TELSTRA CORPORATION LIMITED

Submission in response to the ACCC's Discussion Paper in relation to the re-declaration of the LSS

May 2007

PUBLIC VERSION

Contents

Overview

Telstra believes there is no justification for LSS to be re-declared. LSS is simply not an enduring bottleneck. This is because there are numerous upstream and downstream substitutes for the service. In particular, ULLS provides a ready substitute for all existing LSS access seekers. ULLS is available everywhere that LSS is available.

The bottom line is that LSS does not need to be declared in order to constrain Telstra's pricing of wholesale and retail broadband services. Telstra faces intense competition from ULLS-based providers, from fixed and mobile wireless network providers and from alternative fixed network providers.

Re-declaration must not be viewed as a safe or default option by the Commission. Declaring a service is a major regulatory intervention and in the context of a service such as LSS that has multiple substitutes will almost certainly lead to significant economic distortions. These distortions will result from a regulator substituting its judgement for that of the market on appropriate pricing of the service.

If the Commission were to re-declare LSS, even if only for a further two years, this would be a retrograde step.

Indeed, Telstra does not believe that the Commission could possibly satisfy itself that re-declaration would actually promote the long-term interests of end-users having regard to the objectives and criteria set out in the TPA. In particular, re-declaring LSS would not promote competition, nor would it encourage the efficient use of and investment in infrastructure.

If the Commission decides, nonetheless, to re-declare LSS despite the negative impacts that would likely flow from such a decision, then Telstra would argue that:

- the geographic scope of the declaration should exclude those areas where there is demonstrable evidence of competitive overbuild – for example CBD areas of major capital cities;
- the duration of any declaration should be relatively short (no longer than two years); and
- the LSS pricing principles need to be amended to make sure that those who acquire LSS contribute towards the cost of the line on which the LSS is provided.

1 Introduction

On 17 April 2007, the Australian Competition and Consumer Commission (the "Commission") issued a second position paper ("Second Position Paper") in relation to the Commission's "Review of the Regulation of Fixed Network Services" ("Fixed Services Review"), which was initiated in December 2005.

The Second Position Paper seeks to outline a robust framework for the review of existing regulation under Part XIC of the *Trade Practices Act* 1974 (Cwlth) ("TPA") and the principles which will guide future regulatory decisions in the telecommunications industry. The Second Position Paper was preceded by an initial position paper released in June 2006, which focused on a broad range of fixed network services issues, including whether or not to re-declare the Unconditioned Local Loop Service ("ULLS") and the Domestic PSTN Originating and Terminating Access ("PSTN OTA") services.

The Second Position Paper outlines two separate consultation processes. The first relates to the proposed review of the framework of existing declarations under Part XIC of the TPA ("First Consultation Process"), for which written submissions are due on 30 June 2007. The second relates to the Commission's obligation to review the continued declaration of the High Frequency Unconditioned Local Loop Service (known as the Line Sharing Service) ("LSS") prior to its expiry in October 2007 ("Second Consultation Process"). Part 5 of the Second Position Paper contains a discussion paper ("LSS Discussion Paper") on whether or not the Commission should re-declare the LSS, and if so, what pricing principles and/or indicative prices should be applied.

This submission relates to the Second Consultation Process. Telstra will provide its submissions in relation to the First Consultation Process in due course.

Telstra maintains that Part XIC of the TPA - in its application to services of a kind described in paragraph 152AL(1)(b) of the TPA and/or the ULLS and the LSS - is a law with respect to the acquisition of property other than on just terms. As such, it is beyond the legislative power of the Commonwealth and invalid in its application to those services. On that basis, Telstra submits that the Commission has no power or authority to re-declare the LSS.

As the Commission is aware, Telstra has commenced proceedings no S42 of 2007 in the High Court of Australia to these issues. Those proceedings place directly in issue the validity of Part XIC in its application to the ULLS and the LSS. In them, among other things, Telstra seeks specific declaratory relief relating to the invalidity of Part XIC. It is clear that the Commission, not being a judicial body, lacks the competence to decide the constitutional issues involved in the proceedings. In those circumstances, Telstra submits that the proper course for the Commission would be to defer the inquiry until those issues are authoritatively resolved by a

body of competent jurisdiction. This would avoid the potential for a waste of resources in conducting the present inquiry and unnecessary uncertainty should the LSS be re-declared ultra vires the Commission.

However, Telstra understands that the Commission considers itself entitled to proceed with its functions on the assumption that Part XIC is validly enacted (including in its application to the ULLS and the LSS) and, presumably, has commenced the inquiry on that basis. Telstra provides the remainder of this submission on the basis of that assumption. For the avoidance of doubt, nothing in this submission should be taken as a concession that the Commission has power or authority to re-declare the LSS or that Part XIC is valid in its application to the ULLS, the LSS or services of a kind described in paragraph 152AL(1)(b) of the TPA. In this regard, Telstra reserves all its rights.

Furthermore, Telstra's submissions in relation to the pricing of services under Part XIC generally, and the LSS in particular, are also made on the assumption of the validity of Part XIC and the application of the various statutory criteria and other constraints in relation to the pricing of declared services under that regime. They do not, and should not, be taken to indicate Telstra's view as to the appropriate basis or methodology on which such prices should be determined in an ordinary commercial environment or the manner in which "just terms" prices should be determined for the purposes of section 51(xxxi) of the Constitution.

The submission is organised to provide:

- an overview of the legislative framework as it relates to the LSS re-declaration inquiry – Section 2;
- Telstra's views on whether re-declaration would promote the long-term interests of end-users ("LTIE") and in particular whether it would:
    - promote competition – Section 3;
    - be necessary to achieve any-to-any connectivity – Section 4; and
    - encourage the efficient use of and investment in infrastructure – Section 5; and
    - thus promote the LTIE having regard to each of the above limbs of the test - Section 6;
- in the event that the Commission decides (contrary to what Telstra argues in this submission) to re-declare LSS, Telstra's views on:
    - the geographic scope of the declaration – Section 7;

- the duration of the declaration – Section 8; and

- the pricing principles that should apply – Section 9.

2 Legislative framework

This section summarises the legislative framework and the key statutory criteria applicable to the re-declaration of the LSS. A more detailed analysis of the legislative framework is fully set out in Appendix A of this submission.

Section 152AL of the TPA enables the Commission to "declare" certain telecommunications services only where it is satisfied that the making of the declaration will promote LTIE. The LSS was originally declared in August 2002 and the current declaration is set to expire in October 2007. Accordingly, pursuant to section 152ALA(7) of the TPA, the Commission has commenced a consultation process into whether or not it should re-declare the LSS for a further period. The LSS Discussion Paper marks the Commission's first step into this inquiry.

2.1 Interpreting the LTIE

Sub-section 152AB(2) sets out the LTIE objectives, namely:

- the objective of promoting competition in markets for listed services and services supplied by means of carriage services;

- the objective of achieving any-to-any connectivity for carriage services involving communication between end-users; and

- the objective of encouraging the economically efficient use of, and economically efficient investment in, the infrastructure by which listed services and services provided by means of listed services are supplied.

The Australian Competition Tribunal ("Tribunal") considered the application of the LTIE test in *Seven Network Limited (No.4)* [2004] ACompT 11 ("Foxtel decision"). In short, the Tribunal's view (which Telstra respectfully adopts) is that:[1]

- a useful starting point to the exercise is the "with or without" test, which involves comparing the current state of the market "with" an active declaration of the service to the state of the market "without" an active declaration of the service. However, while the "without or without" test provides a useful guide, it should not be used as a

[1] *Seven Network Limited (No.4)* [2004] ACompT 11 at paras [119]-[124].

substitute for the LTIE test or to answer the ultimate question as to whether the service should be declared;

- it is necessary to demonstrate that declaration of the service will create the conditions or environment that will likely improve competition;

- it is important that the effects of declaration be considered from a long-term perspective, that is, when the full effects of the Commission's decision are felt. Hence, short (or even medium) term or isolated detrimental effects should not affect the Commission's decision if the interests of end-users are ultimately benefited in the long-run; and

- there may be instances where the LTIE criteria appear to conflict with each other. While consideration of the objectives from a long-term perspective may reduce the likelihood of conflict, the Commission is required balance each of the LTIE criteria and conclude whether the overall effect of re-declaration would be in the LTIE.

Therefore, Telstra submits that the key question to be considered by the Commission in the present case is whether the re-declaration of the LSS will further *each of the objectives* that make up the LTIE. As enunciated by the Tribunal in the Foxtel decision, the starting point for this assessment is to utilise the "future with and without" test by comparing the current state of the market "with" active declaration, and the state of the market "without" active declaration.

The principles as enunciated in Tribunal decisions clearly establish that it is not an answer to the Commission's review as to whether to re-declare the LSS to identify:

- short-term (or even medium-term) or transitory detrimental consequences for competition where it is more likely than not that a decision to not re-declare the LSS would create the conditions or an environment that will result in an overall or net increase in the LTIE over the long-term; or

- "cherry-pick" isolated detrimental impacts (even over the long-term) where it is more likely than not that a decision to not re-declare the LSS would create the conditions or an environment that will result in an *overall or net increase* in the LTIE over the long-term.

Indeed, Telstra submits that even if there are short-term or isolated detrimental consequences in not re-declaring the LSS (if any), these would be clearly outweighed by the *long-term* benefits of such a decision. As demonstrated in Section 5 of this submission, in light of the market distortions and pricing errors that would inevitably occur, re-declaring the LSS

would in fact adversely impact the level of competition and efficient use of and investment in infrastructure.

Interpreting the promotion of competition criterion

As evident from the above, the primary focus of the LTIE test is the promotion of competition criterion, and it is apparent that it is the promotion of *efficient* competition that is relevant. As recognised by the current Chairman of the Commission:[2]

> *It is generally agreed that competition is not a goal in itself, but something that is often associated with economic efficiency and sometimes other goals equating with a balanced society.*

This means that merely increasing the degree of rivalry cannot be considered as an end in itself. Rather, efficient competition is enhanced when conditions are created that allow more efficient suppliers to displace less efficient suppliers. Indeed, competition in markets is the mechanism by which that process occurs, and the frequently used term "competition on the merits" simply means ensuring that market conditions allow displacement on the basis of relative efficiency to occur.

Related to this, improving the conditions for competition cannot mean simply facilitating the entry and expansion of particular competitors, or even of access seekers as a group. Rather, it means creating conditions in which more efficient suppliers, be they recent entrants or historical incumbents, can retain and expand sales, while less efficient suppliers, regardless of whether they are recent entrants or historical incumbents, cannot. Hence from the standpoint of promoting the LTIE, it is no less important that Telstra be able to compete on the merits than it is for any of Telstra's competitors.

As a result, it would be inappropriate for the Commission, in considering the impact re-declaration would have on the promotion of competition, to focus on whether Telstra's rivals would do better or worse under a particular set of access prices. Rather, the question must be whether re-declaration would enhance or distort the scope for more efficient sources of supply to do better than less efficient sources.

With competition seen as a necessary tool for promoting economic efficiency rather than an end in itself, the promotion of competition objective is consistent with the other key economic objective of Part XIC: the efficient use of, and investment in, infrastructure.

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[2] Graeme Samuel, *Speech to 2003 Melbourne Economic and Social Outlook Conference,* 14 November 2003.

Balancing the LTIE objectives

Under sub-section 152AB(3), the Commission is precluded from considering any matters other than those outlined above in determining whether a declaration is in the LTIE. Accordingly, as envisaged by the Tribunal in the Foxtel decision, there is potential for the objectives to conflict.[3] In this regard, the Commission has stated:[4]

> *The criteria are interrelated. In many cases, a particular thing may promote the long-term interests of end-users through the achievement of two or all of these criteria simultaneously. In other cases, the achievement of one of these criteria may involve some trade-off in terms of its effect on the interests of end-users with one or more of the other criteria, and the Commission will need to weigh up the different effects to determine whether or not the overall effect is to promote the LTIE. In this regard, the Commission will interpret long-term to mean a balancing of the flow of costs and benefits over time to end-users in relation to the criteria.*

For the reasons set out in detail in Sections 3 to 6 of this submission, a careful consideration and balancing of the statutory criteria leads inexorably to the conclusion that re-declaration of the LSS would not promote the LTIE and thus the Commission should not re-declare the LSS. As demonstrated in this submission, the level of workable competition present in the market in which LSS is supplied together with the distortions and pricing errors which inevitably result from the close substitutability between the LSS and the ULLS means that re-declaring the LSS would in fact adversely impact on effective competition and the efficient use of, and investment in, infrastructure.

2.2 The Commission's approach to reviewing existing declared services

In the Second Position Paper, in addition to considering whether re-declaration of the service is in the LTIE, the Commission identified two preliminary steps in relation to the review of existing declared services.[5] Telstra submits that a consideration of these two steps also lead to the conclusion that re-declaration of the LSS will not promote the LTIE.

2.2.1 Enduring bottlenecks

First, the Commission stipulated that it would only be appropriate to declare a fixed-line service if it represented an "enduring bottleneck", that is, declaration of the service is essential to the promotion of competition. Telstra agrees with this view. Where an enduring

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[3] See Foxtel decision at [122].
[4] ACCC, *Deeming of Telecommunication Services: A Statement pursuant to section 39 of the Telecommunications (Transitional Provisions and Consequential Amendments) Act 1997*, (30 June 1997) ("Deeming Statement"), p. 8.
[5] Second Position Paper, pp. iv and 26.

bottleneck does not persist, the Commission will be inclined to withdraw regulation if it is confident that declaration is not required to promote the LTIE.[6]

As contended by Telstra in this submission, given the close substitutability of the declared ULLS and availability of alternative infrastructure, the LSS is clearly no longer (and probably never was) an "enduring bottleneck".

2.2.2 Assessment of competition

Second, the Commission stipulated that it was necessary to assess the level of existing competition in the market.[7] In its view, the current state of competition and market dynamics must be assessed with a view to assessing whether workable competition now exists or is likely to develop. The Commission notes that it is not intended that the access regime impose regulated access where existing market conditions already provide for the competitive supply of services.[8]

In Section 3.2 of this submission, Telstra demonstrates that the market in which the LSS is provided is already workably competitive. In addition to the close substitutes provided by ULLS, other services such as wholesale DSL, wireless and cable networks provide adequate constraints on the pricing of LSS or an equivalent non-declared service. Accordingly, by the Commission's own reasoning, the LSS should not be re-declared.

3 Will declaration promote competition in markets for listed services?

When the LSS was first declared in 2002, the Commission formed the view that declaration was necessary to promote competition in markets for listed services. In light of this, the Commission has now framed the key question for its re-declaration inquiry in terms of whether declaration is still required to promote competition; that is, "comparing a situation where the LSS remains declared, to a situation where the LSS declaration is removed." [9]

Telstra disagreed with the initial declaration of LSS, arguing at the time that there were a number of actual and potential substitutes available. Five years on, Telstra is still of the view that an LSS declaration will not promote efficient competition and this view has been strengthened by the significant and ongoing developments in relevant technology, products and markets (both upstream and downstream) over that period. Moreover, Telstra believes that continued declaration of LSS will actually impede competition because it is, in practice,

[6] Second Position Paper, pp. iii. and 26-27
[7] Second Position Paper, pp. iv and 27-28.
[8] Deeming Statement, p. 10.
[9] Second Position paper, p. 54.

impossible for a regulator to set a price for LSS, relative to the prices for other declared services such as ULLS, in a non-distorting manner.

Telstra would therefore urge the Commission not to regard continued declaration as a safe or default outcome from this process. In this regard, it must also be remembered that for the service to be re-declared the Commission must be affirmatively satisfied that re-declaration will promote the LTIE.

