Telstra's PSTN Originating Access exemption applications – CBD and Metro areas

Draft Decision and Proposed Class Exemption

September 2008

Public version

TABLE OF CONTENTS

Glossary

ACCC	Australian Competition and Consumer Commission
ACMA	Australian Communications and Media Authority
ADSL	asymmetric digital subscriber line
ARPU	average revenue per user
CAN	customer access network
C&G	corporate & government
CBD	central business district
CCC	Competitive Carriers' Coalition
c-i-c	commercial-in-confidence
CSP	carriage service provider
DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexers
DTCS	domestic transmission capacity service
ERG	European Regulators Group
ESA	exchange service area
FSR2	second position paper in *Fixed Services Review*
FTM	fixed to mobile
FTTN	fibre-to-the-node
HFC	hybrid fibre-coaxial cable
IAD	internet access device
IIA	Internet Industry Association
IP	internet protocol
ISP	internet service provider
LCO	local call override
LCS	local carriage service
LSS	line sharing service
LTIE	long-term interests of end-users
MDF	main distribution frame
MDU	multi dwelling unit
MES	minimum efficient scale
MSAN	multi-service access node
NBN	National Broadband Network
NGA	next generation access

NGN	next generation network
NZCC	New Zealand Commerce Commission
OECD	Organisation of Economic Cooperation and Development
PSTN OA	public switched telephone network originating access
PSTN TA	public switched telephone network terminating access
POI	point of interconnection
POTS	plain old telephone service
RFP	Request for Proposals
RIM	remote integrated multiplexer
RKR	record keeping rule
SAO	standard access obligation
SIO	service in operation
SSNIP	small but significant non-transitory increase in price
STS	standard telephone service
TEBA	Telstra Equipment Building Access
TPA	*Trade Practice Act 1974* (Cth)
ULLS	unconditioned local loop service
VoIP	Voice over Internet Protocol
WLR	wholesale line rental
WOB	whole of business

Summary

Background

On 8 October 2007, Telstra lodged two applications (the Exemption Applications) with the ACCC under section 152AT of the *Trade Practices Act* 1974 (Cth) (TPA) seeking individual exemptions from the Standard Access Obligations (SAOs) for PSTN Originating Access ('PSTN OA') Service.

The first application seeks the removal of PSTN OA regulation in 17 ESAs in 5 CBD areas of Sydney, Melbourne, Brisbane, Adelaide and Perth (the CBD exemption application).

The second application is complementary to Telstra's exemption applications for LCS and WLR and seeks the removal of the PSTN OA regulation in 387 ESAs across metropolitan Australia, the same 387 ESAs the subject of Telstra's WLR and LCS exemption applications (the Metropolitan exemption application).

The PSTN OA is a wholesale service. The PSTN OA is used by access seekers to supply a range of voice-grade calls, including international, national long distance and fixed to mobile calls.

The ACCC has the power in section 152AT of the TPA, upon application by a carrier or carriage services provider, to make an order exempting the carrier or carriage service provider from the SAOs for a declared service. The ACCC also has power under section 152AS of the TPA to determine that the members of a specified class of carrier or class of carriage service provider are exempt from the SAOs for a declared service. The ACCC must not make such an exemption order or determination unless it is satisfied that granting the exemption will promote the long-term interests of end-users (LTIE) as defined in section 152AB of the TPA. An exemption order may be unconditional or subject to such conditions or limitations as are specified in the order.[1]

On 30 October 2007, the ACCC published a discussion paper on the Exemption Applications seeking comments from interested parties. In response, the ACCC received 7 submissions to the discussion paper from 6 interested parties. A list of the submissions that the ACCC has examined in the course of making its Draft Decision is provided at Appendix C.

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

The ACCC has applied the test set out in section 152AT of the TPA to the Exemption Applications – namely, whether it is satisfied that the granting of exemptions will promote the LTIE of carriage services or of services provided by means of carriage services. The same test applies to assessing a class exemption under section 152AS.

[1] See TPA subsections 152AS(2) and 152AT(5).

In doing so, the ACCC has had regard to (and only to, as mandated by s152AB(3)) the objectives set out in section 152AB(2). The ACCC's analysis of each objective is set out below.

Promotion of competition

The ACCC has assessed whether granting the proposed exemptions would result in the promotion of competition in relevant markets which, in particular, are those for the retail and wholesale supply of fixed voice services (excluding VoIP and mobile originated services) as well as for the retail supply of a bundle of fixed voice and broadband services.

Voice

Access seekers have three main supply options for competing in the downstream fixed voice services market: acquiring PSTN OA from Telstra (in conjunction with other inputs such as WLR and LCS) or another wholesale provider of fixed voice services or acquiring ULLS from Telstra in conjunction with their own DSLAM or MSAN equipment and other inputs such as transmission capacity and voice switching services.

At the wholesale voice level, Telstra controls the underlying infrastructure by which the majority of fixed voice services are provided and is the main supplier of PSTN OA, LCS, WLR (as the Fixed Voice Bundle) and ULLS to competitors. For other firms to provide wholesale services in competition with Telstra, they still essentially require access to Telstra's underlying infrastructure via use of the ULLS. Although Telstra is vertically integrated and has market power in the retail fixed voice market, the ACCC considers that in the ACCC's ESA footprint (see Appendix B) barriers to ULLS entry faced by access seekers, should be surmountable.

Telstra remains the dominant supplier of retail fixed voice services. However, there has been an increase in competition in downstream retail fixed voice, evidenced by the recent trend of strong take-up of ULLS[2] and a decreased market share for Telstra in retail fixed voice. Further, the ACCC is of the view that the market has evolved to the point that the ULLS provides the most effective form of regulation, rather than pure re-sale regulation.

In considering whether the granting of exemptions will promote competition, a key issue for the ACCC's assessment is the extent to which access seekers can compete in the downstream market for fixed voice services via use of the ULLS in the absence of regulated access to the PSTN OA. Increased ULLS-based provision of voice services will promote the LTIE as it will enable competitors to compete in the downstream market on greater dimensions of supply and allow them to dynamically innovate their services, leading to more sustainable competition compared with pure re-sale models in the longer-term. Increased ULLS-based competition will also stimulate the

[2] Saying this, the ACCC recognises that a fixed voice service is not provided to every ULLS-based customer– and that, in fact, some customers are supplied with a "naked DSL" service by which they are supplied a broadband-only service. However, the ACCC is of the view that any barriers to entry from supply of a "naked DSL" service to supply of a fixed voice and broadband bundle are surmountable – and that, accordingly, ULLS take-up does provide evidence of the state of competition in downstream voice markets. This issue is discussed in detail earlier.

provision of PSTN OA from ULLS-based competitors seeking to exploit unused capacity, or to exploit potential economies of scale, on their ULLS-based networks. This will provide increased competitive tension at the wholesale level and constrain Telstra's ability to price its Fixed Voice Bundle at supra-competitive levels in ESAs in respect of which exemption is granted.

While the ACCC recognises the significance of re-sale services such as the PSTN OA in facilitating the growth in take-up of ULLS competition, the ACCC is also mindful that ongoing regulation of the Fixed Voice Bundle may hinder the extent and speed of transition to ULLS-based competition where this supply option may be viable.

However, there are conflicting views about the viability of entry into ULLS-based supply of fixed voice services in any specific ESA. Access seekers have submitted that it is simply not commercially viable to enter into ULLS-based supply of fixed voice services in certain areas and that there are various non-price barriers to ULLS entry.

In assessing whether granting exemptions will promote the LTIE, the ACCC has firstly undertaken an analysis of Telstra's Proposed Exemption Areas on an ESA-by-ESA basis to come to a view on the geographic areas in which promotion of competition (principally by promotion of ULLS-based competition, which the ACCC considers will improve the environment for competition in the downstream retail markets) is likely to occur absent access to regulated PSTN OA. This has principally involved examining the key barriers to entry and expansion such as the size of the addressable market in an ESA, the presence of competitive backhaul, voice switching capacity and any non-price impediments to entry.

The ACCC then considered the implications of this assessment in the context of areas in which Telstra has sought exemption in its PSTN OA Metropolitan Exemption Application and its PSTN OA CBD Exemption Application. On the basis of this, the ACCC's draft view is that it is not satisfied that granting the exemption sought by Telstra, in respect of the entirety of Telstra's Proposed Metropolitan Exemption Area, would be likely to promote competition. In particular, the ACCC notes that a significant portion of the ESAs within Telstra's Proposed Metropolitan Exemption Area do not yet exhibit characteristics sufficient to satisfy the Commission that, were exemption to be granted, ULLS-based provision of the relevant retail services (and associated investment) would occur on a sufficient scale to be likely to result in an improved competitive environment at the retail level. However, in respect of Telstra's Proposed CBD Exemption Area, the ACCC is satisfied that in the ESAs listed in its Proposed CBD Exemption Footprint in Appendix B, there is sufficient scale of ULLS investment, and alternative infrastructure, and scope for further ULLS investment for there to be a likely improved competitive environment at the retail level.

In particular, 36 per cent of the ESAs in respect of which Telstra has sought exemption in its PSTN OA Metropolitan Exemption Application, as set out in the ACCC's analysis at Appendix B, have less than 4 ULLS-based competitors and less than 14,000 addressable SIOs. As these ESAs represent a significant portion of the exemption areas proposed by Telstra, the ACCC is not satisfied on the basis of the information before it that granting exemptions in respect of the entirety of these areas will promote the LTIE.

However, the ACCC considers that, on the basis on the information before it, promotion of competition (principally by promotion of ULLS-based competition) in fixed voice services is, subject to a number of conditions and limitations, likely to occur in the geographic areas consisting of those ESAs proposed by Telstra in its PSTN OA Metropolitan Exemption Application which:[3]

- have 14,000 or more addressable SIOs; *or*
- have four or more ULLS-based competitors (including Telstra) within the ESA.

Access seekers have raised concerns that the proposed development and rollout of a fibre-based network increases the potential for investments made by access seekers to become "stranded" (i.e. made redundant by a fibre roll-out). The ACCC considers this issue at the "state of competition" section above, but notes that any additional investment required as a result of granting the ACCC's Proposed Metropolitan Exemption Order set out in Appendix **E** is likely to be limited to a relatively small number of ESAs and by a limited number of access seekers. The reasons for this are:

- in the majority of the ESAs the subject of the ACCC's Proposed Metropolitan Exemption Order (233 of the 248) there are already 4 or more ULLS-based competitors (including Telstra) in each Metropolitan ESA. Some, if not all, of these ULLS-based competitors in each ESA will be already supplying a fixed voice service;[4]
- of the remaining 15 Metropolitan ESAs, seven ESAs have two competitors present (including Telstra) and eight ESAs have three competitors present (including Telstra). Optus (which provides fixed voice services via MSANs) is present in 14 of the 15 of these ESAs; and
- therefore, in the majority of ESAs the subject of the ACCC's Proposed Metropolitan Exemption Order, competitively-priced alternative PSTN OA-type services are likely to be available in the event of a price rise by Telstra.

Further, the ACCC notes with respect to the ACCC's Proposed CBD Exemption Order:

- All CBD ESAs the subject of the Proposed CBD Exemption Order, have at least 5 or more ULLS-based competitors (including Telstra);
- Therefore, in the ESAs the subject of the Proposed CBD Exemption Order, competitively priced alternatives to PSTN_OA-type services are likely to be available in the event of a price rise by Telstra.

The ACCC is satisfied that within the geographic areas consisting of the ESAs the subject of the Metropolitan and CBD Exemption Orders, respectively, granting

[3] NB. 30 June 2008 is the date of the latest information received from Telstra responding to the ACCC, *Telstra Customer Access Network Record Keeping and Reporting Rules – Section 151BU of Trade Practices Act 1974*, June 2008.

[4] The ACCC recognises that some may be supplying a "naked DSL" service, which means a DSL only service (i.e. not including a fixed voice service).

exemptions (subject to the various conditions and limitations discussed below) will promote competition in the relevant retail fixed voice market (principally by the promotion of ULLS-based competition and greater utilisation of existing ULLS-based infrastructure), with the flow-on competition benefits to end-users.

The assessment at Appendix B (where the ACCC sets out which ESAs are to be included in the geographic areas the subject of the Exemption Orders) should not be taken to mean that the ACCC considers that entry and effective ULLS-based competition in the provision of voice services is not sustainable in smaller exchanges. Rather this threshold is chosen in the context of the ACCC's current assessment that requires it to be satisfied that the granting of the exemption orders will promote the LTIE, based on the information currently available. In particular, the ACCC needs to be satisfied that, in ESAs that have not yet attracted many ULLS-based competitors, removal of regulated access to PSTN OA would encourage competition (including facilities-based competition) rather than result in re-sale competitors exiting the supply of fixed voice or a diminution in competition in the downstream market. The ACCC considers that its proposed delineation of ESAs above adequately balances these risks against the long-term competitive benefits and is satisfied that the granting of exemptions in those areas will promote the LTIE.

A key caveat to the above is that the ACCC considers granting exemptions will only promote the LTIE where ULLS is a readily available substitute to PSTN OA and the Fixed Voice Bundle. To this end, issues impeding access seekers' access into exchanges (such as, exchange capping and queuing) are, in some cases, significant barriers to entry to ULLS-based competition. The ACCC considers that exemptions will only promote the LTIE to the extent that access to exchanges is not impeded by such issues. The ACCC has devised conditions and limitations (discussed below) to address these issues.

Broadband

The ACCC has also considered the effect of granting an exemption upon competition in the supply of bundled voice and broadband services.

The ACCC is satisfied that, where granting the exemptions will promote competition in voice markets (where, as set out in Appendix B, Fixed Voice Bundle access seekers will be able to migrate to ULLS supply of voice or acquire a wholesale voice service at competitive rates), this will have a flow-on competition benefit in bundled voice and broadband markets. This is because migrating from the Fixed Voice Bundle to ULLS allows access seekers to supply a bundled voice and broadband service via their DSLAM or MSAN infrastructure.

However, the ACCC considers that, in order to protect against any negative impact upon competition in bundled broadband and voice markets, where an access seeker is obtaining the Fixed Voice Bundle in conjunction with LSS to supply an end-user with a bundled fixed voice and broadband service via that access seeker's DSLAM equipment, the exemption should not apply in relation to that access seeker's supply to that particular customer.

The proviso to this is that the exemption should apply in relation to supply to these customers once a robust LSS-ULLS migration path has been implemented by Telstra in relation to the ESAs the subject of the Exemption Orders.

This recognises that certain access seekers, who acquire the LSS in conjunction with the Fixed Voice Bundle (to on-sell a bundled broadband and voice service to consumers), may find it necessary to migrate to ULLS were they no longer able to access a competitively-priced PSTN OA service. While the ACCC is of the view that such a migration would promote the LTIE (as it would enable the access seeker to compete over greater dimensions of supply and further differentiate its products on a price and non-price basis) there is considerable scope for the competitive process to be harmed if such a migration creates significant disruption for consumers. This is because high transaction costs involved in switching between products can lessen the extent to which such products are substitutable. The ACCC has devised a condition to address this issue, which is also discussed in chapter of this Draft Decision.

Any-to-any connectivity

The ACCC is of the view that granting Telstra's Exemption Applications would have little impact upon the objective of encouraging any-to-any connectivity.

Efficient use of, and investment in, infrastructure

Turning to its assessment of whether the granting of exemptions is likely to encourage the efficient use of, and investment in, infrastructure, the ACCC notes the strong relationship between encouraging "competition" and encouraging "efficiency".

The ACCC has considered the extent to which granting exemptions to Telstra in respect of areas proposed by Telstra in its PSTN OA Metropolitan Exemption Application and its CBD Exemption Application, respectively, would be likely to encourage the economically efficient use of, and investment in, relevant infrastructure. As discussed in Appendix B, Telstra's Proposed Metropolitan Exemption Area include a number of ESAs which have either not yet attracted four ULLS based competitors (including Telstra) or have less than 14,000 addressable SAOs. The ACCC is not satisfied that granting the Metropolitan Exemption Application to Telstra that would apply in respect of the entirety of this area, would be sufficiently likely to encourage efficient use of, and investment in infrastructure so as to satisfy the ACCC that such exemption would promote the LTIE.

In relation to Telstra's CBD Exemption Application, as discussed in Appendix B, in Telstra's Proposed CBD Exemption Area all ESAs have at least **[c-i-c]** ULLS-based competitors including Telstra with on average **[c-i-c]** SIOs in these CBD exchanges, with no pair gain in the CBD areas of Melbourne, Perth, Brisbane and Adelaide and some pair gain in Sydney. The ACCC also considers there is significant alternative infrastructure in the CBD ESAs, either fibre-based networks or wireless networks. The ACCC's draft view is that removing PSTN OA regulation in the CBD areas would encourage efficient use of, and investment in, ULLS-based and alternative infrastructure so as to satisfy the ACCC that such an exemption would promote the LTIE.

In relation to the first part of the efficiency limb – whether granting exemptions would encourage efficient use of existing infrastructure, the ACCC is of the view that granting exemptions in the areas identified in the ACCC's Proposed Exemption Orders (subject to the various conditions and limitations discussed below) will encourage ULLS-based access seekers to make greater use of their DSLAM/MSAN investments, possibly even to offer a wholesale voice service to consumers over their DSLAM/MSAN-based networks in the event that they were to have unused capacity. In addition, in CBD areas where the ACCC considers there is significant alternative infrastructure present capable of supplying voice or broadband services, the ACCC considers granting the Proposed CBD Exemption would encourage efficient use of this alternative infrastructure instead of using resale services, such as PSTN OA. In this regard, the ACCC's draft view is that granting exemptions will also encourage efficient use of existing infrastructure which would promote the LTIE.

Within the ACCC's Propsoed Exemption Footprint at Appendix B, however, the ACCC is satisfied that removal of PSTN OA access regulation will, on the whole, also encourage access seekers to invest in ULLS-based DSLAM/MSAN infrastructure in the Proposed CBD and Metropolitan Exemption Areas, and that, if they did so, this would be an efficient outcome. While there may be some allocative and/or productive efficiency losses in the short-term (in the event of access seekers having to commercially negotiate for a PSTN OA- type service or, at the extreme, exiting the market altogether), these would be outweighed by the long-term benefits flowing to consumers from the increased take-up of the ULLS, and the flow-on competition benefits to consumers. As discussed previously in its Draft Decision, the ACCC considers potential investment in DSLAM and MSAN equipment is likely where there are no barriers to entry for ULLS, in relation to capping or queuing at exchanges. As such, the ACCC proposes conditions and limitations excluding exchanges from the application of the Proposed Exemptions if the exchange is capped or queued (discussed further in chapter 9). Therefore, the ACCC considers that granting the Proposed Exemptions with the proposed conditions and limitations would encourage economically efficient use of, and investment in, infrastructure and would promote the LTIE.

The ACCC notes that, in determining the extent to which granting the Proposed Exemptions would encourage efficient use of, and investment in, infrastructure regard must be had to a variety of factors including whether it is technically feasible for certain services (in this case a fixed voice service) to be supplied and charged for, the legitimate commercial interests of the suppliers of these services and the incentives for investment in infrastructure by which the services are (or could be) supplied.[5]

The ACCC considers that fixed voice services are clearly capable of being supplied absent regulated access to the PSTN OA (as evidenced by a number of carriage service providers doing so already) and that granting exemptions in the areas identified in the Exemption Orders would increase the incentives for investment in infrastructure capable of supplying voice services.[6]

[5] See subsection 152AB(6) of the TPA.
[6] These issues are discussed in greater detail at section 2.3 of the Final Decision.

Conclusion

The ACCC has considered the extent to which granting exemptions is likely to promote each of the objectives required to be considered under sections 152AB, 152AS and 152AT of the TPA, in determining whether it is satisfied that exemptions will promote the LTIE.

For the reasons noted above, it is the ACCC's draft view that it is not satisfied that granting an exemption that would apply in respect of supply of the relevant service by Telstra across the entirety of the Metropolitan Exemption Area proposed by Telstra in its PSTN OA Metropolitan Exemption Application, would promote the LTIE. It is the ACCC's draft view that it is satisfied that granting and exemption that would apply in respect of supply of the relevant service by Telstra across the ACCC's Proposed CBD Exemption Footprint in Attachment A to Appendix B (i.e. in those 15 exchanges not excluded from the Proposed Exemption because of the proposed conditions and limitations regarding capping and queuing) would promote the LTIE.

However after weighing the various LTIE considerations, the ACCC's draft view is that, on balance, the ACCC is satisfied that granting exemptions (subject to the various conditions and limitations discussed below) in part of Telstra's Proposed Metropolitan Exemption Area, being the geographic areas consisting of the ESAs in the ACCC's Metropolitan Exemption Footprint at Appendix B, would promote the LTIE.

The ACCC recognises that determining the precise scope of the areas to be covered by the exemptions has been a finely balanced process and has involved a level of judgement. Nevertheless the ACCC's draft view is that granting exemptions in the areas identified in the Proposed Exemption Orders is appropriate, and reasonably balances the various objectives to be considered in the promotion of the LTIE.

The geographic limitation on each of the Proposed Exemption Orders is that exemption from the SAOs for the supply of PSTN OA, respectively, would apply only in the geographic areas consisting of the ESAs listed in the ACCC's Proposed Metropolitan and CBD Exemption Footprints at Appendix B. In total, this would comprise **248** out of the 387 ESAs in which Telstra has sought exemption as part of its PSTN OA Metropolitan Exemption Application and **15** out of 17 ESAs in which Telstra sought exemption as part of its PSTN OA CBD Exemption Application.

In relation to timing, the ACCC proposes that if the Proposed PSTN OA Exemptions are granted, these would come into effect one year after the date of release of the ACCC's final decision on Telstra's PSTN OA Exemption Applications. This would provide reasonable notice to affected access seekers such that they are able to make alternative arrangements (i.e. invest, arrange alternate wholesale arrangements) where necessary.

As noted above, the granting of the Proposed Exemption Orders would be subject to a number of conditions and limitations, without each of which the ACCC is not satisfied that the Orders would promote the LTIE. These proposed conditions and limitations are discussed at chapter 8 of this Draft Decision.

The ACCC notes that the telecommunications-specific anti-competitive conduct provisions of Part XIB of the TPA will of course continue to apply to the conduct of telecommunications carriers within the ESAs the subject of any exemption order.

Process for submissions

The ACCC encourages stakeholders to consider the issues raised in this Draft Decision paper and to make submissions to the ACCC to assist it in considering Telstra's individual PSTN OA exemption applications. The ACCC also seeks submissions on the proposed class exemption for the PSTN OA service at Appendix G, discussed in section 8 of this Draft Decision.

The ACCC is seeking written submissions in response to the Draft Decision **by 5.00pm, Friday 26 September 2008**. The ACCC will consider all submissions before making its Final Decision on the PSTN OA exemption applications.

The ACCC prefers to receive electronic copies of submissions. Electronic submissions should be in a PDF, Microsoft Word or (if appropriate) Microsoft Excel format that contains searchable text. Electronic submissions should be provided by email to:

Richard Home
General Manager
Strategic Analysis and Development
Communications Group
Australian Competition and Consumer Commission
richard.home@accc.gov.au

The ACCC asks that any electronic submissions be copied to:

Sarah Sheppard
Strategic Analysis and Development
Communications Group
Australian Competition and Consumer Commission
sarah.sheppard@accc.gov.au

Melanie Rainey
Strategic Analysis and Development
Communications Group
Australian Competition and Consumer Commission
melanie.rainey@accc.gov.au

The ACCC also accepts hard copies of submissions. Any hard copy should be sent to the following address:

Richard Home
General Manager
Strategic Analysis and Development
Communications Group
Australian Competition and Consumer Commission
GPO Box 520

Melbourne VIC 3001

Confidentiality

To allow for an informed and open consultation, the ACCC prefers that confidentiality requests and provision of confidential information be kept to a minimum. The ACCC will treat all submissions as non-confidential, unless the author of a submission requests that the submission be kept confidential. In such a case, the author of the submission must provide a non-confidential version of the submission. Non-confidential submissions will be published by the ACCC on its website. Parties should indicate clearly where only parts of a document are confidential. Submissions containing confidential information should also have the confidential text clearly marked, for example, by placing the confidential text within '[c-i-c]'.

In relation to the information in this Draft Decision that has been redacted due to c-i-c claims, interested parties may wish to execute the relevant confidentiality undertakings to gain access to the information.

Parties wishing to gain access to Telstra's c-i-c information should execute the appropriate undertaking and send it to Paul McLachlan of Telstra at Paul.McLachlan@team.telstra.com. Parties wishing to gain access to Optus' c-i-c information should execute the appropriate undertaking and send it to Carolyn Yan of Optus at carolyn.yan@optus.com.au. Parties wishing to gain access to Frontier's c-i-c information should execute the appropriate undertaking and send it to David Forman of the CCC at david@ccc.asn.au. All signed confidentiality undertakings and confirmation of acceptance should be copied to Richard Home at richard.home@accc.gov.au and Melanie Rainey at melanie.rainey@accc.gov.au.

Any questions about this Draft Decision should firstly be directed to Melanie Rainey at melanie.rainey@accc.gov.au or 03 9290 1868.

Relationship of the exemption applications to the ACCC's review of existing declarations

The existing declarations for ULLS, LSS, WLR, LCS and PSTN OTA expire in July 2009. Accordingly, it will be necessary for the ACCC to review these existing declarations prior to their expiration.

In effect, the timing of Telstra's numerous fixed line service exemption applications, including these applications, brings forward the ACCC's consideration of various issues relevant to this review, in particular the extent of *ex ante* regulation across geographic areas of Australia. Accordingly, determinations by the ACCC in relation to these exemption applications may cover the most substantive issues that would normally arise in the course of reviews of these declarations.

Structure of the report

Section 1 provides background to Telstra's PSTN OA Exemption Applications.

Section 2 outlines the ACCC's approach to interpreting the LTIE test.

Section 3 discusses the ACCC's analysis of the promotion of competition.

Section 4 summarises the ACCC's analysis to any-to-any connectivity.

Section 5 outlines the ACCC's analysis in relation to economically efficient use of, and investment in, infrastructure.

Section 6 summarises the ACCC's conclusions on the LTIE test.

Section 7 discusses the proposed timing for any exemptions.

Section 8 includes discussion on a proposed class exemption for the PSTN OA service.

Section 9 outlines the proposed conditions and limitations on the proposed exemptions.

Section 10 contains the ACCC's conclusions in relation to Telstra's PSTN OA Exemption Applications.

Appendix A outlines the legislative provisions relevant to the ACCC's consideration of whether to grant the Exemption Applications.

Appendix B contains the ACCC's analysis of the ESAs the subject of Telstra's Exemptions Applications and sets out the ESAs in which the ACCC is satisfied that it would be in the LTIE for exemptions to be granted.

Appendix C sets out a list of the submissions examined in the course of making the decision.

Appendix D is the list of Telstra capped exchanges as at 2 July 2008.

Appendix E is the Draft Exemption Order relating to Telstra's PSTN OA Metropolitan individual exemption application of 8 October 2007

Appendix F is the Draft Exemption Order relating to Telstra's PSTN OA CBD individual exemption application of 8 October 2007

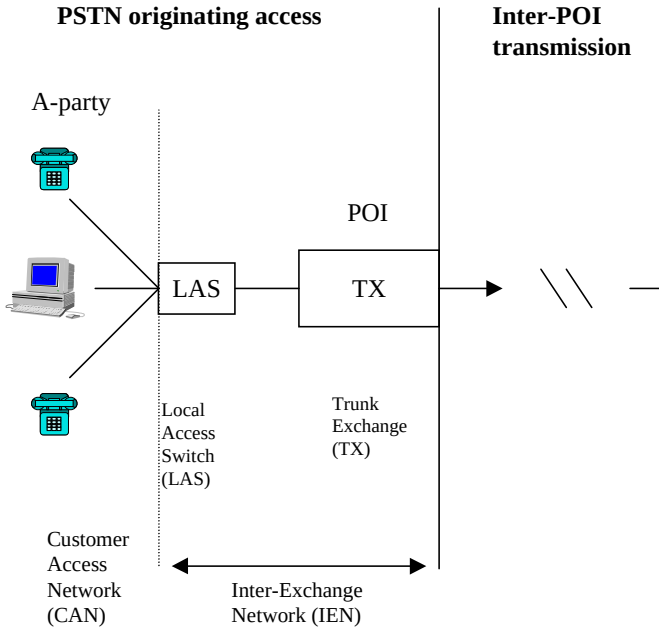
Appendix G is the Draft Class Determination in respect of the PSTN OA.

1. Background

1.1 What is the PSTN Originating Access Service?

The PSTN OA service is the carriage of telephone calls from the calling party (the A party) to a point of interconnection (POI) with an access seeker's network. A POI is usually located at a trunk exchange. The calling party must be assigned an end number from the geographic number ranges of the Australian Numbering Plan and be directly connected to the access provider's network.

Figure 1 **PSTN originating access**



The PSTN OA service is a wholesale input into the supply of a fixed voice service. However, to provide an end-to-end service, access seekers need to acquire other inputs (such as switching) and services (such as, transmission and terminating access) in addition to the PSTN OA service.

Generally, access seekers using the PSTN OA service as an input are classified into three broad categories: (1) over-ride operators; (2) pure pre-selection providers; and (3) voice resellers.

Call over-ride is a situation where a customer's phone line is connected with one provider but mobile, national long distance and international calls are provided by an over-ride service provider. With an over-ride service, the customer dials a 4 digit access code immediately before dialling the number to access the service.

Call pre-selection is where a customer's phone line is connected with one provider but is set to automatically direct all mobile, national long-distance and international calls through the pure pre-selection provider. The customer does not need to dial an access code.

Pre-selection providers and over-ride operators use the PSTN OA service as an input into the supply of national long distance, international and fixed-to-mobile services to customers.

Voice resellers use the PSTN OA service, along with the LCS and WLR service, to provide customers with a full bundle of voice services including long distance, fixed-to-mobile and local call services.

While the ACCC notes that the PSTN OA service may also be used to supply what Telstra terms 'special access services',[7] which include '13'/'1300' numbers (charged at local call rates) and '1800' numbers (toll free), Telstra has excluded these special services from the scope of the Exemption Applications.

The service description of the PSTN OA service may be found on the ACCC's website at www.accc.gov.au in the declared services register and in the ACCC's final determination for the declaration inquiry for the ULLS, PSTN OTA and CLLS.[8]

1.2 The ACCC's decision to declare the services

On 30 June 1997, the PSTN OA service was deemed to be a declared service for the purposes of Part XIC of the *Trade Practices Act 1974* (the TPA).[9] Prior to the expiry of this declaration in December 2006, the ACCC commenced a strategic review of the regulation of fixed network services (fixed services review). The fixed services review included a declaration inquiry into the PSTN OA service (PSTN OA declaration inquiry) which resulted in the PSTN OA service being declared by the ACCC in July 2006 for a further 3 years.[10]

In the PSTN OA declaration inquiry completed in July 2006, the ACCC considered that declaration of the PSTN OA service on a national basis would promote competition in various wholesale and retail markets and would encourage efficiency in infrastructure usage and investment.[11]

In reaching this view, the ACCC noted that Telstra's PSTN network remains the dominant source of customer access and therefore underpins the provision of most downstream voice services. The ACCC also concluded that there were substantial barriers to entry in deploying access infrastructure and this was likely to limit the extent of network deployments in the foreseeable future.[12]

The ACCC considered that competing networks in metropolitan and regional areas were not yet sufficiently developed to provide for competition at the originating access level, therefore access seekers were reliant upon Telstra for originating

7 Telstra, *Telstra's PSTN Originating Access Exemption Applications – Supporting submission*, July 2007, p. 9.
8 ACCC, *Declaration inquiry for the ULLS, PSTN OTA and CLLS, Final determination*, July 2006, Appendix 3.
9 Section 39, *Telecommunications (Transitional Provisions and Consequential Amendments) Act 1997*.
10 ACCC, *Declaration inquiry for the ULLS, PSTN OTA and CLLS, Final determination*, July 2006.
11 ACCC, *Declaration inquiry for the ULLS, PSTN OTA and CLLS, Final determination*, July 2006, p. 6.
12 ibid, p. 52.

national long distance, international and FTM calls (as well as LCS) for the foreseeable future.[13]

In the declaration inquiry, the ACCC considered revoking the PSTN OA service declaration in CBD areas. However, given the uncertainties surrounding alternative networks and, in particular, future next generation network (NGN) developments such as the transition to an IP-based core network, revocation was then thought to be premature.[14]

The ACCC considered that declaration of the PSTN OA service would encourage efficient use of infrastructure by facilitating product differentiation and the creation of new and innovative bundles. The ACCC stated that this would lead to price competition in the supply of voice services, which would in turn enhance productive and allocative efficiency.[15]

The ACCC also considered that declaration would encourage efficient investment in infrastructure by facilitating market entry and reducing the risks associated with infrastructure deployment by access seekers. Further, the ACCC found that Telstra's legitimate commercial interests would not be harmed from continued declaration of the PSTN OA service.[16]

1.3 Developments since 2006

Since the ACCC's decision to declare PSTN OA in July 2006, there have been two significant ACCC reports which are relevant to the assessment of these exemption applications.

Fixed services review: Second position paper

In April 2007, the ACCC released a second position paper in its ongoing *Fixed Services Review* (the FSR2).[17] The primary purpose of the position paper was to outline a framework for the review of existing service declarations.

In the FSR2, the ACCC considered that *ex ante* access regulation under Part XIC should focus on those elements of the fixed-line network that continue to represent 'enduring bottlenecks'. The ACCC considered that an enduring bottleneck would generally refer to a network element or facility that exhibits natural monopoly characteristics and is 'essential' to providing services to end-users in downstream markets in a way that promotes the LTIE.[18]

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

13 ibid, p. 51.
14 ibid, pp. 51–52.
15 ibid, p. 46.
16 ibid, pp. 46–50.
17 ACCC, *Fixed Services Review—a second position paper*, April 2007.
18 ibid, pp. 16–17.

> … also based on the principle that, for services or network elements which are not enduring bottlenecks, competitors that do not wish to invest in their own infrastructure will, more than likely, have the opportunity to enter into commercially negotiated arrangements for access with third parties (or the incumbent) without the need for *ex ante* regulatory intervention. In this regard, the withdrawal of access regulation at certain network layers does not necessarily suggest that these forms of competition will cease, or that their price will necessarily be raised excessively by the access provider. Rather, it is recognition that *ex ante* regulation is no longer required to ensure that these services are competitively priced at or near their underlying costs.[19]

The FSR2 also considered the geographic dimension to market definition employed by the ACCC in the past and its future application. The ACCC noted it may be more meaningful to begin its analysis by considering geographic units at the exchange level (given this would be the field for demand-side substitutability).[20] Exchange level geographic units could then be aggregated together in the same 'class' of market if they exhibit 'similar' competitive characteristics.

In addition to this particular aspect of market definition, the ACCC considered more generally the approach to be taken to the assessment of competition.[21] The ACCC identified the following structural and behavioural characteristics that it would examine in making a competition assessment:

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

The FSR2 also proposed to conduct a comprehensive review of fixed service declarations commencing in mid 2008.[22] In effect, the timing of Telstra's numerous fixed line service exemption applications, including these current applications, brings forward the ACCC's consideration of various issues relevant to the Fixed Services Review, in particular the extent of *ex ante* regulation across geographic areas of Australia. Accordingly, determinations by the ACCC in relation to these exemption applications may involve consideration of the most substantive issues that would normally arise in the course of reviews of specific declarations as part of the Fixed Services Review.

While the ACCC has sought and received submissions on the positions outlined in the FSR2, and is still considering those submissions, this paper clearly provides relevant guidance for the ACCC's consideration of Telstra's exemption applications.

Audit of competitive infrastructure

19 ibid, p. iii.
20 ibid, p. 40.
21 ibid, pp. 40–49.
22 ibid, pp. v, 30.

In March 2007, the ACCC issued a discussion paper outlining the proposed approach to its audit of competitive infrastructure (the Communications Infrastructure Audit). The ACCC indicated that this audit would inform its analysis of the state of competition in relevant telecommunications markets in future processes including decisions regarding the removal of regulation where it is no longer needed to promote the LTIE.

Phase 1: Telstra CAN Record Keeping Rule (RKR)

In September 2007, the ACCC released its Telstra CAN RKR. This requires Telstra to report quarterly on ULLS and LSS take-up – broken down by individual competitors using these services and ESAs. The ACCC has received four rounds of Telstra CAN RKR data (September 2007, December 2007, March 2008 and June 2008).

Phase 2: Infrastructure Audit RKR

In December 2007, the ACCC released an RKR requiring 22 specified carriers to report annually on the locations of their core network (fibre, microwave) and CAN infrastructure (copper, fibre, HFC, radio). Carriers were required to report on the geographic extent of each of the sub-groups of infrastructure. The first round of reporting, for the period to January 2008, was received in March 2008.

PSTN OA undertakings and arbitrations

Since 1997, Telstra has lodged five access undertakings in relation to the domestic PSTN originating and terminating access (PSTN OTA) services. If the ACCC accepts an undertaking, the undertaking terms become the terms of access and the ACCC is prevented from making an arbitration determination inconsistent with the undertaking.

The first PSTN OTA undertaking was lodged with the ACCC on 7 November 1997. The ACCC rejected this undertaking on the basis that the terms and conditions for non-price issues were not reasonable.[23] The second PSTN OTA undertaking was lodged with the ACCC in October 1999, following the release of the ACCC's decision to reject the first undertaking. The ACCC rejected this undertaking again on the basis that the price terms and conditions were not reasonable.

Telstra then lodged a set of access undertakings with the ACCC on 9 January 2003 specifying the price-related terms and conditions upon which it undertook to meet its SAOs to supply the PSTN OTA, the unconditioned local loop service (ULLS) and the LCS (together referred to as the core services). In October 2003, the ACCC published its Model Price and Non-Price Terms and Conditions for core services, which included model prices for the PSTN OTA and LCS. Telstra subsequently withdrew its 9 January 2003 undertakings and submitted replacement undertakings on 14 November 2003. These undertakings were intended to cover the period to 30 June 2006. The PSTN and LCS undertakings were accepted by the ACCC in December 2004.

Telstra lodged a subsequent PSTN OTA and LCS undertaking on 22 March 2006 specifying price related terms and conditions upon which it would undertake to meet

[23] ACCC, *Assessment of Telstra's Undertaking for Domestic PSTN Originating and Terminating Access — Final Decision*, November 1997.

its applicable SAOs. The ACCC rejected the undertaking because, although the terms and conditions specified in the undertaking were consistent with the applicable SAOs as required by paragraph 152BV(2)(b) of the TPA, the ACCC was not satisfied that the terms and conditions specified in the undertaking were reasonable.

There are no current undertakings before the ACCC regarding the PSTN OA service.

The PSTN OA service has been the subject of arbitrations since it was first declared in 1997. Currently, the ACCC is arbitrating two access disputes between parties about the terms of access to the PSTN OA.[24]

Relationship between ACCC's Final Decision on Telstra's WLR/LCS exemption applications and Telstra's PSTN OA Exemption Applications

In July and October 2007, Telstra submitted four exemption applications relating to the supply of the WLR and LCS in a total of 387 Metropolitan exchange service areas (ESAs) (the WLR/LCS Exemption Applications). Telstra argued the WLR/LCS Exemption Applications were based on there being workable competition in supply of the WLR and LCS, and sought exemption for those ESAs which had one other DSLAM operator, besides Telstra, in an exchange.

In April 2008 the ACCC released a draft decision on the WLR/LCS Exemption Applications proposing to grant exemptions in respect of the supply of the WLR and LCS in 229 of the 387 ESAs, subject to certain conditions.

Following submissions from interested parties, on 22 August 2008 the ACCC released its final decision and exemption orders granting Telstra exemptions from the SAOs in relation to the supply of the WLR and LCS in geographic areas which contained a total of 248 of the 387 ESAs, (based on updated CAN RKR data) subject to certain conditions and limitations. The ACCC's final decision was that granting exemption in Telstra's proposed exemption areas (i.e. the full 387 ESAs the subject of the WLR/LCS Exemption Applications) would not promote the Long Term Interests of End-Users (LTIE) but that granting exemptions in respect of the supply of the LCS and WLR in narrower part of those geographic areas (being the geographic areas consisting of 248 of the 387 ESAs) would, subject to certain conditions and limitations, promote the LTIE. The geographic areas in which the ACCC was satisfied that exemption would promote the LTIE consisted of those ESAs that have:

- 14,000 or more addressable SIOs; *or*
- four or more ULLS-based competitors (including Telstra) within the ESA.

The PSTN OA is most commonly acquired with the WLR and LCS so a reseller can on-sell the full suite of fixed voice services (national long distance, international, FTM and local calls bundled with line rental) to consumers. Telstra's PSTN OA Metropolitan Exemption Application seeks exemption from the SAOs regarding the supply of the PSTN OA in the same 387 ESAs the subject of the WLR/LCS Exemption Applications. The PSTN OA CBD Exemption Application seeks

[24] A list of current access disputes is available on the ACCC's website at: http://www.accc.gov.au/content/index.phtml?itemId=635059.

exemption from the SAOs regarding the supply of the PSTN OA in 17 ESAs in the CBD areas of Melbourne, Sydney, Brisbane, Adelaide and Perth. In 2002 the ACCC granted exemption from the SAOs for the supply of the LCS in these CBD areas. The ACCC subsequently review the WLR and LCS declarations and decided that these services should no longer be declared in the CBD areas of Melbourne, Sydney, Perth, Brisbane and Adelaide.

The majority of the issues that arose in the assessment of the WLR/LCS Exemption Applications also arise in relation to the supply of the PSTN OA service and therefore are relevant in considering not only the PSTN OA Metropolitan Exemption Application, but, also the PSTN OA CBD Exemption Application.

The ACCC has considered the PSTN OA Exemption Applications and parties' submissions and makes this draft decision based on the merits of the PSTN OA Exemption Applications as it is required to do so under the Trade Practices Act.

1.4 Summary of the exemption applications

This section provides a brief summary of Telstra's submission supporting the Exemption Applications.

The two Exemption Applications (one for the 5 mainland CBDs areas and the second for the 387 ESAs across metropolitan Australia) were submitted to the ACCC on 8 October, 2007. Telstra provided only a single submission in support of both Exemption Applications.[25]

Telstra annexed 17 documents to its supporting submission. Annexure A to Telstra's supporting submission is an economic report prepared by Paul Paterson of CRA International. The remaining documents consist of Telstra staff witness statements, and a **[c-i-c] report** and Market Clarity report on telecommunications access networks. Public versions of five of these documents have been provided by Telstra. Telstra stated that it will provide confidential versions of all its supporting documents to agreed parties who sign confidentiality undertakings in Telstra's favour.

Exemption areas

The CBD exemption application seeks exemption from the SAOs as they relate to the supply of PSTN OA in the mainland CBDs of Sydney, Melbourne, Brisbane, Adelaide and Perth (CBD Exemption Area). In the Metropolitan exemption application, Telstra sought the exemptions for 387 ESAs in metropolitan (Band 2) Australia (Metropolitan Exemption Area). Telstra states that the combined CBD and Metropolitan Exemption Areas contain just over 5.6 million PSTN services in operation (SIOs) representing 280,000 SIOs in the CBD exemption area and almost 5.6 million SIOs in the metropolitan exemption area.

Telstra is seeking exemptions from all of the SAOs in the combined exemption area.

[25] Telstra, *Telstra's PSTN Originating Access Exemption Applications Supporting Submission October 5 2007. p.1*

Presence of competitor infrastructure

Telstra's basis for choosing the 404 exchanges in its combined exemption area is the presence of competing DSLAM-based infrastructure.[26] Telstra submits that, in addition to competing DSLAM-based infrastructure, there is significant infrastructure present in the combined exemption area pointing to HFC cable networks, fixed wireless networks and (to a lesser extent) mobile networks as providing alternatives to Telstra's PSTN.[27]

Telstra notes that the presence of competing infrastructure is more prevalent in the CBD exemption area, compared with the metropolitan exemption area. For instance, Telstra states that there are around 20 companies operating 55 fibre networks and 22 companies operating 37 wireless networks in the CBD exemption area.[28] It also submits that there are at least four DSLAM-based competitors in each of the ESAs in the CBD exemption area.[29]

In the metropolitan exemption area, Telstra states that there is at least 1 DSLAM-based competitor in each ESA.[30] Telstra submits that around 80 per cent of ESAs have two or more DSLAM-based competitors and around 38 per cent of ESAs have four or more DSLAM-based competitors.[31] Telstra also claims that in 87 per cent of ESAs, customers can choose between at least two network providers for voice services (DSLAM-based, cable or fixed wireless).[32]

Telstra asserts that competing infrastructure in both the CBD exemption area and the metropolitan exemption area will continue to expand over time.

In its submission, Telstra argues that it has only used publicly available data sources to estimate the presence of competitive infrastructure and that its estimates about the presence of competitive infrastructure are likely to be conservative.[33]

Extent of competition

Telstra submits that the markets in which the PSTN OA service is supplied are contestable and workably competitive. Telstra contends that:

- over time, market shares have changed and current market offerings have developed
- there are numerous substitution possibilities (including VoIP and mobile telephony services) to the PSTN network and
- there are no material barriers to entry for potential competitors willing to enter the market — driven primarily by the economics of DSLAM-based competitor entry.[34]

26 Ibid, p. 16.
27 Ibid, pp. 16–23.
28 Ibid, pp. 17–19.
29 Ibid, p. 19.
30 Ibid, p. 22.
31 Ibid, p. 23.
32 Ibid, p. 24.
33 Ibid, p. 20.

Telstra states that the above three contentions mean there are sufficient constraints on its pricing and provisioning of the PSTN OA service, such that in both the CBD exemption area and the metropolitan exemption area, the exemptions are clearly justified.

Effect on downstream market

In its submission, Telstra sets out the likely impacts of the exemptions, if granted, on downstream markets.

In the absence of declaration, Telstra states that a pure pre-selection provider would 'face little or no impediment to changing its business model to provide a bundled product through ULLS-based infrastructure.'[35] Alternatively, if the pure pre-selection provider exited the market, Telstra submits that this would have no impact on downstream competition given the 'de minimis' presence of these providers.

Similarly in relation to over-ride operators, Telstra asserts that, given the use of over-ride services has declined markedly in recent years, if these operators exited the market, it would have no impact on downstream competition.

Telstra states that voice resellers, as the largest category of PSTN OA users, are in the strongest position to self-supply using ULLS. Telstra submits that there would continue to constraints on the pricing of the PSTN OA service if the exemptions were granted, at both the wholesale and retail levels.[36]

Costs of regulation

Telstra submits that there are a number of costs in continuing regulation. Telstra notes that 'extensive alternative infrastructure to Telstra's PSTN' within its combined exemption area is driving competition in the market for fixed-line voice services.[37] Telstra asserts that, in light of this competition, continued regulation would be harmful and costly.

Telstra contends that regulation of the PSTN OA is costly on four key grounds:

1. Regulated access prices tend to truncate the reward of a successful investment without reducing losses from unsuccessful investments, thereby reducing incentives to invest.

2. Regulation would 'provide a crutch to passive competitors unwilling or unable to invest in infrastructure and to commit to the rigours of a competitive market.'[38]

3. Regulation creates arbitrage possibilities for access seekers where access prices are set by regulators as opposed to the prices that would occur in an

34 Ibid, p. 33.
35 Ibid, p. 46.
36 Ibid, p. 48.
37 Ibid, p. 50.
38 Ibid, p. 51.

efficient and competitive market. Such arbitrage possibilities would distort the market.

4. The likelihood of regulatory error is asymmetrical – that is, regulated prices will tend to be lower than the efficient level, rather than higher than the efficient level.[39]

Telstra submits that, overall, these impacts of regulation will tend to inefficiently distort investment incentives by imposing two classes of costs:

- regulation per se, even if perfectly executed, imposes transaction, compliance and administrative costs and

- even with the best intent and most skilful execution possible, there is inevitably an element of regulatory error which itself imposes costs.[40]

Effect on the long-term interests of end-users

The final part of Telstra's submission sets out its views on the effect of the granting of the exemptions on the LTIE.

Promotion of competition

Telstra states that facilities-based competition is preferable to regulated access of the PSTA OA as it leads to greater price competition, greater service innovation and competition for supply over a wide range of markets.[41] Telstra contends that the granting of the exemptions will promote facilities-based competition, given the extensive roll-out of alternative infrastructure in the combined exemption area, and asserts that efficient and workable competition already exists in markets in which the PSTN OA is supplied and that competition in these markets would improve further in the future.

Telstra submits that the granting of the exemptions will not compromise competition due to the presence of supply-side substitution in the upstream input market.[42]

Any-to-any connectivity

Telstra submits that the granting of the exemptions will not have any bearing on any-to-any connectivity.[43]

Efficient use of and investment in infrastructure

Telstra submits that granting the exemptions will promote facilities-based competition by encouraging greater investment in competing infrastructure, and will promote the

[39] Ibid, pp. 50–53.
[40] Ibid, pp. 53–54.
[41] Ibid, p. 56.
[42] Ibid, p. 59.
[43] Ibid, p. 61.

efficient use of, and investment in, infrastructure. In this regard, Telstra relies on three key submissions:

- The widespread deployments of DSLAMs and the supply of services equivalent to the PSTN OA demonstrates that alternative supply is technically feasible in the combined exemption area

- Telstra's legitimate commercial interests will be enhanced by the granting of the exemptions allowing it greater commercial freedom and flexibility

- The incentives for investment will be improved by the granting of the exemptions because the risks and potential market distortions of regulation will be removed.[44]

[44] Ibid, p. 62.

2 Long Term Interests of End-users (LTIE) test

2.1 Interpretation of section 152AS and 152AT of the TPA

2.1.1 Submissions

Nicholls Legal provided a submission to the ACCC on behalf of the CCC in relation to the Exemption Applications (as well as the WLR/LCS Exemption Applications lodged by Telstra).[45] The submission, in part, relates to the proper interpretation of the test for granting exemptions in section 152AT of the TPA.

Nicholls Legal argues that, in order for the Exemption Applications to be accepted by the ACCC, Telstra must satisfy the ACCC that the relevant exemptions will "positively promote" the LTIE.[46]

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

- the test represents a "higher hurdle" than other tests in Part XIC of the TPA;
- the test requires that the ACCC must be "positively satisfied" that the exemption sought will promote the LTIE;
- the test is a "strict" test, rather than a "discretionary" one;
- the ACCC must be satisfied that the exemption sought will promote the LTIE; and
- Telstra bears the onus of proving that the test in sub-section 152AT(4) has been satisfied.[47]

Telstra responded to these arguments in the context of the assessment of its WLR/LCS exemption applications in April 2008.[48] The ACCC considers it appropriate and relevant to include Telstra's submissions here in response to the same submissions from Nicholls Legal made in the context of this process. Telstra's response included submissions to the effect that:

- the relevant test does not involve a "higher hurdle" than other tests in Part XIC of the TPA;
- section 152AT(4) simply requires that the Commission be satisfied that granting the exemptions promotes the LTIE;

45 Nicholls Legal, *Submission on behalf of the Competitive Carrier's Coalition, Inc. in relation to Telstra's declaration exemption applications*, March 2008.
46 ibid. p. 1.
47 ibid. pp 2-3.
48 Telstra, *WLR/LCS exemption applications – Telstra response to the submission of Nicholls Legal entitled "Submission on behalf of the Competitive Carrier's Coalition, Inc. in relation to Telstra's declaration exemption applications"*, April 2008.

- only the ACCC, in the exercise of its judgment and discretion (in accordance with the TPA) can determine whether it is satisfied that the exemption is in the LTIE (i.e.. it is not a "strict" test rather than a "discretionary" one);

- there is no support for Nicholls Legal's view that Telstra bears the onus of "proving" that the test in section 152AT has been satisfied.[49]

In the context of the ACCC's assessment of the WLR/LCS exemption applications, Nicholls Legal made another submission on behalf of the CCC in response to Telstra's April 2008 submission and the ACCC's draft decision on Telstra's WLR/LCS exemption application.[50] The ACCC considers it relevant to note for the purposes of its assessment of the PSTN OA Exemption Applications that Nicholls Legal reiterated the arguments of its first submission.

