2.1. The wholesale ADSL service final access determination 2013	11
3.2.2. Fixed-line services declaration inquiry 2013	11
3.2.3. Fixed-line services final access determinations 2015	12
3.2.4. Superfast Broadband Services	13
3.2.5. Telstra's Structural Separation Undertaking and Migration Plan	13
3.3. Industry developments	14
3.3.1. The National Broadband Network	14
3.3.2. Use of fixed-line and mobile broadband services	15
4. Promoting the long term interests of end users	17
4.1. Promoting Competition	17
4.1.1. Relevant markets	17
4.1.2. State of competition in relevant markets	21
4.1.3. Promoting competition in relevant markets	25
4.2. Any-to-any connectivity	27

4.3. Encouraging economically efficient use of, and investment in, infrastructure	27
5. Considerations if the ACCC were to declare the wholesale ADSL service.....	31
5.1. Service description.....	31
5.2. Coverage	32
5.3. Duration of declaration	33
5.4. Pricing.....	34
5.5. Regulatory burden associated with declaration	35
5.6. Implications for other regulatory processes	36
Appendix A: Questions on which submissions are sought.....	37
Appendix B: Overview of DSL	39
Appendix C: Legislative framework and the ACCC's assessment approach	40
Legislative framework.....	40
Declaration inquiries	40
The ACCC's approach to the LTIE test	41
Promoting Competition	41
Any-to-any connectivity	44
Efficient use of and investment in infrastructure	44

List of abbreviations

ACCC	Australian Competition and Consumer Commission
ADSL	asymmetric digital subscriber line
AGVC	aggregating virtual circuit
CAN	Customer Access Network
CBD	central business district
CCA	<i>Competition and Consumer Act 2010</i>
DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexer
ESA	exchange service area
FAD	final access determination
FTTB	fibre to the basement
FTTN	fibre to the node
FTTP	fibre to the premises
HFC	hybrid fibre-coaxial
LBAS	local bitstream access service
LSS	line sharing service
LTIE	long-term interests of end-users
Mbps	megabits per second
NBN	National Broadband Network
OBPR	Office of Best Practice Regulation
RKR	record keeping rules
RSP	retail service provider
SAOs	standard access obligations
SBAS	superfast broadband access service
SSU	structural separation undertaking
ULLS	unconditioned local loop service
VLAN	virtual local area network

1. Introduction

1.1. Purpose

The Australian Competition and Consumer Commission (ACCC) is conducting a public inquiry about the declaration of the wholesale asymmetric digital subscriber line (ADSL) service. The current declaration is set to expire on 13 February 2017.

The ACCC is required to conduct this inquiry during the 18 month period preceding the expiry date of the current declaration.¹ The purpose of the inquiry is to determine whether the declaration should be extended, revoked, varied, allowed to expire, either with or without a new declaration being made, or extended for a period of not more than 12 months and then allowed to expire without a new declaration being made.²

This discussion paper seeks comment on the key issues that are relevant to the review of the wholesale ADSL service declaration.

1.2. Overview

Under Part XIC of the *Competition and Consumer Act 2010* (CCA), the ACCC may declare a service if it is satisfied that the making of the declaration will promote the long-term interests of end-users (LTIE). When determining whether declaration of the service promotes the LTIE, the ACCC must have regard to the extent to which declaration is likely to result in the achievement of the following three objectives:³

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

If a service is declared it is subject to the standard access obligations (SAOs) and the access provider must provide access, if requested, to that service to access seekers.⁴ The access provider may also be required to comply with regulated price and non-price terms and conditions set by the ACCC.⁵

The ACCC first declared the wholesale ADSL service in February 2012.⁶ It has also made a final access determination (FAD) establishing the regulated price and non-price terms and conditions to apply where commercial agreement cannot be reached. If through this public inquiry the ACCC was to declare the same wholesale ADSL service as is currently declared, the current FAD⁷ would remain in place until it expires on 30 June 2019.

Digital subscriber line (DSL) technology provides fixed-line broadband services over copper networks and is currently the major technology for internet connections in Australia. ADSL broadband services have a high downstream data rate coupled with a lower upstream data rate and are typically used by residential or small business customers. Appendix B outlines the main features and functionalities that distinguish DSL services and the different types of ADSL services.

1 Competition and Consumer Act 2010 (CCA), section 152ALA.

2 CCA, subsection 152ALA(7).

3 CCA, section 152AB.

4 CCA, section 152AR.

5 CCA, section 152AY.

6 ACCC, Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010, Final decision, February 2012, <https://www.accc.gov.au/system/files/Declaration%20of%20the%20wholesale%20ADSL%20service%20-%20final%20decision%20paper.pdf>.

7 ACCC, *Public inquiry into final access determinations for fixed line services*, Final Decision, October 2015, <http://www.accc.gov.au/system/files/FSR%20FAD%20Final%20Decision%20Report%20-%20Public%20Version.pdf>

A number of changes have occurred since the wholesale ADSL service was declared in 2012, including the progressive rollout of the National Broadband Network (NBN) and increasing use of fixed-line broadband services to download data. In examining whether declaration will promote the LTIE, the ACCC will take these, and any other relevant considerations, into account.

1.3. Consultation

The ACCC encourages industry participants, other stakeholders and the public to consider the issues set out in this discussion paper and make a submission. A full list of questions posed in this discussion paper is at Appendix A.

The ACCC seeks written submissions on the issues raised in this discussion paper by **no later than 29 July 2016**.

The ACCC prefers to receive electronic copies of submissions, either in PDF or Microsoft Word format allowing for the submission text to be searched. Please email submissions to:

Claire.Preston@acc.gov.au

Cc Nicole.Ross@acc.gov.au and WADSLdeclarationinquiry@acc.gov.au

Please contact Claire Preston regarding any questions you have regarding this consultation on (03) 9290 1995.

The ACCC expects to finalise its decision in February 2017.

1.3.1. Confidentiality

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

The ACCC has published a Confidentiality Guideline which sets out the process parties should follow when submitting confidential information to communications inquiries commenced by the ACCC. The Guideline describes the ACCC's legal obligations with respect to confidential information, the process for submitting confidential information and how the ACCC will treat confidential information provided in submissions. A copy of the Guideline can be downloaded from website.

The *ACCC-AER information policy: the collection, use and disclosure of information* is also a useful reference and can be downloaded from [the ACCC's website](#).⁸

1.4. Paper structure

Section 2 sets out the declaration assessment framework including the legislative and economic rationale.

Section 3 provides background to the current declaration of the wholesale ADSL service and outlines some key issues and trends in the industry.

Section 4 sets out the issues to be considered in determining whether declaration would promote the LTIE.

⁸ The AER is the Australian Energy Regulator.

Section 5 outlines the considerations that would arise if the ACCC were to declare the wholesale ADSL service, including the service description.

Appendix A sets out a list of all questions on which submissions are sought.

Appendix B sets out an overview of DSL technology.

Appendix C sets out the legislative framework for declaration and the ACCC's general assessment approach.

2. Assessment framework

2.1. Legislative framework

Part XIC of the CCA establishes a telecommunications specific access regime that has an objective to promote the LTIE. The regime allows the ACCC to declare a service, after which the provider of the service is subject to the SAOs. The SAOs require the access provider to provide access to that service to access seekers. Declaration ensures service providers have access to the inputs they need to supply competitive telecommunications services to consumers on terms and conditions that promote the LTIE.

The ACCC can declare a specified eligible service⁹ if it is satisfied that this will promote the LTIE of carriage services, or of services provided by means of carriage services.¹⁰

In deciding whether declaration is likely to promote the LTIE, the ACCC must have regard to the extent to which declaration is likely to result in the achievement of the following three objectives¹¹:

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

Appendix C sets out the legislative framework in detail, including the ACCC's approach to the LTIE test and the key issues that it will consider under the test.

2.2. Economic rationale for declaring services

The ACCC uses well-established economic principles to analyse the expected impacts of regulating particular services on achieving the three objectives relevant to the LTIE. These include:

- Whether the relevant infrastructure exhibits enduring bottleneck characteristics and the effect on competition in related markets, any-to-any connectivity and the economically efficient use of, and investment in, telecommunications infrastructure.
- Whether requiring access to services provided by telecommunications infrastructure will promote competition and economic efficiency (productive, allocative and dynamic).
- Whether infrastructure operators are vertically integrated and the likely effect of that on competition in related markets, any-to-any connectivity and the efficient use of, and investment in, telecommunications infrastructure.

2.2.1. Bottleneck and natural monopoly characteristics

The ACCC considers that declaration is likely to promote the LTIE where infrastructure facilities are enduring bottlenecks. In the telecommunications industry, an enduring bottleneck is an element of the network that is essential to the supply of services to end-users in downstream (retail) markets, and exhibits natural monopoly characteristics. That is, where it is more efficient for one infrastructure facility, as opposed to multiple duplicate facilities, to supply and meet the total demand for a good or service. Natural monopoly infrastructure is characterised by economies of scale, economies of scope and/or network economies (or economies of density).

⁹ 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) CCA.

¹⁰ CCA, section 152AL.

¹¹ CCA, section 152AB.

The existence of any of these economies can create significant barriers to entry which typically result in the operator of bottleneck infrastructure having market power that it can use to charge monopoly prices for access to its infrastructure. The infrastructure operator may also have lower incentives to invest in maintaining or upgrading its infrastructure, to adopt new technology or innovations that improve service quality, and to expand the capacity of its network as a result of limited competitive pressures.

2.2.2. Promoting competition and economic efficiency

The ACCC considers that the primary objective of access regulation is the promotion of competition and economic efficiency in related markets, that is, upstream (wholesale) markets and downstream (retail) markets of bottleneck infrastructure.¹² Economic efficiency comprises three components:

- productive (or technical) efficiency, which is achieved where individual firms produce the goods and services at least cost
- allocative efficiency, which is achieved where resources are employed to produce products and services that are preferred (and most highly valued) by consumers
- dynamic efficiency, which reflects the timely adoption by firms of new technologies and development of innovative products in response to changes in consumer tastes and in production opportunities.

In regulating natural monopoly infrastructure, the ACCC aims to achieve the productive efficiency benefits of a single infrastructure operator while preventing or minimising the efficiency losses and higher prices that result from the use of monopoly power. In doing so, the ACCC aims to:

- ensure effective competition can occur in markets upstream and downstream of the natural monopoly infrastructure
- promote efficient investment in natural monopoly infrastructure and related sunk investments upstream and downstream of the natural monopoly infrastructure.

2.2.3. Vertical integration

A further consideration is whether an infrastructure operator is vertically integrated. Where vertical integration exists, the operator may have an incentive to restrict access to the facility by its competitors in the downstream market. Alternatively, or in addition, it has an incentive to charge its downstream competitors monopoly, or above efficient, prices to provide a competitive advantage for its own downstream operations. Such behaviour is likely to reduce competition in the downstream market, reduce efficiency and be in the detriment of end-users.

2.3. Defining relevant markets and assessing the state of competition

In applying these economic principles when determining whether declaring a service would promote the LTIE, the ACCC first identifies the market(s) relevant to the service. The ACCC then assesses the current state of competition in those markets.

Appendix C sets the ACCC's approach to defining the relevant markets and assessing the state of competition in those markets.

Part XIC of the CCA does not require the ACCC to precisely define the scope of the relevant markets in a declaration inquiry. The ACCC considers that it is sufficient to broadly identify the scope of the relevant market(s) likely to be affected by the declaration. Accordingly, a

¹² ACCC, *Productivity Commission Review of the National Access Regime*, ACCC submission to Issues Paper, February 2013, p. 12, <http://www.pc.gov.au/inquiries/completed/access-regime/submissions/submissions-test/submission-counter/sub016-access-regime.pdf>.

market definition analysis under Part XIC should be seen in the context of shedding light on how declaration would or would not promote competition and the LTIE in those markets.

1. Do you consider the ACCC's proposed assessment framework is appropriate for assessing whether declaring the wholesale ADSL service would promote the LTIE? That is, will the proposed assessment framework assist the ACCC in assessing whether declaring a service will promote competition in markets for telecommunications services, achieve any-to-any connectivity and encourage efficient use and investment in infrastructure by which the service is supplied?

3. Background

This chapter provides background to the current declaration of the wholesale ADSL service and outlines some key issues and trends in the industry. These are discussed further in Chapter 4 in terms of their implications for the declaration of the wholesale ADSL service.

3.1. Declaration of the wholesale ADSL service and past competition concerns

The ACCC commenced a public inquiry into whether a wholesale ADSL service should be declared in December 2011¹³ and declared the service in February 2012 for a period of five years.¹⁴ The declaration will expire on 13 February 2017. The ACCC declared the wholesale ADSL service as it considered this would promote the LTIE in the following ways¹⁵:

- Promoting of competition – declaration would address the 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 the wholesale ADSL service to impede competition through restrictive contractual terms, and potentially anti-competitive price discrimination occurring between wholesale ADSL access seekers. This was seen as important in providing certainty in the lead-up to the NBN.
- Achieving any-to-any connectivity – declaration would not have any impact on the achievement of any-to-any connectivity.
- Encouraging economically efficient use of, and investment in, infrastructure – declaration would be unlikely to impact on the incentives for efficient investment given significant further expansion of the footprint for wholesale ADSL services using competitive infrastructure (the unconditioned local loop service (ULLS) and DSL infrastructure) was not anticipated. Further, it was unlikely that Telstra’s legitimate commercial interests would be impacted given its ability to continue to make a return on its existing investments.

