Australian
Competition &
Consumer
Commission

Public Inquiry into the fixed line services declarations

Final Report

April 2014

Australian Competition and Consumer Commission

Contents

Appendices

List of abbreviations and acronyms

ACCC	Australian Competition and Consumer Commission
ACMA	Australian Communications and Media Authority
ADSL	asymmetric digital subscriber line
ATA	analogue telephone adapter
CAM	customer access module
CAN	customer access network
CBD	central business district
CCA	*Competition and Consumer Act 2010*
c-i-c	commercial in confidence
CSP	carriage service provider
DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexer
DTCS	domestic transmission capacity service
ESA	exchange service area
FAD	final access determination
FOAS	fixed originating access service
FTAS	fixed terminating access service
HFC	hybrid fibre-coaxial
IIC	internal interconnect cable
ISDN	integrated services digital network
LCS	local carriage service
LSS	line sharing service
LTIE	long-term interests of end-users
MSAN	multi-service access node
NBN	National Broadband Network
POI	point of interconnection
POTS	plain old telephone service

PSTN	public switched telephone network
PSTN OTA	PSTN originating and terminating access
RSPs	retail service providers
SAU	special access undertaking
SIOs	services in operation
SSNIP	small but significant non-transitory increase in price
ULLS	unconditioned local loop service
VoIP	voice over internet protocol
WLR	wholesale line rental

Glossary

access seeker	Telecommunications companies that seek access to the declared service (that is, the right to use the declared service).
access provider	Telecommunications companies that provide access to a declared service.
ADSL	Asymmetric Digital Subscriber Line. A technology for transmitting digital information at high data rates on existing copper phone lines. It is called asymmetric because the download and upload speeds are not symmetrical (that is, download is faster than upload).
backhaul	The line carrying traffic from a transmission point (generally the telephone exchange) to a central point (in the IP core).
CAN	Customer Access Network. The portion of the copper network that connects each telephone end-user to the network switch at their local exchange.
declaration inquiry	The process by which the ACCC holds a public inquiry to determine whether a service should be declared.
declared service	A service that the ACCC regulates under Part XIC of the CCA. Once declared, a service provider must supply the service to other parties in accordance with the standard access obligations and the terms and conditions set in the final access determination.
downstream	Further along the supply chain. For example, mandating access to network services can promote competition in downstream retail broadband services.
DSLAM	Digital Subscriber Line Access Multiplexer. A device which makes use of the copper access lines to provide high data rate services, enabling broadband services to be provided over copper lines. It is located in a telephone exchange that links many customer DSL connections (copper wires) to a core IP network via a backhaul system.
DTCS	Domestic Transmission Capacity Service. The regulated transmission service.
end-user	Retail consumers of telecommunication services.
exchange	Place where various numbers and types of communication lines are switched so as to establish a connection between two telephones. The exchange also houses DSLAMs, allowing end-users to connect to the internet.
enduring bottleneck	A network element or facility that exhibits natural monopoly characteristics, and is essential in providing services to end-users in downstream markets.
FAD	Final Access Determination. The FAD is made by the ACCC and sets the terms and conditions (including prices) on which a service provider must supply a declared service.

FOAS	Fixed Originating Access Service. The proposed new name of the currently declared PSTN OA service.
FTAS	Fixed Terminating Access Service. The proposed new name for the currently declared PSTN TA service.
fixed line services	Telecommunications services provided over fixed networks, such as Telstra's copper network and HFC networks. The 'declared fixed line services' are the six fixed line services declared in 2009 – the ULLS, LSS, WLR, LCS, PSTN OA and PSTN TA.
HFC network	Hybrid Fibre-Coaxial Cable network. A combination of fibre optic and copper coaxial cables able to deliver large amounts of data. Typically used to deliver internet services and pay television services.
IIC	The internal interconnect cable is a twisted copper pair cable connecting an access seeker's intermediate distribution frame to Telstra's main distribution frame. The IIC is essential to access seekers in being able to obtain ULLS/LSS from Telstra.
IP Core	Internet Protocol Core Contains routers and electronic equipment that send data traffic to its desired location (such as a webpage server).
LCS	The declared Local Carriage Service. For a 'per-usage' charge, allows access seekers to resell local calls to end-users without having to invest in their own network and switching equipment. The LCS is purchased in conjunction with the WLR service.
LSS	The declared Line Sharing Service. Allows access seekers to share the use of the copper line connecting consumers to the telephone exchange, allowing them to provide fixed internet services using their own equipment. An alternative provider provides the voice services.
MTAS	The declared Mobile Terminating Access Service. A wholesale service provided by a mobile network operator (MNO) to fixed line operators and other MNOs to connect – or 'terminate' – a call on its mobile network. It enables calls to be made to consumers on mobile phone networks.
Naked DSL Service	A reference to a telecommunications service where an end-user only receives an internet service (and no voice service) from a service provider. This can only offered by access seekers using the ULLS and their own exchange equipment.
PSTN	Public Switched Telephone Network. The telephone network that allows the public to make and receive telephone calls via switching and transmission facilities and utilising analogue and digital technologies.
PSTN OA	The declared PSTN Originating Access service. Allows a telephone call to be connected from the caller to a point of interconnection with another network.
PSTN OTA	PSTN Originating and Terminating Access services. Used to refer to the PSTN OA and PSTN TA services together.
PSTN TA	The declared PSTN terminating access service. Allows a telephone call to be carried from the point of interconnection to the party being called on another network.
retail service	Companies that offer telecommunications services to end-users.

provider	
SIO	Service In Operation. Refers to an active telecommunications service provided to an end-user.
spectrum	The range of frequencies available on a transmission medium (including the copper wire). Voice services are traditionally supplied over a low frequency spectrum while internet services are supplied over a high frequency spectrum.
telephone switch	Hardware located within telephone exchanges that allow one end-user to connect to the PSTN so they can make or receive telephone calls from other end-users.
transmission	The carriage of voice, data or other communications.
ULLS	The declared Unconditioned Local Loop Service. Allows access seekers to use the copper line connecting end-users to the local telephone exchange, allowing them provide both fixed internet (broadband) and voice services using their own DSLAMs and other exchange equipment.
VoIP	Voice over Internet Protocol (IP). A voice service provided over the internet (for example, Skype) using packets of data as opposed to the traditional PSTN.
Wholesale ADSL	The declared Wholesale ADSL service. Allows access seekers to purchase a Wholesale ADSL product from Telstra and resell internet services to end-users.
WLR	The declared Wholesale Line Rental service. For a monthly 'per-user' charge, it allows access seekers to purchase a line rental service from Telstra, which includes access to the copper line and associated services (including a dial tone and telephone number) supplied using Telstra's equipment.

Summary of this final decision

In July 2013, the Australian Competition and Consumer Commission (ACCC) commenced a public inquiry under Part XIC of the *Competition and Consumer Act 2010* (Cth) (CCA) into the declarations of six fixed line services that are due to expire on 31 July 2014. The inquiry is part of the Fixed Services Review, which is also considering the terms and conditions (including price) for access to the declared services.

The fixed services declaration inquiry is considering the scope of regulation of access to services delivered over Telstra's copper-based fixed network, which is used to provide fixed voice and fixed broadband services to end-users. At the time of writing the ACCC was reviewing the scope of regulation for mobile termination services in its respective Mobile Terminating Access Service (MTAS) declaration inquiry and has concluded its Domestic Transmission Capacity Service (DTCS) declaration inquiry

This final report sets out the ACCC's decision on the declarations for the fixed line services, the service descriptions and other matters raised during the ACCC's consultation with industry and other interested parties. The report explains the ACCC's assessment framework and reasoning for the decision.

The ACCC is extending the declarations for network access services.

The ACCC will extend the declarations of the unconditioned local loop service (ULLS) and line sharing service (LSS) as it is satisfied that this will promote the long-term interests of end-users (LTIE). All submitters to this inquiry process supported extending the declarations for these services.

The ACCC considers that Telstra's copper access network will remain an enduring bottleneck until the rollout of the National Broadband Network (NBN) is complete. There are limited substitutes for the ULLS and LSS. Alternative networks, such as Optus' Hybrid Fibre-Coaxial Cable (HFC) network, currently have a limited geographical footprint and are often not configured to provide wholesale access.

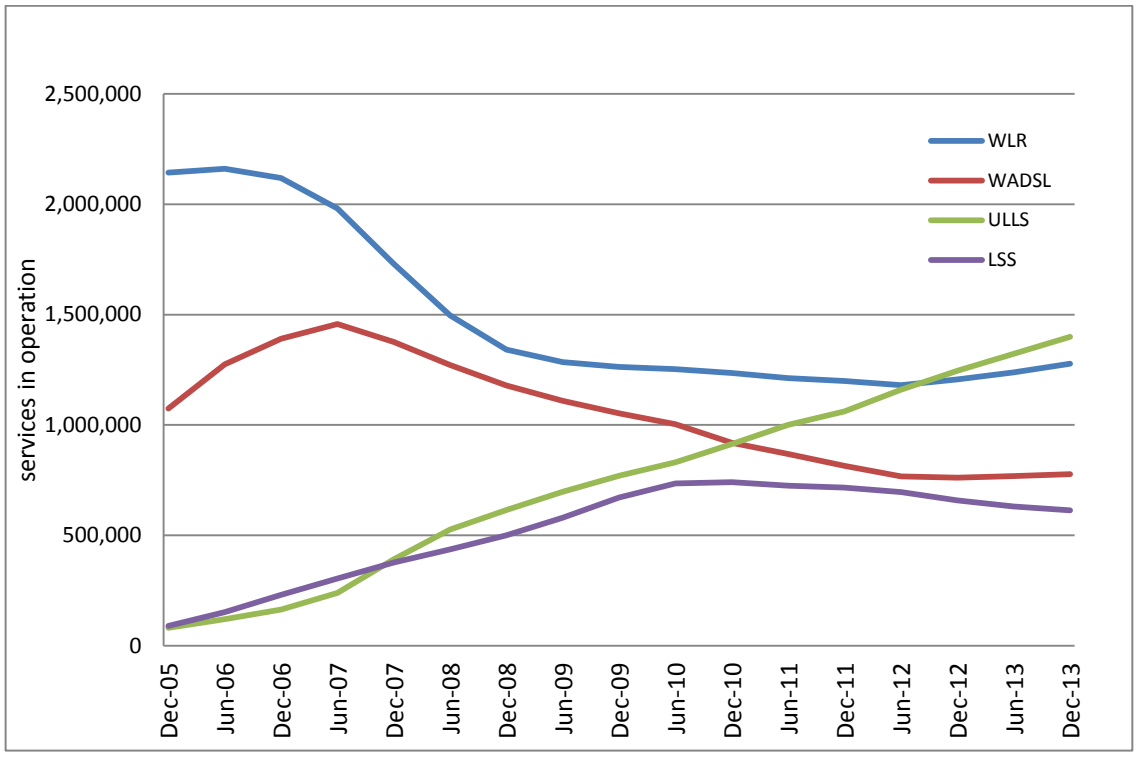
As a vertically integrated company, Telstra has an incentive to either deny access or charge above-cost prices for access in order to give a competitive advantage to its own retail operations.

The ACCC considers that access to the ULLS and LSS will enable access seekers to compete with Telstra in a range of retail dimensions of fixed broadband and fixed voice supply by using their own exchange equipment with these network access services. Greater competition will give Telstra and access seekers stronger incentives to innovate by differentiating their products and to sell them at competitive prices to end-users.

Declaration of these services has resulted in steady growth in the number of exchanges in which access seekers have invested in their own exchange equipment and strong growth in the number of services in operation (SIOs) and end-users served by access seekers using the ULLS and LSS. Figure 1.1 below shows there has been a shift towards the use of 'network access' declared services supplied by access seekers using their own Digital Subscriber Line Access Multiplexers (DSLAMs): LSS (for broadband) and ULLS (for voice and/or broadband).[1]

[1] See also discussion at section 4.3.1 of Chapter 4.

Figure 1.1 Trends in the supply of Telstra's declared fixed line services



Source: This time series of data has been compiled from two five-year summaries released as part of Telstra's June 2010 and June 2013 financial results. This data is available on Telstra's website at: http://www.telstra.com.au/abouttelstra/investor/financial-information/financial-results/index.htm.

These increases have coincided with decreases in the average price of retail broadband services (in real terms) every year since the ACCC began recording the information in 2007 and increases in data allowances in recent years, resulting in the effective price per GB decreasing significantly (from approximately $30/GB in 2007 to less than $1/GB today).

Extending the declaration of the network access services will support the ongoing efficient use of these investments and further investment where such investments are efficient and commercially viable.

End-users will benefit from the greater competition in retail markets that will be supported by continued declaration of these services.

The ACCC is extending the declarations for resale services, except where they are supplied using NBN infrastructure.

The ACCC is satisfied that the LTIE will be promoted by extending the declarations of the resale services, that is, the wholesale line rental (WLR) service, local carriage service (LCS) and public switched telephone network originating access (PSTN OA) (pre-selection and override) services.

By enabling access seekers to access these services on reasonable terms and conditions, extending the declarations of resale services will promote the LTIE by promoting competition in retail markets. This is particularly important in areas where it is not commercially feasible for access seekers to invest in their own exchange equipment. Extending the declaration of resale services will enable access seekers to compete effectively on a national basis during the transition to the NBN.

Extending the declaration of resale services will also encourage the efficient use of, and investment in, infrastructure by promoting efficient use of Telstra's copper network and by reducing the likelihood that access seekers will make inefficient investments in infrastructure due to the absence of competitively priced resale services. The ACCC considers that the NBN rollout will increasingly reduce the commercial viability and efficiency of further access seeker investments in copper-based infrastructure, and recent WLR SIO data suggests that access seekers are increasing their use of resale services during the transition to the NBN.[2]

The ACCC has decided to exclude resale services provided using NBN infrastructure from the scope of regulation and has amended the service descriptions to effect this change.

The ACCC considers that resale services provided using NBN infrastructure should not be regulated as NBN Co is not a vertically integrated business and access to wholesale services provided by the NBN is regulated by NBN Co's Special Access Undertaking which the ACCC accepted on 13 December 2013. NBN Co provides services on a wholesale only basis and is subject to non-discrimination provisions. The ACCC received evidence during this declaration inquiry that a competitive aggregation market is likely to develop in supplying resale services over the NBN. Small retail service providers are expected to be able to buy competitively priced resale services in this market.

Further, the ACCC has concluded that providing the PSTN OA (pre-selection and override) service using NBN infrastructure would require costly investments in equipment that would not be justified by the expected benefits to end-users.

The ACCC has limited the exclusion from the declarations to resale services provided using NBN infrastructure. The ACCC considers that it should take a cautious approach to withdrawing regulation for resale services supplied over non NBN-based next generation networks. The ACCC will continue to monitor industry developments and the appropriateness of its regulatory settings.

The ACCC is removing the CBD exemptions from the WLR and LCS service descriptions.

The service descriptions for the WLR and LCS currently exempt Telstra from having to supply these services in the CBD areas in Sydney, Melbourne, Brisbane, Adelaide and Perth. The ACCC has determined that removing the CBD exemptions will provide end-users with greater choice of service provider, functionality and retail service dimensions, particularly for the corporate segment of the market.

Removing the exemptions will enable access seekers to compete more effectively with Telstra to supply small and medium sized business that require a small number of voice-only services to particular premises and to offer competitive 'whole of business' packages of services to corporate end-users.

The ACCC received evidence that, in the exempt CBD areas, Telstra is charging WLR prices that are significantly higher than the regulated WLR price. Specifically Telstra's list price for a business WLR service (Basic Telephone Service with Business Access) is $31.77 per month compared to the regulated price of $22.84 per month. The ACCC considers this evidence supports a conclusion that Telstra has market power in the exempt areas and is using that market power to set above-cost WLR prices. The ACCC considers that the removal of CBD exemptions will promote competition and encourage the economically efficient use of, and investment in, infrastructure.

The ACCC recognises that CBD areas have higher than average levels of infrastructure investment, including access seeker exchange equipment and a number of competing fibre networks. It notes the recent trend of declining WLR SIOs and the simultaneous increase in

[2] For more detail see discussion at 5.1.3.1 in Chapter 5.

ULLS SIOs shown in figure 1.1 above.[3] However, the ACCC has concluded that, for a segment of the retail market in the CBD areas, these alternative networks cannot provide an effective substitute for the WLR service. Economies of scale in access seeker exchange equipment mean that ULLS-based supply of voice-only services is not commercially viable where end-users demand a small number of voice-only services per premises. In addition, there is evidence that the costs of replacing customer premises equipment and other switching costs deters some end-users from switching to IP-based services supplied over fibre networks (such as Voice over Internet Protocol telephony and special services such as point-of-sale services).

The ACCC considers that removing the CBD exemptions from the WLR and LCS service descriptions will enable access seekers to compete more effectively with Telstra on a national basis. The ACCC considers that access seekers are currently limited in their ability to compete with Telstra in providing a 'whole of business' voice and broadband package to nationally-based corporate end-users. This is due to the high WLR price in CBD areas, which limits their capacity to offer innovative bundling options at competitive prices. This leads to less choice and higher prices for these end-users. The removal of CBD exemptions will facilitate greater competition in these markets and will promote the LTIE.

The ACCC is extending the declaration for interconnection services.

The ACCC is satisfied that extending the declaration of interconnection services will promote the LTIE. All submissions to this inquiry process supported this view.

In the absence of regulated access to interconnection services, a large network operator could exercise its market power to increase the price of interconnection. Higher termination and call origination prices for special numbers (such as 13/1800 numbers) would likely be passed on to end-users for calls made to or (for special numbers) from other networks, making it more attractive for end-users to switch to a larger network. The ACCC considers this would harm the ability of smaller network operators to compete in retail markets.

Declaration of these interconnection services is likely to result in promoting competition in the retail markets for fixed voice and mobile services, achieve any-to-any connectivity and encourage the economically efficient use of, and investment in, infrastructure.

The ACCC has decided not to alter the interconnection protocol currently specified in the service descriptions at this stage but intends to monitor the development of any alternative IP-based voice interconnection protocol by industry. The ACCC may consider whether to commence an inquiry into varying the service descriptions when an agreed industry standard for IP-based interconnection exists, or if otherwise appropriate.

The ACCC has decided to change the name of the PSTN OA and PSTN TA services to Fixed Originating Access Service (FOAS) and Fixed Terminating Access Service (FTAS) respectively, to reflect that the service declarations are technology-neutral. The ACCC has also removed from the service descriptions provisions relating to terms and conditions of supply that are usually included in final access determinations (FADs).

The ACCC is extending the declarations for the fixed line services for another five years.

To ensure regulatory certainty in the transition to the NBN, the ACCC is extending the declarations for another five years. A five year regulatory period will provide a degree of certainty and facilitate business planning during the transition to the NBN, which will in turn promote efficient investment decisions by both Telstra and access seekers.

[3] See also the discussion at 5.1.3.1 in Chapter 5.

The ACCC will give further consideration to whether to commence a separate inquiry into declaring new services.

The ACCC will consider whether access to certain facilities is required for the purpose of interconnecting with the declared services in the upcoming final access determination (FAD) inquiries for both the DTCS and fixed line services. In doing so, the ACCC will take into account the existing regulatory regime established under the *Telecommunications Act 1997* (Cth). During its current inquiry into making FADs for the fixed line services, the ACCC will consider and consult on, regulating facilities access services that are ancillary to declared services through the FADs. The ACCC will also seek submissions on whether declaration of facilities access services would promote the LTIE. This process will inform any further decision regarding the commencement of a declaration inquiry for facilities access services.

The ACCC may consider the declaration of HFC services further, if necessary, following clarification of the role of HFC networks in supplying telecommunications services within the broader context of the NBN.

The ACCC intends to undertake market inquiries to assist it in deciding whether to commence an inquiry into declaring a new wholesale business-grade (symmetrical) DSL service.

The ACCC considers that an inquiry into declaring a fixed-to-mobile service is not warranted based on the evidence available to it at this stage.

The ACCC will continue to monitor the development of other potential emerging issues related to fixed line telecommunications services. Should competition or efficiency concerns arise, the ACCC will consider how best to respond, including through processes under Parts XIB or XIC of the CCA as may be appropriate in the circumstances.

1 Introduction

The ACCC has made a final decision on the declaration of the fixed line services for the next five years. This final report explains the ACCC's assessment framework and reasoning for the proposed decision. This declaration inquiry was part of the overall review of the fixed line services (Fixed Services Review), which includes an inquiry into making Final Access Determinations (FADs) for the declared fixed line services.[4]

Under section 152AL of the *Competition and Consumer Act 2010* (Cth) (CCA), the ACCC may declare an eligible service following a public inquiry under Part 25 of the *Telecommunications Act 1997* (Cth) (Telecommunications Act), provided it is satisfied that the making of the declaration will promote the long-term interests of end-users (LTIE) of carriage services or services provided by means of carriage services.

1.1 Background

In 2009 the ACCC extended the declarations of six fixed line services until 31 July 2014. The fixed line services are made up of the following services:

- the unconditioned local loop service (ULLS)
- the line sharing service (LSS)
- the local carriage service (LCS)
- the wholesale line rental (WLR) service
- the domestic public switched telephone network originating access (PSTN OA) service
- the public switched telephone network terminating access (PSTN TA) service.

The ACCC summarised the reasons for extending these declarations in 2009 in chapter 4 of the July 2013 discussion paper.

1.2 Consultation process

The ACCC commenced a public inquiry into the fixed line services declaration inquiry on 11 July 2013 and released a discussion paper on this date.[5] The ACCC invited submissions on whether the currently declared services should be extended, whether the service descriptions for the existing declared services should be varied, and whether the ACCC should conduct further inquiries into declaring additional services. The ACCC received submissions from ten parties in response to its discussion paper.

On 13 September 2013, the ACCC wrote to all parties who had made submissions to the July 2013 discussion paper, outlining its expectation that parties would agree on, and establish arrangements for, the disclosure of confidential information with appropriate protections.

In response to the July 2013 discussion paper, the ACCC received a number of submissions in respect of whether CBD exemptions should be removed from the WLR and LCS service descriptions. The ACCC considered it needed additional information to enable it to make a well informed and robust decision on this issue. On 9 October 2013, the ACCC issued an information request to certain stakeholders. Responses were received from six parties.

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4 The inquiry into making FADs for the fixed line services will include the Wholesale ADSL service. The ACCC declared the Wholesale ADSL service for a period of five years on 14 February 2012. Since the declaration of this service does not expire until 2017, the ACCC has not commenced an inquiry into the declaration of this service. The FAD for the Wholesale ADSL service expires on 30 June 2014, consistent with the expiry date for the other declared fixed line services. Consequently, the ACCC has combined the FAD inquiries for the six fixed line services that are the subject of this declaration inquiry and the Wholesale ADSL service.

5 ACCC, Fixed Services Review - Discussion paper on the declaration inquiry, July 2013.

On 13 December 2013, the ACCC released its draft report after taking into account submissions and additional information on the declaration of the fixed line services.[6] In the draft report, the ACCC proposed that the six fixed line services should be declared for another five years from 1 August 2014. The ACCC invited industry participants and other interested parties to make submissions on the draft report, including on a number of proposed changes to existing service descriptions.

The ACCC received five submissions in response to its draft report. A list of all submissions received by the ACCC in response to the draft decision is provided in Appendix G. Further information on the FSR discussion paper, draft report and submissions are available at: http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-declaration-inquiry-2013

1.3 Other related inquiries

On 11 July 2013, the ACCC commenced an inquiry into making new FADs for the six fixed line services and the wholesale ADSL service. The FADs will set out the price and non-price terms and conditions of access to these services. The current FADs expire on 11 July 2014.

On 13 December 2013, the ACCC published a notice to extend the decision making period for the FAD inquiry to 11 July 2014. The ACCC has published the notice on its public register.

The ACCC was unable to complete its inquiry within the original inquiry period as it considered that industry consultation on pricing issues for the inquiry would be promoted by the receipt of relevant pricing data for the services from Telstra prior to releasing a discussion paper for industry consultation. A large amount of complex expenditure and demand forecast data was received from Telstra in late November 2013 and additional explanatory material was provided by Telstra in February 2014.

The ACCC also considered it appropriate to complete the related declaration inquiry prior to undertaking extensive industry consultation on the issues for the FAD inquiry.

In March 2014, the ACCC commenced consultation on the disclosure arrangements that will apply to the pricing data Telstra has provided under the building block model record keeping rule (BBM RKR). The first time nature of this information collection process under the RKR, and the time required to complete the disclosure notice process, means the ACCC will not be in a position to make new FADs for the fixed line services before the current FADs expire.

Therefore, the ACCC intends to extend the 2011 FADs for the fixed line services so that they are in place for the declared fixed line services pending completion of the FAD inquiry. The ACCC also intends to commence an inquiry into varying the 2011 FADs to ensure that the current prices for the WLR service, LCS and internal interconnect cable (IIC) are preserved until they are reviewed upon completion of the FAD inquiry.

On completion of the statutory process for issuing the disclosure notice the ACCC will commence extensive consultations on the fixed line services FADs with the release of a discussion paper followed by a draft decision. To allow sufficient time for this consultation, it will also be necessary for the ACCC to extend the period for making the FADs beyond 11 July 2014. The ACCC can extend or further extend the period for the FAD inquiry by a period of six months provided it publishes a notice on its website explaining the reasons for each extension.

Further details on the progress of the FAD inquiry are available at: http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-inquiry-2013

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6 ACCC, *Fixed Services Review – Declaration Inquiry - Public inquiry into the fixed line services declarations, Draft report*, December 2013.