Against this background, Telstra believes that it is very important for the Commission to undertake a full and robust assessment of the case for LSS declaration. To assist the Commission with this, Telstra has undertaken a detailed competition analysis (as set out in the following sections) using the following three stage approach:

1. identify markets relevant to determining whether declaration will promote competition;

2. assess the current state of competition in these markets; and

3. assess the extent to which competition would be promoted, or is likely to be promoted, in the future by declaration.

3.1 Market definition

In assessing whether a market is competitive, it is often helpful to consider the scope or definition of the market. This is generally done by starting with a narrow definition and progressively expanding the bounds of the market by considering actual or potential supply- and demand-side substitutes.[10]

Ideally the market would be defined by reference to an SSNIP test, but the existence of regulated prices renders this method unreliable. The next best alternative is to consider whether the possible LSS substitutes are functionally the same and whether they appear, in their own right, to be economically viable. This is the approach taken in the analysis in this section and in the following section.

This analysis indicates that a number of the possible alternatives to LSS do in fact offer functionally similar or equivalent services and appear viable. Furthermore, it appears that

[10] In any event, the Tribunal has held that it is not necessary to reach a concluded view on market definition for the purposes of Part XIC inquiries - see *Application by Optus Mobile Pty Limited & Optus Networks Pty Limited [2006] ACompT 8,* paras [70]-[90].

there are few impediments to service providers actually utilising these equivalent services.[11] In short, they fall in general within the same market.

3.1.1 The market in which LSS is supplied

The narrowest possible definition of the market in which LSS is supplied is one with the same product, functional and geographic features as LSS itself. The Commission previously concluded that, for purposes of its initial declaration of LSS, the market was in fact no broader than this.[12] However, Telstra submits that a careful examination of the scope for both supply and demand-side substitution leads to the conclusion that the market in which LSS is supplied is in fact substantially broader than this and is likely to include at least ULLS, upper spectrum sharing (USS)[13] and wholesale ADSL (WADSL). That consideration also suggests that wireless broadband networks and cable networks are also alternatives to LSS within their respective footprints.

Each of these substitutes to LSS is considered in turn below.

3.1.1.1 ULLS

ULLS is defined by the Commission as: [14]

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

ULLS is a functional and geographic substitute to LSS

ULLS provides an access seeker with the full capacity of the copper wire that goes from a local exchange or other copper termination point to the end user. This means that while LSS only enables an access seeker to provide broadband services (including voice over broadband), a ULLS provider can offer both a standard telephone service (STS) voice service and broadband services. These can either be directly sold to end users, or wholesaled to resellers who will then retail the product(s) to end-users.

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[11] This itself suggests that, if prices were set at competitive levels and structure, then a properly implemented SSNIP test would show that the various products discussed are close substitutes for LSS.
[12] ACCC, *Line Sharing Service: Final Decision on whether or not a Line Sharing Service should be declared under Part XIC of the Trade Practices Act 1974*, (August 2002) ("LSS Final Decision"), p. 39.
[13] USS refers to a ULLS competitor splitting the line to provide a wholesale service identical to Telstra's LSS. Telstra understands that there are currently no commercial arrangements in place for the provision of USS. However, as discussed in Section 3.2.2.1, there are no insurmountable barriers to the service being provided.
[14] 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, Appendix 1.

Hence, while a ULLS-based provider would lose some of its service capabilities in moving to an LSS arrangement, in the opposite scenario, an LSS carrier moving to ULLS would not only retain *all* service capabilities (including functionality, quality and geographic coverage), but it could in fact widen its directly supplied product offerings.

Most, but not all, LSS-based service providers offer retail voice as well as broadband services at present. The widespread incidence of bundling, and the technical efficiencies from one operator utilising the full spectrum on the copper line, indicate that the degree of substitutability of ULLS for LSS should not be materially impeded by this consideration.

To shift from LSS-based broadband-only supply to ULLS-based voice-plus-broadband supply the service provider would need to acquire call switching capacity. The scope and cost to do this is addressed in Section 3.2.2.1. The conclusion from that analysis is that the acquisition of switching capacity is not a material barrier to LSS-to-ULLS substitution occurring.

In any event, many LSS-based providers purchase various wholesale inputs in order to supply retail services.[15] From an LSS-based provider's perspective, it is the substitution between different wholesale input combinations that enable supply of bundled (voice and data) retail services that is relevant. In this regard, an LSS-based provider will be comparing "LSS and Wholesale PSTN" with ULLS in the supply of bundled services to end customers. These wholesale combinations are clearly close substitutes.

In addition, the (broadband) service quality that can be provided is exactly the same between ULLS and LSS, since the equipment and technologies required are essentially the same.

These characteristics imply ULLS is a close substitute for LSS in respect of all functional, product and geographic dimensions. In Section 5.2.1.2, in the context of analysing pricing distortions associated with current LSS pricing, further Australian and overseas evidence is presented that demonstrates that ULLS and LSS are close substitutes.

ULLS viability

There is also considerable market-based evidence in support of ULLS as a commercially viable alternative for serving the downstream market. This evidence is set out in subsequent sections.

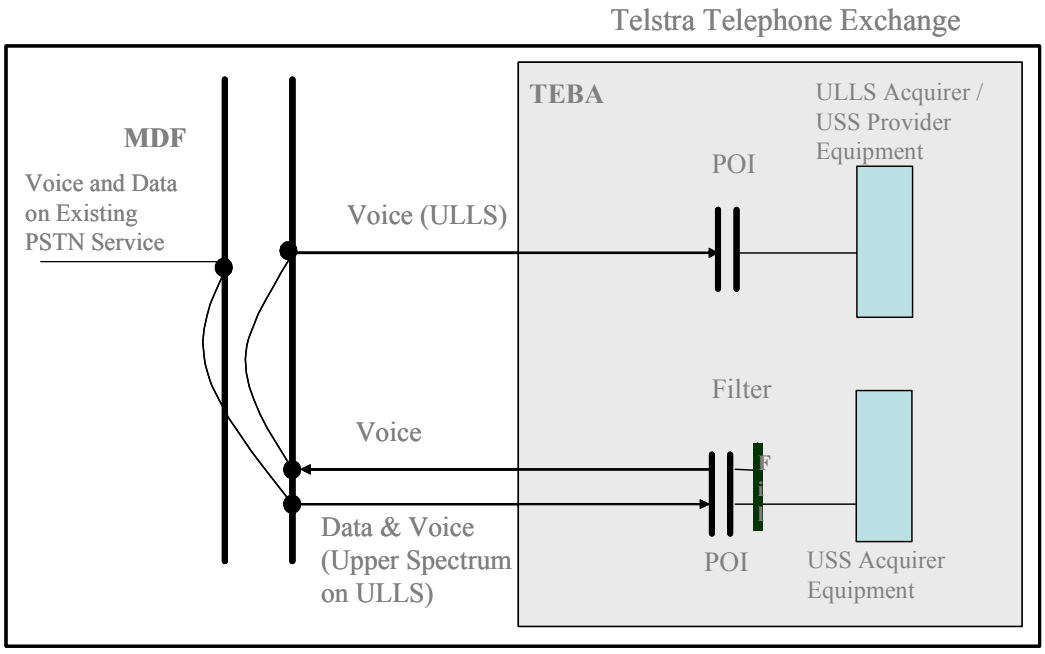
[15] This decision may be impacted by the requirement imposed by the service description for LSS services to have an underlying PSTN voice service. However, even absent such a requirement, retailers would have an incentive to bundle multiple services to end user customers.

3.1.1.2 Upper spectrum sharing (USS)

Currently, Telstra is the only provider of LSS; however, an equivalent service could be provided by acquirers of ULLS. This possibility has been discussed in the industry for some time and is known as upper spectrum sharing (USS). All services that can be provided over LSS could equally be provided over USS and the potential geographic footprint of USS corresponds to that of ULLS (and hence to that of LSS).

Just as with LSS, USS would involve a jumper being run on Telstra's main distribution frame (MDF) to connect a local loop to the USS access seeker's DSLAM where the signal is 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 component 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. This jumpering arrangement is exactly the same as that used for providing LSS, except that the last jumper connects to the ULLS access seeker's equipment rather than Telstra's for the provision of PSTN voice services. This is illustrated in Figure 1 below.

Figure 1: How a USS could work



While Telstra is not aware of any current commercial supply of USS, many ULLS acquirers are well positioned to do so because they already have the PSTN switching capability necessary to handle the voice service supplied on the lower part of the spectrum.

In order for ULLS players to be able to offer USS, Telstra would have to make some modifications to its systems and processes, which is not unusual in regard to the development of any new product or service. However, to date, no ULLS players have approached Telstra to make the changes necessary to enable USS.

Telstra therefore respectfully disagrees with the Commission's comment in the LSS Discussion Paper that "The Commission understands that it is currently not technically feasible for an access seeker to purchase a ULLS service, and to re-sell a LSS service to third parties." [16] In fact, there is no technical barrier to the development of a USS service. As discussed above, some modifications to Telstra's systems and processes would be required (and presumably the ULLS players would also need to make some modifications to their systems and processes), but these do not constitute a barrier.

Furthermore, Telstra submits that the lack of current USS commercial arrangements in Australia is likely to reflect the active LSS declaration (and associated regulatory error) rather than the absence of USS/LSS substitutability. In the United States, when the FCC decided to discontinue regulation of LSS, it placed a requirement on the incumbent telcos to allow ULLS acquirers to provide an equivalent service to the USS as discussed here. Three players (Optus, Primus and AAPT/Powertel) are technically able to provide a USS to third parties at present. That is, these players own or have access to the infrastructure required to provide USS.[17] Hence, if Telstra were to price LSS supra-competitively in the absence of LSS declaration, one or all of these players could introduce a USS service.

The price of any USS arrangement would be the subject of commercial negotiation between a ULLS provider and potential acquirer. Although there is uncertainty as to the level of any USS price, it would be constrained by the availability of other wholesale substitutes including WADSL and ULLS as well as the competitive supply of USS itself. Hence, USS is likely to be attractive at supra-competitive LSS prices.

For these reasons, USS and LSS are close substitutes and lie within the same market.

3.1.1.3 Wholesale DSL

Telstra submits that WDSL provides a clear alternative to LSS. WDSL is a service where DSL technologies are sold to ISPs competing in the retail market. A number of DSL variants are supplied in the wholesale market. For example, ADSL (Asymmetric Digital Subscriber Line) and SDSL (Symmetric Digital Subscriber Line) are DSL variants differing by the proportion of

[16] Second Position Paper, p. 56.
[17] As with any new product offering, these players may not have developed the systems necessary to provision, activate, manage and bill USS as a wholesale service. Given their technical capabilities and existing systems, it is considered unlikely this is a material barrier to entry.

the line allocated to upload and download speeds. As WDSL relies on the same underlying technology as LSS, it has the same potential geographic coverage.

These wholesale DSL offerings provide a high speed data alternative to LSS. In terms of functionality, although WDSL does not provide the access seeker with complete flexibility in setting retail offerings, there is strong competition for the provision of WDSL and services with a range of performance characteristics (e.g. speed and quality) are available, enabling access seekers to create service-differentiated retail offerings. This means access seekers can chose between a number of competing WDSL offers.

For example, Optus[18] and Powertel[19] are high-speed broadband wholesalers.

Furthermore in 2002, the Commission itself acknowledged that there was some degree of substitutability between LSS and WDSL:

> *In the first instance, while it is conceivable that wholesale ADSL services and a LSS have some degree of substitutability in the product market for the supply of upstream broadband carriage services, the Commission believes the products are far from interchangeable.20*

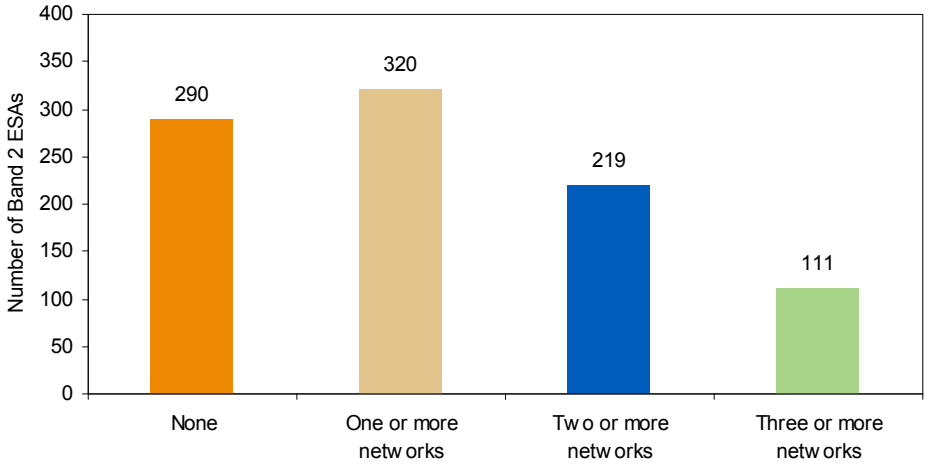
Although WDSL is not a perfect substitute for LSS from a functional perspective, the availability of DSL wholesale arrangements enabling the provision of a similar services to LSS in retail markets is likely to provide some constraint on Telstra's ability to price LSS in a supra-competitive manner. Furthermore, the geographic coverage is essentially equivalent to the (potential) LSS footprint, which is the part of Telstra's copper network covered by WDSL services.[21]

3.1.1.4 Wireless networks

Fixed wireless and mobile wireless broadband networks have now achieved wide coverage in Australia. In many metropolitan areas, any particular end-user can be reached by at least one, and often two, three and sometimes four different fixed wireless networks (see Figure 2 and Table 1 below).

[18] http://www.itwire.com.au/content/view/5497/127/
[19] http://www.cnet.com.au/broadband/adsl/0,239035934,339271960,00.htm
[20] LSS Final Decision, p. 43.
[21] In respect of Telstra's wholesale DSL offerings.

Figure 2: Number of competitor wireless networks in Band 2 ESAs (October 2006) [22]



Source: Telsyte, Report of Cable and Wireless Broadband Coverage prepared for Mallesons Stephen Jaques (October 2006).
Note: For the purposes of this figure, wireless networks do not include 3G networks operated by Telstra, Optus, Vodafone and Hutchinson.

Table 1: Band 2 ESAs covered by competitor wireless networks

Carrier	*Number of Band 2 ESAs in Network Footprint*
iBurst	200
BigAir Wireless	54
Unwired	143
Other access providers	200
Total ESAs covered	**320**

Source: Telsyte, Report of Cable and Wireless Broadband Coverage prepared for Mallesons Stephen Jaques (October 2006).
Note: For the purposes of this table, wireless networks do not include 3G networks operated by Optus, Vodafone and Hutchinson.

Further, the relatively low up-front costs of wireless deployment mean that even wider deployment in metropolitan areas can be expected. This is evidenced by the recent rollout of high speed mobile wireless networks in Australia. In the past 12 months, Vodafone, Hutchison, Optus and Telstra have all commenced or announced the rollout of high speed mobile wireless networks and associated high speed data services.[23] These services are

[22] Telsyte reported 610 Band 2 ESA's
[23] Vodafone upgraded their 3GSM network to enable high speed data transfer (using HSDPA) in greater Sydney, Melbourne in October 2006 (http://www.itwire.com.au/content/view/6510/127/). Hutchison recently (May 2007) completed the rollout of HSDPA capabilities across its entire 3GSM network in Australia (http://www.itwire.com.au/content/view/10836/127/). Optus has announced plans to activate HSDPA in an expanded HSDPA network covering 96% of Australia's population (https://www.optus.com.au/portal/site/aboutoptus/menuitem.cfa0247099a6f722d0b61a108c8ac7a0/?vgnextoid=424c6d87fa2a7010VgnVCM10000029867c0aRCRD).

already available across a greater area than LSS-based data services, and increasingly provide competition to traditional ADSL broadband.