2.1.2 ACCC's draft views

As both Telstra and Nicholls Legal acknowledge, the ACCC must not make an individual exemption order under section 152AT or a class exemption determination under section 152AS or of the TPA unless it is satisfied that the making of the order or determination will promote the LTIE of carriage services or of services provided by means of carriage services. The ACCC did not find it necessary to consider whether or not this test involves a "higher hurdle" than other tests in Part XIC.

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

- promoting competition in markets for listed services;

- achieving any-to-any connectivity in relation to carriage services that involve communication between end-users; and

- encouraging the economically efficient use of, and the economically efficient investment in, the infrastructure by which telecommunications services are supplied and any other infrastructure by which telecommunications services are, or are likely to become, capable of being supplied.[51]

Policy intent of the LTIE test

Clearly, there are three primary objectives identified by section 152AB: the promotion of competition, achieving any-to-any connectivity and the encouragement of the economically efficient use of and investment in infrastructure.

Promotion of competition

[49] Telstra, *WLR/LCS exemption applications – Telstra response to the submission of Nicholls Legal entitled "Submission on behalf of the Competitive Carrier's Coalition, Inc. in relation to Telstra's declaration exemption applications"*, April 2008.

[50] Letter from Nicholls Legal, *The ACCC's Draft Decision on Telstra's Local Carriage Service and Wholesale Line Rental Exemption Applications*, 27 May 2008, pp. 1-2.

[51] See section 152AB of the TPA.

In relation to the promotion of competition limb, the explanatory memorandum to the *Trade Practices Amendment (Telecommunications) Bill* 1996 (Cth) (the 1996 Bill) which introduced section 152AB states:

> …It is not intended that the access regime embodied in this Part impose regulated access where existing market conditions already provide for the competitive supply of services. In considering whether a thing will promote competition, consideration will need to be given to the existing levels of competition in the markets to which the thing relates.
>
> Further, in considering this objective, proposed s. 152AB(4) requires that regard must be had (but not be limited to) the extent to which the thing will remove obstacles to end-users of carriage services or services provided by means of carriage services gaining access to those services. In this regard, it is intended that particular regard be had to the extent to which the particular thing would enable end-users to gain access to an increased range or choice of services."

In terms of the promotion of competition criterion, the Australian Competition Tribunal in *Seven Network Limited (No. 4)*[52] (the FOXTEL decision) noted:

> It was put to us that the earlier decision in *Re Sydney Airports Corporation Ltd* (2000) 156 FLR 10 ("*Sydney Airports"*) provided assistance in interpreting the "promotion of competition" criterion. In *Sydney Airports*, a review of a decision to declare a facility pursuant to Pt IIIA of the Act, it was stated (at par [106]):
>
> > "The Tribunal does not consider that the notion of 'promoting' competition in s 44H(4)(a) requires it to be satisfied that there would be an advance in competition in the sense that competition would be increased. Rather, the Tribunal considers that the notion of 'promoting' competition in s 44H(4)(a) involves the idea of creating the conditions or environment for improving competition from what it would be otherwise. That is to say, the opportunities and environment for competition given declaration, will be better than they would be without declaration."
>
> In our view, this description is apt for the criterion established under s 152ATA(6) and s 152AB(2)(c). In addition, we consider that this description is equally applicable to assessing whether the "particular thing" encourages economically efficient use of, and investment in, infrastructure pursuant to s 152AB(2)(e).[53]

Accordingly, this limb of the test suggests that the ACCC should consider whether (an the extent to which) granting the exemptions will create the conditions or environment for improving competition from what it would be otherwise.

Promoting any-to-any connectivity

In relation to the any-to-any connectivity criterion entailed in section 152AB, the explanatory memorandum to the 1996 Bill states:

> …Reference to similar services is intended to enable consideration of the need for any-to-any connectivity between end-users of services which have similar, but not identical, functional characteristics, such as end-users of a fixed voice telephony service and end-users of a mobile voice telephony service, or end-users of internet services which may have differing characteristics.
>
> Note that the any-to-any connectivity objective will only be relevant when considering whether a particular service promotes the long-term interests of end-users of a carriage service that involves communications between end-users. When considering other types of services

[52] [2004] ACompT11.
[53] ibid at [123]-[124].

(such as carriage services which are inputs to an end-to-end service or distributive services such as the carriage of pay television), this criterion will be given little, if any, weight compared to the other two criterion.

It is also important to note the interrelationship between the any-to-any connectivity criterion and the infrastructure criterion. As the ACCC's 1999 Guide to the declaration provisions of Part XIC of the TPA (Declaration Guide) states:

> Achieving any-to-any connectivity may involve costs in terms of investment to enable the connection of calls to and from other networks as well as potential risks to network integrity. These matters will need to be considered in the context of the efficiency objective (i.e. whether declaration will promote the efficient use of infrastructure) and balanced against the likely benefits to end-users in determining whether declaration will, over-all, promote their long-term interests.[54]

Encouraging economically efficient use of, and investment in, infrastructure

The explanatory memorandum to the 1996 Bill states in relation to section 152AB:

> The third objective is that of encouraging the economically efficient use of, and economically efficient investment in, the infrastructure by which carriage services and services provided by means of carriage services are supplied (paragraph (2)(e)). In considering this objective regard must be had (but is not limited) to:
>
> - the technical feasibility of supplying and charging for particular services;
> - the legitimate commercial interests of the supplier or suppliers of the services, including their ability to exploit economies of scale and scope; and
> - the impact on investment incentives in telecommunications infrastructure.

The infrastructure criterion in section 152AB was amended by the *Telecommunications Legislation Amendment (Competition and Consumer Issues) Bill 2005* to its present form. The explanatory memorandum to that Bill states:

> *Amendment to the object of Part XIC*
>
> Section 152AB provides that the object of Part XIC of the TPA is the long-term interests of end-users. Subsection 152AB(2) sets out the matters to which regard must be had in determining if a particular thing promotes the long-term interests of end-users. This includes the object of encouraging the economically efficient use of, and economically efficient investment in, the infrastructure by which listed services are supplied (paragraph 152AB(2)(e)). In turn, subsection 152AB(6) sets out the matters to which regard must be had in determining if something is likely to achieve the objectives in paragraph 152AB(2)(e), including the incentives for investment in the infrastructure by which the service is supplied.
>
> Concerns have been raised that section 152AB does not make it clear that considering the long-term interests of end-users also requires consideration of the risk of investing in new network infrastructure as well as existing infrastructure. Schedule 9 amends section 152AB, for the avoidance of doubt, to ensure that the incentives for investment in new infrastructure by which services under consideration may be supplied, and the risk of making such an investment, is one of the matters to which regard should be had for the purposes of paragraph 152AB(2)(e).

[54] ACCC, *Telecommunications Services – Declaration provisions – a guide to the declaration provisions of Part XIC of the TPA*, July 1999, p. 54.

This amendment emphasises the importance of considering the incentives for investment in new network infrastructure as well as existing network infrastructure. Subsection 152AB(7A0 reinforces the importance of assessing the incentives for investment consideration by providing:

> (7A) Investment risks
>
> For the purposes of paragraph (6)(c), in determining incentives for investment, regard must be had to the risks involved in making the investment.

The effect of subsections 152AB(6)(c) and (7A) requires consideration of the impact that granting the exemption will have on the incentive for investment by Telstra *and* by other access seekers. Hence, it must be considered whether the granting of an exemption will encourage Telstra to make future investment in infrastructure. Additionally, it must be considered whether the granting of an exemption will encourage access seekers to invest in infrastructure.[55] Conversely, it must be assessed whether not granting an exemption will in fact perpetuate reliance on the declaration and thereby discourage efficient investments in infrastructure by access seekers. As the ACCC noted in its Declaration Guide:

> "[D]eclaration could deter efficient investment. Deterring efficient investment could stifle the development of a more diverse range of goods and services, delay the deployment of new technology and prolong inefficient production processes. In a dynamic environment such as telecommunications, this is likely to cause significant harm to end-users…
>
> Where additional investment is likely to be efficient, the Commission would be concerned if declaration were to deter that investment…"[56]

Other issues

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

[55] See *Re Telstra Corporation Limited* (ACN 051 775 556) [2006] ACompT 4 at [103]-[104] for analogous application of the investment in infrastructure criterion. That decision concerned the application by Telstra for review of decision of the ACCC to reject access undertaking regarding the line sharing service.

[56] ACCC, *Telecommunications Services – Declaration provisions – a guide to the declaration provisions of Part XIC of the TPA*, July 1999, pp. 64-65.

3. Promotion of competition

3.1 The ACCC's approach to determining whether granting the exemptions would promote competition in telecommunications markets

In assessing whether granting exemptions would promote competition it is useful to undertake the following three-stage analysis:

- first, to identify those markets that would be affected by the granting of exemptions;
- second, to assess the state of competition within those markets; and
- third, to assess whether price and service offerings to consumers in those markets are likely to be better with the granting of exemptions.

In most cases the markets most likely to be affected by granting an exemption application are the market(s) for downstream services rather than the market in which the regulated service is supplied. This reflects the key rationale for access to essential infrastructure- that of promoting more competitive downstream markets by enabling the supply of upstream inputs on terms and conditions more reflective of competitive outcomes. Further, the overarching aim of promoting the LTIE of telecommunications services guides the ACCC to be particularly mindful of the impact of granting exemptions on the supply of services at the retail level.

That said, it is necessary at first instance to assess the boundaries and state of competition of the market in which the eligible service is supplied. This is because of the close interrelationship between upstream and downstream markets. The level of competition in the supply of the eligible service may be one determinant of the level of competition in downstream markets.

A useful tool for the ACCC to use when assessing whether granting exemptions will promote the LTIE objectives is the 'future with or without' test.[57] Under this approach the current state of competition in the markets for both the regulated and downstream services is first assessed. Only by understanding the current state of competition in these markets can a meaningful interpretation of the likely future state of competition be understood.

In relation to provision of voice services, the ACCC considers that ULLS-based competition is a preferable form of competition to re-sale competition because it has longer-term benefits. The ACCC is of the view that ULLS-based competition encourages competitors to compete on greater dimensions of supply, such as price and quality, which allows them to dynamically innovate their services. Also, by reducing reliance on competitors' network assets and related services it can lead to more sustainable competition.

[57] Re Seven Network Ltd (No. 4) [2004] ACompT 11.

The ACCC agrees with certain arguments made by Telstra in support of the above proposition.[58] First, facilities-based competition (which includes ULLS-based competition) can lead to greater price competition as entrants have more control over costs and face incentives to develop and deploy more efficient technologies in order to compete with the incumbent operators.[59] Secondly, it enables greater service innovation since the entrants are no longer tied to the functionality of the incumbent's network.[60]

In the FSR2 the ACCC noted that:

> Efficient, facilities based competition is more likely to be 'effective competition' (and therefore promote the LTIE) because rivals are able to differentiate their services and compete more vigorously across greater elements of the network (and supply) chain. It is also more likely to produce enduring benefits because competitors that have invested in their own infrastructure are more likely to remain in the market (because of high sunk costs).[61]

3.2 The ACCC's general approach to market definition

To assist in determining the impact of potential exemption, the ACCC will first need to identify the relevant market(s) and assess the likely effect of exemption on the promotion of competition in each market.

Section 4E of the TPA provides that a market includes any goods or services that are substitutable for, or otherwise competitive with, the goods or services under analysis. Accordingly, substitution is key to market definition.

The ACCC's approach to market definition is discussed in its *Merger Guidelines*, June 1999, and is also canvassed in its second position paper, *Strategic Review of Fixed Services*, April 2007. The ACCC is currently undertaking public consultation on a revision of its *Merger Guidelines*. The *Draft Merger Guidelines*, February 2008, outlines the ACCC's current approach to market definition, which is described below. Once finalised following public consultation, the *Draft Merger Guidelines*, February 2008, will replace the *Merger Guidelines*, June 1999.

The approach to market definition set out in the ACCC's *Draft Merger Guidelines*, February 2008, focuses on two key dimensions of substitution: the product dimension and the geographic dimension.

In some cases, market definition requires close attention to the functional levels of the supply chain that are relevant to the matter under consideration or the particular timeframe over which substitution possibilities should be assessed. Generally, however, these functional and temporal considerations form part of the product and geographic dimension analysis. The ACCC focuses on the foreseeable future when considering the likely product and geographic dimensions of a market.

58 Telstra, *Telstra Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission*, October 2007. pp. 55-58.
59 Ibid, p. 56.
60 Ibid.
61 ACCC, *Fixed services review – second position paper*, April 2007, p. 41.

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

Identifying relevant substitutes to the service in question is key to defining a market.

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

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

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

The ACCC seeks to identify close substitutes of the relevant product by considering the following types of information:

- the function or end use of the product;
- physical and technical characteristics of the product;
- costs of switching purchases between the product and potential substitutes;
- views and past behaviour of buyers regarding the likelihood of substitution between products;
- evidence of buyers switching to other products in response to price increases in the recent past;
- evidence of producers redeploying their production capacity in response to price increases in the recent past;
- costs of switching production and distribution systems from another product line to a product that is closely substitutable with the relevant product;
- views, business records and past behaviour of suppliers of the relevant products regarding the impact of price and marketing decisions by suppliers of potential substitute products on their own pricing and marketing decisions; and

- relative price levels and price movements of the product compared to potential substitutes.

The ACCC also seeks to identify close substitutes of the relevant geographic region by considering the following types of information:

- the costs to customers of obtaining supply from alternative regions;
- any limitations on the ability of customers to access alternative sources of supply in alternative regions;
- the costs of extending or switching production and distribution systems to supply the customers in alternative regions;
- any regulatory or other practical constraints on suppliers selling to alternative regions
- records relating to trade flows and the actual movement of customers and/or suppliers between geographic regions, especially related to changes in relative prices across regions in the recent past;
- views and business records of buyers and suppliers regarding the likelihood of switching between geographic sources of supply; and
- the relative price levels and price movements of different geographic sources of supply.

The ACCC should be cognisant of "commercial realities" when defining, inter alia, the geographic dimension of a market. In Australia Meat Holdings v Trade Practices Commission, (1989) ATPR 40-392 at 50,111 the Federal Court quoted with approval from Von Kalinowski, *Antitrust laws and trade regulation* (Matthew Bender, New York, 1981), Vol 3 at pp18-96 that "Any geographic market… must be one that corresponds to the commercial realities of the industry and represents an economically significant trade area. Because a geographic market determination looks to actual trade patterns, it is not required that geographical boundaries be drawn with exactitude…".[62]

There are difficulties with applying traditional geographic demand and supply-side substitutability analysis to fixed-line telecommunications services. For example, the opportunity for demand-side substitution is limited by the fact that the fixed-line infrastructure is physically connected to a household. A consumer is unlikely to move to another geographic area simply due to a price increase (or degradation of quality), particularly because (among other things) the cost of re-location will probably far outweigh any saving made on fixed-line services.

There are also difficulties in applying supply-side substitutability analysis to fixed-line telecommunications services. For example, the nature of fixed-line networks, including the sunk and lumpy characteristics of investment and the long lead times often involved in deployment, raises the possibility that rivals will often have limited

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

scope to quickly re-deploy supply to geographic areas in response to a non-transitory price increase, or the degradation of quality.

It is important to note that Part XIC of the TPA does not require the ACCC to precisely define the scope of relevant markets for the purpose of assessing an exemption application. In exemption inquiries, it may be sufficient to broadly identify the scope of the relevant markets likely to be affected by the making of the exemption order. Accordingly, a market definition analysis under Part XIC of the Act should be seen in the context of shedding light on how exemption would or would not promote competition rather than in the context of developing "all purpose" market definitions.[63]

3.3 Previous ACCC's views on downstream markets

In its Declaration inquiry of 2006, the ACCC stated that the PSTN OA is used as an input by access seekers to provide national long distance calls, international calls, fixed-to-mobile network calls, and can be used to provide local calls. Accordingly, the ACCC considered the relevant retail markets to be:

- retail supply of fixed voice services;
- retail supply of mobile telephony services;
- retail supply of customer access services;
- retail supply of broadband services, including BDSL and other high bandwidth, business grade data services; and
- retail supply of broadband services to residential and small business users.[64]

Of relevance to this exemption inquiry, the ACCC noted in its 2006 Declaration inquiry that the use of the ULLS for voice services promotes competition by expanding the range of potential voice service providers and therefore the ability for price competition.[65]

An important issue for this exemption inquiry is to consider whether the standalone long distance market represents a separate market.

In the 2006 *Local Services Review*, the ACCC stated that the downstream markets:

> at their narrowest could be defined as separate retail markets for line rental and local calls, or more widely as a market for retail fixed voice services which necessarily includes both retail line rental and local call services. The ACCC did not consider that it was necessary to form a precise view as to the boundaries of the downstream retail voice market.[66]

63 See ACCC, *Telecommunications services- Declaration provisions – a guide to the declaration provisions of Part XIC of the TPA*, 1999.
64 ACCC, *Declaration inquiry for the ULLS, PSTN OTA and CLLS Final Determination July 2006*. p. 13.
65 ibid, p. 33.
66 ACCC, *Local Services Review – Final Decision*, July 2006. p. 31.

In 2002, the ACCC's view in an earlier determination of Telstra's exemption application for the LCS in various capital cities was that:

> …given these wholesale services are used as inputs into the supply of retail local calls to end-users, the retail market for local calls is also a relevant market for consideration. Therefore, the Commission also considers the possible impact of an exemption decision on the supply of local calls at the retail level, and the possible effect of alternative sources of supply of local calls at the retail level. [67]

3.4 Previous ACCC views on upstream markets

In the Declaration inquiry of 2006, during which the ACCC made a decision to re-declare the PSTN OA service for a further three years, the ACCC considered the relevant wholesale markets to be:

- wholesale supply of fixed voice services;
- wholesale supply of customer access services;
- wholesale supply of broadband services, including BDSL and other high bandwidth, business grade data services; and
- wholesale supply of broadband services to residential and small business users.[68]

The ACCC found that competing networks in metropolitan and regional areas were not sufficiently developed to provide for competition at the originating access level.[69] The ACCC concluded that:

> Access seekers will continue to rely upon Telstra, as the dominant provider of wholesale originating services in metropolitan and regional areas, for originating long-distance, international, and fixed-to-mobile calls for the foreseeable period. [70]

The ACCC identified "considerable uncertainty" regarding the development of competitive infrastructure platforms and services such as wireless access, fixed-to-mobile substitution, VoIP and the ULLS. The ACCC was unconvinced as to whether these services could act as supply substitutes to the LCS, WLR and PSTN OA services.[71] At that time (July 2006) the ACCC found that these services were not considered to be effective substitutes outside the CBD areas. However, the ACCC noted that given the speed of technological change and uncertainty surrounding take-up of alternatives to Telstra's wholesale services, it was difficult to be definitive about substitution trends beyond a two-year period.[72]

67 ACCC, *Future scope of the LCS – Final Decision*, July 2002, p. 32.
68 ACCC, *Declaration inquiry for the ULLS, PSTN OTA and CLLS Final Determination July 2006*. p. 13.
69 ibid, p. 51.
70 ibid,
71 ACCC, *Fixed Services Review- Final Decision,* July 2006, p. 7.
72 ibid, p. 7.

3.5 Parties' submissions

3.5.1 Relevant downstream markets

Telstra, in its supporting submission to the Exemption Applications, states that the relevant retail market includes:

> … those in which fixed voice services, are supplied. Those in which mobile services and, in terms of the promotion of (at least) facilities-based competition, broadband services are supplied are also relevant.[73]

Telstra submitted a report in support of its exemptions applications by Dr Paul Paterson of CRA International (the Paterson report).[74] Dr Paterson concluded that:

> …the relevant retail market includes the full bundle of fixed voice services, those being basic access, local calls, national and international long distance calls and fixed to mobile calls. The market potentially also includes broadband services..[75]

Telstra submits that the analysis conducted in the Paterson report supports the view that the PSTN OA service is supplied in a broad market encompassing, at the least, all fixed voice services.[76] Dr Paterson considers there is evidence that a "cluster market" exists for retail fixed voice services including that:

- Customer purchasing patterns suggests that almost all customers purchasing local telephony services from Telstra's competitors are also purchasing national long distance services;
- Telstra and all its closest competitors sell and market the full range of fixed voice services; and
- Bundling of fixed voice services also makes sense from the supply side, as the investments made in the retailing functions of a particular subset of retail fixed voice services can also be applied to other subsets of retail fixed voice services.[77]

Telstra also submits that while Dr Paterson does not consider broadband services as part of the cluster market for retail fixed voice services, Dr Paterson notes that there

[73] Telstra, *Telstra Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission*, October 5 2007. p. 69.

[74] CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Origination Access Exemption*, 4 October 2007.

[75] CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Origination Access Exemption*, 4 October 2007, p. 13.

[76] CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Origination Access Exemption*, 4 October 2007, pp. 7-11.

[77] Dr Paterson quotes the ACCC Merger Guidelines (June 1999) to define a cluster market. The ACCC defines a cluster market as "comprising a bundle of related products, where the costs of unbundling mean that suppliers of the component products are unable to defeat a SSNIP by a hypothetical monopolist supplying the whole bundle of products." Ibid, p. 8.

are good reasons for including broadband services in the same retail market as fixed voice services on the grounds of supply side substitution and commercial reality.[78]

On the question of VoIP substitution, Telstra asks the ACCC to consider the increasing impact of VoIP on the fixed voice market.[79] Drawing on the Paterson Report, Telstra notes that there is an increasing trend of substitution away from PSTN-based voice services towards VoIP services.

Dr Paterson, in a supplementary submission on behalf of Telstra, rejects the view that there is a stand-alone market for long distance voice services. Dr Paterson suggests that the retail product market is wider than long distance services for the following reasons:

- Customer preferences are heavily skewed in favour of taking the full bundle of fixed voice services.
- Any significant price rise for standalone long distance services would likely be met by a competitive response from ULLS-based suppliers offering the full bundle of voice service.[80]

For these reasons, Dr Paterson argues that the small number of customers taking unbundled services would respond to any significant increase in the price of standalone long distance services by shifting to a competitor's bundle.[81]

Telstra submits that if its customers are subject to a change in the relative price of standalone distance services they will churn away from Telstra to competitors' fixed voice bundle.[82]

Optus does not explicitly define the relevant markets, but contends that there are four key factors that need to be considered when defining relevant markets:[83]

- The ACCC must consider carefully the degree of substitution between a standard telephone service (STS) over a fixed line and alternative services.[84]

[78] Telstra, *Telstra Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission*, October 2007. p.71.

[79] Telstra Submission to the Australian Competition and Consumer Commission, Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service December 2007. pp 5-6

[80] Dr Paul Paterson, *Expert report by Dr Paul Paterson of Concept Economics for Mallesons Stephen Jaques on the response to the ACCC Discussion Paper 'Telstra Domestic PSTN Originating Access service exemption applications'*, 27 June 2008. p. 5.

[81] ibid.

[82] Telstra, *Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service December 2007*. p. 6.

[83] Optus, Submission to the Australian Competition and Consumer Commission on Telstra's PSTN OA Service Exemption Application, December 2007.

[84] The features that a STS must provide include: Customer Service Guarantee (CSG), free emergency services access, operator assisted services, directory assistance services, preselection services, itemised billing, calling line identification, number portability, the option of untimed local calls and suitable equipment for customers with disabilities. In addition there are a number of requirements on Telstra retail price regulation, priority assistance for customers with life threatening health problems; and, access to alternative and interim services. See ibid, p. 13.

- Account must be taken of the competitive impact of the exemption application at both the wholesale and retail level. In other words, if Telstra's application is to be granted, the ACCC must be satisfied not only that the scope for competition would not be diminished in downstream retail voice markets in the absence of PSTN OA regulation, but also that Telstra's conduct would be constrained by competition in the wholesale market in which the PSTN OA is supplied.[85]

- Consideration must be given to Telstra's ESA-based approach to the relevant markets. Telstra has sought exemption in relation to all lines within an exchange services area, yet, if a detrimental impact on competition is to be avoided , access seekers must have access to an acceptable substitute wholesale input that would allow provision of fixed line voice services to substantially all customers in that exchange area.[86]

- Finally, the geographical scope of the market should be given further consideration. While analysis at the ESA level is useful for some purposes, it is not necessarily a complete analysis. From a supply side perspective operators are likely to take a broader view of the market that just a single ESA. Optus notes that when entering a market, Optus does not enter one ESA at a time. Optus therefore considers that in addition to the ESA level analysis, the ACCC should also take into account the level of competition in the market defined more broadly, for example, perhaps metropolitan areas.[87]

Optus submits that a key downstream market is the standalone market for long distance services. Optus argues that there are key differences between the proposed PSTN OA exemptions and the WLR/LCS exemptions; namely, that PSTN OA allows the fixed voice market to be unbundled. That is, it allows customers to purchase a line rental service from one provider and long distance from another provider.[88]

While Optus notes that Telstra argues that the exit of resellers would have little impact on the market, Optus goes on to state that resellers exert competitive pricing pressure at the margin. Optus submits that it has a significant switchless wholesale business that relies on PSTN OA services. That is**,** Optus supplies **[c-i-c].**[89]

Optus submits that there is a high level of competition in long distance services (with a variety of service offering and significant improvement in prices in the period since the introduction of competition) but that this has been because of existing low barriers to entry in long distance. Optus argues if the exemptions are granted it is likely that competitive pressure on long distance prices will ease, particularly with respect to the long distance prices Telstra offers its own retail customers. [90]

Optus also submits that it is likely that competitive in long distance services would diminish following an exemption, despite the continued availability of such services in a bundle, due to barriers to entry and the persistence, of Telstra's market power in

85 ibid, pp 13-14.
86 ibid, p. 14.
87 ibid, p 14.
88 ibid, p. 6.
89 ibid, p. 7.
90 ibid, p. 8.

the access segment. Optus argues a likely consequence of granting the exemption applications would be to encourage competition in bundled services (including line rental, local and long distance calls), rather than in stand alone long distance services.[91]

Optus submits Telstra is the dominant firm in the residential access market with over 88% of total lines and Optus argues Telstra still has "very substantial" market power in the access segment because, for many reasons (such as, perceived high switching costs) consumers do not churn away from Telstra ('rusted on' consumers).[92] Therefore, Optus argues that granting the Exemption Applications would:

- give Telstra a captive market in the long distance calling segment and could allow Telstra to increase its prices for both PSTN OA and retail long distance services; and

- allow Telstra to leverage its market power in line rental into the long distance calling segment and raise its rivals costs, impeding them from competing to provide long distance services to the majority of end-users.[93]

In relation to the substitutability of VoIP for PSTN OA, Optus acknowledges that Telstra's competitors accessing the LSS can deploy VoIP software and consumer premise equipment to supply voice services to end-users. However, Optus submits that VoIP services do not have all the features of a fixed line STS and will therefore not provide a sufficiently strong constraint on Telstra's pricing of the PSTN OA service.[94]

Further, Optus states that mobile voice is not a substitute for PSTN voice services for the following reasons:

> Mobile networks can be used to provide end users with voice telephony services. However, there are differences between mobile telephony services and traditional voice services supplied over a PSTN, and these services are usually considered to be provided in separate markets. Despite some evidence of fixed to mobile substitution, it is not the case yet that a substantial number of end users in Australia have been prepared to give up their fixed line in favour of a mobile telephone. [95]

Optus concludes that mobile competitors are not likely to offer a sufficiently strong constraint on pricing of fixed voice services to justify the granting of the Exemption Applications for the PSTN OA service.[96]

Optus also highlighted the potential for the PSTN OA exemption Applications to impact on competition in the supply of services to corporate and government (C&G) customers.[97] Optus argues that competitive drivers unique to the C&G market include:

91 ibid, p. 8.
92 ibid, p. 10.
93 ibid, pp. 9-10.
94 Optus, *Optus submission to the Australian Competition and Consumer Commission on Telstra's PSTN OA Service Exemption Application* December 2007, p.16.
95 ibid, p. 19.
96 ibid, p. 20.
97 ibid, p. 10..

- Procurement of services on a whole of business (WOB) basis (eg with preferences with single billing, multiple services and products);

- Requirements for ubiquitous coverage of specialised and complex features on top of basic telephony services and

- High incumbent inertia due to high costs of changing providers.[98]

Optus says it relies on access to the PSTN OA wholesale input (for example, Optus states it services **[c-i-c]** retail business customers via PSTN O) because it is not feasible to connect them directly via Optus infrastructure.[99]

Optus also submits that the barriers to customer switching between broadband providers would be increased if that decision also required customers to switch telephony providers.[100]

Optus submits that Telstra is a significant competitor in the market for broadband services and that in competing for customers Telstra's commonly bundles its voice and telephony services; and Telstra separately prices voice services to customers taking broadband services from its competitors using the LSS.[101] Optus argues that absent regulation of wholesale services (including PSTN OA), Telstra may have the ability to raise the relative price of voice services supplied on a standalone basis to encourage customers to take a bundle of voice and broadband services from Telstra. Optus argues this would make it difficult for competitors offering only broadband services over LSS to acquire customers as customer's total cost of voice and broadband services (with voice from Telstra and broadband from the competitor) could be higher than the price offered by Telstra for the bundle of voice and broadband.[102]

AAPT submits[103] that the relevant markets that would be affected by the granting of the Proposed Exemptions are[104]:

- The wholesale and retail supply of fixed voice services; and

- retail supply of mobile telephony services.

AAPT argues that DSLAMs, traditional voice switching equipment, soft switches, VoIP and alternative infrastructure such as fixed wireless HFC could only replicate PSTN voice services if loss of service in the event of a power failure at the customer premises is an acceptable outcome (AAPT notes an MSAN would be needed in the exchange to provide power).[105] If loss of service in those circumstances is acceptable,

98 ibid. p. 10.
99 ibid, p. 11.
100 Ibid. p. 30.
101 Ibid, p. 31.
102 Ibid, p. 31.
103 AAPT Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications, December 2007.
104 ibid, p. 7
105 ibid, p. 8

AAPT states PSTN voice services could be replicated by that infrastructure if bundled with other infrastructure and equipment.[106]

Furthermore, AAPT submits that VoIP is not an effective substitute for existing voice band analogue voice[107] for the following reasons:

- the quality of a VoIP services depends on the quality of each of the end-user's handset and the home network, the broadband connection, the VoIP service provider and the internet;
- the ability for an end user to place a call to a B party over a VoIP service may depend on the equipment used by the B party and if the B party uses a VoIP service, whether the B party uses the same VoIP service provider;
- intelligent networks may not recognise the location of the A party and may be unable to map, or correctly map, the call;
- security issues exist with IP telephony protocols; and
- VoIP services rely on mains power, while a traditional voice service is powered via the phone line.

AAPT submits that the relevant retail markets are:

> (a) the retail market for fixed voice services, excluding in the CBD areas of Adelaide, Brisbane, Melbourne, Perth and Sydney; and
>
> (b) the retail market for high speed data services (given the one-bill effect and the industry trend of bundling voice and data services). [108]

AAPT submits that there is a competitive market for long distance voice and international voice services operating in Australia. AAPT suggests that this is in large part due to the declaration of the PSTN OA service. AAPT asserts that competition in the relevant downstream markets is dependent on this service.[109] The ACCC notes that AAPT has not provided additional supporting information to assist in the identification of a standalone long distance market.

Macquarie Telecom (Macquarie) submits that the retail product markets for the affected services are the long distance, international and FTM services provided by:

- Pure pre-selection providers and over-ride operators; or

[106] ibid, p. 8

[107] ibid p. 9.

[108] AAPT/PowerTel, *AAPT/PowerTel submission to the ACCC in response to Telstra's LCS and WLR exemption applications Discussion Paper*, November 2007, pp. 8-9.

[109] AAPT and PowerTel, Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications, December 2007. p. 7.

- voice resellers accessing PSTN OA to provide the full bundle of voice services. [110]

Macquarie notes that the market analysis applicable for the PSTN OA service is set out by Frontier Economics (Frontier) on page 10 of its WLR and LCS report prepared for the Competitive Carriers Coalition (CCC) and submitted in response to the ACCC's discussion paper on Telstra's WLR and LCS exemption applications (the Frontier report).[111] The market analysis in the Frontier report concluded that the relevant retail product markets are:

> …those for either a bundle of line rental and local calls, or a bundle of line rental, local calls and other type of fixed calls. … The supply of broadband services is also clearly linked to the supply of fixed voice services, although whether this is considered to be a separate market is probably not critical to the analysis of WLR and LCS exemptions. [112]

The Frontier report also went on to note that carriers cannot provide retail line rental and local call services alone because it is not profitable to do so and states that carriers need some means of supplying fixed-to-mobile, national and international calls in order to compete in the retail market.[113]

In terms of retail product substitutability of services, Frontier states that:

> …there is little evidence to date that VoIP has been used as a replacement for a PSTN service.[114]

Frontier submits that this limited substitutability of VoIP services in residential markets is due to:

- the need for specialised equipment at customer premises;
- the absence of location specific numbers;
- perceptions regarding the reliability and quality of service; and
- the dependency of service provision on electricity powers.[115]

In terms of the substitutability of VoIP and mobile services for fixed voice services, Macquarie states that it does not consider mobile and VoIP services to be substitutes to fixed services. Macquarie draws on the Frontier report to note that there still remain a number of issues with VoIP if it is to be considered a substitute with fixed line services.[116]

[110] Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications 14 December 2007 p. 6.

[111] Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications 14 December 2007, referring to Frontier Economics, *Telstra's applications for WLR and LCS exemptions – a report prepared for the CCC*, October 2007

[112] Frontier Economics, *Telstra's applications for WLR and LCS exemptions – a report prepared for the CCC*, October 2007, p. 10.

[113] ibid, p. 12.

[114] ibid, p. 17.

[115] ibid, p. 18.

[116] ibid, p. 9.

Macquarie notes that it does not acquire PSTN OA services from Telstra itself; but that the PSTN OA is a crucial input to services that Macquarie acquires from other wholesale suppliers. Macquarie notes that it receives services from PowerTel, Optus, Telstra and others. [117]

Soul submits that granting the exemptions "would severely harm competition in the downstream retail market for local calls".[118] Soul argues the promotion of competition would be affected because granting the exemptions would lead to price and non-price terms for Local Call Override (LCO) which would be anti-competitive. Soul submits the impact of LCO withdrawal will have a highly detrimental impact on competition at the retail level as LCO is an integral part of Soul's service offering.[119]

In response to Soul's submission, Telstra submits that it does not consider LCO to be part of the PSTN OA declared service, or that for the purposes of the exemption inquiry, the ACCC does not need to resolve the question of whether the LCO forms part of the declared PSTN OA service or not.[120] Telstra argues that irrespective of whether local calls are delivered via LCS or LCO or are regulated, the real issues is whether the availability of alternative infrastructure (including ULLS) enables the competitive supply of voice services that would otherwise be reliant on LCS or equivalent services, such as LCO.[121]

In response to Optus's submissions on the C & G segment, Telstra submits that these concerns are addressed by Dr Paul Paterson in his 3 April 2008 report. Telstra also submits that the PSTN OA service does not include or enable the provision of enhanced, value-added PSTN switching services.[122]

3.5.2 Parties submissions on relevant upstream markets

Telstra submits that a key element in deciding to grant the Exemption Applications is identifying the existence of adequate wholesale alternatives to regulated PSTN OA services which can promote retail competition.[123]

Optus submits that if Telstra's application is to be granted, the ACCC must be satisfied not only that the scope for competition would not be diminished in downstream retail voice markets in the absence PSTN OA regulation, but also that

[117] Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to the Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications 14 December 2007. p. 1.

[118] Soul, *Telstra's Domestic PSTN Originating Access Service – Exemption Application*, 14 December 2007, p. 2.

[119] Soul, *Telstra's Domestic PSTN Originating Access Service – Exemption Application*, 14 December 2007, pp. 1-2.

[120] Telstra, Letter to Mr Richard Home dated 5 June 2008, p. 2.

[121] Ibid, pp. 2-3.

[122] Telstra, Letter to Mr Richard Home dated 5 June 2008, p. 2. Concept Economics, *Expert Report by Dr Paul Paterson of Concept Economics for Mallesons Stephen Jaques on the responses to the ACCC Discussion Paper 'Telstra's local carriage service and wholesale line rental exemption applications' August 2007*, 3 April 2008.

[123] Telstra Submission to the Australian Competition and Consumer Commission, Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service Declaration, December 2007. p. 7.

Telstra's conduct would be constrained by competition in the wholesale market in which the service is supplied.[124]

On the threshold to grant the Exemption Applications, Macquarie submits that PSTN OA is an essential input into the provision of pre-selectable services by wholesale suppliers to itself. Macquarie suggests that if the Exemption Applications were granted Telstra would be in a position to artificially inflate, at its sole discretion, one of the key inputs for competitors at the wholesale level.[125]

AAPT submits that there are currently no alternative wholesale providers to Telstra of PSTN OA services, or their equivalent.[126] Further, AAPT states that the vast majority of wholesale and retail customer access services still rely on Telstra's CAN.[127]

Telstra holds a conflicting view to AAPT regarding the existence of alternative wholesale providers of voice inputs. At the wholesale level, Telstra argues that:

> Retailers without their own network can consider a range of wholesale options from which to obtain the necessary input services. These include, in order of increasing sophistication: a full resale suite from Telstra (and other providers); resale broadband to provide VoIP; LSS/ULLS together with other inputs, to provide VoIP; ULLS, together with other inputs, to provide STS; and self-supply of all network facilities…[128]

Further, Telstra goes on to argue that the relevant wholesale market is in fact broader. Quoting from the Paterson report, Telstra argues that the market includes at least ULLS, the SingTel Optus HFC network and other competing fixed-line networks.[129]

Telstra submits that it has sought the opinion of an independent expert, Market Clarity, to identify the total number of Australian voice service providers. Market Clarity considers that there are five PSTN network owners offering national voice network coverage, including support for regional customers. Of these, four offer facilities-based PSTN services, and two offer facilities-based VoDSL services.[130]

Telstra falls short of including wireless carriers in the upstream market. Nevertheless, it argues that the continuing regulation of access to the PSTN OA:

- Ignores the existence of alternative networks including wireless networks[131];
- The increasing evidence of fixed to mobile substitution.[132]

[124] Optus, *Optus submission to the Australian Competition and Consumer Commission on Telstra's PSTN OA Service Exemption Application* December 2007, pp.13-14.

[125] Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to the Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications 14 December 2007. p. 4.

[126] AAPT and PowerTel, Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications, December 2007. p. 7.

[127] ibid, p. 3.

[128] Telstra Submission to the Australian Competition and Consumer Commission, Telstra Response to Question from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service Declaration, December 2007. p. 7

[129] ibid,

[130] ibid, p. 12.

[131] Telstra Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission October 5 2007. p. 1.

Both these factors, therefore, suggest that there is an increasing degree of substitution between fixed and wireless services and therefore wireless networks act as a competitive constraint on fixed services.

ULLS/LSS substitution

Optus submits that the ULLS is potentially a viable mode of infrastructure based competition. Optus acknowledges that when an access seeker takes the ULLS in a given exchange area it gains the ability to provide fixed line telephony services throughout that exchange area.[133] This would suggest that Telstra's ULLS-based competitors may be able to provide wholesale and retail fixed-line telephony services through access to the regulated ULLS.

Optus qualifies its support of the ULLS as a viable mode of infrastructure based competition by stating that:

> The validity of Telstra's application depends on the availability of ULLS-based services provided by Telstra's competitors. Where ULLS-based competition is not viable at a level sufficient to constrain Telstra's conduct, the PSTN OA would remain an enduring bottleneck in the sense that it is 'essential' to providing services to end-users in downstream markets…[134]

Optus argues that Telstra's submissions in relation to homogeneity of ULLS and LSS ignores the reality of the market in which the LSS has been successfully used by competitors who have built brand names almost entirely based on broadband provision. Optus states the success of these competitors was arguably a result of the fact that they could decouple broadband provision from telephony provision, but, which would not be available if wholesale services such as PSTN OA were undeclared and competitors were forced to migrate to ULLS.[135]

In a similar vein to Optus, AAPT draws attention to the perceived lack of dependable ULLS-based alternatives to Telstra's PSTN services. AAPT notes that access to the ULLS and LSS is subject to Telstra having sufficient capacity for its own needs. AAPT suggests this means Telstra is the only carrier on which other carriers can at all times rely on to supply fixed services.[136]

On the subject of DSLAM substitutability for PSTN services, Macquarie contends that access seeker's DSLAMs are primarily deployed for the provision of DSL broadband services and not for the provision of wholesale and retail PSTN services. Macquarie submits that only a small minority of DSLAMs are capable of providing traditional voice services.[137]

[132] ibid, p 38.
[133] Optus, *Optus submission to the Australian Competition and Consumer Commission on Telstra's PSTN OA Service Exemption Application* December 2007, p. 15.
[134] ibid, p. 21
[135] Ibid, p. 30.
[136] AAPT and PowerTel, Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications, December 2007. p. 5.
[137] Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to the Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications 14 December 2007. p. 8.

AAPT submits that none of the DSLAMs it currently has deployed are capable of providing PSTN voice services. AAPT suggest that significant investment would be required to support voice services. Costs would include:

- replacing the existing DSLAM with an MSAN;
- rewiring of the rack; and
- investment in switching, transmission and IT.[138]

AAPT appears to suggest that it has identified that there is not a strong enough business case for the provision of voice services over DSLAM technology.

AAPT also considers that a number of non-price barriers to entry exist for the use of DSLAMs to supply PSTN services. Some of the non-price barriers are:

- Use of RIMS in some exchange areas. DSL services cannot run over fibre, access seekers can only service end-users if there is copper continuity.
- Telstra's processes allow for only one access seeker to install equipment in an exchange at any one time resulting in artificial constraint being place on rack utilisation.
- The complete lack of process to enable the seamless migration of a Telstra POTS service to a ULLS service.[139]

In his supporting submission for Telstra's PSTN OA exemption applications, Dr Paterson provides the following table listing the voice service offerings of select LSS-based providers as at September 2007.[140]

[138] AAPT and PowerTel, Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications, December 2007. p. 8.

[139] ibid, p. 10.

[140] Dr Paul Paterson, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Originating Access Exemption*, 12 October 2007. p. 20.

Table 1 : Selected voice service offerings of current LSS-based providers

LSS-based provider	Does it provide retail voice services?	Are voice services provided over PSTN, as VOBB/VoIP, or Both[1]
Adam Internet	Yes[1]	VoIP (launching 4 Oct)
Agile/Internode	Yes[1]	VoIP
Amcom	Yes[1]	VoIP
iiNet	Yes[1]	Both
Netspace	Yes[1]	Both
Nextep	No[1]	-
OnTheNet	No[1]	-
PowerTel	Yes[1]	ISDN and PSTN
Soul	Yes[1]	Both
TPG	Yes[1]	VoIP

Source: Carriers' websites (accessed 26th September 2007)

Note: Table 1 is not intended to be an exhaustive list of LSS-based market participants. All companies listed above are reported to have DSLAM infrastructure by ACMA 'Communications Infrastructure and Services Availability in Australia 2006-2007'

Dr Paterson suggests that for those LSS-based VoIP providers included in the table there are no material barriers to switching from LSS to ULLS. Dr Paterson asserts that existing LSS-based VoIP entrants wishing to switch to a ULLS-based POTS emulation voice service would simply require disconnection of "*the second jumper*" and the installation of voice cards in an existing DSLAM.[141]

Alternative technologies

Optus considers that alternative technologies such as mobile and HFC are subject to limitations which mean they are not an adequate substitute for the CAN except in a highly localised way. Optus suggests that alternative technologies cannot serve as an effective competitive constraint of Telstra's pricing of the PSTN OA service. Consequently, access seekers cannot compete effectively in providing fixed line voice services in downstream markets using these technologies.[142]

Optus acknowledges that voice services (as well as broadband and Pay TV services) can be supplied to end users using HFC. However, Optus claims that there are limitations on its ability to use its HFC network as an alternative input to provide

[141] ibid.

[142] Optus, *Optus submission to the Australian Competition and Consumer Commission on Telstra's PSTN OA Service Exemption Application* December 2007, p. 15.

voice services. Optus suggests the main limitation is its inability to service a large number of the addresses the network passes, especially multi dwelling units (MDUs).

To support this, Optus states that its HFC network passes approximately 2.2 million addresses in Brisbane, Melbourne and Sydney of which only 1.4 are serviceable.[143]

Macquarie submits that in certain limited areas partial alternatives to PSTN OA exist, such as direct connection to PowerTel's optic fibre network. However, Macquarie asserts that these provide no competitive constrain on the pricing of the PSTN OA.[144]

Telstra considers it to be uncontroversial to suggest that alternative fixed line access (such as fibre and microwave networks in CBD areas and the SingTel Optus HFC network in metropolitan areas) enables network providers to offer voice and broadband services which potentially act as a constraint on Telstra's retail and wholesale fixed line services.[145]

3.5.3 Submissions on relevant geographic dimensions

In its supporting submission, Telstra outlines the geographic basis for the Exemption Applications. Telstra suggests that considering its CBD and Metropolitan exemption applications at an ESA level is appropriate as:

- It would not be practical to implement an Exemption order in an area defined any more narrowly.
- It reflects the topology of the PSTN network being regulated.
- It minimises the risk that a too-broad geographical market definition will inappropriately lead to a decision not to forbear.
- The possibility that a larger geographical market definition is relevant is likely to be captured even if ESAs are used, since the ESAs identified are aggregated for the purposes of the exemption applications.
- Data on DSLAM deployment is available at no finer granularity than the exchange.[146]

Telstra quoting the Paterson report argues that while an ESA-based geographic delineation is the most logical choice, a broader market could also be defined, encompassing, for example, ESAs with similar competitive characteristics. While acknowledging that a hypothetical monopolist could be constrained by the threat of entry from a DSLAM-based operator in a nearby ESA, Telstra notes that Dr Paterson

[143] Optus, *Optus submission to the Australian Competition and Consumer Commission on Telstra's PSTN OA Service Exemption Application* December 2007, p. 17.

[144] Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to the Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications 14 December 2007. p. 7.

[145] Telstra Submission to the Australian Competition and Consumer Commission, *Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service December 2007*. p.14

[146] Telstra Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission October 5 2007. p. 12.

considers that the scope for such supply-side substitution is more limited than it is within the ESA. On this basis, Dr Paterson concludes that an exchange –based approach is more suitable for the present assessment.[147]

On the question of CBDs, Telstra argues that the availability of competing fibre-based networks, as well as direct microwave links to customers might suggest a CBD-wide geographic definition, however, Telstra, quoting the Paterson report, argues that an ESA approach remains prudent.[148]

Optus on the other hand argues that:

> …While analysis at the ESA level is useful for some purposes, it is not necessarily a complete analysis.[149]

In particular, Optus notes that, generally, the industry in terms of supply takes a broader view of the market; with entry into a market encompassing a larger geographical area than a single ESA. Optus suggests that while at present carriers' incremental investments are done on an exchange by exchange basis, this is not necessarily the basis on which supply side decisions are made. Optus cites its decision to roll out services to 340 exchanges in 2005 as a typical entry decision in the competitive market.[150]

Further, Optus argues that the exemption application should not be granted if they would lead to the restriction of competition in respect of a substantial number of customers within that exchange area.

AAPT refutes the legitimacy of an exchange based market approach for the following reasons:

- Exchange based markets are unlikely to be economically significant trade areas.

- Exchange boundaries are not applicable across all fixed services technology platforms.[151]

To support its opposition to an ESA-based geographic market approach, AAPT quotes the CCC's July 2007 submission to the ACCC's Fixed Services Review. The CCC stated in this submission that "on an exchange basis, end user access still depends on the regulated access to the last mile from the exchange, no matter how many independent DSLAM owners operate in that exchange."[152]

147 Telstra Submission to the Australian Competition and Consumer Commission, *Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service December 2007*. pp 7-8.

148 ibid, p. 8.

149 Optus Submission to the Australian Competition and Consumer Commission on Telstra's PSTN OA Service Exemption Application December 2007. p. 14.

150 ibid, pp.14-15.

151 AAPT and PowerTel, Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications, December 2007. p. 5.

152 ibid.

Further, AAPT submits exchange based market definitions are likely to result in anomalous findings of "market power". AAPT asserts that defining markets by references to ESAs only serves to artificially dilute Telstra's perceived market power by ignoring the commercial reality that a single ESA fails to provide the requisite economies of scale to justify the roll-out of a competitive wholesale offering.[153] The ACCC notes that this is a similar argument to Optus's suggestion that their entry decisions are made on a larger scale than ESA level.

Macquarie argues that the appropriate geographic market definition for both the retail and wholesale fixed voice services is the national market.[154]

Macquarie asserts that retail customers in particular do not define markets by ESA and that granting the exemptions would cause disproportionate market disturbance for the telecommunications industry. Macquarie submits that retaining a national market definition as determined the ACCC's 2006 Declaration Inquiry on PSTN AO is consistent with promoting the LTIE.[155] Referring to the Frontier report, Frontier submits that:

> …the retail fixed voice markets are primarily characterised by competition at a national level.[156]

3.6 ACCC's market definition

As noted above, Part XIC of the TPA does not require the ACCC to precisely define the scope of relevant markets for the purpose of assessing an exemption application. Accordingly, the following market definition analysis should be seen in the context of shedding light on how exemption would promote competition rather than in the context of developing "all purpose" market definitions.

In most cases the markets most likely to be affected by the proposed exemption of the PSTN OA service are the market(s) for downstream services rather than the market in which the eligible service is supplied.

In defining the relevant downstream market, it is important to assess the various products and services by which PSTN OA is used to provide. It is generally accepted that access seekers using PSTN OA as an input are classified into three broad categories:

(1) pure pre-selection providers

- The customer's phone line is connected with one provider but is set to automatically direct all mobile, national long-distance and international calls through the pure pre-selection provider. The customer does not need to dial an

[153] ibid, p. 6.
[154] Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications 14 December 2007. p. 6.
[155] Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications 14 December 2007. p. 6
[156] ibid, p. 10.

access code. The end user receives one bill from the provider of its local calls and a separate bill from the provider of its long distance and FTM calls.

(2) over-ride operators

- The customer's phone line is connected with one provider but mobile, national long-distance and international calls are provided by an override service provider on a call –by-call basis. With an override service, the customer dials a 4 digit access code immediately before dialling the number to access the service.

- PSTN OA is used by access seekers in conjunction with over-ride codes as an input to the supply of long distance (both national and international) and FTM services to its customers.

(3) voice re-sellers

- Voice resellers are access seekers who wish to offer the full bundle of voice services to customers who will seek to acquire PSTN OA (used as an input to supply long distance services) with the LCS and WLR services (in order to supply a bundle of fixed voice services).

3.6.1 Downstream voice market – product dimension

In considering the relevant downstream product market it is useful to start with the relevant service the subject of the Exemption Applications and ask which services, if any, are substitutes for the downstream use of that product. As set out above, the PSTN OA service can be used in two key ways:

- In conjunction with the LCS and WLR service to supply the bundle of fixed voice services; and

- Separately for the supply of long distance (national and international) and FTM calls.

Accordingly, it would appear that markets for the supply of fixed voice services are relevant to the Exemption Applications, as would be a market for the supply of long distance / FTM calls (if indeed, supply of these services constitutes a market separate from that of fixed voice services).

Therefore, the first issue to consider is whether there is, in fact, a separate downstream market for long distance (national and international) and FTM services ('preselectable' services).

It is the ACCC's view that the majority of acquirers of PSTN OA can be classified as voice resellers, as they purchase a bundle of local call, basic access and PSTN OA services from Telstra. In support of this the ACCC notes that Telstra has stated that the vast majority (i.e. more than **[c-i-c]** per cent) of Telstra's retail residential customers purchase a full bundle of fixed voice services (including STD, IDD and

fixed-to-mobile calls), whilst less than **[c-i-c]** per cent purchase retail basic access and local calls only from Telstra.[157] **[c-i-c]**.[158]

In response to an ACCC information request, Telstra has provided the ACCC with historical and projected data regarding PSTN OA override and preselect minutes of use in the proposed Exemption Areas. The historical data is for the period January 2005 to March 2008.[159] Telstra has then provided estimates of minutes of use until December 2008, using a linear extrapolation. The ACCC notes that there has been a trend of significant decline in PSTN OA minutes of use for both call over-ride and pre-selection. Telstra predicts that by December 2008 it will be supplying only:

- **[c-i-c]** per cent of the preselect PSTN OA minutes of use that were supplied at January 2005 levels.