The ACCC has recently completed declaration inquiries into the Domestic Transmission Capacity Service (DTCS) and is in the process of completing the Mobile Terminating Access Service (MTAS). Where appropriate, the ACCC has adopted a consistent approach to the issues raised in this inquiry to those considered by the declaration inquiries for the DTCS and MTAS.

Further details on the MTAS declaration inquiry are available at:
http://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/mobile-terminating-access-service-declaration-review-2013

Further details on the DTCS declaration inquiry and the final decision are available at:
http://www.accc.gov.au/regulated-infrastructure/communications/transmission-services-facilities-access/domestic-transmission-capacity-service-declaration-2013-2014

1.4 Structure of this report

The report is set out as follows:

Chapter 2 sets out the criteria the ACCC must consider in making a decision to declare a service and the approach taken in this report.

Chapter 3 sets out the ACCC's views on the state of competition in the relevant markets.

Chapter 4 outlines the ACCC's views in relation to whether the continued declaration of network access services, being the ULLS and LSS services, is in the LTIE.

Chapter 5 outlines the ACCC's views in relation to whether the continued declaration of resale services, being the WLR, LCS and PSTN OA (pre-selection and override) services, is in the LTIE.

Chapter 6 outlines the ACCC's views in relation to whether the continued declaration of interconnection services, being the PSTN OA (special numbers)[7] and PSTN TA services, is in the LTIE.

Chapter 7 sets out the ACCC's position on other issues, including the duration of the declarations for the fixed line services. This chapter also considers fixed line services that are not currently declared and have been the subject of submissions to this inquiry.[8]

Appendices A-F provide the ACCC's service descriptions for the declared fixed line services.

Appendix G lists the submissions received by the ACCC in response to the draft report and their short titles.

7 Origination of calls to special numbers including 13/1300 and 1800 numbers.

8 These services include facilities access services, hybrid fibre-coaxial (HFC) based services, wholesale business DSL services and fixed-to-mobile services.

2 The ACCC's assessment approach

Key points

- The ACCC has had regard to the extent to which declaration is likely to promote the long-term interests of end-users (LTIE) in terms of whether the declaration is likely to result in the achievement of:
  - promoting competition in markets for telecommunications services
  - achieving any-to-any connectivity
  - encouraging efficient use of, and investment in, infrastructure by which the service is supplied.
- The ACCC has used a 'with or without' analysis in determining whether it is satisfied that declaration will promote the LTIE.
- The ACCC has considered substitutes for the relevant services and the extent to which any substitutes might constrain any exercise of market power in the supply of the relevant services.
- The ACCC has conducted its assessment with regard to key economic principles such as whether the relevant service is supplied over infrastructure that exhibits enduring bottleneck characteristics.

2.1 Assessment framework

This chapter explains the assessment framework the ACCC has adopted in deciding whether to extend, revoke or vary the current declarations or allow them to expire and make new declarations. The framework is summarised below and was discussed in detail in the July 2013 discussion paper.

This chapter is to be read together with the ACCC's analysis in chapters 4-6 for each of the fixed line services.

2.1.1 Legislative framework

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

- promoting competition in markets for telecommunications services
- achieving any-to-any connectivity
- encouraging efficient use of, and investment in, infrastructure by which the service is supplied.[9]

[9] Subsection 152AB(2) of the CCA.

The July 2013 discussion paper set out the ACCC's detailed approach to the LTIE test and its state of competition analysis. To determine whether the LTIE will be better promoted with declaration or without declaration, the ACCC is required to consider the effects of regulated access to particular services in each relevant market, as well as make an overall assessment of the benefits expected to flow to end-users from declaration.

The ACCC notes that Part XIC of the *Competition and Consumer Act 2010* (Cth) (CCA) does not require the ACCC to precisely define the scope of the relevant markets in a declaration inquiry. The ACCC's approach to market definition in the context of this declaration inquiry is discussed in chapter 3 of this report.

Once the relevant markets have been defined, the next step is to assess the state of competition in relevant markets. In assessing the state of competition, the ACCC considers dynamic factors such as the potential for sustainable competition to emerge and the extent to which the threat of entry (or expansion by existing suppliers) constrains pricing and output decisions. The state of competition in relevant markets is discussed in chapter 3 of this report.

Promoting competition in markets for telecommunications services

In determining whether declaration will promote the LTIE, the ACCC must have regard to the extent to which declaration of an eligible service is likely to result in the objective of promoting competition in markets for listed services.

In determining the extent to which declaration is likely to result in this objective, subsection 152AB(4) of the CCA requires the ACCC to have regard to the extent to which declaration will remove obstacles to end-users gaining access to listed services.

When considering whether declaration is likely to promote competition in markets for listed services, the ACCC identifies the market for the relevant service and the markets in which competition is likely to be promoted (which are generally downstream markets relying on the relevant service). In assessing whether declaration is likely to promote competition, the ACCC considers the likely state of competition in the future both with declaration and without declaration.

Achieving any-to-any connectivity

In determining whether declaration will promote the LTIE, the ACCC must have regard to the extent to which declaration is likely to result in the achievement of the objective of any-to-any connectivity in relation to carriage services. Subsection 152AB(8) of the CCA provides that the objective of any-to-any connectivity is achieved if, and only if, each end-user who is supplied with a carriage service that involves communication between end-users is able to communicate, by means of that service, or a similar service, with each other whether or not they are connected to the same network.

In the declaration context, only certain services are relevant to the achievement of any-to-any connectivity. The Explanatory Memorandum to the Trade Practices Amendment (Telecommunications) Bill 1996 stated that the objective of any-to-any connectivity will only be relevant when considering whether a particular service promotes the LTIE of a carriage service that involves communications between end-users.[10] When considering other types of services (such as carriage services which are inputs to an end-to-end service), this criterion will be given little, if any, weight.

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

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

Efficient use of, and investment in, infrastructure

In determining whether declaration will promote the LTIE, the ACCC must have regard to the extent to which declaration is likely to result in the achievement of the objective of encouraging the economically efficient use of, and the economically efficient investment in the infrastructure by which listed services are supplied; and any other infrastructure by which listed services are, or are likely to become, capable of being supplied.

Economic efficiency has three components:

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

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

In determining the extent to which declaration is likely to encourage the economically efficient use of, and investment in, infrastructure, subsection 152AB(6) of the CCA requires the ACCC to have regard to the technical feasibility of providing and charging for the services, the legitimate commercial interests of the supplier(s) of the services, and the incentives for investment in infrastructure. These are discussed further below.

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
- 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 where relevant.

The legitimate commercial interests of the infrastructure operator

In determining the extent to which declaration is likely to encourage the economically efficient use of, and investment in, infrastructure, subsection 152AB(6) of the CCA requires the ACCC to have regard to the legitimate commercial interests of the supplier or suppliers of services, including the ability of the supplier or suppliers to exploit economies of scale and scope.

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.

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

Incentives for investment

In determining the extent to which declaration is likely to encourage the economically efficient use of, and investment in, infrastructure, subsection 152AB(6) of the CCA requires the ACCC to have regard to the incentives for investment in the infrastructure by which services are supplied and any other infrastructure by which the services are, or are likely to become, capable of being supplied.

Infrastructure operators should have the incentive to invest efficiently in the infrastructure by which the services are supplied (or are capable, or likely to become capable, of being supplied). In assessing incentives for investment, regard must be had (but is not limited) to the risks involved in making the investment.[11]

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.

2.1.2 Economic rationale for declaring services

In its July 2013 discussion paper, the ACCC set out the economic rationale for declaring services. The ACCC noted that it uses well-established economic principles to analyse the expected effects of regulating particular services on achieving the three objectives relevant to the LTIE.

The economic principles most relevant to a decision on whether to declare fixed line services are:

- whether the relevant infrastructure exhibits enduring bottleneck characteristics that affect competition in related markets, any-to-any connectivity and efficiency in the use of, and investment in, telecommunications infrastructure, including both the infrastructure in question and related infrastructure

- whether requiring access to services provided on telecommunications infrastructure will promote economic efficiency and competition

- whether infrastructure operators are vertically integrated and the likely effects of that vertical integration on competition in related markets, any-to-any connectivity and efficiency in the use of, and investment in, telecommunications infrastructure.

[11] Subsections 152AB(7A) and (7B) of the CCA.

2.2 ACCC's assessment against the LTIE

In making its assessment of whether the declaration of fixed line services will promote the LTIE, the ACCC has adopted the above assessment framework. This section discusses the matters the ACCC took into account with respect to each of the fixed line services.

It is important to recognise that not all of the matters listed in the framework for assessment have been relevant to the assessment for each service. The ACCC considers that the assessment approach taken with respect to each of the fixed line services is appropriate in the circumstances of this declaration inquiry. However, the ACCC may reconsider its assessment approach in light of different circumstances in any future consideration of these services.

2.2.1 Network access services—ULLS and LSS

In determining whether declaration of network access services will promote the LTIE, the ACCC has considered the following key issues:

- The likely effect on competition from extending the declaration of network access services. This includes consideration of the effect that declaration is likely to have in the relevant markets, including the provision of retail and wholesale services using network access services and the resultant effect on competition in the retail markets for fixed voice and broadband services. It also includes the extent to which substitutes are capable of constraining any market power in relation to the provision of network access services.

- In the absence of declaration, the likely effect of Telstra's ability and incentives to exercise its market power on the ability of access seekers to compete in retail markets and the implications for end-users.

- The likely effect of declaration on removing barriers to entry and promoting competition in supplying retail services and the extent to which regulated network access encourages efficient use of, and investment in, infrastructure, including in relation to Telstra's copper network and access seekers' exchange equipment.

- The likely effect of declaration on Telstra's ability to exploit economies of scale, its ability to earn a commercial return and its legitimate commercial interests.

2.2.2 Resale services—WLR, LCS and PSTN OA (pre-selection and override)

In determining whether declaration of resale services will promote the LTIE, the ACCC has considered the following key issues:

- The effect of declaration on promoting competition in the relevant retail markets on a national basis and the likely level of competition in the absence of declaration. This includes the extent to which substitutes are capable of constraining any market power in relation to the provision of resale services.

- The limitations of substitutes for resale services that would reduce access seekers' ability to invest or switch to other sources of supply in the event of a significant and sustained increase in the price of resale services.

- The likely effect on the efficient use of, and investment in, infrastructure in the absence of declaration. This includes an assessment of whether, without declaration, an increase in the prices of resale service may lead access seekers to make inefficient investments in

copper-based exchange equipment in order to self-supply or offer resale services to other access seekers.

- The likely effect of declaration on the ability of access seekers to efficiently build customer scale or maintain their established customer bases in the transition to the NBN and the corresponding incentives of access seekers to invest in infrastructure required to connect to the NBN.

The ACCC has additionally considered the scope of declaration of resale services in the context of the current CBD exemptions. The ACCC's consideration of the CBD exemptions takes into account many of the factors outlined above, as well as:

- The likely effect on retail competition for voice and bundled voice and broadband end-users if the exemption provisions are retained.

- The likely effect of above-cost prices for resale services in CBD areas on access seekers' ability to compete in the provision of bundled services or in the provision of services to corporate customers on a 'whole of business' basis.

- Limitations of substitutes for both self-supply and for resale services, including economies of scale in supplying small numbers of voice services to end-users.

- Limitations on retail substitution including the preferences of corporate end-users with a national base to be served by a single provider and the costs to end-users of changing customer premises equipment to use Voice over Internet Protocol (VoIP)-based voice services and special services.

The ACCC also considered whether resale services provided using NBN infrastructure should be excluded from the scope of declaration. In considering whether this will promote the LTIE, the ACCC has primarily considered the likely effect on retail competition in the provision of fixed voice services supplied using NBN infrastructure, including the likely availability to NBN-based retail service providers of resale services in a competitive aggregation market.

2.2.3 Interconnection services

In determining whether declaration of interconnection services will promote the LTIE, the ACCC has considered the following key issues:

- How market power arises in the provision of interconnection services, including whether the nature of interconnection services allows for substitution in termination and special numbers origination

- The likely impact of the exercise of market power on any-to-any connectivity.

- The effect on retail competition of any exercise of market power by network operators, including the ability to inefficiently raise prices in markets for fixed voice service termination and mobile voice service termination on fixed networks and for special numbers origination.

- The effect of declaration on encouraging efficient investments in new networks and network capacity and in the use of existing networks and network capacity.

3 State of competition in relevant markets

Key points

- The ACCC considers the relevant markets for this declaration inquiry to be the national markets for:
  - wholesale network access services
  - wholesale resale voice services
  - wholesale interconnection services
  - retail fixed voice services
  - retail fixed broadband services
  - retail bundled fixed voice and broadband services.
- The ACCC considers that, in the absence of declaration, the wholesale markets and retail markets would not display the characteristics of effectively competitive markets.

The ACCC may only declare a service if it is satisfied that declaration will promote the long-term interests of end-users (LTIE). In determining whether declaration will promote the LTIE, the ACCC must have regard to the extent to which declaration would result in the achievement of the objectives specified in section 152AB of the *Competition and Consumer Act 2010* (Cth) (CCA), which includes promoting competition in markets for listed services. This involves identifying the relevant markets for the services in question and assessing the state of competition within these markets.

Part XIC of the CCA does not require the ACCC to precisely define the scope of relevant markets for the purpose of a declaration inquiry.[12] The ACCC considers that in determining whether declaration will promote competition, it is sufficient to broadly identify the scope of the markets likely to be affected by the relevant declared service.

3.1 Summary of the ACCC's draft decision

3.1.1 Relevant markets

The ACCC's view in the draft report was that the relevant markets for the purpose of this declaration inquiry were the national markets for:

- fixed voice services
- fixed broadband services

[12] Foxtel Management Pty Ltd v Australian Competition and Consumer Commission [2000] FCA 589 at [172] per Wilcox J.

- bundled fixed voice and broadband services.[13]

In its discussion of these markets, the ACCC considered the functional levels of the relevant markets, that is, the retail and wholesale levels of those markets. For the wholesale level, the markets are the wholesale markets within which the currently declared fixed line services are supplied.

3.1.1.1 Wholesale markets

Network access services

Network access services are wholesale services that provide access to Telstra's copper network. An access seeker can provide voice and/or broadband services to end-users through access to Telstra's copper network and by installing their own equipment in Telstra's exchanges.

There are two declared network access services, which are the subject of this declaration inquiry:

- The unconditioned local loop service (ULLS)—This provides access to both the high and low frequency part of the copper line to allow access seekers to provide voice and/or broadband services.

- The line sharing service (LSS)—This allows use of the copper line to be shared by two parties by providing access to the high frequency part of the copper line only. This enables an access seeker to provide broadband only services to an end-user while voice services to that end-user are supplied by another service provider (typically Telstra).

The draft report considered the following substitutes for network access services:

- copper based resale services, that is resale voice services or resale broadband services, provided either by Telstra or by an access seeker

- services supplied over alternative infrastructure such as hybrid fibre coaxial (HFC) cable, optical fibre or fixed wireless networks, either for self-supply or wholesale supply to other retail service providers.

Copper-based resale services (voice and/or broadband)

The draft report stated that copper-based resale services, which involve the on-selling of voice and/or broadband services without the need for an access seeker to invest in its own exchange equipment, would be substitutable for network access services.[14]

Resale services allow an access seeker to supply voice and/or broadband services to end-users that are of comparable quality to voice and/or broadband services provided over an access seeker's own exchange equipment in conjunction with the ULLS or LSS.

An access seeker that has already made an investment in exchange equipment may not consider resale services to be a viable substitute in the event of a 5-10 per cent price increase of network access services, given it has already made this sunk investment. However, an access seeker currently considering whether or not to make an investment in exchange equipment may consider resale services an effective substitute in certain circumstances. For example, where an access seeker is considering deploying its own exchange equipment in areas with a low or a potentially low customer base, a 5-10 per cent increase in the price of

[13] ACCC, December 2013 Draft Report, p. 30.
[14] ACCC, December 2013 Draft Report, p. 27.

Telstra network access services may induce that access seeker to substitute resale services for network access services.

The draft report noted that access seekers tend to install exchange equipment and utilise network access services in exchange service areas with large customer bases. This increases the likelihood of an access seeker recouping its investments and enables them to achieve economies of scale and scope in providing voice and broadband services to end-users. Therefore the incentives for access seekers to substitute network access services for resale services are likely to be lower in regional and remote geographic areas.

The draft report noted further limitations to the substitutability of resale services. In particular, resale services cannot provide a complete substitute for network access services because they do not allow an access seeker the greater level of control over the quality and functionality of its retail products that is enabled by the use of the ULLS and LSS. Consequently, resale services do not enable an access seeker to develop innovative product offerings, which would allow it to compete more effectively in the retail market.

Alternative networks

As discussed above, resale voice and broadband services can be supplied to end-users over alternative fixed line networks. These alternative networks include:

- HFC networks—HFC is a combination of optical fibre and coaxial cable which can be used to provide fixed line voice services as well as high speed broadband services and television services to end-users.

- Optical fibre networks—These networks deliver broadband services by transmitting information as light pulses, and are capable of carrying information at greater data rates than copper wire. Voice services can also be provided over optical fibre networks, where they have been configured to provide these services. Examples of optical fibre networks are local fibre networks, such as Telstra Velocity estates, and the National Broadband Network (NBN).

- Fixed wireless networks—These networks are being built by the NBN Co, and potentially other operators, in rural and regional Australia. They can provide a steady stream of bandwidth to maintain a high speed internet connection without the need for laying new cables.

The draft report considered that it was unlikely that an access seeker would build and operate its own alternative network in response to a 5-10 per cent price increase for network access services, given the large and lumpy sunk investment involved and the associated lead times. Furthermore, the draft report noted that rollout of the NBN appears to have reduced the incentives for a carrier to invest in a large scale fixed network to compete with Telstra's copper network.

With respect to network access services available on existing HFC networks, the draft report stated that they were not a viable substitute as both Telstra's and Optus' HFC networks are not currently configured to provide wholesale services. Reconfiguring these networks to provide wholesale services would be costly and being vertically integrated, neither operator has an incentive to do so. Further, Telstra's HFC network is not currently configured to provide traditional voice services.

With respect to network access services supplied using local fibre networks or the NBN, the draft report noted that these services are not substitutable for network access services because they are generally only available in areas where there is no copper service.

Telstra submitted to the discussion paper that there are multiple fibre-based fixed access networks in CBD areas.[15] The ACCC considers that the substitutability of fibre-based services for copper-based network access services are limited by end-user demand in retail markets. The draft report considered that the costs of replacing customer premises equipment deters many end-users from switching to IP-based services supplied over fibre networks VoIP telephony) (see section 3.1.1.2 below).

The draft report noted that the substitutability of fixed wireless networks for network access services is limited because the geographic reach of these networks will be limited over at least the next five years and therefore are not a good substitute to network access services supplied using Telstra's ubiquitous copper network.

Resale voice services

Resale voice services typically refer to a bundle of three wholesale voice services: the wholesale line rental (WLR), local carriage service (LCS) and the public switched telephone network originating access (PSTN OA) services (pre-selection and override). These services allow an access seeker to provide the end-user with a full suite of voice services, (including local, long distance, international and fixed-to-mobile calls) without the need to invest in their own exchange equipment.

The draft report considered three potential substitutes available to access seekers in the event of a price increase for resale voice services:

- the self-supply of fixed voice services via the ULLS
- resale of fixed voice services by an access seeker via ULLS
- the supply of fixed voice services over an alternative end-to-end network such as a HFC or fibre optic network.

Self-supply of fixed voice services using the ULLS

As discussed in the section on network access services above, an access seeker can self-supply wholesale voice services by using the ULLS and installing its own voice enabling exchange equipment in Telstra's exchanges.

The draft report considered that the self-supply of voice services using the ULLS is not a close substitute for resale voice services.[16] In reaching this conclusion the draft report noted that there are barriers to entry in providing ULLS-based voice services, which include:

- the costs of investing in exchange equipment and associated switching equipment, which may vary depending on the exchange service area and the ability to exploit any economies of scale and scope that exist in particular regions
- other constraints such as the existence of pair gains and the ability to access exchange space in a timely manner.

Further, the availability of self-supply via the ULLS is expected to remain limited by access seekers' current digital subscriber line access multiplexer (DSLAM) footprint. As noted in the draft report, the NBN rollout is likely to have dampened access seekers' incentives to make new investments in copper-based exchange equipment, as there is a risk that such investments may become stranded before the payback period for the investment is reached. Additionally, the draft report noted that economies of scale in access seeker exchange

[15] Telstra, September 2013 submission, p. 20.
[16] ACCC, December 2013 Draft Report, p. 20.

equipment means that ULLS based supply of voice-only services is not commercially viable to some types of end-users (see section 3.1.1.2 below).

Resale of fixed voice services by an access seeker via the ULLS

In the event of a 5-10 per cent price increase of Telstra's resale services, an access seeker could substitute these services for comparable resale voice services supplied by another access seeker via its own exchange based equipment and the ULLS.

The draft report noted that the availability of these comparable resale services is limited geographically, by the size and location of access seekers' existing DSLAM footprint and the availability of spare capacity on access seekers' own equipment.

Further, the draft report noted that only a small number of access seekers offer wholesale services using their own infrastructure. Moreover these services are typically bundled with data services or have conditions that affect the substitutability of these services when compared with Telstra's resale voice services.

Resale and self-supply of fixed voice services using alternative networks

Owners of alternative networks can self-supply network access and associated services or supply resale services to access seekers. The draft report examined the substitutability for copper-based resale services of services supplied over other end-to-end networks such as HFC or optical fibre networks.

For the reasons noted above in the network access services section, it is unlikely that an access seeker would build and operate its own alternative network in response to a 5-10 per cent price increase for resale voice services.

Similarly, with respect to resale voice services provided over existing HFC and local fibre networks, the draft report concluded that these services are not substitutable for resale services provided over the copper network, for the same reasons as noted in the network access services section.

Interconnection services

Interconnection services are wholesale services which enable the handover of telephone calls between network operators. These services enable an end-user to call any other end-user regardless of their network or service provider.

There are two currently declared interconnection services:

- PSTN OA—This service enables the carriage of telephone calls from the calling party to a point of interconnect (POI) with an access seeker's copper network.

- PSTN TA—This service enables the carriage of telephone calls from a POI with the access seeker's network to the party receiving the call.

The pre-selection and override functions of PSTN OA services are used in combination with the other resale services (as discussed above in the resale voice services section). Consistent with the discussion and conclusion in the previous section the ACCC considers that the self-supply of fixed voice services via the ULLS is not substitutable for the pre-selection and override functions of PSTN OA services.

There are no substitutes for either PSTN OA (special numbers) services and PSTN TA services once an end-user has chosen their service provider since, in the case of termination services, a calling party has no control over the network on which the called party is located and, in the

case of special numbers, the called party has no control over the network on which the call originates (see chapter 6).

3.1.1.2 Retail markets

Retail fixed voice services

As indicated in the draft report, there are two potential substitutes for retail fixed voice services provided over the copper network:

- VoIP services, which are purchased as part of a broadband service
- voice services provided over other non-copper networks such as HFC and mobile networks.

POTS fixed voice to VoIP substitution

The draft report considered that Plain Old Telephone Service (POTS) emulation and carrier grade VoIP are substitutable for a fixed voice service provided over the copper network. However, the ACCC considered that there are some technical limitations to the substitutability of carrier grade VoIP, such as the need to acquire a broadband service and a VoIP-enabling phone or modem.

The draft report considered that application layer VoIP is a weak substitute for a fixed voice service due to its inferior quality.

The draft report also noted that carrier-grade and application layer VoIP are not available during power outages. They also do not facilitate the connection to emergency services or other special point of sale services such as EFTPOS. Moreover, some businesses may require voice-only lines for complex services, such as alarms, metering equipment and EFTPOS equipment, which are not only available if the end-user upgrades their customer premises equipment.

Alternative networks

The draft report stated that, for most end-users, mobile services are mainly used as a complement to fixed voice services, rather than a substitute.[17] The draft report noted that some pricing features of the fixed line services are unlikely to be replicated by mobile services, such as the untimed local call feature. The draft report also cited evidence that some end-users are hesitant to go 'mobile-only' due to higher mobile charges or concerns about the reliability and coverage of mobile networks, and evidence that the majority of Australians use various communications devices to suit their specific needs and circumstances rather than relying on an individual device.

With respect to fixed voice services provided over HFC, the draft report noted that network technology is unlikely to be a material factor in an end-user's decision making process. However, the draft report noted that the geographic reach of HFC networks remains limited and that only Optus' network is configured to provide traditional voice services. Therefore, in practice, the substitutability of HFC-based voice services for copper-based voice services will be limited.

The draft report also noted that some businesses may require voice-only lines for complex services, such as alarms, metering equipment and point of sale equipment like EFTPOS. The ACCC notes that some of these services cannot currently be supplied on non-copper networks or might not be available at a comparable level of quality. Further, as outlined above with

[17] ACCC, December 2013 Draft Report, pp. 17-19.

respect to network access services, switching costs for customer premises equipment is likely to promote customer inertia.

Retail fixed broadband services

A fixed broadband service can be defined as a high bandwidth carriage service that can be characterised as an 'always on' connection that generally (but not always) involves the carriage of communications at through-put speeds equal to or greater than 256 Kbps.

As discussed in the draft report, defining the relevant markets for fixed broadband services involves considering alternative ways in which end-users can purchase these services. From an end-user's perspective, there are two potential substitutes for fixed broadband service provided over the copper network:

- broadband provided over an alternative fixed network (HFC or optical fibre)
- broadband provided over mobile networks (mobile broadband).