Already, high speed mobile wireless networks based on HSDPA protocols can deliver peak download speeds of up to 14.4Mbit/s. The next release of this protocol (HSPA Evolved) will deliver theoretical peak download speeds of up to 42Mbit/s – almost double the fastest download speeds available using ADSL2+ technology.[24] Although the maximum speed achievable by end users of these services will depend on the user's equipment, the rapid development of this technology and the rollout of multiple competing networks show the potential for mobile wireless to be a long term competitor LSS-based broadband services.

Some fixed wireless networks currently have wholesaling arrangements in place, as well as being used for self-supply. For instance, Telstra understands that iBurst resells a variety of services including wireless broadband to over 15 wholesale customers. Unwired also has similar arrangements in place.

The continual expansion of the footprint of a number of wireless network operators and their growing take-up indicates they do provide a commercially viable alternative to fixed network broadband.

Again in 2002, the Commission acknowledged that wireless technologies had the potential to be considered part of the same product market as LSS in the medium-long term:

> *Whilst it may be somewhat speculative to assess at this stage, the Commission considers developments such as fixed wireless, mobile broadband wireless, 3G cellular networks, and wireless LAN could potentially represent possible alternatives to a LSS in the future. For instance, broadband wireless networks may represent technically alternative means by which high-speed communications can be transmitted and received.*
>
> *From a functional perspective, therefore, these services could potentially be considered in the same product market as a LSS at some stage in the medium-long term.25*

Although wholesale broadband-over-wireless may not be as close a substitute for LSS as ULLS or wholesale DSL, the availability of wireless wholesale arrangements (to a third party or self-supply) enabling provision of similar services in retail markets to those provided using LSS provides a material constraint on Telstra's ability to price LSS supra-competitively. Furthermore, this is likely to increase over time.

[24] See, http://hspa.gsmworld.com/upload/news/files/26022007162724.pdf.
[25] LSS Final Decision, p. 40.

3.1.1.5 Cable networks

Cable networks also provide high speed data services and hence are also an alternative to LSS.

Scope for substitution exists only where the geographic scope of LSS overlaps the more limited geographic reach of cable networks. Nevertheless, the fibre cable network build is far from insignificant in Australia, passing well over half the households in Australia's major cities. Competing cable networks, where they exist, have the potential to support extensive competition to DSLAM networks. In this respect, the most relevant network is Optus' HFC network, which operates in NSW, Victoria and Queensland.

Furthermore:

- TransACT operates an extensive cable network in the ACT and also small areas of NSW (Queanbeyan).
- Neighbourhood Cable has an HFC network in a number of important regional centres in Victoria, as shown in Table 2 below.
- Austar has a cable network in Darwin, which was digitalised in December 2004.
- E-wire operates a cable network in various estates in Western Australia.

Table 2: Extent of the Neighbourhood Cable HFC Network

City	*Homes passed*	*Population passed*
Mildura	8,500	24,000
Ballarat	32,000	70,000
Geelong	50,000	180,000

Source: Neighbourhood Cable, Company Website (accessed 15 May 2007).

In 2002, the Commission itself accepted that cable networks provide a substitute option to access seekers:

> *one could conceive of substitution theoretically taking place between a LSS and HFC networks, as well as between the two HFC networks themselves. Viewed from that perspective, the Commission believes it is conceivable that a LSS and HFC networks could form part of the same product market. The strength of competition within this market is a separate matter[.]* [26]

[26] LSS Final Decision, pp. 39-40.

3.1.2 Downstream market(s)

Telstra submits that the relevant downstream market for the purpose of any inquiry into whether re-declaration of the LSS will promote competition is, at a minimum, that for copper-based retail broadband services. Furthermore, that market extends at least to cable-based, and likely wireless-based, broadband services based on the general closeness of price for services based on the different technologies and those services being marketed to the same customer base.

There are also strong grounds for arguing that this market is likely to be part of a broader cluster market including voice services. This view is based, on the supply side, on the technical capacity of broadband service suppliers to also provide voice services to their customers and the observed widespread practice of retail service providers offering bundled voice and broadband; and on the demand side the substantial appetite for bundled broadband and voice services by consumers.

In any event, the choice between the downstream market definitions is not important because, as shown in subsequent sections, whichever of these retail market definitions is taken, it is apparent that the downstream market is highly competitive – in part because of the range of wholesale services that a retail service provider can use to provide broadband and voice services.

3.1.3 Conclusions on market definition

The conclusion from the market definition as set out above is that ULLS, upper spectrum sharing (USS) and wholesale ADSL (WASDSL) are in the same market as LSS. This is because:

- ULLS is a close functional substitute for LSS across all areas in which LSS is supplied, is clearly commercially viable and accordingly constrains Telstra's pricing ability at both the wholesale and retail layers (in the latter case, end-users constrain Telstra when they switch from service providers using LSS to service providers using ULLS);

- USS is also a close functional substitute for LSS across all areas in which LSS is supplied, and USS arrangements may emerge in the absence of LSS declaration, to constrain Telstra's pricing ability at both the wholesale and retail layers; and

- WDSL is also a close functional substitute for LSS across all areas in which LSS is supplied, is commercially viable and constrains Telstra's pricing ability at both the wholesale and retail layers.

In addition, cable and fixed and mobile wireless competitor networks, within their respective footprints, also exert a constraint on Telstra's pricing behaviour in the relevant markets.

3.2 Current state of competition

The analysis presented in this section demonstrates that the market in which LSS is supplied, and downstream markets, are workably competitive (that is, there are close substitutes, low barriers to entry and intense retail competition). In workably competitive markets, it is highly unlikely that declaration would promote wholesale or retail competition. Specifically, the analysis shows that:

- Telstra is constrained in the wholesale market for broadband services by the availability of a wide range of ready substitutes for LSS (including but not confined to regulated ULLS). This conclusion is strengthened by the absence of material barriers to entry, expansion and switching to LSS substitutes; and

- Telstra is constrained in the retail market for broadband and voice services due to a range of alternatives to LSS as a basic upstream input being available (including but not confined to regulated ULLS) and the broader structural characteristics of this market.

For these reasons, Telstra submits that the markets relevant to LSS are workably competitive.

3.2.1 Wholesale market for broadband services

The analysis presented in this section shows that the market in which LSS is supplied (the wholesale market for broadband services) is workably competitive and will remain so if LSS is not re-declared. This is because:

- Telstra is constrained in the wholesale market for broadband services by the availability of a wide range of ready substitutes for LSS in the wholesale broadband market (including but not confined to regulated ULLS) enabling the provision of identical (or very similar) retail services currently provided over LSS;

- Access seekers face no significant barriers to switching from LSS to wholesale products that are effective substitutes for LSS; and

- Any barriers to entry or expansion faced by retailers using LSS substitutes are low.

3.2.1.1 Substitutes constrain Telstra's behaviour in the relevant market

Section 3.1 sets out an analysis of substitutes to LSS including ULLS, USS, WDSL and alternative networks (cable and wireless). The conclusion from that analysis is that at least regulated ULLS, USS, and WDSL, are close substitutes for LSS and accordingly fall within the same market. At present, alternative networks do not have the same geographic reach as LSS and its close substitutes and, in the case of wireless, may be subject to some limits to functional substitution. Nonetheless, wireless networks do have scope to impose market discipline within their footprints (essentially CBD and metropolitan areas).

In the presence of close substitutes Telstra (like other competitors) is constrained in its behaviour in the relevant market. For example, if LSS is not re-declared and Telstra subsequently seeks to raise the price of LSS above competitive levels (or withdraw the service entirely), existing LSS access seekers could purchase alternative wholesale inputs to continue providing retail services offerings. That is, Telstra is disciplined in its pricing and outputs decisions in the market in which LSS is supplied by the presence of close substitutes. Such an outcome is consistent with a workably competitive market.

Telstra submits that the presence of regulated ULLS alone is sufficient to ensure the wholesale market for broadband services remains workably competitive if LSS were not re-declared. Indeed, the case for non re-declaration is only strengthened by the observed availability and take-up of WDSL and the potential emergence of USS services and the presence of alternative networks (cable and wireless).

3.2.2 Barriers to switching from LSS to LSS substitutes

The analysis set out below demonstrates that *existing* LSS entrants face no material barriers to entry, exit or expansion associated with switching to ULLS. Hence if Telstra attempted to charge a monopolistic price for LSS, or not supply LSS, access seekers could readily switch to ULLS, ensuring the wholesale market for broadband services remains workably competitive. This conclusion is strengthened by an absence of material barriers to entry, exit or expansion associated with LSS entrants switching to other LSS substitutes.

3.2.2.1 LSS to ULLS switching

There are a number of factors that need to be considered in determining whether there are any barriers to *existing* LSS entrants switching to ULLS-based supply:

- sunk costs of ULLS-based supply;
- technical constraints to providing an STS voice service;

- LSS disconnection charges; and/or
- retail bundling.

A consideration of each of these however demonstrates that existing LSS entrants do not face material barriers to entry, exit or expansion in switching to ULLS-based supply.

Sunk costs of ULLS-based supply

In analysing the extent of any sunk costs associated with migrating from LSS to ULLS, Telstra proposes to adopt the definition of a sunk cost, as noted in the ACCC Merger Guidelines:[27]

> *Sunk costs are costs which are unrecoverable on exit, creating a risk from entry.*

Costs that arguably may fall into this category include the following:

- Local voice switching and gateway infrastructure. To the extent that a ULLS-based access seeker would need to self supply switching and transmission infrastructure to provide the voice component of a voice-broadband bundle, these costs might be considered to be sunk. However, if ULLS access seekers can purchase these services from existing network operators (such as Optus, Primus, AAPT and Soul), access seekers can avoid having to incur these costs.
- Retailing costs for both ADSL and voice. In so far as it is relevant to consider the sunk costs of retailing voice services as a potential barrier to ULLS entry, it is unlikely there will be any material addition to sunk costs in moving from an "LSS and Wholesale PSTN" arrangement to use of ULLS to provide bundled retail services.

Although an existing LSS entrant would incur some sunk costs in switching to ULLS-based entry, it is likely that the types and levels of sunk costs associated with ULLS and LSS entry are broadly similar. Therefore, the incremental costs associated with switching from LSS to ULLS-based supply are relatively low. Consequently, ULLS sunk costs do not amount to a material barrier to existing LSS entrants switching to ULLS-based supply.

Technical constraints to providing voice services via ULLS

Telstra submits that there are no technical constraints to ULLS-based operators providing a voice service of equivalent quality to that supplied by Telstra over its PSTN. This is true for both legacy PSTN switching equipment (TDM) and in general for the current generation of soft switches, which are readily available in the marketplace.

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[27] ACCC, *Merger Guidelines*, June 1999, ¶5.117.

In terms of the capability of existing ULLS providers to provide comparable features, including enhanced calling features, there is no technical impediment to any current ULLS acquirer who offers circuit-switched voice providing equivalent functionality to Telstra for services such as call waiting, call forwarding, voice mail etc as the capability for this resides in the switch. It is a commercial issue as to whether one feature or another is offered and an operational issue then as to how that feature is implemented in billing systems etc.

Another option for ULLS providers would be to use POTS emulation (ie. a POTS card in a DSLAM/MSAN) and the current generation of soft-switching, which are together capable of delivering voice services.

As technical constraints to providing a good quality voice service do not exist, they do not pose a material barrier to switching to ULLS-based supply.

LSS disconnection charges

Telstra accepts that an existing LSS entrant would incur certain costs in disconnecting from an LSS arrangement and connecting to a ULLS arrangement. These are likely to be once-off costs, which vary with the number of migrating services in operation (SIOs). However, as the costs are once-off in nature, and given general competition law constraints on Telstra's charging for disconnection absent active declaration of LSS (which currently covers these charges), it is unlikely that these costs would constitute a material barrier to transitioning to ULLS-based supply.

Retail bundling

It could perhaps be argued that the common retail practice of bundling voice telephony and data services (broadband) itself acts as a barrier to existing LSS entrants switching to ULLS entry.[28] The usual argument for bundling being a barrier to entry is the practice of 'tying', where a firm with market power in the market for one product bundles it into a market where the firm lacks market power. However, it is not a relevant consideration here as firms are able to replicate Telstra's wholesale and retail data and voice service offerings, including using upstream inputs that are regulated. ULLS-based carriers, pure resellers, competing facilities-based networks, LSS-based carriers that also resell voice (or that may offer high quality VoBB) can all provide voice-broadband bundles. Accordingly, Telstra submits any such argument would be misplaced.

[28] This is distinct from the argument that the need to provide both voice and data services by a ULLS-based entrant is an entry barrier, which the analysis set out earlier shows that it is not.

Telstra's view, consistent with actual market experience, is that retail bundling in fact has pro-competitive impacts in the markets in which LSS are supplied and associated downstream markets as bundling:

- can reduce entry barriers by increasing the revenue stream available to entrants; and
- allows new entrants to realise greater efficiencies.

For these reasons, retail bundling concerns do not pose a material barrier to switching to ULLS-based supply.

Summary of barriers to ULLS switching

For all of these reasons Telstra submits that existing LSS entrants do not face material barriers to entry, exit or expansion in switching to ULLS-based supply.

3.2.2.2 Switching to USS

Telstra submits that existing LSS entrants would not face new material barriers in moving to USS arrangements. As outlined in Section 3.1.1.2 the USS service is an identical service to LSS, but provided by a ULLS access seeker rather than Telstra. Therefore a USS-based service provider faces identical infrastructure requirements, forward looking sunk costs and minimum efficient scale considerations as an LSS-based service provider and are thus unlikely to face material barriers to switching to USS offerings.

3.2.2.3 Switching to WDSL

Existing LSS entrants would incur no material barriers in moving to the purchase of WDSL to serve the downstream market. Supply of retail DSL using WDSL as an input does not require material investment in infrastructure and the use of WDSL to serve downstream customers is readily scaleable.

For these reasons, *existing* LSS entrants face no material barriers to entry, exit or expansion associated with switching to WDSL offerings.

3.2.2.4 Switching to alternative networks

If an LSS operator were to also operate its own alternative network(s) (cable or wireless) this would provide an immediate LSS substitute within the footprint of that alternative network. Although Telstra has not been able to identify publicly available information on the extent to which this situation exists, where it does there may well be scope for switching without substantial costs.

3.2.3 Barriers to de novo entry and expansion via LSS substitutes

Although possible barriers to LSS-based operators shifting to alternative means of broadband supply are relevant for the immediate transition period from current regulatory arrangements, in the longer term, barriers to *de novo* entry and expansion via LSS substitutes (which, in this section, also capture switching from resale broadband products to LSS substitutes) is of greater importance. The purpose of this section is therefore to consider whether *de novo* retail market entry faces entry and expansion barriers absent regulated LSS. The conclusion from this analysis is that barriers to *de novo* retail market entry and expansion are not material.

3.2.3.1 Barriers to ULLS-based de novo entry and expansion

The same potential set of barriers to ULLS entry are considered here, but in the context of *de novo* ULLS entry rather than the context of existing LSS based providers switching to ULLS:

- Sunk costs of ULLS-based supply;
- Retail bundling and technical constraints to providing an STS voice service;
- Backhaul costs; and
- ULLS expansion barriers.[29]

Each of these potential barriers is considered in turn below and the overall conclusion that results from this is that, in fact, barriers to ULLS entry and expansion are low, and in general no higher than those for LSS entry and expansion.