There had been a history of competition concerns relating to the wholesale ADSL service including vertical price squeezes that involved wholesale ADSL price increases and retail price reductions. These resulted in competition notices¹⁶ being issued to Telstra in 2001¹⁷ and 2004.¹⁸ In June 2006, the ACCC decided not to hold an inquiry to declare the wholesale ADSL service as it considered to do so could adversely affect competition by delaying the uptake of ULLS.¹⁹

Further price squeeze concerns arose in 2010, along with concerns about the non-price conditions attached to Telstra’s supply of the wholesale ADSL service. The ACCC considered commencing an inquiry about whether to declare the wholesale ADSL service at that time and in April 2011 stated that it would not conduct a declaration inquiry but would

13 ACCC, *Discussion paper into whether wholesale ADSL services should be declared under Part XIC of the Competition and Consumer Act 2010*, Discussion Paper, December 2011, <https://www.accc.gov.au/system/files/Discussion%20paper%20-%20declaration%20inquiry%20of%20wholesale%20ADSL%20services.pdf>.

14 ACCC, *Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010, Final Decision*, February 2012, p. 2. <https://www.accc.gov.au/system/files/Declaration%20of%20the%20wholesale%20ADSL%20service%20-%20final%20decision%20paper.pdf>.

15 Ibid. p. 1-2.

16 Competition notice: The ACCC may issue a notice stating that (1) a specified carrier or carriage service provider has engaged, or is engaging, in anti-competitive conduct (s 151AKA), or (2) a specified carrier or carriage service provider has contravened, or is contravening, the competition rule (s 151AL). The competition rule states that a carrier or carriage service provider must not engage in anti-competitive conduct.

17 ACCC, *Telstra broadband services (structure, configuration and pricing) competition notice*, 6 September 2001, <http://registers.accc.gov.au/content/index.phtml/itemId/322681>.

18 ACCC, *Telstra broadband competition notice*, 19 March 2004, <http://registers.accc.gov.au/content/index.phtml/itemId/552233>.

19 ACCC, *A strategic review of the regulation of fixed network services, Position paper*, June 2006, p. 88, 90, <http://www.accc.gov.au/system/files/Position%20paper%E2%80%94Strategic%20review%20of%20the%20regulation%20of%20fixed%20network%20services%20%28Jun%2006%29.pdf>.

instead adopt a 'wait and see' approach.²⁰ The ACCC considered there was evidence of some further infrastructure investment occurring and that there had been some improvement in the level of Telstra's wholesale ADSL pricing, with the potential for commercial negotiations to result in further improvements.²¹

In July 2011 Telstra submitted a Structural Separation Undertaking (SSU) for assessment. It proposed interim equivalence and transparency measures for its regulated services, including the wholesale ADSL service. During the public consultation on the SSU, access seekers continued to raise competition concerns with the ACCC about the terms and conditions on which Telstra supplied wholesale ADSL services.²² Further the ACCC publicly stated its view that the proposed SSU price equivalence arrangements to apply to the wholesale ADSL service when it was not a declared service appeared comparatively weak to those arrangements that applied when the service was declared.²³

3.2. Other related ACCC inquiries and decisions

Since the wholesale ADSL service was declared in February 2012, there have been a number of regulatory inquiries and decisions which are relevant to the wholesale ADSL service that have looked at markets for broadband services supplied using both legacy (copper-based) PSTN networks and next generation (fibre-based) networks. This section provides a summary of these and the issues considered.

3.2.1. The wholesale ADSL service final access determination 2013

On 29 May 2013, the ACCC made its FAD for the declared wholesale ADSL service.²⁴ The FAD determined the price and non-price terms and conditions for the wholesale ADSL service where Telstra and an access seeker could not agree.

In determining the expiry date for the wholesale ADSL service FAD, the ACCC decided to align it with the other fixed-line services FADs (covering all fixed-line services other than wholesale ADSL²⁵), which were due to expire on 30 June 2014.²⁶ This was to ensure consistency in the pricing approach for services using the same network assets and reduce the risk of the access provider over or under-recovering the cost of supplying these services.

3.2.2. Fixed-line services declaration inquiry 2013

On 11 July 2013, the ACCC commenced a combined public inquiry into the declaration of six fixed-line services²⁷ and published its final report on 17 April 2014, making the decision to extend the declaration for the six fixed-line services for a further five year period.²⁸ It also made a number of variations to the existing fixed-line service descriptions. The new declarations came into force on 1 August 2014 and will expire on 31 July 2019.²⁹ Section 5.3 discusses whether the wholesale ADSL service declaration expiry date should align with the other fixed-line services' declaration expiry dates if the wholesale ADSL service is declared after February 2017.

20 ACCC, *Proposed declaration inquiry regarding wholesale ADSL - letter*, 18 April 2011, p. 2.
<https://www.accc.gov.au/system/files/ACCC%20letter%20-%20no%20declaration%20inquiry%20at%20this%20time.pdf>.

21 Ibid.

22 ACCC, *Discussion paper into whether wholesale ADSL services should be declared under Part XIC of the Competition and Consumer Act 2010*, Discussion Paper, December 2011, p. 7.

23 ACCC, *Telstra's Structural Separation Undertaking Discussion Paper*, December 2011, pp.10-11

24 ACCC, *Public inquiry to make a final access determination for the Wholesale ADSL service, Final report*, May 2013, Public version,
<http://www.accc.gov.au/system/files/Final%20report%20-%20FAD%20for%20wholesale%20ADSL%20-%20public%20version.pdf>.

25 These are wholesale line rental, the local carriage service, the unconditioned local loop service, the line sharing service, the fixed originating access service and the fixed terminating access service.

26 Ibid. p. 6.

27 As set out in footnote 25.

28 ACCC, *Public Inquiry into the fixed line services declarations, Final report*, April 2014, pp. vi – ix,
http://www.accc.gov.au/system/files/D14%2047876%20%20MEA-FINAL%20-%20FSR%20Declaration%20-%20Final%20Decision%20Public%20Version%20%5Bfor%20release%5D%20-%202017%20April%202014_0.pdf.

29 Ibid. p. 66-79.

3.2.3. Fixed-line services final access determinations 2015

On 11 July 2013, the ACCC commenced a combined public inquiry into making FADs for all of the fixed-line services, including the wholesale ADSL service.³⁰ The ACCC made its final decision in October 2015 setting the price and non-price terms and conditions of access to all seven fixed-line services.³¹ This covered the period 1 November 2015 to 30 June 2019.³²

In August 2015, to inform the final decision, the ACCC released a targeted consultation paper on a proposal for an alternative approach to setting the aggregation charge (the aggregating virtual circuit (AGVC)/ virtual local area network (VLAN) component) for the wholesale ADSL service.³³ After considering the issues, the ACCC's final decision was to retain the existing two part tariff for wholesale ADSL (see Table 3.1), including the separate port charges for different zones and an aggregation charge reflecting the existing methodology.³⁴ The ACCC considered this would maintain relative price stability balanced against responding to changes in demand and cost relativities between fixed line services. The ACCC also did not approve an early termination charge for the wholesale ADSL service, which was raised as a potential barrier in the 2012 declaration inquiry.³⁵

Table 3.1 Final decision on primary charges for the wholesale ADSL service

Service	Unit	Final decision charges
Wholesale ADSL Zone 1	\$ per port per month	22.14
Wholesale ADSL Zone 2 / 3	\$ per port per month	26.87
Wholesale AGVC / VLAN	\$ per Mbps per month	29.27

Source: ACCC Public inquiry into final access determinations for fixed line services, Final Decision, October 2015, p. xi.

Non-price terms and conditions were also determined for fixed-line services, including the wholesale ADSL service, having reference to the final decision in the separate inquiry the ACCC conducted into non-price terms and conditions.³⁶

The ACCC decided the wholesale ADSL service FAD and SAOs would only apply to Telstra and not to other carriers or carriage service providers.³⁷

On 5 November 2015, Telstra applied to the Federal Court for judicial review of the ACCC's fixed-line service FADs final decision.³⁸ Hearings on this matter were completed in March 2016 and the ACCC is now awaiting a judgement.

30 ACCC, *Fixed line services FAD inquiry 2013*, <http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-inquiry-2013>.

31 ACCC, *Public inquiry into final access determinations for fixed line services*, Final Decision, October 2015

32 Ibid. p. 171.

33 ACCC, *Re: ACCC's fixed line services final access determination inquiry: request for further information*, Letter to access seekers, 14 July 2015; ACCC, *Re: ACCC's fixed line services final access determination inquiry: request for further information*, Letter to Telstra, 13 July 2015, <https://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-inquiry-2013/consultation-on-wholesale-adsl-agvc-vlan-charge>.

34 ACCC, *Public inquiry into final access determinations for fixed line services*, Final Decision, October 2015, pp. 187-88.

35 Ibid. p. 199-200

36 ACCC, *Telecommunications Final Access Determination Inquiries, Non-price terms and conditions*, Final decision for MTAS and views for fixed line services and DTCS, August 2015, <https://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fad-inquiries-non-price-terms-conditions-supplementary-prices/final-report>.

37 ACCC, *Public inquiry into final access determinations for fixed line services*, Final Decision, October 2015, p. 227.

38 ACCC, *Fixed line services FAD inquiry Judicial review*, 5 November 2015, <https://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-inquiry-2013/judicial-review>.

3.2.4. Superfast Broadband Services

It is also relevant to examine the issues considered in the superfast broadband service declaration inquiries, as the market definition and competition analysis in those inquiries also considered ADSL services.

The ACCC declared a Local Bitstream Access Service (LBAS) in February 2012,³⁹ as required under the CCA.⁴⁰ The LBAS declaration only applies to services supplied using a designated superfast telecommunications network⁴¹ that is a Layer 2 bitstream service and has a download transmission data rate that is normally 25 megabits per second (Mbps) or higher.⁴² To be a designated superfast telecommunications network it must be used principally to supply services to residential or small business customers and the network⁴³:

- came into existence after 1 January 2011 or
- is upgraded after that time and as a result of the upgrade becomes capable of supplying a superfast carriage service.

Further to this, the ACCC commenced an inquiry into declaring a superfast broadband access service (SBAS) in September 2014.⁴⁴ This followed the Vertigan Committee's recommendations⁴⁵ and the ACCC's conclusion that TPG's plans to deploy a fibre-to-the-basement (FTTB) network to large apartment buildings in metropolitan areas would not be captured by the LBAS declaration.⁴⁶

In November 2015 the ACCC made a draft decision to declare an SBAS, which is a wholesale Layer 2 fixed-line broadband service with a download data rate that is normally greater than 25 Mbps.⁴⁷ The draft declaration did not apply to⁴⁸:

- services supplied on the NBN
- services supplied subject to the level playing field provisions and LBAS declaration
- services supplied on the hybrid fibre-coaxial (HFC) networks to be transferred to National Broadband Network Corporation (NBN Co), and
- services supplied from a single digital subscriber line access multiplexer (DSLAM) or other access multiplexer device that exclusively supplies superfast broadband services to business customers, public bodies or charity customers.

3.2.5. Telstra's Structural Separation Undertaking and Migration Plan

Telstra's SSU and Migration Plan implement structural separation of Telstra through the migration of end-users to the NBN. The SSU includes a commitment by Telstra to progressively cease supply of telephone and broadband services over its copper and HFC networks and commence supplying these services over the NBN as the network is rolled

39 ACCC, *Layer 2 bitstream service declaration, Final Report*, February 2012, <https://www.accc.gov.au/system/files/Local%20bitstream%20access%20service%20declaration%20-%20final%20report.pdf>.

40 CCA, section 152AL(3C).

41 CCA, subsection 152AL(3D).

42 Which reflects the definition of a superfast carriage service as in the *Telecommunications Act 1997*, section 141.

43 CCA, section 152AGA.

44 ACCC, *Superfast Broadband Access Service declaration inquiry, Discussion paper*, May 2015, <https://www.accc.gov.au/system/files/MEA-Final%20-%20SBAS%20discussion%20paper%20-%206%20May%202015.pdf>.

45 Vertigan, *Independent cost-benefit analysis of broadband and review of regulation: statutory review under section 152EOA of the Competition and Consumer Act 2010*, June 2014, https://www.communications.gov.au/sites/g/files/net301/f/3%20_Section_152EOA_Report.pdf.

46 ACCC, *ACCC not to take action to block TPG's Fibre to the Basement network rollout, media release*, ACCC (Canberra), 11 September 2014.

47 ACCC, *Superfast Broadband Access Service declaration inquiry, Draft decision*, November 2015, p. v. available at: <https://www.accc.gov.au/system/files/SBAS%20-%20ACCC%20draft%20decision%20-%20public%20version%20-%20November%202015.pdf>

48 Ibid.

out.⁴⁹ In order to promote competition during the interim period, the SSU also includes a broad range of equivalence and transparency measures for access to key wholesale services up until the day construction of the NBN is concluded ('the Designated Day'⁵⁰). The Migration Plan governs the manner in which Telstra will cease supplying copper and most HFC services and ultimately achieve structural separation.