Alternative fixed networks

The draft report stated that broadband services delivered using HFC and optical fibre networks are substitutable for fixed broadband services provided over the copper network. In reaching this view, the draft report noted that, from an end-user perspective, the services supplied over HFC support similar downstream applications to fixed broadband services provided over the copper network. In terms of relative price levels, broadband plans are marketed based on speed, not on the underlying network technology.

With respect to broadband services delivered over optical fibre networks, the draft report noted that this technology is currently not in wide use for supplying residential services. Optical fibre is being used in the NBN rollout and in some new estates. End-user attitudes and the ability to supply retail services using the optical fibre technology that are comparable to DSL services supplied using Telstra's copper network suggest that these services are a substitute for fixed broadband services provided over Telstra's copper network.

Mobile broadband

The draft report stated that mobile broadband services are generally being used as a complement to, rather than a substitute for, fixed broadband services provided over the copper network. The quality and price of mobile broadband services, especially when considering data intensive applications, is typically inferior to fixed broadband services. Continued strong growth in data usage in fixed line networks support the view that end-users are not substituting their fixed line service in favour of a mobile service.[18]

Bundled retail fixed voice and broadband services

End-users can acquire fixed voice and fixed broadband services separately from different retail services providers or from the same provider as standalone products.

More commonly, however, end-users, particularly residential end-users, who acquire both fixed voice and fixed broadband services, purchase them as a bundle from a single service provider. As noted in the draft report, this is because the total cost of an unbundled voice and an unbundled broadband service will typically cost more than a bundled fixed voice and broadband service. For corporate and government end-users, the draft report noted that retail service providers tend to offer 'whole of business' discounts if they purchase all of their telecommunications services from the same retail service provider. Furthermore, the draft report noted that end-users (both the residential and the corporate and government segments)

[18] ACCC, December 2013 Draft Report, p. 25.

often prefer the convenience of dealing with a single service provider and receiving only one bill for voice and broadband services. These factors reduce the substitutability of standalone fixed voice and fixed broadband products for a bundled product.

However, the draft report noted that an end-user's willingness to switch from purchasing standalone products to a bundle will depend on other factors such as awareness and/or acceptance of the bundled product, as well as switching costs.

3.1.1.3 Geographic dimension of the wholesale and retail markets

As noted in the draft report, the delineation of the relevant geographic markets involves identifying the area or areas over which a product or service is supplied or could be supplied. For the purpose of this declaration inquiry, the draft report proposed to adopt a national market definition for the relevant markets identified above.

At the retail level, residential end-users typically only require fixed line services at their premises within an exchange services area (ESA) and there would be costs for those end-users in relocating to another ESA. However, the ACCC notes that retail service providers generally compete nationally for end-users and, adopt a national approach to setting prices. Additionally, the ACCC notes that business end-users often have premises in more than one ESA and the larger corporate and government end-users typically operate nationally. Corporate and government end-users generally prefer 'whole of business' service provision, where all of their telecommunications needs are provided by the same service provider. This provides the advantages of convenience, reduced administration costs and often 'whole-of-business' discounts, which are typically offered by Telstra and other retail service providers to capture all of the retail customer's business.

At the wholesale level, there are also economies of scale and scope in operating networks and providing services nationally. Therefore, for the purpose of this declaration inquiry, and recognising the commercial realities of the industry, the ACCC has adopted a national market definition for the relevant markets identified in this chapter.

3.1.2 The state of competition in the relevant markets

The draft report noted that Telstra has significant market power in both the wholesale and retail markets for fixed voice services, fixed broadband services and bundled fixed voice and broadband services. Telstra's market power arises from its control of the ubiquitous copper access network infrastructure required to provide fixed voice and fixed broadband services, and from its vertical integration.

The ACCC considered that, in the absence of declaration, the wholesale markets and retail markets would not display the characteristics of effectively competitive markets.

3.1.2.1 State of competition in the relevant wholesale markets

Network access services

The draft report noted that Telstra is the only supplier of copper-based network access services nationally, that is, it has monopoly power in the provision of these services. While network access services will be provided by NBN Co as the NBN is rolled out, the rollout is still in its early stages and the ACCC expects that the use of Telstra's copper network to supply retail voice and broadband services will remain significant over the next five years. Alternative fixed line networks, such as HFC networks, typically do not supply wholesale network access services.

Consequently, Telstra's control of the copper network, and its vertical integration, means that, absent declaration, it would have the incentive and ability to discriminate against its competitors

in retail markets by either denying access to its network or by offering network access services on unreasonable terms and conditions.

Resale voice services

The draft report noted that Telstra is the dominant provider of resale voice services nationally and its ownership of the ubiquitous copper network is likely to confer a competitive advantage until the NBN rollout is further progressed.

The ACCC noted in the draft report that only a small number of access seekers offer wholesale voice services using their own infrastructure. These voice services are typically bundled with data services or have conditions that effectively reduce the competitiveness of those services compared to Telstra's resale fixed voice services offerings.

Furthermore, the provision of resale voice services supplied by access seekers requires ongoing access to the ULLS on reasonable terms and conditions.

Interconnection services

The draft report considered that there are no substitutes for standalone interconnection services (PSTN OA (special numbers) and PSTN TA) and, as such, there is no competition in their supply.

The level of competition in the provision of PSTN OA (pre-selection and override) is derived from the level of competition in the provision of resale voice services, as it is an input to the bundle of resale services. As noted above, the market for resale voice services does not display characteristics of an effectively competitive market.

3.1.2.2 State of competition in the relevant retail markets

Fixed voice services

As noted in the draft report, the market for fixed line voice services remains highly concentrated. Telstra remains the dominant player of fixed voice services with a market share of 63 per cent[19] and benefits from its ability to exploit economies of scale and scope. While market share is a significant measure of competition, the degree of competition within fixed line voice services also depends on how those services are supplied. As the operator of the only national customer access network, Telstra benefits from its vertical integration. Telstra's ongoing dominance suggests that there are barriers to effective competition.

Fixed broadband services

The draft report noted that there are five major internet service providers operating in the retail market for fixed broadband services in Australia, which together accounted for approximately 86 per cent of fixed broadband subscribers in 2012-13. These providers have been gaining market share from the smaller providers in recent years, both by attracting new customers and through industry consolidation. However, Telstra retains the largest market share for fixed broadband services.

The draft report also noted that, with respect to the supply of retail fixed broadband services over the copper network, the level of competition varies between geographical areas but Telstra continues to be the most significant provider nationally. Telstra remains the operator of the only national customer access network, which is likely to confer a competitive advantage on Telstra in providing these services.

[19] ACCC, *ACCC Telecommunications reports 2012-13*, February 2014, p. 25.

Bundled fixed voice and broadband services

The draft report noted that take-up of bundled voice and broadband services is increasing, especially by residential customers. The draft report cited a recent Australian Communications Media Authority report that showed that approximately 67 per cent of internet service providers provide voice services to their customers, compared with 61 per cent at June 2011.[20] The draft report noted that all major retail voice and broadband service providers provide bundled services to end-users. As discussed above, buying an unbundled voice and an unbundled broadband service is typically more expensive than buying a bundled fixed voice and broadband service.

Retail service providers are able to offer cheaper bundled services than standalone products because they can exploit economies of scale and scope in providing both voice and broadband services over their copper-based equipment. Telstra has the largest network of copper-based equipment and as such is likely to have a competitive advantage in supplying bundled voice and broadband services.

3.2 Summary of submissions

The ACCC received two submissions —from Optus and Telstra—on the ACCC's draft view on the relevant markets. Optus' submission suggested that the ACCC had not identified the full suite of related downstream markets which are affected by the declaration of the wholesale services, specifically the mobile to fixed voice market.[21]

Optus also reiterated its previous submission that carrier grade VoIP is not a significant substitute for fixed voice services (as only a segment of the market is happy to trade price for quality and adopt dedicated equipment) and agreed with the ACCC that:

- broadband services supplied over alternative fixed networks are substitutable for fixed broadband services over a copper network
- mobile broadband services are not substitutable for fixed broadband services provided over a copper network.

Optus noted that Telstra remains the dominant retail provider for the fixed voice, fixed broadband and the fixed bundled markets. Optus also stated that the level of competition in retail markets has not materially improved since the last declaration inquiry. Further, Optus noted that data cited in the ACCC's draft report shows that, since the last regulatory period, there has been no material impact upon Telstra's monopoly power in the supply of exchange based infrastructure across the various bands of ESAs.

Telstra's consultant, Paul Paterson, agreed with the ACCC that relevant markets are the national markets for the wholesale and retail supply of fixed voice services and the retail supply of a bundle of fixed voice and broadband services. However, Mr Paterson considered that the overall effect on the national markets of removing the CBD exemptions from resale service declarations should be considered in assessing the LTIE with and without the exemptions. This is discussed in detail in section 5.2 of this report.

3.3 ACCC's final view

3.3.1 Relevant markets

Consistent with the draft report, the ACCC has identified the relevant retail markets to be the national markets for fixed voice, fixed broadband and bundled fixed voice and broadband.

[20] ACMA, *Communications report 2011-12*, p. 39.

[21] Optus, February 2014 submission, p. 7.

In line with the analysis in the draft report, the ACCC has identified the relevant national wholesale markets for the currently declared services, which are inputs into the above retail markets, to be the markets for network access services, resale voice services and interconnection services.

The ACCC notes Optus's statement that the mobile-to-fixed voice services are affected by the declaration of public switched telephone network terminating access (PSTN TA) services. The ACCC has considered the effect of declaration on mobile-to-fixed voice services in chapter 6 of this report.

3.3.2 The state of competition in the relevant markets

Consistent with the draft report, the ACCC considers that Telstra is either the only provider, or has significant market power, in the wholesale markets for network access services, resale services and interconnection services, and has significant market power in the retail markets for fixed voice services, fixed broadband services and bundled fixed voice and broadband services. The ACCC considers that Telstra's market power arises from its control of the copper access network infrastructure required to provide wholesale and retail services, as well as its vertical integration, which provides it with the incentive and ability (absent declaration) to discriminate against access seekers in providing wholesale services on reasonable terms and conditions.

Further, the ACCC considers that Telstra's market power is supported by its ability to exploit economies of scale and scope. Telstra has a dominant market share and large customer base in the wholesale markets for network access services, resale services and interconnection services provided on the copper network and a dominant market share in the market for retail fixed voice services. The ACCC does not expect these circumstances to change significantly over the next five years as the rollout of the NBN is progressed.

The ACCC considers that, in the absence of declaration, the wholesale markets and retail markets would not display the characteristics of effectively competitive markets.

4 Network access services

Key points

- The ACCC has decided to extend the declarations for the unconditioned local loop service (ULLS) and the line sharing service (LSS). The ACCC considers that during the transition to the National Broadband Network (NBN), Telstra's customer access network (CAN) will remain a bottleneck.
- All submissions to this inquiry supported the continued declaration of these services.
- The ACCC has decided to amend the ULLS service description to ensure consistency with the LSS service description.
- The ACCC has decided to amend the definition of voice and public switched telephone network (PSTN) service in the LSS service description to ensure consistency with the wholesale ADSL service description.
- The ACCC will not vary the ULLS and LSS service descriptions to allow for sub-loop unbundling at this time. It will consider whether to commence a variation inquiry to declare access to the sub-loop, if necessary, once the implementation details for fibre to the node (FTTN) have been determined.

Telstra supplies two wholesale services that allow access seekers to use its network of copper wires. These services are the ULLS and LSS. Access seekers can purchase the ULLS and install their own equipment in Telstra's telephone exchanges to provide voice (telephone) and broadband services. The LSS only provides access to the high frequency part of the copper line, which is used to provide broadband services. The LSS is only supplied when there is an active voice service on the line.

4.1 Network access services

4.1.1 Summary of the ACCC's draft views

The draft report considered that continuing to declare network access services will promote the long-term interests of end-users (LTIE) by promoting competition and encouraging the efficient use of, and investment in, infrastructure.

In its draft decision, the ACCC indicated that if the declaration of these network access services were not extended, Telstra would have significant power in the negotiation of commercial terms and conditions for these services and would have the ability to refuse access to its copper network to access seekers on reasonable terms and conditions.[22]

The draft report also noted that regulated access to the ULLS and LSS will enable access seekers to compete with Telstra in all retail dimensions of fixed broadband and fixed voice supply. The draft report considered that the ULLS and LSS remains an enduring bottleneck service where Telstra controls access to the network necessary to provide services to end-users.

The draft report noted that there has been strong growth in the number of services in operation (SIOs) and end-users served by access seekers using the ULLS. The ACCC considered that if

[22] ACCC, December 2013 Draft Report, pp. 41-42.

the declaration of these network access services were extended, both Telstra and access seekers would continue to have incentives to differentiate their products and sell them at competitive prices to their customers. Extending the declaration of these network access services would also support the provision of wholesale fixed voice and wholesale broadband services by ULLS-based access seekers seeking to exploit unused capacity or potential economies of scale on their own networks. This in turn would promote competition in the relevant markets that benefits end-users.

Importantly, the draft report considered that there are no viable alternative sources for access seekers to supply these services to end-users. If access seekers relied solely on resale alternatives, they would have less scope to differentiate their retail products. In regard to the HFC and wireless networks, the draft report did not consider these alternative networks to be effective substitutes for the ULLS and LSS for reasons discussed in chapter 3.1.[23]

The draft report considered that extending the declaration of the ULLS and the LSS would encourage the efficient use of, and efficient investment in, infrastructure. The draft report also considered that extending the declaration of the ULLS and LSS would promote greater competition in retail markets and thereby encourage improved productive and dynamic efficiency. Access providers and access seekers would be more likely to invest and innovate to ensure they produce services of a given quality at the lowest possible cost. Allocative efficiency would also be promoted because stronger retail competition leads to prices for retail services that better reflect the most efficient, and lowest cost, methods of providing these services.[24]

Finally, the ACCC noted that extending the declaration of these network access services would still allow Telstra to exploit economies of scale and scope and to earn a reasonable commercial return through the regulated prices for these services.[25]

4.1.2 Submissions

The ACCC received five submissions in response to the draft report, commenting on the future regulation of network access services. AAPT, iiNet, Macquarie Telecom, Optus and Telstra all supported the continued declaration of the ULLS and LSS. AAPT and iiNet agreed with the ACCC's views that continued declaration will promote the LTIE.[26]

Macquarie Telecom agreed with the ACCC that Telstra's network will remain an enduring network bottleneck at least until the National Broadband Network (NBN) is rolled out and that continued declaration of network access services is in the LTIE.[27]

Optus expressed similar views and stated that the level of competition has not changed to warrant the removal of regulation, with Telstra's copper network representing around 95 per cent of all fixed line communications connections in the national market.[28] Optus further submitted that the number of ULLS and LSS SIOs represent around 20 per cent of SIOs on Telstra's copper network and has remained largely static in recent years. Optus questioned whether competition has been adequately promoted when only 20 per cent of SIOs are supplied by competitive providers.[29] Optus also submitted that Telstra remains the dominant player in the provision of retail fixed voice services with a market share of 74 per cent in June 2013.[30] It stated that more needs to be done to promote the LTIE and that reasonable pricing of the ULLS and LSS is likely to support greater retail competition.[31] Optus submitted that the

23 ACCC, December 2013 Draft Report, p. 42.
24 ACCC, December 2013 Draft Report, p. 43.
25 ACCC, December 2013 Draft Report, pp. 42-43.
26 AAPT, February 2014 submission, p. 1 and iiNet, February 2014 submission, p. 3.
27 Macquarie Telecom, February 2014 submission, pp. 1-2.
28 Optus, February 2014 submission, p. 3.
29 Optus, February 2014 submission, p. 12.
30 Optus, February 2014 submission, p. 4.
31 Optus, February 2014 submission, p. 12.

ACCC should ensure that access seekers are able to acquire new subscribers at the same cost as Telstra.[32]

Optus also submitted that static efficiency should be at the forefront of this declaration.[33] Optus considers that the next declaration period is most likely to be the last period in which Telstra's copper network remains the dominant fixed line network. Over the period of the next declaration, Telstra will migrate customers to the NBN and shut down the CAN.[34]

Telstra submitted that declaration will benefit end-users as service providers will be able to continue to access services that underpin their current products and will be able to invest to meet the evolving needs of end-users.[35]

4.1.3 The ACCC's final views

The ACCC has decided to extend the declaration of network access services. The ACCC is satisfied that extending the declaration will promote the LTIE.

4.1.3.1 Will extending the declarations promote competition?

In determining whether extending the declaration of the ULLS and LSS will promote the LTIE, the ACCC must assess whether declaration would result in the achievement of promoting competition in the relevant markets for these services.

The ACCC confirms its draft view that, without extending the declaration, Telstra will have significant market power in the negotiation of commercial terms and conditions for these services. In particular, Telstra will have the power to charge higher prices for the network access services and access seekers will be unable to compete effectively with Telstra by offering products to end-users at competitive prices. Without competition from other retail service providers, Telstra will have monopoly power and less incentive to provide a wide variety of products at the most competitive prices to consumers.

The ACCC considers that the ULLS and LSS are important inputs to the supply of fixed voice, fixed broadband and bundled fixed voice and fixed broadband services in the retail market. This is evidenced by the long-term increase in the take-up of network access services, as shown in figure 4.1. In particular, the number of ULLS SIOs has steadily increased since 2005.

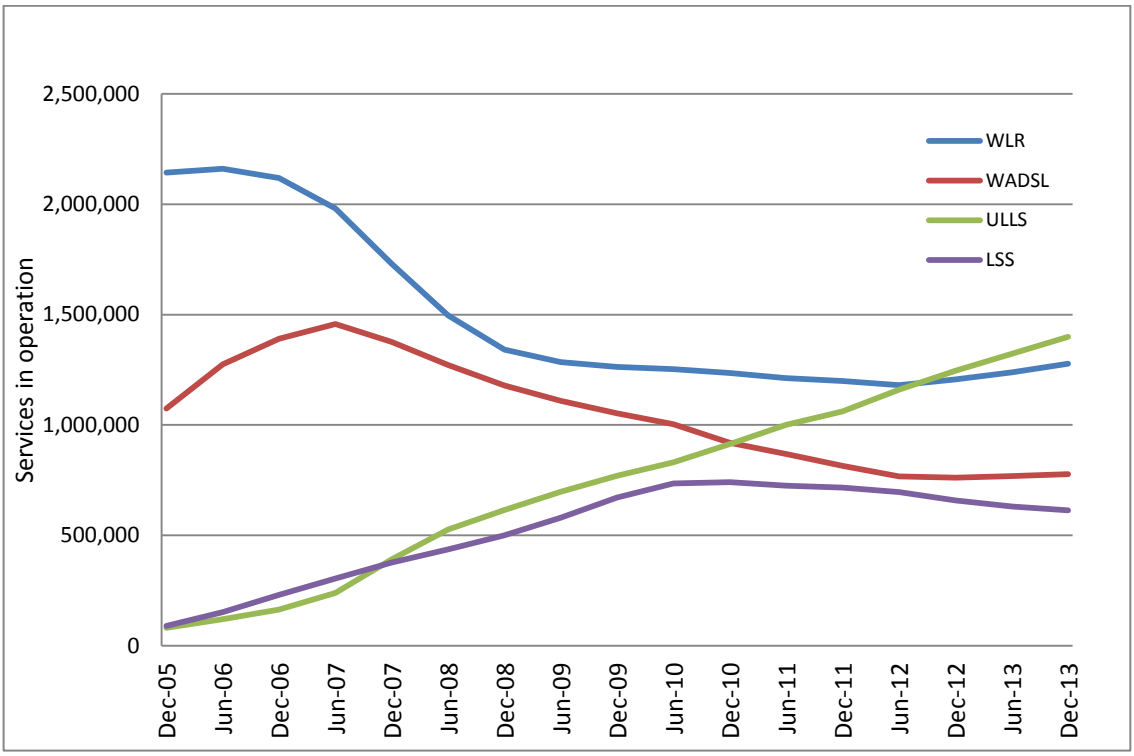
32 Optus, February 2014 submission, p. 5.

33 Static efficiency is concerned with the most efficient use of resources at this current period as opposed to future periods.

34 Optus, February 2014 submission, pp.12-13.

35 Telstra, February 2014 submission, p. 3.

Figure 4.1 Trends in the supply of Telstra's declared fixed line services



Source: This time series of data has been compiled from two five-year summaries released as part of Telstra's June 2010 and June 2013 financial results. This data is available on Telstra's website at: http://www.telstra.com.au/abouttelstra/investor/financial-information/financial-results/index.htm.

The increase in the number of SIOs supplied using network access services has coincided with:

- decreases in the average price of retail broadband services (in real terms) every year since the ACCC began recording the information in 2007
- increases in data allowances in recent years, resulting in the average effective price per GB decreasing significantly (from approximately $30/GB in 2007 to less than $1/GB today).

Extending the declaration of the ULLS and LSS will enable access seekers to compete with Telstra in all retail dimensions of fixed broadband and fixed voice supply. Competition in the retail market provides incentives for access seekers and Telstra to differentiate their retail service offerings and provide end-users with the products and quality they demand.

The ACCC considers that extending the declaration of ULLS and LSS will promote greater competition in related downstream markets and will provide to access seekers with greater flexibility to develop products which meet the needs of their end-users. The ACCC notes Optus's submissions that reasonable pricing for ULLS and LSS is likely to support retail competition. The ACCC will consider the pricing of network access services in its inquiry into making new FADs for these services.

If the ULLS and LSS were not declared, access seekers would only have two alternative sources of inputs; resale services supplied by Telstra or wholesale services provided over other networks, such as HFC or wireless networks. Access seekers would likely still be able to access the ULLS and LSS, but not necessarily on reasonable terms and conditions since,

absent declaration, vertically integrated infrastructure operators have incentives to set access terms and conditions that hinder access seekers ability to compete in supplying retail fixed broadband and retail fixed voice services. Further, the ACCC maintains its view that reliance on resale alternatives limits an access seeker's ability to effectively compete across product and price service dimensions of fixed voice and bundled fixed voice and broadband services because they have less scope to differentiate their retail service offerings. The ACCC confirms its draft view that alternative networks are not effective substitutes for the ULLS or LSS for reasons discussed in chapter 3.1.

The ACCC notes that the NBN rollout will, in time, replace parts of Telstra's copper network as end-users are migrated onto the NBN. However, the ACCC agrees with Optus and Macquarie Telecom that Telstra's copper network will remain a bottleneck service in the provision of fixed line broadband and voice services for some time.

4.1.3.2 Will extending the declarations encourage the economic use of, and efficient investment in, infrastructure?

The ACCC considers that extending the declarations of the ULLS and LSS will encourage the economic use of, and efficient investment in, infrastructure.

Continued declaration of the ULLS and LSS will enable greater competition in retail markets (than if the services were not declared) and, therefore, improve productive and dynamic efficiency. Access providers and access seekers will have incentives to both invest and innovate to ensure they produce services of a given quality at the lowest possible cost on an ongoing basis; this will promote productive and dynamic efficiency. Allocative efficiency is likely to be improved by continued ULLS and LSS declaration because stronger retail competition will lead to cost-reflective prices for retail services. By ensuring access prices better reflect efficient costs, continued declaration will lead to appropriate signals for efficient access seeker investment decisions.

The ACCC considers that in the absence of the ULLS or LSS declarations, the ability of access seekers to acquire these services, or to acquire them on reasonable terms and conditions, during the transition to the NBN is likely to be reduced. As a result, access seekers' incentives for efficient investment in infrastructure may be distorted.

The ACCC notes that the implementation of the NBN will take some time and there may be opportunities for efficient investment in copper-based infrastructure during that time. However, the ACCC considers that, if the declarations were not extended, Telstra would have the ability and incentive to charge prices for the ULLS and LSS that exceed the efficient costs of supplying those services. This would increase the costs to access seekers of using their existing copper-based Digital Subscriber Line Access Multiplexers (DSLAM) equipment and could lead to less than efficient use of access seekers' infrastructure investments and disincentives to undertake any further investments that may otherwise be efficient and commercially viable.

As noted in chapter 2, an infrastructure operator's legitimate commercial interests relate to its obligations to the owners of the firm (i.e. shareholders), including the need to recover the costs of providing services and to earn a normal commercial return on the investment in infrastructure. The ACCC considers that Telstra will still be able to exploit economies of scale and earn a commercial return on its network investments if the declarations of the ULLS and LSS are extended. Regulated prices for the ULLS and LSS are set to allow Telstra to recover the efficient costs of supplying and charging for these services, including its costs of investing in, maintaining and operating its network. The ACCC agrees with Optus that the declaration of the ULLS and the LSS is not detrimental to Telstra's legitimate commercial interests.[36]

[36] Optus, February 2014 submission, p.13.

4.2 Service descriptions

4.2.1 Summary of the ACCC's draft views

The draft report considered that an amendment to the ULLS and LSS service descriptions is not necessary to include the internal interconnect cable (IIC) service.[37] The ACCC did not receive any submissions on this issue.

In its draft report, the ACCC proposed to amend the LSS service description to remove the word 'or aluminium' from the definition of communications wire to ensure consistency with the ULLS service description.[38] The ACCC considered that this amendment would have no practical effect. The ACCC proposed the following change to the LSS service description:

> ***communications wire*** *is a copper ~~or aluminium~~ wire forming part of a public switched telephone network.*

Telstra submitted that instead of amending the LSS service description to remove 'aluminium', the ACCC should amend the ULLS service description to include 'aluminium' as there is aluminium present in Telstra's CAN.[39] No other submissions were received on this issue.