- **[c-i-c]** per cent of the override PSTN OA minutes of use that were supplied at January 2005 levels.[160]

The data and forward estimates provided by Telstra are consistent with Dr Paterson's assessment that customer preferences are shifting away from taking unbundled fixed voice services (such as long distance calls) to the full bundle of fixed voice services.

The ACCC notes that almost all customers purchasing local telephony services from Telstra's competitors (basic access and local calls) also purchase national long distance services from the same supplier. As set out in Dr Paterson's report of the **[c-i-c]** PSTN lines pre-selected to a non-Telstra carrier for long distance and FTM services, just **[c-i-c]** (**[c-i-c]** per cent) of these are Telstra retail lines.[161] The remaining **[c-i-c]** per cent are Telstra wholesale lines, indicating that the majority of preselection providers are in fact bundling long distance (using PSTN OA) with LCS and WLR. Dr Paterson states that **[c-i-c]** per cent of Telstra's retail local services customers pre-select an alternative carrier for pre-selectable services.[162]

The ACCC further notes the trend towards bundling in fixed voice services has been especially noticeable in recent years. In this regard, the ACCC notes that Dr Paterson draws attention to the share of Telstra's retail customers taking Home Line Part of Business Line Part – the products which allow customers to use Telstra for basic access and local calls while using an alternative operator for long distance – decreasing from **[c-i-c]** per cent to **[c-i-c]** per cent between 2003/04 to 2006/07.[163]

[157] Telstra, *Response to ACCC Information request dated 12 March 2008*, 21 May 2008, p. 7.
[158] ibid, p. 7.
[159] Telstra, *Response to ACCC Information Request dated 12 March 2008*, 21May 2008,. p. 5.
[160] Telstra, *Response to ACCC Information Request dated 12 March 2008*, 21May 2008,. p. 5.
[161] CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Originating Access Exemption*, 12 October 2007. p. 9 referring to **[c-i-c]** witness statement.
[162] CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Originating Access Exemption*, 12 October 2007. p. 9.
[163] Dr Paul Paterson, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Originating Access Exemption*, 12 October 2007. p. 9.

Dr Paterson employs the trends noted above to support a conclusion that if a hypothetical monopolist offering just one voice product were to impose a price increase, there would be scope for consumers to switch to bundled offerings, thus rendering the increase unsustainable.[164]

The ACCC notes that Telstra has supplied data in support of it Exemption Applications which it suggests demonstrates that there is not a standalone long distance market operating in Australia. The ACCC agrees with Telstra that the data it has supplied demonstrates:

- There has been a steady decline in the use of PSTN OA for override and preselection voice services in recent years.[165]

- There has been a steady decline in the percentage of end-users who unbundle their long distance services from basic access and local telephone services in recent years.[166]

The ACCC considers these trends to be significant. The data provided by Telstra appears to support Telstra's argument that there is a market for the full bundle of retail fixed voice services. The ACCC agrees with Telstra that actual customer purchasing trends provide sufficient evidence of this market.[167]

The ACCC notes that there is complementary evidence to assist in the identification of a market operating for the full bundle of retail fixed voices services. Telstra has stated that almost all acquirers of PSTN OA can be classified as voice resellers, as they purchase local call, basic access and PSTN OA services from Telstra. This is confirmed by the reported number of acquirers of Telstra's PSTN OA service who can be classified in the "pure pre-selector" category (**[c-in-c**]). The ACCC's view is that the vast majority of acquirers of PSTN OA from Telstra are offering the full bundle of voice services which suggests that long distance services do not represent a separate market but merely make up a segment of the bundle of Fixed Voice Services.

The ACCC notes Telstra's submission that if its customers are subject to a change in the relative price of standalone long distance services they will churn away from Telstra to competitors' fixed-voice bundles.[168] In support, Telstra has noted that consumer preferences are tending towards bundles of fixed voice services.[169] The ACCC notes that this is happening even though the average cost of long distance and FTM calls offered by all providers, for both residential and business customers, fell during 2006/07 by the following amounts:

[164] Dr Paul Paterson, *Expert Report by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the ACCC Discussion Paper 'Telstra's domestic PSTN originating access service Exemption applications' August 2007*, 18 December 2007. p. 3.

[165] Telstra, *Response to ACCC Information Request dated 12 March 2008*, 21May 2008. p. 5

[166] ibid.

[167] CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Originating Access Exemption*, 12 October 2007. p. 9.

[168] Telstra, *Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service December 2007*. p. 6.

[169] Ibid.

- national call costs decreased by 7.2 per cent to 10.8 cent per call minute;
- international call costs decreased by 10.3 per cent to 20.4 cent per call minute; and
- fixed-to-mobile call costs decreased by 4.5 per cent to 31.7 cents per call minute.[170]

The ACCC considers the noticeable customer trend away from override and preselect services, occurring while the average costs for long distance calls is falling, is not consistent with the existence of a standalone market for long distance services. Consumers are increasingly acquiring a bundle of fixed voice services from the one provider. This may be due to customer preferences of receiving a single bill for all the services and the cost savings of acquiring a bundle from the same service provider – the price of the package is usually at a discount to that of acquiring given amounts of a product separately.

The ACCC is of the view that it is appropriate to include basic access, local calls, national and international long distance calls and fixed to mobile calls within the bundle (together, "Fixed Voice Services"). It is also relevant to note that a wide variety of broader bundles of telecommunications services are offered to consumers, including combinations of fixed voice, mobile, broadband and pay TV.

The ACCC notes Soul's submission on Local Call Override, but, does not propose to consider local call access a separate retail market for the purposes of these exemption inquiries. The ACCC believes that local call access forms part of the bundle of fixed voice services, which is the appropriate suite of services to consider.

For the purposes of considering the relevant downstream markets the ACCC will consider possible substitutes for Fixed Voice Services.

Fixed to VoIP substitution

VoIP refers to the encoding of voice communication into IP packets for transmission over data networks.[171]

Broadly speaking, there are three main types of VoIP services available to consumers. These are:

- Soft switching and the ULLS. In this case, the access seeker uses the normal voice band of the copper line to connect a POTS phone to a Multi-Service Access Node (MSAN) that can terminate both DSL and voice-band traffic. The voice service is either handled by a soft switch in an IP network or sent via a voice gateway to a traditional voice switch ("POTS emulation");

[170] ACMA, *Communications Report 2006/07 (Chapter 7 – Economic benefits resulting from changes in telecommunications services)*, April 2008. p. 183 and ACCC, *Changes in the prices paid for telecommunications services in Australia 2006-2007*, May 2008. pp. 79-80.

[171] The discussion focuses on the substitutability of "carrier grade" VoIP voice rather than soft-client VoIP (i.e. application layer only VoIP services, such as those provided by Skype or engine) as the ACCC does not consider soft-client VoIP a potential substitute at this stage.

- Internet access device (IAD) and the ULLS/LSS. In this case, the end-user connects a POTS phone to an IAD that converts the voice call to VoIP at the end-user premises. The call is transferred to the exchange and the access seeker's equipment over the broadband connection. The voice service can be handled by a soft switch in an IP network but will require a voice gateway to interconnect with the PSTN ("carrier-grade VoIP" e.g. a service provided by iiNet); and

- VoIP and the ULLS/LSS. The access seeker provides a voice service through a full IP solution over the broadband connection, using either a VoIP handset or software on a computer to emulate a telephone. Again, the voice service can be handled by a soft switch in an IP network but will require a voice gateway to interconnect with the PSTN ("application layer VoIP" e.g. a service provided by Skype or engin).

The ACCC considers that the first service above is likely to be substitutable on the demand-side, because the experience from the consumer's perspective would be identical. Furthermore, the ACCC understands that the costs involved for end-users in acquiring a POTS emulation voice service are unlikely to vary significantly from traditional fixed voice services.

The ACCC does not consider that application layer VoIP services are substitutable for PSTN fixed voice services based on a range of factors including significant differences in the quality of service and the necessity of having a broadband service.

In relation to carrier grade VOIP services, in terms of price competition, VoIP often enables service providers to offer cheaper prices for local calls and standard telephony services than traditional PSTN calls. E.g. as at June 2007 the ACCC understands that the cost of an untimed local VoIP call was approximately $0.10 compared to approximately $0.14 for a local PSTN call. VoIP providers have also begun offering packages to compete with PSTN voice services. For example, in September 2007 Gotalk announced that it would offer unlimited calls to fixed line Australian numbers and to any Australian mobiles for $14.95 per month.[172]

However, the physical and technical characteristics of a carrier-grade VoIP product can be quite different to that of traditional PSTN voice. The ACCC notes that:

- the quality of service of VoIP can vary greatly between VoIP service providers and often VoIP has lower quality of service than PSTN voice services;[173]

- on the whole VoIP services do not facilitate connection to emergency services numbers;

- VoIP services are not available during power outages;

[172] Exchange, *Gotalk puts the heat on VoIP players with $14.95 "unlimited" offer*, Vol 19 No 34, 7 September 2007, p. 6.

[173] Note that broadband providers that operate their own network can have some control over the transport of their VoIP traffic and therefore have some control over the quality of their service. See also ACMA, *The Australian VoIP Market – the supply and take-up of VoIP in Australia*, December 2007, p. 19.

- VoIP services require the customer to acquire a VoIP-specific phone at the customer end;

- to acquire VoIP services an end-user must also acquire a broadband service (unlike traditional PSTN voice); and

- VoIP can provide end-users with greater functionality than PSTN voice through the additional features of the service e.g. "simultaneous ring",[174] "sequential ring"[175] and "music on hold".[176]

At this stage the ACCC considers carrier-grade and application layer VoIP services are unlikely to be effective substitutes for PSTN voice due to the current limitations concerning the quality characteristics of VoIP services, the requirement for switching customer premises equipment and also the necessity to acquire a broadband service in conjunction with the VoIP service. The ACCC also notes that LSS-based VoIP would always be a second line service, which would clearly be a complementary service to the traditional fixed line.

While these VoIP services may become an effective substitution possibility for fixed voice services in the longer term,[177] the ACCC does not consider that the availability of VoIP services would be sufficient to prevent a SSNIP in relation to PSTN OA within the foreseeable future.

On the supply-side, the ACCC considers it would be unlikely that a VoIP provider would switch to providing traditional voice in the event of a SSNIP in fixed voice services. The business case of entering into supply of voice via VoIP is likely to be based on a different business case to supply of fixed voice services due to differences in functionality between VoIP and traditional fixed voice. Issues such as the potential future obsolescence of switching equipment may influence VoIP providers' business decisions.

Fixed to mobile substitution

On the demand side, the ACCC must consider the likelihood of consumers switching to mobile services in the event of a SSNIP of fixed voice services.

[174] This refers to the ability to have multiple phones ring simultaneously when calls are received on one phone number. E.g. calls to an end-user's desk phone could also ring their mobile phone, in case the end-user was not at their desk. See iiNet, *VoIP features*, accessed at <http://www.iinet.net.au/products/voip/features.html#simultaneous_ring>, accessed on 17 December 2007.

[175] The capability to telephone up to 3 locations (in addition to the base location) in the sequence an end-user supplies for a specified number of rings. See iiNet, *VoIP features*, accessed at <http://www.iinet.net.au/products/voip/features.html#simultaneous_ring>, accessed on 17 December 2007.

[176] iiNet, *VoIP features*, accessed at <http://www.iinet.net.au/products/voip/features.html#simultaneous_ring>, accessed on 17 December 2007.

[177] See, for example, ACMA, *The Australian VoIP Market – the supply and take-up of VoIP in Australia*, December 2007 at p. 11 which states that Market Clarity research forecasts that internet-based VoIP subscriber numbers will increase from 1.4 million in June 2007 to 4.8 million by June 2011.

IT and market intelligence firm, IDC Australia, has found that there were 20.42 million mobile Services in Operation (SIOs) at the end of 2006, representing a penetration of 98.4 per cent of the Australian population.[178] IDC forecasts that by 2008 mobile penetration will surpass the 100 per cent threshold.[179]

The Australian Communication and Media Authority's (ACMA) *Communications Report,* released most recently in 2007, provides an indication of the trends in subscriber numbers of mobile and fixed line services from 1999-00 to 2006-07. [180] The table below shows that mobile subscription in 2006-07 has increased by 266 per cent since 1999-00 while fixed services had a steady increase in subscriptions to a peak in 2003-04, followed by a decline of nearly 7 per cent to 2006-07. [181]

Table 1 – The Number of Fixed-Line and Mobile Telephone Services in Operation (millions) 1999-00 to 2006-07

Year	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Fixed voice	10.6	10.8	11.4	11.6	11.7	11.5	11.3	10.9
Mobiles	8.0	11.1	12.7	14.3	16.5	18.4	19.8	21.3

Source: ACMA 2005-06 and 2006-07 Communications Reports

Additional ACMA research has indicated that between 2005 and 2007 the number of mobile minutes increased by 48 per cent while fixed minutes decreased by 10 per cent over the same period.[182] This suggests that end-users are increasing their net usage of telecommunications services, measured by minutes, rather than reducing their fixed-line usage relative to increases in mobile usage.

The above data would seem to indicate that the increase in mobile phone subscriptions and usage has not been 'off-set' by an equivalent decrease in fixed services. Accordingly, from a demand perspective, the ACCC is of the view that mobile use may be viewed by the majority of consumers as a complement to their traditional fixed line rather than as a substitute.

Furthermore, research by Woolcott Research (commissioned by the ACMA in 2007) has highlighted a consumer reluctance to switch from landline to mobile.[183] The Woolcott Research study found that the majority of respondents reported complementary use of both the landline and the mobile phone for voice services, with only 10 per cent of respondents indicating that the main use of their landline was to

178 IDC, IDC Press Releases: *3G Domination to Usher New Breed of Mobile Services, Predicts IDC*, 13 June 2007. Accessed at < http://www.idc.com.au/press/release19.asp>, accessed on 15 January 2008.

179 ibid.

180 ACMA, *Communications Report 2005–06*, 2006, p. 51 and ACMA, *Communications Report 2006–07*, 2007, pp. 74-75.

181 Adapted from Figure 31 – ACMA, *Communications Report 2005–06*, 2006, p. 51 and ACMA, *Communications Report 2006–07*, 2007, pp. 74-75.

182 ACMA, *Fixed-mobile Convergence and Fixed-mobile Substitution in Australia*, July 2008. p. 1.

183 The results are contained in, ACMA, *Telecommunications today- Consumer attitudes to take-up and use*, September 2007. ACMA commissioned the consultancy Woolcott Research to undertake research into the use and provision of telecommunications services in Australia. As part of this research Woolcott Research conducted a series of qualitative focus groups and in-depth interviews, as well as a national quantitative survey.

connect to the internet. The focus groups highlighted that the portability of mobile phones outside the home was seen to be one of their main benefits and that mobiles were suitable for short conversations or for texting quick messages. In comparison, the landline was the preferred means of conducting longer phone conversations or long distance calls. Both forms of telephony were seen to have security benefits and were a way of keeping in touch.

In terms of price competition, the ACCC is of the view that the untimed nature of local calls is also likely to inhibit widespread substitution to mobile voice. Depending on the fixed line package that an end-user chooses, local calls can cost as little as $0.10c,[184] whereas a mobile voice call generally costs between $0.20 to $0.40 per minute per call, which can make long calls relatively costly.[185]

However, the introduction of capped mobile plans by mobile service providers may contribute to the future substitution away from fixed line voice to mobile voice, as capped mobile plans offer the customer greater value for money. For example, as at March 2008, on an Optus $49 mobile cap, the customer received up to $300 worth of calls.[186] It may also be the case that, functionally, a mobile voice service is regarded by consumers as more convenient than a fixed line service to make local calls because calls can be made from any location.

However, the quality of mobile voice calls can vary dramatically depending on how close to a mobile tower the end-user is and the general coverage of the service provider. Accordingly, mobile voice can have very poor quality in low coverage areas. Given carriage service grade obligations, fixed local calls do not have issues with inconsistent quality and end-users can be sure that every time they make a local call the quality of the phone call will be consistent.[187]

In light of the above the ACCC is of the view that mobile services are only in a relatively small percentage of cases an effective substitute for fixed line services. A report recently released by ACMA entitled "Fixed-mobile Substitution and Fixed-mobile Convergence in Australia" supports the ACCC's views that while a degree of substitutability of mobile services for fixed services is becoming apparent at the margins, prospects for convergence of fixed and mobile services are low in the short-term.[188] However, the ACCC is actively monitoring consumer behaviour and preferences in this regard.

On the supply-side the ACCC is of the view that a provider of mobile services would be highly unlikely to switch to provision of fixed voice services in the event of a

[184] On Telstra's Homeline Reach fixed voice plan local calls cost $0.10; on Telstra's Homeline Together or Homeline Ultimate fixed voice plan, local calls are included in the cost of line rental.

[185] Mobile phone call costs per minute depend upon the monthly plan and terms and conditions of the contract.

[186] Optus website, accessed on 7 March 2008 at <http://personal.optus.com.au/web/ocaportal.portal?_nfpb=true&_pageLabel=personal_mobile_productypeMOB_marketSegmentres&productpath=/personal/mobile&FP=/personal/mobile/plansandratesmobile/capplans&site=personal>

[187] Issues will arise with local calls when there is a service fault or fault with the end-users handset.

[188] Australian Communications and Media Authority, *Fixed-mobile Substitution and Fixed-mobile Convergence in Australia* ,released 31 July 2008 http://www.acma.gov.au/webwr/_assets/main/lib310210/fxd_mobile_convergence-substitution_in_aust.pdf

SSNIP in fixed voice services. This is because of the large and lumpy sunk costs and long lead times involved in switching.

Accordingly, the ACCC is of the view that the relevant product dimension at the downstream level is for fixed voice services (excluding VoIP and mobile services) (Fixed Voice Services).

The ACCC does not consider that there is a separate market for the provision of voice services to corporate and government customers. While, on the demand-side, the ACCC acknowledges that corporate and government customers may seek particular service requirements distinct from other consumers, the ACCC considers that there is likely to be a sufficiently large degree of supply-side substitution such that supply to residential customers is likely to be a substitutable service for supply to corporate and government customers.

However, the ACCC does not consider that it needs to form a concrete view on whether there is a separate market for the provision of voice services to corporate and government customers because, even if there were such a market, the ACCC does not consider that granting the Exemption Applications would have a material effect on such a market. This issue is considered below in the "Promotion of Competition" section below.

Bundled voice and broadband

While a proportion of consumers acquire a voice only service, many consumers now acquire both data and voice services – often via a bundle from a single service provider. It is clear that some consumers acquire a voice and broadband (DSL) bundle from their access seeker via a line sharing service (LSS) and Fixed Voice Bundle - where the voice component is supplied by an access seeker re-selling WLR, LCS and PSTN OA.[189]

The LSS is where two separate carriers (or a single carrier re-selling a WLR/LCS/PSTN OA service) supply separate services over a single metallic pair (or 'line'). A metallic pair can support a broad range of services by utilising the full spectrum of the line. Traditionally, only 3.1 kHz, a relatively small part of a metallic pair's useable spectrum, was used to provide voice services. With the development of xDSL technology,[190] the remaining part of the spectrum can now be used to provide a variety of broadband services. This allows a combination of low-speed and high-speed services to be provided on a single line at the same time.

Using LSS, the metallic line spectrum is normally split (or shared) so that one carrier or service provider provides the voice services over the line, while another carrier provides high-speed broadband services through the use of its own xDSL technology.

[189] The precise numbers of customers within the Exemption Area are considered below in "promotion of competition" section at Section 2.1.

[190] xDSL refers to the 'family' of digital subscriber line services (eg. ADSL=Asymmetric DSL, HDSL=High bit rate (or high-speed) DSL etc.). For instance, ADSL uses a dedicated line from the customer premises to a network exchange to provide an 'always on' data service with downstream access speeds capable of over 1.5Mbits per second and upstream speeds typically one quarter of the downstream rate. At the same time an independent public switched telecommunications network (PSTN_ dial-up voice services is supported over the same line.

For example, if Telstra is the access provider, it could deliver voice services to end-users, while a second carrier simultaneously provides high-speed broadband services (such as ADSL) over the same copper line. Alternatively, as noted above, an access seeker could deliver voice services to end-users at the retail level via use of LCS, WLR and PSTN OA.

The ACCC considers that granting Telstra's Proposed Exemptions could impact upon the ability of LSS acquirers to acquire LCS/WLR/PSTN OA services over the same line.

Accordingly, the ACCC considers that the most relevant downstream market to assess is a bundled fixed voice and broadband market. While a broadband-only market could also be relevant to the ACCC's assessment of Telstra's Exemption Applications, the ACCC considers that it will be unnecessary to assess the competitive effects of the Exemption Applications upon such a market, as an assessment of the narrower bundled broadband and voice market will identify any competition effects upon the broader broadband-only market.

The broadband aspect of the bundled voice and broadband market can be defined as the high bandwidth carriage service market—for the supply of high bandwidth carriage services by service providers to end-users. Broadband services can be generally 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. It is important to note that the actual speeds experienced by consumers can be affected by many factors including the consumer's distance from the exchange and whether the consumer's line is affected by 'pair gain'.[191]

Such broadband services can be provided by means of xDSL technologies as well as by HFC cable, as well as other types of infrastructure, such as fixed and mobile wireless technologies.

The ACCC considers that broadband and voice bundles with similar pricing, quality and functionality delivered via non-DSL networks substitutable for broadband provided by means of xDSL technologies from the perspective of most consumers. The ACCC has considered the level of substitutability of such services below.

HFC

In addition to the copper fixed line network, there are two HFC cable networks in metropolitan areas of Australia that are capable of delivering high speed broadband and voice services. In total, Telstra and Optus's HFC networks have a geographic footprint of approximately 2.7 million homes[192]. Telstra uses its HFC network for the provision of television and broadband services. Optus uses its HFC network for the provision of television and broadband services, as well as voice services. There is a large degree of overlap between the two networks — Telstra's HFC network services 2.5 million homes and Optus's services 1.4 million homes.

[191] Large 'pair gain' systems were put in place where copper connections from the exchange were expensive to provide, especially in new housing estates on the fringes of an ESA

[192] ACCC, *Review of the Line Sharing Service Declaration Final Decision*, October 2007, p. 28

Telstra submits that HFC/optical fibre networks cover 57 per cent of Telstra's Proposed Metropolitan Exemption Areas and that, in particular, Optus's HFC network covers 200 ESAs and passes 2.2 million households nationally. The ACCC has used reporting information received from carriers in response to its December 2007 Infrastructure Audit RKR (discussed above in the 'Background' section) to estimate that approximately **[c-i-c]** ESAs within Telstra's Proposed Metropolitan Exemption Area are either extensively or partially covered by Optus's HFC network. This constitutes around **[c-i-c]** per cent of ESAs covered in the Proposed Exemption Area.

Optus offers a number of standalone and bundled broadband packages in the retail market over its HFC network, with some plans offering speeds of up to 20 Mbp/s at prices comparable to xDSL products.[193]

As noted in the ACCC's Review of the LSS Declaration released in October 2007,[194] the ACCC is of the view that broadband services with similar pricing, quality and functionality delivered via HFC (as well as other types of infrastructure) will be substitutable from the perspective of most consumers.[195] However, as noted in that review, the demand characteristics in the market for broadband services are still emerging.[196] It is also relevant to note that there may be switching costs incurred by consumers in switching between an xDSL broadband product and a HFC broadband product. These costs may include the purchase of additional or replacement customer premises equipment, such as a HFC-enabled modem.

Wireless technologies

The ACCC is aware that some carriers, such as Optus, provide a bundled fixed voice and 3G wireless broadband service to consumers.[197] While prima facie such services, if priced competitively, could provide a constraint upon traditional fixed voice and broadband bundles, the ACCC, in its review of the LSS Declaration released in October 2007,[198] noted that it is uncertain to what extent services on wireless networks offer viable alternatives, in terms of quality, functionality and price, to those retail broadband services provided via Telstra's copper CAN.[199]

On this issue, the ACCC has also recently noted that it is unlikely that mobile broadband solutions will be capable of providing, to the mass market, the bandwidth required to compete against fixed technologies in the provision of high bandwidth application such as file/video sharing, IPTV etc.[200]

193 Optus Cable plans, found online at: http://personal.optus.com.au/web/ocaportal.portal?_nfpb=true&_pageLabel=personal_cable_productypeHSD_marketSegmentres&productpath=/personal/internet&FP=/personal/internet/broadband/cable/plansandratescable&site=personal

194 ACCC, *Review of the Line Sharing Service Declaration Final Decision*, October 2007.

195 ibid, p. 32.

196 ibid, p. 32.

197 Optus bundled fixed voice and wireless broadband plans, found online at: http://personal.optus.com.au/web/ocaportal.portal?_nfpb=true&_pageLabel=Template_wRHS&FP=/personal/internet/wirelessbroadband/plansandrates&site=personal

198 ibid.

199 ibid, p. 30.

200 ACCC, *Telecommunications Competitive Safeguards report 2006-07*, p. 9.

That said, the ACCC is of the view that wireless and mobile networks may be increasingly capable of providing competitive voice and lower bandwidth data services, with expectations that shared cell bandwidth capacities will continue to increase. For example, for applications such as web browsing, email and instant messaging, it would appear that the capabilities of mobile broadband are comparable to fixed broadband from a demand perspective. According to ACMA's publication, "Telecommunications today—consumer attitudes to take-up and use", the most common uses of the internet still appear to be email, information searching, shopping/ bill paying and downloading clips.[201] Such applications are not bandwidth intensive and are efficiently supported by a theoretical maximum broadband speed of less than 1.5 megabits per second (Mbps).

Over the last two years, Australia's four 3G mobile telephony operators have invested heavily in mobile broadband data technology. In this regard, it is possible that mobile wireless broadband services may increasingly become a stronger substitute for consumers over time as operators enhance their networks.

In terms of pricing, retail broadband wireless services are generally offered at a higher retail price point (on a Mbps-basis) compared with ADSL retail services.[202] However, network upgrades to faster mobile broadband technologies and flat rate pricing are now making mobile broadband connections more attractive to users. An increasing number of 3G plans are also being offered in the retail market. For instance, Vodafone is currently offering a 5 gigabyte download capacity broadband plan for $39 a month over its 3G network.[203] Similarly, Optus is currently advertising 5 gigabyte mobile broadband plans, with customers receiving download speeds of between 512kbps and 1.5Mbps. Both the Optus and Vodafone plans are offered in metropolitan areas of capital cities.

Despite signs that such offerings are becoming increasingly competitive, the ACCC still considers that the extent to which consumers consider wireless/ mobile broadband internet technologies as substitutes for fixed technologies is currently unclear.[204] As at December 2007, the Australian Bureau of Statistics reported that 73 per cent of total Australian non dial-up internet subscribers maintained a DSL connection.[205] This indicates DSL continues to be the dominant access technology. The ACCC therefore considers it prudent to adopt a conservative approach, and consider that any constraint upon fixed broadband and voice markets is likely to be only at the margins.

The ACCC considers that there is unlikely to be any significant supply-side substitution in terms of supply of broadband via different technologies. This is due to the high costs involved in switching supply over different platforms (e.g. copper, HFC or wireless).

201 ACMA, *Telecommunications today – consumer attitudes to take-up and use*, September 2007, p. 20.

202 ACCC, *Review of the Line Sharing Service Declaration Final Decision, October 2007*, p. 30

203 Advertised on Vodafone's website at: http://store.vodafone.com.au/mobile-phones-vodafone-usb-modem-5gb-mobile- broadband-for-39month.aspx

204 ACCC, *Telecommunications Competitive Safeguards report 2006-07*, p. 9.

205 ABS, *8153.0 - Internet Activity, Australia, Dec 2007* accessed on ABS website at: http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/ (24/04/08).

In light of the above, the ACCC is of the view that the product dimension for supply of broadband services includes supply of high bandwidth carriage services over copper (xDSL), HFC and, to a lesser extent, possibly wireless technologies.

3.6.2 Product dimension- upstream level

Voice

As noted previously, the PSTN OA service is an input used to provide long distance (national and international) and FTM calls. Telstra has suggested that access seekers would need to provide a broader suite of telecommunication services (local call and line rental) in addition to national and international long distance and FTM calls to efficiently operate with a profitable margin.[206] Indeed, Telstra has submitted that almost all acquirers of PSTN OA can be classified as voice resellers as they purchase local call, basic access and PSTN OA services from Telstra. Of the more than **[c-i-c]** carriers that interconnect with Telstra the number of carriers who acquire the PSTN OA without acquiring the LCS and WLR is only **[c-i-c]**[207]

Accordingly, the ACCC considers that it is appropriate to consider PSTN OA in terms of a bundled product together with LCS and WLR (Fixed Voice Bundle) at the wholesale level. Also relevant is that the potential substitutable products at both the upstream and downstream levels tend to replicate the bundle of PSTN OA/LCS/WLR products.

In terms of demand-side substitution the first relevant question for the ACCC is whether a firm who wishes to supply fixed voice services to end-users has any alternative options at the wholesale level in order to provide services at the downstream level.

Addressing this question begins with taking the Fixed Voice Bundle and then asks which other services, if any, place a constraint on the pricing and output behaviour of providers of these services. An issue central to this analysis is the functionality provided by the PSTN OA compared with potential substitute services. Alternatives to the PSTN OA can exist at the following three levels:

- wholesale level – re-sale of a Fixed Voice Bundle by other service providers.
- access level – DSLAM/MSAN based provision via use of the ULLS; and
- network level – end-to-end competition via HFC or fibre optic.

With regard to the "wholesale level", the ACCC understands that there are other telecommunications firms, such as Optus, who supply a wholesale fixed voice service to access seekers from time to time. To the extent that such services are available at competitive rates, the ACCC is of the view that this would pose an effective substitute to the wholesale Fixed Voice Bundle available from Telstra. However, the ACCC notes that competitors are likely to have a lesser geographic reach in comparison to Telstra.

[206] Telstra, *Telstra's PSTN originating Access Exemption Applications – Supporting submission*, 5 October 2008, pp. 45.46.

[207] Telstra, response to ACCC Information Request dated 12 March 2008, 21 May 2008, p. 4.

The existence of alternative networks does not necessarily provide access seekers using the PSTN OA the ability to use the alternative networks as a supply substitute. Optus states in their submission that third-party access to HFC networks is generally neither sought, nor easily engineered.[208]

With regard to the "access level", the ACCC notes that ULLS may serve the functional needs of access seekers that seek access to the PSTN OA because the ULLS can be used for the provision of voice services in the downstream markets.

In terms of quality the ULLS can provide equivalent voice services to that provided by Telstra and resellers of Telstra's PSTN OA services. In order to provide equivalent fixed voice services via ULLS, access seekers must acquire the ULLS and install a DSLAM or an MSAN into a Telstra exchange. Where a DSLAM is used, the access seeker must acquire voice switching services, while where an MSAN is used, a voice card allows for soft-switching via IP technology. In both circumstances, the access seeker must also build or acquire sufficient transmission capacity.

Therefore, although the ULLS can be used by access seekers as a substitute for the PSTN OA, the extent of the substitutability depends upon the level of investment required by access seekers to migrate from re-sale to ULLS-based competition. Additional requirements to migration may include the access seeker's ability to:

- invest in infrastructure (DSLAMs or MSANs) and exploit any economies of scale and scope that exist in the market;
- gain access to exchanges (i.e. access seekers have alerted the ACCC to significant issues associated with the length of queues in which access seekers must wait in order to gain access to exchanges, as well as capacity constraints in exchanges – that Telstra deals with by 'capping' exchanges – thereby effectively closing them off to new entrants);
- gain access to competitively priced switching services and backhaul transmission services; and
- migrate existing customers from the PSTN OA/LCS/WLR (on occasion, bundled with the LSS) to the ULLS without significant disruptions (in this regard the ACCC notes that access seekers have claimed that consumers can be without a broadband service during this process for approximately three weeks).

These issues are considered in further detail below.

The ACCC does not consider that LSS, from either the demand or supply side perspectives, is a substitute for PSTN OA. LSS allows an access seeker to provide data services to an end-user while another provider supplies a fixed voice service to that consumer. While a VoIP service may be offered by LSS-based broadband providers, the ACCC does not consider this to be substitutable. Further, by definition, if a service provider is using LSS, the end customer must already have a PSTN based

[208] Optus, *Optus submission to the ACCC on Telstra Application for LCS and WLR Exemptions*, November 2007, p. 14.

voice service. Therefore, any VoIP offering is likely to be an additional voice service rather than an alternative.

At the "network" level, an option for PSTN OA access-seekers in the event of a PSTN OA price rise would be to invest in its own infrastructure.

However, the ACCC is of the view that the ongoing presence of natural monopoly characteristics across particular elements of the fixed networks means that full-facilities based competition is unlikely to be efficient or commercially feasible in most scenarios. Further, the large and lumpy sunk costs combined with the considerable lead times involved by an access seeker switching to provision of voice services via their own infrastructure are likely to be simply too large to prevent a SSNIP.

Therefore, the ACCC is of the view that the only reasonably substitutable products that access seekers could turn to if there was a significant price increase of the PSTN OA is a wholesale Fixed Voice Bundle from alternative providers or the ULLS.

Accordingly, the product market is likely to be for the supply of upstream inputs used for the provision of traditional fixed voices services. These inputs are likely to include PSTN OA and ULLS, but not LSS or alternative infrastructure such as wireless or HFC.

Bundled voice and broadband

At the upstream level, an analysis of the product dimension begins with the LSS product, and asks which other services, if any, place a constraint upon the pricing and output behaviour of the provider(s) of this services. The reason that it is relevant to start with the LSS product is that some access seekers may acquire PSTN OA together with WLR, LCS and LSS (to provide a bundled voice and data service to consumers) and therefore, could be affected by the granting of exemptions.

An issue central to this analysis is the functionality provided by LSS compared with potential substitute services. In the case of a vertically related service, such as the LSS, the basic functionality of the service is heavily dependent on the downstream services to which it is an input. As outlined above, the LSS allows access seekers use of the higher frequency part of the copper line, in combination with their own DSLAM infrastructure, to provide end-users with high speed broadband services. Access seekers have scope to provide a variety of through-put speeds based on the type of DSLAM infrastructure deployed and the distance of the customer from the local exchange. Currently, access seekers using the LSS can provide ADSL2+ services to end-users with theoretical maximum speeds of up to 24 Mbps up to 1.5 km from the exchange, falling to around 9 Mbps at 3 km from the exchange.

The assessment of the boundaries of the relevant upstream markets involves evaluating the alternative media that can be used by access seekers to provide broadband (either stand-alone or in a bundle with voice) to end-users.

The ACCC is of the view that alternatives to the LSS can exist at the following three levels:

- wholesale level – re-sale by service providers.
- access level – DSLAM/MSAN based provision via use of the ULLS or USS[209]; and
- network level – end-to-end competition via HFC or fibre optic.

With regard to the "wholesale level", various telecommunications firms supply broadband and/or voice services to access seekers. For example, in early July Telstra announced that it would begin offering wholesale ADSL2+ under certain conditions.[210] To the extent that such services are available at competitive rates, the ACCC is of the view that this would pose an effective substitute to the LSS.

In a response to an ACCC information request regarding Telstra's WLR/LCS Exemption Applications, Telstra stated that at the "access level", the USS may be considered a substitute in that it is essentially an LSS provided by an access seeker using a ULLS to another access seeker.[211] The ACCC considers information regarding the USS is relevant to the ACCC's consideration of the ULLS, and substitutes for the LSS, in the context of its assessment of Telstra's PSTN OA Exemption Applications, as the ULLS is a possible alternative for providing a PSTN OA service.

However, the ACCC notes there are a number of factors that need to be considered in assessing the ability of USS to act as a viable substitute to the LSS. The ACCC understands that no parties have used the USS since declaration of the ULLS and there are no current industry plans to commence supply of the service. Telstra states that it would need to make certain modifications to its own processes and systems to facilitate access seekers entering into USS supply agreements, but has received no requests to date.

More generally, as noted in ACCC's review of the LSS Declaration in October 2007,[212] the availability of USS will be dependent on take-up of the ULLS by access seekers. As at 30 June 2008, ULLS deployment extended to **[c-i-c]** SIOs within the 248 ESAs in the ACCC's Proposed Metropolitan Exemption Footprint at Appendix B. This may affect the commercial viability of the USS given the somewhat limited addressable market available to access seekers. For example, access seekers may not be able to realise the necessary economies of scale at the exchange level to compete in the relevant downstream markets via use of the USS. The bundling strategies of ULLS-based competitors in the downstream retail markets may also pose a barrier to entry. While noting that demand for a USS service could, in fact, drive ULLS take-

[209] Telstra, *Telstra response to ACCC Information Request of 19 June 2008*, June 2008, p 4. Telstra submits that USS involves a jumper being run on Telstra's MDF to connect a local loop to the USS access seeker's DSLAM, where the signal would be split into voiceband and non-voiceband components. The USS access seeker would retain the non-voiceband component and use it to provide broadband services, while the voiceband would be passed back to the ULLS access seeker. This would be achieved by running another jumper on the MDF that would connect the ULLS access seeker's equipment with the voiceband signal from the USS access seeker's splitter.

[210] Colley, A, *Telstra to sell broadband capacity wholesale*, The Australian Online (IT Section), 15 July 2008, at http://www.australianit.news.com.au/story/0,24897,24020159-15306,00.html

[211] Telstra, *Telstra response to ACCC Information Request of 19 June 2008*, June 2008, p 4.

[212] ACCC, *Telecommunications Competitive Safeguards report 2006-07*, p. 26.

up, the ACCC is nevertheless of the view that these factors, in combination, indicate that while USS is technically feasible, its commercial feasibility is questionable. At this stage, it is considered by the ACCC that USS is likely to provide only a weak constraint upon the price and non-price terms of access to upstream inputs for supply of broadband services.

The ULLS, however, appears to service the functional needs of access seekers that seek access to the LSS, as both the ULLS and the LSS can be used for the provision of xDSL services in downstream markets. To some extent it could be said that in the case where an access seeker wishes to provide only broadband services in downstream markets, the ULLS is a weaker substitute for the LSS (although the increasing take-up of naked DSL services may be changing this). However, in the case where an access seeker is using the LSS for the provision of both broadband and voice services, the ULLS will constitute a direct substitute.

Accordingly, as this exemption application is focussed on the effect of granting certain exemptions in relation to PSTN OA, it is appropriate to consider ULLS as a strong substitute for LSS providers using the PSTN OA and LCS/WLR in conjunction with LSS to provide a bundled voice and data product to consumers.

As noted above, in order to provide equivalent fixed voice services to the PSTN OA via ULLS, access seekers must acquire the ULLS and install a DSLAM or an MSAN into a Telstra exchange. Where a DSLAM is used, the access seeker must also acquire voice switching services, while where an MSAN is used, a voice card allows for soft-switching via IP technology. In both circumstances, the access seeker must also build or acquire sufficient transmission capacity.

At the “network” level, an option for PSTN OA users in the event of a PSTN OA price rise would be to invest in its own infrastructure.

However, the ACCC is of the view that the ongoing presence of natural monopoly characteristics across particular elements of the fixed networks means that full-facilities based competition is unlikely to be efficient or commercially feasible in most scenarios. Further, the large and lumpy sunk costs combined with the considerable lead times involved by an access seeker switching to provision of voice services via their own infrastructure are likely to be simply too large to prevent a SSNIP.

Therefore, the ACCC is of the view that the only substitutable products that access seekers could turn to if there were significant price increase of the PSTN OA is a wholesale data and/or voice bundle from alternative providers, the ULLS and possibly USS (as a weaker substitute).

Accordingly, the product market is likely to be for the supply of upstream inputs used for the provision of broadband services. These inputs are likely to include wholesale broadband services, LSS, ULLS and possibly the USS.

3.6.3 Geographic Dimension- downstream level

Telstra has submitted two Exemption Applications seeking exemption from the SAOs for the PSTN OA service in:

- the same 387 Metropolitan ESAs as proposed in the WLR/LCS Exemption Applications[213] and

- 17 ESAs in the CBD areas of Sydney, Melbourne, Brisbane, Adelaide and Perth.[214]

Voice

In considering geographic demand-side substitution in the retail supply of Fixed Voice Services, a consumer only has available to him or her Fixed Voice Services supplied by telecommunications firms that service its premises. Taken to an extreme, from the demand-side, this could mean that there is a separate geographic market for each consumer premises, as a consumer is unlikely to move house in the event of a SSNIP of Fixed Voice Services.

On the supply-side, the relevant question is whether a telecommunications firm would service another geographic area responding to a SSNIP of Fixed Voice Services in that area. The scope for supply-side substitutability will also depend on whether the telecommunications provider is using ULLS or re-sale services such as PSTN OA to provide services to end-users. This indicates that the geographic market at the retail level is very likely to be broader than the individual consumer level. Again, the difficult question for the ACCC is precisely how broadly to define this geographic region.

Traditionally, the ACCC, similar to regulators internationally, has mainly adopted national markets for the purposes of ex ante regulation of fixed voice services.

Bundled broadband and voice services

In defining markets for broadband, the ACCC, similar to regulators internationally, has mainly tended to adopt national markets for broadband.[215] It is important to note, however, that unlike with voice services, the ACCC has never imposed ex ante regulation upon broadband services.

3.6.4 Geographic Dimension- upstream level

Voice

At the wholesale level, from the demand-side, access seekers wishing to acquire a Fixed Voice Bundle currently have the option of acquiring PSTN OA from Telstra in any region within Australia that is currently serviced by Telstra's PSTN. Similarly, in the event of a SSNIP, access seekers may be able to turn to ULLS on a national basis due to the regulated obligation to supply this service. Other than this, however, substitutes (such as a wholesale service via Optus's HFC if such a service were available) would only be available in particular regions. Telstra asserts that Optus's

[213] Telstra, Application for exemption from standard access obligations applicable to Telstra – the PSTN Originating Access service – Metropolitan Exemption Application, 5 October 2008.

[214] Telstra, Application for exemption from standard access obligations applicable to Telstra – the PSTN Originating Access service – CBD Exemption Application, 5 October 2008

[215] See, for example, the ACCC's Part A Competition Notice to Telstra pursuant to subsection 151AKA(2).

HFC footprint covers 70% of the ESAs the subject of the Metropolitan Exemption Application in Telstra's Metropolitan Exemption Application.[216]

On the supply-side, the relevant question is whether a telecommunications firm that supplies a wholesale service in various regions could respond to a SSNIP of wholesale fixed voice services by expanding, without significant investment and in a timely manner, the geographic coverage of its wholesale services. In terms of wholesale provision via a stand-alone network, such as the Optus HFC network, the ACCC considers this would be unlikely due to the high costs and long lead times involved of such an expansion. In the case of telecommunications providers wholesaling services via use of Telstra's ULLS, the level of additional investment required and lead time for expansion/entry may be less significant. However, as discussed in further detail below, there will be a number of supply-side and demand-side factors that will affect whether competitive entry by an access seeker using the ULLS would be viable in a particular ESA or group of ESAs.

Accordingly, it would appear that competition at the wholesale level can only be accurately assessed by examining a geographic region somewhat narrower than the national level. The difficult question for the ACCC is precisely how to define this geographic region.

Bundled broadband and voice services

Similar issues apply as in relation to bundled retail broadband and voice markets. That is, while some substitutes are available across the whole of Australia (generally on a regulated basis), some (such as a wholesale broadband service over Optus's DSLAM network) would only be available in areas with higher population density. Accordingly, a geographic region somewhat less than national would be appropriate.

3.6.5 Determining which geographic region to use

The above analysis makes it clear that substitutability tests tend to be of limited use when delineating the geographical dimension of telecommunications markets.[217]

The ACCC is often guided by "commercial realities" of a particular industry to ensure that the market(s) which it identifies accurately reflect the arena of competition.[218]

The ACCC has in the past adopted a "national" geographic dimension when framing the geographic scope of the relevant market(s) in telecommunications markets. However, declaration of the ULLS and LSS has allowed competitors to install their

[216] Telstra, Telstra's PSTN originating Access Exemption Applications – Supporting submission, 5 October 2008, p. 25.

[217] The ACCC previously noted this in ACCC, *Declaration of local telecommunications services – A report on the declaration of an unconditioned local loop service, local PSTN originating and terminating services, and a local carriage service under Part XIC of the Trade Practices Act 1974*, July 1999, p. 42.

[218] The ACCC should be cognisant of "commercial realities" when defining, inter alia, the geographic dimension of a market. In Australia Meat Holdings v Trade Practices Commission, (1989) ATPR 40-392 at 50,091 and 50,092 it is stated that "Any geographic market… must be one that corresponds to the commercial realities of the industry and represents an economically significant trade area. Because a geographic market determination looks to actual trade patterns, it is not required that geographical boundaries be drawn with exactitude…"

own DSLAMs in Telstra exchanges in order to provide retail broadband and voice services to end-users. This type of competition has developed unevenly across different geographic areas of Australia. As noted in the FSR2, the ACCC now intends to examine competitive dynamics at a more geographically disaggregated level with the aid of empirical data.

Given the nature of Telstra's Exemption Applications (based on a particular set of ESAs for both the Metropolitan and CBD areas) and the availability of empirical data from the ACCC's infrastructure audit process,[219] the ACCC considers it appropriate to use ESAs as the basic geographic unit for its competition analysis at both the wholesale and retail levels.

Such an approach will reflect, as accurately as possible, the actual level of competition in the provision of services compared to broader delineations between different geographic levels such as between CBD, metropolitan and regional areas. This more granular approach may be appropriate in this case given that a key driver for a shift in competitive dynamics across discrete geographic regions is likely to be the take-up (and potential for take-up) of ULLS services or the availability of alternative infrastructure. In this regard, Telstra's Exemption Applications are largely premised on the existence of and potential for competitive provision of services at the retail level via DSLAM infrastructure in Telstra's Proposed Exemption Areas.

While the ACCC intends to use ESAs as the geographic unit for its assessment of the Exemption Applications, this does not mean that each ESA is a discrete geographic market. The economies of scale involved in the provision of fixed line services suggest that a ULLS-based competitor would not enter the retail market in one ESA alone. This view is supported by the current "commercial realities" of supply. It is also relevant to note that in relation to voice markets, the pricing of Fixed Voice Services is predominantly uniform at the retail and wholesale levels respectively, regardless of location.

In the FSR second position paper, the ACCC noted in the following passage the possibility of aggregating exchange areas with "similar" competition conditions across exchanges for the purpose of examining the need for ex-ante regulation:

> Another important consideration is the basis upon which different geographic areas will be aggregated together as the same 'class' of market because they have 'similar' competitive conditions. Importantly, this is not to suggest that such areas would strictly form part of the same geographic market at the retail service level. Clearly, there are likely to be circumstances where there is limited demand and supply-side substitutability between particular geographic regions – even in the event that they tend to exhibit similar competitive conditions. Rather, this aggregation approach is simply to suggest that these 'like' geographic units could warrant a similar regulatory approach at the wholesale level (e.g. declaration of a particular service in these areas).[220]

While such an approach could also form the basis for delineating the geographic dimension of the relevant markets, this may be an imprecise exercise that does not

[219] ACCC, *Telstra Customer Access Network Record Keeping and Reporting Rules – Section 151BU of Trade Practices Act 1974* , June 2008 and ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974,* December 2007.

[220] ACCC, *Fixed services review – a second position* paper, April 2007, p. 40.

necessarily elucidate the competition matter under examination. For example, the ACCC notes that Telstra's Proposed Exemption Areas comprising 387 Metropolitan ESAs and 17 CBD ESAs display a diversity of competitive characteristics at the ESA level such that there may be multiple geographic markets found under an aggregation approach.

Ultimately, the competition question before the ACCC is whether the granting of the exemption orders in a particular geographic area will promote the LTIE. In this context, the ACCC considers that the differing competitive dynamics across geographic areas is an issue that is best addressed in the consideration of regulatory remedy (i.e. the decision whether the granting of the exemption orders would promote the LTIE) rather than the process of market definition.

3.6.6 ACCC's draft conclusion on relevant markets

The ACCC considers that the broad markets relevant to the Exemption Applications are:

- wholesale markets for the supply of fixed voice services to access seekers via re-sale (PSTN OA or similar services provided from other firms) and "access based" supply (via the use of a DSLAM or MSAN in conjunction with ULLS) (wholesale voice markets);

- wholesale markets for the supply of bundled broadband and voice services to access seekers via re-sale and "access based" supply (via the use of a DSLAM or MSAN in conjunction with ULLS, LSS or possibly USS) (wholesale bundled broadband and voice markets);

- retail markets for the supply of a bundle of Fixed Voice Services to consumers (excluding carrier-grade and application layer VoIP and mobile services) (retail fixed voice markets); and

- retail markets for the supply of bundled broadband and voice services over copper (xDSL), HFC or possibly, as a weaker substitute, wireless technologies (retail bundled broadband and voice markets).

The ACCC does not consider long distance services constitute a separate market, but rather, is merely a segment making up the broader bundle of Fixed Voice Services.

3.7 Assessing the state of competition in the relevant markets

3.7.1 The ACCC's approach to assessing the state of competition in the relevant markets

Once the relevant markets have been defined[221] the next step in the analysis is to assess the state of competition in the relevant markets. Importantly, assessing the state of competition is not a static analysis limited to a description of current conditions and behaviour. Rather it should also take into account 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.

3.7.2 The concept of 'effective competition'

At the theoretical level, the concept of 'perfect competition' describes a market structure in which no producer or consumer has the market power to influence prices. Economic theory suggests that perfectly competitive markets have a large number of buyers and sellers, goods/services are perfect substitutes, all firms and consumers have complete knowledge about the pricing/output decisions of others and all firms can freely enter or exit the relevant market.

In reality, these conditions are rarely found in any market or industry – even those in which competition between rival firms is relatively intense. It is certainly not a realistic threshold for fixed-line telecommunications markets given that:

- many services are provided by a small number of providers, in a situation where the incumbent as owner of the only ubiquitous local loop remains the predominant provider of most (if not all) essential inputs;
- the industry is characterised by economies of scale, scope and density over large ranges of output;
- services are often differentiated from each other; and
- there are constantly evolving service types and network technologies.

The concept of 'effective competition' recognises the practical limitations of the theory of perfect competition. Definitions of such a standard are always difficult, but some characteristics can be highlighted.[222] Effective competition:

- is more than the mere threat of competition—it requires that competitors be active in the market, holding a reasonably sustainable market position;[223]

[221] To the extent possible taking into account the uncertainty surrounding the geographic dimensions of the relevant markets

[222] This is not intended to be an exhaustive characterisation of effective competition.

[223] Olivier Boylaud and Giuseppe Nicoletti, 'Regulation, market structure and performance in telecommunications', *OECD Economics Studies*, no. 32, 2001/1.

- requires that, over the long run, prices are determined by underlying costs rather than the existence of market power (a party may hold a degree of market power from time to time);

- requires that barriers to entry are sufficiently low and that the use of market power will be competed away in the long run, so that any degree of market power is only transitory;

- requires that there be "independent rivalry in all dimensions of the price/product/service [package]";[224] and

- does not preclude one party holding a degree of market power from time to time, but that power should 'pose no significant risk to present and future competition'.[225]

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

The OECD has referred to effective competition in telecommunications in the following way:

> Effective competition is concerned not only with the ability to control prices and costs for products and/or services, but also with consumer benefits such as quality of service, a range of services available to consumers, efficient operation of firms in a market and innovative service provisions as well.[226]

3.7.3 Factors which are relevant to a competition assessment

When assessing the effectiveness of competition in a particular market, the ACCC examines a range of both structural and behavioural characteristics. This includes (but is not limited to) factors such as:

- structural factors, including the level of concentration in the market;

- the potential for the development of competition in the market (including planned entry, the size of the addressable market and the existence and height of barriers to entry, expansion or exit in the relevant markets);

- the dynamic characteristics of markets, including growth, innovation and product differentiation, as well as changes in costs and prices over time; and

- the nature and extent of vertical integration in the market.

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

[225] In general, however, market power must not be used in a way that would constitute a 'misuse of market power'.

[226] OECD, *Indicators for the Assessment of Telecommunications Competition* DSTI/ICCP/TISP, 2001, p. 6.