The ACCC accepted the SSU and Migration Plan in February 2012, with both commencing in March 2012. A notable feature of the interim equivalence and transparency obligations in the SSU is the requirement for Telstra to supply regulated services (including the wholesale ADSL service) to wholesale customers under a rate card that it publishes. Where the ACCC makes a price determination in relation to a declared service, the specified price is 'pulled through' to the rate card.

3.3. Industry developments

Since the wholesale ADSL service was declared in February 2012, a number of industry developments have occurred. These changes are relevant to this wholesale ADSL declaration inquiry and include changes in policy settings, technological developments, consumer behaviour and increasing convergence between different products and services.

3.3.1. The National Broadband Network

NBN Co was established to design, build and operate the NBN.⁵¹ NBN Co operates as a wholesale-only company⁵² that delivers high data rate broadband services to all Australians. In particular, it has been required to provide 25 Mbps services to all premises and 50 Mbps services to 90 per cent of all fixed-line premises.⁵³ The NBN will use a multi-technology mix to deliver these services, including a combination of optical fibre, HFC (including that acquired from Telstra and Optus), wireless and satellite technologies. The target completion date of the NBN network is 2020.⁵⁴

Telstra is required to progressively migrate its wholesale and retail customers from its copper and HFC networks to the NBN.⁵⁵

The number of premises ready for NBN service has been increasing and reached over 2.5 million as of 26 May 2016, with just over one million premises activated. This is shown in Chart 3.1 below. NBN has estimated that 9.1 million premises will be ready for service by the end of 2017-18 with a target of 4.4 million premises activated.⁵⁶

49 ACCC, *Assessment of Telstra's Structural Separation Undertaking and draft Migration Plan – Final Decision*, February 2012, Public version, p. 14, <https://www.accc.gov.au/system/files/Assessment%20of%20Telstra%27s%20Structural%20Separation%20Undertaking%20and%20draft%20Migration%20Plan%20-%20Final%20Decision.pdf>.

50 The Designated Day set out in section 577A of the Telecommunications Act 1997 is 1 July 2018, or such other designated day specified by written instrument in accordance with s577A(10)(b) of the Telecommunications Act. The NBN estimates their completion date to be 2020. However, the Designated Day can be specified by the Minister by written instrument.

51 Explanatory Memorandum to the National Broadband Network Companies Bill 2010 Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements) Bill 2010, p. 1.

52 Ibid.

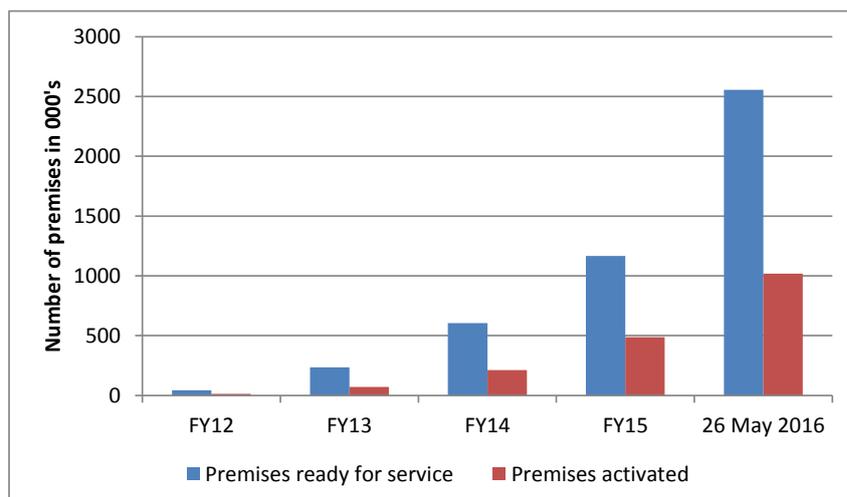
53 Minister for Communications and Minister for Finance, *Shareholder Ministers in NBN Co Limited: Government expectations*, 8 April 2014, <http://www.nbnco.com.au/content/dam/nbnco2/documents/soe-shareholder-minister-letter.pdf>.

54 NBN Co, *Corporate Plan 2016*, p. 31, <http://www.nbnco.com.au/corporate-information/about-nbn-co/corporate-plan/corporate-plan.html>.

55 ACCC, *Assessment of Telstra's Structural Separation Undertaking and draft Migration Plan – Final Decision*, February 2012 p. 14.

56 NBN Co, *Corporate Plan 2016*, p. 12, <http://www.nbnco.com.au/corporate-information/about-nbn-co/corporate-plan/corporate-plan.html>.

Chart 3.1 NBN premises ready for service and activated



Source: NBN Co, Corporate Plan 2016 and Weekly Progress report, 26 May 2016.

3.3.2. Use of fixed-line and mobile broadband services

At the same time as the NBN is being rolled out, there have also been changing trends in the use of fixed-line and mobile broadband services.

Most Australians have an internet connection, with 85 per cent (15.7 million) having a fixed-line broadband connection at the end of June 2015 (which was a two per cent increase from the previous year).⁵⁷ These services are supplied using a variety of technologies. From June 2014 to June 2015, the number of subscribers to ADSL services increased by less than one per cent (to over 5 million in total) while subscribers to HFC broadband services grew by five per cent (to almost 1 million in total).⁵⁸ Over the same period the number of subscribers to fibre services, including NBN services, more than doubled (to just under 0.5 million).⁵⁹

Between December 2014 and December 2015, the overall volume of data downloaded grew by 50 per cent.⁶⁰ The ACCC understands that this is largely driven by the increasing take-up by end-users of content streaming services such as Netflix. Further, NBN Co commenced a 24 month trial of a new pricing scheme for CVC on 1 June 2016.⁶¹ Under the trial, NBN Co will offer dimension based discounts to the price of CVC on the amount of CVC capacity per end user. CVC is closely related to data use. This trial signals that how customers consume data is changing.

Fixed-line broadband services continue to account for the majority of downloads. For example, in the three months ending 31 December 2015, fixed-line broadband accounted for 98 per cent of all fixed-line and wireless internet downloads.⁶² The continued reliance on fixed-line broadband can be seen in Table 3.2, which also demonstrates that while mobile handset services download proportionally less data there has been continued growth in the volume of data downloaded via mobile handsets.

57 Australian Communications and Media Authority, *Communications Report 2014-15*, December 2015, p. 43, <http://www.acma.gov.au/~media/Research%20and%20Analysis/Report/pdf/ACMA%20Communications%20report%2014-15%20pdf.pdf>.

58 Ibid, p.20.

59 Ibid, p.20.

60 Australian Bureau of Statistics, *Internet Activity Australia (8153.0)*, viewed 26 May 2016, <http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/8153.0Main%20Features4December%202015?opendocument&abname=Summary&prodno=8153.0&issue=December%202015&num=&view>.

61 NBN Co, *New discount-based pricing to encourage enhanced broadband experience*, Media Release, 5 April 2016, <http://www.nbnco.com.au/corporate-information/media-centre/media-releases/New-discount-based-pricing-to-encourage-enhanced-broadband-experience.html>.

62 Australian Bureau of Statistics, *Internet Activity Australia (8153.0)*, viewed 26 May 2016.

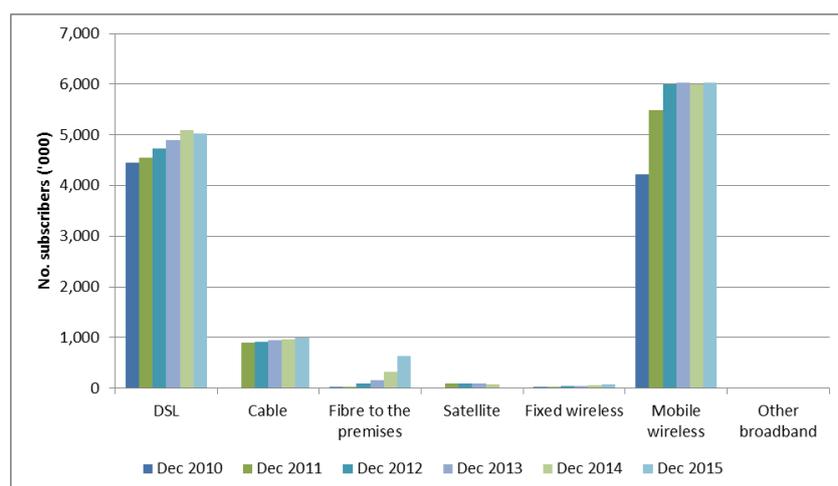
Table 3.2 Volume of data downloaded (terabyte)

		June 2011 Qtr	June 2012 Qtr	June 2013 Qtr	June 2014 Qtr	June 2015 Qtr
Fixed-line broadband	Volume	254,947	389,130	629,964	963,429	1,349,975
	Proportion (%)	91.73	91.70	93.07	92.09	92.45
Wireless broadband	Volume	19,149	25,301	27,232	32,731	38,673
	Proportion (%)	6.89	5.96	4.02	3.16	2.65
Mobile handset	Volume	3,695	9,943	19,636	38,743	71,572
	Proportion (%)	1.33	2.34	2.90	3.74	4.90
Total		277,897	424,374	676,898	1,034,959	1,460,269

Source: Australian Communications and Media Authority, Communications report 2014-15, December 2015, p.9.

As can be seen in Chart 3.2, in terms of the number of subscribers, mobile broadband is now the most common form of broadband connection. The Australian Communications Consumer Action Network noted that more than half of Australians now see their mobile telephone as their primary communication device.⁶³ The ACCC has previously found most consumers use mobile broadband as a complement to fixed-line broadband services due to the pricing of mobile data services and the data intensity of particular activities.⁶⁴ It is noted that more recently some consumers with very low data requirements appear to be using mobile broadband as a substitute for fixed-line broadband services. However, for consumers with higher data requirements, e.g. to allow content streaming of multiple programs, this does not appear to be the case. The ACCC has also acknowledged previously, that continued investment in mobile networks and technological advancements could see mobile broadband services as a more complete substitute for fixed broadband services at some point in the future.⁶⁵

Chart 3.2 – Australian subscribers of broadband products



Source: Australian Bureau of Statistics, Internet Activity Australia (8153.0), viewed 26 May 2016.

63 Australian Communications Consumer Action Network, *New study confirms mobile is Australian's number one communication device*, September 2012, http://accan.org.au/index.php?option=com_content&view=article&id=489:new-study-confirms-mobile-is-australians-number-one-communications-device-&catid=111:general-communications&Itemid=113.

64 ACCC, *Competition in the Australian telecommunications sector: Price changes for telecommunications services in Australia*, February 2016, p. 2, 8, https://www.accc.gov.au/system/files/ACCC%20Telecommunications%20reports%202014%E2%80%9315_Div%2011%20and%2012_web_FA.pdf.

65 Ibid, p. 2.

4. Promoting the long term interests of end users

In declaring a service, the ACCC must be satisfied that making the declaration will promote the LTIE.⁶⁶ In deciding whether declaring the wholesale ADSL service would promote the LTIE, the ACCC must have regard to the extent to which declaration is likely to result in the achievement of the following three objectives⁶⁷:

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

4.1. Promoting Competition

4.1.1. Relevant markets

Functional dimension

ACCC's 2012 wholesale ADSL service declaration final decision

The ACCC considered both the wholesale market (in which the eligible service is supplied) and the retail market (in which the downstream services are supplied) to be relevant in its 2012 final decision.⁶⁸

Considerations for this declaration inquiry

The ACCC considers that consistent with the 2012 inquiry, in order to examine the markets in which competition is likely to be promoted, it will be relevant to consider the wholesale and retail markets.

Product dimension

ACCC's 2012 wholesale ADSL service declaration final decision

The ACCC considered that the relevant wholesale and retail product markets included high speed fixed-line broadband services in its 2012 final decision.⁶⁹ Specifically those supplied by the following networks:

- all forms of ADSL1 and ADSL2+ noting that on the supply side, these technologies are supplied using the same underlying infrastructure but on the demand side ADSL1 may not support data intensive applications such as video streaming as well as ADSL2+
- HFC, and
- optical fibre.

The services supplied on these networks were seen to be substitutes given customers did not generally distinguish between how fixed-line broadband services were supplied and that broadband plans were marketed based on speed and were neutral about whether the underlying input was ADSL, HFC, or fibre.⁷⁰

However, the ACCC noted the extent to which HFC and optical fibre are a constraint on ADSL pricing at the wholesale level may depend on their availability in wholesale markets.

66 CCA, subsection 152AL(3).

67 CCA, section 152AB.

68 ACCC, ACCC, *Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010, Final Decision*, February 2012, p. 9.

69 *Ibid.*, p. 11.

70 *Ibid.*, p. 11-12.

This was because Optus' and Telstra's HFC networks do not provide national coverage and are not configured to provide wholesale access services, while the footprint of fibre networks to supply residential consumer services was very small serving only 0.3 per cent of residential broadband subscribers in Australia.⁷¹

The ACCC did not consider wireless broadband⁷² to be in the same market as high speed fixed-line broadband services.⁷³ The degree of substitutability between fixed and wireless broadband services was seen to depend on the particular downstream application. Unlike ADSL2+ or HFC, wireless broadband services are less suited to data intensive applications such as video streaming. There was also substantial disparity in data allowances and pricing for wireless and fixed-line broadband services.