In its draft report, the ACCC also proposed to amend the LSS service description[40] by changing the definition of voiceband PSTN service in the following way:

> ***voiceband PSTN*** *service is a service provided by use of a public switched telephone network and delivered by means of the voiceband portion of the frequency spectrum available over ~~of a metallic~~ copper line.*

Telstra submitted that the definition should remain unchanged in referring to 'metallic' instead of 'copper'. Telstra's reasoning is that this would retain greater consistency with the wholesale ADSL service description, which refers to the service being provided 'over a twisted metallic pair'.[41] No other submissions were received on this issue.

4.2.2 The ACCC's final views

4.2.2.1 The ULLS and LSS service descriptions will not be amended to include the IIC service

The ACCC has decided that an amendment to the service description is unnecessary because it can regulate the IIC by specifying terms and conditions in the FADs for the ULLS and LSS. This is further discussed in chapter 7 of this report.

4.2.2.2 The ULLS and LSS service descriptions will not be amended to remove the words 'or aluminium'

The ACCC has decided to leave 'aluminium' in the LSS service description and amend the ULLS service description to include 'aluminium' in the definition of communications wire.

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37 ACCC, Draft Report, p.89.
38 ACCC, Draft Report, p.41.
39 Telstra, February 2014 submission, p.18.
40 ACCC, Draft Report, p.96.
41 Telstra, February 2014 submission, p.18.

4.2.2.3 The ULLS and LSS service descriptions will not be amended to change 'metallic' to 'copper'.

The ACCC has decided not to change 'metallic' to 'copper' in the service description.

4.3 Sub-loop unbundling

As noted in the draft report, the current ULLS (and LSS) service descriptions involve access to an unconditioned communications wire in the CAN between the boundary of a telecommunications network (on the customer end-user side) and a point where the communications wire terminates.[42] Currently, the communications wire terminates at the local exchange. In contrast, access to the sub-loop would involve access at a new point between the customer end-user and the local exchange along the communications wire. That is, unbundling at the sub-loop level would enable an access seeker to gain access to a smaller part of the local copper loop.

This issue was considered in 2007 in an ACCC inquiry into varying the ULLS service description following a request from the G9 consortium of companies to ensure that sub-loop access falls within the definition of the declared ULLS. The G9 consortium submitted that a variation would provide certainty for a fibre to the node (FTTN) provider, as the provision of services over the network would be contingent on access to the sub-loop.[43] The ACCC decided that there was no need at that time to vary the ULLS declaration for the purpose of access or unbundling at the sub-loop level due to the uncertainty about whether, and how, an FTTN network might be implemented.

4.3.1 Summary of the ACCC's draft views

In its draft report, the ACCC considered several practical issues associated with varying the ULLS service description to include sub-loop access within the definition of the declared ULLS.[44]

Location of customer access module

The current service description for the ULLS requires Telstra to provide access to an exchange or cabinet if a customer access module (CAM) is present. The CAM is the electronic equipment necessary to provide the traditional voice service to end-users. However, depending on how an FTTN is implemented, a CAM may not necessarily be located at a node.

Economics of unbundled access at the sub-loop level

It may not be economically and financially viable for access seekers to install their own DSLAMs and switching equipment at nodes. Due to the smaller addressable market available from nodes and higher per unit costs of equipment (compared to the deployment of DSLAMs and switching equipment at the local exchange), a significantly large proportion of the total number of customers in each distribution area would need to be secured by any one access seeker to meet the minimum efficient scale necessary to deploy infrastructure within a particular distribution area. In addition, there may be space limitations in nodes that present difficulties for installing DSLAMs.

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42 ACCC, Draft Report, p.44.

43 ACCC, *Unconditioned Local Loop Service: ACCC inquiry into possible variation of the service declaration for the unconditioned local loop service*, Position Paper, December 2007, p. 2.

44 ACCC, Draft Report, pp.45-47.

Implications of vectoring for unbundled access

'Cross-talk' may occur with sub-loop unbundling. Cross-talk occurs when one xDSL service interferes with other xDSL services transmitted over copper pairs that are in close proximity to each other (i.e. within a cable).[45] Currently street cabinet providers must comply with a maximum power and spectrum limit to ensure that a certain level of performance can be achieved for xDSL services provided over the ULLS to avoid cross-talk. In effect, this means that the capacity to provide higher xDSL through-put data-rates for equipment located at a cabinet would be significantly compromised and that some of the benefits of deploying a FTTN network may not be fully realised.

Vectoring can reduce cross-talk by cancelling out some of the interfering signals and allow higher transmission rates to be reached in the existing copper tail (or sub-loop) local network than has thus far been the case with the already advanced very high bit-rate (VDSL) vectoring technology. However, with current technologies, the use of vectoring is more effective when a single company controls the use of all the copper pairs in the street cabinet. This would make unbundled access impractical where VDSL technology is being used.[46]

After considering these issues, the ACCC's draft view was that it will be in a better position to consider the declaration of sub-loop services further, if necessary, when details of any FTTN implementation have been determined.

4.3.2 Submissions

Telstra was the only submitter to provide views on sub-loop unbundling. Telstra agreed with the ACCC that consideration of this question should be deferred until details of any FTTN implementation have been determined.[47]

4.3.3 The ACCC's final view

The ACCC confirms its draft decision to consider the declaration of sub-loop services further, if necessary, when details of any FTTN implementation have been determined. In any future inquiry into sub-loop unbundling, the ACCC will consider the likely market demand for sub-loop unbundling and whether declaring sub-loop access will promote the LTIE.

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45 ACCC, *Unconditioned Local Loop Service: ACCC inquiry into possible variation of the service declaration for the unconditioned local loop service,* Position Paper, December 2007, p. 14.

46 Bundesnetzagentur, Press release 'Companies should drive forward rapid broad-band roll-out', 29 August 2013. http://www.bundesnetzagentur.de/SharedDocs/Pressemitteilungen/EN/2013/130829_DecisionVectoring.html

47 Telstra, February 2014 submission, p. 18.

5 Resale services

Key points

- The ACCC has decided to extend the declarations for resale services (wholesale line rental (WLR), local carriage service (LCS) and the pre-selection and override functionality of the PSTN OA) service). The ACCC is satisfied that extending the declaration of these services will promote the long -term interest of end-users (LTIE). It is also likely to promote competition in the relevant markets and encourage the economically efficient use of, and investment in, infrastructure.

- Resale services play an important role in promoting competition in the retail market for fixed voice services because they lower barriers to entry by enabling access seekers to supply end-users with traditional voice services without having to invest in their own equipment in Telstra's telephone exchanges. Extending the declaration of resale services will allow access seekers to efficiently maintain or build their customer bases as the industry transitions to the National Broadband Network (NBN).

- The ACCC has decided to vary the WLR, LCS and the public switched telephone network originating access (PSTN OA) service descriptions to exclude resale services supplied using NBN infrastructure from the scope of regulation. The ACCC considers that there is evidence for the likely emergence of a competitive wholesale market in supplying competitively-priced resale services using NBN infrastructure.

- The ACCC has decided to vary the service descriptions for WLR and LCS to remove the existing CBD exemptions. The removal of the CBD exemptions will enable access seekers to compete more effectively with Telstra to offer competitively priced products to end-users with locations in CBD areas and in CBD and non-CBD areas. This will provide end-users with additional choices in terms of service provider and increased competition in retail service dimensions, and thereby promote the LTIE.

Resale services enable access seekers to supply end-users with traditional voice (and broadband) services without having to invest in their own equipment in Telstra's telephone exchanges. Resale services enable access seekers to compete in the downstream retail markets by adding their own retail functions such as marketing, billing and other customer services.

There are two resale voice services that are the subject of this declaration inquiry—the WLR service and the LCS.[48] The WLR provides access to the low frequency part of the copper line to enable fixed voice calls and includes a dial tone and telephone number. The LCS involves the carriage of a telephone call from one end-user to another end-user in the same standard zone or local exchange area.

The WLR and the LCS are typically purchased together with the pre-selection and override functions of the public switched telephone network originating access (PSTN OA) service to enable access seekers to supply local, long distance, fixed-to-mobile and international calling services to end-users.

The PSTN OA service is an interconnection service for the handover of telephone calls between network operators. By allowing an end-user to call any other end-user regardless of

[48] This fixed services review declaration inquiry does not consider the declaration of resale broadband services. The ACCC declared the wholesale asymmetric digital subscriber line (ADSL) service for five years in February 2012. The declaration of this service does not expire until 2017.

the network they are on, these services promote any-to-any connectivity. Interconnection services are discussed in chapter 6 of this report. However, the pre-selection and override functions of the PSTN OA service are considered in this chapter because these services are part of the bundle of resale services an access seeker would typically acquire to provide end-users with fixed voice calls.

The pre-selection function enables an end-user to nominate a preferred supplier for particular services (such as long distance and international calls) that is not the provider supplying their telephone connection and local calls. The pre-selected provider then becomes the default service provider for those particular services. Resale-based providers typically use pre-selection in conjunction with their own long distance network (or with long distance services purchased from a provider other than Telstra) to supply a full suite of voice services to their end-users.

The override function is similar, but it requires end-users to dial a special code each time they wish to make calls using a different service provider. These services enable an end-user to choose a different service provider for different call types, such as international and long distance calls. The draft report noted that use of this functionality is declining, perhaps due to an end-user preference for purchasing the complete bundle of fixed voice services from a single retail service provider.

This chapter considers four main issues in relation to resale services. Section 5.1 sets out the ACCC's conclusions on whether extending the declaration of resale services will promote the long-term interest of end-users. Section 5.2 sets out the ACCC's decision on the CBD exemptions currently contained in the service descriptions for the WLR and LCS. Section 5.3 sets out the ACCC's decision on resale services provided over the NBN. Section 5.4 describes the changes that will be made to the service descriptions to give effect to the ACCC's final decision on the declaration of resale services.

5.1 Resale services

5.1.1 Summary of the ACCC's draft views

The ACCC's draft report proposed that extending the declaration of the WLR, LCS and PSTN OA (pre-selection and override) services would promote the LTIE by promoting competition, particularly in the retail market for fixed voice services, and by encouraging the efficient use of, and investment in, infrastructure.[49]

5.1.1.1 Will extending the declaration promote competition?

The draft report noted that a significant share of retail fixed voice services are currently supplied using resale services and that this is likely to remain the case over the next five years.[50] The draft report stated that if the declaration of resale services were not extended, Telstra would have the incentive and ability to either cease supplying these services or to supply these services on unfavourable terms and conditions.[51] Given the limitations of potentially substitutable products, the ACCC's draft view was that extending the declaration of the resale services would promote competition in the supply of retail fixed voice and bundled fixed voice and fixed broadband services.

The ACCC considered that extending the declaration of resale services would enable access seekers that have their own equipment in some telephone exchanges to offer voice services in areas where they do not have a network presence. This would enable these access seekers to offer competitively priced retail services on a national basis. It would also promote greater

[49] ACCC, December 2013 Draft Report, p. 51.
[50] ACCC, December 2013 Draft Report, p. 51.
[51] ACCC, December 2013 Draft Report, p. 52.

competition and more choice for consumers in areas where access seekers do not have a network presence.[52]

The draft report noted that resale services will be important in allowing RSPs to build scale during the transition to the NBN and that extending the declaration of resale services will enable access seekers to purchase these services on reasonable terms and conditions during this period.[53]

The draft report considered that extending the declaration of resale services would promote competition in the downstream retail markets and promote the LTIE.[54]

5.1.1.2 Will extending the declaration encourage the economically efficient use of, and investment in, infrastructure?

The draft report stated that extending the declaration of resale services is likely to encourage the efficient use of infrastructure, especially taking into account the NBN rollout. The ACCC considered that, since 2009, the rollout of the NBN has reduced access seekers' incentives to invest in copper-based infrastructure such as digital subscriber line access multiplexers (DSLAMs). The rollout of the NBN has increased the risk that some of these investments may become redundant before the payback period is reached.[55]

The ACCC considered that extending the declaration of resale services, and the regulation of access terms and conditions (including price), would avoid the risk that access seekers were forced to make inefficient investments in copper-based exchange equipment to be able to supply retail services to their end-users.

The ACCC noted in its draft report that extending the declaration of resale services would promote the efficient use of Telstra's sunk copper-based equipment. The ACCC also noted that, without regulated access to PSTN OA, existing access seeker transmission and switching networks may be underutilised or stranded.[56]

The draft report recognised that Telstra has been providing third party access to resale services for many years and that it is technically feasible for Telstra to continue to supply and charge for these services. In addition, the ACCC considered that extending the declaration of resale services would not affect Telstra's ability to earn a commercial return on its investment.[57]

5.1.2 Submissions

All submitters to the draft report—AAPT, iiNet, Macquarie Telecom, Optus and Telstra—agreed that the declaration for resale services should be extended.

Macquarie Telecom submitted that extending the declaration of resale services will enable access seekers to compete effectively in building and maintaining their customer bases and offering end-users an alternative service provider to Telstra.[58]

Optus submitted that access seekers will rely more upon resale services over the next regulatory period to build national market presence during the transition to the NBN. In particular, Optus noted that investment in DSLAMs beyond the existing footprint does not represent an efficient investment in infrastructure.[59] This is because the ability for an access

52 ACCC, December 2013 Draft Report, p. 52.
53 ACCC, December 2013 Draft Report, p. 52.
54 ACCC, December 2013 Draft Report, p. 51.
55 ACCC, December 2013 Draft Report, p. 55.
56 ACCC, December 2013 Draft Report, p. 55.
57 ACCC, December 2013 Draft Report, p. 55.
58 Macquarie Telecom, February 2014 submission, p. 2.
59 Optus, February 2014 submission, p. 13.

seeker to recover the costs associated with its DSLAM investment may be limited given the sparse premises density and the rollout of the NBN.[60] Optus submitted that given these limitations, and in the absence of declaration, Telstra would have the incentive and ability to increase access charges for these services in order to build its retail market share.[61]

Overall, Telstra supported the extension of the declaration of resale services. Telstra submitted that regulated resale services should only be declared where direct network access services (i.e. the unconditioned local loop services (ULLS)) are not available to provide effective competition in the supply of fixed voice and other services.[62] Telstra considered that declaration should be limited to areas where there is an essential bottleneck facility to be regulated and that to do otherwise is contrary to the LTIE.[63] Telstra submitted that there should be a careful consideration of infrastructure-based competition and other substitutes that provide effective competition in particular geographical areas.[64]

5.1.3 ACCC's final views

The ACCC has decided to extend the declaration of resale services. The ACCC is satisfied that extending the declaration will promote the LTIE.

5.1.3.1 Will extending the declaration promote competition?

In determining whether the extended declaration of resale services will promote the LTIE, the ACCC must assess whether declaration will result in the promotion of competition in the relevant markets for these services. The ACCC has defined the relevant markets for resale services in chapter 3 of this report as the retail fixed voice services, bundled retail fixed voice and broadband services and wholesale resale voice services and has defined these markets as national.[65]

A fixed voice service is an essential component of the bundled retail fixed voice and broadband services. Therefore, the analysis conducted below in regard to the retail fixed voice services and wholesale resale voice services markets also applies to bundled retail fixed voice and broadband services.

At the wholesale level, resale services are provided mainly by Telstra; however, resale voice services can also be provided by access seekers. Access seekers providing resale services do so by using their own exchange equipment installed at one of Telstra's exchanges in conjunction with the ULLS. Resale voice services supplied by access seekers provide a limited competitive constraint on resale voice services provided by Telstra because of access seekers' limited investment footprints and the limits of an access seeker's spare capacity on its equipment in any particular exchange. Only a small number of access seekers currently offer wholesale voice services using their own copper-based infrastructure.

At the retail level, Telstra is the main provider of fixed voice services, with a market share of around 63 per cent in 2013.[66] Telstra's dominant position in this market is likely to arise from its ability to exploit economies of scale and scope given it is a vertically integrated business that owns and operates the underlying infrastructure used in providing these services. Telstra is likely to maintain its competitive advantage in this market over the next five years.

The ACCC considers that the continued declaration of resale services will help maintain lower barriers to entry to the downstream retail markets by removing the obstacles that access

60 Optus, February 2014 submission, p. 11.
61 Optus, February 2014 submission, p. 14.
62 Telstra, February 2014 submission, p. 10.
63 Telstra, February 2014 submission, p. 10.
64 Telstra, February 2014 submission, pp. 10-11.
65 ACCC, December 2013 Draft Report, p. 51.
66 ACCC, *ACCC Telecommunication report 2012-13,* February 2014, p.26.

seekers may face in gaining access to those services if they were not declared. Access seekers that have invested in their own equipment at only some of Telstra's telephone exchanges, or that have not invested in any copper-based infrastructure, will be able to compete on a national basis and build their customer bases and reputation.

As shown in figure 4.1 in chapter 4 of this report, the number of WLR services in operation (SIOs) nationally has increased in recent years. The ACCC considers this may be due to access seekers acquiring these services in areas where they have not invested in their own DSLAM equipment, to enable them to build a larger customer base during the transition to the NBN.

The ACCC agrees with Optus that access seekers are likely to rely upon resale services more over the next regulatory period to build national presence during the transition to the NBN.[67] An extended declaration will also provide access seekers with certainty relating to the terms and conditions of purchasing resale services.

The ability of access seekers to compete more effectively in the downstream retail markets will benefit end-users, who will be able to choose from different service providers and benefit from a wider variety of products at competitive prices. The ACCC agrees with Macquarie Telecom that 'the declaration of these services fundamentally provides the opportunity for access seekers to offer end-users an alternative service provider to Telstra'.[68]

In the absence of declared resale services, Telstra would have the incentive and ability to either restrict the supply of resale services to its competitors or increase its prices. The ACCC agrees with Optus's submission that if the declaration of resale services were not extended, Telstra would have the incentive and ability to increase access charges or deny access to build its retail market share.[69] As a result, the ACCC considers that access seekers would face higher costs of supply and may be unable to compete on a national basis. This would likely result in less choice and/or higher costs for end-users. Diminished competition would also likely result in higher retail prices for these services.

The ACCC agrees with submissions that extending the declaration for resale services will be important during the transition to the NBN. Retail service providers have incentives to build scale during the rollout period to enhance their ability to compete over the NBN, particularly to the extent that there may be economies of scale in providing NBN services. To this end, the ACCC notes Optus's submission that RSPs that can obtain a large customer base will have significant cost advantages which cannot be replicated by smaller RSPs.[70] The ACCC considers that some retail service providers have additional incentives to build or maintain scale due to payments for services migrated to the NBN.

Accordingly, the ACCC considers there are incentives for network operators to deny access or charge above-cost prices for resale services to build their retail market share at the expense of other retail service providers. The ACCC considers that extending the declarations of these resale services will allow access seekers to obtain access to resale services on reasonable terms and conditions during the transition to the NBN.

Consistent with the draft report, the ACCC's final view is that extending the declaration for resale services for a further period of five years will promote competition in the relevant markets for these services.

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67 Optus, February 2014 submission, pp. 13-14.

68 Macquarie Telecom, February 2014 submission, p. 2.

69 Optus, February 2014 submission, pp. 13-14.

70 Optus, February 2014 submission, p. 10.

5.1.3.2 Will extending the declaration encourage the economic use of, and efficient investment in, infrastructure?

The ACCC has decided that extending the declaration of resale services is likely to encourage the efficient use of infrastructure used to supply fixed voice and fixed broadband services.

As noted above, extending the declaration of resale services will promote competition in the retail market for fixed voice and bundled retail fixed voice and broadband services. Greater competition in the retail market is expected to improve productive and allocative efficiency in these markets by providing incentives for RSPs to find the lowest cost means of supplying these services to end-users. Increased competitive tension is likely to put downward pressure on prices and provide incentives for RSPs to offer services that end-users demand. Downward pressure on retail prices is likely to improve allocative efficiency as, over time, the final prices paid by end-users will better reflect the efficient costs of providing these services.

In the absence of declaration, access seekers could rely on network access services to supply end-users with fixed voice services where they have their own exchange-based equipment. However, the ACCC considers that network access services only provide a limited substitute for resale services because of access seekers' limited DSLAM footprints. Access seekers have already installed DSLAMs in areas where it is most profitable to so do, given the available end-user base. While there will still be incentives, in some cases, for access seekers to invest in exchange equipment where it is commercially efficient to do so, the ACCC notes that, since 2009, access seekers' investment in copper-based exchange equipment has slowed significantly. This is largely due to the rollout of the NBN, which has reduced the incentives to invest in copper-based infrastructure such as DSLAMs, which will become redundant when the NBN is rolled out.[71] There is greater risk that access seekers may be unable to receive an adequate return on such investment.

The ACCC considers that, in the absence of declaration, access seekers' investment incentives may be distorted by the unavailability of resale services on reasonable terms and conditions where investments in copper-based exchange equipment would not be efficient. In turn, any such inefficient investment—in order to build or maintain scale in the transition to the NBN—would likely affect the ability of access seekers to invest in infrastructure required to connect to the NBN.

The ACCC considers that extending the declaration of resale services is likely to encourage the efficient use of both access seekers' DSLAM equipment and Telstra's copper network. As noted above, extending the declaration of resale services is likely to allow access seekers to compete in providing national 'whole of business offerings' by combining resale services in some areas with services provided using their own DSLAMs within their DSLAM footprint, resulting in more efficient use of their existing sunk DSLAM investments. Existing access seeker transmission and switching networks would also be more efficiently used than in the situation without declaration of regulated access to the pre-selection and override functions of the PSTN OA service.

The ACCC's analysis indicates that, in the absence of declaration, Telstra and other providers of resale services would face little competitive constraint when negotiating the terms and conditions of access to these services. Therefore, in the absence of declaration, providers of resale services are less likely to face the correct incentives in pricing these services in ways which promote the efficient use of infrastructure. That is, without declaration, Telstra's sunk copper-based equipment may be underutilised if deregulation resulted in monopoly pricing of resale services and a fall in their use by access seekers.

Conversely, declaration provides access seekers with access to the declared services on reasonable terms and conditions, and in doing so is likely to place competitive pressure on

[71] ACCC, *Public inquiry to make a final access determination for the Wholesale ADSL service*, Final Report, May 2013, pp. 69-70.

Telstra and others to supply and price their services in ways which reflect efficient use of the underlying infrastructure.

Consistent with the draft report, the ACCC has decided that extending the declaration of resale services is likely to promote the efficient use of, and investment in, infrastructure.

The ACCC has also decided that it is technically feasible for Telstra to continue to supply and recover the efficient cost of providing these services as it has been providing third party access to these resale services for several years.

5.2 CBD exemptions

The service descriptions for the WLR service and LCS declarations currently exempt these services in the Central Business District areas of the Sydney, Melbourne, Adelaide, Brisbane and Perth exchange service areas (ESAs) (the CBD areas) from the declarations. As a result, access providers are not obliged to supply these services in the CBD areas and the regulated terms and conditions (including price) in the final access determinations for these services do not apply in the CBD areas.

Telstra (and other access providers) were first granted exemptions from supplying the LCS (and, by extension, the WLR service) in CBD areas in July 2002. The CBD exemption was included in the service description for the WLR service when it was declared as a separate service in 2006.[72]

As part of the current declaration inquiry, the ACCC has considered whether retaining the existing exemptions in the declarations for the WLR service and the LCS will promote the LTIE.

5.2.1 Summary of the ACCC's draft view

The ACCC's draft view was to vary the WLR and LCS service descriptions to remove the existing exemptions in CBD areas. It considered that the removal of the CBD exemptions would promote increased retail competition, provide end-users with additional choices in terms of service provider, and enable access seekers to offer competitively priced products to end-users.[73]

5.2.1.1 Will removing the exemptions promote competition?

When the ACCC first granted the CBD exemptions in July 2002, the ACCC concluded there was likely to be sufficient alternative local access infrastructure[74] in the CBD areas to provide an effective competitive constraint on Telstra's prices. Based on this reasoning, the ACCC expected that the WLR and LCS prices in exempt areas would reflect the economic costs of supplying these services, as is typically the case over time in effectively competitive markets.

However, the ACCC has received evidence during this inquiry that Telstra is charging prices for the WLR service in the exempt CBD areas that are significantly higher than the regulated WLR price. Specifically, Telstra's list price for a business WLR service (Basic Telephone Service with Business Access) is $31.77 per month compared to the regulated price of $22.84 per month. The draft report considered this evidence supported a conclusion that Telstra has market power in the exempt areas and is using that market power to set above-cost WLR prices.

The draft report considered that declaration of the WLR service and LCS in CBD areas would promote competition in the relevant markets for reasons outlined below.

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72 ACCC, *Local Services Review, Final Decision*, July 2006, p. 88.

73 ACCC, December 2013 Draft Report, p. 58.

74 For example, local fibre networks and declared services (local PSTN OA and ULLS).

Comparison of access seeker and Telstra costs and revenues for 'typical' CBD end-users

In its draft report, the ACCC included some calculations of the effect of the higher WLR prices charged in the CBD areas on the ability of access seekers to compete with Telstra for different types of end-users. These calculations are summarised in section 5.2.3.1 below.

These calculations demonstrated that retail competition in relation to voice-only end-users and small business end-users that require less than four lines to a single premise is adversely affected as a result of the CBD exemptions. This is due to Telstra often charging more for a WLR service in CBD areas than the national retail price charged by the major retail service providers for a 'single line rental service' (typically between $22-$29.95). The draft report considered that access seekers would earn little to no gross margin on supplying retail voice-only services, unless they are able to sell other services (such as broadband services) to their residential and small business customers.

In regard to medium-sized business end-users, the ACCC calculated that Telstra has the ability to offer larger discounts for the services required by these businesses than access seekers, due to Telstra facing lower supply costs than access seekers. Telstra, therefore, has higher gross margins on supplying voice products to those end-users, from which it is able to offer discounts.