Sunk costs of ULLS based supply

Costs that are arguably sunk in respect of ULLS-based supply include certain exchange specific costs, local voice switching and gateway infrastructure, retailing costs for both ADSL and voice, and BRAS costs.[30]

Elaborating on exchange specific costs, these comprise the capital cost of DSLAMs, ongoing O&M costs associated with DSLAMs, the capital costs associated with power equipment, and TEBA charges, which are the rental charges that access seekers pay Telstra for using the exchange. It is unlikely that these costs are entirely sunk. Most notably, it is possible that DSLAMs can be relocated or otherwise resold. TEBA charges represent annual ongoing

[29] A potential *de novo* ULLS entry may face other barriers associated with ULLS-based entry. However, any such barriers are highly unlikely to constitute a material barrier to entry.
[30] A BRAS is an aggregation device required to supply ADSL over ULLS or LSS and is used to aggregate data traffic at the ISPs point of presence.

wholesale charges. These are unlikely to be considered sunk costs as these lease costs can be avoided over time by cancelling the arrangement. However, even if these were considered to be sunk costs, these costs would be no greater for ULLS entry than for LSS entry.

Therefore, drawing on the analysis of relevant potential sunk costs, ULLS sunk costs are unlikely to give rise to material barriers for *de novo* ULLS entrants – and no more than those faced by an LSS-based service provider.

Retail bundling and technical constraints to providing an STS voice service

Consistent with analysis undertaken above, potential ULLS entrants do not face material entry barriers from the current practice of retail bundling; and/or technical constraints to providing an STS voice service via ULLS.

Backhaul costs

Telstra submits that backhaul costs do not pose a significant entry barrier in relation to the provision of ULLS. The backhaul transmission market is mature and new entrants are able to purchase transmission from a number of carriers in CBD, metro and several regional areas.[31] . On this basis, it is difficult to argue that access to these services creates an entry barrier. Finally, backhaul costs are no greater barrier to entry for ULLS operators than for LSS operators.

ULLS expansion barriers - conclusion

In short, Telstra submits that barriers to ULLS expansion do not constitute a material barrier to entry as the vast majority of costs are variable. Further, any costs that are not strictly variable (that is, they do not change with each incremental SIO), are highly scalable.[32]

3.2.3.2 Barriers to USS-based de novo entry and expansion

Should it attempt to price LSS supra-competitively (or withdraw supply) in the absence of declaration, Telstra submits that existing ULLS-based operators will be able to offer a USS service. This would occur at a price commercially negotiated between them and the USS (previously LSS) access seeker, with this price disciplined by the availability of other alternatives including ULLS and WDSL.

[31] These include PIPE Networks, NextGen Networks, Powertel, Optus, Victorian Rail Track, Telstra and a number of microwave/satellite providers such as Soul Pattison.
[32] The key costs of expanding into a new exchange using ULLS include an additional DSLAM (which is priced in the region of $75,000) plus installation and testing costs.

As USS is functionally and operationally the same as LSS (simply provided by another party), the barriers to an entrant downstream service provider using USS would be no greater than if were to use LSS.

3.2.3.3 Barriers to WDSL de novo entry and expansion

A number of carriers provide WDSL and voice offerings in competition to Telstra, which could be purchased by new entrants to the retail market or established players looking to expand. For the reasons set out above for an LSS-based retailer switching to WDSL to serve the downstream market, there are no material barriers to *de novo* entry and expansion on a WDSL basis.

3.2.3.4 Barriers to entry and expansion via alternative networks

While Telstra recognises that there are very substantial costs involved in rolling out new end-to-end networks and that for most market participants this will not be a realistic alternative to use of LSS to enter and/or expand in the downstream market, a number of alternative networks are already in place. The operators of these networks have the option of using their own network rather than LSS for expanding their customer numbers. Further, the economies of scale and scope characteristic of an end-to-end network can be realised within the existing network footprint. Given the generally low incremental costs of expanding utilisation of a fixed network within its existing footprint, there would not be substantial barriers to exercising this alternative.

Turning to the expansion of a carrier's geographic footprint to allow them to enter these areas using their own network rather than LSS, carriers can use market information and demand forecasts to tailor their proposed expansion to the most lucrative areas. For example, iBurst, since obtaining a carrier licence and starting its operations in Sydney in 2003, has already expanded its network coverage to include Brisbane, Melbourne, Canberra and the Gold Coast. High-speed access is available in CBDs and metropolitan areas of each city, as well as at the Sydney, Brisbane, Melbourne and Canberra airports. Recent additions to coverage have also been implemented in Burleigh Heads (Gold Coast), Hawthorn (Melbourne), Manly (Sydney) and Red Hill (Canberra). In May 2006 it also announced that it would further expand its network to cover the Perth and Adelaide areas.[33] This indicates that any barriers to expansion in the case of wireless technology are clearly surmountable.

On this basis Telstra submits that the existence of established alternative broadband networks in at least some metropolitan areas, and the geographic footprint of certain

[33] Source: press releases downloaded at www.pba.com.au on 18 December 2006.

networks has grown, indicates that entry and expansion using alternative networks is feasible in certain geographic areas.

3.2.4 Conclusions on switching from LSS and de novo retail market entry

Telstra submits that the conclusion in Section 3.2.1 that it is constrained in the *wholesale market for broadband services* by the availability of a wide range of ready substitutes for LSS (including but not confined to ULLS) is strengthened by the absence of material barriers to *existing* LSS-based service providers switching to LSS substitutes, and to *new entrant* service providers using alternatives to LSS.

For these reasons, it submits that the wholesale market for broadband services is now workably competitive.

3.2.5 Retail market for broadband and voice services

As set out above, there are a range of wholesale inputs retailers can access in order to supply the downstream market. Given that access to wholesale inputs would appear to be the most likely factor to impede workable competition in the downstream retail market, this also suggests that the retail market is likely to be workably competitive.

While there are potentially other factors that might, at least in theory, undermine workable competition such as brand loyalty, switching costs, etc., the analysis of competition in the retail market in the following sub-sections, demonstrates that any such potential factors do not in fact impede competition.

3.2.5.1 Market size and key players

As of June 2006, broadband penetration in Australia was 3,518,100 subscribers - a 67% increase on a year earlier.[34] Around 72% of the 2005-2006 growth came from ADSL (or 84% if also including other DSL technologies).[35] Overall, broadband subscribers now account for more than half of all internet subscribers in Australia.[36]

Telstra faces a large number of competitors in the retail market for broadband and voice services. These fall into various categories:

- competitors with own fixed networks (typically fibre): e.g. Optus, TransACT. The geographic coverage of these players is discussed in Section 3.1.1.5;

[34] ACCC, 'Snapshot of Broadband Deployment as at 30 June 2006'.
[35] Calculations based on ACCC, 'Snapshot of Broadband Deployment as at 30 June 2006'.
[36] ABS, Cat. Number 8153.0 – Internet Activity Australia June 2006.

- wireless networks: Nearly all metropolitan areas across Australia have wireless network coverage (see Section 3.1.1.4). The number of wireless broadband subscribers more than doubled in the 9 months to June 2006, to about 100,000.37 The main players in this segment include iBurst and Unwired;

- ISP resellers: further competition to Telstra comes from a large number of ISPs who resell wholesale ADSL. As of June 2006, there were over 700 ISPs in Australia and while many of these players are relatively small, 35 of them have over 10,000 subscribers each; and 10 have over 100,000 subscribers each;[38] and

- ULLS-based and LSS-based carriers: carriers that have either a ULLS or an LSS arrangement with Telstra provide broadband services to end users. Many of these companies are also resellers of wholesale ADSL.

The growth in number and size of Telstra's competitors has impacted Telstra's (and Optus') retail broadband market share. In the broadband market, Telstra's market share has fallen from over 50% in 2002 to 40% in 2006, while Optus' market share has fallen from 29% to less than 20% in the same period (see Table 3 below).

The large number of market participants and trends in retail market shares are consistent with a competitive retail broadband market.

Table 3: Australian broadband market, market shares by retail subscribers, 2002-2006

Carrier	*2002*	*2003*	*2004*	*2005*	*2006 (est.)*
Telstra	52.5%	50.4%	48.3%	40.3%	40.0%
Optus	28.8%	20.7%	13.8%	15.6%	17.5%
DSL resellers	15.3%	25.6%	34.5%	40.7%	34.2%
Others	3.4%	3.3%	3.4%	3.4%	8.3%
CR2[39]	***81.3%***	***71.1%***	***62.1%***	***55.9%***	***57.5%***

Source: ACMA, Communications Report 2005-2006, p64.

[37] ACCC, 'Snapshot of Broadband Deployment as at 30 June 2006'.
[38] ACMA, *Communications Report 2005-2006*, p61-63 – these figures include both narrowband and broadband.
[39] Concentration ratio: sum of the market shares of the two largest market players.

3.2.5.2 Switching costs and churn behaviour

Telstra submits that the costs associated with retail broadband customers switching between retailers are low. This is for two reasons. First, a brief review of the main retail broadband offers made available by the key industry players that shows very low switching costs.[40]

Second, high switching costs would be inconsistent with the high level of retail customer churn that has been experienced by Telstra. Although low churn rates are potentially consistent with competitive market outcomes, high churn rates are almost always incompatible with an uncompetitive market. High churn rates imply that consumers are (i) *aware* that better offers are available (informational arguments); (ii) *able* to switch (from a legal, technical and cost perspective); and (iii) *willing* to switch (psychological aspect). If a 'better offer' (in terms of price and/or quality) is available to consumers at a point in time, and consumers are seen to respond to this by changing their service provider, it is reasonable to conclude that the market is characterised by competition; that is, providers actively *compete* with each other to attract each other's customers.

While Telstra is not aware of reliable estimates of broadband market-wide churn in the public domain, confidential (commercial) Telstra data on BigPond customer churn over time shows that [c-i-c].

Table 4: Churn of Big Pond's ADSL customers over the previous 12 months

	June 2002	*June 2003*	*June 2004*	*June 2005*	*June 2006*
Churn	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

Source: Telstra commercial-in-confidence data

These customers leaving Telstra's ADSL Big Pond ADSL could go in three broad directions:

- withdraw from the broadband market altogether;
- move to one of Telstra's competitors that has a wholesale arrangement with Telstra, via ULLS, LSS or wholesale ADSL (resellers); or
- move to an alternative network, either fixed (e.g. Optus, TransACT) or wireless (e.g. Unwired, iBurst). [41]

[40] Note that several providers waive connection costs to consumers who already have a broadband modem from their previous supplier.
[41] Switching levels from broadband to narrowband are immaterial in today's market.

In Telstra's view the first category is unlikely to involve a significant proportion of broadband customers leaving BigPond.

[c-i-c] [42]. This is an important indicator of a competitive retail broadband market.

[c-i-c].

3.2.6 Conclusion on the current state of competition

For all of the reasons set out above, Telstra submits that the market in which LSS is supplied is workably competitive because:

- ULLS and USS are close substitutes for LSS in the provision of high speed data services at the wholesale and retail layers in all areas that LSS is available. Other competitive infrastructure could also be considered substitutes. The presence of close substitutes is sufficient to provide a competitive constraint on Telstra's behaviour in the absence of declared LSS;
- barriers to ULLS and USS entry are low;
- barriers to ULLS and USS expansion are low; and
- the retail broadband market in Australia is characterised by high churn rates and low switching costs. These indicators are consistent with a highly competitive retail broadband market, which in turn places a competitive discipline on Telstra in the wholesale market.

3.3 Is declaration necessary to promote competition

Telstra now proposes to consider whether relevant markets would be compromised by LSS not being re-declared.

It necessarily follows that, if Telstra is already constrained in the relevant markets, especially in relation to conduct in respect of LSS (price rise, withdrawal of service), re-declaration would not affect the level of competition in relevant markets.

[42] Also, it should be noted that the churn out figures do not include subscribers who never took up BigPond broadband in the first place.

3.3.1 Wholesale market for broadband services

Section 3.2.1 concluded that Telstra is currently constrained in the *wholesale market for broadband services* by the availability of a wide range of ready substitutes for LSS (including but not confined to regulated ULLS).

The structural characteristics of the wholesale market, as reflected in the wide scope for substitution away from a Telstra-supplied LSS service, mean that competition in this wholesale market for broadband services would not be compromised if LSS were to no longer be declared. That is, future workable competition in the wholesale broadband market is not dependent on the ongoing declaration of LSS.

Finally, Telstra submits that a decision not to re-declare LSS would in fact enhance efficient competition.

3.3.2 Retail market for broadband and voice services

In Section 3.2.5 Telstra demonstrated that it is currently constrained in the *retail market for broadband or broadband and voice services*, due to the ready availability of a range of alternative upstream inputs (some competitively supplied and others regulated) and in some areas the existence of competing alternative networks. The analysis in Section 4.1 also led to the conclusion that the ready substitutability of a number of the wholesale inputs for LSS means that the wholesale market would remain competitive absent declaration.

For this reason, competition in the retail market for broadband, or bundled broadband and voice, services would not be compromised by the Commission deciding not to re-declare the service.

4 Will declaration achieve any-any connectivity?

With many declaration decisions, the any-to-any connectivity objective is unaffected one way or the other.

As the explanatory memorandum to the *Trade Practices Amendment (Telecommunications) Bill 1996* noted, the concept of any-to-any connectivity is not always relevant in the declaration context.

Telstra submits that this is also the case with regard to declaration or non-declaration of LSS. Put another way, declaration will not achieve any-to-any connectivity. However, it will not impede its achievement either.

5 Will declaration encourage efficient use of and investment in infrastructure?

This section of the submission demonstrates that the efficient pricing of LSS faces some severe challenges, giving rise to substantial scope for pricing error and that this, coupled with the presence of close substitutes for LSS, inevitably results in damaging distortions to the competitive process (including Telstra's ability to compete on merit) and leads to inefficient entry and infrastructure use patterns. Conversely, removal of ex ante regulation of LSS by the Commission would remove these negative effects, enhancing the scope for merit-based competition and promoting the efficient use of, and investment in, infrastructure.

Telstra submits that, on the basis of the evidence set out in the sections referred to below:

- regulatory error in setting LSS prices is not only highly probable but, in fact, inevitable (Section 5.1);
- given the opportunity for substitution to a range of alternatives to LSS, notably ULLS, errors in setting LSS prices will distort carriers' decisions between the various access alternatives as well as broader 'build' versus 'buy' decisions. In particular, carriers will overuse the upstream services that are, in an efficiency sense, under-priced (Section 5.2);
- regulation of LSS creates other serious pricing distortions (Section 5.3); and
- these effects have serious efficiency consequences (Section 5.4).

For these reasons Telstra submits that the Commission cannot be satisfied that re-declaration of the LSS will promote the efficient use of and investment in infrastructure.

5.1 Regulatory error in setting LSS prices is inevitable

Efficient regulatory prices need to reflect both the underlying incremental resource costs of the service and the allocation of joint and common costs in a manner reflective of demand characteristics (including price responsiveness of intermediate and downstream services). In doing this, as a general point, regulators face substantial challenges in identifying both *efficient price structures* and *efficient price levels*.

For several reasons, regulators are typically uninformed as to the efficient price structure. For example, regulators have a limited capacity to determine whether it is efficient to offer any and what combination of seasonal, daily, peak, volume, bundle, commitment, customer-specific, or other cost-based or discriminatory discounts. Even more fundamentally,

regulators may not know which outputs they should be pricing (for example, access, outbound calls, outbound call minutes, etc.). To the extent that the chosen price structure is not efficient, prices will distort production and consumption decisions, including investment decisions.