3.8 The level of competition in the relevant markets

The following section provides an analysis of the state of competition in the relevant markets. The ACCC's considers the markets broadly relevant to these Exemption Applications are:

- retail markets for the supply of a bundle of Fixed Voice Services to consumers (excluding carrier-grade and application layer VoIP and mobile services) (retail fixed voice markets);
- retail markets for the supply of bundled broadband and voice services over copper (xDSL), HFC or possibly, as a weaker substitute, wireless technologies (retail bundled broadband and voice markets);
- wholesale markets for the supply of fixed voice services to access seekers via re-sale (PSTN OA or similar services provided from other firms) and "access based" supply (via the use of a DSLAM or MSAN in conjunction with ULLS) (wholesale fixed voice markets);
- wholesale markets for the supply of bundled broadband and voice services to access seekers via re-sale and "access based" supply (via the use of a DSLAM or MSAN in conjunction with ULLS, LSS or possibly USS) (wholesale bundled broadband and voice markets).

Telstra's Exemption Applications cover:

- 387 Band 2 ESAs in metropolitan Australia (the Proposed Metropolitan Exemption Area); and
- 17 ESAs in the CBDs of Perth, Melbourne, Adelaide, Sydney and Brisbane (the Proposed CBD Exemption Area) (collectively 'the Proposed Exemption Areas')

The ACCC proposes considering the level of competition in the relevant markets in these areas.

3.8.1 Level of competition in retail fixed voice markets

Submissions

Telstra considers that the downstream markets related to the PSTN OA are currently contestable and workably competitive, evidenced by changes in market shares, the existence of viable substitution possibilities and the lack of meaningful barriers to entry.[227]

Telstra argues that competition in the Proposed Exemption Areas at the retail level is even more intense than at the wholesale level, with many companies utilising their

[227] Telstra, *Submission to the ACCC Telstra's PSTN Originating Access Exemption Applications October 5 2007 p. 33.*

own infrastructure or other infrastructure providers' re-sale services to offer fixed voice, high speed broadband and related products.[228]

In support of this view, Telstra[229] argues that the level of competition in the Proposed Exemption Areas is evidenced by Telstra's lower retail market share in fixed telephony. Quoting from the Paterson Report[230] Telstra notes that by 2004-05, Telstra had lost 25% market share over all PSTN retail services since 2001-02. Its revenue from local call services declined by 25%; and for IDD and STD by 40% and 30% respectively for the same period.

AAPT states that the vast majority of wholesale and retail customers still rely on Telstra's customer access network and that Telstra's retail market share for PSTN voice services remains relatively stable.[231]

AAPT[232] draws on past ACCC reports in support of its claims. For instances it notes the July 2006 declaration of the PSTN OA where the ACCC found that it was in the long-term interest of end users to redeclare the service by noting:

- Telstra's PSTN network remained the dominant source of customer access;
- the substantial barriers to entry in deploying infrastructure;
- the lack of effective competition at the originating access level; and
- the uncertainties surrounding alternative networks and next generation network (NGN) developments such as the transition to an IP-based core.

AAPT also quotes the ACCC's Competitive Safeguards Report finding on market share where the ACCC states[233]:

> *While resellers have made some inroads to Telstra's retail market share in the provision of basic access and local calls, this has been minimal and there are significant barriers to new entrants obtaining sufficient scale to compete sustainably*

AAPT also submits that barriers to entry are high, there is a lack of effective competition at the originating access level and the level of uncertainty surrounding alternative networks and NGN is high.[234]

Optus submits that Telstra continues to be dominant in the fixed line market, and although it may no longer be a monopolist, Telstra is still dominant in the residential

[228] ibid, p. 34.
[229] Telstra, *Telstra Response to questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service December 2007 p. 15.*
[230] CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Origination Access Exemption*, 4 October 2007. pp. 102-103.
[231] AAPT Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications December 2007 p. 3.
[232] ibid p. 3.
[233] ibid, p.3.
[234] ibid p. 4.

access market with 88 percent of the market.[235] Optus refers to the ACCC's *Fixed Services Review – A Second Position Paper* for support of its assertion that Telstra is still the dominant player in the fixed line market. In particular, it noted that at the retail level in 2004-05 Telstra retained large revenue market share of domestic long-distance(69.4 percent); international (61.4 percent) and fixed to mobile (74.2 percent). The paper also noted that based on the retail market shares for Telstra, Optus, AAPT and Primus in 2004-05, the HHI index was 5902 (under the 1992 Merger Guidelines in the US a HHI Index of 1800 and over is considered 'a highly concentrated market'), which Optus suggests indicates the fixed market is still highly concentrated.

3.8.2 ACCC's draft views on level of competition in retail fixed voice market

The factors relevant to the question of the state of competition at the retail level can be broadly grouped into the following:

(a) factors indicating actual competition, and

(b) factors indicating the potential for competition.

The ACCC has not defined the geographic dimension of the relevant markets at an exchange level and proposes considering competition across the broader geographic region. However, depending on the level of information available, the ACCC may look more closely at the competitive dynamics at the exchange level in order to inform its view on the broader level.

(a) Evidence of competition in retail fixed voice markets

Level of concentration

One factor relevant to considering 'actual competition' is the market shares within an ESA or a group of ESAs. Market share can be estimated in several ways, for example, as a percentage of customers (access) or a percentage of all traffic.

The ACCC notes that Telstra remains the dominant provider of retail fixed voice services at a national level. In 2005-06, Telstra retained large revenue market shares of local telephony (72 per cent), domestic long-distance (69.7 per cent), international calls (63.2 per cent) and fixed-to-mobile (75.5 per cent) services.[236]

The ACCC's assessment of the state of competition in local telephony as part of its *Telecommunications Competitive Safeguards Report, 2005-06* found that:

> While resellers have made some inroads to Telstra's retail market share in the provision of basic access and local calls, this has been minimal, and there are significant barriers to new entrants obtaining sufficient scale to compete sustainably. Further, the overriding characteristic of the market is that there is still a large degree of reliance on Telstra's network for the provision of local telecommunications services; hence there is very little infrastructure-based competition. These factors combine to provide the major source of Telstra's profitability and market power.[237]

[235] Optus, *Optus submission to the ACCC on Telstra*'s PSTN OA Service Exemption Application December 2007 p. 9.
[236] ACCC, *Telecommunications market indicator report 2005-06,* August 2007, p. 5.
[237] ACCC, *Telecommunications Competitive Safeguards report 2005-06*, p. 20.

Telstra has stated that the level of competition in Telstra's Proposed Exemption Areas is evidenced by companies utilising their own infrastructure in CBD and Metropolitan areas or resale services acquired from alternative infrastructure providers, to offer competitive fixed voice, high speed broadband and related products.[238]

The ACCC also considers that an examination of the take-up of PSTN OA minutes of use within the Proposed Exemption Areas would provide some guide as to how popular these declared services are. It could also provide some indication of the extent of barriers to entry into particular markets. Telstra submits that at March 2008, it only supplied:

- About **[c-i-c]** per cent of the preselect PSTN OA minutes of use that were supplied in January 2005 and

- Approximately **[c-i-c]** per cent of override PSTN OA minutes of use that were supplied in January 2005.[239]

The data Telstra submitted indicates that that retail STD minutes of use in the Proposed Exemption Areas' Call Collection Areas (CCAs) **[c-i-c]** per cent over the same time frame.[240] Telstra forecasts the **[c-i-c]** in pre-select and override PSTN OA minutes of use will continue to December 2008.[241]

The ACCC has calculated that access seekers using ULLS have on average 9 per cent of SIOs in Telstra's Proposed Metropolitan Exemption Area, with ULLS line shares ranging from a low of 0 per cent to a high of 27 per cent.[242]

Number of ULLS competitors in an ESA

The ACCC notes that, nationally:

- As at June 2008, ULLS access seekers' share of total SIOs on a national level was 5 per cent; and

- From 30 September 2007 to 30 June 2008 ULLS take-up nationally increased at a rate of **[c-i-c]** per cent (from **[c-i-c] to [c-i-c]** SIOs).

In Telstra's Proposed Metropolitan Exemption Areas, as at December 2007, the number of ULLS competitors (excluding Telstra) within each Metropolitan ESA ranged from zero in 13 ESAs to 10 in 1 ESA (see Graph 1 below).

238 Telstra, Telstra's PSTN Originating Access Exemption Applications – Supporting Submission, 5 October 2007, p. 34.

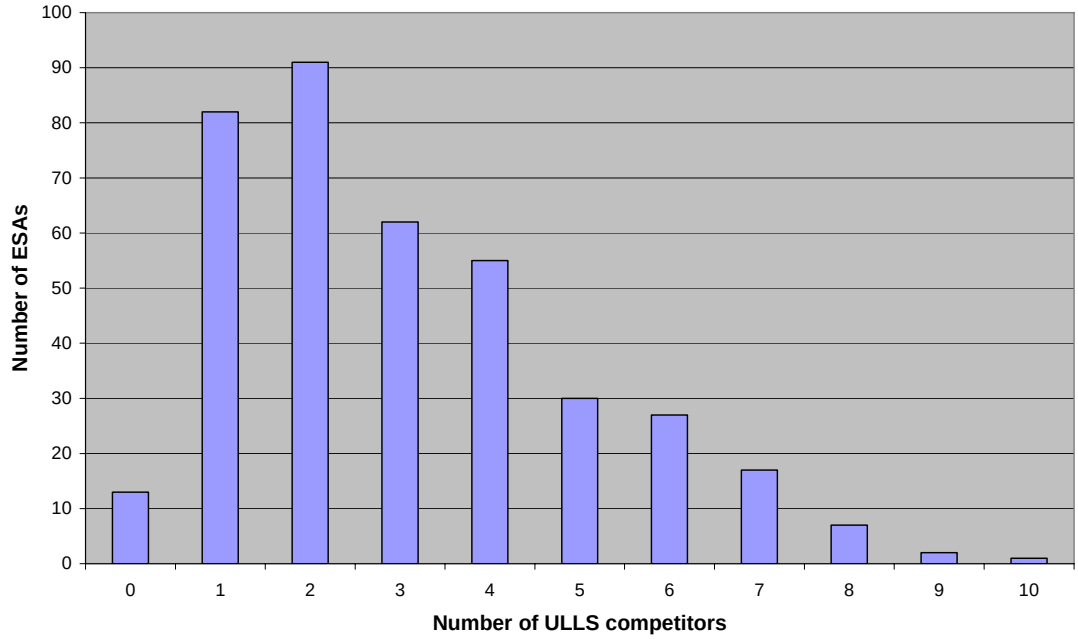
239 Telstra, response to ACCC information request dated 12 March 2008, May 2008, p. 6. In its response Telstra noted that it is unable to provide data on PSTN OA minutes of use at an ESA level as it does not collect this information. Instead, Telstra collects data on PSTN OA minutes of use at the CCA level and has compiled these minutes of use from those CCAs which contain ESAs in the PSTN OA Proposed Exemption Areas. (p. 4).

240 Telstra, response to ACCC information request dated 12 March 2008, May 2008, p. 6.

241 Telstra, response to ACCC information request dated 12 March 2008, May 2008, p. 6.

242 ACCC, *Telstra Customer Access Network Record Keeping and Reporting Rules – Section 151BU of Trade Practices Act 1974*, June 2008.

Graph 1: Breakdown of Telstra's 387 nominated ESAs by no. of ULLS competitors



Source: Telstra CAN RKR December 2007

The ACCC has calculated that in relation to Telstra's Proposed CBD Exemption Area there are on average **[c-i-c]** access seekers at each CBD exchange, with at least **[c-i-c]** at any one exchange (including Telstra).[243] The ACCC also understands there is the potential to offer competing voice services as carriers who are understood to have voice switching capability are present. All CBD exchanges have **[c-i-c]** present and nearly all have **[c-i-c]** present.[244]

The ACCC notes that the Telstra CAN Record Keeping Rule only measures lines that go into the Telstra exchange (terminating at the MDF) and many additional services are offered in the CBD without going through the Telstra network at all. So while there are on average **[c-i-c] SIOs** recorded for CBD exchanges in the Telstra CAN RKR the ACCC is satisfied there is likely to be more voice and broadband services than this would actually suggest.[245]

Number of full facilities-based competitors in an ESA

The ACCC notes that there is alternative infrastructure present within some parts of Telstra's Proposed Metropolitan Exemption Areas.

Where there is alternative infrastructure available in an ESA the ACCC is of the view that the ESA has greater potential to display competitive characteristics in terms of

[243] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, June 2007.
[244] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the TradePractices Act 1974*, June 2007.
[245] ACCC, *Telstra Customer Access Network Record Keeping and Reporting Rules – Section 151BU of Trade Practices Act 1974*, June 2008.

retail fixed voice offerings than ESAs where there is no alternative infrastructure available.

Telstra submits that HFC/optical fibre networks cover 57 per cent of Telstra's Proposed Metropolitan Exemption Areas and in particular that Optus's HFC network covers almost 200 ESAs and passes 2.2 million households nationally.[246]

Using data obtained from carriers in response to the ACCC's Infrastructure Audit RKR (released in December 2007) the ACCC understands that there is Optus HFC coverage (either significant or partial) available in **[c-i-c]** of the ESAs contained in Telstra's Proposed Metropolitan Exemption Areas (or approximately **[c-i-c]** per cent of this area). In the ACCC's Exemption Footprint at Appendix B, however, Optus's HFC network is available (at least partially and in some cases significantly) in approximately **[c-i-c]** per cent of ESAs.[247]

That said, it should be noted that Optus has drawn attention to the technical difficulties associated with supplying wholesale fixed voice services via its HFC network, meaning that it may not provide a viable wholesale alternative for access seekers seeking to compete with Telstra. Also - at the retail level, the ACCC understands that the differing technology of the HFC network can incur switching costs for consumers in switching their customer premises equipment.

Telstra also submits there are other HFC networks belonging to Neighbourhood Cable, and E-Wire covering specific areas across Australia.[248]

In relation to the Proposed CBD Exemption Area, it is relevant that in 2002 the ACCC granted an exemption from the SAOs for the LCS in CBD areas based on the presence of alternative infrastructure.[249] At the time, the ACCC found there were 8 optical fibre networks in Sydney, 8 in Melbourne, 7 in Brisbane, 6 in Perth and 5 in Adelaide.[250]

Information received from carriers in 2008 pursuant to the ACCC's Infrastructure Audit RKR indicated that **[c-i-c]**.[251] There is also the potential to offer competing voice services as carriers who are understood to have voice switching capability are present. All exchanges have **[c-i-c]** present and nearly all have **[c-i-c]** present.[252] In addition**,** other fibre network operators are present in one, two or three city CBD

[246] Telstra, Telstra's PSTN Originating Access Exemption Applications – Supporting Submission, 5 October 2007, p. 25.

[247] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, June 2007.

[248] Telstra, Telstra's PSTN Originating Access Exemption Applications – Supporting Submission, 5 October 2007, p. 25.

[249] ACCC, *Future Scope of the Local Carriage Service – final decision*, July 2002.

[250] ibid, p. 44.

[251] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, June 2007.

[252] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, June 2007.

areas.[253] In relation to fixed and mobile wireless networks, the ACCC's Infrastructure Audit found **[c-i-c].** [254]

It is the ACCC's draft view that there is significant alternative infrastructure (fibre and wireless) to Telstra's PSTN present in the Proposed CBD Exemption Area capable of providing competing voice services at the retail level.

Evidence of retail market outcomes

One important way of assessing the level of actual competition in a market is to assess the price and non-price (eg. quality of service) outcomes for consumers of fixed voice services in particular areas. The ACCC is of the view that evidence of price and non-price competition in particular areas would tend to provide support for the emergence of effective competition within those areas. As noted earlier, the ACCC has not specified the geographic dimension of the market at the ESA level. The analysis in this section is relevant to both the Proposed Metropolitan Exemption Area and the Proposed CBD Exemption Area.

An important caveat is that Telstra and other providers may, in fact, still utilise national pricing and marketing strategies for fixed voice. Such conduct may not necessarily indicate that different competitive environments do not exist. For example, Telstra may price nationally but may still consider that a more intense competitive constraint exists in a certain region due to that region's differing competitive dynamics. It may simply be that the benefits of instituting a national price outweigh any potential costs of raising prices in that region. The benefits of a national pricing strategy may include seeking to achieve cost savings in advertising, decreased potential confusion for customers or create ease in training sales staff.

Telstra, in response to an ACCC information request, states that Telstra's retail marketing strategy for its fixed voice and broadband services is directly influenced by the level of competition it faces. **[c-i-c]**

[c-i-c].[255]

Telstra also notes that in the Proposed CBD Exemption Areas, several companies, including Macquarie, Primus and Optus offer specialised business-grade VoIP products in direct competition to PSTN based telephony products.[256]

(b) The potential for the development of competition in the market

Evidence of the potential for the development of competition in a market will be relevant to the state of competition. Accordingly, the ACCC has assessed the barriers to entry in relation to supply of Fixed Voice Services, particularly in relation to supply via ULLS take-up.

[253] Ibid.
[254] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, June 2007.
[255] Telstra, *Response to ACCC information request dated 12 March 2008*, 21 May 2008, pp. 9-10.
[256] Telstra, Telstra's PSTN Originating Access Exemption Applications – Supporting Submission, 5 October 2007, p. 36.

Size of addressable market

In fixed-line markets, the number of SIOs in an ESA is likely to be a useful (and largely fixed) means for determining the size of the 'addressable market' (i.e. the number of customers that can potentially be served from the exchange building/s within the ESA). Moreover, the number of SIOs in an ESA appears to be a key factor guiding the 'entry decision' of an access seeker.

ULLS-based entry in an ESA requires an access seeker to incur a range of costs, some fixed, some variable. The number of SIOs in an ESA will influence the economies of scale that could (at least potentially) be realised by a competitor – and therefore provide an indication of the minimum efficient scale necessary to enter a particular ESA. Other things being equal, in areas with more SIOs, competitors could expect to recover these costs over a broader number of end-users in these areas – thus lowering their per-unit costs as well as the *a priori* risks of investment.

Accordingly, the ACCC would tend to consider that ESAs with higher numbers of SIOs are more likely to attract ULLS entrants than those with low numbers of SIOs. Saying this, the ACCC notes that there are various factors which are likely to limit the size of the addressable SIOs within an ESA. These relate to the issue of pair gain deployment (i.e. small pair gain systems, RIMs and CMUXs) by Telstra precluding ULLS-based competition.

This deployment of pair gain/RIMs by Telstra within a particular ESA will, in some cases, prevent an access seeker from supplying broadband to end-users on these lines. Large pair gain systems were put in place where copper connections from the exchange were expensive to provide, especially in new housing estates on the fringes of an ESA.

Telstra, in response to the ACCC's 12 March 2008 information request acknowledges that if a pair gain system (small pair gain or a RIM/ other large pair gain system) has been installed at any point along the copper/aluminium wire between the DSLAM and the customer, it will prevent the provision of ADSL services to that end-user.[257]

Telstra states that this problem concerning DSLAM deployment can be resolved by "transpositioning" the line affected by the pair gain system off the pair gain system and onto an unbroken copper pair path (unaffected by a pair gain system). Telstra states that this can only occur where there is a spare copper/aluminium pair of wires running from the end-user premises to the corresponding MDF at the exchange.[258] Telstra further submits that in the case of a large pair gain system such as a RIM or a CMUX, provision of ADSL services can be achieved by remotely co-locating the DSLAM at the site of the large pair gain system.[259]

The ACCC is not aware of Telstra currently providing these solutions at the request of access seekers that cannot deploy DSLAMs due to Telstra deploying a pair gain system. Accordingly, the ACCC is of the view that pair gain/RIMs deployment reduces the addressable SIOs within an ESA.

[257] *Telstra **[C-I-C]** Witness Statement - Response to the ACCC 12 March 2008 request for further information*, 2 April 2008, p. 2.
[258] ibid. p. 3
[259] ibid. p. 4

Due to the increasing importance of bundling telephony services with broadband services, another technical factor that may reduce the addressable SIOs within an ESA relates to the pattern of density within an ESA. The distance an end-user is from the exchange building is one of the key factors determining the download/upload speeds an end-user can achieve over a DSL line. The speeds achievable are highly sensitive to end-user distance from the exchange. If an end-user is outside 1.5km from the exchange, they are unlikely to be able to achieve the maximum speeds quoted for technologies such as ADSL, ADSL2+ and VDSL2. Beyond 5km from the exchange it becomes technically non-feasible to supply DSL services over Telstra's copper access network at all.

The ACCC has examined empirical information (supplied mostly on a confidential basis by Telstra) on the extent of pair gain deployment for the 387 ESAs in the Proposed Metropolitan Exemption Area. This information indicates that within these nominated Band 2 ESAs, only **[c-i-c]** per cent of SIOs would be serviceable by DSL from the exchange.[260]

It is also notable that a substantial proportion of SIOs fall in between **[c-i-c]** and **[c-i-c]** from the exchange (in Telstra's Proposed Metropolitan Exemption Area it is **[c-i-c]** per cent).[261] This means that while end-users can be supplied DSL services by an access seeker using ULLS, the speeds received would not meet the maximum speeds associated with ADSL2+ or even VDSL2 technology. The ability to offer customers truly faster speeds may influence an access seeker's decision on whether they enter an ESA– although, in reality, the distance issue will be the same for Telstra as well.

The ACCC has considered empirical information on pair gain deployment in the Proposed CBD Exemption Area and notes that of the Proposed CBD Exemption Area there is little or no pair gain for ESAs in the CBDs of Melbourne, Brisbane, Perth and Adelaide and some pair gain in the Sydney CBD.[262] The ACCC's draft view is that pair gain does not pose a significant problem for ESAs in the Proposed CBD Exemption Area.

Sunk costs involved in DSLAM/MSAN deployment

Telstra argues that a significant proportion of costs involved with DSLAM deployment are unlikely to be sunk because "…DSLAMs are capable of redeployment by market participants (including Telstra's competitors) in the face of changing demand conditions".[263] As Dr Paterson, on behalf of Telstra, states:

> "The DSLAM shelf, voice and ADSL cards can be reinstalled in another exchange. While the cables connecting the DSLAM to Telstra's equipment need to be purchased afresh as they are

[260] ACCC, *Telstra Customer Access Network Record Keeping and Reporting Rules – Section 151BU of Trade Practices Act 1974*, December 2007.
[261] ibid.
[262] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, June 2007.
[263] Ibid, p. 41.

> pre-cut to the appropriate length, the costs of cables are a negligible component of the overall DSLAM cost. To this extent DSLAM investment cannot be considered a sunk cost."[264]

The ACCC notes that this issue received significant attention from parties in the assessment of the WLR/LCS Exemption Applications after release of the ACCC's Draft Decision.[265] The ACCC has included submissions made in the assessment of Telstra's WLR/LCS Exemption Applications where the ACCC considers that those submissions contain material relevant to its analysis.

The ACCC notes there are various costs, some of which are arguably sunk, associated with entry into retail fixed voice via ULLS-based competition. The costs involved with entry via ULLS include the deployment of DSLAMs or MSANs, co-location, tie-cable charges, backhaul transmission and various IT and retailing costs.

The fixed costs of the DSLAM/MSAN infrastructure required at the exchange include the DSLAM/MSAN sub-rack and racks, the DSLAM itself, alarm and power distribution units, power cabling to the racks, and signal cabling to the racks. The ACCC estimates that these costs are in the order of $12,000-$14,000 per DSLAM.

The ACCC notes that there are likely to be additional costs associated with large-scale DSLAM/MSAN deployment including the establishment of a management system, management communication network hardware, backhaul capacity, broadband remote access server/s, front-of-house advertising and company overheads. Saying that, the recent significant increase in deployment of DSLAMs/MSANs in ESAs supports the view that such costs are not likely to be a material barrier to entry. In relation to advertising and marketing costs, it is relevant, as Telstra notes, that there is unlikely to be any additional sunk costs in moving from reliance on re-sale to use of DSLAMs to provide retail services.[266]

The ACCC understands that an efficient access seeker is likely to make a return on a DSLAM investment within two years of deployment. Accordingly, the ACCC's draft view is that the fixed costs of DSLAM infrastructure are not a material barrier to entry.

The ACCC recognises that the potential asset life of a DSLAM (or MSAN) is likely to be greater than two years - perhaps up to five years. That said, the ACCC notes that, in the vast majority of ESAs which are the subject of the Proposed Metropolitan Exemption Order (233 of the 248), there are already 4 or more ULLS-based competitors (including Telstra) in each ESA. All ESAs in the Proposed CBD Exemption Order have at a minimum **[c-i-c]** ULLS-based competitors (including Telstra) present. This indicates that a number of access seekers have already begun extracting value from ULLS-based investment.

[264] CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN originating access exemption*, October 2007, p. 38.

[265] ACCC, *Telstra's local carriage service and wholesale line rental exemption applications – Draft Decision and Proposed Class Exemptions*, April 2008.

[266] Telstra, *Telstra's PSTN Originating Access Exemption Applications—Supporting submission*, October 2007, p. 42.

That said, there are clearly costs involved with acquisition of backhaul transmission and voice switching capacity required for competition in supply of fixed voice services.

In relation to backhaul transmission services the ACCC's analysis at Appendix B has taken care to ensure that ESAs subject to the exemption orders will be subject to competitive supply of such services. In this regard, the ACCC notes that it understands that acquiring competitive supply of these services is more problematic in regional areas than areas the subject of the Telstra's PSTN OA Exemption Applications (CBD and Metropolitan areas).

In relation to voice switching capacity, Telstra submits that DSLAM-based access seekers can purchase these services from existing network operators such as Optus, Primus, AAPT, Soul and Telstra.[267] On the other hand, access seekers argue that acquiring these services can be costly and difficult.[268]

While the ACCC is of the view that acquiring a wholesale switching service is one option that would be technically available to a DSLAM operator who did not own its own switching equipment and who wished to supply a fixed voice service, the ACCC nevertheless recognises that carriers possessing their own PSTN switches have not, in the past, entered into commercial arrangements for the wholesale supply of switching services and that, accordingly, it is difficult to estimate what the costs involved in acquiring such services would be.

The effect of this is that, in the event that some DSLAM-based carriers or carriage service providers were not able to acquire a competitively-priced Fixed Voice Bundle-type of services once the Exemption Orders come into effect, these operators may choose to migrate to MSAN-based supply of a bundled voice and broadband service. The cost of installing voice cards was estimated at $35 per line by Telstra (although this figure excludes the cost of installation and support infrastructure).[269] The ACCC understands that this is a realistic estimate.

While the ACCC understands that there are other investments access seekers need to make in the IP network and PSTN gateway to use soft-switching, the ACCC considers that barriers to entry to MSAN-based supply of voice services once an access seeker already has DSLAM equipment installed in an ESA are likely to be surmountable.

However, in response to the ACCC's Draft Decision on Telstra's WLR/LCS Exemption Applications, Chime submitted that the cost of provisioning MSAN equipment and retrofitting this into their exchange racks is significantly expensive, and would in fact cost approximately **[c-i-c]**.[270] The ACCC considers this submission

[267] Telstra, *Telstra's PSTN Originating Access Exemption Applications—Supporting submission*, October 2007, pp. 41-42.

[268] For example, Frontier Economics, *Telstra's applications for WLR and LCS exemptions – a report prepared for the CCC*, October 2007, p. 17. Attachment to Macquarie Telecom's submission: Gilbert & Tobin, *PSTN Originating Access – Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access service Exemption Applications*, 14 December 2007.

[269] Evans & Peck, *Technical Feasibility of using ADSL Networks to Supply Voice Services that Replicate PSTN Services*, 30 October 2007, pp. 10-11.

[270] See Chime, *Chime confidential submission to the ACCC's Draft Decision and Proposed Class Exemption on Telstra LCS and WLR applications*, May 2008, p. 4.

is relevant to its consideration of this issue in assessing Telstra's PSTN OA Exemption Applications.

The ACCC notes firstly, that these costs include the types of "large-scale costs" discussed above, and secondly, that the ACCC understands that Chime has made a unique technology decision which appears to have contributed to its asserted large costs for migration to MSAN-provision of voice services. However, taking this into account but looking at the impact on the market as a whole, the ACCC considers that regulation should be progressively removed where enduring bottlenecks no long exist if the removal of the regulation will promote the LTIE.

- *Asset stranding*

In this context, submissions have argued that uncertainty regarding fibre rollout[271] and Government processes has heightened the risk to access seekers' planned investment and deployment of DSLAMs.[272] That is, as the ACCC understands, a widespread fibre deployment has the potential to render much DSLAM/MSAN equipment obsolete and that the uncertainty relating to a fibre upgrade could affect incentives for efficient investment in infrastructure. For example, access seekers could decide to defer efficient investment in equipment such as DSLAMs or MSANs due to the possibility of their investment being 'stranded' following a FTTN upgrade (the investment could become stranded because the fibre would be deployed to the cabinet, bypassing the need for the exchange).

At the time submissions in response to the ACCC's Discussion Paper on Telstra's PSTN OA Exemption Applications were due (December 2007) Senator Conroy had recently announced termination of the previous Government's expert panel on a next generation network fibre roll-out. On 11 April 2008, the Federal Government released a Request for Proposals (RFP) to roll-out and operate a National Broadband Network (NBN) for Australia. The RFP contemplates that a feature of the NBN will be roll-out of fibre-to-the-node or fibre-to-the-premises.

The ACCC notes that in response to its Draft Decision on the WLR/LCS Exemption Applications access seekers have claimed that they are in the process of ceasing further investment in ULLS-based infrastructure, or are unlikely to invest in DSLAMs/MSANs, due to stranding concerns.[273] Given a lack of quantitative evidence provided by access seekers to date on this point, the ACCC considers it is appropriate to have regard to information collected through the CAN RKR to examine

[271] A fibre network could involve the deployment of optical fibre (to replace or augment copper) between the local exchange and a node, which is a point closer to the customer in the CAN.

[272] See for example, AAPT/PowerTel, *Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications*, December 2007, pp. 4, 6, 8, 9. Frontier Economics, *Telstra's applications for WLR and LCS exemptions – a report prepared for the CCC*, October 2007, p. 27, Attachment to Gilbert + Tobin, *PSTN Originating Access Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access service exemption application*s, December 2007.

[273] See for example, AAPT/PowerTel, *Submission by AAPT Limited and PowerTel Limited to the ACCC in response to Telstra's LCS and WLR exemption Applications – Draft Decision and Proposed Class Exemptions*, April 2008, pp. 6, 10.

the extent to which these claims can be supported by independently available evidence.

CAN RKR data received from Telstra shows that access seekers (in total) continue to expand the number of ESAs they are entering into via DSLAM deployment. As at 30 September 2007, access seekers had entered into a total of **[c-i-c]** ESAs nationally. As at 30 June 2008, access seekers had entered into a total of **[c-i-c]** ESAs nationally. This was an increase of 27 ESAs during this period.[274]

[c-i-c]

[c-i-c].[275]

Table 1 indicates the number of DSLAMs/MSANs deployed by access seeker from 30 September 2007 to 30 June 2008.

[c-i-c]

While the above analysis suggests investment is continuing, some access seekers in response to the ACCC'S Draft Decision on Telstra's WLR/LCS Exemption Applications have argued that recent DSLAM/MSAN deployment reflects the completion of existing plans (some of which were prepared 12 months ago or longer). Such access seekers have argued that they have not committed to any further rollouts beyond completion of these existing plans.

The ACCC therefore acknowledges that, despite CAN RKR evidence of recent DSLAM/MSAN deployment by access seekers, the Federal Government's NBN process may have an impact on access seekers' investment decisions going forward. In this sense it is possible that the impending NBN process may, to some extent, create greater uncertainty in relation to future investment in DSLAM/MSANs. Having said that, the ACCC notes that the prospect of fibre-based network roll-outs is not itself new – for example, Telstra first announced an intention to roll-out FTTN in late 2005. Furthermore, these previous announcements do not appear to have discouraged investment in DSLAM/MSAN infrastructure, with most of the take-up in ULLS and LSS having occurred since that time.

The question for the ACCC is therefore the extent to which the Government's NBN process affects the risk or uncertainty faced by investors in DSLAMs/MSANs, and thus the ACCC's assessment of whether granting the exemptions will promote the LTIE. In this context the following observations are relevant.

[274] ACCC, *Telstra Customer Access Network Record Keeping and Reporting Rules – Section 151BU of Trade Practices Act 1974*, June 2008.
[275] ACCC, *Telstra Customer Access Network Record Keeping and Reporting Rules – Section 151BU of Trade Practices Act 1974*, June 2008.

First, the ACCC is of the view that any additional investment required as a result of the Draft Exemption Orders is likely to be limited to a relatively small number of ESAs and by a limited number of access seekers. The reasons for this are that:

- in the majority of the ESAs the subject of the Proposed Metropolitan Exemption Order (233 of the 248) there are already 4 or more ULLS-based competitors (including Telstra) in each ESA. Some, if not all, of these ULLS-based competitors in each ESA will be already supplying a fixed voice service. Of the ESAs the subject of the Proposed CBD Exemption Order all 15 already have four or more ULLS-based competitors (including Telstra)[276]

- of the remaining 15 ESAs the subject of the Proposed Metropolitan Exemption Order, seven ESAs have two competitors present (including Telstra) and eight ESAs have three competitors present (including Telstra). Optus (which provides fixed voice services via MSANs) is present in 14 of the 15 ESAs; and

- therefore, in the majority of ESAs the subject of the Proposed Metropolitan Exemption Order, and all of the ESAs the subject of the Proposed CBD Exemption Order, competitively-priced alternative Fixed Voice Bundle-type services are likely to be available in the event of a price rise by Telstra.

The ACCC is of the view that the relatively small amount of additional investment that may be made by access seekers in response to the making of the Proposed Exemption Orders would be efficient.

This is because, where necessary, the move to ULLS-based provision of fixed voice services prior to a fibre upgrade will promote the LTIE in the sense that it will allow access seekers to build their reputation and customer base through this deeper level of investment because of the ability to provide differentiated products. This will allow access seekers to better transition to an alternative service (possibly a wholesale bitstream service) and make it more viable to compete in the downstream market if and when fibre is deployed. In this regard, it is relevant that the ACCC understands that it is expected that an efficient access seeker could make a return on its DSLAM investment within approximately two years of deployment.

Second, the extent to which DSLAM/MSAN assets could be stranded by the NBN depends, in large part, upon the details of the implementation of the NBN, such as notice periods for cutover from copper to fibre. If, for example, cutover does not occur in the ESAs at Appendix B until later periods of the NBN deployment, then NBN will not likely impact significantly upon the value extracted by access seekers from DSLAM/MSAN investments made in the near term.

Schedule 2 of the Government's NBN Request for Proposals (RFP) requires Proponents to provide, at a geographically disaggregated level, the start date and timeframes for the rollout of their proposed network infrastructure, the supply of wholesale and, where relevant, retail services. A detailed project schedule is to be included, setting out in detail milestones, critical paths, key decision points and the

[276] The ACCC recognises that some may be supplying a "naked DSL" service, which means a DSL only service (i.e. not including a fixed voice service).

identification of any required outcomes required to advance the roll-out, with detailed progressive coverage targets to be met during the deployment period.[277]

The further investment that may be required by the granting of the Proposed Exemption Orders is a factor that the ACCC considers the Government should take into account in formulating transitional arrangements to fibre-based supply of fixed voice services.

The ACCC further notes that regulators and others have for some time recognised that, in the event of a fibre roll-out, it is important that a sufficiently certain migration timetable is determined by the party rolling out the fibre, and/or the regulator, or, in the context of the NBN process – the Federal Government, to allow access seekers to transition to an alternative service. Having a systematic process will clarify the time in which investment costs can be recovered, reduce the uncertainty of the upgrade and provide access seekers with the relevant information to make a decision on investing in infrastructure.

For example, the Australian Competition Tribunal is on record as stating that a notice period of 15 weeks was inadequate for major network upgrade such as FTTN.[278]

In New Zealand, notice periods regarding Telecom New Zealand's 'cabinetisation' plans have been stipulated by the New Zealand Commerce Commission (NZCC), which has developed a 'Standard Terms Determination for Telecom's Unbundled Copper Local Loop Network Service'.[279] The NZCC required that, in most circumstances, a fibre deployer must provide 24 months notice of areas to be migrated. A shorter, 18 month, notice period could be provided if regulated terms and conditions for sub-loop access were in place.

Similar issues have also been considered by regulators in Europe. On 14 February 2008, in its comments approving the approach taken by the UK regulator, Ofcom, in proposing to deregulate the wholesale broadband market in some parts of the UK[280], the European Commission noted the potential risk that next generation access (NGA) could pose to the sustainability of investment in Local Loop Unbundling (LLU). The Commission stated:

> "… it could be that in future access networks the unbundling of local loops may prove technically and economically difficult for alternative operators, in particular with regard to the need to extend their network to a lower network level with a more limited number of total end customers and/or revenues per user" [281].

The European Commission invited Ofcom to closely monitor any risk factors that might affect the growth or sustainability of LLU, such as the availability of LLU, and

[277] Department of Broadband, Communications and the Digital Economy, *Request for Proposals to Roll-Out and Operate a National Broadband Network for Australia*, 11 April 2008, Schedule 2, cl. 1.3 (a)-(c).

[278] Re Telstra Corporation Ltd (No 3) [2007] ACompT 3 (17 May 2007).

[279] Commerce Commission, *Standard Terms Determination for Telecom's Unbundled Copper Local Loop Network Service – General Terms*, 7 November 2007.

[280] European Commission, UK/2007/0733: Wholesale Broadband Access in the UK, Comments pursuant to Article 7(3) of Directive 2002/21/EC, 14 February 2008.

[281] ibid.

conduct a further review of the market if and when an "appreciable change in the level of LLU investment and competition occur".[282]

In the Netherlands, the incumbent copper operator, KPN, is in the process of migrating its network to a next generation network – which will affect both its core and access network. Deploying the planned all-IP network requires the dismantling of the local switches in the circuit-switched telephone network as well as a large proportion of the existing main distribution frames. The process is expected to be completed by 2010.

OPTA, the Dutch telecommunications regulator, recognising that continued MDF access is vital for present competition in the supply of a range of downstream services, required KPN to develop and implement a "full solution" to migration - including principles on an MDF migration process - for the intended phasing out of MDF access which would be acceptable to all parties concerned.

OPTA was of the view that an agreement negotiated between KPN and access seekers was preferable to a solution imposed by the regulator. The "MDF Agreement" drafted for KPN and its access seekers will provide access seekers with at least 24 months notice of areas to be migrated.[283]

In conclusion, while the ACCC recognises that uncertainty relating to the NBN may be impacting upon incentives for investment in DSLAM/MSAN infrastructure, the ACCC notes that:

- limited investment is likely to be required by the making of the Proposed Exemption Orders because, in the majority of ESAs the subject of the Proposed Exemption Orders, competitively-priced alternative PSTN OA-type services are likely to be available in the event of a price rise by Telstra; and

- any additional investment (which is likely to be limited) that may be made by access seekers as a result of the making of the Proposed Exemptions Orders would be efficient because it would allow the access seeker to build their reputation and customer base and make a better transition to the fibre-based world than pure re-sale operators. In this respect short pay-back periods for DSLAMs/MSANs and the likelihood of sufficient notice periods being required in relation to the transition from copper to fibre will mitigate against the likelihood of such investments being inefficient.

While the NBN process may be creating uncertainty for various access seekers, uncertainty is not unique to the telecommunications industry. The ACCC's draft view, is that the uncertainty associated with the NBN process does not significantly impact upon the ACCC's assessment of whether granting exemptions is in the LTIE. Overall, the ACCC's draft view is that ULLS-based competition is a preferable form of competition to re-sale based competition in the long-term, and that making the Proposed Exemptions Orders, subject to the various conditions and limitations

[282] ibid.

[283] A template version of this agreement can be accessed on KPN's website at: http://www.kpn-wholesale.com/nl/1933-Basic_Principles_MDF_Migration.html accessed 19 August 2008.

discussed below, will promote the LTIE, regardless of whether, or when, the NBN process is implemented.

Non-price barriers to provision of fixed voice via ULLS

The ACCC has considered the following non-price barriers to entry:

(i) Exchange capping;

(ii) Delays and queuing in installing equipment;

(iii) Availability of transmission services;

(iv) Availability of switching capability; and

(v) Customer information and inertia.

Each of these will be discussed in turn.

(i) Exchange capping

The ACCC considers that a scenario known as 'exchange capping' functions as a barrier to entry or expansion for ULLS-based competitors.

As at 3 June 2008 approximately 518 Telstra exchange buildings were Telstra Equipment Building Access (TEBA) enabled (i.e. buildings in which there is an established area for access seekers to use).[284] These exchanges have an area within the exchange which has been set aside for access seekers to install their equipment.

The ACCC understands that Telstra's TEBA enabled exchange buildings may be subject to several physical limits which can impede access seekers from deploying services that utilise ULLS. In order to utilise the ULLS, an access seeker must be able to install their equipment (DSLAM or MSAN) into the exchange and access the ports (terminations) in the main distribution frame (MDF).

Telstra classes exchanges as 'rack-capped' if it considers that there is no room available for access seekers to install their access equipment into the racks in the "Telstra Equipment Building Access" (TEBA) space. Telstra classes exchanges as 'MDF capped' if it considers that there is insufficient main distribution frame (MDF) space for access seekers to utilise.

In response to an ACCC Information Request, Telstra submitted that as of 5 May 2008 only 3 of the 404 ESAs the subject of the Exemption Applications were classified as being either 'rack capped' or 'MDF and racks capped'. These ESAs were Pitt (Band 1, NSW) which is MDF and racks capped, and Bundall and Strathpine

[284] Telstra Wholesale, *Established sites for Telstra Equipment Building Access (TEBA)* accessed on the Telstra Wholesale website at http://telstrawholesale.com//products/docs/teba/fixed_facilities_access_established_sites.pdf

(Band 2, Qld) which are both racks capped.[285] Telstra submitted 15 further exchanges of the 404 ESAs in the Proposed Exemption Areas are classified as "potential".

Telstra submitted however that of these three exchanges, Pitt had currently **[c-i-c]** competitive access seekers for ULLS and LSS and Bundall and Strathpine have multiple access seekers currently providing LSS and ULLS from these exchanges and access seekers could also use an External Interconnect Cable (EIC) at these two exchanges to service customers.[286]

Telstra submitted the following table on exchange status in the Proposed Exemption Areas.[287]

[c-i-c whole table]

As at 2 July 2008, Telstra had 53 ESAs on their capped TEBA list (see Appendix D). Telstra claims that 24 exchanges have 'potential' access and the remaining 29 exchanges are either 'fully capped', 'MDF capped' or 'rack capped'.[288] Of this latest TEBA list, the ACCC notes that Roma St (Qld) (CBD ESA) is now listed as racks and MDF capped and Robina (Qld) (Metropolitan ESA) is now listed as racks capped.[289] This means that of the CBD ESAs the subject of Telstra's Proposed CBD Exemption Area, 2 of the 17 CBD ESAs are capped.

When an exchange is rack capped, the ACCC understands that there is little that can be done to enlarge the TEBA space within the exchange area. However if there is available MDF space, a solution would be to lease or build a remote structure (such as equipment box or road side cabinet) to store their equipment and run external interconnect cables to the Telstra MDF in the exchange. This is known by Telstra as an External Interconnect Cable (EIC) service. Therefore, it is possible to store an access seeker's equipment externally in a remote structure whilst still using the MDF within the exchange.

In response to an ACCC Information Request, Telstra submits that as of January 2008, EIC was used in **[c-i-c]** out of the 404 ESAs the subject of Telstra's Exemptions Applications.[290]

However, the ACCC understands that there are significant difficulties involved in leasing or building a remote structure. In particular, the ACCC understands that this

[285] Telstra, *Response to ACCC Information Request dated 12 March 2008*, May 2008, pp. 14-15
[286] Telstra, *Response to ACCC Information Request dated 12 March 2008*, May 2008, p. 15
[287] Telstra, *Response to ACCC Information Request dated 12 March 2008*, May 2008, p. 15.
[288] Telstra, TEBA – Capped sites for Telstra Equipment Building Access (TEBA). http://telstrawholesale.com/products/docs/teba/fixed_facilities_access_capped_sites.pdf.
[289] ibid.
[290] Telstra, *Response to ACCC Information Request dated 12 March 2008*, May 2008, p. 15.

solution may prove to be untenable due to the cost implications as the access seeker would not be using the power and air-conditioning services provided by the exchange. Consequently, using an EIC may require costly civil engineering works to build these services in the remote structure.

In addition, the ACCC understands that there are technological limitations and planning and land access difficulties related to building a remote structure. As a result of these limitations, an access seeker may decline to service that area.

The ACCC understands that, unlike the 'rack capping' issue which can potentially be overcome by installing a remote structure, there are minimal solutions to the issue of MDF capping. The ACCC understands that the MDF structure grows linearly and as such it is not viable for an MDF to 'turn a corner'. Therefore when an MDF has grown across a wall within an exchange building, it is not possible to extend it. However, the ACCC also notes that in limited circumstances modifications can be made to the MDF to create more space.

The ACCC understands that MDF capping presents a substantial if not insurmountable barrier to entry for new ULLS-based competition in certain exchanges.

Accordingly, the ACCC is of the view that if an exchange is classed by Telstra as capped, whether 'rack-capped', 'MDF-capped' or 'fully-capped', then that exchange is currently effectively closed to new DSLAM entrants. In addition, access seekers with existing deployments in a fully capped or MDF capped exchange will be precluded from deploying further equipment in that exchange.

Further, exchanges that are classed as 'potentially capped' by Telstra also raise barriers to ULLS-based entry in that exchange.

Therefore, exchange capping at a minimum represents an impediment for new and existing access seekers seeking to switch customers from re-sale to ULLS in the event of a price rise in the PSTN OA, and at the maximum represents an absolute barrier to entry in some exchanges. As Frontier states in the report annexed to Macquarie Telecom's submission:[291]

> Limited access to exchanges raises a fundamental concern where the claim is that entrants can readily provide equivalent services using ULLS. The only option for access seekers at capped exchanges is purchase of wholesale services. In cases where any existing entrants are using LSS to provide services, that may place Telstra in a quasi-monopoly position where there is an absolute barrier to entry. One would not expect the terms and conditions offered by Telstra in those circumstances to be consistent with the LTIE.[292]

The ACCC understands that the reservation of TEBA space by Telstra may have the potential to exacerbate capacity issues in the exchanges. The ACCC understands that Telstra reserves space in order to ensure it is able to meet what it considers are its

[291] Gilbert & Tobin, PSTN Originating Access Submission by Macquarie Telecom in response to ACCC discussion Paper reviewing Telstra's PSTN Originating Access services exemption applications, 14 December 2007.

[292] Frontier Economics, *Telstra's applications for WLR and LCS exemptions – a report prepared for the CCC*, October 2007, p. 20.

future requirements. Telstra has stated that its TEBA reservation process allows Telstra to account for its reasonable requirements for the next 36 months.

Accordingly, there is an issue about whether, in reality, there is sufficient available space at 'capped exchanges' to meet the demand requirements of access seekers, or whether Telstra is being overly conservative in its reservation estimates.

While the ACCC acknowledges that access seekers may have higher levels of spare capacity than Telstra, it is nevertheless the case that an access seeker without existing installed equipment within a 'capped' exchange will be unable to compete in that exchange utilising the ULLS.

Accordingly, it is difficult for the ACCC to be satisfied that ULLS will be an available substitute in 'capped' and 'potentially capped' Metropolitan exchanges. In addition, the ACCC notes that, in relation to CBD exchanges, despite a strong ULLS-based competitor presence in CBD ESAs, the potential for further ULLS-based investment (and a subsequent promotion of ULLS-based investment and competition) may be hampered by 'capped' CBD exchanges.

Therefore, the ACCC's draft view is that granting Proposed Exemptions in both the Metropolitan and CBD Exemption Areas would only promote the LTIE on condition that any such exemptions do not apply where exchanges are capped or potentially capped. In this respect the ACCC would not propose to grant an exemption in capped exchanges (whether 'fully capped', 'MDF capped', 'rack capped' or 'potentially capped') in either Metropolitan or CBD ESAs and proposes as a condition of granting the Proposed Exemptions that the Proposed Exemptions no longer apply to an exchange that becomes capped.

Therefore, the ACCC's Proposed Exemption Footprint in Attachment A to Appendix B excludes any exchanges that are listed as 'capped' or 'potentially capped' on Telstra's TEBA list as at 2 July 2008 (consistent with the list used for the ACCC's Final Decision on Telstra's WLR/LCS Exemption Applications). The proposed conditions and limitations the ACCC is considering regarding the Proposed Metropolitan Exemption Order and Proposed CBD Exemption Order are discussed further in chapter 9 of this Draft Decision.

The ACCC has recognised in other of its regulatory processes that the issue of capped exchanges is a serious issue requiring further investigation. In this regard, on 14 July 2008, the ACCC released a record keeping rule (RKR) pursuant to s 151BU of the TPA requiring Telstra to report on available space and racks in capped exchanges.[293] This record keeping rule will assist the ACCC in enhancing the transparency of Telstra's processes in determining which exchanges are capped.

(ii) Delays and queuing in installing equipment

The capping of exchanges is not the only possible barrier to access seekers seeking to migrate customers to the ULLS. Access seekers can also face also substantial delays in installing their DSLAM or MSAN equipment into exchanges.

[293] Telstra RKR: *Access to Telstra Exchange Facilities - Record Keeping and Reporting Rules under Section 151BU of the Trade Practices Act 1974*, July 2008.

The ACCC understands that Telstra does not provide access seekers with a list of exchanges that are approaching full capacity and instead access seekers must request Telstra conduct a preliminary study to determine whether there is available TEBA and MDF space. While Telstra responds within ten days to these requests, delays can be experienced when access is granted as Telstra sometimes requires access seekers to queue and install equipment on a 'one at a time' basis. This means a delay by any one access seeker will delay others.[294]

In the assessment of the WLR/LCS Exemption Applications, access seekers expressed concerns with the delays they faced whilst in the queue waiting to install DSLAMs or MSANs. Access seekers have stated that they have routinely waited between six to 12 months and even up to 24 months to access the exchange to install equipment.[295]

Accordingly, it is difficult for the ACCC to be satisfied that ULLS will be an available substitute to access seekers waiting in a queue to install equipment in a Metropolitan exchanges. In addition, the ACCC notes that, in relation to CBD exchanges, despite a strong ULLS-based competitor presence in CBD ESAs, the potential for further ULLS-based investment (and a subsequent promotion of ULLS-based investment and competition) may be hampered by 'queuing' for CBD exchanges..

Therefore, the ACCC's draft view is that granting the Proposed Exemptions would not promote the LTIE in Telstra's Proposed Exemption Areas (CBD or Metropolitan) where parties are waiting in queues in order to access the ULLS. The ACCC's draft view is that granting the Proposed Exemptions would promote the LTIE only if the Proposed Exemptions are not available in an exchange where there are requests by access seekers that, as at the commencement date of the Proposed Exemption, are waiting in queues to install DSLAM and MSAN equipment. Therefore, the ACCC proposes a condition and limitation on the Proposed Exemption Orders that the Proposed Exemption does not apply to those access seekers in a queue waiting to access an exchange (see proposed definition of 'Queued Access Seeker' in the Proposed Exemption Orders at Appendix E and F) at the commencement date of the Proposed Exemption Order. The proposed conditions and limitations for the Proposed Exemption orders are discussed further in chapter 9.

As noted above, the ACCC has recognised in its other regulatory processes that the issue of capped exchanges is a serious issue requiring further investigation. In this respect, the RKR released in July 2008 also requires Telstra to report on issues relevant to the queuing process. This will assist the ACCC in enhancing the transparency of the queuing process.

(iii) Availability of transmission services

A key consideration for an access seeker may be whether the particular ESA is within an area where an access seeker can access backhaul transmission infrastructure from a point of interconnection near the exchange building in the ESA at cost-reflective prices, either via its own infrastructure, or supplied by a third party.

[294] See Adam Internet, The ACCC's Draft Decision and Proposed Class Exemption on Telstra's local carriage service and wholesale line rental exemption applications [undated], pp. 7-8.

[295] Ibid, p. 7.

Telstra submits that it considers in the Proposed CBD Exemption Area, there is at least one other service provider offering a competing fibre backhaul link in each ESA.[296] Telstra also submits that it considers competing inter-exchange links are likely to exist in 248 of the ESAs in the Proposed Metropolitan Exemption Area.[297]

The ACCC understands that a variety of carriers have developed their own transmission infrastructure in parts of Australia. Although transmission services are often characterised as 'point to point', in reality much of the underlying transmission infrastructure is organised in ring patterns. One of the implications of this is that a transmission ring may pass through a number of ESAs.