Large business end-users, which require services to their head office as well as dispersed retail outlets, including in CBD locations, often tender separately for fixed voice services, mobile services and CBD voice-only services to achieve the best possible price. The draft report considered this would reduce the ability of access seekers reliant on resale services to cross-subsidise CBD voice-only services (where their supply costs are higher than Telstra's) and thereby constrain their ability to compete with Telstra in supplying large businesses' needs.

There remains significant demand for copper-based voice services in CBD areas.

There are a significant number of end-users that currently purchase voice-only services in the exempt CBD areas. The ACCC understands that there are currently **[c-i-c] [c-i-c]** SIOs used to supply voice-only services over Telstra's copper network (that is, where only a voice service, and no broadband service, is supplied over the line) in CBD areas. This includes **[c-i-c] [c-i-c]** Telstra retail SIOs and **[c i-c] [c-i-c]** WLR SIOs used by access seekers.[75] The draft report found that end-users face costs in moving from a traditional copper-based voice-only service to a Voice over Internet Protocol service, such as new customer premises equipment, and that those end-users are often reluctant to upgrade to IP-based alternatives due to concerns that these services might be less reliable or more expensive.

The ACCC reached the draft view that customer inertia and high costs of switching to IP-based services reduce the substitutability of these services for traditional copper-based voice services. As a result, despite the existence of competing DSLAM, fibre and HFC networks, the high commercial price of WLR services in CBD areas effectively constrains access seekers' ability to compete effectively for a significant segment of CBD end-users.[76]

There are limited competitive substitutes for supplying voice-only services in CBD areas.

The ACCC received evidence that there are economies of scale in providing voice services using access seeker equipment and the ULLS. This reduces access seekers' ability to substitute self-supply of voice-only services for WLR services in providing services to end-users

[75] Data sourced from Telstra, October 2013 response to information request, Appendix: CBD data request, tab June13 voice only breakdown.

[76] ACCC, December 2013 Draft Report, p. 65.

who require a small number of voice lines to a single premise. This also reduces the ability of access seekers with their own DSLAM networks to offer competitively priced resale services to other access seekers where the end-user requires a small number of voice lines to a single premises.

The draft report considered that HFC networks, while technically able to provide voice services, are not configured to provide wholesale access services and that there are likely to be significant costs in upgrading the network to provide competing resale services. Further, as the draft report considered there are limitations to the substitutability of HFC and fibre-based voice services for copper-based voice services from an end-user perspective, given switching costs, such as replacing customer premises equipment.

The ACCC reached the draft view that ULLS-based, HFC-based and fibre network-based services have limitations as competitive supply substitutes for supplying voice-only services in CBD areas.[77]

The commercial WLR price charged by Telstra tends to hold up retail prices for voice services in CBD areas.

The draft report considered that the above-cost prices Telstra is able to charge for WLR services in CBD areas reflect a lack of effective competition in the retail and wholesale voice-only markets in the CBD areas.

The draft report considered that the high WLR price would keep retail prices high, not just for the voice-only SIOs supplied by access seekers but also for retail voice-only SIOs supplied by Telstra, as access seekers would find it difficult to undercut Telstra's retail prices. In the ACCC's view, this lack of effective competition was likely to keep retail prices high not just for the **[c-i-c] [c-i-c]** SIOs supplied by access seekers to end-users who only acquire voice services but also for the **[c-i-c] [c-i-c]** SIOs supplied with voice-only services by Telstra's retail business. Declaring the WLR service in CBD areas would promote competition and lead to lower retail prices, more innovation and greater choice for end-users.[78]

The draft report also noted that the higher WLR prices in CBD areas would reduce access seekers' ability to compete in supplying retail bundled voice and broadband products to end-users in CBD areas using a wholesale ADSL service or LSS in conjunction with a WLR service. The draft report noted that the wholesale ADSL service and the LSS can only be purchased where there is an active voice service on the line (which may be supplied by an access seeker using the WLR service or via a Telstra retail voice product).

The ACCC did not receive evidence that the price for the LCS is higher in the exempt CBD areas than the regulated LCS price. However, given that the LCS is typically purchased with a WLR service to enable access seekers to provide a complete package of voice services to end-users, the draft report considered that Telstra would have an incentive and the ability to raise the LCS price in the CBD areas in the event that the CBD exemptions were removed from the WLR service description but not from the LCS service description.[79]

Corporate and government end-users with national operations often prefer a 'whole of business' solution from a single retail service provider.

The ACCC received evidence that corporate and government end-users prefer to have a single telecommunications provider for all of their voice and broadband services. Many of these end-users, such as large retail chains, require a mixture of multiple voice and broadband services for some of their premises and a small number of voice-only lines (for telephone calls and special services) for their smaller retail outlets.

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77 ACCC, December 2013 Draft Report, p. 66.

78 ACCC, December 2013 Draft Report, p. 67.

79 ACCC, December 2013 Draft Report, p. 68.

The draft report considered that the high commercial line rental prices in CBD areas are likely to affect the ability of access seekers to offer competitively priced 'whole of business' packages of voice and broadband services to corporate and business end-users where these businesses require services in CBD areas In addition, the ACCC considered that access seekers' ability to offer discounts to end-users for purchasing a 'whole of business' package would be reduced by the high commercial WLR prices in CBD areas.

5.2.1.2 Will removing the exemptions encourage the economically efficient use of, and investment in, infrastructure?

The draft report considered that the removal of the CBD exemptions from the declared WLR service and the LCS is more likely to promote the efficient use of infrastructure used to supply fixed voice and fixed broadband services than if the exemptions were maintained, especially during the transition to the NBN.

The draft report noted that access seekers' investments in exchange equipment has slowed significantly since 2009. The rollout of the NBN has reduced the incentives to invest in copper-based infrastructure such as DSLAMs, which are likely to become redundant as the NBN is rolled out, because of the greater risk that an adequate return on any such investment may not be received. However, maintaining the CBD exemptions could lead access seekers to make inefficient investments in copper-based exchange equipment due to the higher commercial price of WLR services in these areas, particularly given that access seekers are seeking to expand and extend their customers bases during the transition to the NBN, in order to achieve economies of scale in supplying NBN-based retail services.

The draft report considered that there was little risk that the removal of the CBD exemptions would lead to inefficient investments in the CBD areas as existing infrastructure owners will continue to utilise their existing networks in areas, when it is efficient to do so, because of their greater ability to differentiate their retail product offerings.

5.2.2 Submissions

Access seekers (Optus, iiNet, Macquarie Telecom and AAPT) supported the ACCC's proposal to remove the CBD exemptions from the WLR and LCS service descriptions.

Optus submitted that removing the exemptions would promote a more level playing field in related national fixed line markets, particularly for corporate and government end-users.[80] It submitted that if effective competition was present in CBD areas, the competitive WLR price would reflect the underlying cost of supplying the service. It considers that Telstra is exploiting its market power by charging above cost prices.[81]

iiNet submitted that there is a compelling case for removing the CBD exemptions, based on the evidence set out in the draft report.[82]

Macquarie Telecom submitted that the CBD exemptions 'did not matter' when Telstra priced WLR services nationally. However, when the ACCC set a lower regulated WLR price in the 2011 FAD inquiry, Telstra exercised its market power by maintaining a higher commercial price in CBD areas.[83] It further noted that if 'suitable alternative wholesale services' were available at comparable prices, it would readily acquire them.[84]

Macquarie Telecom stated that removing the CBD exemption from the LCS service description would provide a safeguard against possible 'exploitation from Telstra', particularly if the ACCC

80 Optus, February 2014 submission, p. 3.
81 Optus, February 2014 submission, p. 5.
82 iiNet, February 2014 submission, p. 4.
83 Macquarie Telecom, February 2014 submission, p. 2.
84 Macquarie Telecom, February 2014 submission, p. 3.

was to set a lower LCS price in the future and Telstra maintained the current pricing in CBD areas.[85]

Telstra submitted that the ACCC should maintain the CBD exemptions for both the WLR and LCS services.[86] It submitted that the ACCC erred by inferring a commercial WLR price higher than the regulated price is an indication that there is a competition problem in the CBD ESA's.[87] It submitted the reason for this differential is the erosion of its market share, given the declining number of WLR SIOs in these areas.[88]

Telstra submitted that the ACCC, in focussing on services provided using Telstra's CAN, has not considered the true extent of competition in CBD areas. It submitted that CBD areas have the significant presence of multiple alternative networks in contrast to non-CBD areas. It stated that the ACCC cannot 'simply assume' that fibre-based networks do not offer effective substitutes for the WLR service.[89] It further submitted that evidence of a growing number of ULLS SIOs and declining number of WLR SIOs implies that competitors are providing products that are substitutable for Telstra Basic Access service.

Telstra further submitted that it was not apparent that the ACCC had considered 'the impact of regulation of the WLR' on alternative fibre providers in CBD areas.[90] Further, it submitted that the removal of exemptions could lead to access seekers placing greater reliance on Telstra's resale services, resulting in less product differentiation to the contrary of the LTIE.[91]

Telstra submitted that it appears the ACCC has overstated the significance of voice-only SIOs in the CBD ESAs and therefore overstated the benefits of regulating the WLR service in CBD areas. It considered that the number of premises with voice-only lines is a more reasonable proxy of end-user demand for voice-only services than the number of SIOs, as a number of end-users take multiple voice lines to a single premise. It stated there is a 'very significant risk of regulatory error' should the ACCC rely on voice-only SIO data.[92]

Telstra submitted that a lower WLR price would not enable access seekers to better compete for corporate and government end-users. It considered that the significant competing infrastructure in CBD areas could be, and is being, used by access seekers to provide these services.[93]

Telstra submitted a consultant's report by Dr Paul Paterson that argued that the removal of CBD exemptions would reflect 'serious regulatory inconsistency' and not be in the LTIE.[94] The report makes the following points:

- The CBD areas have been exempt from WLR and LCS regulation since 2002 for LCS and 2006 for WLR with no evidence of a negative effect on the LTIE.

- There is an 'unparalleled level of network competition in CBD areas on copper from DSLAM/ULLS deployment, and extensive fibre infrastructure'. CBD exemptions have not hindered the development of infrastructure competition in the CBD areas.

85 Macquarie Telecom, February 2014 submission, p. 3.
86 Telstra, February 2014 submission, p. 5.
87 Telstra, February 2014 submission, p. 4.
88 Telstra, February 2014 submission, p. 12.
89 Telstra, February 2014 submission, p. 13.
90 Telstra, February 2014 submission, p. 13.
91 Telstra, February 2014 submission, p. 15.
92 Telstra, February 2014 submission, p. 15.
93 Telstra, February 2014 submission p. 16
94 Telstra February 2014 submission, Paul Patterson, p. 1.

- Only a small fraction of end-users in CBD areas acquire a single PSTN voice service and no other voice or fixed-line broadband services. Therefore it is not appropriate for the ACCC to rely on 'voice only' SIO-level data.

- The pending rollout of the NBN reduces, not increases, the LTIE significance of the legacy regulatory arrangements.

5.2.3 The ACCC's final views

The ACCC has decided to vary the WLR and LCS service descriptions to remove the existing exemptions for CBD areas. The ACCC has made this decision having considered submissions made in response to the ACCC's discussion paper, information request and draft report, and after undertaking its own analysis.

The ACCC considers the removal of the CBD exemptions will provide end-users with additional choices in terms of service provider and increased competition in retail service dimensions. Access seekers will be able to compete more effectively with Telstra to offer competitively priced products to end-users. Overall, the ACCC is satisfied that varying the WLR and LCS service descriptions to remove the CBD exemptions will promote the LTIE.

5.2.3.1 Will removing the exemptions promote competition?

In determining whether the removal of the CBD exemptions will promote the LTIE, the ACCC has assessed whether declaration would result in the promotion of competition in the relevant markets in relation to the currently exempt CBD areas.

In the draft report, the ACCC undertook a comparison of access seekers' and Telstra's costs and revenues for 'typical' CBD end-users.[95] Following from this detailed analysis, the ACCC has considered the effect of the higher WLR price on the ability of access seekers to compete in supplying the four broad categories of 'typical' CBD end-user.

- **Average residential voice-only end-users** – The ACCC understands that retail service providers typically charge between $22 and $29.95 per month for a basic voice-only service. The ACCC considers that access seekers that are required to pay the CBD WLR price of $27.60 would, therefore, earn little to no (or even a negative) gross margin on supplying retail services to CBD end-users. The ACCC considers that this limits access seekers' ability to compete with Telstra in supplying voice-only services to these residential end-users.

- **Small business end-users** – The ACCC understands that access seekers generally require a gross profit margin of 20-25 per cent to cover their retail costs. It understands that small business end-users typically require two line rental services; one for a broadband and/or voice service, and one for an EFTPOS machine.

  Based on the estimated costs and revenues of Telstra and access seekers in supplying the services required by a 'typical small business- end-user, the ACCC's market analysis indicates that access seekers would make an overall gross margin on supplying the typical bundle of services of between 22 and 29 per cent. In contrast, Telstra's estimated margin for supplying the same bundle of services would be between 32 and **[c-i-c] [c-i-c]** per cent, reflecting that its actual wholesale costs (that is, the costs of supplying itself an equivalent WLR service) are lower than the commercial WLR price charged to access seekers. The ACCC considers the difference in costs faced by access seekers and Telstra significantly inhibits access seekers' ability to compete effectively for small business end-users in the CBD areas.

[95] ACCC, December 2013 Draft Report, pp. 59-64.

- **Medium-sized end-users** – The ACCC's analysis assumed that these end-users also typically require two line rental services in each of their premises, one for an EFTPOS machine and another for a bundled voice and broadband service. For comparative purposes, the ACCC assumed an average medium-sized end-user would have premises in 50 locations: 25 within and 25 outside CBD areas. The ACCC's market analysis indicated that access seekers' overall gross margin on supplying the typical bundle of services to a medium-sized end-user would be between 26 and 29 per cent. In contrast, Telstra's estimated margin on supplying the same bundle of retail services would be between 30 and **[c i-c] [c-i-c]** per cent because its actual wholesale supply costs are lower than the commercial WLR price in CBD areas. The ACCC considers the difference in costs faced would constrain access seekers' ability to compete effectively in this segment of the market, including by limiting access seekers' ability to offer competitive discounts for providing a package of telecommunications services across all premises.

- **Large business end-users** – These end-users are typically mass market retail outlets that require telecommunications services to their corporate office locations (usually outside the CBD areas), along with a large number of dispersed retail outlets in CBD and non-CBD locations which are relatively small and require around two lines per premises.[96] The ACCC considers that the higher WLR prices in CBD areas reduces the ability of access seekers reliant on resale services to compete effectively with Telstra and ULLS-based access seekers in offering discounts for the package of services typically demanded by large business end-users, particularly given that there is significant competition for these businesses.

Telstra and its consultant submitted that the ACCC's LTIE analysis should be conducted at a national level, reflecting the national markets in which the relevant services are provided.[97] Consistent with the draft report, the ACCC has characterised the relevant markets as being national markets (see chapter 3 of this final report). However, consistent with its approach in the draft report and its previous approach to assessing the LTIE in the context of geographic exemptions, the ACCC has also considered the impact on competition within the CBD areas in undertaking its LTIE assessment.

The ACCC confirms its draft view that removing the CBD exemptions is likely to promote competition in the relevant markets. This is because there are a significant number of small and medium sized enterprises with a presence in CBD areas, for whom there are limited or no effective substitutes for a fixed copper-based voice service. Because of the small number of voice services required by these end-users at particular premises**,** alternative fibre networks and ULLS-based supply are unlikely to be viable substitutes for the WLR services currently used by access seekers to supply these end-users. The ACCC understands that these businesses often tender separately for fixed voice services, mobile services and CBD voice-only services to achieve the best possible price. The ACCC considers that this practice reduces the ability of access seekers reliant on resale services to cross-subsidise loss making CBD voice-only services and constrains their ability to compete with Telstra and ULLS-based access seekers.

Accordingly, the ACCC considers that the future with declaration of the WLR service in CBD areas is likely to promote competition in the supply of voice services to small and medium sized enterprises in CBD areas more than the future without declaration of these services in CBD areas.

The ACCC considers there are also likely to be further competitive benefits arising from removing the CBD exemptions. Specifically:

- the commercial WLR price will no longer hold up retail voice line rental prices in CBD areas

96 ACCC, December 2013 Draft Report, p. 59-64.

97 Telstra, Attachment 1: Dr Paul Paterson's consultant report, February 2014 submission, p. 5.

- competition in the national markets for voice services and bundled voice and broadband services for businesses that require a 'whole of business' offering will be promoted.

Commercial WLR prices in CBD areas

The ACCC has considered Telstra's submission that a 'plausible alternative scenario' for the higher commercial WLR prices charged in CBD areas is the erosion of market share. Telstra has submitted that the number of WLR SIOs in CBD areas has been in continual decline, since September 2007.[98]

The ACCC does not consider that this alternative scenario justifies maintaining the CBD exemptions in the service description for the WLR service. By itself, erosion of market share may be indicative of increasing competition in a market but this is not conclusive. Nor does the erosion of Telstra's market share say anything about whether the level of competition in these markets, as it is now, is satisfactory or whether competition can be even further promoted. As discussed further below, the ACCC considers that there are a significant number of end-users that purchase copper based voice-only services whom access seekers are only able to supply by acquiring a WLR service. In the ACCC's view, the fact that there are no effective substitutes for supplying these end-users clearly rebuts any argument in support of not regulating the WLR service in CBD areas that relies on the proposition that competition is increasing because Telstra's market share is eroding. In fact, Telstra's ability to maintain high prices in the CBD areas in the face of declining demand is indicative that it has market power due to the lack of effective competition in supplying these end-users.

The ACCC has also considered the view put forward by Telstra's consultant, Paul Paterson, that effective competition will result in a market price that reflects the supply costs of the second most efficient supplier, not necessarily the costs of the most efficient service provider.[99] The ACCC notes that Mr Paterson's report does not identify which supplier would be the second most efficient supplier or provide any evidence of the supply costs of that supplier. The ACCC also considers that, based on the arguments set out above, in the absence of declaration there is not effective competition within CBD areas for particular segments of the retail market.

There remain a significant number of end-users of copper based voice-only services for which there are no effective substitutes for a WLR service

The ACCC does not accept Telstra's submission that the ACCC 'appears to have overstated the significance' of voice-only SIO's in CBD areas.[100]

The ACCC does not agree with Telstra's submission that considering only premises with a single PSTN voice-only service would give a more reasonable indication of the impact of the CBD exemptions on the LTIE. Telstra has estimated that there are only **[c-i-c] [c-i-c]** CBD-based end-users with a single PSTN voice-only service (and no broadband service) and submitted that the benefits to this small group of end-users from removing the CBD exemptions would not justify the costs of re-regulating these services in terms of reduced investment and innovation.[101]

Telstra's reasoning is that premises with multiple voice-only lines could be effectively supplied by ULLS-based competitors. Telstra further stated that some premises that are supplied by WLR-based access seekers may purchase broadband services provided using the LSS or other lines to the premises (such as fibre or HFC lines). Telstra submitted that 'the presence of multiple voice and/or broadband services… [at a premises] clearly provides sufficient return to

98 Telstra, February 2014 submission, p.12; Telstra, December 2013 submission, p. 3.
99 Telstra, Attachment 1: Dr Paul Paterson's consultant report, February 2014 submission, p. 27.
100 Telstra, February 2014 submission, p. 14.
101 Telstra, February 2014 submission, p. 15.

facilitate ULLS-based … competition'.[102] Telstra submitted that significant growth in the number of ULLS SIOs in the CBD ESAs, and a decline in the number of WLR services, suggests that Telstra's competitors are able to provide retail voice products that are substitutable for a voice services supplied using the WLR service.[103]

The ACCC acknowledges Telstra's submission that ULLS-based access seekers may be able to effectively supply multiple voice services to a single premise. However, as stated in the draft report, the evidence submitted by access seekers during this inquiry indicates that the economies of scale of using ULLS to supply voice services are such that it is only viable to do so if certain minimum purchase requirements are met (that is, unless **[c-i-c] [c-i-c]**).[104] Telstra did not provide any evidence to contradict access seekers' submissions about the economies of scale of ULLS-based supply. The ACCC therefore maintains its view that, for end-users that demand a small number of voice-only services to a particular premise, ULLS-based supply is not an effective substitute for the WLR service.

In regard to end-users that purchase broadband services, the ACCC recognised in its draft report that it would be cost-effective for access seekers that had invested in their own exchange equipment to supply end-users that demand broadband services by using their own equipment and the ULLS.

However, for end-users who purchase broadband services supplied by access seekers using the LSS, the ACCC noted that LSS-based services can only be supplied where there is already an active PSTN voice service on the line; this voice service would generally be supplied via a WLR service (or potentially a Telstra retail service where the end-user purchases unbundled voice and broadband services separately).

The ACCC maintains its view that the total number of 'voice-only' SIOs is a valid measure for the purposes of assessing whether the removal of the CBD exemptions will promote the LTIE. Telstra has advised the ACCC that it currently has **[c-i-c] [c-i-c]** 'WLR only' SIOs in CBD areas[105] and it supplies **[c-i-c] [c-i-c]** retail voice-only services. On the basis of these figures, the ACCC considers that a significant number of end-users currently purchase voice-only services in the CBD areas. In the ACCC's view, the lack of effective competition for end-users who require only a voice service in the CBD areas is likely to result in retail prices being higher than otherwise (if there were effective retail competition) for all end-users who want to buy a voice-only service in these areas, regardless of whether the service is supplied by access seekers or by Telstra.

The ACCC also maintains its view, set out in the draft report, that the high commercial WLR price in CBD areas limits the ability of access seekers to compete in providing 'whole of business' offerings for corporate, business and government end-users with nationally distributed operations that wish to purchase a small number of voice-only services for each of their dispersed premises in CBD areas. These businesses also purchase a package of voice, broadband and other telecommunications services for their head offices outside the CBD areas. The higher WLR price in CBD areas, compared to the costs to Telstra of supplying these services to itself, means that access seekers are less able to compete with Telstra in offering competitively-priced 'whole of business' packages to these business end-users. Thus the ACCC has concluded that the benefits of removing the CBD exemptions extend beyond the CBD areas. As a result of removing the exemptions, the ACCC considers access seekers will be able to compete more effectively for these end-users in both the relevant CBD sub-markets and the broader national markets.

The ACCC does not agree with Telstra's submission that the ACCC has overstated the benefits to end-users from removing the CBD exemptions. The ACCC accepts Telstra's submission that

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102 Telstra, February 2014 submission, p. 14.

103 Telstra, February 2014 submission, p. 13.

104 ACCC, December 2013 Draft Report, p. 66.

105 Sourced from Telstra's response to the ACCC information as the sum of 'WLR only' SIOs in June 2013 (that is, excluding WLR + broadband SIOs).

most telecommunications providers set nationally uniform retail prices but does not accept that this makes it unlikely that, given the low proportion of WLR services in CBD areas, any reduction in the WLR price in CBD areas will lead to a reduction in prices for end-users. The ACCC notes that business end-users are often offered discounts on the package of services they purchase.

The ACCC has considered Telstra's submission that the end-user costs incurred in shifting to IP-based systems are 'unlikely to be prohibitive' and that robust solutions are now 'widely available'.[106] Its consultant's report quoted a figure of approximately $100 to purchase replacement IP-based customer equipment.[107] The ACCC does not consider this cost to be insignificant to end-users, particularly for business end-users that would have to incur this cost for each device that needs to be upgraded to be compatible with an IP-based solution.

Further, the ACCC notes the evidence set out in the draft report that end-users are often reluctant to upgrade to IP-based alternatives in the short-term. Telstra has advised the ACCC that **[c-i-c] [c-i-c]**.[108]

The ACCC maintains its draft view that IP-based services are not a viable substitute for many end-users that require voice-only services.

Removing the exemption for the LCS in CBD areas

The ACCC noted in the draft report that the LCS is typically purchased with a WLR service (and the PSTN OA (pre-selection and override) service. The ACCC considered that given the lack of effective competition in supplying voice-only services in the CBD areas, Telstra would have an incentive and the ability to raise the LCS price in the CBD areas in the event that the CBD exemptions were removed from the WLR service description but not from the LCS service description.

The ACCC, therefore, confirms its draft view that removal of the CBD exemptions from the LCS service description will promote competition, lead to lower retail prices, greater innovation and choice, and therefore will promote the LTIE.

5.2.3.2 Will removing the exemptions encourage the economically efficient use of, and investment in, infrastructure

Consistent with the draft report, the ACCC has decided that the removal of the CBD exemptions from the WLR and LCS service descriptions is more likely to promote the efficient use of infrastructure used to supply fixed voice and fixed broadband services than maintaining the exemptions, especially during the transition to the NBN.

As noted above, Telstra's ability to charge WLR prices in the exempt CBD areas that are significantly above the regulated price is likely to reduce access seekers' ability to compete effectively with Telstra for retail customers, including for corporate and government end-users seeking a 'whole of business' solution. As a result, the CBD exemptions may hinder the efficient use of access seekers' existing DSLAM and switching infrastructure, including access seeker infrastructure located outside the CBD areas. The ACCC considers that economic efficiency requires that the use of these assets should not be artificially reduced by above-cost pricing of resale services during the transition to the NBN.

The ACCC has considered Telstra's submission that any reduction in the WLR price may result in less service innovation and reduce access seekers' choice of wholesale voice services suppliers. Telstra considers that the lower WLR price may damage access seeker incentives to invest in their own infrastructure, including in existing fibre networks in CBD areas.

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106 Telstra, February 2014 submission, p.16.