The ACCC did not consider it necessary to determine if there was a bundled or standalone market for the purpose of the declaration inquiry.⁷⁴

Considerations for this declaration inquiry

Since the last wholesale ADSL service declaration inquiry, the ACCC has also undertaken declaration inquiries in relation to superfast fixed-line broadband services (LBAS and SBAS). As outlined in section 3.2.4, as these inquiries, and the market definition and competition analysis, considered ADSL services, they are relevant considerations in this declaration inquiry.

In both the LBAS and SBAS declaration inquiries the ACCC distinguished superfast broadband services as those with download transmission data rates that are normally 25 Mbps or higher and with download limits of around 50GB.⁷⁵ Superfast broadband is distinct to high speed broadband,⁷⁶ which has an upper limit of 24 Mbps.⁷⁷

The ACCC considered in the SBAS declaration inquiry draft decision that a fixed-line 25 Mbps broadband service is the basic entry-level superfast broadband service as this was the most used speed tier on the NBN⁷⁸ – and consumer demand for it is likely to increase as the NBN rollout proceeds. This is consistent with the trends associated with fixed-line broadband use set out in section 3.3.2, including increased growth in the number of customers on fibre and HFC networks and slowing growth in the number of customers on ADSL networks.

The different maximum broadband data rates (download and uploads) across technologies is set out in Table 4.1. The ACCC notes that these data rates can vary based on:

- technological feasibility, customer premise equipment and other factors such as source and type of content can influence the actual speeds experienced by end users, and
- the distance each customer is to the exchange.

71 Ibid. p.12.

72 Offered over a mobile broadband network, a fixed wireless network or satellite.

73 Ibid. p.12.

74 Ibid. p.13.

75 ACCC, *Superfast Broadband Access Service declaration inquiry, Draft decision*, November 2015, p. 18 .

76 High speed is defined by the maximum speed of ADSL2+, as outlined in table 4.1.

77 ACCC, *Superfast Broadband Access Service declaration inquiry, Discussion paper*, May 2015, p .9.

78 Ibid. p. 18.

Table 4.1 – broadband data rates across technologies (Mbps)

	ADSL	ADSL2+	Fibre and VDSL2 (including FTTN, FTTB)	HFC	Mobile	Satellite	Wireless
Down-load	Up to 8	Up to 24	50-100	25 - 100	2 - 150	25 or greater	25 - 50
Up-load	1	1.4	100	2	3G -1-11 4G - 11-15	5	5

Information sourced from Vertigan Report, <http://media.ofcom.org.uk/news/2014/3g-4g-bb-speeds/> (mobile), <http://www.nbnco.com.au/connect-home-or-business/information-for-home/satellite.html> (Satellite), <http://www.nbnco.com.au/blog/the-nbn-project/nbn-co-increases-fixed-wireless-download-speeds-for-regional-australians.html> (wireless)

In examining possible substitutes in the superfast broadband market, the ACCC’s SBAS declaration inquiry draft decision considered ADSL, ADSL2+ and mobile broadband but concluded that these services are either not able to support superfast broadband services or are not suitable for applications requiring large data downloads, and therefore are unlikely to be part of the same market.⁷⁹

Therefore, while superfast fixed-line broadband services provided over fibre and HFC networks were included in the relevant markets for the LBAS and SBAS declaration inquiries, ADSL services were not as a result of their data rates.⁸⁰

Given these recent considerations, the ACCC is of the view that high speed fixed-line broadband markets supplied by ADSL services are likely to be relevant to this declaration inquiry. The ACCC is conscious, however, that customers appear to be substituting out of the high speed fixed-line broadband market (supplied on ADSL networks) into the superfast fixed-line broadband market, suggesting that ADSL price / service offerings are likely to be constrained by services offered on fibre and HFC networks. However, customers do not appear to be substituting out of superfast fixed-line broadband services into high speed fixed-line broadband services.

Further, the ACCC considers it unlikely that wireless broadband services (offered over mobile broadband, fixed wireless or satellite) are in either the high speed or superfast fixed-line broadband markets. As noted in section 3.3.2, while there are a significant number of customers with mobile broadband connections, the ACCC has previously found most consumers use a mobile broadband service as a complement to a fixed-line broadband service. This reflects the pricing of mobile broadband services and the related data rates and usage, as well as the data intensity of particular activities. While the ACCC also noted in section 3.3.2 that more recently some consumers with very low data requirements appear to be using mobile broadband as a substitute for fixed-line broadband services, it is not considered the current pricing of mobile broadband services across the full range of data usage result in complete substitutability. The relatively small proportion of data downloaded via wireless broadband services can be seen in Table 3.2, noting that this has been growing.

The ACCC also notes that the wireless services provided by NBN Co have a maximum monthly download limit of 200 Gb, as laid out in its Fair Use Policy.⁸¹ This constrains the extent to which these wireless services would be considered substitutes.

⁷⁹ Ibid, p. 18.

⁸⁰ Ibid, p. 18.

⁸¹ NBN, *Fair Use Policy*, 2013, p. 4, http://www.nbnco.com.au/content/dam/nbnco/documents/sfaa-wba2-product-catalogue-fair-use-policy_201312.pdf.

Geographic dimension

ACCC's 2012 wholesale ADSL service declaration final decision

The ACCC considered that the relevant markets were the national wholesale and retail markets for high speed fixed-line broadband internet services in its 2012 final decision.⁸² While noting some variance in competitive conditions between geographic areas, the ACCC concluded that Telstra maintained its dominance even when considered on a less aggregated basis.⁸³ Further, the ACCC found that:

- concerns about the commercial terms on which Telstra provides access to the wholesale ADSL service continued to arise on a national basis
- while some allegations of anti-competitive conduct by Telstra had focused on rural and regional areas, some allegations were not specific to Telstra's conduct in certain Telstra Wholesale Zones/Bands but rather related to Telstra's conduct overall as a supplier of the wholesale ADSL service.

Considerations for this declaration inquiry

The ACCC considers it likely to be appropriate to define the relevant markets on a national basis, consistent with the approach in the previous declaration inquiry. However, the ACCC will examine the availability of effective substitutes and whether there is competition or specific competition concerns at an exchange service area (ESA) or metropolitan / regional / rural level (see section 0). This reflects that a number of competing DSL networks have been built in metropolitan ESAs, although the reach and functionality of these networks differ between service providers. Further, it appears that regional and rural ESAs have higher barriers to entry and consequently competing DSL networks have not developed to any material extent.

The ACCC notes that issues around limiting the application of the SAOs to services supplied in particular geographic areas can also be considered and addressed through access determinations.⁸⁴ For example, this could involve a variation to an existing FAD to exclude certain ESAs, if this was considered necessary.

2. What are the relevant markets for the purpose of this inquiry and the application of the LTIE test?
3. Is it appropriate to consider both wholesale and retail markets?
4. What is your view about the substitutability between different broadband products? What is the substitutability between fixed-line broadband technologies with different data rates?
5. Are there separate but related markets for high speed fixed-line broadband services and superfast broadband services? What evidence exists to support this?
6. Are wireless broadband services (offered over mobile broadband, fixed wireless or satellite) substitutes for high speed fixed-line broadband services and if so, to what extent? What evidence exists to support this?
7. Is it appropriate to consider the relevant markets on a national basis or should they be defined on a more narrow, e.g. ESA, geographic basis? If so, what should that be and why?

82 Ibid. p. 15.

83 Ibid. pp. 15-16.

84 CCA, sections 152BC(3)(h) and (i).

4.1.2. State of competition in relevant markets

ACCC's 2012 wholesale ADSL service declaration final decision

The ACCC considered the relevant markets were not effectively competitive in the 2012 final decision.⁸⁵ In particular, it concluded that:

- Concentration levels - Telstra retained a dominant market share in the wholesale and retail high speed 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 varied across the country with access seekers having significantly lower market shares in rural and regional areas (Bands 3 and 4) and modest market shares in the central business district (CBD) and metropolitan areas (ULLS / line sharing service (LSS) Bands 1 and 2).
- Barriers to entry - despite the differences in the levels of competition, access seekers faced barriers to entry in CBD, metropolitan areas and rural and regional areas. Telstra controlled the infrastructure by which the overwhelming majority of high speed fixed-line broadband services were provided and because of its vertical integration enjoyed a strong position in fixed-line broadband services.
- Relevant behavioural features – as the vertically integrated incumbent with significant national market share, Telstra had the incentive and ability to engage in entry-detering or expansion-detering conduct through the terms and conditions for the supply of the wholesale ADSL service.

Considerations for this declaration inquiry

Since the previous declaration inquiry, the state of competition in the high speed fixed-line broadband market appears to have changed very little. At both the wholesale and retail levels, Telstra seems to have retained its relatively dominant position, as set out below.

In the wholesale market, competition can occur through investment in alternative ADSL networks and potentially via fibre and HFC networks (which as noted above, are likely to be in the related superfast broadband market but may constrain the high speed fixed-line broadband market).

In relation to ADSL, Telstra currently supplies ADSL in approximately 2873 ADSL enabled ESAs nationally⁸⁶ of a total 5067 ESAs across Australia.⁸⁷ Telstra remains the only wholesale provider of ADSL services in 78 per cent of exchanges with ADSL capability.⁸⁸ Access seekers using ULLS and their own DSL infrastructure, such as Optus and TPG, have much smaller DSL footprints compared to Telstra. The combined footprint of all competing DSL networks represents around 22 per cent of the footprint of the Telstra wholesale DSL network or 606 exchanges.

The ACCC notes that there has been continued, although slowing, growth in ULLS and DSL investment, with 10.8 per cent annual growth in ULLS SIOs (but not LSS) between 2012 and 2014 before plateauing over 2015.⁸⁹ The ACCC understands this plateau reflects access seekers investing less to extend the reach of their DSL coverage and instead focusing on providing more services in CBD and metropolitan areas. These trends are shown in Chart 4.1.

85 ACCC, Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010, Final Decision, February 2012, p. 29.

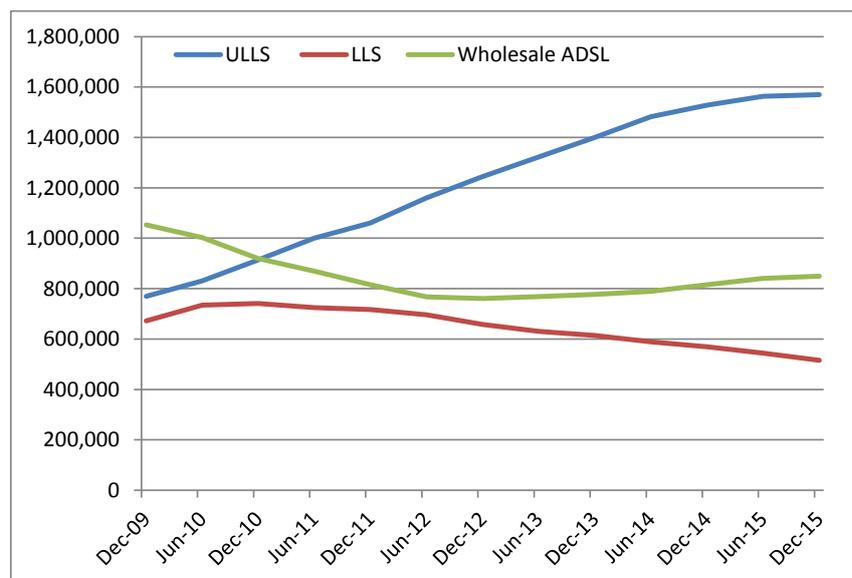
86 Telstra, wholesale data on the ADSL-enabled exchange list, <https://www.telstrawholesale.com.au/products/broadband/adsl.html>.

87 ACCC, Snapshot of Telstra's customer access network – Mar 2016, <https://www.accc.gov.au/regulated-infrastructure/communications/monitoring-reporting/telecommunications-reports-record-keeping-rules/quarterly-snapshots-of-ulls-lss-and-dsl>.

88 ACCC, Snapshot of Telstra's customer access network – Mar 2016.

89 Telstra, Financial Results, Results Supporting Material <https://www.telstra.com.au/aboutus/investors/financial-information/financial-results>. The ACCC notes slight differences in SIO numbers provided by Telstra in the Telstra Economic Modelling (TEM) reports.

Chart 4.1 – Number of access seekers’ services in operation



Source: Data sourced from Telstra Corporation Ltd Financial results 2010-12 and Financial results supporting material 2013-16 at: <https://www.telstra.com.au/aboutus/investors/financial-information/financial-results>. The ACCC notes slight differences in SIO numbers provided by Telstra in the Telstra Economic Modelling (TEM) reports.

ULLS and LSS investment is highest in Band 2, which predominantly covers metropolitan areas and large regional towns, and lowest in Band 4 which covers remote rural areas with small populations or no residents at all.⁹⁰ This may reflect the high costs of investment in rural areas that have low populations. Investment in Band 1 is significantly lower than Band 2, which likely reflects the high density of business customers located in CBD locations, which generally do not use ADSL services.