Similarly, setting the efficient price level for any particular price requires deep knowledge not typically available to a regulator. Several other issues add to this challenge, notably:

- the need to ensure full cost recovery, recognising that many costs are shared over different services, customers and time periods;
- the recognition that prices that would impose a loss on producers are likely to engender much higher welfare losses than prices that would grant producers an equivalent profit (because prices that impose losses would likely lead to very substantial under-provision and even shut down);
- the need to account for externalities (including the two-sided externalities that characterise interconnection between networks); and
- in the case of wholesale prices, the need to account for the nature of downstream competition.

In the case of pricing LSS, the difficulty of price setting is substantially exacerbated by the absence of a uniquely efficient way for a regulator to allocate the common cost of the customer access line to LSS and voice-related services. For example, effectively competitive firms commonly (and efficiently) recover shared costs in quite different ways, with no one approach meeting all circumstances.[43]

It is commonly claimed that short run allocatively efficient pricing requires price set equal to marginal cost.[44] However, this is not dynamically efficient in the presence of fixed costs, as

[43] For example, there would be some customers who are not interested in broadband, but who want telephony service. Supply to such customers in general would not involve provision of broadband service. Consequently, if carriers are to charge these customers a price that recovers line costs, then the line cost must be entirely allocated to the voice service. There would be other customers who may not be interested in voice telephony at all, and it is unlikely that voice service would be supplied to such customers (at least, not using the fixed line). In that case, the line cost would be recovered through the retail broadband price. Finally, where customers wanted both voice and broadband, the line cost would effectively be spread over both services.

[44] Even in the absence of externalities, this may not be true when inframarginal, costs, for example fixed costs, are high relative to marginal costs. This is because total consumer valuation of the service may be less than supply costs.

these fixed costs need to be recouped.[45] Otherwise, the provider would have no incentive to invest and would leave the business.

In the telecommunications industry, there are substantial fixed and common network costs that need to be recovered. The standard economic principle is to allocate fixed and common costs to various services using the same infrastructure on the basis of demand sensitivity to price. In other words, one should allocate a larger proportion of such costs to price insensitive services (i.e. those with a low price elasticity of demand). This is the principle of Ramsey pricing which, properly generalised, includes nonlinear pricing (such as multipart pricing).

The challenge with Ramsey pricing in this context is that demands for ULLS and LSS are not independent, making it even more difficult than usual to obtain reliable estimates of the own and cross-price demand elasticities for each service,[46] and then to calculate the appropriate Ramsey mark-ups.[47] In these circumstances, the likelihood of regulation creating relative price distortions between ULLS and LSS is great, and indeed, inevitable.

In addition to the consumption distortions demonstrated below, pricing errors have two serious efficiency consequences.

First, pricing errors that result in relative LSS prices being set too low lead to a loss of productive efficiency as end-users face artificial incentives to take-up LSS-based services which do not offer voice-data scope economies otherwise available via ULLS, alternative infrastructure, or pure resale options.[48]

Second, pricing errors threaten access providers' ability to recover the cost of access infrastructure and hence distort the willingness to invest in facilities.

However, it is unnecessary to set both LSS and ULLS prices when they are such close substitutes. Rather, the regulator's burden can be greatly reduced by setting the price of only one service. In this regard LSS is the natural candidate to deregulate since ULLS allows

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[45] Fixed costs can of course be recouped by marginal cost pricing when marginal costs are rising, but this is not likely to be the case in telecommunications.

[46] The LSS price influences demand for ULLS and vice-versa. Therefore an empirical estimation of the price elasticity of demand for LSS would need to take account of simultaneous price and demand for ULLS. This type of interdependence poses great difficulties for econometric estimation of demand, and necessitates the use of much larger, and richer data sets.

[47] Jean-Jacques Laffont and Jean Tirole, 1993, " A Theory of Incentives in Procurement and Regulation", Published by MIT Press.

[48] Given the large scope economies gained by producing voice and data together, combined with the transactions costs of dealing with third parties, it is in fact unlikely that a competitive market would ever have created a line sharing service. But even if such a service had emerged in the past at a time when there may have been a meaningful distinction between the voice and high frequency spectrum on a copper line, there is no such meaningful distinction today.

competition in supply over the full spectrum available in the copper wire, while LSS only allows for competition in supply over the high bandwidth spectrum of the line.

Furthermore, even if a regulator did manage to initially establish efficient ULLS and LSS pricing structures and levels, thereby striking an appropriate balance between ULLS and LSS prices, the regulated price settings would be slow to respond to market signals in the inevitable event of shifts in demand patterns (e.g. rising demand for broadband and shrinking demand for fixed voice services) and fundamental changes in costs. By maintaining the arbitrage opportunity, regulation will tend to lock in for longer periods the productive and dynamic inefficiencies discussed above. Indeed, the Commission itself has recognised this problem:[49]

> *Competitors' decisions about the basis on which to compete will, in large part, depend on access prices relative to investment cost. So long as these signals are correct, the market should make appropriate decisions about whether to invest in alternative infrastructure, and/or rely on Telstra's network and the extent of this reliance. If access prices do not reflect efficient costs, or there are market failures or uncertainty, then competitors' decisions about whether to build or buy could be distorted.*

5.2 LSS pricing errors result in inefficient entry and distort consumption

The analysis presented below shows that regulatory damage is especially high if the price level of any service is set too low, and particularly in the case of close substitutes like ULLS and LSS. This is because substitution will take place toward the under-priced good from any relatively over-priced substitute, distorting the whole market. Further, when the prices of multiple services are regulated, the probability that at least one substitute will be under priced increases substantially. Thus pricing more than one substitute greatly increases the likelihood of substantial efficiency harms. This leads to the conclusion that regulated LSS pricing will inevitably introduce distortions that harm efficient competition and investment.

Moreover, the analysis demonstrates that such errors are not merely a theoretical possibility. Evidence from the EU and Australia indicates not only that ULLS and LSS are close substitutes, but that regulators may well have made errors in pricing these services, as anticipated in Section 5.1 above.

[49] ACCC, *A Strategic Review of the Regulation of Fixed Network Services, Position Paper*, (June 2006), p. 13.

5.2.1.1 Pricing errors distort consumption

Set out below is an illustrative example that shows that when regulators set prices of substitutes, the regulatory damage is high if the price of any service is set too low.

This example makes the following assumptions:

1. the appropriate price structure is a simple uniform price set equal to marginal cost;
2. the costs of regulatory error are symmetric around over and under-pricing;
3. the regulator is well-informed about the appropriate price structure and unbiased; and
4. the regulator does not know the appropriate marginal cost, but is able to place some parameters on the likelihood that the marginal cost takes a given value.

If these assumptions do not hold, the negative results from the illustrative example would likely be exacerbated.

Consider regulation of a monopolist that supplies four products at a sports venue: hot dogs, hamburgers, falafel, and chicken kebab, and label these snacks, Snack 1 to Snack 4.

Assume an unbiased regulator of the monopolist knows that the efficient price (marginal cost) of hot dogs lies between $5 and $15; that the probability that the price is different from $10 is symmetrically distributed around $10;[50] and that any information about the other three snacks is irrelevant to the efficient price of hot dogs. Symmetry implies the regulator should set a $10 price on hot dogs.

For each of Snacks 2 to 4, assume the efficient price is $1 higher than the previous snack, but that, in all other respects, the same conditions apply to these snacks as those that apply to Snack 1. In this case the unbiased regulator would price Snack *n* at *$9 + n* and hence set the price of hamburgers at $11, falafel $12, and chicken kebab $13.

Finally, assume that the marginal costs of Snacks 1 to 4, unobservable to the regulator, are $9.50, $10.75, $12.25 and $13.50 respectively. Table 5 below summarises the information presented above.

[50] Symmetry implies that the probability that the price is less than *$10 - $X* (where *$X* can take any value between $0 and $5) is the same as the probability that the price is more than $10 + $X.

Table 5: Regulatory pricing

Snack	*Snack no.*	*Range of efficient prices*	*Midpoint (and regulated price)*	*Marginal cost*	*Extent of under or overpricing (difference between regulated price and marginal cost)*
Hot dog	1	5 to 15	10	$9.50	Over-priced by $0.50
Hamburgers	2	6 to 16	11	$10.75	Over-priced by $0.25
Falafel	3	7 to 17	12	$12.25	Under-priced by $0.25
Chicken kebab	4	8 to 18	13	$13.50	Under-priced by $0.50

As indicated by the table above, regulatory intervention has lead to inefficient pricing errors; goods have either been priced above or below that of their efficient price which would equal marginal cost had the regulator been able to observe it.

If goods are not readily substitutable, then a regulatory pricing error of one good will not affect the consumption of other goods; only the own price effect is relevant. In our example, had consumers preferences been distributed independently across the four snacks, regulatory pricing errors results in over consumption of snacks 1 and 2 and under consumption of snacks 3 and 4.

The more likely case is that consumers' preferences are interdependent; demand for snack 1 is affected by the price of snack 2. Given interdependent preferences, a regulatory pricing error has efficiency consequences for all other products. As a result, regulating more than one substitute significantly increases the likelihood of pricing error perpetuating the distortion to consumption and efficiency. Overpricing one good while under pricing another distorts consumption through both the own price effect and the substitution effect; the result is severe under or over consumption. Put another way, pricing errors and efficiency losses are magnified by the substitution effect.

To illustrate, assuming that markets clear, regulated prices as opposed to optimal prices will shift consumption towards falafel and especially towards chicken kebabs. Excessive consumption arises for two reasons:

- Those people who would purchase falafel and chicken kebab at the optimal prices would buy more of these snacks (just as in the case of independent demands);
- But, in addition, there would also be demand for falafel and chicken kebab from those people who at the optimal prices would have purchased hot dogs and hamburgers. There will also be some inefficient switching from the relatively less under-priced falafel toward the more under-priced chicken kebab.

In the case of LSS, regulatory damage is especially high if the price level of LSS is set too low or high (relative to its efficient level), as ULLS and LSS are close substitutes. This is because substitution will take place toward the under-priced good and away from any relatively over-priced substitute, distorting the whole market.

Such errors are not merely a theoretical possibility. Evidence presented below from the EU and Australia confirms not only that ULLS and LSS are close substitutes, but that regulators have made errors in pricing these services. The difficulty in setting optimal relevant LSS and ULLS prices was recognised by the Federal Communications Commission (FCC) in its decision to abandon mandatory line sharing in the United States in 2003.[51] In Australia, where active regulation of LSS remains, Telstra submits that pricing errors are not only distorting consumption decisions between the various access alternatives, but are also distorting 'build versus buy' incentives, thereby dampening the incentive to invest in infrastructure.

5.2.1.2 European and Australian evidence strongly suggests LSS and ULLS are close substitutes

In this submission, Telstra has argued that:

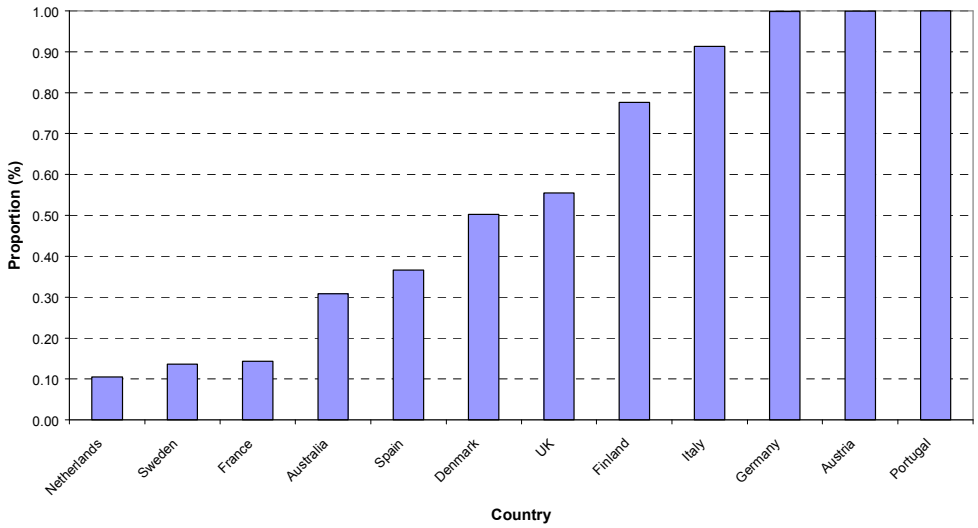
- LSS and ULLS are close functional substitutes;
- regulator error in setting relative LSS/ULLS in inevitable; and
- pricing errors will lead to consumption distortions.

In this section Telstra presents empirical support for each of these arguments.

First, there is evidence that LSS and ULLS are close functional substitutes. Carriers in both the EU and Australia demand ULLS and LSS in vastly different proportions. Figure 3 plots the proportion of unbundled lines attributable to ULLS. If ULLS and LSS were not substitutable services then it is highly unlikely that such variation would be observed among countries where consumer preferences for telecommunication services and country specific costs are likely to be relatively homogenous (especially across many European countries) – Appendix B provides further detail on this EU case study.

[51] The FCC decision to abandon mandatory line sharing is outlined in detail in section Appendix C.

Figure 3: ULLS share of total unbundled lines, October 2005



Source: European Commission, European Electronic Communications Regulation and Markets 2005 (11th Report), 20 February 2006; CIA World Factbook.
Note: Data for Australia relates to August 2005.

Second, there is evidence that regulator pricing error does actually occur. In the EU, where access seekers can obtain both ULLS and LSS services from incumbent carriers at regulated prices, there are very large differences in the *relative prices* between ULLS and LSS across countries (see Table 6 below). The ratio of ULLS to LSS prices varies from a low of 1.47 (1.38) to a high of 3.53 (7.25) in 2005 (2006). It is highly unlikely that price difference across these countries can be explained by underlying cost variations as local access networks are relatively homogenous given that the European urban environments are similar and population densities are relatively uniform across these European countries. This suggests that at least some regulators have mis-priced ULLS and LSS.

Table 6: Regulated prices for ULLS and LSS in 2005 and 2006

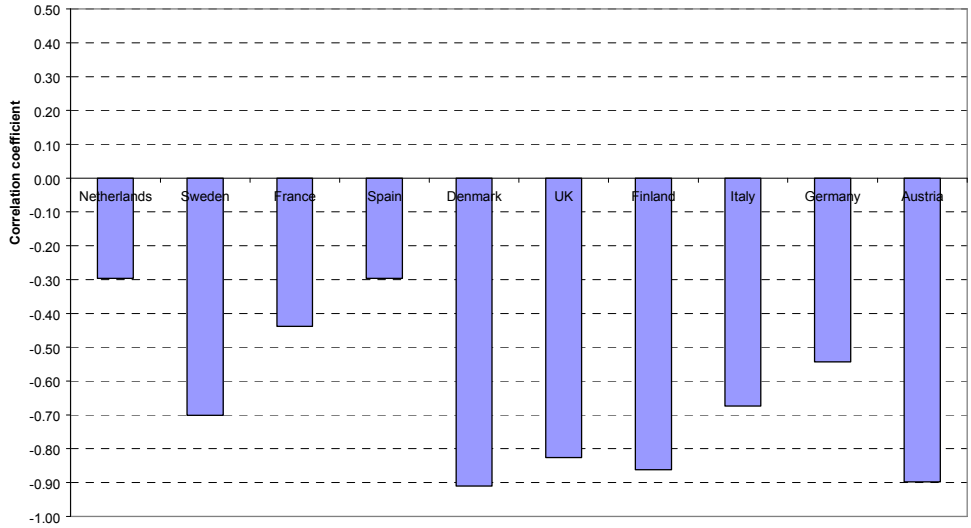
Country	2005			2006		
	ULLS Price (€)	*LSS Price (€)*	*Ratio of ULLS to LSS price*	*ULLS Price (€)*	*LSS Price (€)*	*Ratio of ULLS to LSS price*
Austria	12.4	8.48	1.47	11.60	8.40	1.38
Denmark	10.3	5.53	1.86	10.10	5.60	1.80
Finland	15.1	8.30	1.82	15.00	8.20	1.83
France	10.9	4.39	2.48	10.70	4.40	2.43
Germany	11.8	3.74	3.16	11.80	3.70	3.19
Italy	9.3	4.14	2.25	9.10	3.80	2.39
Netherlands	10.4	2.95	3.53	8.70	1.20	7.25
Portugal	10.8	4.01	2.69	10.00	3.60	2.78
Spain	12.0	3.84	3.13	10.90	5.20	2.10
Sweden	15.2	7.67	1.98	15.60	7.40	2.11
UK	11.2	3.34	3.35	14.00	3.40	4.12

Source: European Commission, European Electronic Communications Regulations and Markets 2005 (11th & 12th Report), Annex 2.