The Domestic Transmission Capacity Service (DTCS) is currently a declared service under the TPA, with certain exceptions in routes and locations where it faces substantial infrastructure competition.[298] This means that in areas where Telstra does not face effective competition access seekers have the right and ability to seek arbitration if they fail to reach commercial agreement with Telstra (which the ACCC understands has the most extensive backhaul transmission network).

While the ACCC notes that Telstra is seeking exemption from its standard access obligations when supplying transmission capacity to access seekers on various capital-regional routes (the subject of its August 2007 exemption application) and in various ESAs (the subject of its exemption applications of 21 December 2007), the ACCC notes that such exemptions would only be granted if to do so would promote the LTIE.

Accordingly, the ACCC does not consider that the availability of transmission services is an insurmountable barrier to entry to supply of fixed voice services.

(iv) Availability of switching capability

As discussed above regarding the sunk costs involved in DSLAM and MSAN deployment, the ACCC understands that a further potential barrier to entry for firms entering the fixed voice market via ULLS is accessing voice switching services.

An access seeker seeking to enter the voice market through ULLS has two options for gaining voice switching services. The access seeker could use traditional switching in conjunction with a DSLAM or soft-switching in conjunction with an MSAN.

Soft-switching refers to the access seeker installing voice cards which enable them to provide a standard telephony service. A further investment in soft-switches and PSTN gateway infrastructure is also required to route their call and connect to Telstra's and other carriers PSTN switches. The cost of installing voice cards was estimated at $35 per line by Telstra[299] (excluding installation and supporting infrastructure costs) and the ACCC understands that this is a accurate estimate. The

296 Telstra, Response to ACCC Information request dated 12 March 2008, May 2008, p. 11

297 Ibid.

298 The ACCC's view has been that the presence of three competing optical fibre competitors within 1km or less from the GPO of a regional centre for a given capital-regional route is evidence of sufficient competition/contestability on the relevant route

299 Evans & Peck, *Technical Feasibility of using ADSL Networks to Supply Voice Services that Replicate PSTN Services*, 30 October 2007, pp. 10, 11.

ACCC understands that other investment needs to be made in the IP network and PSTN gateway for access seekers to use soft-switching, but notes that such investments would not be made redundant by a fibre upgrade (because IP-based soft-switching will be a necessary component of supplying voice services over fibre).

An alternative option for an access seeker would be to acquire voice switching services from existing service providers. This option would require access seekers to negotiate the terms and conditions of purchasing the voice switching services from these providers on a commercial basis. Telstra submits that Optus, Primus, AAPT, Soul and Telstra are capable of providing this service.[300] However, while such an option may be technically available, the ACCC recognises that carriers have not, to date, supplied such services via commercial arrangements and that, accordingly, the costs involved in obtaining such a service are unknown.

The ACCC notes that a further option for access seekers is to buy voice TDM switches themselves. That said, the ACCC understands that it can be difficult to buy such switches as they are rapidly becoming an outdated technology.

Therefore, as noted above, the ACCC recognises that where an access seeker does not own its own PSTN switch, and cannot obtain a competitively priced PSTN OA-type service, some additional investment may be required to migrate to MSAN-based supply of voice services.

(v) Customer information and inertia

Access seekers face significant information asymmetries on the demand characteristics of customers in the telecommunications industry. It is likely that the inability of access seekers to obtain detailed information on customers' demand characteristics could alter their entry decisions. The incumbent, however, does not face the same level of information asymmetries because most consumers have been a customer of the incumbent in the past. The incumbent has greater opportunities to retain and win-back the customers through targeted marketing.

Further, it is a relevant consideration that customers may be unwilling to change telecommunications providers due to inertia arising from the lack of information on the range of competitors' services, the perceived high costs of switching between retailers and time constraints in researching alternative providers' products. In this regard, the ACCC noted in its 2005/2006 Competition Safeguards Report that:

> Customer inertia, or status quo bias, also acts as a barrier to achieving sufficient scale to compete effectively. When combined with actual switching costs (such as contract lock-in) and information asymmetry about the range of available contracts, Telstra has considerable advantages as the incumbent default provider of local telecommunications [services].[301]

[300] CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Origination Access Exemption*, 4 October 2007, p. 39.

[301] ACCC, *Telecommunications competitive safeguards for 2005-2006, Changes in the prices paid for Telecommunications services in Australia 2005-2006*, p. 18.

That said, while customer inertia clearly makes it more difficult for competitors in the supply of fixed voice services to gain scale, the ACCC is of the view that customer information and inertia is not an insurmountable barrier to ULLS-based entry.

Conclusion- state of competition in retail voice markets

The ACCC finds it difficult to be definitive about the level of competition in the supply of fixed voice services within Telstra's Proposed Metropolitan Exemption Area and Proposed CBD Exemption Area.

The ACCC has assessed the state of competition within the areas set out in each of Telstra's Exemption Applications, i.e.. in Telstra's Proposed Metropolitan Exemption Areas and Telstra's Proposed CBD Exemption Area, on an ESA by ESA basis, and also on a broader basis (i.e. the entirety of Telstra's Proposed Exemption Areas) where such information was available.

The type of information that the ACCC considers would provide the strongest evidence of effective competition in retail fixed voice was evidence of improved price and non-price retail outcomes for consumers in particular areas, or perhaps evidence that significant market share has been gained by new entrants. The evidence to hand suggests that competitors to Telstra have managed to attain only modest market share within Telstra's Proposed Exemption Areas. Within Telstra's Proposed Exemption Areas though, the proportion of market share attained by access seekers varies significantly from ESA to ESA.

The potential for competition also varies considerably between the various ESAs the subject of the Exemptions Applications. For example, while all ESAs are likely affected by some degree of pair gain deployment, only a subset of exchanges are currently affected by capping issues.

Set out at Appendix B is an analysis of which ESAs the subject of the Exemption Applications that the ACCC is satisfied would attract further ULLS take-up or more efficient use of existing ULLS-based infrastructure upon granting the exemptions.

While the ACCC's draft views are that competition in retail fixed voice markets in the Proposed Metropolitan Exemption Area is not yet workably competitive across the board, the ACCC is of the view that provision of voice services in the Proposed CBD Exemption Area is more competitive as evidenced by significant competitive end-to-end infrastructure available in the Proposed CBD Exemption Area. Evidence of this is set out at Appendix B.

3.8.3 Level of competition in retail bundled broadband and voice markets

Telstra's arguments about the existence of competitor's infrastructure within Telstra's Proposed Exemption Areas (noted above in the 'Level of competition in retail fixed voice markets' section 3.8.1) would appear to be relevant also to broadband markets, as much of this infrastructure is capable of providing broadband as well as voice services.

Submissions

Telstra submits that DSLAM-based infrastructure is used to supply high speed broadband services and fixed voice telephony at the wholesale and retail level, and further submits that:

- In every ESA in Telstra's Proposed Metropolitan Exemption Area there is at least one provider (in addition to Telstra) utilising DSLAM-based infrastructure to provide voice and data services. Operators of DSLAMs include Optus, AAPT-PowerTel, Primus, Nextep and Agile (Internode) who each operate extensive DSLAM-based networks across Australia.[302] In every ESA in Telstra's Proposed CBD Exemption Area, there is at least four competitive DSLAMs.[303]

- Aside from DSLAM-based infrastructure, there is also evidence of widespread deployment of cable and fixed wireless networks in Telstra's Proposed Metropolitan Exemption Area. Four jurisdictions - NSW, Victoria, Queensland and the ACT - have access to DSLAM-based, cable and fixed wireless infrastructure. In 87 per cent of ESAs there are at least two alternative networks (DSLAM-based, cable or fixed wireless).[304] In Telstra's Proposed CBD Exemption Area, Telstra submits there are substitute fibre-based networks and several competitive fixed wireless networks.[305]

- Cable networks are present in 205 Metropolitan ESAs in Telstra's Proposed Metropolitan Exemption Area. These include the Optus HFC network, which is present in almost 200 ESAs and passes 2.2 million addresses. These networks are used to supply fixed voice telephony (using traditional circuit-switched and VoIP) telephony and high speed broadband services. Telstra provides the following table in support of its assertions regarding cable networks:[306]

Table 5: Availability of Optus' HFC Network in the Metropolitan Exemption Area

	Number of ESAs covered by the Optus HFC network	Percentage of ESAs contestable by HFC
NSW	89	72%
Victoria	69	75%
Queensland	42	61%
Total	200	70%

Source: Paterson Report, Table 5, pp. 33.

- Fixed wireless networks are present in 244 Metropolitan ESAs in Telstra's Proposed Metropolitan Exemption Area. Operators include iBurst, BigAir and Unwired. These networks are used to supply high speed broadband services at the wholesale and retail level.[307]

At the wholesale level, Telstra argues that competition to Telstra's services exists in the form of operators such as AAPT-PowerTel, Nextep and Optus offering a range of wholesale products (including high speed broadband and fixed voice services) on

302 Telstra, *Telstra's PSTN Originating Access Exemption Applications Supporting Submissions,* October 2007, pp. 22-23..
303 Ibid, p. 19.
304 ibid, p. 24.
305 Ibid, pp. 16-18.
306 ibid, p. 25
307 Ibid. p. 25

their extensive DSLAM-based networks across Australia.[308] Telstra argues several operators (including Optus, AAPT-PowerTel, Primus, Nextep and Agile) offer wholesale broadband services.[309]

At the retail level, Telstra argues that competition is even more intense. Telstra submits that within both Telstra's Proposed CBD and Metropolitan Exemption Areas, many companies utilise their own infrastructure or resale services acquired from alternative infrastructure providers, to offer competitive fixed voice, high speed broadband and related products.[310]

ACCC's draft views

The ACCC considers it appropriate to analyse the competitive dynamics at an exchange level for both the PSTN OA Metropolitan Exemption Application and PSTN OA CBD Exemption Application, where relevant information is available. Where such information is not available, competition across a broader geographic region will be considered.

(a) Evidence of competition in retail bundled broadband and voice markets

Take-up of broadband services

The Australian Bureau of Statistics estimates that at the end of December quarter 2007 there were 5.21 million active broadband subscribers in Australia, which represents 73 per cent of total internet subscribers in Australia at the end of December 2007. At the end of December 2007, there were 1.89 million dial up subscribers.[311] There are limited figures available as to the number of Australians who are supplied a bundle of voice and broadband services from the same providers. However, Telstra recently reported that more than 90 per cent of its BigPond (internet) customers have a Telstra PSTN service.[312]

Further, as noted in the ACCC's "Telecommunications competitive safeguards for 2006-2007" report, data gathered from the ACCC's Bundling RKR shows that, in recent years, there has been a general trend towards a greater proportion of residential customers choosing to bundle one or two additional services with a fixed-line voice service.[313]

It appears that bundled offerings result in downward pressure on prices in retail markets. The Internet Industry Association has noted that bundled broadband packages appear to offer consumers more value for their internet service than stand-alone packages.[314]

[308] ibid, p. 33
[309] Ibid. p. 34.
[310] ibid, p. 34.
[311] Australian Bureau of Statistics, *Internet Activity Survey - December 2007*, issued 24 April, 2008, available at http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/.
[312] Telstra, *First Half 2008 Financial Result – Analyst Briefing*, 21 February 2008 http://www.telstra.com.au/abouttelstra/investor/docs/tlss591_transcriptanalystbriefinghalfyearresults07.pdf
[313] ACCC, *Telecommunications competitive safeguards for 2006-2007* 12 May 2008, p. 44.
[314] Internet Industry Association, *Spectrum/IIA Broadband Index (Q3 2007)*, 1 October 2007, p. 1.

Characteristics of the broadband market

DSL is the most common form of broadband access in Australia with approximately 3.8 million households subscribing to the internet using this technology, which comprises 73 per cent of all broadband subscribers. While Telstra's DSL network is by far the most comprehensive in Australia, covering over 2400 exchanges, ISPs have increasingly taken advantage of the regulated access to unbundled services—both the LSS and the ULLS—to provide DSL internet.

Approximately 23 ISPs have invested in their own DSLAM/MSAN equipment to enable DSL service provision with most investing in ADSL2+ equipment. At 30 June 2008, 3010 exchanges were enabled to provide ADSL services covering 98 per cent of SIOs.[315] Excluding Telstra, the most expansive DSLAM rollouts have been by iiNet, Optus, Primus and TPG. [316]

Table 2 below outlines the ISPs that have installed DSLAM infrastructure in exchanges and indicates the number of sites in which each access seeker had entered into as at September 2007 as compared with March 2008:

[c-i-c whole table]

Telstra CAN RKR results for the March 2008 quarter shows that unbundled services (ULLS and LSS) now represent:

- **[c-i-c]** per cent of all PSTN services;
- **[c-i-c]** per cent of all broadband services;
- **[c-i-c]** per cent of DSL lines; and
- **[c-i-c]** lines.

The ACCC notes that there were 955,000 regulated unbundled services (LSS and ULLS) in operation by June 2008.

[315] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, June 2008.

[316] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, December 2007.

Optus is the main driver of the strong growth in ULLS on a national basis. Optus increased its share of ULLS lines to **[c-i-c]** per cent in March 2008. Optus added **[c-i-c]** DSLAM sites between 30 September 2007 and 31 March 2008. The composition of LSS services is more varied among carriers, but, even so, TPG and iiNet between them have been responsible for the take-up of **[c-i-c]** per cent of LSS lines.

The competitive effect of access seekers using ULLS and LSS is apparent in that Telstra's DSL line share is falling in ESAs where access seekers are present. From 30 September 2007 to 31 March 2008, Telstra's DSL line share in these ESAs (i.e. all ESAs on a national basis where there is another access seeker present) fell from **[c-i-c]** per cent to **[c-i-c]** per cent. This is shown in Table 3 below.

[c-i-c whole table]

The main impediments to ULLS and LSS competition are those described at the "ACCC's draft views on level of competition in retail fixed voice" section above, namely section 3.8.2 – capping and queuing.

Telstra and Optus also supply broadband to consumers utilising HFC networks. Optus offers a number of standalone and bundled broadband packages in the retail market over its HFC network, with some plans offering speeds of up to 20 Mbp/s at prices comparable to xDSL products.[317] For example, Optus's 'Yes Fusion Cable' plans starting from $79 per month bundle voice (unlimited local, STD, Optus mobile calls) and broadband in HFC areas.

Using data obtained from carriers in response to the ACCC's Infrastructure Audit RKR (released in December 2007) the ACCC understands that Optus HFC coverage is present in **[c-i-c]** of the ESAs nominated in Telstra's Proposed Metropolitan Exemption Area (or approximately **[c-i-c]** per cent of this area). In the ACCC's Proposed Metropolitan Exemption Footprint at Attachment A to Appendix B, however, Optus's HFC network is available (at least partially and in some cases significantly) in approximately **[c-i-c]** per cent of ESAs.[318]

[317] Optus Cable plans, available at: http://personal.optus.com.au/web/ocaportal.portal?_nfpb=true&_pageLabel=personal_cable_productypeHSD_marketSegmentres&productpath=/personal/internet&FP=/personal/internet/broadband/cable/plansandratescable&site=personal Accessed 19 August 2008.

[318] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, June 2007.

Optus's HFC broadband customer base increased by 18.8 per cent to 365 000 customers at the end of 2006–07[319], while Telstra's cable internet subscribers increased by 18.6 per cent to 336 000.[320]

In the 17 CBD ESAs the subject of Telstra's CBD Exemption Application, there are a number of alternative infrastructure providers that provide voice services or are capable of providing voice and broadband services. The ACCC notes Telstra's submission of the Market Clarity Report in support of its arguments that there is substantial alternative infrastructure available. However, for the purposes of this Draft Decision the ACCC does not rely on the Market Clarity report but instead has considered a previous report the ACCC commissioned and more recent information that has been provided to the ACCC under the Infrastructure Audit RKR and Telstra CAN RKR.

In 2002, the ACCC granted an exemption for LCS in the 17 CBD ESAs based on evidence contained in the BIS Shrapnel report that was commissioned by the ACCC.[321] The ACCC stated that the BIS Shrapnel report provided evidence of actual and future potential competition for LCS and provision of fixed voice services, which would include PSTN OA.[322] The ACCC's Infrastructure Audit RKR has confirmed that many of the alternative infrastructure providers that were present in 2001 are still present today although the ACCC notes some have merged with other firms, the ACCC still considers the number of alternative fibre operators to be competitive. In particular, in the 17 CBD ESAs the subject of Telstra's CBD Exemption Application:

- There are a large proportion of customers located very close to the exchange that could access very high speed ADSL2+ broadband services;
- There are a large proportion of customers who are businesses and professionals who will generally purchase larger bandwidth services
- There are at least 4 major fibre backhaul providers and fibre backhaul from the exchange is reasonably competitive.

Over the last two years, Australia's four 3G mobile telephony operators have invested heavily in mobile broadband data technology. The ACCC has also observed that wireless and mobile network operators are increasingly providing competitive retail packages in the broadband market. For example, Vodafone is currently offering a 5 gigabyte download capacity broadband plan for $39 a month over its 3G network.[323] Similarly, Optus is currently advertising 5 gigabyte mobile broadband plans for $49.99 per month, with customers receiving download speeds of between 512kbps and 1.5Mbps. Both the Optus and Vodafone plans are offered in metropolitan areas of capital cities.

319 SingTel, *Management discussion and analysis, first quarter 30 June 2007*, p. 45.
320 Telstra, *Annual report 2006–07*, 2007, p. 24.
321 BIS Shrapnel – Technology Applications Group, *Telecommunications Infrastructures in Australia 2001 – a research report prepared for ACCC*, December 2001.
322 ACCC, *Future scope of the Local Carriage Service – final decision*, July 2002.
323 Advertised on Vodafone's website at: http://store.vodafone.com.au/mobile-phones-vodafone-usb-modem-5gb-mobile- broadband-for-39month.aspx

The ACCC understands that there is significant 3G infrastructure coverage across the vast majority of ESA within Telstra's Proposed Metropolitan and CBD Exemption Areas, over which wireless broadband plans in the retail market can potentially be offered.[324] Similarly, the ACCC understands that approximately 88 per cent of ESAs within Telstra's Proposed Metropolitan Exemption Area are either extensively or partially served by fixed wireless technologies—such as PBA's iBurst network and Unwired's WiMax network.[325] In terms of functionality however, the ACCC notes that these networks currently provide maximum through-put speeds of 1 Mbps, therefore are likely to provide only a limited substitute for DSL services.

Level of concentration

Estimating market shares in retail broadband and voice markets is difficult due to insufficient data from firms about this information.

Telstra has reported that, as at 31 December 2007, it had approximately 4.6 million broadband customers with over 2.8 million of these being direct retail customers.[326] Telstra further reports that its share of the retail broadband market as at 31 December 2007 was approximately 48 per cent, growing 1 per cent since June 2007.[327] Telstra notes that ADSL, cable and wireless have been the key drivers of their SIO growth.[328] As noted above, Telstra has reported that more than 90 per cent of its BigPond (internet) customers have a Telstra PSTN service.[329]

Optus has reported that, as at 31 March 2008, its 'on-net' (Optus customers connected either to its DSL or HFC network) broadband customers increased 62 per cent to 705,000 (and accounted for 78 per cent of Optus's total broadband customer base).[330] Optus further reports that as at 31 March 2008, broadband customers (including business grade customers) totalled 907,000, an increase of 126,000 or 16 per cent from 12 months earlier.

Evidence of retail market outcomes

As mentioned, in assessing the level of actual competition in a market, it is instructive to assess the price and non-price (eg. quality of service) outcomes for consumers of DSL services in particular areas—in this case, Telstra's Proposed Exemption Areas. The ACCC is of the view that evidence of price and non-price competition in particular ESAs would tend to provide support for the emergence of effective competition within those ESAs.

[324] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, December 2007

[325] ibid.

[326] Telstra, *Telstra Corporation Limited Financial Results for the Half Year ended 31 December 2007*, 21 February 2008, p. 24.

[327] ibid, p. 24.

[328] ibid, p. 24.

[329] Telstra, *First Half 2008 Financial Result – Analyst Briefing*, 21 February 2008 http://www.telstra.com.au/abouttelstra/investor/docs/tlss591_transcriptanalystbriefinghalfyearresults07.pdf

[330] Singapore Telecommunications Limited and Subsidiary Companies, Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Fourth Quarter and Financial Year ended 31 March 2008, 14 March 2008, p. 52.

According to the Internet Industry Association (IIA) broadband index[331], which reports on broadband packages covering a wide range of technologies including xDSL, Cable, wireless and satellite, overall broadband service prices have not declined significantly. However, carrier investments in high-speed broadband are making faster service speeds available to consumers at no additional premium[332]. Therefore, users of higher speed broadband connections are gaining additional value at little extra cost.

The IIA also noted that bundled broadband packages appear to offer consumers more value for their internet service than stand-alone packages. This relationship appears to be consistent over the range of internet service bundles consumers choose. According to the IIA, Australian consumers are paying for a stand-alone connection from $38.95 per month (for an ultra-light theoretical maximum 256 Kbps connection) to $85.95 per month (for heavy users with a theoretical maximum connection of 17+ Mbps). This compares to costs of $33.90 and $75.65 for bundled connections with similar speeds.[333] However, it is important to note that whether the total bundled package is more economical than the stand-alone package depends on the value and utility the additional services offer the end user.

Conclusion- state of competition in the retail bundled broadband and voice markets

Given that Telstra's copper network is an input necessary to supply xDSL broadband and fixed line voice services to end-users, Telstra is still in a relatively strong position in downstream bundled markets. Telstra's ownership of both the ubiquitous copper network and the main HFC network in Australia means that is it the main supplier of these customer access services. Thus, Telstra is in a position where it controls access to the majority of inputs necessary for competition in downstream broadband markets.

Despite this, the retail bundled broadband and voice market is characterised by an ever-increasing level of competition, as evidenced by access seekers' increasing take-up of LSS and ULLS lines. Further, along with the competitive constraint provided by HFC networks, the ACCC notes the development and further potential for wireless (both mobile and fixed) technologies in offering competitive bundled broadband and voice services in the retail market.

[331] The index analyses every internet access package offered by the five major Australian ISPs (Telstra, Optus, Primus, iiNet and Unwired) to calculate the Total Cost of Broadband (i.e. start up costs plus headline fees plus usage charges) of subscribing to each of them for customers of each usage profile.

[332] Internet Industry Association, *Spectrum/IIA Broadband Index (Q3 2007)*, 1 October 2007, p. 1.

[333] ibid, p. 1.

3.8.4 Level of competition in wholesale voice markets

Submissions

Telstra submits that whilst there are similar arguments in support of granting the Exemption Applications in regard to CBD competitive ESAs and metropolitan competitive ESAs, it has identified additional considerations that are pertinent to the ACCC consideration of the CBD Exemption Application.[334]

Similarly, the Paterson report states that the demand side considerations for metropolitan areas and CBDs are essentially the same. However, Dr Paterson suggests there are some additional supply side factors that need to be considered for CBD areas.[335]

Telstra notes that several competitors have installed extensive substitute networks as an alternative to the use of Telstra's PSTN. Telstra submits that it is clear that access seekers can and do offer the full suite of services demanded by customers via their own access infrastructure.[336]

The Paterson report suggests that not only can CBD business customers be accessed by Telstra's exchange based copper network, but in addition via alternative ubiquitous full facilities-based means of supply. Dr Paterson states that the most notable alternative means of supply are entrant fibre-based access networks and microwave links direct to customers.[337]

Included in Telstra's supporting submission for its PSTN OA exemption applications is a Market Clarity report entitled *Telecommunications Access Networks in Australian Capital Cities*.[338]

As noted earlier, Telstra suggests that alternative fixed line access (such as fibre and microwave networks in CBD areas and the SingTel Optus HFC network in metropolitan areas) enables network providers to offer voice and broadband services which potentially act as a constraint on Telstra's retail and wholesale fixed line services. Telstra cites Market Clarity's research as evidence of the healthy state of competition in the wholesale supply of fixed voice inputs and services.[339]

Telstra submits that in addition to fibre-based access networks and fixed-wireless networks, several companies have also installed DSLAM-based infrastructure in Telstra's exchanges. Based on publicly available information, Telstra has performed

[334] Telstra, *Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission*, October 5 2007. p. 16.

[335] Dr Paul Paterson, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Originating Access Exemption*, 12 October 2007. p. 15.

[336] Telstra, *Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission*, October 5 2007. p. 16.

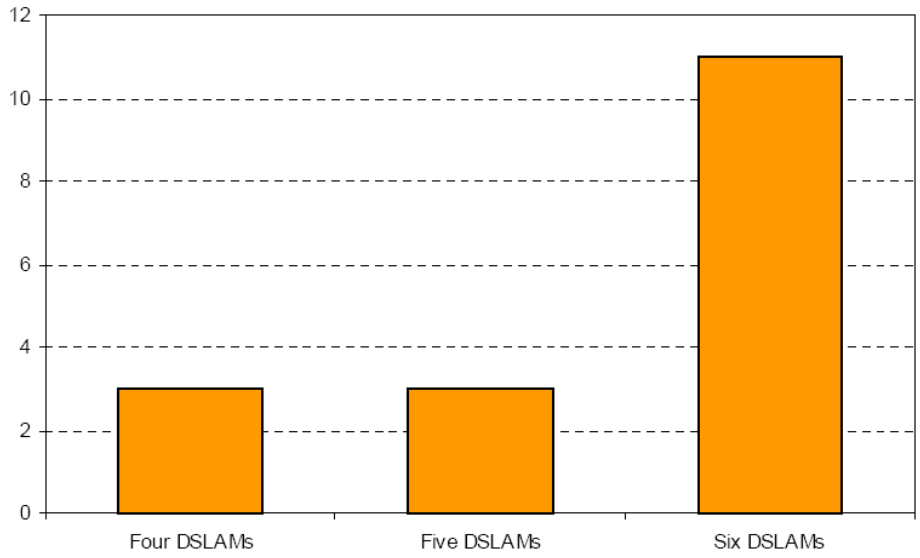
[337] ibid.

[338] Market Clarity, *Telecommunications Access Networks in Australian Capital Cities Prepared for Mallesons Stephen Jaques*, 26 September 2007.

[339] Telstra Submission to the Australian Competition and Consumer Commission, *Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service December 2007*. p. 14.

an analysis of DSLAM-based infrastructure in every ESA in Telstra's Proposed CBD Exemption Area. Telstra submits that the results of this analysis are that every ESA is covered by at least four competitive DSLAMs, with most covered by six competitive DSLAMs.[340] Telstra has provided a graphical representation which is included below:

Figure 5: Number of Competitor DSLAMs in each ESA in the CBD Exemption Area



Source: [c-i-c]. This is likely to be highly conservative (see box 1). For example, Telstra has not counted DSLAMs identified as being operated by AAPT-Powertel and iiNet separately. If these companies' infrastructure were separately identified, the number of ESAs in the CBD Exemption Area with four DSLAMs falls to two, the number with five DSLAMS falls to two, the number with six DSLAMs drops to five, whilst the number of ESAs with seven DSLAMs increases to eight.

Reproduction of Figure 5 in Telstra's supporting submission[341]

As noted above, Telstra submits that several operators are offering substitutes to the wholesale PSTN OA service in Telstra's Propsoed CBD and Metropolitan Exemption Areas. Telstra submits that examples of this are:

- Optus offers wholesale access and local calling products throughout its DSLAM-based ULLS network in direct competition with Telstra's PSTN offerings.
- AAPT-Powertel, Nextep (a subsidiary of NEC) and Optus offer a range of wholesale products on their extensive DSLAM-based networks across Australia.
- Several operators also offer wholesale broadband services, allowing resellers to offer VoIP telephony and data products.[342]

AAPT submits that access seekers using DSLAMs and the ULLS or providing VoIP services would not be able to provide voices services of equivalent quality to Telstra's voice services[343]

[340] Telstra, *Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission*, October 5 2007. p. 19.

[341] ibid, p. 20.

[342] Telstra, *Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission*, October 5 2007. p. 34

AAPT further submits that:

> Even if a wholesale market were to emerge in certain ESAs in response to anti-competitive conduct by Telstra, the commercial reality is that it is not workable for access seekers to obtain wholesale inputs on an exchange by exchange basis. [344]

In relation to the provision of PSTN services utilising DSLAMs, AAPT submits that the following non-price barriers are relevant:

- use of RIMS in exchange service areas- DSL based services can only be provided over copper lines between the exchange and the customer premises. They cannot run over fibre optic lines. Hence, where end users are connected to RIMS rather than to an exchange they cannot be provided with DSL based services via ULLS;

- Telephone exchange business access (TEBA) - Telstra's internal processes only permit one access seeker at a time to install equipment. This results in queues, up to 18 months, to gain access to Telstra's exchanges. Some of Telstra's exchanges are also full, precluding access seekers from installing any equipment in them;

- sourcing wholesale services from multiple service providers impacts negatively on price and quality of service for end users due to their geographically fragmented networks;

- the lack of a adequate process to align the ULLS cutover with Category A port (LNP);

- the lack of process for migration of Telstra wholesale services to service provider's ULLS based services;

- the lack of provisions in Telstra's Operations and Maintenance Manual to rectify quality of service issues for broadband services; and

- lack of service provider control in Telstra operations. [345]

Macquarie submits that DSLAM-based infrastructure does not offer a significant competitive presence in the provision of wholesale PSTN services. In fact, Macquarie notes that a small minority of DSLAM are capable of providing voice services. Further, Macquarie notes its strong support for the views put forward in the Frontier Report that there are significant barriers to providing voice entry to DSLAM-based infrastructure particularly services using ULLS, including customer migration to ULLS. [346]

Macquarie submits that it acquires the wholesale inputs required to provide voice services from suppliers including PowerTel, Optus, Telstra and others.[347] Macquarie

[343] AAPT/PowerTel, Submission by *AAPT/PowerTel to the ACCC in response to Telstra's PSTN Originating Exemption Applications December 2007. p. 9.*

[344] ibid, p. 4.

[345] ibid, pp. 9-10.

[346] Gilbert + Tobin, PSTN Originating Access Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications 14 December 2007. p. 8. The Frontier Report was attached to Macquarie's submission. Frontier Economics, *Telstra's applications for WLR and LCS exemptions – a report prepared for the CCC,* October 2007.

[347] Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access Service exemption Applications, 14 December 2007. p. 1.

states that PSTN OA services form a crucial input to the services which it acquires from all of its wholesale suppliers. [348]

Macquarie suggests that due to Telstra's high wholesale charges it frequently seeks to move those services which are directly connected to the Telstra network to the networks of other providers. However, Macquarie states that this is often not possible either because effective substitutes are not available, or because of the requirements of the particular customer. [349]

Optus submits that there are numerous barriers that arise with the use of the ULLS, namely:

- uncertainty of ULLS access and pricing due to ongoing access disputes;
- non price issues, such as the inability of access seekers to connect ULLS in multi-dwelling units (MDUs);
- pair gain systems and RIMs, which limit the use of the copper between the customer and the exchange;
- capacity constraints due to limited TEBA space;
- the prospect of Telstra's network upgrades to FTTN; and
- barriers to expansion due to a high minimum efficient scale (MES).[350]

ACCC's draft views

The ACCC considers that Telstra has significant market power in the upstream market relevant to the exemption inquiry. This view is based on several factors.

First, it is evident that Telstra still controls the infrastructure by which the majority of voice services are provided, with 89 per cent of all fixed voice lines supplied over its CAN.

Telstra controls price and non-price access to PSTN OA and ULLS (which the ACCC considers a substitute at the wholesale level). Other providers of wholesale voice services (submitted by Telstra to be AAPT-PowerTel, Nextep and Optus) are dependent upon Telstra for access to ULLS.

Second, there are significant barriers to entry in the provision of an end-to-end wholesale Fixed Voice Bundle or a ULLS-based Fixed Voice Bundle including high sunk costs of infrastructure investment; economies of scale and scope arising from Telstra's control of the ubiquitous copper network as well as significant time delays in developing alternative networks.

[348] ibid, p. 1.
[349] ibid, p. 1.
[350] Optus, *Optus submission to the ACCC on Telstra Application on Telstra's PSTN OA Service Exemption Application December 2007.pp 21-22.*

Third, Telstra is vertically integrated into downstream markets and enjoys a strong position in retail markets for fixed telephony services. Telstra's retail market share has increased for the 2006-07 reporting period to 71 per cent from 69 per cent in 2005-06. This factor may further affect the potential for competitive entry in the upstream market. A large retail customer base is typically necessary to justify investment in infrastructure before a new entrant can compete effectively with Telstra. In addition, telecommunications consumers face high costs of switching between retail suppliers. Supply contracts typically involve a fee for the costs of physically disconnecting and churning customers. These costs, in addition to general information asymmetries about the range of competitors' products, mean that consumers tend not to change their service provider unless there is a compelling reason to do so.

Accordingly, it is the ACCC's view that upstream markets for the provision of Fixed Voice Bundles do not display the characteristics of particularly competitive markets. That said, the scenario of alternative carriers supplying a wholesale Fixed Voice Bundle to access seekers is becoming more prevalent. For example, it was recently reported that Internode acquired a wholesale ADSL2+ service from Optus via Optus's ULLS-based network. While this was a broadband rather than a voice service, it signals the likely availability of wholesale services from alternative carriers over ULLS-based networks.[351]

3.8.5 Level of competition in wholesale bundled broadband and voice markets

Submissions

In relation to alternative wholesale providers, Telstra states that rival operators have rolled out competing DSL networks, which can provide fixed voice and broadband services.[352] As noted previously, Telstra submits:

- AAPT-Powertel, Nextep (a subsidiary of NEC) and Optus offer a range of wholesale products on their extensive DSLAM-based networks across Australia.
- Several operators also offer wholesale broadband services, allowing resellers to offer VoIP telephony and data products.[353]

Further, as mentioned previously, Telstra is of the view that DSLAM-based provision has the potential to continue as it argues that there are no material barriers to entry and expansion for DSLAM investment.[354]

ACCC's draft views

The ACCC considers that while the upstream market remains fairly concentrated (with Telstra remaining the dominant supplier of services at this level), the market is

[351] 3rd Wave Communication Pty Ltd, *'Internode offers naked ADSL2+ via Optus resale'*, Exchange, Volume 20 Issue 9, 14 March 2008, p. 7.

[352] Telstra, *Telstra response to questions from ACCC discussion paper of October 2007*, December 2007, p. 26.

[353] Telstra, *Submission to the Australian Competition and Consumer Commission, Telstra's PSTN Originating Access Exemption Applications Supporting Submission*, October 5 2007. p. 34

[354] ibid, pp. 30-34.

becoming more competitive as investment in DSLAM and MSAN infrastructure grows.

It is significant that Telstra still controls the infrastructure by which the majority of broadband services are provided, with 73 per cent of all broadband connection supplied via DSL—and thus over Telstra's CAN. Further, as with fixed telephony services, Telstra is vertically integrated into downstream broadband markets and, although lower than in the retail fixed voice market, has a large market share.

Further, as with wholesale fixed voice services, the ACCC notes that there are significant barriers to entry in the provision of wholesale broadband services, including high sunk costs of infrastructure investment, economies of scale and scope arising from Telstra's control of the ubiquitous copper network as well as significant time delays in developing alternate networks.

However, as noted above, competition in broadband markets has, in recent years, been driven by access to Telstra's CAN by means of take-up of the LSS and ULLS. The table below shows that an increasing number of access seekers are purchasing either the LSS or ULLS.

[c-i-c]

While wholesale DSL is not a declared service pursuant to Part XIC of the TPA it is clear that various service providers are providing wholesale broadband services to access seekers, whether by their own DSLAM networks, or alternative end-to-end infrastructure. For example, in June 2008, Vodafone announced it would be entering into supply of a new business service which includes ADSL2+ in a network agreement with AAPT.[355] Further, it appears that competitive tension within supply of broadband services has resulted in Telstra announcing supply of a wholesale ADSL2+ service in certain circumstances.[356]

As such, it is the ACCC's draft view that wholesale broadband markets are becoming increasingly competitive, in both metropolitan and CBD areas where access seekers have installed their own DSLAM and/or MSAN equipment into exchanges.

[355] Communications Day, *Vodafone makes first foray into fixed lines*, 26 June 2008, available at http://www.commsday.com.au/

[356] The Australian (IT Section – online version), *Telstra to sell broadband capacity wholesale*, 15 July 2008, available at http://www.news.com.au/

3.9. Will the granting of exemption orders promote competition?

A key question for the ACCC in addressing whether granting exemptions is likely to promote the LTIE is whether the granting of the exemption order will promote competition in the relevant markets. As noted above, a useful tool to assess this involves comparing the state of competition in the "future with" exemptions (i.e. where there is no regulated access to PSTN OA supplied by Telstra in the ESAs that are the subject of Telstra's Proposed Exemptions) to the state of competition in the "future without" exemptions (i.e. where regulated access to PSTN OA supplied by Telstra continues to be available).

The ACCC considers that, in the context of assessing exemption applications, the concept of promoting competition refers to whether the opportunities and environment for competition with the exemptions will be better than they would be absent the exemption, rather than to whether competition will in fact "increase".[357]

In determining the extent to which granting exemptions is likely to promote competition, the ACCC must have regard to the extent to which it will remove obstacles to end-users gaining access to carriage services or to services provided by means of carriage services (subsection. 152AB(4)).

3.9.1 Submissions

Voice

Telstra submits that granting the Proposed Exemptions will promote the LTIE as they will encourage facilities-based competition. Telstra considers facilities-based competition is preferable to regulated access for a number of reasons:

- First, it can lead to greater price competition as entrants have more control over costs and face incentives to develop and deploy more efficient technologies in order to compete with incumbent operators.
- Second, it enables greater service innovation since the entrants are no longer tied to the functionality of the incumbent's network.
- Third, it also ensures that competition for supply will extend over a wide-range of markets, driving out inefficiency and arbitrage throughout the supply chain, and delivers superior results to the limited form of resale competition that regulation promotes.[358]

Telstra considers the Proposed Exemptions will promote facilities-based competition in the market in which PSTN OA is supplied for the following reasons:

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

[358] Telstra, *Telstra's PSTN Originating Access Exemption Applications – Supporting Submission, October 2007, p. 56.*

- First, there is an extensive roll-out of alternative infrastructure in the CBD Exemption Area and Metropolitan Exemption Area which can be used as alternatives to PSTN OA in providing downstream services.

- Second, empirical and economic evidence illustrate that efficient, workable competition already exists in the markets in which PSTN OA is provided because of the presence of these alternatives.

- Third, the extent of competition is only likely to improve further in the future given that the barriers to entry and expansion to these alternatives is low, and with the increasing penetration of new technologies such as VoIP.[359]

Optus submits that granting of Telstra's Proposed Exemptions would be likely to impact on competition in long distance services (including international services). Optus considers this would be the case due to the following reasons:

- First, the existing standalone market for long distance services would be impacted, since Telstra would have the ability and incentive to reduce competitors' ability to compete in that market.

- Second, competition in long distance services generally would be diminished despite the continued availability of such services as part of the bundle of telecommunications services offered by Telstra' competitors, as a result of barriers to entry and Telstra's market power.

- Third, competition in the provision of services to large corporate and government customers would suffer as a result of the typical requirement for complex features, ubiquitous offerings and "whole of business" contracts in that market.[360]

Optus suggests that a greater degree of competition is viable in long distance calling than in local calling, since the cost structure of transmission infrastructure is characterised by less extensive economies of scale compared to access infrastructure. As a result of this distinction, Optus considers that Telstra's Proposed PSTN OA Exemptions are of greater concern than the WLR/LCS exemption applications.[361]

Optus submits that granting the Proposed Exemptions would enhance Telstra's ability to carry out a foreclosure strategy in the standalone long distance market, since it would no longer be required to offer the wholesale PSTN OA service to rival providers of long distance preselection services at a reasonable price.[362]

In addition to the impacts noted above, Optus highlights the potential for the Proposed Exemptions to impact on competition in the supply of services to corporate and government (C&G) customers (businesses with at least 200 employees and government agencies). Optus submits that this market is particularly sensitive to the

[359] ibid. p. 58.
[360] Optus, *Optus Submission to the Australian Competition and Consumer Commission on Telstra's* PSTN OA Service Exemption Application, December 2007. p. 6.
[361] ibid.
[362] ibid, pp. 6-7.

availability of access to Telstra telecommunications infrastructure. Optus considers the competitive drivers unique to the C&G market include:

- procurement of services on a "whole of business" basis with preferences for single billing, multiple services and products included on a single invoice and a single point of contact for all telecommunications needs;
- requirements for ubiquitous coverage of specialised and complex features on top of basic telephony services; and
- high incumbent inertia with enduring impacts due to high costs of changing providers.[363]

AAPT submits that were the Commission to grant the Proposed Exemptions, end users would suffer from an increase in prices and a decrease in choice of supplier, not only for PSTN equivalent voice services, but also for high speed data services (given end user bundling preferences).[364]

AAPT supports this conclusion by stating that the vast majority of wholesale and retail customer access services still rely on Telstra's customer access network. AAPT suggests this is evidenced by Telstra's market share for PSTN voice services remaining relatively stable (with any drop in fixed line services revenue being felt across the industry generally).[365]

Macquarie submits that there are three possible outcomes that may occur if the Commission grants Telstra's Proposed Exemptions. Macquarie suggests all three outcomes are detrimental to achieving effective competition in both retail and wholesale markets. These outcomes are:

- Telstra could at its sole discretion determine (and increase) the price of PSTN OA to access seekers;
- Telstra could refuse to supply PSTN OA to access seekers; and/or
- Preselectable services would not be able to be provided by access seekers.[366]

Macquarie considers that the ACCC's Discussion Paper does not fully address the impact the exemption would have at the wholesale level and the consequent "trickledown" affects these wholesale implications will have for retail markets and the LTIE more generally.[367]

Macquarie submits that PSTN OA is an essential input into the provision of pre-selectable services by wholesale suppliers to Macquarie. If Telstra's Proposed

[363] ibid, p. 10
[364] AAPT / PowerTel, *Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption* Applications, December 2007. p. 2.
[365] ibid, p. 3.
[366] Gilbert and Tobin, *Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN OA Originating Access service exemption applications*, 14 December 2007. pp. 3-4.
[367] ibid. p. 4.

Exemptions were granted, Macquarie submits that Telstra would be in a position to artificially inflate, at its sole discretion, one of the key inputs for competitors at the wholesale level.[368]

Nicholls Legal on behalf of the CCC notes that Telstra has argued that the presence of at least one competitor's DSLAM in each ESA covered by the Exemption Applications means that there is "workable competition" in the markets for retail services being supplied by WLR/LCS and PSTN OA. Nicholls Legal submits that this approach is overly simplistic. Nicholls Legal suggests that the appropriate question in the present context is whether granting the exemptions is likely to create the conditions or environment for improving competition.[369]

Nicholls Legal submits that exempting Telstra from SAOs at this stage of the development of competitive infrastructure is likely to threaten the ongoing development of a competitive market and to dramatically restrict the ability of competitors to engage in efficient investment.[370]

3.9.2 ACCC's draft views

Will granting the exemptions promote competition in retail voice markets?

As set out above, to assist in it determining whether granting the Proposed Exemptions would promote competition at the retail level, the ACCC intends to compare the state of competition in the "future without" the Proposed Exemptions (i.e. where regulated access to PSTN OA supplied by Telstra continues to be available) to the state of competition in the "future with" the Proposed Exemptions (i.e. where there is no regulated access to PSTN OA supplied by Telstra in the proposed exemption areas).

"Future without"

At present at the retail level (and also likely in the future in the absence of the exemptions being granted) consumers may acquire fixed voices services from various sources including from:

(a) an end-to-end infrastructure operator (such as from Telstra via its PSTN or Optus via its HFC network);

(b) a ULLS-based access seeker;

(c) a competitor that is re-selling fixed voice services supplied by Telstra or another operator on commercially negotiated terms; or

(d) a competitor that is re-selling fixed voice services supplied by an operator utilising regulated access to PSTN OA.

368 ibid.

369 Nicholls Legal, *Nicholls Legal submission on behalf of the CCC in relation to Telstra's declaration exemption applications*, 19 March 2008. p. 3.

370 ibid, p. 4.

As set out above in the "state of competition" section, the ACCC is of the view that, while competition is increasing in supply of retail fixed voice services evidenced by the recent trend of strong take-up of ULLS and a decreased market share for Telstra in retail fixed voice, competition is still not strong, with Telstra remaining the dominant supplier of retail fixed voice services.

The ACCC notes that ULLS take-up is likely to increase in the foreseeable future based on recent trends, even in the absence of granting exemptions. However, the ACCC is concerned that, in the absence of granting exemptions, ULLS take-up may be hindered by the availability of the Fixed Voice Bundle (PSTN OA, WLR and LCS). In this sense, the ACCC is concerned that some firms may choose to acquire the Fixed Voice Bundle (due to the low fixed costs involved in take-up as compared to ULLS take-up) where, in fact, more efficient and competitive outcomes for consumers would be achieved via ULLS based competition.

This is because, as mentioned above, the ACCC believes that ULLS-based competition encourages competitors to compete on greater dimensions of supply, such as price and quality, which allows them to dynamically innovate their services and leads to more sustainable competition.

"Future with"

Were exemptions to be granted, consumers would be able to acquire fixed voice services from various sources including from:

- an end-to-end infrastructure operator (such as from Telstra via its PSTN or Optus via its HFC network);
- a ULLS-based access seeker; or
- a competitor that is re-selling fixed voice services supplied by Telstra or another operator on commercially negotiated terms.

Whether this scenario would result in detrimental, similar or improved competitive outcomes relative to the 'future without' scenario for consumers will depend on:

- whether access seekers currently acquiring regulated PSTN OA within the Proposed Exemption Areas would be able to acquire a commercially negotiated Fixed Voice Bundle upon similar terms;
- if access seekers could not acquire a commercially negotiated Fixed Voice Bundle upon similar terms, whether access seekers currently acquiring regulated PSTN OA as part of the Fixed Voice Bundle within Telstra's Proposed Exemption Areas would be more likely to enter into supply of retail fixed voice via ULLS; and
- whether there would be stronger competitive pressure from existing ULLS-based providers of fixed voice services as they gain more scale resulting in more competition in supply of Fixed Voice Bundles at the wholesale level.

Availability of commercially negotiated Fixed Voice Bundle

While Telstra has submitted that Optus offers wholesale access and local calling products in direct competition to Telstra's PSTN offerings,[371] access seekers have alerted the ACCC to the difficulties involved in acquiring such services.

However, the ACCC considers that, were exemptions made in the ESAs at Appendix B, access seekers would still be able to acquire a Fixed Voice Bundle from Telstra or another supplier on similar price and non-price terms to the present regulated price for PSTN OA. The reasons for this are that the presence of actual and potential wholesalers of a Fixed Voice Bundle in the ESAs at Appendix B, together with the option for access seekers to migrate to ULLS, will likely be sufficient to constrain the pricing of fixed voice services in these areas.

In relation to the above the ACCC notes that the telecommunications-specific anti-competitive conduct provisions of Part XIB of the TPA will of course continue to apply to the conduct of telecommunications carriers.

Impact upon competition in corporate and government sector?

The ACCC's draft view is that granting of the Proposed Exemptions would have a negligible effect upon competition for the supply of services to corporate and government sector. In response to Optus's submissions that granting the exemptions would undermine investment in the corporate and government market sector, the ACCC notes that the 'complex features' that Optus acquires from Telstra are not products regulated by Part XIC of the TPA. Despite such products sometimes being acquired in conjunction with regulated WLR, LCS and/or PSTN OA, the ACCC understands that they are supplied on a commercial basis.

The ACCC noted in its assessment of Telstra's WLR/LCS Exemption Applications, Optus, despite arguing that the required investments in order for Optus to be able to self-supply such complex features would be very complex and costly, is already investing in NGN technology which will be capable of providing complex features comparable to the ones under discussion.[372] Accordingly, the ACCC's draft view is that if the PSTN OA exemptions were granted any barriers to enter into supply of these complex features are surmountable within a reasonable timeframe.

In relation to Optus's argument that it would not have sufficient time to recoup its investments (referred to above) prior to a fibre roll-out (that would strand its investments) the ACCC notes that it is of the view that access seekers will have sufficient opportunity to recoup investments prior to any fibre upgrade due to the reasonable expectation that any party rolling out fibre would be subject to appropriate notice periods as well as the certainties provided by the Government's RFP process (discussed above in "ACCC's draft views on level of competition in retail fixed voice market"). The ACCC also notes that transitioning to ULLS-based supply of these services will promote the LTIE prior to a fibre upgrade in the sense that it allows access seekers to build their reputation and customer base through this deeper level of investment because of the ability to provide differentiated products.

[371] See Telstra, *Telstra's PSTN Originating Access Exemption Applications—Supporting submission*, October 2007, p 32..

[372] Optus, *Optus Submission to the Australian Competition and Consumer Commission in response to Draft Decision on Telstra's LCS and WLR Exemption Applications*, June 2008, p. 19.

Furthermore, Optus's argument that it requires continuing access to Telstra's network because not all of Optus's existing customers are ready to migrate to the 'Optus Evolve' network fails to recognise that access regulation pursuant to Part XIC of the TPA does not intend that the access regime impose regulated access where existing market conditions already provide for the competitive supply of services.[373] In any event, the ACCC notes that it is proposing there would be a 12 month transition period before the proposed exemptions would commence, which the ACCC considers provides ample opportunity for Optus to make any investments necessary in the unlikely event that the complex features it requires were not available on a commercial basis post granting of the exemptions.

Comparing "future without" to "future with"

The ACCC's draft view is that it is not satisfied that granting the PSTN OA exemptions in the entirety of Telstra's Proposed Exemption Areas would promote the LTIE. However, the ACCC considers that it is likely that granting exemptions within the ACCC's ESA Footprint identified in Appendix B will (subject to various limitations and conditions) would result in more efficient use of existing ULLS-based infrastructure and increase the scale and speed of ULLS deployment, with the flow-on benefits of promoting improved price and product outcomes for consumers in relevant retail markets. By increasing competition in retail fixed voice markets, granting the ACCC's Proposed Exemption Orders will go some way to removing obstacles to end-users seeking to acquire a fixed voice service.

The ACCC notes that the ACCC's ESA Footprint at Attachment A to Appendix B incorporates 15 of the ESAs in Telstra's PSTN OA CBD Exemption Application and 248 of the ESAs in Telstra's PSTN OA Metropolitan Exemption Application.

Will granting the exemptions promote competition in retail bundled broadband and voice markets?

As set out above, to assist in it determining whether granting the exemption will promote competition at the retail broadband level, the ACCC intends to compare the state of competition in the "future without" the exemptions (i.e. where regulated access to PSTN OA supplied by Telstra continues to be available) to the state of competition in the "future with" the exemptions (i.e. where there is no regulated access to PSTN OA supplied by Telstra in the Proposed Exemption Areas)

"Future without"

At present at the retail level (and also likely in the future in the absence of the exemptions being granted) consumers may acquire broadband services from various sources including:

(a) an end-to-end infrastructure operator (such as from Telstra via its PSTN, Optus via its HFC network or a supplier via a wireless network);

(b) a ULLS-based access seeker;

(c) a LSS-based access seeker;

[373] *Trade Practices Amendment (Telecommunications) Bill* 1996 (Cth) (the 1996 Bill).

(d) a competitor that is re-selling a broadband service supplied by Telstra or another operator on commercially negotiated terms

The ACCC considers that, absent the Proposed Exemptions, competition in the supply of broadband services at the retail level is likely to continue on its current path of becoming increasingly competitive (as set out in the "State of Competition" section above).

"Future with"

The ACCC considers that, where granting the exemptions will promote competition in voice markets (where, as set out in Appendix B, PSTN OA access seekers will be able to migrate to ULLS supply of voice or acquire a wholesale voice service at comparative rates), this will have a flow-on competition benefit in broadband markets. This is because migrating from the Fixed Voice Bundle to ULLS allows access seekers to supply a bundled voice and broadband service via their DSLAM or MSAN infrastructure.

However, the ACCC recognises that one impact of the granting the exemptions is that consumers currently acquiring a broadband service in conjunction with a voice service from a supplier who is accessing a regulated LSS and Fixed Voice Bundle from Telstra, may not be able to acquire both services from the same supplier in certain areas post granting the exemptions (were Telstra to cease competitive supply of the Fixed Voice Bundle to these access seekers post granting the proposed exemptions).