In Band 2, ULLS and DSL infrastructure provides the largest competitive constraint for Telstra’s ADSL. This is where 68 per cent of all services in operation provided over Telstra’s copper network are located. Within Band 2 there are the following wholesale and retail services: over 1.8 million Voice and DSL services, 2.5 million voice only services and 38,000 DSL only services. There are also 1.4 million ULLS services and 0.4 million LSS services.⁹¹

Table 4.2 sets out the wholesale ADSL service market shares based on CAN record keeping rules (RKR) data. Telstra continues to hold the majority share of the national market as well as in Bands 1 and 2 and Bands 3 and 4.

Table 4.2 – Telstra wholesale ADSL service market shares based on CAN RKR data

	Telstra	Other
National market share	61.47%	38.53%
Share in Bands 1 and 2	48.99%	51.01%
Share in Bands 3 and 4	95.48%	4.52%
Number of exchanges with a DSLAM presence	2873	606

Source: Data obtained under Telstra CAN RKR, December 2015

90 ACCC, Snapshot of Telstra’s customer access network – Mar 2016.

91 Ibid.

In part, the way in which infrastructure competition has evolved likely reflects:

- The commercial rate of return on ULLS / LSS and DSL investment in regional and rural areas given the lack of scale and addressable markets.
- The current transition from Telstra's customer access network (CAN) based DSL services to fibre based NBN services, with access seekers minimising investment in DSL infrastructure when the payoff period may be limited.

The ACCC understands that some access seekers which have competing DSL networks (using ULLS, LSS and their own DSL equipment) provide the wholesale ADSL service, for example Optus. However, the ACCC notes that given the footprint of these competing DSL networks is far more limited than Telstra's DSL network this is likely to in turn limit the extent to which these act as a competitive restraint.

Since December 2012, the take up by access seekers of the wholesale ADSL service supplied by Telstra has increased at an average annual rate of 3.8 per cent.⁹² In the three years prior to December 2012, the number of services in operation decreased by an average of 10.3 per cent annually.⁹³ This can be seen in Chart 4.1, which outlines the number of ULLS, LSS and wholesale ADSL customers over time.

In relation to fixed-line superfast broadband services supplied over fibre and HFC networks, take-up of these technologies is growing with the NBN-rollout and development of other largely fibre based networks, including in CBD areas of capital cities. As mentioned in section 3.3 the number of premises NBN ready for service has been increasing and reached over 2.5 million as of 26 May 2016, with just over one million premises activated.⁹⁴

The number of premises with copper services, which are therefore able to supply ADSL services, will continue to decrease over time as Telstra's copper services are progressively migrated to the NBN network in line with Telstra's migration plan. Further, new ADSL services will no longer be available in an NBN rollout region after Cease Sale⁹⁵ commences, which is generally 10 business days after the region is declared ready for service by NBN Co.

As the NBN continues to be rolled out, and if there is any additional growth in other fibre based networks, fixed-line superfast broadband services will likely provide an increasing constraint on ADSL price / service offerings. However, as NBN is currently only available at approximately 21 per cent of premises (see section 3.3) with ADSL services available to 91 per cent of the Australian population, superfast broadband markets currently only provide a limited constraint.

Chart 4.2 summarises the information available about the retail market shares of fixed-line broadband, which includes DSL and HFC technologies. Chart 4.2 suggests that Telstra has retained the highest proportion of subscribers, with a market share of between 41 and 42 per cent since June 2011. However, since the wholesale ADSL service was declared in February 2012, there has been more movement in market share for other retail service providers (RSPs) with Optus' market share decreasing by 3 percentage points and M2 now holding a sufficient proportion of market share to be reported separately to other RSPs.

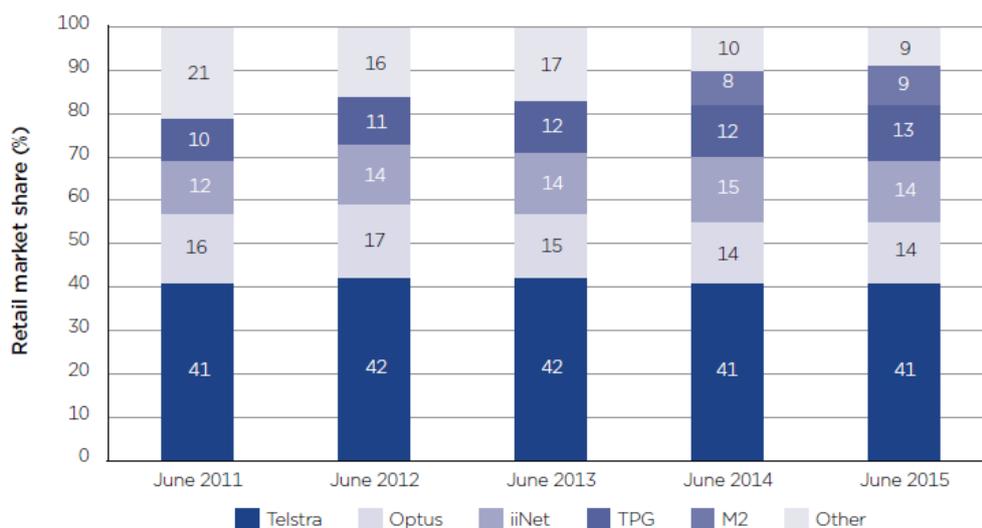
92 Telstra, Telstra Corporation Ltd Financial results 2010-12 and Financial results supporting material 2013-16, available at: <https://www.telstra.com.au/aboutus/investors/financial-information/financial-results>.

93 Ibid.

94 NBN Co, *Weekly Progress Report*, 26 May 2016, <http://www.nbnco.com.au/corporate-information/about-nbn-co/corporate-plan/weekly-progress-report.html>.

95 Clause 17 of Telstra's migration plan prohibits Telstra from supplying new copper and HFC services after a premises becomes NBN serviceable

Chart 4.2 – Retail market share for fixed-line broadband services (ADSL and cable only)



Source: ACCC Division 12 RKR, voluntary data provided by M2, and Australian Bureau of Statistics, Internet Activity Australia (8153.0).

Retail plans for ADSL or ADSL2+ broadband vary across internet service providers depending on whether the service is bundled, provided on-net or off-net as well as the download limit and in some cases the download speed. TPG, iiNet and Exetel offer a range of retail plans with varying combinations of these factors ranging between \$29.99 and \$149.90 per month. However, the majority of plans are between \$49.99 and \$69.99 per month. Optus currently only offers ADSL plans with an unlimited data limit and distinguishes between their plans based on other extras such as home phone included calls, Yes TV access and subscription to the Premier League which range between \$60 and \$140 per month.⁹⁶

Even with declaration, ADSL plans continue to vary depending on whether the service is provided on-net (using the RSP’s own network) or off-net (where the ADSL product is supplied by Telstra’s network or another wholesale ADSL provider). Services provided off-net continue to be more expensive than services provided on-net. This difference may partly reflect the higher costs that an access seeker incurs if it buys the wholesale ADSL service from Telstra, or another access provider, compared with if it supplies itself over its own network.

TPG and iiNet offer substantially greater value in terms of price per GB of data when providing services on-net compared to off-net.

TPG offers a 50GB ADSL2+ services for \$29.99 per month on-net and \$49.99 per month off-net. The difference between on-net and off-net is larger for larger volumes of data download limits. For a 500GB, TPG’s on-net price is \$49.99 per month and \$99.99 per month off-net.⁹⁷ In addition to prices varying, the data limits also vary between on-net and off-net services. TPG offer a number of different on-net services with unlimited data allowances but do not provide any unlimited data off-net services.⁹⁸ TPG submitted to the ACCC’s 2012 wholesale ADSL service declaration inquiry that it had withdrawn these offerings for off-net customers due to the high cost of VLAN.⁹⁹

96 TPG website, viewed 15 June 2016, https://www.tpg.com.au/products_services/adsl2-standalone; iiNet website, viewed 15 June 2016, <https://www.iinet.net.au/internet-plans/broadband/adsl/offnet/>; Exetel website, viewed 15 June 2016, <http://www.exetel.com.au/broadband/adsl> and Optus website, viewed 15 June 2016, <http://www.optus.com.au/shop/broadband/home-broadband/plans?bt=UDSL&tl=LAU>.

97 TPG website, viewed 15 June 2016.

98 TPG website, viewed 15 June 2016.

99 ACCC, *Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010, Final Decision*, February 2012, p. 28.

iiNet also continues to differentiate between on-net and off-net services. iiNet offers a 250GB ADSL2+ on-net service for \$59.90 per month (\$0.24 per GB per month) and 150GB + 150GB ADSL2+ off-net service for \$89.90 per month (\$0.30 per GB per month).¹⁰⁰ The difference between on-net and off-net is \$0.06 per GB per month. In 2012, this difference was \$0.65 calculated for 200GB on-net and 100GB off-net services.¹⁰¹ In addition to the differences in prices for on-net and off-net services, iiNet also distinguish between usage and data limits. For off-net, the lowest data limit is 100GB compared to 250GB for on-net services.¹⁰² For the majority of iiNet's off-net services, total data usage is split between peak and off-peak usage but this distinction is not made for any on-net services.¹⁰³

8. What do you consider to be the state of competition in the high speed fixed-line broadband markets?
9. Is there effective competition at the wholesale level of the market, and if so why? Please provide subscriber numbers and any market share information to illustrate this, including any information about competitive supply of the wholesale ADSL service.
10. Is there effective competition at the retail level of the market? Please provide market share information to illustrate this, including for customers on-net and off-net subscriber numbers. Are access seekers more successful in the retail market when supplying services on-net?
11. Are there any geographic areas where competition at the wholesale or retail levels is considered to be effective, and if so where are these areas and why is competition considered effective?
12. Are there any particular barriers to entry impacting competition in the wholesale or retail markets for high speed fixed-line broadband services?
13. Are there any implications for competition of the price differentials between on-net and off-net price ADSL services?

4.1.3. Promoting competition in relevant markets

ACCC's 2012 wholesale ADSL service declaration final decision

The ACCC considered that declaration of the wholesale ADSL service was likely to result in the achievement of the objective of promoting competition in markets for high speed fixed-line broadband services in its 2012 final decision.¹⁰⁴ In particular, that declaration would:

- Enable the ACCC to regulate the terms of access to the wholesale ADSL service including the level and structure of pricing such that wholesale ADSL inputs would be 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.

Considerations for this declaration inquiry

Since declaring the wholesale ADSL service in 2012, the ACCC has set the wholesale ADSL service prices in FADs. As outlined in section 3.2.3, the most recent FAD was made in October 2015 and the ACCC retained the existing two part tariff for the wholesale ADSL service (see Table 3.1), including the separate port charges for different geographic zones,

100 iiNet website, viewed 15 June 2016.

101 Ibid.

102 Ibid.

103 Ibid.

104 ACCC, Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010, Final Decision, February 2012, p. 46.

and an aggregation charge reflecting the existing methodology.¹⁰⁵ It considered this would promote price stability. The ACCC also did not approve an early termination charge.

Given the history of requests for declaration, and regulated access prices, the ACCC considers it likely that regulated access prices inform commercial negotiations between the access provider and access seekers.

In this regard, the ACCC considers that the 2012 declaration of the wholesale ADSL service has provided the opportunity for competition to be promoted via stable regulated prices, particularly as the NBN is progressively rolled out.

The ACCC also set non-price terms and conditions for the wholesale ADSL service in the most recent FAD made in October 2015.¹⁰⁶ It expects this should further create an environment in which competition is promoted.

Without declaration, regulated price and non-price terms and conditions would not exist. The ACCC is interested in views about whether the conduct causing competition concerns prior to declaration could re-emerge if the wholesale ADSL service is not declared.

The ACCC notes that relative to the situation prior to declaration in 2012 it has received very few complaints about wholesale and retail ADSL services. Those complaints received were primarily from customers, but also access seekers, and related to equivalence of service.

Since February 2012, as part of its SSU obligations, Telstra has also reported a number of issues relating to retail and wholesale equivalence of ADSL services.¹⁰⁷ For example, Telstra's service qualification processes for testing whether copper lines could support line sharing and ADSL services were not delivering equivalent outcomes to retail and wholesale customers. This meant that Telstra retail could supply ADSL services to a small number of end users when the same request had been unsuccessful with one of Telstra's wholesale customers. In response to these reported, possible breaches, Telstra has submitted rectification proposals to address these concerns.¹⁰⁸

The ACCC also notes that anecdotally it appears RSPs are seeking to obtain market share in high speed fixed-line broadband services prior to transitioning customers onto the NBN (where they will acquire superfast broadband services). A reason for this is that it may be easier, with fewer costs, to transition an existing customer to a NBN service rather than win that customer in the process of transitioning. If this is the case, it would suggest that provision of fixed-line high speed broadband services via ADSL is important in gaining fixed-line superfast broadband market share. The ACCC notes that for NBN service providers, gaining a sufficient subscriber base is important as it reduces some of the NBN wholesale costs. In this regard, it would appear declaration and cost reflective access to the wholesale ADSL service will be important to ensure competition in the fixed-line superfast broadband services market.