Third, evidence indicates errors in setting LSS/ULLS prices distort consumption. In all the European countries studied there exists a strong and negative correlation between the price of ULLS, relative to LSS, and the proportion of unbundled lines[52] attributable to ULLS. Figure 4 presents information for all EU countries with more than 10,000 unbundled lines (2005) and shows that in all cases carriers consume a higher (lower) proportion of LSS as the relative price of ULLS increases (decreases).[53] Although correlation does not necessarily infer statistical significance, the result is consistent with our hypothesis that carriers substitute between LSS and ULLS in response to changes in relative prices.

[52] Where unbundled lines is defined as the summation of ULLS and LSS lines.
[53] Equivalent Australian data on LSS and ULLS SIOs is not publicly available.

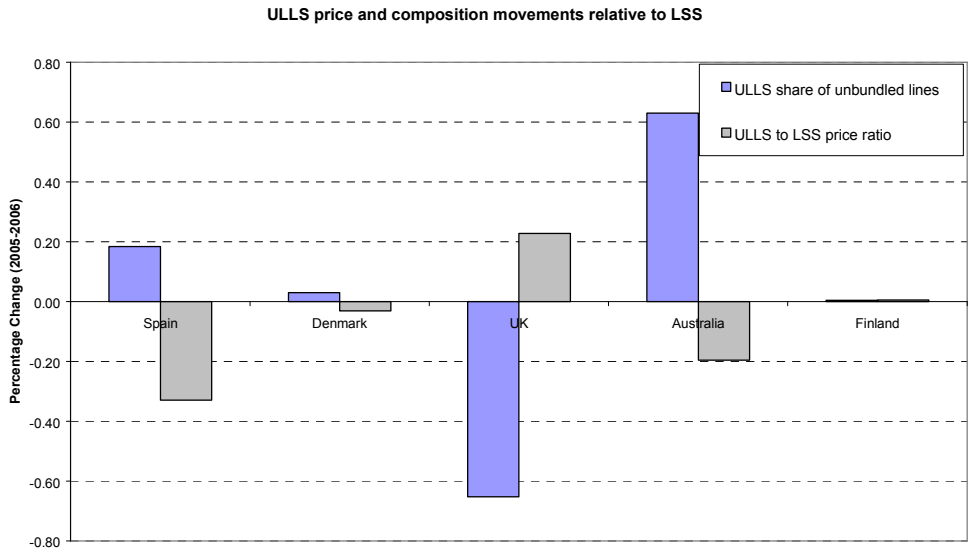
Figure 4: Correlation between the ULLS/LSS price ratio and the proportion of unbundled lines accounted for by ULLS (2002-2006)



Source: European Commission, European Electronic Communications Regulations and Markets 2006 (8th - 12th Reports), Annex 2.
Notes: This figure depicts the correlation coefficients, over the four years beginning in 2002, of relative ULLS price and the proportion of unbundled lines which are attributable to LSS in each country. Equivalent Australian data on LSS and ULLS SIOs is not publicly available.

To provide further evidence that carriers' consumption decisions respond to regulatory price changes it is useful to analyse how consumption of ULLS/LSS responds to relative price changes from 2005 to 2006. For countries that exhibit relatively even proportions of ULLS and LSS consumption in 2005, the observed behaviour is reflective of a high degree of sensitivity to ULLS/LSS price relativities. As shown in Figure 5 below, over 2005-2006 there has been increased (decreased) ULLS/LSS consumption when relative ULLS/LSS prices have decreased (increased). For example in the UK a 23% increase in relative ULLS prices was accompanied by a 65% reduction in the proportion of ULLS lines. This outcome indicates that ULLS and LSS are close substitutes and that regulation of both services has led to pricing errors that in turn result in large consumption distortions.

Figure 5: Percentage change in ULLS relative price and ULLS share of unbundled lines from 2005 to 2006



Source: European Commission, European Electronic Communications Regulation and Markets 2005 (11th and 12th Report), 20 February 2006; CIA World Factbook; Telstra data.
Note: Presents the percentage change in price and ULLS share of unbundled lines between 2005 and 2006 for countries that had proportion of ULLS lines between 0.15 and 0.85 in 2005. Data for Australia is based on ULLS and LSS Band 2 prices and SIOs.

For countries that have less balanced proportions[54] of ULLS and LSS SIOs, there is not the same observed ULLS/LSS quantity responsiveness to relative price movements. While this is somewhat surprising, it is not necessarily indicative of an absence of a relative ULLS/LSS price effect, with other influences perhaps dominating. These might include the price of other wholesale inputs (such as WLR which is often purchased in conjunction with LSS), and non-price terms and conditions imposed by regulation.

Importantly, Australia has seen access seekers substitute in favour of ULLS in response to reductions in the relative price of ULLS during 2005-06 (see Figure 5). This result is consistent with LSS and ULLS being close substitutes and regulation of both services leading to pricing errors and consumption distortions.

This substitutability of LSS and ULLS is demonstrated by the recent behaviour of Australian telecommunications provider iiNet. Coincident with recent reductions in the LSS price, iiNet has changed from a planned ULLS-based approach to an actual LSS-based approach. iiNet is a relatively large ADSL retailer offering a full range of telephony services via standard fixed line and Voice over Internet Protocol (VoIP). Since 2004 iiNet has advocated a business plan

[54] Defined as a ULLS share of unbundled lines greater than 15% and less than 85%.

to position themselves as a full home phone service provider as well as an ISP.[55] iiNet recognize that they have a number of options available to them in providing a full range of ADSL and telephony services though either ULLS or a combination LSS and wholesale arrangements.[56] In iiNet June 2005 results presentation outlined, in some detail, the business case for ULLS deployment and proposed to role out 107,000 ULLS-enabled DSLAM ports in 2006.[57] However, iiNet did not pursue this investment strategy and currently offers bundled retail voice and ADSL services through a combination of LSS and wholesale line rental. Even though a range of factors were likely involved in iiNet's decision, this information nonetheless indicates that iiNet views LSS and ULLS as competitive wholesale substitutes, and suggests access seekers are structuring business plans in response to changes in relative ULLS and LSS prices.

In summary, evidence from the EU and Australia provides strong support for both a high degree of LSS/ULLS substitutability and the existence of regulator pricing error.

5.2.1.3 Australian evidence suggests LSS is distorting 'build versus buy' decisions, dampening the incentive to invest in infrastructure

Evidence considered below leads to the conclusion that regulation of wholesale products such as ULLS and LSS is distorting 'build versus buy' incentives in Australia. As wholesale prices have fallen in recent years, investment in alternative end-to-end networks (in particular competitors' HFC networks) has been minimal. The HFC network owned by Optus has seen little expansion since the late 1990s, and Neighborhood Cable's network has not been expanded since 2003[58].

Rather than investing in the expansion of their own end-to-end networks, most carriers have chosen to use Telstra's wholesale products. Moreover, even if there are other reasons to explain the lack of further roll-out of HFC networks, there is evidence to suggest that even in areas where carriers have already deployed their own end-to-end networks, they are electing to use wholesale services instead.

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[55] iiNet Annual general meeting of shareholders, 12.00 noon, Western Australia, Friday 26 November 2004 – Chairman's Address, available at www.iinet.net.au/about/investor/2004ChairmansAddress.pdf
[56] iiNet Unconditioned Local Loop (ULL) February 1, 2006, available at www.iinet.net.au/about/investor/ull_briefing.pdf.
[57] iiNet Results Presentation, 20 June 2005, avaible at www.iinet.net.au/about/investor/half_year_investor_pres.pdf
[58] Public information on Neighborhood Cable's website (http://www.ncable.net.au/_site/about.asp?cat=19) indicates that their last rollout was completed in 2003 and there have been no rollouts since then.

For example, this is the case with Optus, whose HFC network covers around 30 per cent of band 2 exchanges.[59] In more than half of those band 2 exchanges covered by their HFC network, Optus has also deployed DSLAMs for the purpose of utilizing either LSS or ULLS products (see Table 7 below). This suggest that regulation is creating incentives for Optus to use wholesale products in preference to its own facilities – effectively, regulation is pushing Optus back towards reliance on Telstra's network to the likely detriment of efficient competition and use of, and investment in, infrastructure.

Table 7: Optus presence in band 2 exchanges

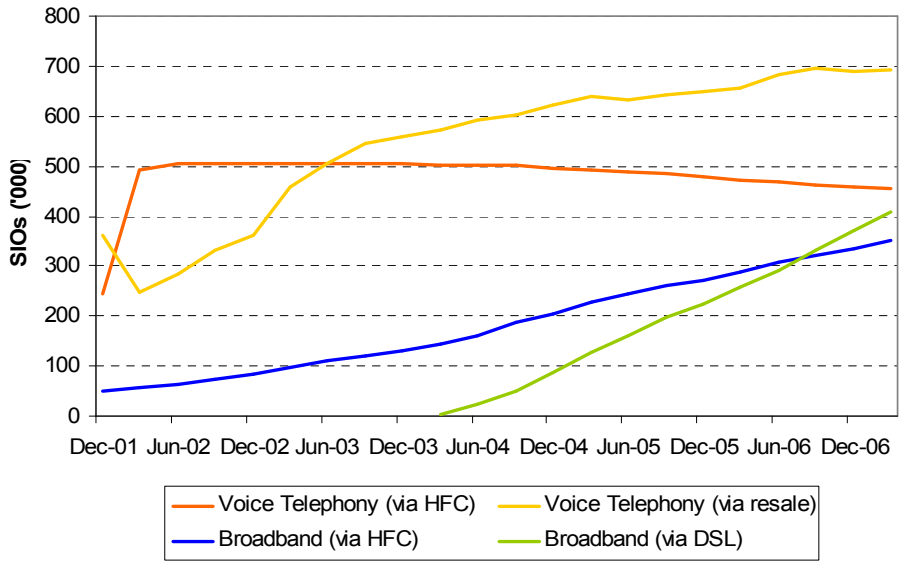
Band 2 Exchanges	
Exchanges Covered by Optus HFC	171
Exchanges with Optus DSLAMs deployed	221
Exchanges with both Optus cable and DSLAM deployment	94
Share of cabled exchanges with DSLAMs	55%

Source: Telstra competitive intelligence.
Note: An exchange is considered to be 'covered' by Optus cable if the network reaches at least 75% of SIOs in the ESA

The other striking feature of Optus's recent behavior is its increased use of wholesale products relative to its use of its own HFC network. Figure 6 shows that on a national level, Optus's use of wholesale products to provide retail broadband has been increasing relative to its use of HFC since mid-2004 – Optus now has more DSL broadband customers than cable broadband customers. Moreover, while its use of wholesale products to provide voice has been on the rise, Optus's use of HFC to provide voice has been declining in absolute terms. While it is not clear what the geographic distribution of Optus's wholesale customers is, it is immediately apparent from this graph that Optus's reliance on its own facilities is in relative decline.

[59] An exchange is considered to be 'covered' by Optus cable if the network reaches at least 75% of SIOs in the ESA.

Figure 6: Optus's use of HFC and wholesale products



Source: Optus, Annual Reports and Market Announcements

The fact that one of Telstra's key facilities-based competitors – Optus – is electing to use wholesale products in preference to the expansion (and possibly even use) of their own facilities suggests that regulation is not promoting efficient use of and investment in that infrastructure.

5.3 Wider price distortions

An additional source of price distortion in Australia is the different structure of regulated wholesale prices determined by the Commission for ULLS and LSS. In particular, the Commission has determined that prices for ULLS should be set on a geographically de-averaged basis, while LSS is priced on an averaged basis[60]. This will tend to result in inefficient outcomes from over-consumption of ULLS relative to LSS in Bands 1 and 2 where LSS and ULLS are primarily used to provide broadband services. Further, to the extent that LSS or ULLS services are taken up in Bands 3 and 4, ULLS would be under-consumed and LSS over-consumed. The non re-declaration of LSS would remove this source of price distortion (given Commission intransigence on moving to an averaged ULLS price).

More generally, the pattern for the Commission to consistently set regulated access prices, including LSS prices, below the costs that Telstra (and likely other network operators)

[60] In setting LSS prices, the ACCC has to date considered only LSS-specific costs, which are averaged geographically and determined the same price in all Bands. More significantly, if a contribution to line costs was to be introduced into the LSS price, as WLR is priced on a geographically-averaged basis then the only workable approach would be to price the LSS contribution on an averaged basis, retaining a geographically-averaged LSS price.

actually incurs in providing these services, creates a bias against Telstra and other network operators in their ability to compete effectively. This creates inefficiency as competition on the merits is impeded, with scope created for less efficient operators than Telstra and other network operators to succeed in the market. Although this is a problem relating to the full set of declared services, the non re-declaration of LSS would reduce the extent of the distortion.

5.4 Implications for economic efficiency and competition

The economic arguments and evidence presented in this section indicate that the imposition of LSS regulation leads to inefficient entry and distorted consumption, driven in part by inevitable errors in pricing LSS and the presence of close substitutes for LSS. This distorts the competitive process (prevent firms from competing on their merits) and causes serious harm:

- The creation of regulatory arbitrage opportunities. In efficient markets, arbitrage opportunities quickly disappear, typically due to price adjustment. Where prices for multiple access services which are close substitutes are set by regulators, the relativities of those prices determine the various services' relative attractiveness. Where those relativities do not mirror those that would occur in an efficient, competitive market, over time an arbitrage opportunity is created and maintained by regulation. By maintaining the arbitrage opportunity, regulation will tend to lock in for longer periods the productive and dynamic inefficiencies discussed above. The Commission itself has recognised this problem.[61]

- Reduced depth of facilities-based competition. Distorting relative ULLS/LSS prices will flow through to investment decisions by entrants as well as incumbents. It is widely recognised that competition is best promoted by merits-based full facilities-based competition and granting access to the lowest meaningful level of wholesale input. The further firms enter upstream of the end customer, the less dependent they are on the incumbent or on regulation to remain competitive and the greater scope they have to innovate.

- Wasteful strategic behaviour by both service providers and access seekers. Finally, the regulation of multiple substitute services creates incentives for regulatory gaming. For example, in the case of ULLS and LSS, access seekers will have an incentive to maintain the under-priced options by asserting that other options are over-priced or inadequate (whether or not they in fact are). Not re-declaring LSS will reduce the scope for resources to be unnecessarily wasted in attempts to game the system

[61] See section 5.1 above.