In the Telstra's Proposed PSTN OA Metropolitan Exemption Area (i.e. the ESAs the subject of Telstra's Metropolitan Exemption Application), only a minority of access seekers use the LSS to not only supply their customers with a broadband service via access to the higher frequency part of the copper line, but also to supply a voice service by re-selling Telstra's Fixed Voice Bundle over the same copper line. The ACCC understands that most models under which LSS is supplied comprise the supply of the underlying PSTN voice service by the access provider, Telstra.

Should the Proposed Exemptions be granted, those customers being serviced by access seekers using the LSS and Fixed Voice Bundle to provide a fixed voice and broadband bundle may potentially lose this option from their current supplier, as Telstra may refuse to supply the PSTN OA, or price these services at uneconomic levels.

Telstra submits that access seekers have the option of utilising the USS in the event of such a service ceasing to be available. However, as set out above in the 'product dimension – upstream level' section 3.6.2, the ACCC considers this service may only be a weak substitute at this stage, due to questions about its commercial availability and technical issues associated with its supply (including that switching from LSS to USS would require Telstra's involvement).

In order to mitigate against potential harm to the competitive process in these situations, the ACCC considers that, where an access seeker is obtaining the Fixed Voice Bundle in conjunction with LSS to supply an end-user with a bundled fixed voice and broadband service via that access seeker's DSLAM equipment, the

Proposed Exemptions should not apply in relation to that access seeker's supply to that particular customer.

The proviso to this is that it would promote the LTIE for the Proposed Exemptions to commence in relation to this situation once a robust LSS-ULLS migration path has been implemented by Telstra in relation to the ESAs at Appendix B.

The ACCC considers that there are two key benchmarks that would need to be met in order for an LSS to ULLS migration path to be considered robust. The first is that any service downtime experienced by a consumer in such a transfer be limited to no greater than three hours. It is the ACCC's view that such a target is appropriate and achievable. In support of this target, the ACCC notes that the European Regulators Group (ERG), in its report on best practices on regulatory regimes in wholesale unbundled access and bitstream access released in June 2008[374] considers as best practice a three hour limit for service interruption during bulk migrations necessary for a service provider to move to the 'next rung of the investment ladder'. The ACCC considers that such a migration would include reference to a LSS to ULLS-type migration.

The ACCC notes that the nominated three hour limit for service interruption may in fact be a conservative figure, given that the ERG's estimate was referring to bulk migrations rather than single migrations.

The second benchmark is that an end-user does not have to take any involvement in the LSS-ULLS migration process – where their access provider remains the same before and after the migration. LSS to ULLS migration is discussed further in the 'Conditions and limitations' chapter.

Comparing "future without" to "future with"

Other than the impact of the LSS-ULLS migration issue, as well as capping and queuing issues, the ACCC's draft view is that granting exemptions in respect of those parts of Telstra's Proposed Exemption Areas that consist of the ESAs in the ACCC's Proposed Exemption Footprint in Attachment A to Appendix B, in relation to supply of PSTN OA by Telstra, would promote competition in the supply of bundled voice and broadband services, compared to the future without the Proposed Exemptions.

Will granting the exemptions promote competition in wholesale voice markets?

The question of whether the Proposed Exemptions are likely to promote competition at the wholesale level is less relevant, given that the focus of the LTIE test is upon end-users. That said, were competition to be affected considerably at the wholesale level this may have flow-on effects at the retail level, and accordingly, it is appropriate to consider any effects at the wholesale level.

"Future without"

[374] European Regulators Group, *"Report on ERG Best Practices on Regulatory Regimes in Wholesale Unbundled Access and Bitstream Access"*, June 2008.

At the wholesale level, in relation to the "future without" scenario (i.e. where the exemption applications are not granted) access seekers seeking to acquire a wholesale Fixed Voice Bundle would have the following options available to them:[375]

- reselling voice services using regulated access to PSTN OA, LCS and WLR from Telstra;
- reselling voice services using a commercially negotiated Fixed Voice Bundle; or
- entering via ULLS take-up (i.e. installing a DSLAM or MSAN in a Telstra exchange).

As discussed above in the "State of Competition" section, the ACCC considers that, in general terms, there is currently minimal competition in the wholesale market for the supply of fixed voice services to access seekers (as Telstra is the supplier of the majority of inputs relevant to competition at this level). That said, the ACCC notes that competition may be increasing in this market, as it understands that various ULLS-based competitors are increasingly offering wholesale Fixed Voice Bundles to access seekers.

"Future with"

At the wholesale level, in relation to the "future with" scenario, access seekers seeking to acquire fixed voice services would only have the second and third options set out above available to them.

In assessing the likely state of competition in the "future with" scenario, the ACCC must consider whether wholesale prices for fixed voice services (and service levels where relevant) would be higher, lower or the same as in the "future without" scenario.

The ACCC considers that the removal of the option for access seekers of regulated access to the PSTN OA (as well as WLR and LCS) from Telstra will stimulate provision of wholesale Fixed Voice Bundles from ULLS-based competitors. This is because, if there is a SSNIP in Fixed Voice Bundles and access seekers have capacity on their ULLS-based networks, it would appear likely that these access seekers would supply a wholesale Fixed Voice Bundle to access seekers, which will provide a competitive tension on the price of PSTN OA.

Comparing "future without" to "future with"

Accordingly, while many access seekers may switch from acquiring a Fixed Voice Bundle from Telstra to acquiring regulated ULLS on the basis of the Proposed Exemption Orders, the ACCC is also of the view that existing ULLS-based competitors will likely offer a Fixed Voice Bundle in response to any price increase by Telstra in its PSTN OA product. Accordingly, the ACCC's draft view is that granting the ACCC's Proposed Exemptions Orders (subject to the proposed limitations and conditions discussed in chapter 9) will likely promote competition at

[375] Noting, of course, that the viability of entry via certain of these options will depend on the "competitive" characteristics (eg. number of SIOs) of the ESA intending to be entered.

the wholesale level in the ESAs in the ACCC's Proposed Exemption Footprint in Attachment A to Appendix B. By improving competition in wholesale voice markets, granting the Proposed Exemptions will go some way to removing obstacles to end-users seeking to acquire a fixed voice service.

Will granting the exemptions promote competition in wholesale bundled broadband and voice markets?

The same issues as discussed above in relation to whether granting exemptions would promote competition in retail broadband markets are likely to be relevant at the wholesale level.

That is, where the Proposed Exemptions (in the ACCC's Proposed Exemption Footprints in Appendix B) encourage PSTN OA access seekers to migrate to ULLS there will likely be flow-on benefits to competition in broadband markets (both wholesale and resale). However, the exception to this relates to the issue that, in the "future with", access seekers seeking to acquire broadband services via the LSS might be prevented from combining a resold Fixed Voice Bundle from Telstra to their broadband customers. The ACCC understands that a minority of access seekers might be prevented from using this model to supply customers with a fixed voice/broadband bundle. This issue arose in the ACCC's assessment of Telstra's WLR/LCS Exemption Applications, and some access seekers have submitted in that process that this will adversely impact broadband markets. The ACCC considers that as the PSTN OA is acquired with the WLR/LCS to provide Fixed Voice Services, such an issue is also relevant to Telstra's PSTN OA Exemption Applications. In particular, there is scope for migration from LSS to ULLS in both the Proposed CBD and Metropolitan Exemption Areas.

Therefore, in order to mitigate against potential harm to the competitive process in these situations, the ACCC's draft view is that the condition as discussed above in relation to a robust LSS to ULLS migration path should apply to the ACCC's Proposed Exemption Orders.

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

The ACCC's draft view is that granting the Proposed Exemptions in the geographic areas consisting of those ESAs within the ACCC's Proposed CBD and Metropolitan Exemption Footprints, that are specified at Appendix B, will promote the LTIE in the sense that it will result in promotion of competition in the fixed voice market (principally by the promotion of ULLS-based competition and greater utilisation of existing ULLS-based infrastructure), with flow-on competition benefits to end-users. In this sense, the ACCC 's draft view is that granting the Proposed Exemptions will also remove obstacles (in the sense of price-related barriers) to end-users obtaining access to fixed voice services in the ESAs in the ACCC's Proposed Exemption Footprints at Appendix B.

4. Any-to-any connectivity

The objective of 'any-to-any' connectivity is achieved if, and only if, each end-user of a service that involves communication between end-users is able to communicate, by means of that service or a similar service, with every other end-user even where they are connected to different telecommunication networks.[376]

Submissions

Telstra submits that access to the PSTN OA is not necessary in achieving any-to-any connectivity.[377] Telstra argues that in the absence of a PSTN OA declaration a service provider will still have an incentive to originate calls on its network because to do so generates revenue.[378] Telstra also argues that prices for origination would be constrained by market forces and the level of competition between access providers.[379]Telstra refers to the ACCC's view in its Final Decision on Telstra's 2002 LCS Exemption Application in CBD areas where the ACCC stated that it was satisfied that with the presence of alternative infrastructure in the proposed exemption area, the exemption would have little bearing on any-to-any connectivity. Telstra submits that this is applicable to the PSTN OA Exemption Applications

> …given the extent of available alternative infrastructure and declared services within the CBD Exemption Area and Metropolitan Exemption Area, providing, or readily capable of providing, similar services to PSTN OA.[380]

Other parties made no submissions on this issue.

ACCC's draft views

The ACCC considers that, given the presence of ULLS-based and alternative infrastructure and declared services in Telstra's Proposed Exemption Areas, granting the PSTN OA Proposed Exemptions would not be expected to detract from the achievement of any-to-any connectivity.

376 See s.152AB(8) of the Act.
377 Telstra, *Telstra's PSTN Originating Access Service Exemption Applications—Supporting submission*, October 2007, p. 61.
378 Ibid.
379 Ibid.
380 Ibid, p. 62.

5. Economically efficient use of and investment in infrastructure

5.1 Introduction

In determining whether granting the exemption orders will promote the LTIE, the ACCC must have regard to the extent to which granting the exemption is likely to result in the 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. [381]

In determining the above, regard must be had to:

- whether it is, or is likely to become, technically feasible for the services to be supplied and charged for having regard to:
    - the technology that is in use, available or likely to become available;
    - whether the costs that would be involved in supplying, and charging for, the services are reasonable or likely to become reasonable; and
    - the effects, or likely effects that, supplying and charging for the services, would have on the operation or performance of telecommunications networks;
- the legitimate commercial interests of the supplier or suppliers of the services, including the ability of the supplier or suppliers to exploit economies of scale and scope; and
- the incentives for investment in:
    - the infrastructure by which the services are supplied; and
    - the other infrastructure by which the services are or are likely to become capable of being supplied. [382]

In determining incentives for investment, regard must be had to the risks involved in making the investment.[383]

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

[381] TPA s. 152AB(2)(e)
[382] TPA s. 152AB(6)
[383] TPA s. 152AB(7A).

- *Productive efficiency*- this is achieved where individual firms produce the goods and services that they offer at least cost.

- *Allocative efficiency*- this is achieved where the prices of resources reflect their underlying costs so that resources are allocated to their highest valued uses (i.e. those that provided the greatest benefit relative to costs).

- *Dynamic efficiency*- this reflects the need for industries to make timely changes to technology and products in response to changes in consumer tastes and in productive opportunities.

The Australian Competition Tribunal has noted that:

> The inclusion of the term "economically" in s. 152AH(1)(f) suggests that the concepts of allocative, productive and dynamic efficiency should be considered. Allocative efficiency will be best promoted where the price of a service reflects the underlying marginal cost of providing the service.[384]

The key question is the extent to which granting the exemptions is likely to encourage productive, allocative and dynamic efficiency. Whether such efficiencies will be, in fact, improved, is highly relevant to, but not determinative of, this issue. The issue is whether granting the exemptions will create the conditions or environment whereby the participants have increased incentives to undertake economically efficient use of, and economically efficient investment in, infrastructure.[385]

As the level of competition in downstream markets increases, whether it is through declaration of a service or through market forces, productive and dynamic efficiency should increase because competition should stimulate service providers to innovate and reduce the costs of providing services. This should also lead to allocative efficiency as access providers and access seekers seek to reduce the final prices paid by end-users, as a mechanism to compete in the downstream market.

Relationship between "competition" and "efficiency"

There is a strong relationship between the assessment of promotion of competition[386] and the assessment of encouraging the efficient use of, and the economically efficient investment in infrastructure.[387]

In respect to the benefits of alternative infrastructure, the ACCC stated in the FSR2 that:

> an approach to regulation that encourages competitors to invest in their own infrastructure, where it is economically efficient, is likely to promote the LTIE. Facilities-based competitors do not rely on gaining access to an incumbent's network (or to a lesser extent than under resale competition). As a result, they have a greater ability to:

[384] *Telstra Corporation Limited* [2006] ACompT at [94].

[385] ACCC, *Telecommunications services- Declaration Provision: A Guide to the Declaration Provisions of Part XIC of the Trade Practices Act*, July 1999. While this publication specifically referred to declaration provisions of the TPA, the ACCC is of the view that the relevant comments made are equally applicable to assessment of exemption applications.

[386] In the context of s. 152AB(2)(c) of the TPA.

[387] In the context of s. 152AB(2)(e) of the TPA.

- control their own costs and supply chain;
- differentiate service offerings; and
- improve service quality.[388]

The ACCC further stated that:

> Facilities-based competition is more likely to lead to sustainable competition, spur dynamic innovation and encourage the diffusion of new technologies over time; ultimately providing greater prospects for the relaxation or removal of access regulation..[389]

In the above analysis of whether the granting of the exemptions will promote competition, the ACCC observed that competition in the supply of voice and bundled voice and broadband markets at the retail and wholesale levels will be promoted by the granting of exemptions in the ESAs at Appendix B. The reasons for this are that granting exemptions will:

- encourage greater use of existing ULLS-based infrastructure to provide fixed voice services at the wholesale and retail levels; and
- where efficient, result in greater take-up of ULLS-based competition.

As noted above, it is the ACCC's view that ULLS-based competition encourages competitors to compete on greater dimensions of supply, such as price and quality, which allows them to dynamically innovate their services and leads to more sustainable competition.

The analysis at Appendix B sets out those particular ESAs (out of Telstra's Proposed Exemption Areas) within which the ACCC is satisfied that granting the exemptions would, subject to various conditions and limitations, achieve the promotion of the above outcomes.

Trade-offs between short term and long term efficiency

When assessing the relative "efficiencies" involved in the removing or retaining of access regulation, the ACCC is concerned primarily with the impact on "long term" efficiency as this reflects the "long-term" focus of the LTIE test.

In regard to the interpretation of the phrase "long-term" within the LTIE test, the Australian Competition Tribunal has noted:

> "the long-term will be the period over which the full effects of the […] will be felt. This means some years, being sufficient time for all players (being existing and potential competitors […] to adjust to the outcome, make investment decisions and implement growth- as well as entry and/or exit strategies."[390]

[388] ACCC, *Fixed services review – second position paper*, April 2007, p. 21.
[389] ACCC, *Fixed services review – second position paper*, April 2007, p. 21.
[390] *Seven Network Limited (no 4)* [2004] ACompT 11 at [120].

5.2 Submissions

Telstra submits that granting the exemptions will promote facilities-based competition by encouraging greater investment in competing infrastructure, and will promote the efficient use of and investment in infrastructure. In relation to the relevant legislative considerations in subsections 152AB(6) and (7), Telstra submits that:

- the widespread deployments of DSLAMs, and consequently, the supply… of services equivalent to PSTN OA over DSLAM infrastructure demonstrates that alternative means of supply is technically feasible within both the CBD exemption Area and Metropolitan Exemption Area;

- its legitimate commercial interests will be enhanced by allowing it greater commercial freedom and flexibility; and

- the incentives for investment will be improved because the risks and potential market distortions of regulation will be removed. [391]

Telstra and Dr Paterson of CRAI further state that access regulation can distort "'build' and 'buy'" decisions, which could lead to under-investment by both entrants and incumbent operators.[392] Telstra and Dr Paterson of CRAI state that the risks of access regulation include:

- that regulation tends to truncate the reward of successful investments without reducing losses from unsuccessful investments;

- the potential for regulatory dependence- regulation can distort access seekers' incentives to build upstream infrastructure if inputs further down the supply chain are priced below the competitive level;

- that regulated resale access promotes arbitrage opportunities in the presence of a large number of declared services; and

- that, if regulators set prices too low, the impacts of doing so would be asymmetric. This is due to the significant risk of error, which can impose a significant economic welfare costs in the form of below optimal investment. [393]

Professor Martin Cave, on behalf of Telstra and Mallesons Stephen Jaques, has presented a submission on whether granting the PSTN OA submissions is likely to encourage efficient investment in alternative infrastructure. Professor Martin Cave relies on his "ladder of investment" hypothesis to draw his conclusions and states that

[391] Telstra, *Telstra's PSTN Originating Access Exemption Applications—Supporting submission*, October 5 2007. p. 62.

[392] CRA International Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations of a PSTN Originating Access Exemption. October 2007. p. 61.

[393] ibid, pp. 62-63. and Telstra Submission to the ACCC, Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service. December 2007. p. 41.

regulators should be seeking to encourage infrastructure competitors to build out closer to customers.[394]

Based on the statements provided by Dr Paterson of CRAI, on behalf of Telstra,[395] that there are a number of potential suppliers of local calls and access to end-users, Professor Martin Cave concludes that these services are "capable of providing competitive constraint on Telstra as a provider of voice services, from either inside or outside the market".[396] Professor Martin Cave states that granting the exemptions will only lead to small losses/inconveniences to some end-users whose service may be withdrawn or altered.[397] Thus, Professor Martin Cave concludes that granting the exemptions will promote competition in voice services as competitors will climb several rungs of the ladder through ULLS/LSS deployment to the local exchange, therefore increasing infrastructure competition of both voice and broadband services.[398]

AAPT disagrees with Telstra and submits that investment decisions are not being distorted by regulation. AAPT states that in the absence of declaration, prices charged to access seekers would be higher than they would otherwise be. This would result in distorted price signals and in an inefficient outcome.[399] AAPT also noted its support for the view put forward by the ACCC in its 2006 PSTN OA declaration inquiry where the ACCC concluded that declaration of PSTN OA would promote the economically efficient use of infrastructure. [400]

Macquarie submits that granting the exemptions would have a detrimental impact on the use efficient use of infrastructure by which the listed services are provided. In particular, Macquarie notes that due to customer inertia and Telstra's quasi-monopoly position, Macquarie would be forced to acquire inferior and less efficient services from Telstra as the only provider. Macquarie argues that this would not promote the efficient use of infrastructure.[401]

Optus does not directly address whether efficient investment in or use of infrastructure will be affected by the removal of the PSTN OA regulation in the Proposed Exemption Areas. Optus more generally raises concerns over the following issues:

394 Professor Martin Cave, *Statement by Professor Martin cave of Warwick Business School, University of Warwick, UK for Mallesons Stephen Jaques on Infrastructure Investment Consideration in relation to Telstra's Request for PSTN Originating Access (OA) Exemption*, 30 May 2008, pp. 1-2.

395 CRA International, *Statement by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the Economic Considerations for a PSTN Originating Access Exemption.*

396 Professor Martin Cave, *Statement by Professor Martin cave of Warwick Business School, University of Warwick, UK for Mallesons Stephen Jaques on Infrastructure Investment Consideration in relation to Telstra's Request for a PSTN Originating Access (OA) Exemption*, 30 May 2008, p. 6.

397 ibid, p. 6.

398 ibid, p. 7.

399 AAPT/PowerTel, *Submission by AAPT/PowerTel to the ACCC in response to Telstra's PSTN Originating Exemption Applications December* 2007, p. 11.

400 ibid, p. 11.

401 Gilbert + Tobin PSTN Originating Access Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications December 2007. pp 12-13.

- a number of ongoing regulatory and legal proceedings in relation to ULLS access and pricing; and, a number of non-price issues that are the subject of current access disputes; and,[402]

- a DSLAM threshold rule distorting entry decisions if entry will impact on the regulatory settings in that ESA. [403]

- the PSTN OA exemption is unlikely to cause many resellers to become ULLS operators[404];

- the lack of access to TEBA space acting to limit entry or expansion in some exchanges[405];

More generally AAPT considers that Telstra's applications in seeking the exemptions represents another example of Telstra using the regulatory process to increase industry 'uncertainty' and deter competitive activity.[406]

5.3 ACCC's draft views

Efficient use of infrastructure

The ACCC is required to assess whether granting exemptions would have an impact upon the efficient use of existing infrastructure. In this regard, the technical feasibility of supplying PSTN OA as well as the legitimate commercial interests of Telstra as the supplier of PSTN OA are relevant.[407]

It is clearly technically feasible to supply PSTN OA and/or equivalent wholesale voice services, as Telstra and others (such as Optus) already supply such services. In relation to the costs of supply and charging for the services and whether the costs are reasonable, the ACCC notes that the existence of firms already supplying these services in competition with Telstra would indicate that the costs of supply and charging for the services is reasonable.

The ACCC considers that, in relation to the infrastructure currently used to provide PSTN OA - the CAN - efficient use will be supported so long as Telstra is able to gain a market return on its investment. In this regard, the ACCC's pricing principles and determinations in access disputes are designed to ensure that price and non-price terms of access are appropriate. In this sense, Telstra's legitimate commercial interests in supplying PSTN OA are protected.

Further, the ACCC notes that increased ULLS-based competition will likely stimulate the provision of wholesale voice services from ULLS-based competitors seeking to exploit unused capacity on their ULLS-based networks. This will provide increased competitive tension at the wholesale level and likely constrain Telstra's ability to price its PSTN OA service at supra-competitive levels were the Exemption Applications to be granted.

402 Optus, *Optus submission to the ACCC on Telstra's PSTN OA Service Exemption Application,* December 2007, p. 4.
403 ibid, p. 5.
404 ibid, p. 9.
405 ibid p. 25.
406 AAPT/PowerTel, *AAPT/PowerTel submission to the ACCC in response to Telstra's LCS and WLR exemption applications Discussion Paper*, November 2007, p. 4.
407 See subsections. 152AB(6)(a) and (b).

Efficient investment in infrastructure

In assessing the objective of whether granting exemptions is likely to promote efficient investment in infrastructure, regard must be had to the incentives for investment in infrastructure, including the risks involved in making the investment.[408]

The declaration of the PSTN OA allows firms operating in downstream markets to have a choice as to whether to invest in their own upstream infrastructure (i.e. build) in order to provide services to end-users, or to seek access from an existing upstream provider of the listed service (i.e. buy). If the declared service provides an easy means of entry into the market with minimal risk and investment, access seekers may choose to postpone or cancel investment in new infrastructure with which they could provide equivalent fixed voice services. Accordingly, in theory, declaration can diminish the incentives for the deployment and activation of alternative infrastructure and stifle the development of facilities-based competition.

Granting exemptions may impact on service providers' 'build/buy' decisions, because PSTN OA would not be available to 'buy' on a regulated basis in various ESAs (noting of course that Telstra or another competitor may choose to offer a similar re-sale service on a commercial basis).

Removing regulated access to PSTN OA may have a strong positive impact upon the incentives for investment by access seekers in their own infrastructure in the event that they were not able to obtain a competitively-priced re-sale voice service in areas where exemptions were made. However, whether or not such investment would be efficient is the key question for the ACCC. In this regard it is clearly relevant whether, by removing regulated access to PSTN OA in various ESAs, firms currently acquiring regulated access to PSTN OA would migrate to ULLS-based competition via ULLS take-up or instead seek to purchase a Fixed Voice Bundle from another ULLS-based provider.

In this regard, it is relevant that ULLS is a declared service available on a regulated basis, and for which the ACCC has signalled cost-based prices on a geographically de-averaged basis.[409] Moreover, the ACCC has some concerns that the availability of regulated PSTN OA is potentially acting as a disincentive for efficient investment in infrastructure associated with these services in certain ESAs and an impediment to the efficient use of existing DSLAM/MSAN infrastructure.

The ACCC has conducted an analysis of where granting exemptions (subject to the various conditions and limitations) will promote competition in the retail and wholesale voice markets as well as retail and wholesale bundled voice and broadband markets (principally by the promotion of ULLS-based competition and greater utilisation of existing ULLS-based infrastructure), with the flow-on competition benefits to end-users. This analysis is set out at Appendix B.

By its analysis in Appendix B, the ACCC does not consider that other ESAs are not viable for ULLS access seekers to supply fixed voice services. The conservative analysis in Appendix B reflects the high legislative threshold applicable to the

[408] Subsection 152AB(6)(c).
[409] ACCC, *Pricing of Unconditioned Local Loop Services (ULLS)*, Final Report, January 2002.

determination of exemption applications under sections 152AS and 152AT of the TPA.

Conclusion

The ACCC's draft view is that it is not satisfied that making the Proposed Exemptions Orders, which would apply in respect of the whole of the geographic areas proposed by Telstra in its PSTN OA Metropolitan Exemption Application and PSTN OA CBD Exemption Application, i.e. Telstra's Proposed Exemption Areas, would be likely to promote more efficient use of, and investment in, infrastructure.

In the narrower part of Telstra's proposed Exemption Areas, being those ESAs contained in the ACCC's ESA Footprint identified at Appendix B, however, the ACCC is satisfied that the granting of an exemption from the SAOs (subject to various conditions and limitations) as they relate to the supply of the PSTN OA will promote the LTIE because it will encourage the more efficient use of existing ULLS-based infrastructure and encourage access seekers currently utilising regulated PSTN OA to invest in ULLS-based infrastructure. Further, the ACCC notes that increased ULLS-based competition will likely stimulate the provision of wholesale fixed voice services from ULLS-based competitors seeking to exploit unused capacity on their ULLS-based networks.

The ACCC notes that the ACCC's ESA Footprint at Appendix B incorporates some ESAs the subject of Telstra's PSTN OA Exemption Applications.

In this sense, while there may be some allocative and productive efficiency losses in the short-term (in the event of various access seekers not willing to invest in ULLS-based infrastructure needing to acquire a commercially negotiated Fixed Voice Bundle), these would be outweighed by the long-term benefits flowing to consumers from the increased ULLS-based competition and more efficient use of existing ULLS-based infrastructure.

In summary, the ACCC's draft view is that granting exemptions in a narrower part of Telstra's Proposed Exemption Areas, being those ESAs that form part of the ACCC's ESA Footprint at Appendix B, would (subject to the conditions and limitations discussed below) create an environment where participants have increased incentives to undertake efficient use of, and investment in infrastructure, relative to the position without the Proposed Exemptions.

6. Conclusion on LTIE

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

The ACCC has applied the test set out in section 152AT of the TPA to each of the Exemption Applications – namely, whether it is satisfied that the granting of exemptions will promote the LTIE of carriage services or of services provided by means of carriage services. The same test applies to assessing a class exemption under section 152AS.

In doing so, the ACCC has had regard to (and only to, as mandated by s152AB(3)) the objectives set out in section 152AB(2). The ACCC's analysis of each objective is set out below.

6.1.1 Promotion of competition

The ACCC has assessed whether granting the proposed exemptions would result in the promotion of competition in relevant markets which, in particular, are those for the retail and wholesale supply of fixed voice services (excluding VoIP and mobile originated services) as well as for the retail supply of a bundle of fixed voice and broadband services.

Voice

Access seekers have three main supply options for competing in the downstream fixed voice services market: acquiring PSTN OA from Telstra (in conjunction with other inputs such as WLR and LCS) or another wholesale provider of fixed voice services or acquiring ULLS from Telstra in conjunction with their own DSLAM or MSAN equipment and other inputs such as transmission capacity and voice switching services.

At the wholesale voice level, Telstra controls the underlying infrastructure by which the majority of fixed voice services are provided and is the main supplier of PSTN OA, LCS, WLR (as the Fixed Voice Bundle) and ULLS to competitors. For other firms to provide wholesale services in competition with Telstra, they still essentially require access to Telstra's underlying infrastructure via use of the ULLS. Although Telstra is vertically integrated and has market power in the retail fixed voice market, the ACCC considers that in the ACCC's ESA footprint (see Appendix B) barriers to ULLS entry faced by access seekers, should be surmountable.

Telstra remains the dominant supplier of retail fixed voice services. However, there has been an increase in competition in downstream retail fixed voice, evidenced by the recent trend of strong take-up of ULLS[410] and a decreased market share for Telstra in retail fixed voice. Further, the ACCC is of the view that the market has

[410] Saying this, the ACCC recognises that a fixed voice service is not provided to every ULLS-based customer– and that, in fact, some customers are supplied with a "naked DSL" service by which they are supplied a broadband-only service. However, the ACCC is of the view that any barriers to entry from supply of a "naked DSL" service to supply of a fixed voice and broadband bundle are surmountable – and that, accordingly, ULLS take-up does provide evidence of the state of competition in downstream voice markets. This issue is discussed in detail earlier.

evolved to the point that the ULLS provides the most effective form of regulation, rather than pure re-sale regulation.

In considering whether the granting of exemptions will promote competition, a key issue for the ACCC's assessment is the extent to which access seekers can compete in the downstream market for fixed voice services via use of the ULLS in the absence of regulated access to the PSTN OA. Increased ULLS-based provision of voice services will promote the LTIE as it will enable competitors to compete in the downstream market on greater dimensions of supply and allow them to dynamically innovate their services, leading to more sustainable competition compared with pure re-sale models in the longer-term. Increased ULLS-based competition will also stimulate the provision of PSTN OA from ULLS-based competitors seeking to exploit unused capacity, or to exploit potential economies of scale, on their ULLS-based networks. This will provide increased competitive tension at the wholesale level and constrain Telstra's ability to price its Fixed Voice Bundle at supra-competitive levels in ESAs in respect of which exemption is granted.

While the ACCC recognises the significance of re-sale services such as the PSTN OA in facilitating the growth in take-up of ULLS competition, the ACCC is also mindful that ongoing regulation of the Fixed Voice Bundle may hinder the extent and speed of transition to ULLS-based competition where this supply option may be viable.

However, there are conflicting views about the viability of entry into ULLS-based supply of fixed voice services in any specific ESA. Access seekers have submitted that it is simply not commercially viable to enter into ULLS-based supply of fixed voice services in certain areas and that there are various non-price barriers to ULLS entry.

In assessing whether granting exemptions will promote the LTIE, the ACCC has firstly undertaken an analysis of Telstra's Proposed Exemption Areas on an ESA-by-ESA basis to come to a view on the geographic areas in which promotion of competition (principally by promotion of ULLS-based competition, which the ACCC considers will improve the environment for competition in the downstream retail markets) is likely to occur absent access to regulated PSTN OA. This has principally involved examining the key barriers to entry and expansion such as the size of the addressable market in an ESA, the presence of competitive backhaul, voice switching capacity and any non-price impediments to entry.

The ACCC then considered the implications of this assessment in the context of areas in which Telstra has sought exemption in its PSTN OA Metropolitan Exemption Application and its PSTN OA CBD Exemption Application. On the basis of this, the ACCC's draft view is that it is not satisfied that granting the exemption sought by Telstra, in respect of the entirety of Telstra's Proposed Metropolitan Exemption Area, would be likely to promote competition. In particular, the ACCC notes that a significant portion of the ESAs within Telstra's Proposed Metropolitan Exemption Area do not yet exhibit characteristics sufficient to satisfy the Commission that, were exemption to be granted, ULLS-based provision of the relevant retail services (and associated investment) would occur on a sufficient scale to be likely to result in an improved competitive environment at the retail level. However, in respect of Telstra's Proposed CBD Exemption Area, the ACCC is satisfied that in the ESAs listed in its Proposed CBD Exemption Footprint in Appendix B, there is sufficient scale of ULLS

investment, and alternative infrastructure, and scope for further ULLS investment for there to be a likely improved competitive environment at the retail level.

In particular, 36 per cent of the ESAs in respect of which Telstra has sought exemption in its PSTN OA Metropolitan Exemption Application, as set out in the ACCC's analysis at Appendix B, have less than 4 ULLS-based competitors and less than 14,000 addressable SIOs. As these ESAs represent a significant portion of the exemption areas proposed by Telstra, the ACCC is not satisfied on the basis of the information before it that granting exemptions in respect of the entirety of these areas will promote the LTIE.

However, the ACCC considers that, on the basis on the information before it, promotion of competition (principally by promotion of ULLS-based competition) in fixed voice services is, subject to a number of conditions and limitations, likely to occur in the geographic areas consisting of those ESAs proposed by Telstra in its PSTN OA Metropolitan Exemption Application which:[411]

- have 14,000 or more addressable SIOs; *or*
- have four or more ULLS-based competitors (including Telstra) within the ESA.

Access seekers have raised concerns that the proposed development and rollout of a fibre-based network increases the potential for investments made by access seekers to become "stranded" (i.e. made redundant by a fibre roll-out). The ACCC considers this issue at the "state of competition" section above, but notes that any additional investment required as a result of granting the ACCC's Proposed Metropolitan Exemption Order set out in Appendix **E** is likely to be limited to a relatively small number of ESAs and by a limited number of access seekers. The reasons for this are:

- in the majority of the ESAs the subject of the ACCC's Proposed Metropolitan Exemption Order (233 of the 248) there are already 4 or more ULLS-based competitors (including Telstra) in each Metropolitan ESA. Some, if not all, of these ULLS-based competitors in each ESA will be already supplying a fixed voice service;[412]
- of the remaining 15 Metropolitan ESAs, seven ESAs have two competitors present (including Telstra) and eight ESAs have three competitors present (including Telstra). Optus (which provides fixed voice services via MSANs) is present in 14 of the 15 of these ESAs; and
- therefore, in the majority of ESAs the subject of the ACCC's Proposed Metropolitan Exemption Order, competitively-priced alternative PSTN OA-type services are likely to be available in the event of a price rise by Telstra.

[411] NB. 30 June 2008 is the date of the latest information received from Telstra responding to the ACCC, *Telstra Customer Access Network Record Keeping and Reporting Rules – Section 151BU of Trade Practices Act 1974*, June 2008.

[412] The ACCC recognises that some may be supplying a "naked DSL" service, which means a DSL only service (i.e. not including a fixed voice service).

Further, the ACCC notes with respect to the ACCC's Proposed CBD Exemption Order:

- All CBD ESAs the subject of the Proposed CBD Exemption Order, have at least 5 or more ULLS-based competitors (including Telstra);
- Therefore, in the ESAs the subject of the Proposed CBD Exemption Order, competitively priced alternatives to PSTN_OA-type services are likely to be available in the event of a price rise by Telstra.

The ACCC is satisfied that within the geographic areas consisting of the ESAs the subject of the Metropolitan and CBD Exemption Orders, respectively, granting exemptions (subject to the various conditions and limitations discussed below) will promote competition in the relevant retail fixed voice market (principally by the promotion of ULLS-based competition and greater utilisation of existing ULLS-based infrastructure), with the flow-on competition benefits to end-users.

The assessment at Appendix B (where the ACCC sets out which ESAs are to be included in the geographic areas the subject of the Exemption Orders) should not be taken to mean that the ACCC considers that entry and effective ULLS-based competition in the provision of voice services is not sustainable in smaller exchanges. Rather this threshold is chosen in the context of the ACCC's current assessment that requires it to be satisfied that the granting of the exemption orders will promote the LTIE, based on the information currently available. In particular, the ACCC needs to be satisfied that, in ESAs that have not yet attracted many ULLS-based competitors, removal of regulated access to PSTN OA would encourage competition (including facilities-based competition) rather than result in re-sale competitors exiting the supply of fixed voice or a diminution in competition in the downstream market. The ACCC considers that its proposed delineation of ESAs above adequately balances these risks against the long-term competitive benefits and is satisfied that the granting of exemptions in those areas will promote the LTIE.

A key caveat to the above is that the ACCC considers granting exemptions will only promote the LTIE where ULLS is a readily available substitute to PSTN OA and the Fixed Voice Bundle. To this end, issues impeding access seekers' access into exchanges (such as, exchange capping and queuing) are, in some cases, significant barriers to entry to ULLS-based competition. The ACCC considers that exemptions will only promote the LTIE to the extent that access to exchanges is not impeded by such issues. The ACCC has devised conditions and limitations (discussed below) to address these issues.

Broadband

The ACCC has also considered the effect of granting an exemption upon competition in the supply of bundled voice and broadband services.

The ACCC is satisfied that, where granting the exemptions will promote competition in voice markets (where, as set out in Appendix B, Fixed Voice Bundle access seekers will be able to migrate to ULLS supply of voice or acquire a wholesale voice service at competitive rates), this will have a flow-on competition benefit in bundled voice and broadband markets. This is because migrating from the Fixed Voice Bundle to

ULLS allows access seekers to supply a bundled voice and broadband service via their DSLAM or MSAN infrastructure.

However, the ACCC considers that, in order to protect against any negative impact upon competition in bundled broadband and voice markets, where an access seeker is obtaining the Fixed Voice Bundle in conjunction with LSS to supply an end-user with a bundled fixed voice and broadband service via that access seeker's DSLAM equipment, the exemption should not apply in relation to that access seeker's supply to that particular customer.

The proviso to this is that the exemption should apply in relation to supply to these customers once a robust LSS-ULLS migration path has been implemented by Telstra in relation to the ESAs the subject of the Exemption Orders.

This recognises that certain access seekers, who acquire the LSS in conjunction with the Fixed Voice Bundle (to on-sell a bundled broadband and voice service to consumers), may find it necessary to migrate to ULLS were they no longer able to access a competitively-priced PSTN OA service. While the ACCC is of the view that such a migration would promote the LTIE (as it would enable the access seeker to compete over greater dimensions of supply and further differentiate its products on a price and non-price basis) there is considerable scope for the competitive process to be harmed if such a migration creates significant disruption for consumers. This is because high transaction costs involved in switching between products can lessen the extent to which such products are substitutable. The ACCC has devised a condition to address this issue, which is also discussed in chapter of this Draft Decision.

6.1.2 Any-to-any connectivity

The ACCC is of the view that granting Telstra's Exemption Applications would have little impact upon the objective of encouraging any-to-any connectivity.

6.1.3 Efficient use of, and investment in, infrastructure

Turning to its assessment of whether the granting of exemptions is likely to encourage the efficient use of, and investment in, infrastructure, the ACCC notes the strong relationship between encouraging "competition" and encouraging "efficiency".

The ACCC has considered the extent to which granting exemptions to Telstra in respect of areas proposed by Telstra in its PSTN OA Metropolitan Exemption Application and its CBD Exemption Application, respectively, would be likely to encourage the economically efficient use of, and investment in, relevant infrastructure. As discussed in Appendix B, Telstra's Proposed Metropolitan Exemption Area include a number of ESAs which have either not yet attracted four ULLS based competitors (including Telstra) or have less than 14,000 addressable SAOs. The ACCC is not satisfied that granting the Metropolitan Exemption Application to Telstra that would apply in respect of the entirety of this area, would be sufficiently likely to encourage efficient use of, and investment in infrastructure so as to satisfy the ACCC that such exemption would promote the LTIE.

In relation to Telstra's CBD Exemption Application, as discussed in Appendix B, in Telstra's Proposed CBD Exemption Area all ESAs have at least **[c-i-c]** ULLS-based

competitors including Telstra with on average **[c-i-c]** SIOs in these CBD exchanges, with no pair gain in the CBD areas of Melbourne, Perth, Brisbane and Adelaide and some pair gain in Sydney. The ACCC also considers there is significant alternative infrastructure in the CBD ESAs, either fibre-based networks or wireless networks. The ACCC's draft view is that removing PSTN OA regulation in the CBD areas would encourage efficient use of, and investment in, ULLS-based and alternative infrastructure so as to satisfy the ACCC that such an exemption would promote the LTIE.

In relation to the first part of the efficiency limb – whether granting exemptions would encourage efficient use of existing infrastructure, the ACCC is of the view that granting exemptions in the areas identified in the ACCC's Proposed Exemption Orders (subject to the various conditions and limitations discussed below) will encourage ULLS-based access seekers to make greater use of their DSLAM/MSAN investments, possibly even to offer a wholesale voice service to consumers over their DSLAM/MSAN-based networks in the event that they were to have unused capacity. In addition, in CBD areas where the ACCC considers there is significant alternative infrastructure present capable of supplying voice or broadband services, the ACCC considers granting the Proposed CBD Exemption would encourage efficient use of this alternative infrastructure instead of using resale services, such as PSTN OA. In this regard, the ACCC's draft view is that granting exemptions will also encourage efficient use of existing infrastructure which would promote the LTIE.

Within the ACCC's Propsoed Exemption Footprint at Appendix B, however, the ACCC is satisfied that removal of PSTN OA access regulation will, on the whole, also encourage access seekers to invest in ULLS-based DSLAM/MSAN infrastructure in the Proposed CBD and Metropolitan Exemption Areas, and that, if they did so, this would be an efficient outcome. While there may be some allocative and/or productive efficiency losses in the short-term (in the event of access seekers having to commercially negotiate for a PSTN OA- type service or, at the extreme, exiting the market altogether), these would be outweighed by the long-term benefits flowing to consumers from the increased take-up of the ULLS, and the flow-on competition benefits to consumers. As discussed previously in its Draft Decision, the ACCC considers potential investment in DSLAM and MSAN equipment is likely where there are no barriers to entry for ULLS, in relation to capping or queuing at exchanges. As such, the ACCC proposes conditions and limitations excluding exchanges from the application of the Proposed Exemptions if the exchange is capped or queued (discussed further in chapter 9). Therefore, the ACCC considers that granting the Proposed Exemptions with the proposed conditions and limitations would encourage economically efficient use of, and investment in, infrastructure and would promote the LTIE.

The ACCC notes that, in determining the extent to which granting the Proposed Exemptions would encourage efficient use of, and investment in, infrastructure regard must be had to a variety of factors including whether it is technically feasible for certain services (in this case a fixed voice service) to be supplied and charged for, the legitimate commercial interests of the suppliers of these services and the incentives for investment in infrastructure by which the services are (or could be) supplied.[413]

[413] See subsection 152AB(6) of the TPA.

The ACCC considers that fixed voice services are clearly capable of being supplied absent regulated access to the PSTN OA (as evidenced by a number of carriage service providers doing so already) and that granting exemptions in the areas identified in the Exemption Orders would increase the incentives for investment in infrastructure capable of supplying voice services.[414]

6.1.4 Conclusion

The ACCC has considered the extent to which granting exemptions is likely to promote each of the objectives required to be considered under sections 152AB, 152AS and 152AT of the TPA, in determining whether it is satisfied that exemptions will promote the LTIE.

For the reasons noted above, it is the ACCC's draft view that it is not satisfied that granting an exemption that would apply in respect of supply of the relevant service by Telstra across the entirety of the Metropolitan Exemption Area proposed by Telstra in its PSTN OA Metropolitan Exemption Application, would promote the LTIE. It is the ACCC's draft view that it is satisfied that granting and exemption that would apply in respect of supply of the relevant service by Telstra across the ACCC's Proposed CBD Exemption Footprint in Attachment A to Appendix B (i.e. in those 15 exchanges not excluded from the Proposed Exemption because of the proposed conditions and limitations regarding capping and queuing) would promote the LTIE.

However after weighing the various LTIE considerations, the ACCC's draft view is that, on balance, the ACCC is satisfied that granting exemptions (subject to the various conditions and limitations discussed below) in part of Telstra's Proposed Metropolitan Exemption Area, being the geographic areas consisting of the ESAs in the ACCC's Metropolitan Exemption Footprint at Appendix B, would promote the LTIE.

The ACCC recognises that determining the precise scope of the areas to be covered by the exemptions has been a finely balanced process and has involved a level of judgement. Nevertheless the ACCC's draft view is that granting exemptions in the areas identified in the Proposed Exemption Orders is appropriate, and reasonably balances the various objectives to be considered in the promotion of the LTIE.

The geographic limitation on each of the Proposed Exemption Orders is that exemption from the SAOs for the supply of PSTN OA, respectively, would apply only in the geographic areas consisting of the ESAs listed in the ACCC's Proposed Metropolitan and CBD Exemption Footprints at Appendix B. In total, this would comprise **248** out of the 387 ESAs in which Telstra has sought exemption as part of its PSTN OA Metropolitan Exemption Application and **15** out of 17 ESAs in which Telstra sought exemption as part of its PSTN OA CBD Exemption Application.

In relation to timing, the ACCC proposes that if the Proposed PSTN OA Exemptions are granted, these would come into effect one year after the date of release of the ACCC's final decision on Telstra's PSTN OA Exemption Applications. This would provide reasonable notice to affected access seekers such that they are able to make

[414] These issues are discussed in greater detail at section 2.3 of the Final Decision.

alternative arrangements (i.e. invest, arrange alternate wholesale arrangements) where necessary.

As noted above, the granting of the Proposed Exemption Orders would be subject to a number of conditions and limitations, without each of which the ACCC is not satisfied that the Orders would promote the LTIE. These conditions and limitations are discussed at chapter 8 of this Draft Decision.

The ACCC notes that the telecommunications-specific anti-competitive conduct provisions of Part XIB of the TPA will of course continue to apply to the conduct of telecommunications carriers within the ESAs the subject of any exemption order.

7. Timing of the exemptions

Section 152AT(7) provides that in granting an order for exemption from SAOs under section 152AT, the ACCC may specify when the exemption comes into effect.

Submissions

Telstra submits that the exemptions should take effect from the date of the ACCC's determination until the earlier of:

(a) PSTN OA ceasing to be a declared service;

(b) a finding by a Court of competent jurisdiction that Part XIC of the TPA is invalid as it relates to the Unconditioned Local Loop Service and/or the High Frequency Unconditioned Local Loop Service; and

(c) 3l December 2012.[415]

Telstra submits that given the speed of DSLAM-based infrastructure in the ESAs, it would not promote the LTIE to delay the date upon which the Exemption Applications become effective. Telstra considers deferring that date would delay the benefits to be expected from greater facilities-based competition within the ESAs.[416]

Further, Telstra submits that granting the Exemption Applications for the period sought would provide a clear signal to access seekers that the time has come for them to increase their investment in DSLAM-based infrastructure in order to replicate PSTN OA.[417]

Optus submits that there should be a phase-in period before any exemption application comes into effect, which should last until at least 18 months after the ACCC's final decision. Optus considers this will allow an effective market to form for services that will be substitutes for the declared PSTN OA[418]

Optus submits that if an exemption is granted, access seekers will require a reasonable period of time to adjust their business plans to the new environment and transition customers away from the PSTN OA service onto other platforms.[419]

Optus submits that if an exemption is granted quickly, Telstra is likely to have a competitive advantage in serving wholesale customers who do not rely on ULLS but will seek access to wholesale services from Telstra or from competitors such as Optus who wholesale service over the ULLS.[420]

415 Telstra, *Application for exemption from standard access obligations – PSTN OA*, Oct 2007, p. 2.

416 Telstra, *Submission to the Australian Competition and Consumer Commission - Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service*, December 2007. p.37.

417 ibid.

418 Optus, *Optus Submission to the Australian Competition and Consumer Commission on Telstra's PSTN OA Service Exemption Application*, December 2007. p. 34.

419 ibid.

420 ibid.

Further, Optus raises the consideration that many of its customers are on fixed term contracts which do not expire for at least three years.[421]

Macquarie responded to a question posed in the ACCC's Discussion Paper, relating to whether any exemption granted should take effect immediately or be deferred, by stating that the Exemption Applications should not be granted.[422]

The CCC has not addressed the issue of timing directly in its submission; however, the CCC has stated that exempting Telstra from the SAOs at this stage in the development of competitive infrastructure is likely to threaten the ongoing development of a competitive market and to dramatically restrict the ability of competitors to engage in efficient investment.[423]

ACCC's draft views

In granting Telstra's 2002 exemption application for the LCS in CBD areas, the ACCC concluded that the exemption should be delayed for a period of 12 months to allow access seekers time to adjust their business plans and make alternative arrangements.

In regards to the current PSTN OA Exemption Applications, the ACCC again recognises the need for a phase-in period. The ACCC considers a period of 12 months would be sufficient to allow carriers to adjust business plans and make alternative arrangements.

This proposed 12 month transition period would provide an opportunity to current resellers of PSTN OA to:

- make any necessary alterations to their current business plans and negotiate re-sale arrangement with Telstra or a third party on a commercial basis;
- provide them with sufficient time to begin implementing their DSLAM or MSAN rollout and transition their customers onto their DSLAMs or MSANs as ULLS-based entrants; and/ or
- make investments in and/or negotiate third party access to transmission capacity, voice switching services and other inputs.

The ACCC's draft view is that the Proposed Exemptions should be granted for a limited period, and should expire on 31 December 2012.

The ACCC notes that the existing PSTN OA declaration will expire on 31 July 2009 – before any Proposed Exemption Orders for the PSTN OA would take effect. Accordingly, if PSTN OA was not re-declared after expiration, any Proposed

421 ibid.

422 Gilbert and Tobin, *Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN OA Originating Access service exemption applications*, 14 December 2007. p. 13.

423 Nicholls Legal, *Nicholls Legal submission on behalf of the CCC in relation to Telstra's declaration exemption applications*, 19 March 2008. p. 4.

Exemption Orders that had been granted would become redundant. If however, PSTN OA was re-declared, the Proposed Exemption Orders would apply to re-declared services.

8. Class exemption

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

Under subsection 152AS(5) of the TPA, before making a class exemption, the ACCC must publish a draft of the exemption determination and invite submissions where the ACCC is of the view that the granting of the exemption is likely to have a material effect on the interests of a person.

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

ACCC's draft views

The ACCC's draft view is that granting individual exemptions for the PSTN OA in CBD and Metropolitan Areas under section 152AT of the TPA to Telstra would promote the LTIE.

The ACCC's draft view is that a class exemption under section 152AS of the TPA would be in the LTIE for the same reasons that an individual exemption order under section 152AT is in the LTIE. That is, granting the exemptions, subject to a number of limitations and conditions, would promote the LTIE as it will promote competition in the fixed voice market (principally by the promotion of ULLS-based competition), with the flow-on competition benefits to end-users, and promote more efficient use of and investment in infrastructure.

If the proposed individual Exemption Orders concerning Telstra's supply of the PSTN OA are granted and came into effect, failing to grant a class exemption for PSTN OA would mean that the incentives for access seekers to invest in their own infrastructure could be diminished because access seekers could enforce the SAOs related to PSTN OA from another supplier (such as a competitor with an extensive ULLS-based network).

Therefore, the ACCC's draft view is that it would promote the LTIE to grant a class exemption from the SAOs as they relate to the supply of the PSTN OA in the ACCC's Metropolitan and CBD Exemption Footprints (in Appendix B) pursuant to section 152AS of the TPA.

If the proposed individual exemption orders concerning Telstra's supply of the PSTN OA are granted, the ACCC's draft view is that a class exemption should commence on the same day as Telstra's individual exemption orders. It would not promote the LTIE for a class exemption to commence any earlier than Telstra's Proposed individual exemption orders because such an outcome would undermine the rationale for granting the exemptions (as incentives for access seekers to invest in their own infrastructure could be diminished because access seekers could enforce the SAOs in relation to Telstra, but not other access seekers).

The ACCC's draft view is that the limitation on the class determination should be the same as the proposed limitation on the proposed individual exemption orders. This would have the effect that the class determination will only relate to those ESAs the subject of the Proposed Exemption Orders.

The ACCC's draft view is that it would not be necessary (given the nature and subject matter of the proposed conditions) to impose the proposed conditions relating to the Proposed Exemption Orders on the proposed class determination. Accordingly, the ACCC's draft view is that no conditions would apply to the making of the class determination.

9. Conditions and limitations on Telstra's exemptions

An exemption order made by the ACCC under section 152AT or a class exemption determination made by the ACCC under section 152AS can be unconditional or subject to conditions and/or limitations.[424]

Submissions

Telstra supports unconditional exemption applications. In this regard, Telstra argues:

> [G]iven that it is clearly in the LTIE for the Exemptions to be granted …, Telstra does not consider it appropriate for any conditions to be placed upon grant of the Exemptions. In Telstra's view any such conditions would be likely to dilute the benefits to be gained from the proposed Exemptions.[425]

However, Telstra also notes that, as a general principle, Telstra considers that any conditions should be imposed in a uniform manner.[426]

Optus notes that there are a number of actual and potential impediments to ULLS-based competitors exerting competitive constraint on Telstra. As a result, Optus submits that the ACCC should not grant an exemption unless the ACCC requires Telstra to provide alternate TEBA space as a condition of the exemptions.[427]

Optus also submits that, in relation to timing, the ACCC should impose a condition that Telstra continue supplying the service until access seekers have an opportunity to adjust their business plans and transition customers away from the PSTN OA service.[428] This is discussed further in the 'Timing' chapter.