The ACCC notes that end-users may face additional fees from NBN service providers when moving to the NBN. For example, an end-user may be charged a termination fee if they exit out of their existing fixed-line broadband service contract which has not expired or if they order NBN services from a different service provider. Whether fees are charged fees will depend on individual circumstances and the fee policy of a service provider. These additional fees may be considered a barrier for customers wanting to change service providers.

105 ACCC, FSR FAD Final Decision Report- Public Version, pp. 181, 227.

106 ACCC, Telecommunications Final Access Determination Inquiries, Non-price terms and conditions, Final decision for MTAS and views for fixed line services and DTCS, August 2015

107 ACCC, Telstra's Structural Separation Undertaking: Annual Compliance Reports, 2011-12 to 2014-15, <http://www.accc.gov.au/publications/telstras-structural-separation-undertaking/telstras-structural-separation-undertaking-2011-12>.

108 Telstra, Rectification proposal: ADSLS profiles; order management in wholesale upgrades; systems & processes for service qualification of the LSS & ADSL; Basic Telephone Service, June 2013 – October 2014, <https://www.accc.gov.au/regulated-infrastructure/communications/industry-reform/telstras-structural-separation-undertaking>.

14. Do you consider that declaration of the wholesale ADSL service will promote competition? How is the wholesale ADSL service being used for this purpose?
15. Do you think competition concerns remain in the relevant market for the wholesale ADSL service since the 2012 declaration, or would remerge if the wholesale ADSL service was not declared? What is, or would be, the nature of these concerns and how significant are they?
16. Are commercial wholesale ADSL service terms and conditions set with reference to those in the FAD, or independently? Do the terms and conditions negotiated inhibit competition in any way, including through restricting the nature of service offerings? Are you aware of any discrimination occurring between prices offered to different access seekers?
17. Are there any instances whereby delays in the negotiation of revised wholesale DSL charges following Telstra's retail price changes have affected the ability of access seekers to compete? If so, please specify the duration and impact of the delays.
18. How do the wholesale terms and conditions negotiated with Telstra compare to those from other providers of the wholesale ADSL service? Please detail the differences.
19. Do you consider that it is imperative to have a pre-existing subscriber base prior to the complete rollout of the NBN? If so, will an existing market share provide a material comparative advantage? If so, how? Are customers switching to different NBN providers and are there any barriers to customers wanting to switch to a different service provider?
20. Is the wholesale ADSL service being used as a vehicle to achieve a pre-existing subscriber base prior to the complete rollout of the NBN?
21. Are there any other potential risks to competition that may arise in the transition to the NBN if the wholesale ADSL service is not regulated? If so, what are they?

4.2. Any-to-any connectivity

ACCC's 2012 wholesale ADSL service declaration final decision

The ACCC did not consider declaration of the wholesale ADSL service would have an impact on achieving any-to-any connectivity in its 2012 final decision. This reflected its view that when considering services that do not require user-to-user connections, such as the wholesale ADSL service, this criterion will generally carry less weight.¹⁰⁹

Considerations for this declaration inquiry

Consistent with the previous declaration inquiry, the ACCC does not consider it likely that any-to-any connectivity will be impacted by a declaration of the wholesale ADSL service. This service continues to be an input to an end-to-end service and with no switching capability does not in and of itself involve communications between end-users.

22. What impact would declaration have on the objective of achieving any-to-any connectivity?

4.3. Encouraging economically efficient use of, and investment in, infrastructure

ACCC's 2012 wholesale ADSL service declaration final decision

In its 2012 final decision, the ACCC considered declaration of the wholesale ADSL service was likely to result in the achievement of the objective of encouraging the economically

¹⁰⁹ ACCC, *Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010, Final Decision*, February 2012, p. 47.

efficient use of, and investment in, the infrastructure by which the wholesale ADSL service is supplied.¹¹⁰ In particular, it considered that:

- Declaration of the wholesale ADSL service was unlikely to affect incentives for efficient investment in infrastructure and may encourage efficient use of existing infrastructure.
- This included investment in ULLS and DSL infrastructure, as significant further expansion of the competitive DSL footprint was considered unlikely. This reflected that ESAs which had not attracted investment exhibited natural monopoly characteristics making it difficult to earn a commercial rate of return. Further, that deployment of the NBN would discourage any DSL infrastructure investment. Where additional investment was efficient and / or would help differentiate products, the ACCC considered it likely that access seekers would continue to install DSLAMs.
- It also included investment in value-add services including core network infrastructure systems and transmission infrastructure.
- More efficient use of Telstra's existing infrastructure could result where its existing DSLAM deployments could serve current and potential demand.
- As Telstra supplied and charged for the wholesale ADSL service, declaration would not raise concerns around technical feasibility. Further, the costs involved in supplying and charging for the service were likely to be reasonable and it was unlikely there would be a negative impact on the operation or performance of the network.
- Declaration would not affect Telstra's ability to exploit economies of scale and scope or its ability to make a return on its investment given Telstra would not be required to invest in a new network or additional infrastructure, and any ACCC decision in relation to prices and return on investment would have regard to Telstra's legitimate commercial interests.

Considerations for this declaration inquiry

In examining whether declaration will encourage the economically efficient use of, and investment in, infrastructure it will be relevant to review the investment trends in ULLS and DSL infrastructure as those are key investments used to supply ADSL services via alternative networks that could be impacted by declaration of the wholesale ADSL service.

The ACCC notes that since the ACCC declared the wholesale ADSL service, there has been continued, although slowing, growth in ULLS and DSLAM investments set out in section 4.1.3 and illustrated in Chart 4.1.

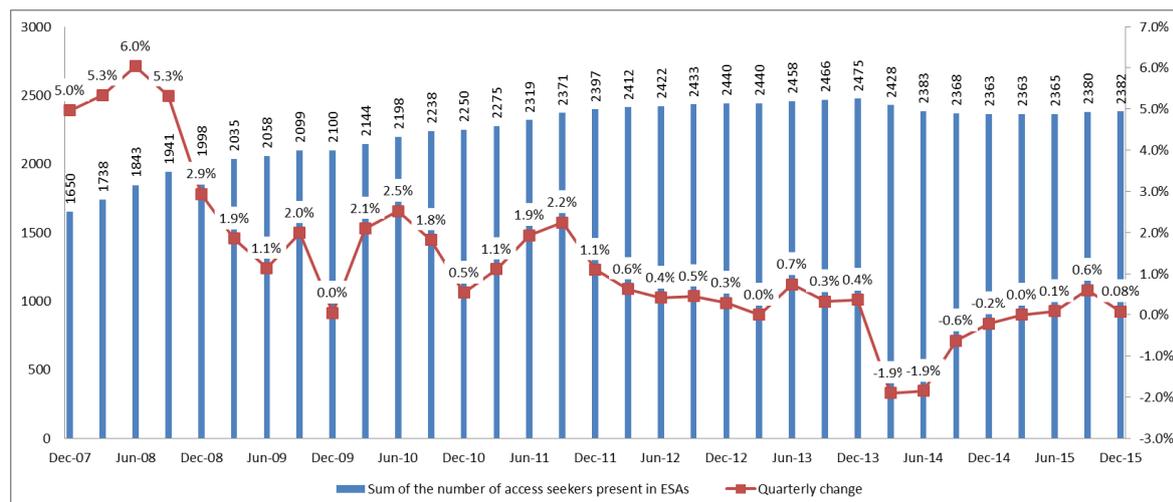
Access seekers' presence in ESAs has also remained relatively steady, with around 600 ESAs having at least one access seeker present over the past two years. The December 2015 quarter saw this number increase by five exchanges to 606 (0.8%).¹¹¹

It is also useful to look at the quarterly change in cumulative access seeker presence. The last three quarters to December 2015 have seen slight growth in the total number of access seekers present in ESAs, increasing by just 0.1 per cent in the December 2015 quarter. Prior to this access seekers reduced their investment in new ESAs over the four quarters comprising 2014. Chart 4.3 illustrates these trends. These may be attributed to larger access seekers completing their rollouts in major metropolitan areas and winding down DSL infrastructure deployment after a period of heavy investment in Bands 1 and 2 in pursuit of a greater share of the fixed-line market. The decrease in DSL infrastructure investment could also be attributed to access seekers reducing their investment in copper based assets as more customers migrate from Telstra's copper network to the NBN and choosing the wholesale ADSL service over ULLS and DSL investment prior to transitioning customers to the NBN.

110 ACCC, Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010, *Final Decision*, February 2012, p.53 - 54.

111 [ACCC](#). Quarterly snapshot of ULLS, LSS and DSL.

Chart 4.3 – Individual access seeker presence in ESAs and quarterly change (%)



Source: ACCC, Quarterly snapshots of ULLS, LSS and DSL.

There appears to be correlation between this slowing growth in investment of ULLS and DSL infrastructure and increasing rollout and take up of NBN services. In the March 2016 quarter, fixed-line NBN broadband connections increased by 26% to 805 396 services, with fibre to the node (FTTN) rollout commencing and fixed wireless NBN connections increased by 21% to 100,958, in part due to NBN Co shifting customers off the interim satellite service.

This take up of NBN services is occurring more evenly across the market than was the case for fixed-line services provided using Telstra’s CAN. This is illustrated by the NBN market shares, which as at 31 March 2016 showed Telstra accounted for 48% of NBN fixed-lines (compared to 61% on the CAN), TPG/iiNet 28.5% of fixed-lines, Optus 14.8% and M2 Group 5.9%.¹¹²

- In this regard, the ACCC considers that declaration of the wholesale ADSL service does not appear to have impacted investment incentives and that the slowing investment in ULLS, LSS and DSL equipment is likely to be a combination of access seekers reaching the limit of their efficient investment and increased NBN rollout with the transition of customers to these services.

Similarly, it does not appear that declaration of the wholesale ADSL service has impacted Telstra’s investment in DSL and related equipment. While over the past few years, the number of ESAs from which Telstra provides DSL services has remained relatively steady, the ACCC also notes that Telstra has completed backhaul upgrades to over 3000 DSLAMs since May 2015.¹¹³

The ACCC notes that Telstra continues to supply and charge for the wholesale ADSL service. As previously concluded, the ACCC considers this would suggest declaration requiring the supply of and charging for the wholesale ADSL service would¹¹⁴:

- not raise concerns around technical feasibility
- involve costs that are likely to be reasonable
- not have a negative impact on the operation or performance of the network.

112 ACCC, NBN Wholesale Market Indicator Report, 31 March 2016. <https://www.accc.gov.au/regulated-infrastructure/communications/national-broadband-network-nbn/nbn-wholesale-market-indicators-report/initial-report> Fixed line NBN services include TC-4AVC services supplied via fibre to the premise, fibre to the basement and fibre to the node

113 Telstra Wholesale, *Report- DSLAM Backhaul Relief*, viewed 21 June 2016, <https://www.telstrawholesale.com.au/products/broadband/adsl/adsl-reports-plans.html>.

114 ACCC, *Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010, Final Decision*, February 2012, p. 54.

Similarly, as the wholesale ADSL service is currently being supplied, the ACCC considers it likely that continued declaration would not effect on Telstra's ability to exploit economies of scale and scope or its ability to make a return on its investment. The ACCC notes that Telstra has consistently achieved an economic return in excess of its cost of capital for the wholesale ADSL service since declaration.¹¹⁵

23. Are there still opportunities for efficient investment in competing DSL networks – in terms of either expansion of the existing DSL footprint or increased investment in areas that have already attracted ULLS/LSS based competition? Is this likely to change over time? How would declaration of the wholesale ADSL service impact this?
24. What impact does the NBN rollout have on investment in, or use of, wholesale ADSL services as well as incentives to invest in ULLS and DSL infrastructure?
25. Could declaration of the wholesale ADSL service encourage efficient investment in infrastructure that will be used to interconnect on the NBN or provide value-added retail services? If so, please outline how. Could declaration encourage efficient use of NBN infrastructure?
26. Are there any issues in relation to the technical feasibility of supplying the wholesale ADSL service that the ACCC should be aware of?

115 See: <https://www.accc.gov.au/regulated-infrastructure/communications/monitoring-reporting/telecommunications-reports-record-keeping-rules/telstra-ssu-migration-plan-reporting/tem-reports> and Time series of TEM public data – Half Yearly, wDSL Retail DSL Tab.

5. Considerations if the ACCC were to declare the wholesale ADSL service

If the ACCC declares a wholesale ADSL service again, it would be necessary to consider:

- the appropriate service description
- the appropriate coverage of that declaration
- the expiry of the declaration.

The regulatory burden associated with declaration would need to be considered, as well as the implications for any other regulatory processes. These issues are each discussed below.

5.1. Service description

ACCC's 2012 wholesale ADSL service declaration final decision

The ACCC established the following service description in the 2012 inquiry, which is the current declared service.¹¹⁶

The wholesale ADSL service

The asymmetric digital subscriber line access service is a point to point service for the carriage of communications in digital form between a network-network interface that is a point of interconnection and a user-network interface that is supplied:

- (a) by means of digital subscriber line technology;
- (b) over a customer access network that includes a metallic path; and uses:
 - i. asymmetric upstream and downstream data rates
 - ii. a static layer 2 tunnelling protocol.

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.