Removal of LSS regulation would therefore enhance economic efficiency and promote competition. Importantly, the competitive vigour of both Telstra and its competitors would be enhanced:

- Telstra would be able to more fairly and effectively compete in downstream retail markets against competitors, which will intensify retail competition; and

- to the extent that removing LSS regulation results in competitors moving to ULLS and facilities-based competition, existing competitors will be more deeply vertically integrated, which will also likely intensify competition in retail markets and result in lower prices as vertical efficiencies are realised and passed through to consumers.

Many of the adverse effects of LSS regulation are acknowledged by relevant international precedent (see Appendix C).

6 Conclusion: the LTIE will not be promoted by re-declaration

The analysis in the preceding sections shows comprehensively that LSS should not be re-declared having regard to the economic criteria specified in the TPA.

Careful consideration and balancing of the statutory criteria in light of Telstra's analysis in this submission leads to the ineluctable conclusion that re-declaring the LSS will not be in the LTIE. To the contrary, a decision to not re-declare the LSS would in fact enhance competition and encourage the efficient use of and investment in infrastructure.

Accordingly, Telstra's view is that the Commission cannot be satisfied that re-declaration of LSS would promote the LTIE.

7 If LSS is re-declared then CBD areas should be excluded

Telstra has demonstrated in this submission that re-declaration of the LSS in any part of Australia will not promote the LTIE. However, even if the Commission finds itself unable to be satisfied of this and proceeds to re-declare the LSS, it is clear, based on the Commission's own reasoning in other regulatory fora, that any re-declaration of the LSS must exclude CBD areas of major capital cities (ULL band 1) given the high level of effective competition that has already been acknowledged by the Commission to exist in those areas.

7.1 Removal of regulation in areas where competition is sufficient

First, the Commission has expressly acknowledged that it would be appropriate to withdraw the declaration of a service in particular geographic regions where regulation is no longer necessary to promote the LTIE in that region. As expressed in the Second Position Paper:[62]

> "*...where appropriate, the Commission will geographically delineate markets on a narrower basis than a 'national' scope, to reflect that competition has emerged (and is likely to continue to emerge) unevenly in different geographic regions of Australia. In particular, the Commission proposes to base future market definition exercises at the 'local exchange' level.*"

In the context of the PSTN OA re-declaration, Telstra submitted that it was unnecessary to regulate a service where there is alternative infrastructure in place. The Commission agreed that "where alternative infrastructure exists, there is merit in using this as a starting point for ongoing considerations concerning the effectiveness of infrastructure-based competition".[63] The Commission then went on to encourage access providers to submit exemption applications "if it can demonstrate that an exemption from regulation can be justified on the basis of effective competition in any given sub-region".

For the reasons set out below, it is self-evident that the LSS should not be declared in the CBD areas of major capital cities, based on the Commission's own reasoning.

7.2 Investment in infrastructure in CBD areas

Given the concentration of population and need for telecommunication services in CBD areas, the fact that infrastructure-based competition in CBD areas is occurring is uncontroversial. In the Second Position Paper, the Commission pointed out that:[64]

> "*Quasi-infrastructure competition is predominantly based in the capital cities of Adelaide, Brisbane, Melbourne, Perth and Sydney, with many consumers in these areas having access to two or more quasi-infrastructure based providers.*"

In respect of competition in the form of alternative networks, it was stipulated in the Declaration Inquiry - Final Decision that:[65]

> "*The Commission notes that various local access networks have emerged, though these are mostly in central business districts (CBDs) of the major capital cities. These alternative networks are based on fixed wireless, optical fibre, microwave and satellite technologies.*"

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[62] Second Position Paper, p. iv.
[63] ACCC, *Declaration inquiry for the ULLS, PSTN OTA and CLLS - Final Determination,* (July 2006) ("**Declaration Inquiry - Final Decision**"), p. 51.
[64] Second Position Paper, p. 11.
[65] Declaration Inquiry - Final Decision, p. 6.

It is similarly uncontroversial that this competition is driven by the attractive economies of scale and scope available to a facilities-based entrant in the CBD areas:[66]

> *"…CBD areas are typically characterised by a higher percentage of business customers that generate higher telephony revenues than on average, and therefore are particularly attractive to competing service providers.* ***These areas have also been the focus of telecommunications infrastructure investment by new entrants.****"* (Emphasis added)

7.3 Deployment of competitive infrastructure in CBD areas

As illustrated above in Section 3.2 above, there is an abundance of alternative infrastructure in the form of ULLS, USS, wholesale ADSL and alternative networks (eg cable and wireless) in CBD areas. It is self-evident that the level of competition is sufficient to justify excluding CBD areas from any re-declaration of the LSS. The Commission has already granted an exemption and removed CBD areas from declarations based on the deployment of alternative infrastructure and declared services (including the ULLS). Significantly, the CBD exemption for the LCS (based on the availability of existing and future competitive infrastructure) was granted almost five years ago in 2002. Given the deployment in CBD areas has improved, not worsened since that decision, it would be wholly inconsistent now to find that the scope of facilities-based substitution is insufficient.

In assessing the availability of competitive infrastructure in the context of Telstra's LCS exemption in 2002, the Commission noted that:[67]

> *"It is apparent…that the number of alternatives to Telstra's infrastructure are reasonably evenly spread over the five different CBD areas in question, although slightly more concentrated in Sydney and Melbourne. Access to alternative declared services is also available ubiquitously across the five CBDs."*

Subsequently, in concluding that an exemption of the LCS in CBD areas was appropriate, the Commission formed the view that: [68]

> *"…there is substantial alternative infrastructure (optic fibre loops, microwave and LMDS) and declared services (local PSTN originating access and ULLS) for originating local calls in CBD areas either being used or that can readily be used by alternative carriers and carriage service providers. The presence of such alternative infrastructure and services is believed to be sufficient to serve as substitutes to the Local Carriage Service and act as a constraint on the Local Carriage Service price that Telstra would be able to charge in the absence of the Commission's power to determine a Local Carriage Service price upon the granting of an exemption in the areas of Sydney, Melbourne, Brisbane, Adelaide and Perth covered by Telstra's exemption application. On this basis, the Commission considers that the continued declaration of the Local Carriage Service is not necessary in these areas to ensure competitive market outcomes and deliver benefits to end-users."*

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[66] LCS Exemption - Final Decision, p. 18.
[67] LCS Exemption - Final Decision, p.44.
[68] ACCC, *Future scope of the Local Carriage Service - Final Decision*, (July 2002) ("**LCS Exemption - Final Decision**"), pp. 51-52.

This view was re-affirmed by the Commission in its decision to exclude CBD areas from the re-declaration of the LCS and the declaration of WLR in July 2006:

> *"...there are sufficient alternatives to the LCS and WLR local services in certain CBD areas to provide a constraint on Telstra's prices for those two services in those areas.* ***These alternatives include competing infrastructure and the unconditioned local loop service (ULLS)."***[69] (Emphasis added)

While these comments were made in the context of local call services, the infrastructure referred to by the Commission in granting the exemption back in 2002 was already capable of delivering high speed broadband services. The Commission's observations of the level of competition in CBD areas in those contexts would therefore equally apply to the LSS. Further, given that the Commission has already carved out CBD areas from the WLR declaration and hence has carved out the low frequency portion of the communications wire, there is no reason for the Commission to not also carve out the high frequency portion of the wire.

Moreover, it is notable that the provision of data services, not local telephony, has been the key driver behind the increase in the continued roll-out of competitive infrastructure in CBD areas. As submitted by Telstra in response to the Commission's discussion paper in relation to the LCS exemption:[70]

> *"In Telstra's view, of far greater relevance to competition than local call traffic growth is the huge growth in demand for data services. This is the main reason that service providers have entered the CBD market deploying their own networks, and is the reason cited by many new entrants for extending their existing infrastructure. Huge growth in data demand means that new capacity can be absorbed quickly. Hence, despite sunk costs, the risks involved in entry are low. Also, strong demand growth means that a lot of demand is effectively uncommitted - which increases the elasticity of demand and again reduces the risk associated with entry."*

The Commission concurred with Telstra's assessment in its final decision to grant the exemption:[71]

> *"Accordingly, DSL network roll out in CBD areas provides an indication of the likely take up of the ULLS, albeit with a focus on the provision of data services."*

Furthermore, in the Declaration Inquiry - Final Decision, it was affirmed that CBD areas are subject to a number of substitution possibilities (namely, fibre loop networks) which do not exist in other regions. Furthermore, in that context it was clearly acknowledged that the

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[69] ACCC, *Local Services Review - Final Decision*, (July 2006) ("**LSR Final Decision**"), p. 7.
[70] Telstra, *Future Scope of the Local Carriage Service Declaration - Telstra's Submission to the ACCC Discussion Paper - Public Release Version*, (4 September 2000), p. 9.
[71] LCS Exemption - Final Decision, p. 38.

there is effective competition via alternative technologies in at least the CBD areas of major capital cities in Australia.[72]

8 Period of declaration if LSS is re-declared

Telstra maintains its position that LSS should not be re-declared but, if it is re-declared, Telstra agrees with the Commission's proposed time period to bring it in line with the declaration end dates of other declared fixed line services.

9 Pricing principles if LSS is re-declared

As stated above, Telstra believes that there is no basis for the Commission to decide to re-declare LSS. However, should it nonetheless do so, Telstra believes that some changes to the existing LSS Pricing Principles would be appropriate. The Commission notes in the LSS Discussion Paper that there are currently a range of LSS access disputes underway. As part of the arbitration process for a number of these disputes, Telstra has made submissions regarding how LSS should be priced, having regard to the criteria in the TPA.

This proposal, the foundations of which are discussed below, is consistent with the 2002 Pricing Principles. Those principles endorse the use of a properly constructed TSLRIC+ model in setting prices for LSS and recognise that the LSS monthly charge should be based on two elements: the incremental (or LSS service-specific) costs of providing a LSS; and the cost of a line over which a LSS is provided. Furthermore, the principles state that a contribution to line cost should only be included in the LSS monthly charge if Telstra is not already fully recovering its line costs through charges for other services. Telstra agrees with the principles in this regard, but notes that there remains significant contention around whether existing charges for wholesale line rental do indeed cover loop cost. Furthermore, even were Telstra fully recovering its line costs through the price of wholesale line rental, there remains a need to reprice both LSS and WLR to have LSS contribute some of the costs of the line to reduce the market distortion caused by a too-low LSS price.

Telstra's proposal for LSS monthly charges is based on the following four high level propositions:

- on line costs:

    1) LSS users should make a contribution to line costs;

[72] Declaration Inquiry - Final Decision, p. 43. See in particular analysis on the state of competition at pp. 14-15.

2) across both LSS and WLR on a given line, Telstra should recover its average loop costs, after taking into consideration WLR and LSS specific costs (including a contribution to overhead costs) – any potential over-recovery of loop costs as a result of LSS making a contribution to line costs should be addressed via a rebate to the purchaser of WLR on the line (where Telstra is the basic access provider on an LSS line, the rebate will be a notional payment from Telstra Wholesale to Telstra Retail);

3) LSS prices should be geographically averaged; and

- on LSS-specific costs:

4) LSS-specific costs (including an associated contribution to overhead costs) should be recovered from LSS users only.

Although Telstra would be willing to make further submissions to the Commission regarding LSS pricing principles if required, Telstra reiterates that there is no basis upon which the Commission could be satisfied that re-declaring LSS promotes the LTIE. Furthermore, Telstra would draw the Commission's attention to the discussion in Section 5 regarding the inevitability of significant and distortionary regulatory pricing error in relation to LSS.

Telstra Corporation Limited

28 May 2007

Appendix A: Legislative framework for re-declaration of LSS

Part XIC of the TPA sets out Australia's telecommunications access regime. In particular, section 152AL of the TPA enables the Commission to "declare" certain telecommunications services which means that the provider of the declared service must provide access to the service on agreed terms or terms arbitrated by the Commission if agreement cannot be reached. Section 152AL(3) provides that the Commission may declare a service as a "declared service" if it is satisfied that the making of the declaration will promote the LTIE.

Re-declaration process

The LSS was originally declared in August 2002 pursuant to section 152AL(3) of the TPA, and the declaration is set to expire in October 2007.

Section 152ALA(7) of the TPA provides:

> *The Commission must:*
>
> *(a) during the 12-month period ending on the expiry date of a declaration, hold a public inquiry under Part 25 of the Telecommunications Act 1997 about:*
>
> *(i) whether to extend or further extend the expiry date of the declaration; and*
>
> *(ii) whether to revoke the declaration; and*
>
> *(iii) whether to vary the declaration; and*
>
> *(iv) whether to allow the declaration to expire without making a new declaration under section 152AL; and*
>
> *(v) whether to allow the declaration to expire and then to make a new declaration under section 152AL; and*
>
> *(b) prepare a report about the inquiry under section 505 of the Telecommunications Act 1997; and*
>
> *(c) publish the report during the 180-day period ending on the expiry date of the first-mentioned declaration.*

The LSS Discussion Paper represents the Commission's first step in conducting the public inquiry into whether or not to re-declare the LSS.

Long-term interests of end-users

As set out in the body of Telstra's submission, a service may only be declared and continue to be declared by the Commission if the declaration would promote the LTIE. Telstra submits

that, based on a proper understanding of the statutory criteria, it is clear that it will not be in the LTIE to re-declare the LSS.

LTIE criteria

Under Part XIC of the TPA, the question of whether a particular thing promotes the LTIE is to be determined with regard to the criteria set out in sub-section 152AB(2), which stipulates three main objectives, being:

- the objective of promoting competition in markets for listed services and services supplied by means of carriage services;
- the objective of achieving any-to-any connectivity for carriage services involving communication between end-users; and
- the objective of encouraging the economically efficient use of, and economically efficient investment in, the infrastructure by which listed services and services provided by means of listed services are supplied.

The TPA provides further guidance on the substance of each of the objectives in section 152AB.

The first component to the LTIE test is whether the declaration will promote competition. Under sub-section 152AB(4), the Commission is required to consider whether the promotion of competition objective is facilitated by removing "obstacles to end-users of listed services gaining access to listed services".

The second component of the LTIE test is whether the declaration will facilitate any-to-any connectivity. Under sub-section 152AB(8), the Commission must ensure that any end-user can communicate with any other end-user of the same service, even where such services are supplied on different networks.

However, as the explanatory memorandum to the *Trade Practices Amendment (Telecommunications) Bill 1996* noted, the concept of any-to-any connectivity is not always relevant in the declaration context.