Optus submits that if the ACCC grants the exemptions with respect to consumer services, it should consider excluding the Corporate and Government sector from the exemptions on the basis of the distinct competitive drivers in this segment.[429]

Macquarie Telecom, AAPT and Soul made no specific submissions as to what, if any, conditions should be imposed if the exemptions were to be granted.

However, in general, access seekers, such as, Optus, Macquarie and AAPT, have made submissions regarding the PSTN OA Exemption Applications on a range of issues that may affect an access seeker's ability to provide voice services via ULLS. These submissions mainly concern access to the ULLS and include:

- non-price barriers to expansion of ULLS, such as, capacity and space constraints in exchanges;[430] and

[424] Subsection 152AT(5) states that an exemption order made under paragraph 152AT(3)(a) may be unconditional or subject to such conditions or limitations as are specified in the order. Similarly, subsection 152AS(2) provides that a class exemption determination made under section 152AS may be unconditional or subject to such limitations as are specified in the determination.

[425] Telstra, *Telstra response to questions from ACCC discussion paper of October 2007 in respect of the PSTN Originating Access Service* , December 2007, p. 48.

[426] Ibid, p. 48.

[427] Optus, *Optus submission to the ACCC on Telstra's PSTN OA Service Exemption Applications*, December 2007, p. 4.

[428] Ibid. p. 5.

[429] Ibid, p. 11.

- processes and technical issues for customer migration to ULLS;[431]

ACCC's draft views on conditions for the PSTN OA Exemption Applications

The issues regarding access to ULLS, as noted above, were considered in the ACCC's assessment of Telstra's WLR/LCS Exemption Applications. In its Draft Decision on Telstra's WLR/LCS Exemption Applications the ACCC proposed certain conditions to address these concerns raised by access seekers. The ACCC received submissions from access seekers in response to the proposed conditions in its Draft Decision on Telstra's WLR/LCS Exemption Applications.

On 13 August 2008, the ACCC informed interested parties to the WLR/LCS exemption assessment process that it had made an in-principle decision to grant Telstra exemptions from the standard access obligations in respect of the supply of the LCS and WLR subject to a number of proposed limitations and conditions. The ACCC further informed interested parties that, prior to making its final decision on Telstra's WLR and LCS Exemption Applications the ACCC intended to engage in a short period of consultation on the conditions and limitations proposed to be made in the ACCC's Final Decision on Telstra's WLR/LCS Exemption Applications.

The ACCC sought submissions in response to the form of the conditions and limitations set out in a *Consultation on Proposed Conditions – Explanatory Statement*. The ACCC notified parties that due to the statutory timeframe within which the ACCC must make a Final Decision on Telstra's WLR/LCS Exemption Applications, it was highly unlikely that the ACCC would be able to consider any submissions made after this time prior to making that Final Decision.

The submissions the ACCC received in that process address each of the issues raised by access seekers regarding the PSTN OA Exemption Applications and which are set out earlier in this chapter. The ACCC's views on these issues, in the context of the WLR/LCS Exemption Applications, are set out in Chapter 6 of the ACCC's Final Decision on Telstra's WLR/LCS Exemption Applications.[432]

In considering what, if any, conditions should be imposed upon the proposed PSTN OA Exemptions, the ACCC notes:

- the PSTN OA is predominantly acquired along with WLR and LCS;
- the PSTN OA Metropolitan Exemption Application replicates the WLR/LCS Exemption Applications in terms of Proposed Exemption Area (the same 387 ESAs) and proposed basis for exemption;

[430] Optus, Submission to the ACCC on Telstra's PSTN OA Service Exemption Application December 2007, p. 4. Also AAPT, Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications, December 2007, pp. 9-10.

[431] Gilbert + Tobin, PSTN Originating Access Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN Originating Access service exemption applications, December 2007, p. 8, 11.

[432] ACCC, Telstra's local carriage service and wholesale line rental exemption applications Final decision and class exemption, August 2008, chapter 6.

- the presence of and potential for ULLS-based infrastructure is a primary consideration in the ACCC's Draft Decision on Telstra's PSTN OA Exemption Applications, as it also was in the ACCC's assessment of Telstra's WLR/LCS Exemption Applications, and

- the conditions and limitations imposed on the WLR/LCS exemptions were, in the ACCC's view, necessary to ensure sufficiently effective access to the ULLS.

In light of these above points, the ACCC considers that there is a strong case that the same conditions that it imposed on the WLR/LCS exemptions should also apply in relation to the proposed PSTN OA exemption orders.

In particular, in deciding whether it is appropriate to grant exemptions in response to Telstra's PSTN OA Exemption Applications, the ACCC considers that it needs to be satisfied that access to the ULLS is available (whether by way of access to the exchange or LSS migration to ULLS). For the same reasons as those set out in chapter 6 of the ACCC's Final Decision on Telstra's WLR/LCS Exemption Applications, the ACCC's draft view is that the proposed conditions for the PSTN OA Proposed Exemption Orders address these issues regarding access to ULLS and, therefore the ACCC's draft view is that it would promote the LTIE for these conditions to apply to the ACCC's Proposed Exemption Orders at Appendix E and F.

In addition, the ACCC also considers that because of bundling of PSTN OA with WLR/LCS (as previously discussed, as part of the Fixed Voice Bundle) if the ACCC were to grant the PSTN OA Metropolitan Exemption Application without the proposed conditions, it could potentially undermine the efficacy of the WLR/LCS exemptions because arguably a firm's ability to compete for Fixed Voice Services could be frustrated because they could neither access the ULLS nor the Fixed Voice Bundle that they would require for the provision of Fixed Voice Services. The ACCC notes this reason is not applicable to the consideration of conditions for the PSTN OA CBD Exemption Application.

It is the ACCC draft view that for the reasons set out above, it would promote the LTIE for the proposed conditions and limitations to apply in the ACCC's Proposed Exemption Orders at **Appendix E and F.**

10. Conclusion

The ACCC has considered the extent to which granting exemptions would be likely to promote each of the objectives required to be considered under sections 152AB, 152AS and 152AT of the TPA, in determining whether it is satisfied the exemptions will promote the LTIE.

Proposed PSTN OA Metropolitan Exemption Order

The ACCC's draft view is that it is not satisfied that making an exemption order that would apply in respect of the supply of PSTN OA by Telstra across the entirety of the Metropolitan Exemption Area as set out in Telstra's PSTN OA Metropolitan Exemption Application, i.e. Telstra's Proposed Metropolitan Exemption Area, would promote the LTIE.

However, the ACCC has considered whether it would promote the LTIE to grant exemptions in a somewhat narrower geographic area than those proposed by Telstra.

The ACCC considers that granting exemptions from the SAOs (subject to the various conditions and limitations discussed above), in respect of the supply by Telstra of PSTN OA in the areas specified in the ACCC's Metropolitan Exemption Order, will promote the LTIE. The areas specified by the ACCC in its proposed Metropolitan Exemption Order are the ESAs listed in the ACCC's Propsoed Metropolitan Exemption Footprint **Table 1 of Attachment A to Appendix B**. These ESAs comprise **248** out of the 387 ESAs in which Telstra has sought exemption as part of its PSTN OA Metropolitan Exemption Application.

Proposed PSTN OA CBD Exemption Application

The ACCC's draft view is that it is satisfied that making an Exemption Order that would apply in respect of the supply of PSTN OA by Telstra across the entirety of the CBD Exemption Area as set out in Telstra's PSTN OA CBD Exemption Application, i.e. Telstra's Proposed CBD Exemption Area, would promote the LTIE.

The ACCC considers that granting exemptions from the SAOs (subject to the various conditions and limitations discussed above), in respect of the supply by Telstra of PSTN OA in the areas specified in the ACCC's CBD Exemption Order, will promote the LTIE. The areas specified by the ACCC in its proposed CBD Exemption Order are the ESAs listed in the ACC's Proposed CBD Exemption Footprint in **Table 2 of Attachment A to Appendix B**. These ESAs comprise **15** out of the 17 ESAs in which Telstra has sought exemption as part of its PSTN OA CBD Exemption Application.

Proposed Exemption Orders at Appendix E and F

The ACCC's draft view is that it considers that the proposed conditions and limitations which are specified in the Proposed Exemption Orders are necessary to ensure that the Proposed Exemption Orders will promote the LTIE. These proposed conditions and limitations are discussed in chapter 9 of this Draft Decision.

The ACCC's draft view is that granting exemption in the areas identified in the ACCC's Proposed Exemption Orders is appropriate, and reasonably balances the various objectives to be considered in the promotion of the LTIE.

In relation to the timing of the Exemption Orders, the ACCC proposes that these will come into effect one year after the date of release of the ACCC's final decision on Telstra's PSTN OA Exemption Applications. This will provide reasonable notice to affected access seekers such that they are able to make alternative arrangements (i.e. invest or arrange alternate wholesale supply) where necessary.

The ACCC also notes that expiry or revocation of the Domestic PSTN terminating service declaration is not intended to and would not affect the continued operation of the proposed PSTN OA Exemption Orders or the proposed PSTN OA Class Exemption.

The ACCC notes that Telstra has not sought exemption from the SAOs where the PSTN OA is used by access seekers to provide special services calls. The ACCC's Proposed Exemption Orders include drafting to reflect this.

The ACCC notes that the telecommunications-specific anti-competitive conduct provisions of Part XIB of the TPA will of course continue to apply to the conduct of telecommunications carriers within the ESAs the subject of any exemption order.

Appendix A: Legislative background

Part XIC of the TPA sets out a telecommunications access regime. This section of the Draft Decision outlines the provisions of the access regime relevant to the exemption applications.

1 Declaration and the SAOs

The ACCC may determine that particular carriage services and related services are declared services under section 152AL of the TPA. A carrier or carriage service provider that provides a declared service to itself or other persons is known as an access provider. Once a service is declared, access providers are subject to a number of SAOs pursuant to section 152AR of the TPA. Terms of access can be governed by the terms of an undertaking or, in the absence of an accepted undertaking, by ACCC determination in an access dispute.

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

- supply the declared service
- take all reasonable steps to ensure that the technical and operational quality of the service supplied to the service provider is equivalent to that which the access provider is supplying to itself
- take all reasonable steps to ensure that the fault detection, handling and rectification which the service provider receives in relation to the declared service is of equivalent technical and operational quality as that provided by the access provider to itself
- permit interconnection of its facilities with the facilities of the service provider
- take all reasonable steps to ensure that the technical operational quality and timing of the interconnection is equivalent to that which the access provider provides to itself
- take all reasonable steps to ensure that the service provider receives interconnection fault detection, handling and rectification of a technical and operational quality and timing that is equivalent to that which the access provider provides to itself
- if a standard is in force under section 384 of the *Telecommunications Act 1997*, take all reasonable steps to ensure that the interconnection complies with the standard
- if requested by the service provider, provide billing information in connection with matters, or incidental to, the supply of the declared services

- if an access provider supplies an active declared service by means of conditional-access customer equipment, the access provider must, if requested to do so by a service provider supply any service that is necessary to enable the service provider to supply carriage services and/or content services by means of the declared service and using the equipment.

The ACCC must only declare a service if, following a public inquiry, it considers that declaration would promote the LTIE. Section 152AB of the TPA states that, in determining whether declaration promotes the LTIE, regard must be had only to the extent to which declaration is likely to result in the achievement of the following objectives:

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

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

2 Exemptions from SAOs

Exemptions can be granted from the SAOs. This can occur in two ways:

- a class exemption under section 152AS of the TPA
- an individual exemption under section 152AT of the TPA.

In the case of an individual exemption application, a carrier or carriage service provider may apply to the ACCC for a written order exempting it from any or all of the SAOs that apply to a declared service.[433]

If the ACCC is of the opinion that the making of an exemption order would be likely to have a material effect on the interests of a person, the ACCC must publish the application for an exemption and invite submissions from the public.[434] The ACCC must consider any submissions received within the time specified.

The ACCC must not grant an exemption order unless the ACCC is satisfied that the making of the order will promote the LTIE.[435] An exemption order can be unconditional or subject to such conditions or limitations as are specified in the order.[436]

[433] TPA subsection 152AT(1).
[434] TPA subsection 152AT(9).
[435] TPA subsection 152AT(4).
[436] TPA subsection 152AT(5).

The ACCC has a six month period in which to make the decision to accept or reject the exemption order.[437] However the six month period does not include any period where the ACCC has published the application and invited people to make submissions within a specific time limit, or where there is an outstanding response to an information request.[438] The ACCC may also extend or further extend the six month period by a further three months in certain circumstances.[439]

After considering the application, the ACCC must either make a written exemption order or refuse the application.[440]

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

3 Long-term interests of end-users

Both a decision to declare a service and a decision to grant an exemption from the SAOs for a declared service—the latter being the matter currently under consideration—can only be made if the ACCC considers that making the declaration or granting the exemption will be likely to promote the LTIE.

As noted above, section 152AB of the TPA states that, in determining whether declaration promotes the LTIE, regard must be had only to the extent to which the exemption is likely to result in the achievement of the following objectives:

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

The objectives are interrelated. In many cases, the LTIE may be promoted through the achievement of two or all of these matters simultaneously. In other cases, the achievement of one of these matters may involve some trade-off in terms of another of the matters, and the ACCC will need to weigh up the different effects to determine whether the exemption promotes the LTIE. In this regard, the ACCC will interpret long-term to mean the period of time necessary for the substantive effects of the exemption to unfold.

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

437 TPA subsection 152AT(10).
438 TPA subsection 152AT(11).
439 TPA subsection 152AT(12).
440 TPA subsection 152AT(3).

Promotion of competition

Subsections 152AB(4) and (5) of the TPA provide that, in interpreting this objective, regard must be had to, but is not limited to, the extent to which the arrangements will remove obstacles to end-users gaining access to listed services. The Explanatory Memorandum to Part XIC of the TPA states that:[441]

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

This requires the ACCC to make an assessment of whether or not the exemption would be likely to promote competition in the markets for listed services.

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

In general terms, competition is the process of rivalry between firms, where each market participant is constrained in its price and output decisions by the activity of other market participants. The Trade Practices Tribunal (now the Australian Competition Tribunal) stated that:[442]

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

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

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

To assist in determining the impact of potential exemption on downstream markets, the ACCC will first need to identify the relevant market(s) and assess the likely effect of exemption on competition in each market.

441 Trade Practices Amendment (Telecommunications) Act 1997 (Cth) Explanatory memorandum.

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

Section 4E of the TPA provides that the term 'market' includes a market for the goods or services under consideration and any other goods or services that are substitutable for, or otherwise competitive with, those goods or services. The ACCC's approach to market definition is discussed in its *Merger Guidelines*, June 1999 and is also canvassed in its second position paper, *Strategic Review of Fixed Services*, April 2007.

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

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

Where existing market conditions already provide for the competitive supply of services, the access regime should not impose regulated access and therefore, granting an exemption would generally be appropriate in such circumstances. This recognises the costs of providing access, such as administration and compliance, as well as potential disincentives to investment. Regulation will only be desirable where it leads to benefits in terms of lower prices, better services or improved service quality for end-users that outweigh any costs of regulation.

In the context of considering whether an exemption will promote competition, it is therefore appropriate to examine the impact of the existing declaration on each relevant market, the likely effect of reduced access obligations on the relevant market, and compare the state of competition in that market with and without the exemption. In examining the market structure, the ACCC considers that competition is promoted when market structures are altered such that the exercise of market power becomes more difficult; for example, because barriers to entry have been lowered (permitting more efficient competitors to enter a market and thereby constrain the pricing behaviour of the incumbents) or because the ability of firms to raise rivals' costs is restricted.

Any-to-any connectivity

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

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

Efficient use of, and investment in, infrastructure

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

- whether it is technically feasible for the services to be supplied and charged for, having regard to:
    - the technology that is in use or available
    - whether the costs that would be involved in supplying, and charging for, the services are reasonable
    - the effects, or likely effects, that supplying, and charging for, the services would have on the operation or performance of telecommunications networks
- the legitimate commercial interests of the supplier or suppliers of the service, including the ability of the supplier or suppliers to exploit economies of scale and scope
- the incentives for investment in:
    - the infrastructure by which the services are supplied and
    - any other infrastructure by which the services are, or are likely to become, capable of being supplied.

In determining the extent to which a particular aspect is likely to encourage the efficient investment in other infrastructure, the ACCC must have regard to the risks involved in making the investment.

Economic efficiency has three components.

- Productive efficiency refers to the efficient use of resources within each firm such that all goods and services are produced using the least cost combination of inputs.
- Allocative efficiency refers to the efficient allocation of resources across the economy such that the goods and services that are produced in the economy are the ones most valued by consumers. It also refers to the distribution of production costs amongst firms within an industry to minimise industry-wide costs.

- Dynamic efficiency refers to the efficient deployment of resources between present and future uses such that the welfare of society is maximised over time. Dynamic efficiency incorporates efficiencies flowing from innovation leading to the development of new services, or improvements in production techniques.

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

The technical feasibility of supplying and charging for particular services

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

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

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

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

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

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

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

The impact on incentives for investment in infrastructure

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

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

Appendix B: ESA analysis – Proposed Metropolitan Exemption Area and CBD Exemption Area

In considering in which ESAs effective competition is likely to be promoted if exemptions were granted (which the ACCC considers would promote the LTIE), a key question for the ACCC to examine is if regulated access to PSTN OA was no longer available in that ESA, could an efficient access seeker use ULLS to compete effectively in the downstream market for fixed voice services? The answer to this question is closely related to the existence (or otherwise) of barriers to entry/expansion or exit. As discussed in Chapter 3, factors that are relevant to the barriers to entry/expansion for ULLS-based voice provision are:

- the size of the addressable market in an ESA, taking into account economies of scale/scope and minimum efficient scale and technical impediments to end-user locations such as pair gain deployment and the pattern of density;
- the costs of DSLAM deployment within an ESA (some of which may be fixed[443] and some sunk[444]);
- availability of complementary inputs such as transmission capacity and voice switching services;
- non-price impediments to accessing exchanges;
- demand side barriers – fixed contracts, customer inertia and status quo bias; and
- the risk of 'asset-stranding' involved with a fibre roll-out.

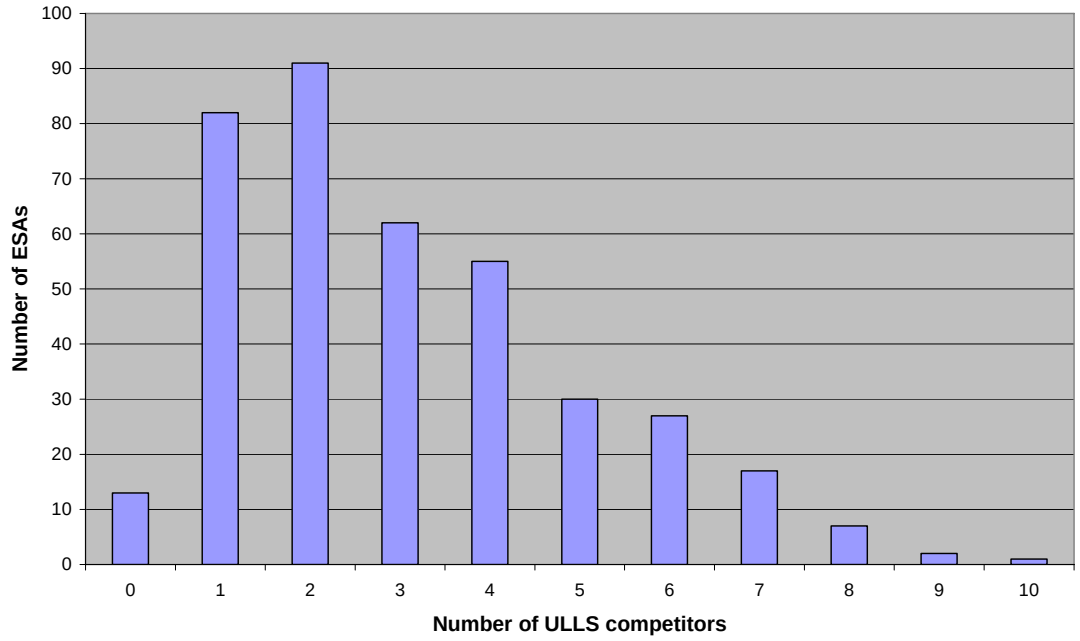
The extent and scale of some of these barriers to entry/expansion will be largely the same across all ESAs (e.g. sunk costs and demand side barriers) while others will vary depending on the specific characteristics of the ESA (e.g. the addressable market available and availability of complementary inputs). In addition, as discussed in Chapter 2, some of these potential barriers to entry/expansion may not pose an insurmountable barrier to ULLS-based voice provision, irrespective of the specific characteristics of the ESA (e.g. sunk costs, customer inertia and status quo bias).

Graphs A.1 and A.2 (following) indicate the breakdown of ULLS competitors in the Metropolitan and CBD ESAs nominated by Telstra as being the Metropolitan and CBD Exemption Areas, respectively.

[443] NB. The term "fixed costs" refers to those costs which are incurred in producing a service but do not vary with the output of the service. Fixed costs are avoided if the service is discontinued.

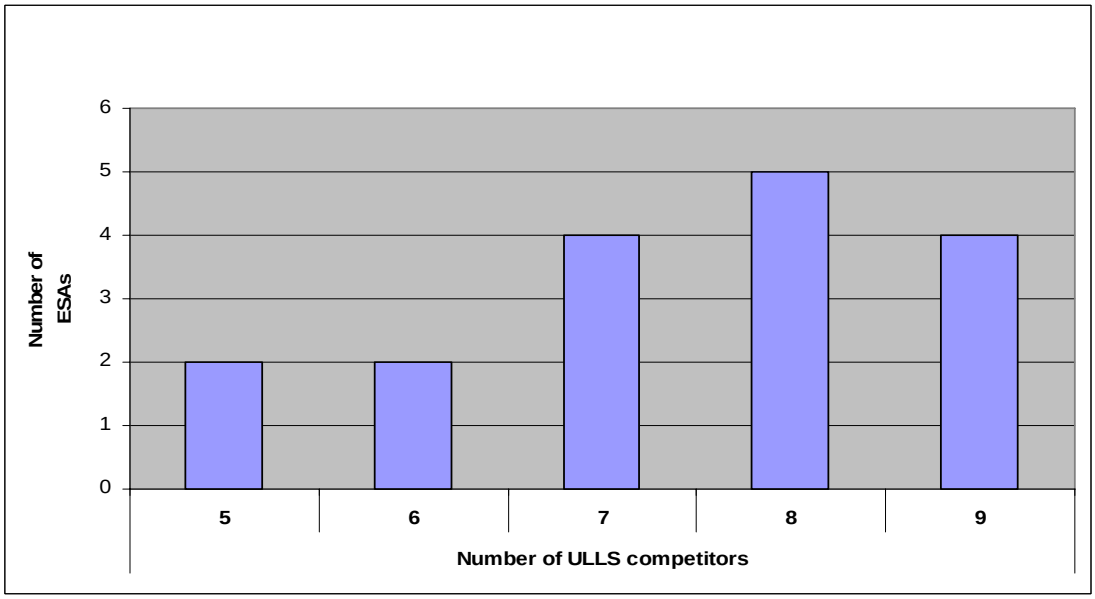
[444] NB. The term "sunk costs" refers to expenditure on production inputs such as plan and machinery which, once incurred, cannot be used for other purposes or resold (cannot be recouped). All sunk costs, once incurred, are fixed costs, but not all fixed costs are sunk.

Graph A.1: Breakdown of Telstra's nominated 387 ESAs by no. of ULLS competitors (excluding Telstra)



Source: Telstra CAN RKR December 2007

Graph A.2: Breakdown of Telstra's nominated 17 CBD ESAs by no. of ULLS competitors (excluding Telstra)



Source: Telstra CAN RKR June 2008.

Further to the above list of factors, evidence of actual ULLS-based competition in an ESA will naturally provide robust evidence of where there is the potential for ULLS-based provision of fixed voice services. This is the case even though not every ULLS access seeker provides a voice service. The ACCC considers that even where an

access seeker supplies 'naked DSL' the barriers from supply of this service to supply of voice are surmountable – and accordingly, continue to provide evidence of potential for provision of a ULLS-based voice service. However, this type of measure may be of limited value in assessing the potential for ULLS-based competition for two key reasons.

First, evidence of actual entry is a static measure which does not necessarily reflect the end point for efficient ULLS-based entry in every ESA. For example, in 13 of 387 exemption ESAs, Telstra does not yet appear to face ULLS competition. In those ESAs where Telstra does face ULLS competition, the number of ULLS-based access seekers ranges from one to ten. Furthermore, it is worth noting that ULLS-based provision has increased by over 116 per cent in the last 12 months and appears to be in a dynamic growth phase. Second, the nature of the regulatory framework, including the availability of regulated access to PSTN OA is not exogenous to the take-up of ULLS by access seekers. In this sense, the declaration of PSTN OA may have influenced the extent and speed of ULLS take-up in ESAs, to date.

Notwithstanding these limitations, the ACCC considers that evidence of ULLS competition in an ESA will be an important consideration in the ACCC's assessment of whether ULLS-entry for the provision of fixed voice services will be viable. In this regard, evidence of actual ULLS entry is instructive in testing the extent of the barriers to entry such as the addressable market required and access to backhaul and traditional switching infrastructure that may apply in practice for a particular ESA. Given the legislative threshold that applies to the granting of exemptions, this type of observable information will be important to the ACCC being able to be satisfied that the removal of declaration will promote the LTIE by promoting facilities-based competition.

Discussed below are the key factors and related thresholds the ACCC considers are relevant to assessing whether ULLS-based provision of fixed voice services will promote the LTIE in the 387 metropolitan ESAs and the 17 CBD ESAs the subject of Telstra's Exemption Applications.

Addressable market

The ACCC is of the view that the number of addressable SIOs within an ESA (i.e. the number of customers that can potentially be served from the exchange building/s in the ESA) is likely to be useful proxy for the likelihood of further ULLS take-up upon the granting of exemptions. Generally speaking, in areas with more SIOs, competitors could expect to recover the ESA-specific fixed costs associated with ULLS-based entry over a broader number of end-users in these areas- thus lowering their per-unit costs as well as the *a priori* risks of investment.

In relation to the costs of investment, the ACCC understands that an access seeker incurs certain 'fixed' and 'variable' costs when committing to ULLS-based entry. The ACCC understands that fixed costs are likely to include costs of the DSLAM or MSAN, co-location costs, the tie-cable charge, certain IT costs, certain retailing costs etc. Variable costs are likely to include monthly line (access) charges, acquiring transmission capacity and voice switching services, DSLAM line cards, MDF terminals and certain retailing costs,

Telstra submits that the minimum efficient scale (MES)[445] required for DSLAM-based entry by a competitor in a given ESA is relatively low. Specifically, Telstra submits that the minimum number of SIOs at which ULLS entry becomes viable is no more than **[c-i-c]** SIOs per ESA for Band 2 services.[446] Optus challenges Telstra's submission on this point. Its own analysis indicates that the MES threshold is significantly higher at around **[c-i-c]** SIOs.[447] Frontier submits that MES is around **[c-i-c]**.[448]

Comparing this range **[c-i-c]** to **[c-i-c]** SIOs with the average number of SIOs in the 387 exemption ESAs of 17,977 suggests there would be ample opportunities for ULLS-based entrants to achieve MES in all of these ESAs if they could capture a relatively small number of customers within an ESA (within the realm of 2-3 per cent).

There would also be ample opportunity for entry in Telstra's nominated 17 CBD ESAs, with there being an average number of 16,309 SIOs across these 17 CBD ESAs, provided there are no access to exchange issues such as capping, or queuing.

That said, the ability to reach MES in an ESA may be subject to various other contingencies such as:

- the magnitude of any additional fixed costs (including fixed costs associated with other exchange-based costs and complementary inputs such as backhaul transmission);
- the percentage of SIOs within an ESA that either currently, or could reasonably be expected to, purchase retail broadband services;
- pattern of density within an ESA;
- the percentage of SIOs within an ESA affected by the deployment of pair gain/RIMs by Telstra;
- the percentage of SIOs within an ESA that either currently, or could be reasonably expected to, purchase 'naked DSL' services;
- the percentage of SIOs on fixed-term contracts or that could be reasonably expected to switch from existing providers; and

[445] Broadly speaking, determining the 'MES' requires a comparison of the magnitude of fixed costs associated with entry, with expected customer base. More formally, MES is a term used in the literature to denote the smallest output that a plant (or firm) can produce such that its long run average costs (as measured in 'per unit' terms in the current context) are minimised. If the MES is small relative to the overall size of the market, there is the potential for a larger number of firms to operate in the market. If the MES is large relative to the overall size of the market, there may be room for a smaller number of firms. At the extreme, if there are economies of scale over all ranges of output, there may be only room for one provider.

[446] Telstra, *Submission to the Australian Competition and Consumer Commission - Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service*, December 2007. p. 42.

[447] Optus, *Optus Submission to the Australian Competition and Consumer Commission on Telstra's* PSTN OA Service Exemption Application, December 2007. p. 32.

[448] Frontier Economics, *Telstra's applications for WLR and LCS exemptions – A report prepared for the Competitive Carriers Coalition*, October 2007. p. 16.

- the number of competitors within an ESA (because it will influence the 'expected' number of end-users that an access seeker could capture).

The factors listed above highlight that just because an ESA has a certain number of SIOs, this does not mean that a ULLS entrant could reasonably expect to capture all of these customers. Therefore while MES estimates provide a starting point for considering the required addressable market in an ESA, the SIO threshold at which ULLS entry may be viable may be higher for the reasons outlined above. As at December 2007, on average, ULLS-access seekers to date had entered in 82 ESAs nationally.[449] In this regard, it is also worth noting that the entry decision by ULLS competitors is unlikely to be made with respect to the viability of servicing a single ESA.

This appears to be supported by the empirical information regarding ULLS competition in Telstra's Proposed Exemption Areas to date. The following table lists the average number of SIOs for each group of ESAs (based on number of ULLS entrants).

Table A.1: Relationship between no. of competitors and SIOs in Telstra's 387 nominated Metropolitan ESAs

Number of ULLS competitors (including Telstra)	Average SIOs
1	6464
2	10432
3	12303
4	14347
5	16108
6	20223
7	19035
8	20721
9	22828
10	30527
11	24994

[449] ACCC, *Telstra Customer Access Network Record Keeping and Reporting Rules – Section 151BU of Trade Practices Act 1974*, September and December 2007.

Table A.2: Relationship between no. of competitors and SIOs in the 17 CBD ESAs

Number of ULLS competitors (including Telstra)	Average SIOs
6	9064
7	12784
8	14012
9	18172
10	21665

This empirical evidence suggests there is a strong and relatively consistent positive relationship between the number of ULLS-based competitors and the average number of SIOs within an ESA. That is, in ESAs where there is more ULLS-based entry, the average SIOs per ESA is larger.

In this regard it is important to note that competition is drawn to ESAs where there are more potential customers. For example in Telstra's 387 nominated metropolitan ESAs, where there are two ULLS competitor (including Telstra) the average number of SIOs is above 10,000. Where there are four or more ULLS competitors (including Telstra), there is on average greater than 14,000 SIOs in the ESA. Where there are six or more ULLS competitors (including Telstra), there is on average greater than 20,000 SIOs in the ESA.

In considering in what ESA footprint granting exemptions is expected to promote competition, the ACCC will need to make some judgement about the number of ULLS competitors after which the ACCC could be satisfied that the conditions would be present to facilitate effective competition in the relevant downstream market and the promotion of the LTIE. Telstra contends that evidence of one DSLAM-based (either LSS or ULLS-based) competitor is enough to justify the removal of regulation of PSTN OA in an ESA. The ACCC is not convinced that this threshold adequately captures the extent of barriers to entry faced by the majority of access seekers, nor is it persuaded that the presence of a single DSLAM competitor would provide an effective competitive constraint on Telstra in the relevant upstream and downstream markets for fixed voice services.

At a conceptual level, it seems intuitive that ESAs with zero ULLS-based competitors would be less competitive than those with 10 ULLS competitors. It also seems intuitive that there would be a diminishing marginal benefit with the entry of each additional ULLS-based competitor in terms of improved price or quality outcomes for consumers.[450] However, choosing the appropriate threshold will necessarily be a subjective exercise.

[450] For a definition of the theory of diminishing returns see Ivan Png, Dale Lehman, *Managerial economics* (2007) 3rd edition, p. 26.

In May 2008, as part of its 'Review of the wholesale broadband access markets 2006/07', Ofcom— the UK telecoms regulator—determined that ex ante regulation should be removed in ESAs where there are 4 or more competitors (including the incumbent) and where no single company has significant market power. As a result, Ofcom will deregulate almost 70 per cent of the UK wholesale broadband market where there is now strong competition.[451]

Similar issues have also been considered in Canada, which has seen a variation to the set of criteria/factors used to guide deregulation of retail local exchange services supplied by the incumbent. The Regulatory Impact Analysis Statement to the variation explains the new criteria:

> Forbearance can occur in a residential market if there are, in addition to the incumbent, at least two independent facilities-based telecommunications services providers, including providers of mobile wireless services, each of which offers services in the market and is capable of serving at least 75% of the number of residential lines that the incumbent is capable of serving in that market, and at least one of which, in addition to the incumbent, is a facilities-based, fixed-line telecommunications service provider.[452]

The ACCC considers that the use of a SIO threshold that provides an addressable market that can support at least four ULLS based competitors (including Telstra) will be one appropriate benchmark for it being satisfied that the removal of PSTN OA declaration in certain geographic areas would promote the LTIE. This level of ULLS-based entry will provide the basis for effective competition in the downstream markets leading to lower prices and better quality and differentiated service offerings. In addition, the presence of four ULLS competitors (including Telstra) will also provide an effective competitive constraint on Telstra at the wholesale level, as ULLS competitors will likely compete in wholesaling PSTN OA within an ESA.

There are obvious difficulties in determining the precise SIO threshold that is able to support this scale of ULLS-based entry, as this threshold will vary according to the specific characteristics of the ESA as well as the specific business cases of different providers. In Telstra's 387 nominated metropolitan ESAs where there are four ULLS competitors (including Telstra) the average size of the ESA is approximately 14,347 SIOs. While the ACCC recognises that this threshold is based on the progress of ULLS deployment by access seekers to date, it provides the most robust and empirically-based indicator at this point in time.

The ACCC therefore considers that the use of ESAs with greater than 14,000 SIOs is an appropriate generalised proxy for where effective ULLS-based competition will be viable and where the removal of PSTN OA declaration will promote the LTIE. The ACCC notes that this assessment should not be taken to mean that entry and effective ULLS-based competition in the provision of voice services is not sustainable in smaller exchanges. Rather this threshold is chosen in the context of the ACCC's current assessment that requires it to be satisfied that the granting of the exemption orders will promote the LTIE, based on the current information before it.

[451] Ofcom, Deregulating the UK's wholesale broadband markets: 70% of the country to be liberalised, 21 May 2008, http://www.ofcom.org.uk/media/news/2008/05/nr_20080521

[452] CRTC, *Order Varying Telecom Decision* 2006-15 P.C. 2007- 0532, http://www.ic.gc.ca/epic/site/smt-gst.nsf/en/sf08752e.html

In calculating the size of the addressable market, the ACCC has subtracted lines affected by pair gain/RIMs from the total SIOs (to take into account that these lines cannot be serviced via DSLAM/MSAN equipment).

Evidence of ULLS-based take-up to date

The threshold identified by the ACCC of the number of SIOs that an ESA must have in order for the ACCC to be satisfied that further ULLS take-up would be likely upon the granting of the exemptions is clearly a conservative figure.

In this regard, the ACCC notes that there are several ESAs within Telstra's 387 nominated Metropolitan ESAs that have already attracted four ULLS-based competitors (including Telstra), but which have a total SIOs falling below the ACCC's threshold identified above.

Accordingly, the ACCC recognises that such ESAs must also be attractive for ULLS entry based on the take-up so far, and is satisfied that to include these ESAs within the lists of those ESAs likely to attract further ULLS based competition in future with the exemptions.

All 17 CBD ESAs nominated by Telstra have already attracted four or more ULLS-based competitors (including Telstra).

Availability of voice switching services and transmission capacity

As discussed above, the ACCC understands that potential barriers to entry for firms entering the fixed voice market via ULLS are accessing competitively priced voice switching services and transmission capacity.

The ACCC has assessed the ESAs listed below and is of the view that obtaining voice switching services and transmission capacity in these areas is likely to be feasible.

Availability of alternative infrastructure

Using data obtained from carriers in response to the ACCC's Infrastructure Audit RKR (released in December 2007) the ACCC understands that there is Optus HFC coverage available in **[c-i-c]** of Telstra's 387 nominated metropolitan ESAs (or approximately **[c-i-c]** per cent of this area). In the ACCC's Metropolitan Exemption Footprint at Attachment A to Appendix B, however, Optus' HFC network is available in approximately **[c-i-c]** per cent of ESAs.[453]

In the 17 CBD ESAs the subject of Telstra's CBD Exemption Application, there are a number of alternative infrastructure providers that provide voice services or are capable of providing voice and broadband services. In 2002, the ACCC granted an exemption for LCS in the 17 CBD ESAs based on evidence contained in the BIS Shrapnel report that was commissioned by the ACCC.[454] The ACCC stated that the BIS Shrapnel report provided evidence of actual and future potential competition for

[453] ACCC, *Infrastructure Audit Record Keeping and Reporting Rules – Section 151BU of the Trade Practices Act 1974*, June 2007.

[454] BIS Shrapnel – Technology Applications Group, *Telecommunications Infrastructures in Australia 2001 – a research report prepared for ACCC*, December 2001.

LCS and provision of fixed voice services, which would include PSTN OA.[455] The ACCC's Infrastructure Audit RKR has confirmed that many of the alternative infrastructure providers that were present back in 2001 are still present today or have merged with other firms. In particular, in the 17 CBD ESAs the subject of Telstra's CBD Exemption Application:

- there are a large proportion of customers located very close to the exchange that could access very high speed ADSL2+ broadband services;
- there are a large proportion of customers who are businesses and professionals who will generally purchase larger bandwidth services
- there are at least 4 major fibre backhaul providers and fibre backhaul from the exchange is reasonably competitive.

Capping

As discussed in the Draft Decision, the ACCC is of the view that granting proposed exemptions will only promote the LTIE where access seekers can gain entry into exchanges. Therefore, where an exchange in an ESA is 'capped', it has been excluded from the list of ESAs below (where it would otherwise have met the 'threshold' for exemption). This includes exchanges that are deemed by Telstra to be 'potentially capped' (as there is no certainty of access in these exchanges). The TEBA list on which the ACCC has based this assessment is that at Appendix D, listing capped and potentially capped exchanges as at 2 July 2008. This TEBA list was used in the ACCC's Final Decision on Telstra's WLR/LCS Exemption Applications and given the complementary of the PSTN OA Metropolitan Exemption Application and the WLR/LCS Exemption Applications (i.e. they seek exemption for the same ESAs) the ACCC considers this TEBA list is the most appropriate as the basis for its PSTN OA Proposed Exemption Footprint.

Conclusion

On the basis of the above analysis, the ACCC's draft view is that granting exemption from the SAOs as they relate to the supply of PSTN OA would promote the LTIE, subject to various conditions and limitations set out at Chapter 9 of the reasons for the Draft Decision, in those exemption ESAs that as at 30 June 2008:

- have 14,000 or more addressable SIOs; *or*
- have four or more ULLS-based competitors (including Telstra) within the ESA.

Therefore:

- based on the above analysis, and excluding those exchanges the subject of Telstra's PSTN OA Metropolitan Exemption Application that are considered 'capped' as at 2 July 2008, the ACCC's draft view is that the Proposed Metropolitan Exemption Order should apply to **248** of the **387** ESAs in Telstra's Metropolitan Exemption Application (the ACCC's Proposed

[455] ACCC, *Future scope of the Local Carriage Service – final decision*, July 2002.

Metropolitan Exemption Footprint is listed in Table 1 in Attachment A to Appendix B); and

- based on the above analysis, and excluding those exchanges the subject of Telstra's PSTN OA Metropolitan Exemption Application that are considered 'capped' as at 2 July 2008, the ACCC's draft view is that the Proposed Metropolitan Exemption Order should apply to **15** of the **17** CBD ESAs in Telstra's CBD Exemption Application (the ACCC's Proposed CBD Exemption Footprint is listed in Table 2 in Attachment A to Appendix B).

ATTACHMENT A TO APPENDIX B

The following table sets out the Metropolitan ESAs that fulfil the above criteria.

Table 1: ACCC Proposed Metropolitan Exemption Footprint

ESA Code	ESA NAME	STATE
AARE	ACACIA RIDGE	QLD
ABON	ALBION	QLD
ACOT	ASCOT	QLD
APPX	APPLECROSS	WA
ARMD	ARMADALE	WA
ASCT	ASCOT	VIC
ASHF	ASHFIELD	NSW
ASOT	ASCOT	WA
ATTA	ATTADALE	WA
BALC	BALACLAVA	VIC
BALG	BALGOWLAH	NSW
BALM	BALMAIN	NSW
BANK	BANKSTOWN	NSW
BATA	BATEMAN	WA
BAYR	BAYSWATER	VIC
BBEG	BUNDABERG	QLD
BEEL	BEENLEIGH	QLD
BELG	BELGRAVE	VIC
BELM	BELMONT	VIC
BEND	BENDIGO	VIC
BKWD	BLACKWOOD	SA
BLAC	BLACKTOWN	NSW
BLBN	BLACKBURN	VIC
BLCN	BELCONNEN	ACT
BOND	BONDI	NSW
BOTA	BOTANY	NSW
BRAT	BALLARAT	VIC
BRIH	BRIGHTON	SA
BRUK	BRUNSWICK	VIC
BSDN	BASSENDEAN	WA
BURD	BURWOOD	NSW
BURL	BURLEIGH HEADS	QLD
CAMP	CAMPSIE	NSW
CANN	CANNINGTON	WA
CARR	CARRAMAR	NSW
CAST	CASTLE HILL	NSW
CAUL	CAULFIELD	VIC
CBRG	COBURG	VIC
CBTN	CAMPBELLTOWN	NSW
CFSH	COFFS HARBOUR	NSW
CHAT	CHATSWOOD	NSW
CHDE	CHERMSIDE	QLD
CHPL	CHAPEL HILL	QLD
CLAY	CLAYTON	VIC

ESA Code	ESA NAME	STATE
CLVL	CLEVELAND	QLD
CMLL	CAMBERWELL	VIC
CNVL	CANNING VALE	WA
COOG	COOGEE	NSW
CPHL	CAMP HILL	QLD
CPRO	COORPAROO	QLD
CRBY	CANTERBURY	VIC
CRCF	CRACE	ACT
CREM	CREMORNE	NSW
CRON	CRONULLA	NSW
CRSX	CAIRNS	QLD
CRYD	CROYDON	SA
CSEA	CHELSEA	VIC
CTAM	CHELTENHAM	VIC
CTOE	COTTESLOE	WA
CTON	CARLTON	VIC
CVIC	CIVIC	ACT
CWOD	COLLINGWOOD	VIC
DAND	DANDENONG	VIC
DBLV	DOUBLEVIEW	WA
DEEW	DEE WHY	NSW
DKIN	DEAKIN	ACT
DONC	DONCASTER	VIC
EAST	EAST	NSW
EDGE	EDGECLIFF	NSW
EDWN	EDWARDSTOWN	SA
ELSK	ELSTERNWICK	VIC
ELTM	ELTHAM	VIC
EMPS	EIGHT MILE PLAINS	QLD
EPPI	EPPING	NSW
ERPK	EDENSOR PARK	NSW
ESPK	ERSKINE PARK	NSW
EWOO	EASTWOOD	NSW
EZBH	ELIZABETH	SA
FIVE	FIVE DOCK	NSW
FMTL	FREMANTLE	WA
FREN	FRENCHS FOREST	NSW
FSRY	FOOTSCRAY	VIC
FTON	FLEMINGTON	VIC
GBRH	GREENSBOROUGH	VIC
GEEM	GEELONG	VIC
GIRR	GIRRAWHEEN	WA
GLEB	GLEBE	NSW
GLLG	GLENELG	SA
GNGE	GOLDEN GROVE	SA
GPCS	GEPPS CROSS	SA
GRAN	GRANVILLE	NSW
GSFD	GOSFORD	NSW

ESA Code	ESA NAME	STATE
GUGA	GLENUNGA	SA
GULL	GULLIVER	QLD
HAMN	HAMILTON	NSW
HAMS	HAMERSLEY	WA
HARB	HARBORD	NSW
HAWN	HAWTHORN	VIC
HDBG	HEIDELBERG	VIC
HGTT	HIGHETT	VIC
HILN	HILTON	WA
HNLY	HENLEY BEACH	SA
HOLS	HOLSWORTHY	NSW
HOME	HOMEBUSH	NSW
HORN	HORNSBY	NSW
HPSD	HAMPSTEAD	SA
HTLL	HARTWELL	VIC
HURS	HURSTVILLE	NSW
IALA	INALA	QLD
INGL	INGLEBURN	NSW
IPSW	IPSWICH	QLD
JKOT	JANDAKOT	WA
JREE	JAMBOREE HEIGHTS	QLD
KELL	KELLYVILLE	NSW
KENS	KENSINGTON	NSW
KLGR	KALLANGUR	QLD
KOGA	KOGARAH	NSW
KSLY	KINGSLEY	WA
KYNG	KOOYONG	VIC
LAKE	LAKEMBA	NSW
LANE	LANE COVE	NSW
LCHE	LUTWYCHE	QLD
LIDC	LIDCOMBE	NSW
LIVE	LIVERPOOL	NSW
LNYN	LANYON	ACT
MADD	MADDINGTON	WA
MALV	MALVERN	VIC
MANL	MANLY	NSW
MARO	MAROUBRA	NSW
MASC	MASCOT	NSW
MAYM	MAYLANDS	WA
MCHN	MITCHELTON	QLD
MDBY	MODBURY	SA
MDLD	MIDLAND	WA
MENA	MENAI	NSW
MGAT	MOUNT GRAVATT	QLD
MHAW	MOUNT HAWTHORN	WA
MILD	MILDURA	VIC
MILL	MILLER	NSW

ESA Code	ESA NAME	STATE
MINT	MINTO	NSW
MIRA	MIRANDA	NSW
MITM	MITCHAM	VIC
MLBA	MELBA	ACT
MLEY	MORLEY	WA
MLND	MORELAND	VIC
MLOC	MORDIALLOC	VIC
MLOO	MULLALOO	WA
MNNG	MANNING	WA
MONA	MONA VALE	NSW
MOSM	MOSMAN	NSW
MWSN	MAWSON	ACT
NALE	NORTH ADELAIDE	SA
NAWN	NARRE WARREN	VIC
NCOE	NORTHCOTE	VIC
NDAH	NUNDAH	QLD
NDLN	NEDLANDS	WA
NEWT	NEWTOWN	NSW
NLTN	NEW LAMBTON	NSW
NMEL	NORTH MELBOURNE	VIC
NMKT	NEWMARKET	QLD
NPAR	NORTH PARRAMATTA	NSW
NPRT	NEWPORT	VIC
NRWD	NORWOOD	SA
NRYD	NORTH RYDE	NSW
NSYD	NORTH SYDNEY	NSW
NWFM	NEW FARM	QLD
OAKL	OAKLEIGH	VIC
ORGF	ORANGE	NSW
ORMD	ORMOND	VIC
PARR	PARRAMATTA	NSW
PDTN	PADDINGTON	QLD
PEND	PENDLE HILL	NSW
PENN	PENNANT HILLS	NSW
PETE	PETERSHAM	NSW
PMEL	PORT MELBOURNE	VIC
PNTH	PENRITH	NSW
PRDS	PARADISE	SA
PROT	PROSPECT	SA
PRTN	PRESTON	VIC
PTAD	PORT ADELAIDE	SA
PYMB	PYMBLE	NSW
QUAK	QUAKERS HILL	NSW
RAND	RANDWICK	NSW
RCMD	RICHMOND	VIC
REDF	REDFERN	NSW
RELA	REYNELLA	SA

ESA Code	ESA NAME	STATE
REVE	REVESBY	NSW
RIVT	RIVERTON	WA
ROCK	ROCKDALE	NSW
ROOT	ROOTY HILL	NSW
RSVR	RESERVOIR	VIC
RWOD	RINGWOOD	VIC
RYDA	RYDALMERE	NSW
RYDE	RYDE	NSW
SALA	SALISBURY	SA
SALB	ST ALBANS	VIC
SCLN	SCULLIN	ACT
SCOY	SCORESBY	VIC
SEAF	SEAFORD	VIC
SEMC	SEMAPHORE	SA
SEVE	SEVEN HILLS	NSW
SHPN	SHEPPARTON	VIC
SILV	SILVERWATER	NSW
SLAC	SLACKS CREEK	QLD
SMEL	SOUTH MELBOURNE	VIC
SMRN	SOUTH MORANG	VIC
SOAK	SOUTH OAKLEIGH	VIC
SOPT	SOUTHPORT	QLD
SOTH	SOUTH BRISBANE	QLD
SPLE	SPRINGVALE	VIC
SPTH	SOUTH PERTH	WA
SRWD	SHERWOOD	QLD
SSBY	SALISBURY	QLD
STKA	ST KILDA	VIC
STLE	ST LEONARDS	NSW
STMA	ST MARYS	NSW
STMF	ST MARYS	SA
STPE	ST PETERS	SA
SUBT	SUBIACO	WA
SURF	SURFERS PARADISE	QLD
SYBK	SUNNYBANK	QLD
SYRA	SOUTH YARRA	VIC
THTN	THOMASTOWN	VIC
TMNE	TULLAMARINE	VIC
TNBY	THORNBURY	VIC
TOBF	TOOWOOMBA	QLD
TRAK	TOORAK	VIC
TUTT	TUART HILL	WA
TWOG	TOOWONG	QLD
TYHO	TALLY HO	VIC
UNDE	UNDERCLIFFE	NSW
UNLY	UNLEY	SA
VICP	VICTORIA PARK	WA

ESA Code	ESA NAME	STATE
VLLY	VALLEY	QLD
WAVE	WAVERLEY	NSW
WDVL	WOODVILLE	SA
WESA	WEST ADELAIDE	SA
WETH	WETHERILL PARK	NSW
WHLL	WHEELERS HILL	VIC
WIRC	WINDSOR	VIC
WLGG	WOLLONGONG	NSW
WMBY	WEMBLEY	WA
WOBB	WOOLLOONGABBA	QLD
WOLF	WOLFE	NSW
WOYY	WOY WOY	NSW
WRNA	WANTIRNA	VIC
YRGA	YERONGA	QLD
ZMRE	ZILLMERE	QLD

The following table sets out the CBD ESAs that fulfil the above criteria.

Table 2: ACCC Proposed CBD Exemption Footprint

ESA Code	ESA NAME	STATE
BATM	BATMAN	VIC
BWER	BULWER	WA
CHLT	CHARLOTTE	QLD
CYSH	CITY SOUTH	NSW
DALL	DALLEY	NSW
EDSN	EDISON	QLD
EXHN	EXHIBITION	VIC
FLNF	FLINDERS	SA
HMKT	HAYMARKET	NSW
KNST	KENT	NSW
LONS	LONSDALE	VIC
PIER	PIER	WA
SGHL	SPRING HILL	QLD
WAYM	WAYMOUTH	SA
WLTE	WELLINGTON	WA

-

Appendix C: Submissions

Submissions to October 2007 PSTN OA Exemption Applications

Submissions to Discussion Paper

Telstra

Telstra, *Submission to the Australian Competition and Consumer Commission - Telstra Response to Questions from ACCC Discussion Paper of October 2007 in respect of the PSTN Originating Access Service*, December 2007.

Telstra, *Application for Exemption in respect of the PSTN Originating Access service- Response to ACCC Information Request dated 12 March 2008,* May 2008.

Telstra, *Submission to the Australia Competition and Consumer Commission WLR/LCS Exemption Applications – Telstra Response to the Submission of Nicholls Legal entitled "Submission on behalf of the Competitive Carriers' Coalition, Inc. in relation to Telstra's declaration exemption applications,* April 2008.