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

a network-network interface that is 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 user-network interface is located.

a user-network interface means the boundary point of the network that is

- i. associated with the end-user premise; and
- ii. ascertained in accordance with section 22 of the *Telecommunications Act 1997*.

In finalising the above service description, the ACCC made various changes to provide greater clarity. The ACCC's principal concern in making these changes was to ensure that Telstra's existing wholesale ADSL service offerings were covered in the service description.¹¹⁷

¹¹⁶ ACCC, Declaration of the wholesale ADSL service under Part XIC of the *Competition and Consumer Act 2010*, *Final Decision*, February 2012, p. 60.

¹¹⁷ *Ibid.* pp. 58-59.

Further, the ACCC noted the following in relation to the service description:

- It did not consider it appropriate to specify whether a public switched telephone network (PSTN) service must be provided over the line on which wholesale ADSL service is provisioned and that it would appear to be a term or condition of access.
- It was appropriate to declare an ADSL-specific service, rather than a technology neutral service as the LTIE assessment was based on the supply of wholesale ADSL services specifically.
- In terms of application of the service description to service providers other than Telstra, this issue was seen to be more appropriately considered in the making of a FAD.

Considerations for this declaration inquiry

The ACCC considers that to date the current service description has adequately described the service which access seekers require in order to provide ADSL services. At this stage, it is not aware of any specific issues that would need to be addressed if the wholesale ADSL service was to be declared again. However, it will consider any issues raised through this public inquiry process.

27. Is the current service description appropriate or have there been changes in either the ADSL technology or relevant markets that necessitate a change to the current wholesale ADSL service description? Should any changes be made to the service description? What are these changes and why are they required?

5.2. Coverage

ACCC's 2012 wholesale ADSL service declaration final decision

The ACCC determined that declaration of the wholesale ADSL service on a national basis was in the LTIE and as such that it was appropriate to declare the service on a national basis. As noted in section 4.1.3, while the level of competition was found to vary between ESAs, concerns about the commercial terms on which Telstra provided access to the wholesale ADSL service continued to arise on a national basis.¹¹⁸ The service description therefore had national coverage.

However, the ACCC also noted that the FAD inquiry would 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.

Considerations for this declaration inquiry

In section 4.1.1 the ACCC considered that it is likely to be appropriate to define the relevant markets on a national basis. Given this, if it is established that declaration of the wholesale ADSL service will promote the LTIE, the ACCC considers it will likely be appropriate to retain a service description, which has national coverage.

However, if the relevant markets are defined more narrowly, which was raised in section 4.1.1 as an issue to be considered in this inquiry, then the ACCC could consider whether the service description should have a more limited scope of coverage.

28. Should the service description cover the wholesale ADSL service nationally or be limited in geographic scope? If it is to be limited, on what basis and to what areas?

118 Ibid, pp. 55-65.

5.3. Duration of declaration

ACCC's 2012 wholesale ADSL service declaration final decision

In its 2012 decision, the ACCC considered that the duration of declaration of the wholesale ADSL service should be a five year period.¹¹⁹ This was seen to provide a greater degree of certainty during the transition to the NBN and meant that it expired in 2017, which was in close proximity to the NBN completion date at that time (1 July 2018).¹²⁰

In making this decision, the ACCC was of the view that there were no unique circumstances that warranted a departure from the general principle that service declaration should be between three to five years. Further, it did not consider there were good reasons to align the timeframe for expiry with the other fixed-line service declarations, particularly as this would mean a duration of less than three years and lead to unnecessary re-examination of the declaration within a short time-frame.

It is noted that in determining the expiry date for the wholesale ADSL service FAD made in May 2013, the ACCC made a decision to align the expiration of the wholesale ADSL service FAD with other fixed-line service FADs.¹²¹ This decision was made as it would ensure consistency with the pricing approach used in setting the prices for services using the same network assets and reduces the risk of the access provider over- or under-recovering the cost of supplying these services.¹²² The most recent final decision for the fixed-line service FADs in October 2015 also aligned the wholesale ADSL service FAD expiry with that of the other fixed-line service FADs.

Considerations for this declaration inquiry

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:¹²³

- beginning three years after the declaration was made; and
- ending five years after the declaration was made.

The ACCC has discretion to specify an expiry date for a declared service that is shorter or longer than this period if it considers that circumstances warrant it.¹²⁴

The ACCC considers that if the wholesale ADSL service is declared there are three possible options for the duration of the declaration, including alignment with:

- the other fixed-line services declarations, and FADs, and the wholesale ADSL service FAD¹²⁵
- the forecast date for completion of the NBN rollout
- the upper end of the declaration periods, i.e. five years.

As noted in section 3.2.2, the fixed-line service declarations expires on 31 July 2019. The FADs for fixed-line services, and the wholesale ADSL service, expire on the 30 June 2019. These FADs are consolidated in one FAD instrument. A relevant issue is whether there is merit in aligning the declarations of the wholesale ADSL service and fixed-line services. This would have the benefit of also bringing the declaration period for the wholesale ADSL service and the FAD period into alignment. Aligning the declarations, and therefore FADs, would require a duration shorter than the recommended minimum of three years.

119 Ibid, pp. 62-63.

120 Ibid.

121 ACCC, *Public inquiry to make a final access determination for the Wholesale ADSL service, Final report*, May 2013, Public version, p. 99.

122 Ibid.

123 CCA, section 152ALA(2)(a).

124 CCA, section 152ALA (2).

125 Note, the Wholesale ADSL FAD and other fixed-line FADs are currently consolidated in one FAD instrument.

NBN Co has forecast completion of the NBN roll-out in 2020 when it will have eight million activated premises.¹²⁶ The last time the ACCC contemplated declaration of the wholesale ADSL service, it considered that there may be benefit in providing certainty that the declaration will remain in place during the transition to the NBN.¹²⁷ The ACCC remains of this view. This would require an expiry date of around three years. However, if there are future delays to the NBN rollout this could mean that the declaration will expire prior to NBN completion.

Alternatively, the ACCC could decide on a five year duration. If a five year duration is chosen, this would allow for any delays in the NBN rollout and reduce the possibility of the declaration expiring prior to its completion. If a five year duration is in place and the NBN is completed on schedule in 2020, the ACCC could revoke the wholesale ADSL service declaration if it found this would promote the LTIE. Alternatively, if Telstra is no longer supplying the wholesale ADSL service to itself, or anyone else, then the declaration would cease to have any effect.

29. What is the appropriate duration for the declaration? Why?

30. Is there any merit to aligning the declaration period for the wholesale ADSL service with the forecast completion date of the NBN? Please provide reasons why or why not.

5.4. Pricing

Considerations for this declaration inquiry

As outlined in section 3.2.3, the wholesale ADSL service FAD sets the price and non-price terms and conditions for the wholesale ADSL service. When making the current wholesale ADSL service FAD, the ACCC considered for the wholesale ADSL service that the port and AGVC price structure recognises that the supply of the service involves fixed costs as well as costs that vary (over time) with data usage (i.e., greater network capacity is needed to meet the growing demand for data). The ACCC considered that this price structure would promote the LTIE by providing price signals that encourage greater efficiency in the use of network capacity and promote efficient investments in expanding network capacity. It also considered that retaining current pricing levels would promote price stability.

If the ACCC decides to extend or vary the current declaration, or make a new declaration for the wholesale ADSL service, the wholesale ADSL service FAD (which is consolidated in the fixed-line services FADs instrument), would remain in effect and prices would be set accordingly until the wholesale ADSL service FAD expires in July 2019. When the current wholesale ADSL service FAD expires in June 2019, the price and non-price terms and conditions would be considered through a subsequent FAD inquiry.

If the ACCC were to determine declaration would not promote the LTIE, and the current wholesale ADSL service declaration is revoked or allowed to expire, then the wholesale ADSL service FAD(consolidated in the fixed-line services FADs instrument), would be automatically revoked when the declaration expires.¹²⁸

126 NBN Co, Corporate Plan 2016.

127 ACCC, Discussion paper into whether wholesale ADSL services should be declared under Part XIC of the Competition and Consumer Act 2010, Discussion Paper , December 2011, p. 28.

128 CCA, section 152BCF(8).

5.5. Regulatory burden associated with declaration

Considerations for this declaration inquiry

As set out above, and in Appendix C, the practical effect of declaration is that access providers must supply any services that are captured by the service description in accordance with the category A SAOs in the CCA. This may result in some costs to access providers in ensuring that they are able to supply services in accordance with the SAOs.

The category A SAOs require an access provider to:¹²⁹

- supply the service to an access seeker on request
- take all reasonable steps to ensure that the technical and operational quality and fault detection, handling and rectification of the service provided to the access seeker is equivalent to that which it provides to itself; and
- allow interconnection.

The ACCC notes that if the wholesale ADSL service is declared¹³⁰ through this public inquiry process, and in effect, the same service remains declared, the access provider affected by declaration, and the current fixed-line services FADs, will already be providing access to the service and meeting the category A SAOs. In this case, it will have relevant systems and processes in place, and the people to administer them, and the ACCC expects there would be minimal additional costs imposed by declaration. Where the service declared is different to that currently declared, e.g. as a result of different coverage, there may changes to the costs of declaration that need to be taken into account.

The Office of Best Practice Regulation's (OBPR) framework for measuring regulatory burden identifies the following types of costs:¹³¹

- Compliance costs:
 - Administrative costs incurred by regulated businesses primarily to demonstrate compliance with regulation, for example reporting and record keeping costs
 - Substantive compliance costs to deliver the regulated outcome, for example IT and billing system changes associated with the supply of wholesale services.
- Delay costs, which are expenses and loss of income incurred by a regulated entity through an application delay and/or an approval delay.

The ACCC will consider these costs as part of its assessment of whether declaration will promote the LTIE, including if a service is declared which is different to that currently declared.

31. Having regard to the potential costs of declaration listed above, and the issues raised in relation to the coverage of the service description, would declaration of the wholesale ADSL service lead to a substantial increase in regulatory burden? If so, please provide details and where possible evidence of the likely change in regulatory burden, including any particular costs that the ACCC should take into account.

32. Are there any particular costs that the ACCC should take into account when establishing the regulatory burden associated with declaring the wholesale ADSL service?

129 CCA, section 152AR.

130 That is, the current declaration is extended or varied; or a new declaration is made in relation to wholesale ADSL.

131 Department of the Prime Minister and Cabinet, *Best Practice Regulation*, viewed 16 June 2016, <https://www.dpmc.gov.au/regulation/best-practice-regulation>.

5.6. Implications for other regulatory processes

Considerations for this declaration inquiry

If the ACCC decides that declaring the wholesale ADSL service will promote the LTIE, it is anticipated that the impact on other regulatory processes will be limited.

For example, there may be implications under Telstra's SSU (see section 3.2.5) if the wholesale ADSL service is not declared after February 2017. Telstra's obligations to include any FAD price for the wholesale ADSL service in its rate card and supply the service at the price will cease to apply. Further, SSU schedule 8 paragraphs 3, 4 and 5 will determine the Reference Prices for Wholesale ADSL Layer 2 Service.

33. Are there any implications for other regulatory processes that the ACCC should consider as part of its wholesale ADSL declaration inquiry?

Appendix A: Questions on which submissions are sought

1. Do you consider the ACCC's proposed assessment framework is appropriate for assessing whether declaring wholesale ADSL services would promote the LTIE? That is, will the proposed assessment framework assist the ACCC in assessing whether declaring a service will promote competition in markets for telecommunications services, achieve any-to-any connectivity and encourage efficient use and investment in infrastructure by which the service is supplied?
2. What are the relevant markets for the purpose of this inquiry and the application of the LTIE test?
3. Is it appropriate to consider both wholesale and retail markets?
4. What is your view about the substitutability between different broadband products? What is the substitutability between fixed-line broadband technologies with different data rates?
5. Are there separate but related markets for high speed fixed-line broadband services and superfast broadband services? What evidence exists to support this?
6. Are wireless broadband services (offered over mobile broadband, fixed wireless or satellite) substitutes for high speed fixed-line broadband services and if so, to what extent? What evidence exists to support this??
7. Is it appropriate to consider the relevant markets on a national basis or should they be defined on a more narrow geographic basis? If so, what should that be and why?
8. What do you consider to be the state of competition in the high speed fixed-line broadband markets?
9. Is there effective competition at the wholesale level of the market, and if so why? Please provide subscriber numbers and any market share information to illustrate this, including any information about competitive supply of wholesale ADSL services.
10. Is there effective competition at the retail level of the market? Please provide market share information to illustrate this, including for customers on-net and off-net subscriber numbers. Are access seekers more successful in the retail market when supplying services on-net?
11. Are there any geographic areas where competition at the wholesale or retail levels is considered to be effective, and if so where are these areas and why is competition considered effective?
12. Are there any particular barriers to entry impacting competition in the wholesale or retail markets for high speed fixed-line broadband services?
13. Are there any implications for competition of the price differentials between on-net and off-net price ADSL services?
14. Do you consider that declaration of the wholesale ADSL service will promote competition? How is wholesale ADSL being used for this purpose?
15. Do you think competition concerns remain in the relevant market for wholesale ADSL since the 2012 declaration, or would remerge if the wholesale ADSL service was not declared? What is, or would be, the nature of these concerns and how significant are they?
16. Are commercial wholesale ADSL terms and conditions set with reference to those in the FAD, or independently? Do the terms and conditions negotiated inhibit competition in any way, including through restricting the nature of service offerings? Are you aware of any discrimination occurring between prices offered to different access seekers?