107 Telstra, Attachment 1: Dr Paul Paterson's consultant report, February 2014 submission, p. 23.

108 ACCC, December 2013 Draft Report, p. 65.

The ACCC considers that access seekers will, wherever it is efficient to do so, continue to use their own fibre networks in supplying services to end-users in order to recover their sunk investments. Where cost-effective solutions can be supplied to end-users over fibre networks, the ACCC expects that access seekers will continue to use, and invest in, these networks to supply retail services to these end-users.

Similarly, the ACCC considers that where access seekers have made investments in DSLAMs and other exchange-based equipment, they will continue to use this equipment to supply end-users, due to the lower costs of using ULLS or LSS (than using resale services) and the competitive benefits from product differentiation and greater control over service quality. Further, the ACCC considers that where it is commercially efficient to do so, access seekers may continue to invest in their own exchange equipment.

5.3 Resale services provided using NBN infrastructure

In the July 2013 discussion paper, the ACCC sought submissions on whether potential access seekers would face significant barriers to entry to retail supplying services on the NBN and whether resale services should be declared when they are provided using NBN infrastructure.[109]

5.3.1 Summary of the ACCC's draft views

The draft report stated the ACCC's view that resale voice services supplied using NBN infrastructure should not be declared for the following reasons.

First, while the NBN is a natural monopoly, access to the NBN is regulated by NBN Co's Special Access Undertaking (SAU) which the ACCC accepted on 13 December 2013. Further, in certain circumstances the ACCC may declare, and make access determinations specifying terms and conditions for, services that are not regulated by the SAU. Additionally, NBN Co is wholesale-only, meaning that it does not have the incentives that a vertically integrated network operator has to discriminate against downstream competitors in favour of its own retail operators. The non-discrimination obligations in Part XIC of the CCA prohibit NBN Co from discriminating between access seekers in relation to the terms and condition of access to NBN services and in carrying out related activities such as developing or enhancing services and facilities.[110]

Second, the core voice network required to use Layer 2 NBN services (i.e. IP based voice switching technology) makes supplying retail voice services over the NBN relatively inexpensive for access seekers compared to supplying PSTN voice services using Telstra's copper network.[111]

Third, there is potential for the emergence of an aggregation market for voice services over the NBN which would allow smaller retail service providers to buy competitively-priced resale services. A number of carriers have indicated that they intend to provide aggregation services when the NBN rollout is further progressed. The ACCC noted that there were 12 providers of wholesale services listed on NBN Co's website as at October 2013. However, the ACCC noted that it is not clear to what extent such services will be provided, and when, as the market is still in its formative stages.[112]

Finally, with respect to pre-selection and override functions, the draft report noted that carriers and carriage service providers would likely incur significant investment and annual operating costs if obliged to provide these resale services over the NBN. The ACCC considered that these costs were likely to outweigh the benefits to end-users given the declining use of

[109] ACCC, July 2013 Discussion Paper, p. 53.
[110] ACCC, December 2013 Draft Report, p. 72.
[111] ACCC, December 2013 Draft Report, p. 72.
[112] ACCC, December 2013 Draft Report, pp. 72-73.

pre-selection and override by end-users. The ACCC considered that declaration would likely lead to inefficient investment in new infrastructure.[113]

5.3.2 Submissions

The ACCC received submissions from AAPT, iiNet, Macquarie Telecom and Telstra that generally supported the view that resale services provided over the NBN should not be declared.

Macquarie Telecom submitted that resale services provided over the NBN are essentially constructs of a copper-based, circuit-switched PSTN environment which are not relevant in the NBN IP-based environment. Macquarie Telecom noted that services supplied by NBN Co will be supplied on terms set out in its SAU.[114]

Telstra agreed with the ACCC's proposal not to declare resale services provided over the NBN. Telstra submitted that the network architectures of the PSTN and the NBN were different and therefore different approaches are required.[115] However, Telstra stated that the service descriptions should also exclude resale services provided over other next generation networks (NGNs), not just the NBN, and suggested amending the service descriptions to that effect.[116] Telstra submitted that 'further clarity would provide greater certainty in the context of the rapidly changing competitive environment where IP-based voice services are being provided across multiple access networks in addition to the NBN'.[117]

5.3.3 The ACCC's final views

Consistent with the draft report, the ACCC has decided that the declaration of resale voice services will not extend to resale voice services provided using NBN infrastructure. The ACCC is not satisfied that declaring resale voice services provided using NBN infrastructure will promote the LTIE. This is because the NBN will be regulated through the SAU, NBN Co is not vertically integrated and does not have the same incentive to discriminate against downstream competitors in favour of its own retail operators.

The ACCC considers that it will be relatively inexpensive for access seekers to self-supply voice services due to the different voice network structure and switching equipment required to supply retail voice services using the NBN. Furthermore, the ACCC considers that there is potential for an aggregation market to develop on the NBN and for smaller access seekers to be able to buy competitively-priced resale services.

The ACCC considers that non-NBN NGNs currently fall within the scope of the existing resale services regulation as the WLR, LCS and PSTN OA service descriptions (see Appendixes C, D and E) are technology neutral. The ACCC notes Telstra's submission that service descriptions should exclude resale services provided over other NGNs and its view that regulation of resale services is 'most appropriately targeted at the legacy PSTN'.[118] However, the ACCC considers that the reasons for not declaring resale services supplied using NBN infrastructure are NBN-specific and do not necessarily apply to other NGNs. The ACCC considers that other NGNs typically exhibit natural monopoly or bottleneck characteristics and are commonly operated by vertically integrated entities; for example, Telstra's Velocity estates. The ACCC notes that Telstra's Velocity estates use PSTN equipment and are already capable of supplying pre-selection and override functions.

Accordingly, the ACCC has concluded that it should take a cautious approach to withdrawing regulation for resale services supplied over NGNs other than the NBN. The ACCC will continue

113 ACCC, December 2013 Draft Report, p. 73.
114 Macquarie Telecom, February 2014 submission, p. 2.
115 Telstra, February 2014 submission, p. 8.
116 Telstra, February 2014 submission, pp. 9-10.
117 Telstra, February 2014 submission, p. 10.
118 Telstra, February 2014 submission, p. 8.

to monitor industry developments and the appropriateness of its regulatory settings in the context of changes in the industry and technologies.

Consistent with the draft report, the ACCC's has concluded that resale services provided over the NBN will not be declared. The ACCC is not satisfied that declaring these resale services will promote the LTIE.

5.4 Service descriptions

The service descriptions for WLR, LCS and PSTN OA are contained in appendices C, D and E respectively.

The specific amendments the ACCC has decided to make to the PSTN OA service description, relating to pre-selection and override, are discussed in this section. The other amendments that the ACCC has decided to make to the PSTN OA service description are discussed in section 6.4 of this paper.

5.4.1 Summary of the ACCC's draft views

In the draft report, the ACCC noted that to give effect to any decision to remove CBD exemptions and to exclude regulation of resale services over the NBN, it would need to amend the WLR, LCS and PSTN OA service descriptions.

Accordingly, the ACCC proposed to remove all references to CBD exemptions in the WLR and LCS service descriptions.

The ACCC also proposed to remove the obligation to supply resale services by inserting the following provision (among others) in the WLR, LCS and PSTN OA (pre-selection and override) service descriptions:

> *'where the connectivity between the end-user and the public switched telephone network is provided in whole or in part by means of a Layer 2 bitstream service that is supplied by an NBN corporation.'*
>
> ***Layer 2 bitstream service** has the same meaning as in the Telecommunications Act 1997.*
>
> ***NBN corporation** has the same meaning as in the National Broadband Network Companies Act 2011*

5.4.2 Submissions

In its February 2014 submission, Telstra provided alternative drafting for the WLR, LCS and PSTN OA service descriptions. Telstra submitted that, should the ACCC decide to exclude regulation for resale services provided over the NBN, its proposed drafting would better achieve this.[119]

Telstra's submission provided alternative drafting for the clauses that specify whether the operator of a particular voice network is obliged, upon request from an access seeker, to supply WLR, LCS and pre-selection and override on regulated terms. Specifically, Telstra's drafting provides further definition and clarity about the portion of the access provider's network that must use a NBN Corporation supplied Layer 2 bitstream service as an input of supply.

[119] Telstra, February 2014 submission, p. 10.

5.4.3 The ACCC's final views

5.4.3.1 The WLR and LCS service descriptions should be amended to remove CBD exemptions

As discussed in section 5.2, the ACCC has decided to remove the provisions that give effect to CBD exemptions from the WLR and LCS service descriptions. Consistent with the draft report, the ACCC has decided to remove the following provisions.

WLR

> *except where the supply of the line rental telephone service is within the Central Business District Area of Sydney, Melbourne, Brisbane, Adelaide and Perth.*
>
> ***Central Business District Area** means the exchange service areas that are classified as CBD for the purposes of the ordering and provisioning procedures set out in the Telstra Ordering and Provisioning Manual as in force on the date of effect of the declaration.*

LCS

> *however, the local carriage service does not include services where the supply of the local carriage service originates from an exchange located within a Central Business District Area of Sydney, Melbourne, Brisbane, Adelaide or Perth and terminates within the standard zone which encompasses the originating exchange*
>
> ***Central Business District Area** means the exchange service areas that are classified as CBD for the purposes of the ordering and provisioning procedures set out in the Telstra Ordering and Provisioning Manual as in force on the date of effect of the renewed declaration.*

5.4.3.2 The WLR, LCS and PSTN OA service descriptions should be amended to exclude regulation of resale services over the NBN

As discussed in section 5.3.3, the ACCC has decided that resale services should not be regulated where voice services are being provided using NBN infrastructure. The ACCC considers that Telstra's proposed drafting for the WLR, LCS and PSTN OA service descriptions[120] is consistent with the ACCC's decision.

To give effect to its decision that WLR and LCS services provided using NBN infrastructure should not be regulated, the ACCC has included the following provisions in the existing WLR and LCS service descriptions:

> *however, the wholesale line rental [local carriage] service does not include services where the connectivity between the end-user and the carrier or carriage service provider's network is provided in whole or in part by means of a Layer 2 bitstream service that is supplied by an NBN corporation.*
>
> ***Layer 2 bitstream service** has the same meaning as in the Telecommunications Act 1997.*
>
> ***NBN corporation** has the same meaning as in the National Broadband Network Companies Act 2011.*

To give effect to its decision that PSTN OA (pre-selection and override) services provided using NBN infrastructure should not be regulated, the ACCC has included the following provisions in the existing PSTN OA service description:

> *Pre-selection and code override services are not declared where connectivity between the end-user directly connected to the access provider's network and a POI is provided in*

[120] Telstra, February 2014 submission, pp. 29-30.

whole or in part by means of a Layer 2 bitstream service that is supplied by an NBN corporation.

***Layer 2 bitstream service** has the same meaning as in the Telecommunications Act 1997.*

***NBN corporation** has the same meaning as in the National Broadband Network Companies Act 2011.*

The ACCC notes that other interconnection services, that is, the PSTN TA and PSTN OA (special numbers) services, will still be regulated when supplied using NBN infrastructure, as discussed in section 6.4 of this paper.

6 Interconnection services

Key points

- The ACCC has decided to extend the declaration of the Public Switched Telephone Network Terminating Access (PSTN TA) service and the Public Switched Telephone Network Originating Access (PSTN OA) service in respect of special numbers (origination of calls to 13/1300 and 1800 numbers). All submissions supported extending the declaration of these services.
- The ACCC considers that, in the absence of regulated access, network owners would have the incentive and ability to impose above-cost charges for call origination to special numbers and for call termination. The ACCC is satisfied that extending the declaration of these interconnection services will promote the long-term interest of end-users (LTIE). It is also likely to promote competition in the relevant markets, achieve any-to-any connectivity and encourage the economically efficient use of, and investment in, infrastructure.
- The ACCC will monitor industry development and implementation of any Internet Protocol-based (IP-based) interconnection standards and may consider commencing an inquiry into varying the existing interconnection service descriptions, if appropriate.
- The ACCC has decided to amend the service descriptions for PSTN OA and PSTN TA by:
  - inserting provisions that exclude the obligation to supply pre-selection and override functionality over National Broadband Network (NBN) infrastructure (discussed in chapter 5)
  - removing provisions that represent the kinds of non-price terms and conditions that the ACCC usually includes in Final Access Determinations (FADs)
  - changing the names of PSTN OA to Fixed Originating Access Service (FOAS) and of PSTN TA to Fixed Terminating Access Service (FTAS).

Interconnection is the handover of telephone calls and data traffic between telecommunications network operators. Through interconnection arrangements, network operators provide end-users with access to other end-users, services or content on other networks.

The PSTN TA service facilitates the carriage of telephone calls originated on an access seeker's network from a point of interconnect (POI) to the B-party (the called party) on the access provider's network. The A-party's (calling party's) network provider purchases Public Switch Telephone Network Terminating Access (PSTN TA) from the B-party's network provider. The B-party's network provider ensures that the call from the A-party is connected to the B-party.

The PSTN OA service performs two functions:

- pre-selection and override – call origination, including handover to another network for transmission, switching and termination (used to supply long-distance, fixed-to-mobile and international calls)
- special numbers – call origination for the facilitation of 13/1300 and 1800 number services.

As pre-selection and override functions are typically purchased together with other resale services, these functions of the PSTN OA services are discussed with the other declared resale services in chapter 5.

The special numbers functionality of PSTN OA facilitates the origination of calls to telephone numbers beginning with 13/1300 and 1800. That is, an A-party can call a B-party (the owner of the 13/1300 or 1800 number) without incurring a charge, or only incurring a limited charge, from their service provider. Instead, the B-party's service provider pays for the cost of originating the call by purchasing PSTN OA from the A-party's service provider. This origination charge and other costs, relating to the provision of special numbers services by the B-party's network, are then billed to the B-party.

The ACCC notes that the special numbers functionality of PSTN OA is similar to the PSTN TA service, in that the party incurring a charge for termination or for special numbers origination has no control over which network the call originates on.

6.1 PSTN TA and PSTN OA (special numbers) services

6.1.1 Summary of the ACCC's draft views

The draft report stated that extending the declaration of PSTN OA (special numbers) and PSTN TA would promote the long-term interest of end-users (LTIE).[121]

6.1.1.1 Will extending the declaration promote competition?

The draft report stated that the extended declaration of the PSTN TA and PSTN OA (special numbers) services would promote competition in the relevant markets. The draft report stated that, absent regulation, a network owner with a large number of fixed voice services in operation (SIOs) has an incentive and the ability to raise the price of termination and special numbers origination and that these prices would likely be passed on to end-users. Accordingly, the ACCC considered that, without declaration of the PSTN TA and the PSTN OA (special numbers) services, end-users would likely face higher prices and less competition in the supply of retail voice services.

The draft report also noted that, because several owners of fixed line voice networks own mobile networks, any exercise of market power in the provision of PSTN TA would have the potential to harm competition in the retail market for mobile voice services. This is because a provider of PSTN TA would have an incentive to raise prices for termination on its fixed line network of mobile calls from networks that compete with its own mobile network.

6.1.1.2 Will extending the declaration achieve any-to-any connectivity?

The draft report considered that the extended declaration of the PSTN TA and PSTN OA (special numbers) services would likely achieve the objective of any-to-any connectivity.[122]

Network operators have the ability and incentive to use their market power, in respect of calls terminating, and calls to special numbers originating, on their network to either deny interconnection or to impose above-cost charges for interconnection.

The draft report stated that declaration would likely remove the ability of network operators to exercise market power and would ensure that end-users will be able to call other end-users, regardless of the network they are calling from and the network the called end-user is on.

[121] ACCC, December 2013 Draft Report, p. 51.
[122] ACCC, December 2013 Draft Report, p. 81.

6.1.1.3 Will extending the declaration encourage the economically efficient use of, and investment in, infrastructure?

The ACCC's draft view was that extending the declaration of the PSTN TA and PSTN OA (special numbers) services would encourage the economically efficient use of, and investment in, infrastructure used to supply listed services.[123]

The draft report noted that, in the absence of regulated interconnection services, the likelihood of higher interconnection charges would encourage end-users to switch from smaller networks to larger networks and discourage switching to smaller networks. This would be likely to deter efficient investment in new networks (or new network capacity). In addition, existing networks or network capacity may not be used efficiently.

6.1.2 Submissions

All submitters agreed with the ACCC's proposal to extend the declaration for interconnection services.

Macquarie Telecom submitted that a fixed network operator controls originating and terminating access, which enables it to set uncompetitive terms of access.[124]

Optus submitted that, absent PSTN TA declaration, 'end-users are likely to face increased prices and a reduction in competition' in the retail fixed voice and mobile-to-fixed markets.[125] Optus considered that the ongoing declaration of PSTN TA and OA services would promote competition in the related downstream markets identified by the ACCC. Optus submitted that PSTN TA also directly affects the downstream retail market for mobile-to-fixed voice services.[126]

Optus submitted that ongoing declaration of these services will likely achieve any-to-any connectivity across all domestic networks, including fixed and mobile networks, and encourage the efficient investment in and use of infrastructure.

6.1.3 The ACCC's final views

The ACCC has decided to extend the declarations for the PSTN TA and PSTN OA (special numbers) services. The ACCC is satisfied that extending the declaration will promote the LTIE.

6.1.3.1 Will extending the declaration promote competition?

To determine whether extending the declaration of the PSTN TA and PSTN OA (special numbers) services will promote the LTIE, the ACCC must assess whether declaration is likely to promote competition in the relevant markets for the service.

With respect to PSTN TA, the ACCC notes that market power arises because a caller (the A-party) cannot select which network the called party (B-party) is on. If the A-party wants to call the B-party, the call must terminate on the network operated by the B-party's retail service provider; there is no scope to substitute to an alternative provider of termination.

Absent regulation, a network owner with a large number of fixed voice SIOs has an incentive and the ability to exercise its market power by raising the price of termination for telephone calls on its network to any network owner that has a smaller number of fixed voice customers.

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123 ACCC, December 2013 Draft Report, p. 81.
124 Macquarie Telecom, February 2014 submission, p. 4.
125 Optus, February 2014 submission, p.6.
126 Optus, February 2014 submission, p.6.

Any such exercise of market power would likely result in competitive harm to the retail fixed voice market to the extent that retail service providers pass on the higher costs to end-users. This harm would result if end-users on smaller networks decide to switch to the larger network, where there are a larger number of parties who can be called on the same network and termination charges are lower. Thus, the larger network's market power is increased by network externalities from its larger subscriber base.

Accordingly, the ACCC considers that, without declaration of PSTN TA, end-users are likely to face increased prices and a reduction in competition in the supply of retail voice services.

The ACCC considers that extending the declaration of the PSTN TA and the PSTN OA (special numbers) services will promote competition in the supply of bundled fixed voice and fixed broadband services. A fixed voice service is an essential component of the bundle of fixed telecommunications services. Therefore, the analysis described above for the wholesale and retail markets for fixed voice services also applies to bundled fixed voice and fixed broadband services.

The ACCC notes that any exercise of market power in the provision of PSTN TA in markets for fixed line voice services also has the ability to affect competition in markets for mobile voice and bundled mobile voice and broadband services. This is because several owners of fixed line voice networks also own mobile networks. Any market power in the provision of fixed line PSTN TA can also be used to increase the price of termination for mobile telephone calls that terminate on its fixed network. A provider of PSTN TA with market power is likely to have an incentive to raise prices for termination for calls from mobile networks that compete with its own mobile network, which has the potential to harm competition in the market for mobile voice services.

The ACCC considers that the above analysis for PSTN TA also applies to the special numbers component of the PSTN OA service (where the called party pays all or most of the cost of the call). This is because owners of 13/1300 and 1800 numbers cannot select which network the A-party is calling from (i.e. there is no scope to substitute to another provider of special numbers origination).

Absent regulation, a network owner with a greater number of fixed voice SIOs has the incentive and ability to raise the price of origination for calls on its network to special numbers that terminate on a network with fewer fixed voice customers. Where this occurs, owners of 13/1300 and 1800 numbers are likely to switch to the larger network where their origination charges will be lower for a larger number of calls received.

For these reasons, the ACCC has concluded that the ongoing declaration of the PSTN TA and the PSTN OA (special numbers) services will promote competition in the markets for fixed voice services, bundled fixed voice and broadband services, mobile voice services and bundled mobile voice and broadband services.

6.1.3.2 Will extending the declaration achieve any-to-any connectivity?

Consistent with the draft report, the ACCC has concluded that the ongoing declaration of the PSTN TA and PSTN OA (special numbers) services is likely to promote the achievement of any-to-any connectivity.

As discussed above, network operators have market power in respect of calls terminating on their network and calls to special numbers that originate on their network. Network operators have the ability and incentive to use their market power to either deny interconnection or to impose above-cost charges for these interconnection services. Doing so would either prevent or discourage any-to-any connectivity.

As such, the ACCC considers that regulated access to the PSTN TA and the PSTN OA (special numbers) services will ensure that network operators will not have the ability to exercise market power over termination and special numbers origination. Consequently,

end-users will be able to call other end-users, regardless of the network they are calling from and the network the called end-user is on, thereby achieving any-to-any connectivity.

6.1.3.3 Will extending the declaration encourage the economically efficient use of, and investment in, infrastructure?

The ACCC has concluded that extending the declaration of PSTN TA and PSTN OA (special numbers) is likely to encourage the economically efficient use of, and investment in, infrastructure used to supply listed services.

As discussed above, in the absence of regulated access to interconnection services, larger network owners would have the ability and incentive to exercise market power arising from network externalities to encourage end-users to switch to their network from smaller networks and discourage their own end-users from switching to another network. The ACCC considers that this is likely to deter efficient investments in new networks (or new network capacity). In addition, existing networks or network capacity may not be used efficiently for the same reason.

The ACCC considers that the achievement of any-to-any connectivity allows network owners the opportunity obtain the positive network externalities required to invest in and use infrastructure efficiently.

6.2 IP-based interconnection

The current PSTN OA and PSTN TA service descriptions refer to the 'carriage of telephone calls'. The ACCC considers that this includes all telephone calls regardless of the network technology or the switching technology used in both the originating and terminating networks.

The service descriptions currently specify a particular method of interconnection, which uses CCS#7 signalling and 2.048Mbit/s switchports. Interconnection between major carriers currently occurs using this method, including carriers that have IP core voice networks.

6.2.1 Summary of the ACCC's draft views

The draft report noted that growth in Voice over Internet Protocol is likely to lead to an alternative method of interconnection being developed and agreed upon in the future, but that there is currently no agreed industry standard. The draft report considered that until an agreed industry standard exists, it would be premature to specify an IP-based interconnection protocol in the service descriptions.[127]

The draft report noted that particular carriers may have the incentive to delay the development and implementation of an alternative standard and proposed to monitor industry developments in this area.[128]

6.2.2 Submissions

Telstra was the only party to submit on IP-based interconnection. Telstra agreed with the ACCC's proposal to maintain the current method of voice interconnection and noted that these arrangements continue to support a wide range of carriers, including those with IP-based voice networks. Telstra noted that the industry expects to cooperatively develop and implement a set of standards for IP-based voice interconnection in the next three to five years and that regulatory intervention would be inappropriate while this is occurring.[129]

[127] ACCC, December 2013 Draft Report, p. 82.
[128] ACCC, December 2013 Draft Report, p. 82.
[129] Telstra, February 2014 submission, p. 5.

6.2.3 The ACCC's final views

The ACCC has decided not to amend the PSTN TA and PSTN OA service descriptions in a manner that would regulate interconnection provided using an IP-based interconnection protocol. The ACCC is not satisfied that this will promote the LTIE.

Consistent with the draft report, the ACCC considers that the current PSTN OA and PSTN TA service descriptions includes all telephone calls, regardless of the core switching technology used in both the originating and terminating networks. The ACCC has concluded that its proposed service description remains appropriate as the major carriers, regardless of their core voice network infrastructure, presently interconnect using this method and have been doing so for some time.

Given that there is no currently agreed industry standard for IP-based interconnection, the ACCC considers that it would be premature to specify a particular IP-based interconnection protocol in the PSTN OA and PSTN TA service descriptions until an agreed industry standard exists.

The ACCC will monitor industry developments with respect to the development of alternative interconnection protocols and may consider whether to commence an inquiry into varying the service descriptions when an agreed industry standard for IP-based interconnection exists, or if otherwise appropriate.

6.3 Service descriptions

6.3.1 Summary of the ACCC's draft views

With respect to the service descriptions, the draft report proposed:

- amending the PSTN OA service description to exclude regulation of pre-selection and override services where provided over NBN-based networks (see chapter 5.3.3)
- removing provisions that are terms and conditions of supply that the ACCC would normally include in Final Access Determinations (FADs)
- amending the PSTN OA and TA service descriptions to better reflect the technological neutrality of the declared services – including removing references to the PSTN and changing the respective names to Fixed Originating Access Service (FOAS) and Fixed Terminating Access Service (FTAS).

6.3.2 Submissions

Macquarie Telecom agreed with the ACCC's proposal to change the names of the interconnection services to FOAS and FTAS, stating that the scope of the service should reflect how the service is being used.[130]

With respect to the terms and conditions of supply in the service descriptions for PSTN OA and TA, Telstra acknowledged that the service description is 'not usually the most appropriate place for these type of provisions' but stated that they should not be removed. It submitted that removing those terms and conditions is unnecessary and 'the next review will likely be the most appropriate time to consider substantive changes to the PSTN OA and PSTN TA service descriptions'.[131]

130 Macquarie Telecom, February 2014 submission, p. 4.
131 Telstra, February 2014 submission, p. 17.

6.3.3 ACCC's final views

The ACCC has decided to make a number of changes to the PSTN OA and PSTN TA service descriptions. The service descriptions, showing the amendments, are contained in appendices E and F respectively.