Optus

Optus, *Optus Submission to the Australian Competition and Consumer Commission on Telstra's PSTN OA Service Exemption Application,* December 2007.

AAPT / PowerTel

AAPT / PowerTel, *Submission by AAPT Limited & PowerTel Limited to the Australian Competition and Consumer Commission in response to Telstra's PSTN Originating Exemption Applications*, December 2007.

Soul

Soul, *Telstra's Domestic PSTN Originating Access Service – Exemption Application,* 14 December 2007.

Concept Economics (on behalf of Telstra)

Concept Economics, *Expert report by Dr Paul Paterson of Concept Economics for Mallesons Stephen Jaques on the responses to the ACCC Discussion Paper 'Telstra's Domestic PSTN Originating Access service exemption applications'*, 27 June 2008.

CRA International (on behalf of Telstra)

CRA International, *Expert Report by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the ACCC Discussion Paper 'Telstra's local carriage service and wholesale line rental applications' August 2007*, 7 November 2007.

CRA International, *Expert Report by Dr Paul Paterson of CRA International for Mallesons Stephen Jaques on the ACCC Discussion Paper 'Telstra's domestic PSTN originating access service exemption applications' August 2007*, 18 December 2007.

Evans & Peck (on behalf of Telstra)

Evans & Peck, *Technical Feasibility of using ADSL Networks to Supply Voice Services that Replicate PSTN Services*, 30 October 2007.

Gilbert and Tobin (on behalf of Macquarie Telecom)

Gilbert and Tobin, *Submission by Macquarie Telecom in response to ACCC Discussion Paper reviewing Telstra's PSTN OA Originating Access service exemption applications*, 14 December 2007.

Market Clarity (on behalf of Telstra)

Market Clarity, *Australian Wholesale Voice Networks and Capabilities Prepared for Mallesons Stephen Jaques*, 1 November 2007.

Nicholls Legal (on behalf of the Competitive Carriers' Coalition)

Nicholls Legal, *Nicholls Legal submission on behalf of the CCC in relation to Telstra's declaration exemption applications*, 19 March 2008.

Appendix D: Telstra TEBA Capped Sites

TEBA

Capped sites for Telstra Equipment Building Access (TEBA)

The following list of TEBA sites shows the sites that have been capped and currently have no floor space and/or MDF space available for TEBA.

This is a dynamic list which is updated approximately monthly. Sites currently listed below may be removed from the list if space becomes available in the future (for example, because of completion of capital works or changes in requirements).

"Racks & MDF capped" means that there is neither rack space nor space available on the main distribution frame.

"Racks Capped" means that there is still space available on the MDF, and customers may be able to house their DSLAMs external to the Telstra exchange and apply for an External Interconnection Cable to connect to the exchange MDF.

"Potential" means room may be available after a full consultation with the Area Planner to determine the scope of works required to establish the TEBA area. Scope of works for "Potential" sites may include, but is not limited to, works such as converting Non-equipment rooms into Equipment rooms, removing decommissioned equipment or upgrading major building facilities (e.g. AC Switch boards, EPP, and Central air conditioning plant.). The amount of space able to be made available by undertaking such works may be limited. Customers wishing to assess these sites should submit a PSR.

As at 02 July 2008

TEBA Site	Exchange	State	TEBA Space Status
AIRLIE BEACH	AIRL	QLD	Rack & MDF Capped
ALEXANDRA HILLS	ALXH	QLD	Potential
BALLAJURA	BLJA	WA	Potential
BERWICK SOUTH	BWKS	VIC	Racks Capped
BOX HILL	BOXL	VIC	Potential
BROOKFIELD	BKID	QLD	Racks Capped
BROWN PLAINS	BNPS	QLD	Potential
BULIMBA	BMBA	QLD	Potential
BUNDALL	BNDL	QLD	Racks Capped
CROYDON	CROH	VIC	Potential
DANDENONG SOUTH	DNDS	VIC	Racks Capped
EDMONTON	EDMO	QLD	Racks Capped
EPSOM	EPSO	VIC	Racks Capped
FRANKSTON	FRTN	VIC	Potential

Wholesale
Determined to Deliver

TEBA Site	Exchange	State	TEBA Space Status
FRESHWATER	FRES	QLD	Racks Capped
GARDENVALE	GALE	VIC	Racks Capped
GLEN FORREST	GFOR	WA	Racks Capped
GLEN IRIS	GLIS	VIC	Potential
GREENVALE	GRLE	VIC	Racks Capped
GREENWITH	GWTH	SA	Potential
HOPE ISLAND	HOID	QLD	Racks Capped
IVANHOE	IVAN	VIC	Potential
KELSO	KELO	QLD	Racks Capped
LONSDALE	LSDE	SA	Potential
LYSTERFIELD	LYFD	VIC	Racks Capped
MERRIMAC	MRAC	QLD	Potential
MUNSTER	MUNS	WA	Racks Capped
NERANG	NERG	QLD	Potential
OAKEY FLATS	OKFL	QLD	Potential
OCEAN REEF	OCRF	WA	Potential
OXENFORD	OXEN	QLD	Racks Capped
PITT	PITT	NSW	Rack & MDF Capped
POINT COOK	PCOK	VIC	Racks Capped
PORTSMITH	PTSM	QLD	Potential
QUINNS ROCKS	QINS	WA	Potential
REDLAND BAY	REDL	QLD	Racks Capped
ROBINA	RBNA	QLD	Racks Capped
ROCKINGHAM	RKHM	WA	Potential
ROMA ST	RASH	QLD	Rack & MDF Capped
ROWVILLE	ROWV	VIC	Racks Capped
RYE	RYEE	VIC	Potential
SAMFORD	SAOD	QLD	Potential
SOMERTON	SRTN	VIC	MDF Capped
STRATHPINE	SPNE	QLD	Racks Capped
SYDENHAM	SHAM	VIC	Racks Capped
TAYLORS LAKES	TALX	VIC	Racks Capped
THORNLANDS	THOR	QLD	Racks Capped
TRINITY	TRIN	QLD	Racks Capped
VICTORIA POINT	VAPT	QLD	Racks Capped
WANNEROO	WANO	WA	Potential
WARNER	WRNE	QLD	Potential
WARRANDYTE	WDTE	VIC	Potential
WYNNUM	WYNM	QLD	Potential

Wholesale
Determined to Deliver

Appendix E: Copy of DRAFT ORDER in respect of Telstra's PSTN OA Metropolitan individual exemption application of 8 October 2007

TRADE PRACTICES ACT 1974

Order under paragraph 152AT(3)(a) by the Australian Competition and Consumer Commission

Individual exemption from standard access obligations in respect of PSTN OA

1. Title

This Order may be cited as Individual Exemption Order No. x of 2008.

2. Commencement and Expiry

(1) This Order comes into effect 12 months after the date of release of the Commission's Final Decision on Telstra's application for an individual exemption from the Standard Access Obligations in respect of PSTN OA lodged on 8 October 2007.

(2) This Order will expire on 31 December 2012 or the expiry or revocation of either the PSTN OA Declaration or the ULLS Declaration, whichever first occurs.

3. Interpretation

(1) Unless the contrary intention appears, where words or phrases used in this Order are defined in the Act, the *Telecommunications Act 1997* or the instrument declaring the Declared Service, those words or phrases have the same meaning in this Order.

(2) In this Order, unless the contrary intention appears –

Access means access by an Access Seeker to an Exchange Building for the purpose of taking supply of the ULLS from Telstra.

Access Seeker has the same meaning as in section 152AG of the Act.

ACMA means the Australian Communications and Media Authority.

Act means the *Trade Practices Act 1974.*

Attachment A ESAs means the ESAs listed in Attachment A to this Order.

Bundled Fixed Voice and Broadband Service means a voice service provided together with a broadband service to an End User both of which are supplied by means of Telstra's copper-based public switched telephone network.

Capped Exchange means an Exchange Building which Telstra has determined is unavailable for Access by Access Seekers for any reason, including without limitation those Exchange Buildings listed by Telstra in the TEBA Capped List as 'MDF capped', 'Racks capped' or 'Racks and MDF capped'.

Carrier or Carriage Service Provider Specific Access Code means:

i. an International Special Service Code (an 001X or 009X code or other equivalent code determined by ACMA); or

ii. a VPN Access Code (an 188X code or other equivalent code determined by ACMA)

Commencement Date means the date on which this Order comes into effect in accordance with Item 2 of this Order.

Commission means the Australian Competition and Consumer Commission.

Constructively Capped Exchange means an Exchange Building other than a Capped Exchange which the ACCC has determined that Telstra requires as a condition of Access improvements to be made to an Exchange Building at an Access Seeker's cost where such improvements go beyond the standard costs required for Access by the Access Seeker.

Declared Service means the PSTN OA.

End User means an end-user of carriage services or other services supplied by means of carriage services, rather than the suppliers of these services.

Exchange Service Area or ***ESA*** has the meaning given to that phrase by the Australian Communications Industry Forum Limited definition in ACIF C559:2006, Part 1.

Exchange Building means a telecommunications exchange building owned, operated or controlled by Telstra.

Exemption means the exemption specified in Item 4 of this Order.

First Queued Access Seeker means the Queued Access Seeker in respect of an Exchange Building that lodged its PSR first in time in respect of that Exchange Building.

Joint Completion Inspection or ***JCI*** means an inspection of an Exchange Building by representatives of Telstra and an Access Seeker conducted following the completion of construction works in that Exchange Building by that Access Seeker.

LCS means the Local Carriage Service declared by the Commission under subsection 152AL(3) of the Act pursuant to the LCS Declaration.

LCS Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the LCS with effect from 1 August 2006 and published in the *Commonwealth of Australia Gazette* No. GN 31 of 9 August 2006, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the LCS Declaration under subsection 152ALA(4) of the Act.

LSS means the Line Sharing Service declared by the Commission under subsection 152AL(3) of the Act pursuant to the LSS Declaration.

LSS Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the LSS, the extension of which became effective on 29 October 2007 and was published in the Commonwealth of Australia Gazette No. S214 of 29 October 2007, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the LSS Declaration under subsection 152ALA(4) of the Act.

MDF means the Main Distribution Frame.

PSTN OA means the Domestic PSTN Originating Access service declared by the Commission under subsection 152AL(3) of the Act pursuant to the PSTN OA Declaration.

PSTN OA Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the Domestic PSTN OA with effect from 1 August 2006 and published in the *Commonwealth of Australia Gazette* No. GN 31 of 9 August 2006, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the PSTN OA Declaration under subsection 152ALA(4) of the Act.

Potentially Capped Exchange means a Telstra Exchange Building which Telstra has determined may be unavailable for Access by Access Seekers for any reason. This includes without limitation Exchange Buildings listed in the TEBA Capped List as 'Potential'.

Preliminary Study Request or ***PSR*** means a request by an Access Seeker to Telstra for Access to an Exchange Building.

Prescribed LSS to ULLS Migration Process means a process developed and implemented by Telstra for the migration by Telstra, at the request of an Access Seeker, of End Users from LSS to ULLS in Attachment A ESAs.

Queued Access Seeker means an Access Seeker who:

a. submitted a PSR before the Commencement Date in respect of Access to an Exchange Building within an Attachment A ESA that has not been rejected by Telstra and has not been withdrawn by the Access Seeker at any subsequent time; and

b. has not passed JCI in relation to that PSR.

For the avoidance of doubt:

a. a PSR has not been rejected by Telstra while it is still under consideration by Telstra; and

b. Queued Access Seeker includes without limitation a First Queued Access Seeker.

Special Services Global Code means:

a. a freephone service code (180X code)

b. a charge card service code (189XX code)

c. an information service code (190X code);

d. a 13 and 1300 code; and

e. other equivalent or replacement codes determined by ACMA.

Standard Access Obligations means the standard access obligations set out in section 152AR of the Act.

Standard Telephone Service has the meaning given by section 6 of the *Telecommunications (Consumer Protection and Service Standards) Act* 1999 (Cth).

TEBA Capped List means the document that Telstra publishes from time to time that lists those Exchange Buildings that Telstra regards as Capped Exchanges or Potentially Capped Exchanges.

Telstra means Telstra Corporation Limited (ACN 051 775 556).

ULLS means the Unconditioned Local Loop Service declared by the Commission under subsection 152AL(3) of the Act pursuant to the ULLS Declaration.

ULLS Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the ULLS with effect from 1 August 2006 and published in the *Commonwealth of Australia Gazette* No. GN 31 of 9 August 2006, as varied from time to time.

> Note: The Commission may extend or further extend the expiry date of the ULLS Declaration under subsection 152ALA(4) of the Act.

WLR means the Line Rental Service (also known as Wholesale Line Rental) declared by the Commission under subsection 152AL(3) of the Act pursuant to the WLR Declaration.

WLR Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the WLR with effect from 1 August 2006 and published in the *Commonwealth of Australia Gazette* No. GN 31 of 9 August 2006, as varied from time to time.

> Note: The Commission may extend or further extend the expiry date of the WLR Declaration under subsection 152ALA(4) of the Act.

4. Exemption

Subject to the conditions and limitations specified in Item 5 below, Telstra is exempt from the Standard Access Obligations in respect of the supply of PSTN OA within the Attachment A

ESAs, except where PSTN OA is being provided in conjunction with a call dialled using a Special Services Global Code or a Carrier or Carriage Service Provider Specific Access Code.

5. Conditions and Limitations

Under subsection 152AT(5) of the Act, the Exemption is subject to the following conditions and limitations:

5.1 Until the date on which the Commission publishes a Prescribed LSS to ULLS Migration Process on its website, the Exemption does not apply in respect of the supply by Telstra of PSTN OA to an Access Seeker in respect of any End User that, immediately prior to the Commencement Date, was supplied with a Bundled Fixed Voice and Broadband Service by the Access Seeker using the LSS, WLR, LCS and PSTN OA supplied by Telstra.

5.2 If Telstra develops and implements a Prescribed LSS to ULLS Migration Process and the Commission has published that process on its website (as referred to in item 5.1), Telstra must comply with that process.

5.3 Any Prescribed LSS to ULLS Migration Process developed and implemented by Telstra must provide for the migration of End Users from LSS to ULLS in a manner that ensures:

a. any period of time in which an End User is unable to receive a broadband service by means of the copper pair servicing their Standard Telephone Service by reason of that migration will be no longer than three (3) hours; and

b. End User involvement in that migration (including without limitation the making of a telephone call or sending of correspondence by the End User to Telstra) is not required.

5.4 Telstra must notify the Commission, if it develops and implements a Prescribed LSS to ULLS Migration Process. The notice must:

a. be in writing;

b. be addressed to the Group General Manager, Communications Group (or such other person as notified by the Commission);

c. include certification by an officer of Telstra that its Prescribed LSS to ULLS Migration Process satisfies the requirements of Item 5.3 of this Order;

d. detail each aspect of the Prescribed LSS to ULLS Migration Process (including without limitation details of how the LSS to ULLS migration will be engineered, timeframes within which the LSS to ULLS migration will take place and details of any administrative processes to be undertaken in conjunction with the LSS to ULLS migration);

e. be in a form appropriate for publication by the Commission on its website; and

f. not contain any confidential information.

5.5 The Exemption does not apply in respect of the supply of PSTN OA to any Queued Access Seeker in the Attachment A ESA in respect of which the Access Seeker is a Queued Access Seeker.

5.6 Telstra must provide notice to the Commission within 24 hours of an Exchange Building within any Attachment A ESA first becoming a Capped Exchange or a Potentially Capped Exchange. The notice must:

a. be in writing;

b. addressed to the Group General Manager, Communications Group (or such other person as notified by the Commission);

c. be specify the Attachment A ESA within which the Exchange Building has become a Capped Exchange or Potentially Capped Exchange;

d. specify whether the Exchange Building has become a Capped Exchange or a Potentially Capped Exchange;

e. provide an explanation of why the Exchange Building has become a Capped Exchange or Potentially Capped Exchange;

f. specify the date upon which the Exchange Building first became a Capped Exchange or Potentially Capped Exchange;

g. be in a form appropriate for publication by the Commission on its website; and

h. not contain any confidential information.

5.7 The Exemption ceases to apply within an Attachment A ESA from the date on which the Exchange Building within the Attachment A ESA first becomes a Capped Exchange, a Potentially Capped Exchange or a Constructively Capped Exchange.

5.8 The Exemption ceases to apply within an Attachment A ESA from the date on which Telstra first ceases to supply the ULLS whether to itself or to other persons within that Attachment A ESA

Note: Telstra will be taken to have ceased to supply the ULLS to itself or other persons if it ceases to be an access provider of the ULLS (within the meaning of subsection 152AR(2)) within the relevant Attachment A ESA.

5.9 For the avoidance of doubt, the Exemption will not apply in respect of PSTN OA provided under an agreement which is in force as at the Commencement Date for so long as that agreement remains in force.

[Signed]

……..

Chairperson

DATED: ..……. 2008

ATTACHMENT A

ESA Code	ESA NAME	STATE
AARE	ACACIA RIDGE	QLD
ABON	ALBION	QLD
ACOT	ASCOT	QLD
APPX	APPLECROSS	WA
ARMD	ARMADALE	WA
ASCT	ASCOT	VIC
ASHF	ASHFIELD	NSW
ASOT	ASCOT	WA
ATTA	ATTADALE	WA
BALC	BALACLAVA	VIC
BALG	BALGOWLAH	NSW
BALM	BALMAIN	NSW
BANK	BANKSTOWN	NSW
BATA	BATEMAN	WA
BAYR	BAYSWATER	VIC
BBEG	BUNDABERG	QLD
BEEL	BEENLEIGH	QLD
BELG	BELGRAVE	VIC
BELM	BELMONT	VIC
BEND	BENDIGO	VIC
BKWD	BLACKWOOD	SA
BLAC	BLACKTOWN	NSW
BLBN	BLACKBURN	VIC
BLCN	BELCONNEN	ACT
BOND	BONDI	NSW
BOTA	BOTANY	NSW
BRAT	BALLARAT	VIC
BRIH	BRIGHTON	SA
BRUK	BRUNSWICK	VIC
BSDN	BASSENDEAN	WA
BURD	BURWOOD	NSW
BURL	BURLEIGH HEADS	QLD
CAMP	CAMPSIE	NSW
CANN	CANNINGTON	WA
CARR	CARRAMAR	NSW
CAST	CASTLE HILL	NSW
CAUL	CAULFIELD	VIC
CBRG	COBURG	VIC
CBTN	CAMPBELLTOWN	NSW
CFSH	COFFS HARBOUR	NSW
CHAT	CHATSWOOD	NSW
CHDE	CHERMSIDE	QLD
CHPL	CHAPEL HILL	QLD
CLAY	CLAYTON	VIC
CLVL	CLEVELAND	QLD
CMLL	CAMBERWELL	VIC

ESA Code	ESA NAME	STATE
CNVL	CANNING VALE	WA
COOG	COOGEE	NSW
CPHL	CAMP HILL	QLD
CPRO	COORPAROO	QLD
CRBY	CANTERBURY	VIC
CRCF	CRACE	ACT
CREM	CREMORNE	NSW
CRON	CRONULLA	NSW
CRSX	CAIRNS	QLD
CRYD	CROYDON	SA
CSEA	CHELSEA	VIC
CTAM	CHELTENHAM	VIC
CTOE	COTTESLOE	WA
CTON	CARLTON	VIC
CVIC	CIVIC	ACT
CWOD	COLLINGWOOD	VIC
DAND	DANDENONG	VIC
DBLV	DOUBLEVIEW	WA
DEEW	DEE WHY	NSW
DKIN	DEAKIN	ACT
DONC	DONCASTER	VIC
EAST	EAST	NSW
EDGE	EDGECLIFF	NSW
EDWN	EDWARDSTOWN	SA
ELSK	ELSTERNWICK	VIC
ELTM	ELTHAM	VIC
EMPS	EIGHT MILE PLAINS	QLD
EPPI	EPPING	NSW
ERPK	EDENSOR PARK	NSW
ESPK	ERSKINE PARK	NSW
EWOO	EASTWOOD	NSW
EZBH	ELIZABETH	SA
FIVE	FIVE DOCK	NSW
FMTL	FREMANTLE	WA
FREN	FRENCHS FOREST	NSW
FSRY	FOOTSCRAY	VIC
FTON	FLEMINGTON	VIC
GBRH	GREENSBOROUGH	VIC
GEEM	GEELONG	VIC
GIRR	GIRRAWHEEN	WA
GLEB	GLEBE	NSW
GLLG	GLENELG	SA
GNGE	GOLDEN GROVE	SA
GPCS	GEPPS CROSS	SA
GRAN	GRANVILLE	NSW
GSFD	GOSFORD	NSW
GUGA	GLENUNGA	SA
GULL	GULLIVER	QLD

ESA Code	ESA NAME	STATE
HAMN	HAMILTON	NSW
HAMS	HAMERSLEY	WA
HARB	HARBORD	NSW
HAWN	HAWTHORN	VIC
HDBG	HEIDELBERG	VIC
HGTT	HIGHETT	VIC
HILN	HILTON	WA
HNLY	HENLEY BEACH	SA
HOLS	HOLSWORTHY	NSW
HOME	HOMEBUSH	NSW
HORN	HORNSBY	NSW
HPSD	HAMPSTEAD	SA
HTLL	HARTWELL	VIC
HURS	HURSTVILLE	NSW
IALA	INALA	QLD
INGL	INGLEBURN	NSW
IPSW	IPSWICH	QLD
JKOT	JANDAKOT	WA
JREE	JAMBOREE HEIGHTS	QLD
KELL	KELLYVILLE	NSW
KENS	KENSINGTON	NSW
KLGR	KALLANGUR	QLD
KOGA	KOGARAH	NSW
KSLY	KINGSLEY	WA
KYNG	KOOYONG	VIC
LAKE	LAKEMBA	NSW
LANE	LANE COVE	NSW
LCHE	LUTWYCHE	QLD
LIDC	LIDCOMBE	NSW
LIVE	LIVERPOOL	NSW
LNYN	LANYON	ACT
MADD	MADDINGTON	WA
MALV	MALVERN	VIC
MANL	MANLY	NSW
MARO	MAROUBRA	NSW
MASC	MASCOT	NSW
MAYM	MAYLANDS	WA
MCHN	MITCHELTON	QLD
MDBY	MODBURY	SA
MDLD	MIDLAND	WA
MENA	MENAI	NSW
MGAT	MOUNT GRAVATT	QLD
MHAW	MOUNT HAWTHORN	WA
MILD	MILDURA	VIC
MILL	MILLER	NSW
MINT	MINTO	NSW
MIRA	MIRANDA	NSW

ESA Code	ESA NAME	STATE
MITM	MITCHAM	VIC
MLBA	MELBA	ACT
MLEY	MORLEY	WA
MLND	MORELAND	VIC
MLOC	MORDIALLOC	VIC
MLOO	MULLALOO	WA
MNNG	MANNING	WA
MONA	MONA VALE	NSW
MOSM	MOSMAN	NSW
MWSN	MAWSON	ACT
NALE	NORTH ADELAIDE	SA
NAWN	NARRE WARREN	VIC
NCOE	NORTHCOTE	VIC
NDAH	NUNDAH	QLD
NDLN	NEDLANDS	WA
NEWT	NEWTOWN	NSW
NLTN	NEW LAMBTON	NSW
NMEL	NORTH MELBOURNE	VIC
NMKT	NEWMARKET	QLD
NPAR	NORTH PARRAMATTA	NSW
NPRT	NEWPORT	VIC
NRWD	NORWOOD	SA
NRYD	NORTH RYDE	NSW
NSYD	NORTH SYDNEY	NSW
NWFM	NEW FARM	QLD
OAKL	OAKLEIGH	VIC
ORGF	ORANGE	NSW
ORMD	ORMOND	VIC
PARR	PARRAMATTA	NSW
PDTN	PADDINGTON	QLD
PEND	PENDLE HILL	NSW
PENN	PENNANT HILLS	NSW
PETE	PETERSHAM	NSW
PMEL	PORT MELBOURNE	VIC
PNTH	PENRITH	NSW
PRDS	PARADISE	SA
PROT	PROSPECT	SA
PRTN	PRESTON	VIC
PTAD	PORT ADELAIDE	SA
PYMB	PYMBLE	NSW
QUAK	QUAKERS HILL	NSW
RAND	RANDWICK	NSW
RCMD	RICHMOND	VIC
REDF	REDFERN	NSW
RELA	REYNELLA	SA
REVE	REVESBY	NSW
RIVT	RIVERTON	WA

ESA Code	ESA NAME	STATE
ROCK	ROCKDALE	NSW
ROOT	ROOTY HILL	NSW
RSVR	RESERVOIR	VIC
RWOD	RINGWOOD	VIC
RYDA	RYDALMERE	NSW
RYDE	RYDE	NSW
SALA	SALISBURY	SA
SALB	ST ALBANS	VIC
SCLN	SCULLIN	ACT
SCOY	SCORESBY	VIC
SEAF	SEAFORD	VIC
SEMC	SEMAPHORE	SA
SEVE	SEVEN HILLS	NSW
SHPN	SHEPPARTON	VIC
SILV	SILVERWATER	NSW
SLAC	SLACKS CREEK	QLD
SMEL	SOUTH MELBOURNE	VIC
SMRN	SOUTH MORANG	VIC
SOAK	SOUTH OAKLEIGH	VIC
SOPT	SOUTHPORT	QLD
SOTH	SOUTH BRISBANE	QLD
SPLE	SPRINGVALE	VIC
SPTH	SOUTH PERTH	WA
SRWD	SHERWOOD	QLD
SSBY	SALISBURY	QLD
STKA	ST KILDA	VIC
STLE	ST LEONARDS	NSW
STMA	ST MARYS	NSW
STMF	ST MARYS	SA
STPE	ST PETERS	SA
SUBT	SUBIACO	WA
SURF	SURFERS PARADISE	QLD
SYBK	SUNNYBANK	QLD
SYRA	SOUTH YARRA	VIC
THTN	THOMASTOWN	VIC
TMNE	TULLAMARINE	VIC
TNBY	THORNBURY	VIC
TOBF	TOOWOOMBA	QLD
TRAK	TOORAK	VIC
TUTT	TUART HILL	WA
TWOG	TOOWONG	QLD
TYHO	TALLY HO	VIC
UNDE	UNDERCLIFFE	NSW
UNLY	UNLEY	SA
VICP	VICTORIA PARK	WA
VLLY	VALLEY	QLD
WAVE	WAVERLEY	NSW

ESA Code	ESA NAME	STATE
WDVL	WOODVILLE	SA
WESA	WEST ADELAIDE	SA
WETH	WETHERILL PARK	NSW
WHLL	WHEELERS HILL	VIC
WIRC	WINDSOR	VIC
WLGG	WOLLONGONG	NSW
WMBY	WEMBLEY	WA
WOBB	WOOLLOONGABBA	QLD
WOLF	WOLFE	NSW
WOYY	WOY WOY	NSW
WRNA	WANTIRNA	VIC
YRGA	YERONGA	QLD
ZMRE	ZILLMERE	QLD

Appendix F: Copy of DRAFT ORDER in respect of Telstra's PSTN OA CBD individual exemption application of 8 October 2007

TRADE PRACTICES ACT 1974

Order under paragraph 152AT(3)(a) by the Australian Competition and Consumer Commission

Individual exemption from standard access obligations in respect of PSTN OA

1. Title

This Order may be cited as Individual Exemption Order No. x of 2008.

2. Commencement and Expiry

(3) This Order comes into effect 12 months after the date of release of the Commission's Final Decision on Telstra's application for an individual exemption from the Standard Access Obligations in respect of PSTN OA lodged on 8 October 2007.

(4) This Order will expire on 31 December 2012 or the expiry or revocation of either the PSTN OA Declaration or the ULLS Declaration, whichever first occurs.

3. Interpretation

(3) Unless the contrary intention appears, where words or phrases used in this Order are defined in the Act, the *Telecommunications Act 1997* or the instrument declaring the Declared Service, those words or phrases have the same meaning in this Order.

(4) In this Order, unless the contrary intention appears –

Access means access by an Access Seeker to an Exchange Building for the purpose of taking supply of the ULLS from Telstra.

Access Seeker has the same meaning as in section 152AG of the Act.

ACMA means the Australian Communications and Media Authority.

Act means the *Trade Practices Act 1974.*

Attachment A ESAs means the ESAs listed in Attachment A to this Order.

Bundled Fixed Voice and Broadband Service means a voice service provided together with a broadband service to an End User both of which are supplied by means of Telstra's copper-based public switched telephone network.

Capped Exchange means an Exchange Building which Telstra has determined is unavailable for Access by Access Seekers for any reason, including without limitation those Exchange Buildings listed by Telstra in the TEBA Capped List as 'MDF capped', 'Racks capped' or 'Racks and MDF capped'.

Carrier or Carriage Service Provider Specific Access Code means:

a. an international Special Service Code (an 001X or 009X code or other equivalent code determined by ACMA); or

b. a VPN Access Code (an 188X code or other equivalent code determined by ACMA)

Commencement Date means the date on which this Order comes into effect in accordance with Item 2 of this Order.

Commission means the Australian Competition and Consumer Commission.

Constructively Capped Exchange means an Exchange Building other than a Capped Exchange which the ACCC has determined that Telstra requires as a condition of Access improvements to be made to an Exchange Building at an Access Seeker's cost where such improvements go beyond the standard costs required for Access by the Access Seeker.

Declared Service means the PSTN OA.

End User means an end-user of carriage services or other services supplied by means of carriage services, rather than the suppliers of these services.

Exchange Service Area or ***ESA*** has the meaning given to that phrase by the Australian Communications Industry Forum Limited definition in ACIF C559:2006, Part 1.

Exchange Building means a telecommunications exchange building owned, operated or controlled by Telstra.

Exemption means the exemption specified in Item 4 of this Order.

First Queued Access Seeker means the Queued Access Seeker in respect of an Exchange Building that lodged its PSR first in time in respect of that Exchange Building.

Joint Completion Inspection or ***JCI*** means an inspection of an Exchange Building by representatives of Telstra and an Access Seeker conducted following the completion of construction works in that Exchange Building by that Access Seeker.

LCS means the Local Carriage Service declared by the Commission under subsection 152AL(3) of the Act pursuant to the LCS Declaration.

LCS Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the LCS with effect from 1 August 2006 and published in the *Commonwealth of Australia Gazette* No. GN 31 of 9 August 2006, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the LCS Declaration under subsection 152ALA(4) of the Act.

LSS means the Line Sharing Service declared by the Commission under subsection 152AL(3) of the Act pursuant to the LSS Declaration.

LSS Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the LSS, the extension of which became effective on 29 October 2007 and was published in the Commonwealth of Australia Gazette No. S214 of 29 October 2007, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the LSS Declaration under subsection 152ALA(4) of the Act.

MDF means the Main Distribution Frame.

PSTN OA means the Domestic PSTN Originating Access declared by the Commission under subsection 152AL(3) of the Act pursuant to the PSTN OA Declaration.

PSTN OA Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the Domestic PSTN OA with effect from 1 August 2006 and published in the *Commonwealth of Australia Gazette* No. GN 31 of 9 August 2006, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the PSTN OA Declaration under subsection 152ALA(4) of the Act.

Potentially Capped Exchange means a Telstra Exchange Building which Telstra has determined may be unavailable for Access by Access Seekers for any reason. This includes without limitation Exchange Buildings listed in the TEBA Capped List as 'Potential'.

Preliminary Study Request or ***PSR*** means a request by an Access Seeker to Telstra for Access to an Exchange Building.

Prescribed LSS to ULLS Migration Process means a process developed and implemented by Telstra for the migration by Telstra, at the request of an Access Seeker, of End Users from LSS to ULLS in Attachment A ESAs.

Queued Access Seeker means an Access Seeker who:

a. submitted a PSR before the Commencement Date in respect of Access to an Exchange Building within an Attachment A ESA that has not been rejected by Telstra and has not been withdrawn by the Access Seeker at any subsequent time; and

b. has not passed JCI in relation to that PSR.

For the avoidance of doubt:

c. a PSR has not been rejected by Telstra while it is still under consideration by Telstra; and

d. Queued Access Seeker includes without limitation a First Queued Access Seeker.

Special Services Global Code means:

a. a freephone service code (180X code)

b. a charge card service code (189XX code)

c. an information service code (190X code);

d. a 13 and 1300 code; and

e. other equivalent or replacement codes determined by ACMA.

Standard Access Obligations means the standard access obligations set out in section 152AR of the Act.

Standard Telephone Service has the meaning given by section 6 of the *Telecommunications (Consumer Protection and Service Standards) Act* 1999 (Cth).

TEBA Capped List means the document that Telstra publishes from time to time that lists those Exchange Buildings that Telstra regards as Capped Exchanges or Potentially Capped Exchanges.

Telstra means Telstra Corporation Limited (ACN 051 775 556).

ULLS means the Unconditioned Local Loop Service declared by the Commission under subsection 152AL(3) of the Act pursuant to the ULLS Declaration.

ULLS Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the ULLS with effect from 1 August 2006 and published in the *Commonwealth of Australia Gazette* No. GN 31 of 9 August 2006, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the ULLS Declaration under subsection 152ALA(4) of the Act.

WLR means the Line Rental Service (also known as Wholesale Line Rental) declared by the Commission under subsection 152AL(3) of the Act pursuant to the WLR Declaration.

WLR Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the WLR with effect from 1 August 2006 and published in the *Commonwealth of Australia Gazette* No. GN 31 of 9 August 2006, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the WLR Declaration under subsection 152ALA(4) of the Act.

4. Exemption

Subject to the conditions and limitations specified in Item 5 below, Telstra is exempt from the Standard Access Obligations in respect of the supply of PSTN OA within the Attachment A

ESAs, except where PSTN OA is being provided in conjunction with a call dialled using a Special Services Global Code or a Carrier or Carriage Service Provider Specific Access Code.

5. Conditions and Limitations

Under subsection 152AT(5) of the Act, the Exemption is subject to the following conditions and limitations:

5.3 Until the date on which the Commission publishes a Prescribed LSS to ULLS Migration Process on its website, the Exemption does not apply in respect of the supply by Telstra of PSTN OA to an Access Seeker in respect of any End User that, immediately prior to the Commencement Date, was supplied with a Bundled Fixed Voice and Broadband Service by the Access Seeker using the LSS, WLR, LCS and PSTN OA supplied by Telstra.

5.4 If Telstra develops and implements a Prescribed LSS to ULLS Migration Process and the Commission has published that process on its website (as referred to in item 5.1), Telstra must comply with that process.

5.3 Any Prescribed LSS to ULLS Migration Process developed and implemented by Telstra must provide for the migration of End Users from LSS to ULLS in a manner that ensures:

a. any period of time in which an End User is unable to receive a broadband service by means of the copper pair servicing their Standard Telephone Service by reason of that migration will be no longer than three (3) hours; and

b. End User involvement in that migration (including without limitation the making of a telephone call or sending of correspondence by the End User to Telstra) is not required.

5.4 Telstra must notify the Commission, if it develops and implements a Prescribed LSS to ULLS Migration Process. The notice must:

a. be in writing;

b. be addressed to the Group General Manager, Communications Group (or such other person as notified by the Commission);

c. include certification by an officer of Telstra that its Prescribed LSS to ULLS Migration Process satisfies the requirements of Item 5.3 of this Order;

d. detail each aspect of the Prescribed LSS to ULLS Migration Process (including without limitation details of how the LSS to ULLS migration will be engineered, timeframes within which the LSS to ULLS migration will take place and details of any administrative processes to be undertaken in conjunction with the LSS to ULLS migration);

e. be in a form appropriate for publication by the Commission on its website; and

f. not contain any confidential information.

5.5 The Exemption does not apply in respect of the supply of PSTN OA to any Queued Access Seeker in the Attachment A ESA in respect of which the Access Seeker is a Queued Access Seeker.

5.6 Telstra must provide notice to the Commission within 24 hours of an Exchange Building within any Attachment A ESA first becoming a Capped Exchange or a Potentially Capped Exchange. The notice must:

a. be in writing;

b. addressed to the Group General Manager, Communications Group (or such other person as notified by the Commission);

c. be specify the Attachment A ESA within which the Exchange Building has become a Capped Exchange or Potentially Capped Exchange;

d. specify whether the Exchange Building has become a Capped Exchange or a Potentially Capped Exchange;

e. provide an explanation of why the Exchange Building has become a Capped Exchange or Potentially Capped Exchange;

f. specify the date upon which the Exchange Building first became a Capped Exchange or Potentially Capped Exchange;

g. be in a form appropriate for publication by the Commission on its website; and

h. not contain any confidential information.

5.7 The Exemption ceases to apply within an Attachment A ESA from the date on which the Exchange Building within the Attachment A ESA first becomes a Capped Exchange, a Potentially Capped Exchange or a Constructively Capped Exchange.

5.8 The Exemption ceases to apply within an Attachment A ESA from the date on which Telstra first ceases to supply the ULLS whether to itself or to other persons within that Attachment A ESA

Note: Telstra will be taken to have ceased to supply the ULLS to itself or other persons if it ceases to be an access provider of the ULLS (within the meaning of subsection 152AR(2)) within the relevant Attachment A ESA.

5.9 For the avoidance of doubt, the Exemption will not apply in respect of PSTN OA provided under an agreement which is in force as at the Commencement Date for so long as that agreement remains in force.

[Signed]

……..

Chairperson

DATED: ..……. 2008

ATTACHMENT A

ESA Code	ESA NAME	STATE
BATM	BATMAN	VIC
BWER	BULWER	WA
CHLT	CHARLOTTE	QLD
CYSH	CITY SOUTH	NSW
DALL	DALLEY	NSW
EDSN	EDISON	QLD
EXHN	EXHIBITION	VIC
FLNF	FLINDERS	SA
HMKT	HAYMARKET	NSW
KNST	KENT	NSW
LONS	LONSDALE	VIC
PIER	PIER	WA
SGHL	SPRING HILL	QLD
WAYM	WAYMOUTH	SA
WLTE	WELLINGTON	WA

Appendix G – Copy of CLASS DETERMINATION in respect of the PSTN OA

TRADE PRACTICES ACT 1974

Determination under subsection 152AS(1) by the Australian Competition and Consumer Commission

Class exemption from standard access obligations in respect of PSTN OA

1. Title

This Determination may be cited as Class Exemption Determination No. x of 2008.

2. Commencement and Expiry

(1) This Determination comes into effect 12 months after the date of release of the Commission's Final Decision on Telstra's applications for individual exemption from the Standard Access Obligations in respect of PSTN OA lodged on 8 October 2007.

(2) This Determination will expire on 31 December 2012 or the expiry or revocation of the PSTN OA Declaration or the ULLS Declaration, whichever occurs first.

3. Interpretation

(1) Unless the contrary intention appears, where the words of phrases used in this Determination are defined in the Act, the *Telecommunications Act 1997*, or the instrument declaring the declared service, those words or phrases have the same meaning in this Determination.

(2) In this Determination, unless the contrary intention appears –

ACMA means the Australian Communications and Media Authority.

Attachment A ESAs means the ESAs listed in Attachment A to this Determination.

Carrier or Carriage Service Provider Specific Access Code means:

iii. an international Special Service Code (an 001X or 009X code or other equivalent code determined by ACMA); or

iv. a VPN Access Code (an 188X code or other equivalent code determined by ACMA)

Commission means the Australian Competition and Consumer Commission.

Declared Service means PSTN OA.

Exchange Service Area or ***ESA*** has the meaning given to that phrase by the Australian Communications Industry Forum Limited definition in ACIF C559:2006, Part 1.

PSTN OA means the Domestic PSTN Originating Access service declared by the Commission under subsection 152AL(3) of the Act pursuant to the PSTN OA Declaration.

PSTN OA Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the Domestic PSTN OA with effect from 1 August 2006 and published in the *Commonwealth of Australia Gazette* No. GN 31 of 9 August 2006, as varied from time to time.

> Note: The Commission may extend or further extend the expiry date of the PSTN OA Declaration under subsection 152ALA(4) of the Act.

Special Services Global Code means:

f. a freephone service code (180X code)

g. a charge card service code (189XX code)

h. an information service code (190X code);

i. a 13 and 1300 code; and

j. other equivalent or replacement codes determined by ACMA.

Specified Class of Carriage Service Provider means the class of carriage service provider specified in Item 5 of this Determination.

Specified Class of Carrier means the class of carrier specified in Item 4 of this Determination.

Standard Access Obligations means the standard access obligations in section 152AR of the Act.

Telstra means Telstra Corporation Limited (ACN 051 775 556)

the Act means the *Trade Practices Act 1974.*

ULLS means the Unconditioned Local Loop Service declared by the Commission under subsection 152AL(3) of the Act pursuant to the ULLS Declaration.

ULLS Declaration means the declaration made by the Commission under section 152AL(3) of the Act in respect of the ULLS with effect from 1 August 2006 and published in the Commonwealth of Australia Gazette No. GN31 of 9 August 2006, as varied from time to time.

Note: The Commission may extend or further extend the expiry date of the ULLS Declaration under subsection 152ALA(4) of the Act.

4. Specified class of carrier

The class of carrier which is specified for the purpose of this Determination is the class of all carriers except Telstra.

5. Specified class of carriage service provider

The class of carriage service provider which is specified for the purpose of this Determination is the class of all carriage service providers except Telstra.

6. Exemption

Each member of the Specified Class of Carrier and each member of the Specified Class of Carriage Service Provider is exempt from the Standard Access Obligations in respect of the supply of PSTN OA within the Attachment A ESAs, except where PSTN OA is being provided in conjunction with a call dialled using a Special Services Global Code or a Carrier or Carriage Service Provider Specific Access Code.

[Signed]

……..

Chairperson

DATED: ..……. 2008

ATTACHMENT A

Table 1: Metropolitan ESAs

ESA Code	ESA NAME	STATE
AARE	ACACIA RIDGE	QLD
ABON	ALBION	QLD
ACOT	ASCOT	QLD
APPX	APPLECROSS	WA
ARMD	ARMADALE	WA
ASCT	ASCOT	VIC
ASHF	ASHFIELD	NSW
ASOT	ASCOT	WA
ATTA	ATTADALE	WA
BALC	BALACLAVA	VIC
BALG	BALGOWLAH	NSW
BALM	BALMAIN	NSW
BANK	BANKSTOWN	NSW
BATA	BATEMAN	WA
BAYR	BAYSWATER	VIC
BBEG	BUNDABERG	QLD
BEEL	BEENLEIGH	QLD
BELG	BELGRAVE	VIC
BELM	BELMONT	VIC
BEND	BENDIGO	VIC
BKWD	BLACKWOOD	SA
BLAC	BLACKTOWN	NSW
BLBN	BLACKBURN	VIC
BLCN	BELCONNEN	ACT
BOND	BONDI	NSW
BOTA	BOTANY	NSW
BRAT	BALLARAT	VIC
BRIH	BRIGHTON	SA
BRUK	BRUNSWICK	VIC
BSDN	BASSENDEAN	WA
BURD	BURWOOD	NSW
BURL	BURLEIGH HEADS	QLD
CAMP	CAMPSIE	NSW
CANN	CANNINGTON	WA
CARR	CARRAMAR	NSW
CAST	CASTLE HILL	NSW
CAUL	CAULFIELD	VIC
CBRG	COBURG	VIC
CBTN	CAMPBELLTOWN	NSW
CFSH	COFFS HARBOUR	NSW
CHAT	CHATSWOOD	NSW
CHDE	CHERMSIDE	QLD
CHPL	CHAPEL HILL	QLD
CLAY	CLAYTON	VIC
CLVL	CLEVELAND	QLD
CMLL	CAMBERWELL	VIC

ESA Code	ESA NAME	STATE
CNVL	CANNING VALE	WA
COOG	COOGEE	NSW
CPHL	CAMP HILL	QLD
CPRO	COORPAROO	QLD
CRBY	CANTERBURY	VIC
CRCF	CRACE	ACT
CREM	CREMORNE	NSW
CRON	CRONULLA	NSW
CRSX	CAIRNS	QLD
CRYD	CROYDON	SA
CSEA	CHELSEA	VIC
CTAM	CHELTENHAM	VIC
CTOE	COTTESLOE	WA
CTON	CARLTON	VIC
CVIC	CIVIC	ACT
CWOD	COLLINGWOOD	VIC
DAND	DANDENONG	VIC
DBLV	DOUBLEVIEW	WA
DEEW	DEE WHY	NSW
DKIN	DEAKIN	ACT
DONC	DONCASTER	VIC
EAST	EAST	NSW
EDGE	EDGECLIFF	NSW
EDWN	EDWARDSTOWN	SA
ELSK	ELSTERNWICK	VIC
ELTM	ELTHAM	VIC
EMPS	EIGHT MILE PLAINS	QLD
EPPI	EPPING	NSW
ERPK	EDENSOR PARK	NSW
ESPK	ERSKINE PARK	NSW
EWOO	EASTWOOD	NSW
EZBH	ELIZABETH	SA
FIVE	FIVE DOCK	NSW
FMTL	FREMANTLE	WA
FREN	FRENCHS FOREST	NSW
FSRY	FOOTSCRAY	VIC
FTON	FLEMINGTON	VIC
GBRH	GREENSBOROUGH	VIC
GEEM	GEELONG	VIC
GIRR	GIRRAWHEEN	WA
GLEB	GLEBE	NSW
GLLG	GLENELG	SA
GNGE	GOLDEN GROVE	SA
GPCS	GEPPS CROSS	SA
GRAN	GRANVILLE	NSW
GSFD	GOSFORD	NSW
GUGA	GLENUNGA	SA
GULL	GULLIVER	QLD

ESA Code	ESA NAME	STATE
HAMN	HAMILTON	NSW
HAMS	HAMERSLEY	WA
HARB	HARBORD	NSW
HAWN	HAWTHORN	VIC
HDBG	HEIDELBERG	VIC
HGTT	HIGHETT	VIC
HILN	HILTON	WA
HNLY	HENLEY BEACH	SA
HOLS	HOLSWORTHY	NSW
HOME	HOMEBUSH	NSW
HORN	HORNSBY	NSW
HPSD	HAMPSTEAD	SA
HTLL	HARTWELL	VIC
HURS	HURSTVILLE	NSW
IALA	INALA	QLD
INGL	INGLEBURN	NSW
IPSW	IPSWICH	QLD
JKOT	JANDAKOT	WA
JREE	JAMBOREE HEIGHTS	QLD
KELL	KELLYVILLE	NSW
KENS	KENSINGTON	NSW
KLGR	KALLANGUR	QLD
KOGA	KOGARAH	NSW
KSLY	KINGSLEY	WA
KYNG	KOOYONG	VIC
LAKE	LAKEMBA	NSW
LANE	LANE COVE	NSW
LCHE	LUTWYCHE	QLD
LIDC	LIDCOMBE	NSW
LIVE	LIVERPOOL	NSW
LNYN	LANYON	ACT
MADD	MADDINGTON	WA
MALV	MALVERN	VIC
MANL	MANLY	NSW
MARO	MAROUBRA	NSW
MASC	MASCOT	NSW
MAYM	MAYLANDS	WA
MCHN	MITCHELTON	QLD
MDBY	MODBURY	SA
MDLD	MIDLAND	WA
MENA	MENAI	NSW
MGAT	MOUNT GRAVATT	QLD
MHAW	MOUNT HAWTHORN	WA
MILD	MILDURA	VIC
MILL	MILLER	NSW
MINT	MINTO	NSW
MIRA	MIRANDA	NSW

ESA Code	ESA NAME	STATE
MITM	MITCHAM	VIC
MLBA	MELBA	ACT
MLEY	MORLEY	WA
MLND	MORELAND	VIC
MLOC	MORDIALLOC	VIC
MLOO	MULLALOO	WA
MNNG	MANNING	WA
MONA	MONA VALE	NSW
MOSM	MOSMAN	NSW
MWSN	MAWSON	ACT
NALE	NORTH ADELAIDE	SA
NAWN	NARRE WARREN	VIC
NCOE	NORTHCOTE	VIC
NDAH	NUNDAH	QLD
NDLN	NEDLANDS	WA
NEWT	NEWTOWN	NSW
NLTN	NEW LAMBTON	NSW
NMEL	NORTH MELBOURNE	VIC
NMKT	NEWMARKET	QLD
NPAR	NORTH PARRAMATTA	NSW
NPRT	NEWPORT	VIC
NRWD	NORWOOD	SA
NRYD	NORTH RYDE	NSW
NSYD	NORTH SYDNEY	NSW
NWFM	NEW FARM	QLD
OAKL	OAKLEIGH	VIC
ORGF	ORANGE	NSW
ORMD	ORMOND	VIC
PARR	PARRAMATTA	NSW
PDTN	PADDINGTON	QLD
PEND	PENDLE HILL	NSW
PENN	PENNANT HILLS	NSW
PETE	PETERSHAM	NSW
PMEL	PORT MELBOURNE	VIC
PNTH	PENRITH	NSW
PRDS	PARADISE	SA
PROT	PROSPECT	SA
PRTN	PRESTON	VIC
PTAD	PORT ADELAIDE	SA
PYMB	PYMBLE	NSW
QUAK	QUAKERS HILL	NSW
RAND	RANDWICK	NSW
RCMD	RICHMOND	VIC
REDF	REDFERN	NSW
RELA	REYNELLA	SA
REVE	REVESBY	NSW
RIVT	RIVERTON	WA

ESA Code	ESA NAME	STATE
ROCK	ROCKDALE	NSW
ROOT	ROOTY HILL	NSW
RSVR	RESERVOIR	VIC
RWOD	RINGWOOD	VIC
RYDA	RYDALMERE	NSW
RYDE	RYDE	NSW
SALA	SALISBURY	SA
SALB	ST ALBANS	VIC
SCLN	SCULLIN	ACT
SCOY	SCORESBY	VIC
SEAF	SEAFORD	VIC
SEMC	SEMAPHORE	SA
SEVE	SEVEN HILLS	NSW
SHPN	SHEPPARTON	VIC
SILV	SILVERWATER	NSW
SLAC	SLACKS CREEK	QLD
SMEL	SOUTH MELBOURNE	VIC
SMRN	SOUTH MORANG	VIC
SOAK	SOUTH OAKLEIGH	VIC
SOPT	SOUTHPORT	QLD
SOTH	SOUTH BRISBANE	QLD
SPLE	SPRINGVALE	VIC
SPTH	SOUTH PERTH	WA
SRWD	SHERWOOD	QLD
SSBY	SALISBURY	QLD
STKA	ST KILDA	VIC
STLE	ST LEONARDS	NSW
STMA	ST MARYS	NSW
STMF	ST MARYS	SA
STPE	ST PETERS	SA
SUBT	SUBIACO	WA
SURF	SURFERS PARADISE	QLD
SYBK	SUNNYBANK	QLD
SYRA	SOUTH YARRA	VIC
THTN	THOMASTOWN	VIC
TMNE	TULLAMARINE	VIC
TNBY	THORNBURY	VIC
TOBF	TOOWOOMBA	QLD
TRAK	TOORAK	VIC
TUTT	TUART HILL	WA
TWOG	TOOWONG	QLD
TYHO	TALLY HO	VIC
UNDE	UNDERCLIFFE	NSW
UNLY	UNLEY	SA
VICP	VICTORIA PARK	WA
VLLY	VALLEY	QLD
WAVE	WAVERLEY	NSW

ESA Code	ESA NAME	STATE
WDVL	WOODVILLE	SA
WESA	WEST ADELAIDE	SA
WETH	WETHERILL PARK	NSW
WHLL	WHEELERS HILL	VIC
WIRC	WINDSOR	VIC
WLGG	WOLLONGONG	NSW
WMBY	WEMBLEY	WA
WOBB	WOOLLOONGABBA	QLD
WOLF	WOLFE	NSW
WOYY	WOY WOY	NSW
WRNA	WANTIRNA	VIC
YRGA	YERONGA	QLD
ZMRE	ZILLMERE	QLD

Table 2: CBD ESAs

ESA Code	ESA NAME	STATE
BATM	BATMAN	VIC
BWER	BULWER	WA
CHLT	CHARLOTTE	QLD
CYSH	CITY SOUTH	NSW
DALL	DALLEY	NSW
EDSN	EDISON	QLD
EXHN	EXHIBITION	VIC
FLNF	FLINDERS	SA
HMKT	HAYMARKET	NSW
KNST	KENT	NSW
LONS	LONSDALE	VIC
PIER	PIER	WA
SGHL	SPRING HILL	QLD
WAYM	WAYMOUTH	SA
WLTE	WELLINGTON	WA