17. Are there any instances whereby delays in the negotiation of revised wholesale DSL charges following Telstra's retail price changes have affected the ability of access seekers to compete? If so, please specify the duration and impact of the delays.
18. How do the wholesale terms and conditions negotiated with Telstra compare to those from other providers of wholesale ADSL? Please detail the differences.
19. Do you consider that it is imperative to have a pre-existing subscriber base prior to the complete rollout of the NBN? If so, will an existing market share provide a material comparative advantage? If so, how? Are customers switching to different NBN providers and are there any barriers to customers wanting to switch to a different service provider?
20. Is wholesale ADSL being used as a vehicle to achieve a pre-existing subscriber base prior to the complete rollout of the NBN?
21. Are there any other potential risks to competition that may arise in the transition to the NBN if wholesale ADSL is not regulated? If so, what are they?
22. What impact would declaration have on the objective of achieving any-to-any connectivity?
23. Are there still opportunities for efficient investment in competing DSL networks – in terms of either expansion of the existing DSL footprint or increased investment in areas that have already attracted ULLS/LSS based competition? Is this likely to change over time? How would declaration of the wholesale ADSL service impact this?
24. What impact does the NBN rollout have on investment in, or use of, wholesale ADSL services as well as incentives to invest in ULLS and DSLAM infrastructure?
25. Could declaration of the wholesale ADSL service encourage efficient investment in infrastructure that will be used to interconnect on the NBN or provide value-added retail services? If so, please outline how. Could declaration encourage efficient use of NBN infrastructure?
26. Are there any issues in relation to the technical feasibility of supplying the wholesale ADSL service that the ACCC should be aware of?
27. Is the current service description appropriate or have there been changes in either the ADSL technology or relevant markets that necessitate a change to the current wholesale ADSL service description? Should any changes be made to the service description? What are these changes and why are they required?
28. Should the service description cover wholesale ADSL services nationally or be limited in geographic scope? If it is to be limited, on what basis and to what areas?
29. What is the appropriate duration for the declaration? Why?
30. Is there any merit to aligning the declaration period for wholesale ADSL services with the forecast completion date of the NBN? Please provide reasons why or why not.
31. Having regard to the potential costs of declaration listed above, and the issues raised in relation to the coverage of the service description, would declaration of a wholesale ADSL service lead to a substantial increase in regulatory burden? If so, please provide details and where possible evidence of the likely change in regulatory burden, including any particular costs that the ACCC should take into account.
32. Are there any particular costs that the ACCC should take into account when establishing the regulatory burden associated with declaring a wholesale ADSL service?
33. Are there any implications for other regulatory processes that the ACCC should consider as part of its wholesale ADSL declaration inquiry?

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 part of the DSL technologies, which 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.

ADSL services are marketed to both residential and business users. Telstra separately markets a residential ADSL product and a wholesale business DSL product.¹³²

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

132 Telstra Wholesale, *DSL internet*, www.telstrawholesale.com/products/data/dsl-internet-grade.htm.

Appendix C: Legislative framework and the ACCC's assessment approach

Legislative framework

Part XIC of the CCA sets out a telecommunications access regime. The access regime aims to promote the LTIE of telephone services by promoting competition through connectivity of any user to any other user no matter whose infrastructure is utilised for that purpose. The ACCC may declare an eligible service, making it subject to regulation under the Part XIC access regime.

An eligible service is a carriage service or a service that facilitates the supply of a carriage service.¹³³ A carriage service is defined in the *Telecommunications Act 1997* as a service for carrying communications by means of guided and/or unguided electromagnetic energy.¹³⁴ This includes communications services, such as telephone and internet services, that are provided using fixed-lines, satellite-based facilities, mobile towers and certain radio communications links. The unconditioned local loop service is an example of a carriage service, while access to facilities (such as ducts and exchange space) are examples of services that facilitate the supply of carriage services.

Once a service is declared, an access provider (typically an infrastructure operator) that supplies the declared service to itself or others must also supply the service, upon request, to service providers (or access seekers) in accordance with the standard access obligations set out in section 152AR of the CCA. The ACCC must also commence a public inquiry into making an access determination for that service. The access determination may include a broad range of terms and conditions but must specify price or a method of ascertaining price.¹³⁵

Declaration inquiries

Section 152AL(1) allows the ACCC to declare a specified eligible service 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 before any 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.

Prior to commencing a public inquiry about a proposal to declare a service that is not already declared, the ACCC must consider whether to hold a public inquiry for an equivalent service that is supplied or capable of being supplied by a specified NBN Corporation.¹³⁶

Where a service is already declared, under section 152ALA(7), the ACCC must commence an inquiry during the 18 months prior to the expiry of the declaration and determine whether to:

- Extend, revoke or vary the declaration
- Allow the declaration to expire without making a new declaration
- Allow the declaration to expire and then make a new declaration under section 152AL or

133 Where the service is supplied, or capable of being supplied, by a carrier or carriage service provider (whether to itself or other persons). CCA, subsection 152AL(1).

134 Telecommunications Act 1997, section 7.

135 CCA, subsections 152BC(3) and 152BC(8).

136 CCA, subsections 152AL(3), 152AL(3B) and 152AL(8A).

- Extend the declaration by a period of not more than 12 months and allow the declaration to expire without making a new declaration.

The ACCC can combine two or more public inquiries about proposals to declare services.¹³⁷

Declaration ensures service providers have access to the inputs they need to supply competitive communications services to end-users on terms and conditions that promote the LTIE.

In deciding whether declaring the wholesale ADSL service would promote the LTIE, under section 152 AB(2), the ACCC must have regard to the extent to which declaration is likely to result in the achievement of the following three objectives:

- promoting competition in markets for listed services (which includes carriage services and services supplied by means of carriage services)
- achieving any-to-any connectivity (the ability of end-users on a particular network to communicate with end-users on any other network) and
- encouraging the efficient use of and investment in infrastructure by which the service is supplied, or are capable of being supplied.¹³⁸

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.¹³⁹ Access determinations can cover a broad range of terms and conditions but must specify price or a method of ascertaining price.¹⁴⁰

The ACCC's approach to the LTIE test

In deciding whether declaring the wholesale ADSL service would promote the LTIE, the ACCC must have regard the achievement of:

- promoting competition
- achieving any-to-any connectivity and
- encouraging efficient use of and investment in infrastructure.

Promoting Competition

Competition is the process of rivalry between firms, where each firm is constrained in its price and output decisions by the activity of other firms. Competition benefits consumers (the end-users) through lower prices, the level of service quality preferred by end-users, and a greater choice of services.

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

¹³⁷ CCA, section 152AN.

¹³⁸ CCA, subsection 152AB(2). 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) CCA.

¹³⁹ CCA, section 152BCI(1).

¹⁴⁰ CCA, sections 152BC(3) and 152BC(8).

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.

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 of listed services gaining access to listed services.

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, which promotes competition in markets supplying end-users.

When conducting a declaration inquiry, the ACCC is required under subsection 152AB(2) of the CCA to consider whether declaration of a service is likely to promote competition in relevant markets. The ACCC's approach to assessing this objective involves defining the relevant markets and assessing the level of competition in those markets. These concepts are explained below.

Identifying relevant markets

Section 4E of the CCA provides that the term "market" means a market in Australia 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 the ACCC's 2008 merger guidelines.¹⁴¹

Section 4E of the CCA provides that a market includes any goods or services that are substitutable for, or otherwise competitive with, the goods or services under analysis. Accordingly, substitution is key to market definition. The ACCC's approach to market definition in the 2008 merger guidelines focuses on two dimensions of substitution – the product dimension and the geographic dimension.¹⁴²

Substitution involves switching from one product to another in response to a change in the relative price, service or quality of the product that is the subject of the inquiry. There are two types of substitution:

- demand-side substitution, which involves customer switching, and
- supply-side substitution, which involves supplier switching.

There may be associated switching costs or difficulties which, if significant, can impede the substitutability of products.

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.¹⁴³

One of the methods the ACCC can use to determine if a product or service is a close substitute for the purposes of market definition is the hypothetical monopolist or 'SSNIP' test.¹⁴⁴ The test establishes an area of product and geographic space over which a hypothetical monopolist would likely impose a 'small but significant non-transitory increase in price' (SSNIP). A SSNIP in the context of the hypothetical monopolist test usually consists of

141 ACCC, *Merger guidelines*, November 2008.

142 *Ibid*, pp. 15–19.

143 A useful list of information the ACCC may consider when identifying close substitutes to the relevant product is contained in the 2008 Merger Guidelines, p. 19.

144 SSNIP stands for small but significant non-transitory increase in price.

a price rise for the foreseeable future of 5 to 10 per cent above the price level that would prevail under competitive market conditions.

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.

Part XIC of the CCA does not require the ACCC to precisely define the scope of the relevant markets in a declaration inquiry. The ACCC considers that it is sufficient to broadly identify the scope of the relevant market(s) likely to be affected by the declaration. Accordingly, a market definition analysis under Part XIC should be seen in the context of shedding light on how declaration would or would not promote competition and the LTIE in those markets.

Assessing the state of competition

Once the relevant markets have been defined, the next step in the analysis is to assess the state of competition in relevant markets. If competition is determined to be effective, then declaration of the eligible services is not likely to have an effect in terms of promoting further competition or the LTIE. In assessing the state of competition, the ACCC considers dynamic factors such as the potential for sustainable competition to emerge and the extent to which the threat of entry (or expansion by existing suppliers) constrains pricing and output decisions.

At the theoretical level, the concept of ‘perfect competition’ describes a market structure in which no producer or consumer has the market power to influence prices. Economic theory suggests that perfectly competitive markets have a large number of buyers and sellers, goods or services are perfect substitutes, all firms and consumers have complete knowledge about the pricing/output decisions of others and all firms can freely enter and exit the relevant market. In reality, these conditions are rarely found in any market or industry, even those where competition between rival firms is relatively intense.

The concept of ‘effective competition’ recognises the practical limitations of the theory of perfect competition, especially when applied to the fixed-line telecommunications markets. Some characteristics of effective competition are that it:

- is more than the mere threat of competition – it requires that competitors are active in the market, holding a reasonably sustainable market position¹⁴⁵
- requires that, over the long run, prices are determined by underlying costs rather than the existence of market power
- requires that barriers to entry are sufficiently low and that the use of market power will be competed away in the long run, so that any degree of market power is only transitory
- requires that there be ‘independent rivalry in all dimensions of the price/product/service [package]’,¹⁴⁶ and
- does not preclude one party from holding a degree of market power from time to time but that power should ‘pose no significant risk to present and future competition’.¹⁴⁷

These five factors are indicators of the extent to which competition constrains market participants to supply products and services of a given quality at prices that are based on efficient costs.

145 Olivier Boylaud and Biuseppe Nicoletti, *Regulation, market structure and performance in telecommunications*, OECD Economics Studies, no. 32, 2001/1.

146 Re Queensland Co-operative Milling Association Ltd and Defiance Holding Ltd (1976) 25 FLR 169.

147 This is not intended to be an exhaustive list of the characteristics of effective competition.

When assessing whether effective competition exists in a relevant market, the ACCC examines certain structural and behavioural factors in the market, including but not limited to:

- structural factors, including the level of concentration in the market
- the potential for the development of competition in the market including planned entry, the size of the market and the existence and height of barriers to entry, expansion or exit in the relevant market
- the dynamic characteristics of the market, including growth, innovation and product differentiation as well as changes in costs and prices over time, and
- the nature and extent of vertical integration in the market.

Our assessment of the current state of competition during this review will be used to assist us in determining whether declaration will promote the LTIE.

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.

The ACCC generally considers it helpful to apply the future with and without test as one way to determine whether the LTIE will be promoted by declaration. The test will compare the likely future situation if the wholesale ADSL service was declared and the likely future situation without the wholesale ADSL service declaration before deciding which situation will promote the LTIE.

Any-to-any connectivity

The objective of any-to-any connectivity is achieved when each end-user is able to communicate with other end-users, whether or not they are connected to the same telecommunications network.¹⁴⁸

The any-to-any connectivity requirement is particularly relevant when considering services that require interconnection between different networks. 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.

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.

Efficient use of and investment in infrastructure

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

Economic efficiency has three components:

148 CCA, subsection 152AB(8).

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

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

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

Technical feasibility

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

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

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

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

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

Declaration may be more likely to impact on an infrastructure operator'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 derive from the use of the capacity of the network and can be realised regardless of whether that capacity is being

used by the owner or by other carriers or carriage service providers. The ACCC assesses the effects on an infrastructure operator's ability to exploit both economies of scale and scope on a case-by-case basis.

Incentives for investment

Infrastructure operators should have the incentive to invest efficiently in the infrastructure by which the services are supplied (or are capable, or likely to become capable, of being supplied). In determining incentives for investment, regard must be had (but is not limited) to the risks involved in making the investment.¹⁴⁹

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

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 sup

149 CCA, subsections 152AB(7A) and (7B).