6.3.3.1 The PSTN OA service description is amended to exclude regulation of resale services over the NBN for pre-selection and override

As discussed in chapter 5.3.3 the ACCC has decided to alter the scope of regulation to exclude PSTN OA (pre-selection and override) services provided using NBN infrastructure. The ACCC has decided to maintain regulated access for the remaining PSTN OA services—that is, special number origination—across all fixed line networks.

6.3.3.2 The PSTN OA and PSTN TA service descriptions are amended to remove terms and conditions of supply

Consistent with the draft report, the ACCC considers that the current PSTN OA and PSTN TA service descriptions contain provisions that do not describe the declared services themselves, but instead detail terms and conditions of access to the declared service.

For example, the current PSTN OA and PSTN TA service descriptions contain provisions relating to:

- forecasting of port requirements
- service elements
- availability
- service restrictions
- barring
- interconnection handover arrangements
- POI locations
- POI designation for codes
- Calling Line Identification (CLI)
- Forecasting, ordering and provisioning arrangements
- Network conditioning
- Operational and fault handling arrangements
- Inter carrier/carriage service provider (C/CSP) billing frequency
- Provision of tones and network announcements

- Customer billing

The ACCC has decided to remove these provisions from the service descriptions as they relate to processes for supplying the declared services and are more appropriate as non-price terms and conditions of access.

The ACCC notes Telstra's view that these provisions should not be removed from the service descriptions, despite the service descriptions not being the most appropriate place for them.[132] However, the ACCC considers that the FAD inquiry provides an appropriate opportunity for the ACCC to consult on and assess these non-price terms and conditions, along with the terms and conditions for other declared services.

6.3.3.3 The PSTN OA and PSTN TA service descriptions are amended to better reflect the technological neutrality of the declared services

The ACCC has decided to remove the provisions in the existing PSTN OA and PSTN TA service descriptions that refer to 'PSTN and PSTN equivalent'. The ACCC has also decided to amend the name of the PSTN OA service to Fixed Originating Access Service (FOAS) and PSTN TA to Fixed Terminating Access Service (FTAS).

The ACCC considers that regulated voice interconnection services are, and should be, available across all networks. The ACCC considers that these amendments will remove ambiguity and reflect its view that the scope of the declared service is not confined to interconnection of PSTN/TDM core networks but also includes interconnection with IP-based core voice networks.

[132] Telstra, February 2014 submission, p. 17.

7 Other issues

Key points

- The ACCC will consider whether access to certain facilities is required for the purpose of interconnecting with the declared service in the upcoming final access determination (FAD) inquiries for both the domestic transmission capacity service (DTCS) and fixed line services.
- The ACCC considers that terms and conditions for access to the internal interconnection cable (IIC) should be regulated through the FADs for the unconditioned local loop service (ULLS) and line sharing service (LSS).
- The role of hybrid-fibre coaxial cable (HFC) networks in supplying telecommunications services within the broader context of the NBN has yet to be clarified. The ACCC will consider whether there is any need to conduct an inquiry into the declaration of HFC services following this clarification.
- The ACCC intends to undertake separate market inquiries to assist it in deciding whether to commence an inquiry into declaring a new wholesale business-grade (symmetrical) DSL service.
- The ACCC has not, to date, received information that would support commencing an inquiry into declaring a fixed-to-mobile service. The ACCC considers that good substitutes are available for a bundled fixed-to-mobile service.
- The ACCC does not consider it necessary to amend the service descriptions for any of the six declared services so as to exempt carriers other than Telstra from supplying the declared services. The ACCC does not consider that granting such carrier-specific exemptions would promote competition in the long-term interests of end-users (LTIE).
- The ACCC considers that an appropriate duration for the declarations is five years. The ACCC considers that a five year declaration period will provide a sufficient degree of certainty and facilitate business planning during the transition to the National Broadband Network (NBN).
- The ACCC may consider any other emerging issues relevant to the provision of fixed line telecommunications services using the processes in Parts XIB and XIC of the *Competition and Consumer Act 2010* (CCA) where appropriate.

The ACCC noted in the draft report that the structure of the telecommunications industry is currently undergoing significant change, including the transition from Telstra's copper network to the National Broadband Network (NBN) and that there is some uncertainty regarding how markets for the delivery of fixed line telecommunications services will develop in the current competitive and regulatory landscape.

The ACCC continues to consider that a number of policy, commercial and technology developments may potentially have implications for competition in markets for fixed line services. The ACCC will monitor emerging issues and may initiate processes under Parts XIB or XIC of the *Competition and Consumer Act 2010* (Cth) (CCA) as appropriate, should it receive information or should circumstances develop that warrant further consideration.

A number of submissions advocated that the ACCC declare services that are not currently declared. Before the ACCC can declare a new eligible service, it is required to hold a public

inquiry about its proposal to make the declaration under section 152AL of the CCA.[133] This would be separate to this current inquiry. To declare a service, the ACCC must be satisfied that doing so will promote the LTIE. The following responds to the submissions of some stakeholders regarding whether separate public inquiries should be held for certain services.

7.1 Facilities access

In its July 2013 discussion paper, the ACCC noted it is considering facilities access service issues in both its fixed services review and Domestic Transmission Capacity Services (DTCS) declaration inquiries.

Facilities access services facilitate the supply of a listed carriage service and include Telstra Equipment Building Access (TEBA), the External Interconnect Cable, the Internal Interconnect Cable, duct access and transmission towers, among other things.

The ACCC noted that the growth in the number of end-users being supplied voice and broadband services using access seeker equipment has grown since 2009, and that facilities access has become a more significant issue. The ACCC stated that it would consider whether particular facilities access services exhibit natural monopoly characteristics and whether declaration would encourage the efficient use of and investment in infrastructure, taking into account the existing regulatory environment for these services.

The ACCC notes that competition is promoted in markets for the fixed line services where access to the facilities required to supply these services is enabled in a timely and cost effective manner.

7.1.1 Summary of the ACCC's draft views

In the draft report, the ACCC stated that it may give further consideration to commencing an inquiry into the declaration of facilities access services, depending on the nature of submissions received during the course of the respective FAD inquiries for the fixed line services and the DTCS. The ACCC will take into account the existing regulatory regime established under the *Telecommunications Act 1997* (Cth) and the ACCC's ability to specify terms and conditions for access to facilities that relate to the declared service through the FADs for declared fixed line services.[134]

The ACCC stated that if it finds it is necessary to set terms and conditions for access to facilities that are ancillary to declared fixed line services or the DTCS, it will seek submissions during the relevant FAD inquiry on which services should be regulated as ancillary to the declared services and on the appropriate terms and conditions.

The ACCC considered that access to the IIC service should be regulated through the FADs for the ULLS and LSS. The ACCC noted that it proposed to seek submissions on access terms and conditions for the service in its FAD inquiry for the fixed line services.

7.1.2 Submissions

Telstra's submission reiterated its previous views that the existing regulatory regime works well and additional regulation would duplicate or be inconsistent with existing regulation.[135] It noted that if the IIC is to be regulated, it was most appropriate to do so via the relevant FADs.[136]

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133 In contrast, this inquiry into the declaration of the current declared fixed line services is being conducted in accordance with the requirements of section 152 ALA(7) of the CCA.

134 ACCC, December 2013 Draft Report, p. 90.

135 Telstra, February 2014 submission, p. 19.

136 Telstra, February 2014 submission, p. 19.

Macquarie Telecom and AAPT submitted that the ACCC should make the decision to commence an inquiry into declaring facilities access services as soon as possible.[137] AAPT considered the most effective form of regulation to be the setting of upfront price and non-price terms of access to facilities.

iiNet submitted that it considered the ACCC has sufficient information to justify commencing a declaration inquiry.[138] It further submitted that recent judicial review proceedings demonstrate the 'extreme difficulty' access seekers have in relying on the Telecommunications Act. It submitted that Telstra's ability to exercise monopoly power has resulted in an environment that hinders competition and this is contrary to the LTIE.[139]

7.1.3 The ACCC's final views

The ACCC acknowledges that access to facilities is an area of general concern for access seekers. As noted in the DTCS declaration inquiry Final Report, the ACCC also considers that more issues may emerge as RSPs seek connection to NBN points of interconnection, the vast majority of which are located in Telstra exchanges.[140] The ACCC confirms that all of the exchange service areas (except South Brisbane) which have been identified as meeting the Revised Competition Assessment Criteria and which are proposed to be deregulated have established TEBA areas in the Telstra exchange building.

The ACCC has maintained its draft view that that access to the IIC service should be regulated through the FADs for the ULLS and LSS. The existing arbitrated price terms expire on 30 June 2014. The ACCC will commence a separate inquiry into varying the existing FADs to determine whether the IIC should be regulated from 30 June until such time as the ACCC completes its inquiry into making new FADs for the fixed line services and wholesale ADSL service. As stated in the draft report, the ACCC will seek submissions on access terms and conditions for the service in its ongoing inquiry into making the new FADs.

The ACCC has considered the submissions from access seekers that raise concerns about the effectiveness of the current facilities access regulatory framework. It has also noted submissions that have asked the ACCC to commence an inquiry to decide whether a facilities access service should be declared. The ACCC agrees that there are further issues to be examined to make sure that facilities access services are being provided effectively to facilitate interconnection.

The ACCC will consider whether access to certain facilities is required for the purpose of interconnecting with the declared service in the upcoming FAD inquiries for both the DTCS and FSR. This would include consideration of the relevant terms and conditions for access (both price and non-price terms) that would apply to facilities that are required for the purpose of enabling the access seeker to interconnect with the active declared service (i.e. the DTCS or declared fixed line services).

The ACCC considers it may also declare a facilities access service under Part XIC of the CCA, where it is satisfied that declaration meets the criteria in section 152AL, including that it would be in the LTIE. This would allow the ACCC to directly set terms and conditions of access to facilities in the relevant access determination (which would apply where there is no commercial agreement). The ACCC notes that interconnection within an exchange is necessary for the promotion of competition, to prevent inefficient provision of infrastructure and to allow access seekers to connect with competitive transmission providers.

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137 Macquarie Telecom, February 2014 submission, p. 5; AAPT, February 2014 submission, p. 1.

138 iiNet, February 2014 submission, p. 5.

139 iiNet, February 2014 submission, p. 5.

140 ACCC, ACCC Final Report on the review of the declaration for the Domestic Transmission Capacity Service, March 2014, p.51.

In addition, the ACCC notes that under the Structural Separation Undertaking (SSU), Telstra is required to publish a Reference Price for TEBA.[141] Where the ACCC prices a facilities access service (for example, TEBA in a FAD) in relation to interconnection with a declared service, Telstra is required to publish a new Rate Card which includes the new Reference Price equal to the price specified by the ACCC .

Declaration inquiry for facilities access services

While the ACCC is of the view that it may declare a facilities access service under Part XIC of the CCA, it has decided that will not commence a separate declaration inquiry in relation to facilities access services at this point in time. Rather, the ACCC considers that it would be more timely and efficient to consider issues relating to access to facilities through the FAD process (where access is provided in connection with a declared service). This will allow the ACCC to provide a more timely regulatory response to the facilities access issues raised by stakeholders.

Where access is dealt with by other provisions of the Telecommunications Act (including arbitrations) or is not provided in connection with a declared service, the ACCC will consider the issues both individually (within the context of the relevant arbitration) and in the context of the industry as a whole. If there are outstanding issues that are not addressed during the FAD inquiry or during the course of arbitrations, the ACCC will then consider whether to commence a declaration inquiry at that time.

7.2 HFC services

In the draft report, the ACCC stated that it would assess whether there is a need to commence an inquiry into the declaration of HFC services, following clarification of the role of HFC networks in supplying telecommunications services within the broader context of the NBN.[142]

Telstra submitted that the most appropriate time to consider an inquiry into the declaration of HFC services is once there is greater clarity on the role of HFC networks in supplying telecommunications services within the broader context of the NBN.[143] No other parties made submissions in relation to declaration of HFC services.

At the time of writing, the role of HFC networks in this regard had not yet been clarified. The ACCC will consider declaration of HFC services when there is greater clarity around the future role of HFC networks in supplying telecommunications services.

7.3 Wholesale business-grade DSL service

As noted in the draft report, the ACCC considers that Telstra already supplies wholesale business-grade (symmetrical) DSL services on a commercial basis. The ACCC stated that it was not clear the extent to which access to a regulated wholesale business-grade DSL service is a significant issue for the industry.[144]

The ACCC noted that subject to any further information received during the course of this inquiry, it did not propose to commence an inquiry into the declaration of a business-grade (symmetrical) DSL service.

Macquarie Telecom submitted that it would support the commencement of an inquiry by the ACCC into declaring a wholesale business-grade (symmetrical) DSL service.[145] Telstra

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141 Telstra Corporation Limited Structural Separation Undertaking provided to the ACCC under the Telecommunications Act, 23 February 2012, schedule 8.

142 ACCC, December 2013 Draft Report, p. 90.

143 Telstra, February 2014 submission, p. 19.

144 ACCC, December 2013 Draft Report, p. 91.

145 Macquarie Telecom, February 2014 submission, pp. 5-6.

submitted that it already supplies wholesale business-grade DSL services on a commercial basis and it considers there is no basis for declaring such a service. Telstra noted that if the ACCC receives information from other parties that argues a contrary view, it should be given an opportunity to respond to those submissions.[146]

AAPT submitted that there is a need to clarify the service description of the wholesale ADSL service in order to ensure equivalence in accordance with the Telstra Structural Separation Undertaking (SSU). AAPT submitted that Telstra can provide a combined voice and data service bundle over a single ADSL2+ connection to its customers, where the voice component is prioritised over data such that voice quality service is ensured. AAPT stated that Telstra does this by using a technology called Quality of Service (QoS). AAPT submitted that it does not have access to QoS so when it provides a product that combines voice and data traffic, voice quality deteriorates, putting AAPT (and other wholesale customers) at a competitive disadvantage compared to Telstra's Retail Business Units.

The ACCC does not consider that an inquiry into the declaration of a business-grade (symmetrical) DSL service is warranted at this stage. However, the ACCC intends to conduct market inquiries in the second half of 2014 to determine whether there are sufficient grounds to justify commencing an inquiry into either varying the wholesale ADSL service description or declaring a new service, including considering issues regarding QoS. The ACCC will ensure the timing of these market inquiries are such that they do not overlap significantly with the timeframes for other ACCC regulatory processes.

7.4 Fixed-to-mobile service

In the draft report, the ACCC noted that a fixed-to-mobile service includes an originating access service, a terminating access service and a transmission service. Consequently, the ACCC considered that a fixed-to-mobile service would be expected to cost more than the sum of the Public Switched Telephone Network Originating Access (PSTN OA) and Mobile Terminating Access Service (MTAS) charges alone.[147] The draft report noted that there are good substitutes for buying a bundled fixed-to-mobile service. Access seekers can purchase the PSTN OA service and MTAS at the regulated prices and separately purchase a transmission service, at the DTCS regulated price on non-competitive routes or at a competitive price on routes where there is a choice of suppliers.[148] The ACCC considered that current fixed-to-mobile charges appear broadly reflective of the costs of the three components of the bundled service and that commencing an inquiry into declaring a fixed-to-mobile service was not warranted.

Macquarie Telecom submitted it is 'disappointed with the ACCC's view to not commence an inquiry into this matter' and reiterated its view that there is a 'disconnect between the services that the ACCC regulates and the services that are provided by access providers'.[149] However, Macquarie Telecom did not submit any further evidence in support of its view.

The ACCC confirms its view that commencing an inquiry into declaring a fixed-to-mobile service is not warranted on the evidence available during the inquiry process.

7.5 Carrier-specific exemptions

Once a service is declared, an access provider supplying the declared service to itself or to another person must also supply the service, upon request, to access seekers that supply services to end-users. This is in accordance with the standard access obligations set out in section 152AR of the CCA. Declaration therefore imposes access obligations on all network

146 Telstra, February 2014 submission, p. 20.
147 ACCC, December 2013 Draft Report, p. 91.
148 ACCC, December 2013 Draft Report, p. 91.
149 Macquarie Telecom, February 2014 submission, p. 5.

operators that supply the declared service, regardless of whether they currently supply wholesale access services to third parties.[150]

7.5.1 Summary of the ACCC's draft views

In the draft report, the ACCC stated that the service descriptions for the declared fixed line services should not be amended to exempt providers other than Telstra from supplying the declared services.[151]

The ACCC noted that the Part XIC of the CCA establishes a service based regulatory regime and declarations relate to specific services. A service description describes the service and the identity of the service provider is not relevant to that description. Where the ACCC grants carrier-specific exemptions, it typically does this by including a provision in the relevant FAD for the declared service where it is satisfied that granting such an exemption promotes the LTIE.

The ACCC further noted that, in granting carrier-specific exemptions for the Wholesale ADSL service in 2012, the ACCC considered that requiring non-Telstra providers to supply the regulated Wholesale ADSL service may require these providers to 'undertake significant investment in billing and provisioning systems to provide a wholesale ADSL service'. The ACCC stated that it had not received any evidence during the current declaration inquiry that there would be significant additional costs for non-Telstra providers in supplying the declared fixed line services. It noted that service providers other than Telstra currently supply wholesale fixed line services and that the services have been declared for some time.

The ACCC considered that exempting non-Telstra providers from providing the declared services would not promote competition or promote the LTIE.[152]

7.5.2 The ACCC's final views

Consistent with the draft report, the ACCC has decided that the service descriptions for the declared fixed line services should not be amended to exempt providers other than Telstra from supplying the declared services. The ACCC confirms its view that exempting these providers from providing the declared services would not promote competition or promote the LTIE.

7.6 Duration of declarations

Section 152ALA(1) of the CCA requires the ACCC to specify an expiry date for a declaration. In specifying an expiry date, the ACCC must have regard to the principle that an expiry date should occur within the period that begins three years after the declaration was made and ending five years after the declaration was made, unless the ACCC considers that there are circumstances that warrant a longer or shorter declaration period.

Section 152ALA(4) allows the ACCC to extend or further extend the expiry date of a specified declaration as long as the extension or further extension is for a period of not more than five years.

7.6.1 Summary of the ACCC's draft views

The ACCC considered that the fixed line services should be declared for a further five year period with an expiry date of 31 July 2019.

The ACCC noted that the rollout of the NBN is expected to continue over the next five years and that during this period it is likely that Telstra will retain control of the copper network and

150 Subsection 152AR(2) of the CCA.
151 ACCC, December 2013 Draft Report, p. 92.
152 ACCC, December 2013 Draft Report, p. 92.

that this network will remain an essential bottleneck facility. The ACCC considered that a five-year regulatory period would provide a degree of certainty and facilitate business planning during the transition to the NBN, which will in turn promote efficient investment decisions by both Telstra and access seekers.

The ACCC noted that in the 2009 Fixed Services Review, the six currently declared fixed line services were declared for five years to take into account the need for regulatory certainty during the transition to an NBN environment.[153]

7.6.2 Submissions

Telstra, Macquarie Telecom, AAPT and iiNet all supported a five year declaration. Macquarie submitted that a five year declaration provides access seekers with a more certain operating environment which is thereby less risky. Macquarie also submitted that a five year service declaration would sit comfortably with a FAD of two years.[154] AAPT and iiNet agreed with the ACCC that it is in the LTIE to continue declaration of the fixed line services for a further five year period.[155]

7.6.3 The ACCC's final views

The ACCC has decided that the fixed line services should be declared for a further five year period with an expiry date of 31 July 2019.

The ACCC confirms its draft view that, during the transition to the NBN, it is likely that Telstra will retain control of the copper network, which will remain an essential bottleneck facility. The ACCC considers a five year declaration period will provide access to this bottleneck infrastructure and provide regulatory certainty during the transition to an NBN environment.

The ACCC agrees with Macquarie Telecom's submission that a five-year declaration period will provide a degree of certainty and facilitate business planning during the transition period. The ACCC considers that this will in turn promote efficient investment decisions by both Telstra and access seekers.

Consistent with its draft view, the ACCC has concluded that in these circumstances, a five year declaration period will promote the LTIE.

7.7 Emerging issues

As noted in the draft report, the ACCC considers that the telecommunications industry is currently undergoing significant change and that the nature and extent of access regulation will need to remain under review during a period of transition to new industry structures.[156]

The deployment of new access networks, or the introduction of new higher quality services over existing access networks, could raise questions about whether adjustments to the scope of access regulation are needed to promote the LTIE. Wholesale access to these new networks or services on reasonable terms could potentially become an important facilitator of competition in the future, for example, access to fibre services or very high bit-rate DSL (VDSL) services (such as those supplied using a node in large buildings).

The ACCC considers that under present regulatory settings, these new or emerging services would be declared only where they are supplied by a NBN corporation or a provider of the local bitstream access service (LBAS). Whether broader application of access regulation to these

153 ACCC, December 2013 Draft Report, p. 93.
154 Macquarie Telecom, February 2014 submission, p. 6.
155 AAPT, February 2014 submission, p. 1, iiNet, February 2014 submission, pp. 3-4.
156 ACCC, December 2013 Draft Report, pp. 93-94.

services is warranted will likely depend upon the importance of that access to competition in the transitional period, as well as the preparedness of network operators to provide wholesale access on reasonable terms and conditions.

Should any competition concerns emerge in relation to new or emerging networks and services, the ACCC will consider how best to respond, depending on the circumstances, including using the processes in Parts XIB and XIC of the CCA.

A Service Description for the ULLS

Declared service

The Australian Competition and Consumer Commission declares pursuant to section 152AL(3) of the ~~Trade Practices Act 1974~~Competition and Consumer Act 2010 (the Act) that the ~~U~~unconditioned local loop service (ULLS) is a ~~"~~‘declared service’~~"~~ for the purposes of Part XIC of the Act.

Date

The declaration takes effect on 1 August ~~2009~~2014 and expires on 31 July ~~2014~~2019.

Service description

The unconditioned local loop service is the use of unconditioned communications wire between the boundary of a telecommunications network at an end-user’s premises and a point on a telecommunications network that is a potential point of interconnection located at or associated with a customer access module and located on the end-user side of the customer access module.

Definitions

Where words or phrases used in this declaration are defined in the ~~Trade Practices~~ Act ~~1974~~ or the Telecommunications Act 1997, they have the meaning given in the relevant Act.

In this Appendix:

boundary of a telecommunications network is the point ascertained in accordance with section 22 of the Telecommunications Act 1997;

communications wire is a copper or aluminium based wire forming part of a public switched telephone network;

customer access module is a device that provides ring tone, ring current and battery feed to customers’ equipment. Examples are Remote Subscriber Stages, Remote Subscriber Units, Integrated Remote Integrated Multiplexers, Non-integrated Remote Integrated Multiplexers and the customer line module of a Local Access Switch;

public switched telephone network is a telephone network accessible by the public providing switching and transmission facilities utilising analogue and digital technologies.

B Service Description for the LSS

Declared service

The Australian Competition and Consumer Commission declares pursuant to section 152AL(3) of the Competition and Consumer Act 2010 (the Act) that the line sharing service (LSS) is a "'declared service'" for the purposes of Part XIC of the Act.

Date

The Ddeclaration ~~of the line sharing service~~ takes effect on 1 August ~~2009~~2014 and expires on 31 July ~~2014~~2019.

Service description

The line sharing service ~~High Frequency Unconditioned Local Loop Service~~ is the use of the non-voiceband frequency spectrum of unconditioned communications wire (over which wire an underlying voiceband PSTN service is operating) between the boundary of a telecommunications network at an end-user's premises and a point on a telecommunications network that is a potential point of interconnection located at, or associated with, a customer access module and located on the end-user side of the customer access module.

Definitions

Where words or phrases used in this declaration are defined in the Competition and Consumer Act 2010 ~~Trade Practices Act 1974~~ or the Telecommunications Act 1997, they have the same meaning given in the relevant Act.

In this Appendix:

boundary of a telecommunications network is the point ascertained in accordance with section 22 of the Telecommunications Act 1997;

communications wire is a copper or aluminium based wire forming part of a public switched telephone network;

customer access module is a device that provides ring tone, ring current and battery feed to customers' equipment. Examples are Remote Subscriber Stages, Remote Subscriber Units, Integrated Remote Integrated Multiplexers, Non-integrated Remote Integrated Multiplexers and the customer line module of a Local Switch;

public switched telephone network is a telephone network accessible by the public providing switching and transmission facilities utilising analogue and digital technologies;

voiceband PSTN service is a service provided by use of a public switched telephone network and delivered by means of the voiceband portion of the frequency spectrum available over~~of~~ a metallic line.

C Service Description for the WLR

Declared service

The Australian Competition and Consumer Commission declares pursuant to section 152AL(3) of the Competition and Consumer Act 2010 ~~Trade Practices Act 1974~~ (the Act) that the ~~L~~line rental service, now known as the wholesale line rental (WLR) service, is a ~~"~~'declared service'~~"~~ for the purposes of Part XIC of the Act.

Date

The declaration takes effect on 1 August ~~2009~~2014 and expires on 31 July ~~2014~~2019.

Service description

The WLR ~~line rental~~ service is a line rental telephone service which allows an end-user to connect to a carrier or carriage service provider's public switched telephone network, and provides the end-user with:

(a) an ability to make and receive any 3.1khz bandwidth calls (subject to any conditions that might apply to particular types of calls), including, but not limited to, local calls, national and international long distance calls; and

(b) a telephone number

however, the wholesale line rental service does not include services where the connectivity between the end-user and the carrier or carriage service provider's network is provided in whole or in part by means of a Layer 2 bitstream service that is supplied by an NBN corporation.

~~except where the supply of the line rental telephone service is within the Central Business District Area of Sydney, Melbourne, Brisbane, Adelaide and Perth.~~

Definitions

Where words or phrases used in this declaration are defined in the ~~Trade Practices~~ Act ~~1974~~ or the Telecommunications Act 1997, they have the same meaning given in the relevant Act.

In this Appendix:

~~**Central Business District Area** means the exchange service areas that are classified as CBD for the purposes of the ordering and provisioning procedures set out in the Telstra Ordering and Provisioning Manual as in force on the date of effect of the declaration.~~

Layer 2 bitstream service has the same meaning as in the Telecommunications Act 1997;

NBN corporation has the same meaning as in the National Broadband Network Companies Act 2011;

public switched telephone network is a telephone network accessible by the public providing switching and transmission facilities utilising analogue and digital technologies.

D Service Description for the LCS

Declared service

The Australian Competition and Consumer Commission declares pursuant to section 152AL(3) of the Competition and Consumer Act 2010~~Trade Practices Act 1974~~ (the Act) that the ~~L~~local carriage service (LCS) is a ~~"~~‘declared service’~~"~~ for the purposes of Part XIC of the Act.

Date

The declaration takes effect on 1 August ~~2009~~2014 and expires on 31 July ~~2014~~2019.

Service description

The local carriage service is a service for the carriage of telephone calls from customer equipment at an end-user’s premises to separately located customer equipment of an end-user in the same standard zone~~, however, the local carriage service does not include services where the supply of the local carriage service originates from an exchange located within a Central Business District Area of Sydney, Melbourne, Brisbane, Adelaide or Perth and terminates within the standard zone which encompasses the originating exchange.~~, however, the local carriage service does not include services where the connectivity between the end-user and the carrier or carriage service provider’s network is provided in whole or in part by means of a Layer 2 bitstream service that is supplied by an NBN corporation.

Definitions

Where words or phrases used in this declaration are defined in the ~~Trade Practices~~ Act ~~1974~~ or the Telecommunications Act 1997, they have the meaning given in the relevant Act.

In this Appendix:

~~**Central Business District Area** means the exchange service areas that are classified as CBD for the purposes of the ordering and provisioning procedures set out in the Telstra Ordering and Provisioning Manual as in force on the date of effect of the renewed declaration.~~

Layer 2 bitstream service has the same meaning as in the Telecommunications Act 1997;

NBN corporation has the same meaning as in the National Broadband Network Companies Act 2011;

public switched telephone network is a telephone network accessible by the public providing switching and transmission facilities utilising analogue and digital technologies.

standard zone has the same meaning as in Part 4 of the Telecommunications (Consumer Protection and Service Standards) Act 1999.

telephone calls are calls for the carriage of communications at 3.1kHz bandwidth solely by means of a public switched telephone network.

E Service Description for the ~~PSTN OA~~FOAS

Declared service

The Australian Competition and Consumer Commission declares pursuant to section 152AL(3) of the Competition and Consumer Act 2010 ~~Trade Practices Act 1974~~ (the Act) that the Domestic PSTN Originating Service, now known as the fixed originating access service (FOAS), is a ~~"~~'declared service'~~"~~ for the purposes of Part XIC of the Act.

Date

The declaration takes effect on 1 August ~~2009~~2014 and expires on 31 July ~~2014~~2019.

Service description and definitions

An access service for the carriage of telephone ~~(i.e. PSTN and PSTN equivalent such as voice from ISDN)~~ calls (i.e. voice, data over the voice band) to a POI from end-customers assigned numbers from the geographic number ranges of the Australian Numbering Plan and directly connected to the ~~A~~access ~~P~~provider's network.

For the avoidance of doubt, the service also includes a service for the carriage of telephone calls from customer equipment at an end-user's premises to a POI, or potential POI, located at or associated with a local switch (being the switch closest to the end-user making the telephone call) and located on the outgoing trunk side of the switch.

~~The Service as described comprises a number of different elements as follows:~~

- ~~Access via Preselection, AS number ranges such as those numbers listed in POASD7 or 14xy Override code as required to achieve the objective of any-to-any connectivity~~
- ~~Call Barring~~
- ~~POI Location~~
- ~~Forwarding a call beyond the POI of table OASD2 to OASD3 where applicable (see POIs below)~~
- ~~Signalling~~
- ~~CLI provision~~
- ~~Provision of Switchports~~
- ~~Network Conditioning~~
- ~~Fault Handling~~
- ~~Inter C/CSP Billing~~

~~Restrictions on availability and others factors relating to the provision of Access are further described below.~~

~~In accordance with the Trade Practices Act 1974 Part XIC, these elements:~~

- ~~may not be available from all APs~~
- ~~may have restrictions in their availability~~

~~**Availability**~~

~~The availability of the services may vary depending on the geographic and technical capability of the AP's network at the time at which a request for the service is made or the service is delivered.~~

~~The AP will make available to ASs documents describing the availability of this service on its network. See Services & Interconnection hand over arrangements below.~~

Channel Capacity

The service will establish a connection for the purposes of voice communication with the standard bandwidth of 3.1kHz.

Services

The service is provided on a call that is made with:

- pre-selection, or
- an access seeker ~~AS~~ specific code including Special Services codes and number ranges ~~(with some exceptions) as per table POASD7~~, or
- a long distance, international or shared operator codes dialled with an over-ride/access code in accordance with the Australian Numbering Plan.

Pre-selection and code override services are not declared where connectivity between the end-user directly connected to the access provider's network and a POI is provided in whole or in part by means of a Layer 2 bitstream service that is supplied by an NBN corporation.

~~The AP will publish at least half yearly, tables detailing the geographic number ranges where there are restrictions on the provision of this service.~~

~~**Service Restrictions**~~

~~At least annually, the AP will advise of end-customer services that may restrict the provision of this service e.g. Real Time Metering in a Table POASD5.~~

~~**Barring**~~

~~The AP may provide a service that will allow barring of over-ride codes at the request of the end-customer.~~

~~End-customers may request generic barring services which may restrict access to these services.~~

~~The AP should detail this barring in a table POASD6.~~

~~**Interconnection handover arrangements**~~

~~The AP and the AS are each responsible for the provision, installation, testing, making operational and monitoring of all the network on their respective sides of the POI.~~

~~**POIs**~~

~~"Point of Interconnection" or "POI" means an agreed location which:~~

- ~~is a physical point of demarcation between the networks nominated by the AS and the AP; and~~
- ~~is associated (but not necessarily co-located with) with one or more gateway exchanges of each of the networks nominated by the AS and the AP in respect of the POIs nominated by the AP.~~

~~Calls originated by the A-party will be handed over to the AS at Points of Interconnection agreed by the AS and the AP in accordance with POI locations and POI designation for codes.~~

~~**POI locations**~~

~~The AP will provide a table (Table POASD1) listing of POIs where this service may be provided. This listing will be updated at least annually. The AS may request a point of interconnect with the AP's network at a location other than one specified by the AP. The AP must, to the extent technically and operationally feasible, permit the location of a point of interconnect at that location.~~

~~**POI designation for codes**~~

~~The AP will provide a table (Table POASD2) listing of the geographic number ranges associated with each POI. When Originating Access is being provided access from these codes will be provided at the corresponding POI. The POIs in table POASD2 will be the POI for "near-end handover" of calls from the origins listed.~~

~~The AP will provide a table (Table POASD3) listing of POIs and of associated POIs from which traffic that could have been handed over as per table POASD2 may be collected. [Different charges will be payable where traffic that could have been collected at the POI in table POASD2 is collected at a POI in table POASD3.]~~

~~The AP will indicate how these tables POASD2 and POASD3 apply to the different call types of paragraph 1.3.~~

~~The provisions of this Service Description apply to traffic collected at POIs listed in Table POASD2 or POASD3~~

Signalling

Signals for this service will use CCS#7 signalling. Unless otherwise agreed, this CCS#7 signalling will be in accordance with the NIIF/ACIF Interconnection-ISUP specification.

~~The AP will provide a table (Table OASD4) of the locations where the AS may interconnect its CCS#7 signalling network with that of the AP for the purpose of accepting this service.~~

~~Signalling interconnection may not be provided at all POIs. The POIs of 1.4.1.1 may provide for interconnection of only voice circuits. Control of voice circuits where direct signalling interconnection is not provided, will be via "quasi-associated signalling" using Signalling Transfer Point (STP) operation, with signalling via a nominated other gateway where signalling interconnection is provided.~~

~~**CLI**~~

~~The CLI of the A-party will be provided as part of the CCS#7 signalling for this service.~~

Nature of switchports

At POIs the calls will be delivered to the AS at 2.048Mbit/sec Switchports. The switchports will operate at 2.048Mbit/sec in accordance with the ITU Recommendations G.703, G. 704 and G.732 (Blue Book).

~~**Send and receive speech levels**~~

~~The send and receive levels for speech will be -13 dBr unless specified otherwise in the Australian Network Performance Plan.~~

~~The AP will not provide Echo Control unless this is a requirement within the AP's own network for calls between the end customer and the AP's gateway exchange.~~

~~**Forecasting, ordering and provisioning arrangements**~~

~~**Interconnection forecasting and planning requirements**~~

Forecast of port requirements

For each POI the AS should provide forecasts, at least half yearly, of switchport requirements for 6, 12, 18, 24, 30 and 36 months from the time of the forecast. Forecasts should be provided on dates to be agreed between the AP and the AS and forecast the switchport requirements from operative dates of 31 December and 30 June. Forecasts will be discussed by the AP and the AS with a view to agreement within 30 Business Days. Forecasts will be used by the AP for network planning and not for charging purposes.

Forecast of network capacity requirements

For each POI and for each of the AP's charging districts the AS should provide forecasts, at least half yearly, of traffic requirements for 6, 12, 18, 24, 30 and 36 months from the time of the forecast. These forecasts should provide daily and weekly profiles for the traffic forecasted and advice of any material non-uniformities in the dispersion of the sources of originating access traffic. Forecasts should be provided on dates to be agreed between the AP and the AS and forecast the traffic requirements from operative dates of 31 December and 30 June. Forecasts will be discussed by the AP and the AS with a view to agreement within 30 Business Days.

Ordering of Switchports

The AP will accept orders for switchports up to the level of the agreed forecasts for each POI. The AS should order switchports allowing 6 months for their provision.

The AP will provide access up to the level of the agreed traffic forecasts for each POI.

The AS may request and the AP will give reasonable consideration to such provision, but is under no obligation to provide access of switchports above the level of the agreed forecasts. If such access is provided, delivery times may be longer than those specified in Ordering of Switchports.

Interconnection Ordering Requirements

Compliance testing

The AS will be required to demonstrate compliance with the agreed CCS#7 signalling System prior to the provision of the service.

The AP and the AS will develop an agreed test plan and the AS will provide results of tests to this plan from an appropriate test house or other such party. The AP will provide results of such tests if it is not otherwise seeking a switched access service from the AS.

The AP and the AS shall review the test results of the agreed test plan within 20 business days and if the AP accepts that the test results of the agreed test plan are satisfactory then the AP and the AS will agree a date for commissioning tests.

The test results of the agreed test plan will form the prime documentary basis for ongoing operations, fault analysis and fault management of signalling between the AP and the AS.

Network Conditioning

Network Conditioning of the AP's network will be required before the provision of the service.

Operational and Fault handling arrangements

The AP will provide a contact point for the Operation and Maintenance of the service. Faults may be reported to this centre which will manage the clearance of these faults.

Inter C/CSP Billing frequency

~~The AP will invoice the AS on a monthly basis for this service.~~

~~**Provision of Tones and Network Announcements**~~

~~Where calls attempting this service do not progress to the POI the call may be connected to tones as per AUSTEL Technical Standard TS002 or to a network RVA in the AP's network.~~

~~**Customer Billing**~~

~~Customer billing should be in accordance with an approved telecommunications access code.~~

Definitions

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

In this Appendix:

NBN corporation has the same meaning as in the National Broadband Network Companies Act 2011.

point of Interconnection or **POI** means an agreed location which:

- is a physical point of demarcation between the networks nominated by the access seeker and the access provider; and
- is associated (but not necessarily co-located with) with one or more gateway exchanges of each of the networks nominated by the access seeker and the access provider in respect of the POIs nominated by the access provider.

F Service Description for the FTAS ~~PSTN TA~~

Declared service

The Australian Competition and Consumer Commission declares pursuant to section 152AL(3) of the Competition and Consumer Act 2010~~Trade Practices Act 1974~~ (the Act) that the Domestic PSTN Terminating Service, now known as the fixed terminating access service (FTAS), is a ~~"~~'declared service'~~"~~ for the purposes of Part XIC of the Act.

Date

The declaration takes effect on 1 August ~~2009~~2014 and expires on 31 July ~~2014~~2019.

Service description and definitions

An access service for the carriage of telephone ~~(i.e. PSTN and PSTN equivalent such as voice from ISDN)~~ calls (i.e. voice, data over the voice band) from a POI to end-customer assigned numbers from the geographic number ranges of the Australian Numbering Plan and directly connected to the ~~A~~access ~~P~~provider's network.

For the avoidance of doubt, the service also includes a service for the carriage of telephone calls from a POI, or potential POI, located at or associated with a local switch and located on the incoming trunk side of the switch to customer equipment at an end-user's premises.

~~The Service as described comprises a number of different elements as follows:~~

- ~~Access for calls forwarded for termination in the AP's fixed network~~
- ~~POI Location~~
- ~~Forwarding a call beyond the POI of table TPASD3 to TPASD2 where applicable (see POIs below)~~
- ~~Signalling~~
- ~~CLI provision~~
- ~~Provision of Switchports~~
- ~~Network Conditioning~~
- ~~Fault Handling~~
- ~~Inter C/CSP Billing~~
- ~~Restrictions on availability and others factors relating to the provision of Access are further described below.~~

~~In accordance with the Trade Practices Act Part XIC these elements~~

- ~~may not be available from all APs~~
- ~~may have restrictions in their availability~~

~~**Availability**~~

~~The availability of the services may vary depending on the geographic and technical capability of the AP's network at the time at which a request for the service is made or the service is delivered.~~

~~The AP will make available to ASs documents describing the availability of this service on its network. See Services & Interconnection Handover arrangements~~

Channel Capacity

The service will establish a connection for the purposes of voice communication with the standard bandwidth of 3.1kHz.

Services

The service is provided on a call that is handed over for termination to a customer directly connected to the ~~AP~~access provider's network with numbering in accordance with the Australian Numbering Plan.

~~**Service Restrictions**~~

~~At least annually, the AP will advise of end-customer services that may restrict the provision of this service e.g. Services barred from accepting Reverse Charge Calls in a Table PTASD5.~~

~~**Interconnection Handover arrangements**~~

~~The AP and the AS are each responsible for the provision, installation, testing, making operational and monitoring of all the network on their respective sides of the POI.~~

~~**POIs**~~

~~"Point of Interconnection" or "POI" means an agreed location which:~~

- ~~is a physical point of demarcation between the networks nominated by the AS and the AP; and~~
- ~~is associated (but not necessarily co-located with) with one or more gateway exchanges of each of the networks nominated by the AS and the AP.~~

~~Calls originated by the A-party will be handed over to the AS at Points of Interconnection agreed by the AS and the AP in respect of the POIs nominated by the AP in accordance with POI locations and POI designation for codes.~~

~~**POI locations**~~

~~The AP will provide a table (Table PTASD1) listing of POIs where this service may be provided. This listing will be updated at least annually. The AS may request a point of interconnect with the AP's network at a location other than one specified by the AP. The AP must, to the extent technically and operationally feasible, permit the location of a point of interconnect at that location.~~

~~**POI designation for codes**~~

~~The AP will provide a table (Table PTASD2) listing of the geographic number ranges associated with each POI. When Terminating Access is being provided access to these codes will be provided at the corresponding POI. The POIs in table PTASD2 will be the POI for " far end handover" of calls to the destinations listed.~~

~~The AP will provide a table (Table PTASD3) listing of POIs and of associated POIs from which traffic that could have been handed over as per table TPASD2 may be handed over for termination. [Different charges will be payable where traffic that could have been handed over at the POI in table TPASD2 is handed over at a POI in table TPASD3.]~~

~~The provisions of this Service Description apply to traffic handed over at POIs listed in Table PTASD2 or PTASD3.~~

Signalling

Signals for this service will use CCS#7 signalling. Unless otherwise agreed, this CCS#7 signalling will be in accordance with the NIIF/ACIF Interconnection-ISUP specification.

~~The AP will provide a table (Table PTASD4) of the locations where the AS may interconnect its CCS#7 signalling network with that of the AP for the purpose of accepting this service.~~

~~Signalling interconnection may not be provided at all POIs. These POIs would provide for interconnection of voice circuits only. Control of voice circuits where direct signalling interconnection is not provided, will be via "quasi-associated signalling" using Signalling Transfer Point (STP) operation, with signalling via a nominated other gateway where signalling interconnection is provided.~~

~~**CLI**~~

~~Unless otherwise agreed the CLI of the A-party should be provided as part of the CCS#7 signalling for this service.~~

Nature of switchports

At POIs the calls will be delivered to the access seeker~~AS~~ at 2.048Mbit/sec Switchports. The switchports will operate at 2.048Mbit/sec in accordance with the ITU Recommendations G.703, G. 704 and G.732 (Blue Book).

~~**Send and receive speech levels**~~

~~The send and receive levels for speech will be -13 dBr unless specified otherwise in the Australian Network Performance Plan.~~

~~The AP will not provide Echo Control unless this is a requirement within the AP's own network for calls between the end customer and the AP's gateway exchange.~~

~~**Interconnection Forecasting, ordering and provisioning arrangements**~~

~~**Forecasting and planning requirements**~~

~~**Forecast of port requirements**~~

~~For each POI the AS should provide forecasts, at least half yearly, of switchport requirements for 6, 12, 18, 24, 30 and 36 months from the time of the forecast. Forecasts should be provided on dates to be agreed between the AP and the AS and forecast the switchport requirements from operative dates of 31 December and 30 June. Forecasts will be discussed by the AP and the AS with a view to agreement within 30 Business Days. Forecasts will be used by the AP for network planning and not charging purposes.~~

~~**Forecast of network capacity requirements**~~

~~For each POI and for each charging district of the AP the AS should provide forecasts, at least half yearly, of traffic requirements for 6, 12, 18, 24, 30 and 36 months from the time of the forecast. These forecasts should provide daily and weekly profiles for the traffic forecasted and advice of any material non-uniformities in the dispersion of the terminating access traffic. Forecasts should be provided on dates to be agreed between the AP and the AS and forecast the traffic requirements from operative dates of at the end of the quarters i.e. 31 December and 30 June. Forecasts will be discussed by the AP and the AS with a view to agreement within 30 Business Days.~~

~~**Ordering of Switchports**~~

~~The AP will accept orders for switchports up to the level of the agreed forecasts for each POI. The AS should order switchports allowing 6 months for their provision.~~

~~The AP will provide access up to the level of the agreed traffic forecasts for each POI.~~

~~The AS may request and the AP will give reasonable consideration to, and use reasonable endeavours to provide, such provision, but is under no obligation to provide access or switchports above the level of the agreed forecasts. If such access is provided, delivery times may be longer than those specified in Ordering of Switchports.~~

~~Interconnection Ordering Requirements~~

~~Compliance testing~~

~~The AS will be required to demonstrate compliance with the agreed CCS#7 signalling system prior to the provision of the service.~~

~~The AP and the AS will develop an agreed test plan and the AS will provide results of tests to this plan from an appropriate test house or other such party. The AP will provide the results of such tests if it is not otherwise seeking a switch access service from the AS.~~

~~The AP and the AS shall review the test results of the agreed test plan within 20 business days and if the AP accepts that the test results of the agreed test plan are satisfactory then the AP and the AS will agree a date for commissioning tests.~~

~~The test results of the agreed test plan will form the prime documentary basis for ongoing operations, fault analysis and fault management of signalling between the AP and the AS.~~

~~Network Conditioning~~

~~Network Conditioning of the AP's network will be required before the provision of the service.~~

~~Operational and Fault handling arrangements~~

~~The AP will provide a contact point for the Operation and Maintenance of the service. Faults may be reported to this centre which will manage the clearance of these faults.~~

~~Inter C/CSP Billing frequency~~

~~The AP will invoice the AS on a monthly basis for this service.~~

~~Provision of Tones and Network Announcements~~

~~Where calls attempting this service do not progress to the end customer the call may be connected to tones as per AUSTEL Technical Standard TS002 or to a network RVA in the AP's network.~~

~~Customer Billing~~

~~Customer billing should be in accordance with an approved telecommunications access code.~~

Definitions

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

In this Appendix:

NBN corporation has the same meaning as in the National Broadband Network Companies Act 2011.

point of Interconnection or **POI** means an agreed location which:

- is a physical point of demarcation between the networks nominated by the access seeker and the access provider; and
- is associated (but not necessarily co-located with) with one or more gateway exchanges of each of the networks nominated by the access seeker and the access provider in respect of the POIs nominated by the access provider.

G List of submissions

Submissions received in response to July 2013 Discussion Paper on the Declaration Inquiry
AAPT, (confidential version), 27 August 2013. **(AAPT, August 2013 submission)**
ACCAN, 27 August 2013. **(ACCAN, August 2013 submission)**
Dermot Cox, 23 August 2013. **(Dermot Cox, August 2013 submission)**
Herbert Geer, on behalf of iiNet Limited (confidential version), 23 August 2013. **(iiNet, August 2013 submission)**
Macquarie Telecom, (confidential version), 28 August 2013. **(Macquarie Telecom, August 2013 submission)**
Megaport, (confidential version), 9 September 2013. **(Megaport, September 2013 submission)**
MyNetFone, [Symbio Networks] (confidential version), 19 September 2013. **(MyNetFone, September 2013 submission)**
Optus, (confidential version), 27 August 2013. **(Optus, August 2013 submission)**
Telstra, (confidential version), 6 September 2013. **(Telstra, September 2013 submission)**
Submission & appendix 1: Submission and Responses to questions in the discussion paper, (confidential) 6 September 2013
Appendix 2: Market information report (confidential), 6 September 2013
Appendix 3: King report (public), 6 September 2013
Appendix 4: Cave report (confidential), 6 September 2013
Appendix 5: Technical witness statement (Fixed networks), (confidential), 6 September 2013
Appendix 6: Technical witness statement (PSTN OA and TA), (confidential), 6 September 2013
Appendix 7: Mark ups to service descriptions (public), 6 September 2013
Vodafone, 23 August 2013. **(Vodafone, August 2013 submission)**
Supplementary submissions received in response to July 2013 Discussion Paper on the Declaration Inquiry
Macquarie Telecom, AAPT and iiNet, Joint Submission, 17 September 2013. **(Macquarie Telecom, AAPT and iiNet, September 2013 joint submission)**
Attachment 1: Frontier report, (public version) 17 September 2013.
Macquarie Telecom, 17 September 2013. **(Macquarie Telecom, September 2013 supplementary submission)**
Macquarie Telecom, (confidential version), 15 November 2013, (confidential) Frontier report. **(Macquarie Telecom, November 2013 second supplementary submission)**.
Telstra, (confidential version), 4 December 2013. **(Telstra, December 2013 submission)**
Supplementary submissions received in response to 9 October 2013 request for market information
AAPT, (confidential version), 30 October 2013. **(AAPT, October 2013 response to information request)**

iiNet, (confidential version), 18 October 2013. **(iiNet, October 2013 response to information request)**
Macquarie Telecom, (confidential version), 21 October 2013. **(Macquarie, October 2013 response to information request)**
MyNetFone, (confidential version), 18 October 2013. **(MyNetFone, October 2013 response to information request)**
Optus, (confidential version), 25 October 2013. **(Optus, October 2013 response to information request)**
Telstra, (confidential version), 25 October 2013. **(Telstra, October 2013 response to information request)**
Appendix: ACCC CBD data request (confidential), 25 October 2013
Telstra, (confidential version) 7 November 2013, Presentation Slides to ACCC. (**Telstra, November 2013 Presentation slides**)
Macquarie Telecom (confidential version), 20 November 2013, case studies. **(Macquarie Telecom, November 2013 case studies)**
Telstra, (confidential version) 21 November 2013, Email to ACCC **(Telstra, email to ACCC, 21 November 2013)**
Macquarie Telecom, AAPT and iiNet, (confidential version), 25 November 2013, Presentation Slides to ACCC. **(Macquarie Telecom, AAPT and iiNet, November 2013 Slides to ACCC)**
Macquarie Telecom, AAPT and iiNet, (confidential version), 29 November 2013, Case studies. **(Macquarie Telecom, AAPT and iiNet, November 2013 case studies)**
Submissions received in response to December 2013 Draft Decision on the Declaration Inquiry
AAPT, 14 February 2014. **(AAPT, February 2014 submission)**
Herbert Geer on behalf of iiNet Limited, 14 February 2014. **(iiNet, February 2014 submission)**
Macquarie Telecom, 14 February 2014. **(Macquarie Telecom, February 2014 submission)**
Optus, 14 February 2014. **(Optus, February 2014 submission)**
Telstra, (confidential version), 14 February 2014. **(Telstra, February 2014 submission)**
Appendix 1: Telstra's proposed amendments to the service descriptions for WLR, LCS and PSTN OA (confidential), 14 February 2014.
Appendix 2: The alternative approach – Telstra's proposed amendments to the Commission's proposed service descriptions for WLR, LCS and PSTN OA (confidential), 14 February 2014.
Appendix 3: Dr Paul Paterson's expert report (confidential), 14 February 2014.