The third component of the LTIE test is whether the declaration will promote the economically efficient use of, and investment in, the infrastructure used for the supply of carriage services. In determining this question, pursuant to sub-section 152AB(6), the Commission must consider:

- whether it is technically and economically feasible for the carriage service required to provide line sharing service to be supplied and charged for;

- the commercial interests of the supplier(s) of carriage services; and,

- the incentives for investment in carriage services.[73]

Interpreting the LTIE objectives

The approach to interpreting and applying the LTIE test has been articulated by the Tribunal in its 2004 Foxtel decision, which considered the applications for anticipatory exemptions lodged by Telstra and Foxtel in respect of the analogue pay TV service.[74] This approach, which Telstra respectfully adopts, is summarised in the following paragraphs from that decision:

> *119 We accept that the 'future with and without' approach provides helpful guidance in applying the LTIE test... However, it should be noted that the 'future with and without' test requires the forecasting of future market behaviour, competitive activity and market conduct in a particular area or region and the development of an investment. But the answer to the application of that two-fold enquiry (the future with and without the exemption) is not the ultimate or final answer to the issues posed. That answer must be couched in terms of an appropriate degree of satisfaction that the making of an order exempting each of Foxtel and Telstra from the standard access obligations in s 152AR will promote the long-term interests of end-users of the services they provide. This degree of satisfaction is reached by applying the future with and the future without test, that is to say we compare the future situation with the exemption orders having been made with the future situation without the exemption orders having been made. We then ask the question: which situation is in the LTIE; cf Re QIW Ltd (1995) 132 ALR 225 at 276.*
>
> *120 Having regard to the legislation, as well as the guidance provided by the Explanatory Memorandum, it is necessary, in our view, to take the following matters into account when applying the touchstone – the long-term interests of end-users:*
>
> - ***End-users:** in this matter, "end-users" include actual and potential subscribers to subscription television services and other viewers in their households. The term is also likely to include businesses, such as hotels and other places where people congregate, that subscribe or may potentially subscribe to subscription television services;*
>
> - ***Interests:** the interests of end-users lie in obtaining lower prices (than would otherwise be the case), increased quality of service and increased diversity and scope in product offerings. In our view, this would include access to innovations such as interactivity in a quicker timeframe than would otherwise be the case; and*

[73] Further, under sub-section 152AB(7A), the Commission must consider investment risk when determining the incentives for investment in carriage services.
[74] *Seven Network Limited (No.4)* [2004] ACompT 11.

- ***Long-term:*** *the long-term will be the period over which the full effects of the Tribunal's decision will be felt. This means some years, being sufficient time for all players (being existing and potential competitors at the various functional stages of the subscription television industry) to adjust to the outcome, make investment decisions and implement growth – as well as entry and/or exit – strategies.*

...

122 The use of the "long-term" may also assist in resolving the apparent tension between the criteria in s 152AB(2)(c) and (e). For example, action that promotes competition in the short-term may deter investment and hence, over the longer-term, competition may lessen (resulting in reductions to efficiency and innovation). Moreover, an action may promote competition at the retail level (resulting in more channels offered by more operators), but may deter facilities-based competition, with fewer service providers being prepared to establish delivery mechanisms of their own than would otherwise be the case. Assessed over the long-term, however, there is less likely to be any conflict between the promotion of competition and efficiency. Nonetheless, to the extent that there are mixed effects, we will have regard to the overall or net effect.

123 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 s44H(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 s44H(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." (paragraph 123)*

124 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).

Given that the declarations are initially imposed in circumstances where a market is not "workably" competitive, the current state of competition and market dynamics that operate must be assessed with a view to assessing whether workable competition now exists. If the relevant market is now workably competitive, then an assessment must be made as to whether competition would likely be promoted by re-declaring the service.

Any such assessment must also take a sufficiently long term view to enable it take into account the full effects of the decision. The Foxtel decision makes it clear that there does not need be an immediate, instantaneous, or short-term increase in competition if the LSS is not re-declared. Rather, the Commission's decision as to whether to re-declare the LSS must be made *at this point in time* having regard to whether re-declaration would *create conditions or*

an environment that will result in an overall or net increase in the LTIE over the *long-term*. In the Foxtel decision, the Tribunal acknowledged this could mean "some years" in the future.[75]

In any case, while the Tribunal considered in the Foxtel decision that the "future with or without" test may provide "helpful guidance" in applying the LTIE test,[76] this test cannot be used to provide the ultimate or final answer to the issues posed in considering whether a service should continue to be declared. The danger of sole reliance on the "future with or without" test is that it can inadvertently lead to an analysis which does not consider all of the elements of the LTIE criterion, and would be contrary to the Tribunal's expressed view in the Foxtel decision, where it clearly stated that the outcome of the test "is not the ultimate or final answer to the issues posed".[77]

The Commission's approach to the review of existing declarations

The Second Position Paper outlines the Commission's current decision-making framework for the review of existing service declarations. In particular, the Commission identified three main steps in assessing whether the continued declaration of a particular service under Part XIC of the TPA is consistent with the statutory criteria, namely:[78]

- assessing whether the service is likely to continue to be a "bottleneck service";
- assessing the state of competition in the market in which the service is provided and whether ongoing regulation is required to promote competition; and
- assessing whether continued declaration of the service is required to promote the LTIE.

While the ultimate goal is to determine whether continued declaration of the service is in the LTIE as defined by the statutory criteria, the first two steps identified by the Commission above may assist in answering that question.

Enduring bottlenecks

As acknowledged by the Commission in the Second Position Paper, regulation of fixed-line network services under Part XIC of the TPA is only appropriate where the network element represents an "enduring bottleneck":[79]

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[75] See 4 at [120].
[76] Ibid.
[77] Ibid.
[78] Second Position Paper, pp. iv and 26.
[79] Second Position Paper, p. iii.

> *Where an enduring bottleneck does not persist, the Commission will be inclined to progressively withdraw ex ante regulation where it is confident that declaration is not required to promote the LTIE.*

For a service to be a bottleneck service, the service must be essential to being able to compete in a particular market in a way that promotes the LTIE. As such, if the service is not essential for workable competition, the fact that someone cannot economically or technically replicate the production facility would not be relevant to the promotion of competition in the markets for listed services.

In determining this element, the Commission needs to consider, among other things, whether there are:[80]

- close substitutes for the service as an input to the production of a particular final market service at a comparable cost; and
- close substitutes for that final market service which can be produced without the bottleneck service.

In the Second Position Paper, the Commission noted that determining the existence of enduring bottlenecks is a complicated process, particularly in dynamic markets where technological change and changing demographic factors have the ability to alter market dynamics and the potential for economically efficient facilities-based competition.[81]

The Commission considered that the evidence of "replicability" of fixed-line network elements may be indicative of whether there is an enduring bottleneck problem:[82]

> *…evidence of 'replicability' of fixed-line network elements may provide guidance towards practically assessing whether it is likely to be economically efficient for competitors to duplicate infrastructure. In this context, replicability means that there is evidence that a particular network, or network element, has been duplicated.*

The Commission further noted that it will be appropriate to consider evidence of replicability in an Australian and overseas context.

Telstra demonstrates in this submission that the LSS is clearly no longer (and possibly never was) a bottleneck service, and accordingly, continued declaration of the service is not justifiable on that basis. There is sufficient substitutable and alternative infrastructure to ensure that there is and will continue to be workable competition in both the wholesale and retail layers of the market in the absence of a LSS declaration. Further, given the market distortions and pricing errors that will result from continued declaration of the LSS (due to

[80] Deeming Statement, pp. 14-15.
[81] Second Position Paper, p. 27.
[82] Second Position Paper, p. 27.

close substitutability of the ULLS), the Commission can be confident that declaration of the LSS is not necessary to promote the LTIE.

Assessment of competition

This step requires effectively a two-pronged analysis - an initial assessment of the level of competition currently existing in the relevant markets in which the service is provided, followed by a further assessment of whether or not continued declaration of the service would be likely to promote competition in those markets.

In assessing the state of competition in the relevant markets, the Commission will consider factors including (but not limited to):[83]

- structural factors, including the level of concentration in the market;
- the potential for the development of competition in the market;
- the dynamic characteristics of the relevant markets; and
- the nature and extent of vertical integration in the relevant markets.

The current state of competition and market dynamics that operate must be assessed with a view to assessing whether workable competition now exists or is likely to develop. The Commission notes that it is not intended that the access regime impose regulated access where existing market conditions already provide for the competitive supply of services.[84]

Ultimately, the Commission considers that, "[r]egulation will only be desirable where it leads to benefits that outweigh any costs of regulation in terms of lower prices, better services or improved service quality for end-users." [85] Regulation is not required if the conditions for effective competition already exist at a sufficient level within the market in which the service is provided.

As illustrated by Telstra in this submission, the long-term benefits of re-declaring the LSS will not outweigh the costs of regulation. In fact, re-declaring the LSS will have an *adverse* effect on competition and the efficient use of and investment in infrastructure. Coupled with the fact that the market in which the LSS is provided is already workably competitive, re-declaring the LSS would be inconsistent with the objectives of the statutory regime.

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[83] Ibid, p 41.
[84] Deeming Statement, p. 10.
[85] Second Position Paper, p. 73.

Appendix B: Evidence of irrational outcome of uncertain access regulation: EU case study

The regulated supply of ULLS and LSS in the EU provides evidence that regulation of close substitutes creates arbitrage opportunities. In the EU, as in Australia, ULLS and LSS are available from the incumbent at a regulated price. Both products can be used to supply retail broadband services. The common regulatory framework in Europe applies the same methodology to each country: the regulated price for LSS and ULLS should reflect the forward-looking long run incremental cost of the service.

In the EU, the regulation of LSS and ULLS has lead to errors in setting relative LSS/ULLS prices resulting in the emergence (and exploitation) of regulatory arbitrage opportunities. This is evidenced in a number of observations:

- First, there are very large differences in the relative prices between ULLS and LSS across European countries that are unlikely to be explained by variations in costs.[86] This suggests regulators have mis-priced ULLS and LSS, a hypothesis which is confirmed by data on the uptake of these services.

- Second, carriers in each country tend to demand either ULLS services or LSS services, and rarely consume both. This is especially true in the case of countries with a large penetration of unbundled lines. Given that the services are substitutes one would not expect this if the regulated prices were efficiently set. The 'favouring' of one service suggests use of the regulated service which gives the better margin, which in turn implies that the relative prices for ULLS or LSS have been set incorrectly.

These observations will now be considered in greater detail.

A wide divergence in the regulated price for ULL and LSS services is evidenced across Europe. Table 8 below records the regulated ULLS and LSS price for countries with more than 10,000 ULLS + LSS lines. It shows that differences in the regulated ULLS price can be over 60% (as it is for Italy and Sweden). The difference is even more marked for LSS, where the regulated price ranges from a low of €2.95 to a high of €8.48. The ratio of ULLS to LSS prices varies from a low of 1.47 to a high of 3.53. It is unlikely that this difference can be explained by a difference in cost (by way of example, ULLS costs are unlikely to be 60% lower in Italy than Sweden), and

[86] This is for two reasons. First, the price differences are so large as to suggest that there must be some regulatory error (i.e. a ULLS price in Italy which is 60% below the ULL price in Sweden). Second, the local access networks are relatively homogenous in Europe as the urban environments are similar and population densities are relatively uniform.

this therefore implies *relative* LSS/ULLS prices have been set incorrectly in the majority of these countries.

Table 8: Regulated price for ULLS and LSS price in Europe for countries with excess of 10,000 ULLS/LSS prices

Country	*ULLS Price (€)*	*LSS Price (€)*	*Ratio of ULLS to SS price*
Austria	12.4	8.48	1.47
Denmark	10.3	5.53	1.86
Finland	15.1	8.30	1.82
France	10.9	4.39	2.48
Germany	11.8	3.74	3.16
Italy	9.3	4.14	2.25
Netherlands	10.4	2.95	3.53
Portugal	10.8	4.01	2.69
Spain	12.0	3.84	3.13
Sweden	15.2	7.67	1.98
UK	11.2	3.34	3.35

Source: European Commission, European Electronic Communications Regulations and Markets 2005 (11th Report), Annex 2.
Note: EU countries with less than 10,000 ULLS and LSS lines were omitted from the table.

Consistent with the contention that ULLS and LSS are substitutes and regulating both services will lead to pricing errors, access seekers in Europe tend to favour consumption of either ULLS or LSS. Further, data indicates consumption tends to be distorted in favour of the service with the lowest relative price. For example, the Netherlands has the lowest LSS price and the highest ULLS to LSS price ratio. Not surprisingly, in the Netherlands, the ratio of ULLS to LSS lines is also the lowest of those EU countries listed (see Table 9 below). At the other extreme, Austria has the highest LSS price and lowest ULLS to LSS price ratio, and the second highest ratio of ULLS to LSS lines. While Sweden has a relatively high LSS price, its low ULLS to LSS line ratio is likely explained by its very high ULLS price. Italy's high ULLS usage is probably explained by its very low ULLS price.

Table 9: Subscribers of ULLS and LSS in the EU, October 2005

Country	*Subscribers*			*ULLS/LSS*
	ULLS	*LSS*	*ULLS + LSS*	
Portugal	43,127	6	43,133	7188
Austria	108,562	76	108,638	1428
Germany	2,936,000	5,352	2,941,352	548.6
Italy	1,163,195	103,542	1,266,737	11.23
Finland	234,578	55,642	290,220	4.22
UK	38,418	34,722	73,140	1.11
Denmark	57,283	64,184	121,467	0.89
Spain	132,415	228,870	361,285	0.58
France	360,788	2,153,072	2,513,860	0.17
Sweden	45,185	287,060	332,245	0.16
Netherlands	68,880	588,247	657,127	0.12

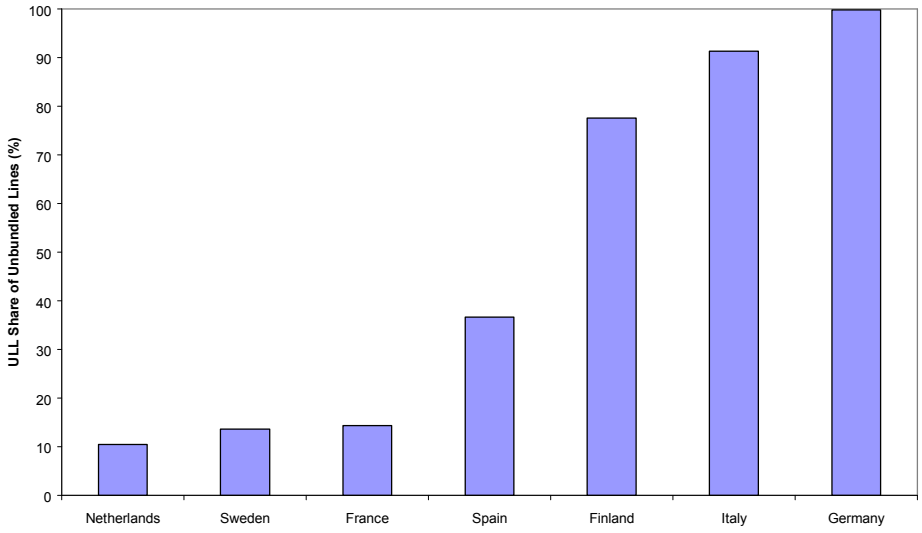
Source: European Commission, European Electronic Communications Regulations and Markets 2005 (11th Report), Annex 2.
Note: Countries are arranged in order of the ULLS to LSS line ratio.

It should be noted that there are a number of outliers, such as France (where ULLS was only recently made available), Portugal (which is a small, immature market of only 45,000 ULLS/LSS SIOs), and Germany (where competitors have argued that prior to 2004 LSS prices were too high and as a result, almost all wholesale access was via LLU[87]).

Focussing on EU countries with a "substantial" penetration of unbundled lines (either via ULLS or LSS), an interesting picture emerges by adopting two definitions of "substantial penetration": an absolute one (over 200,000 unbundled lines, either ULLS or LSS); and a relative one (over 5% of PSTN lines are unbundled). Interestingly, two clusters of countries emerge: those who have substantially opted for ULLS (with very little LSS) and those who have seen a much higher penetration of LSS (and very little ULLS). By contrast, there are very few countries that have developed *both* ULLS and LSS *significantly* in this group. This is consistent with LSS and ULLS being very close substitutes and implies that regulation of both services leads to pricing errors that in turn have a strong "tipping" effect (as shown in Figures 7 and 8 below)

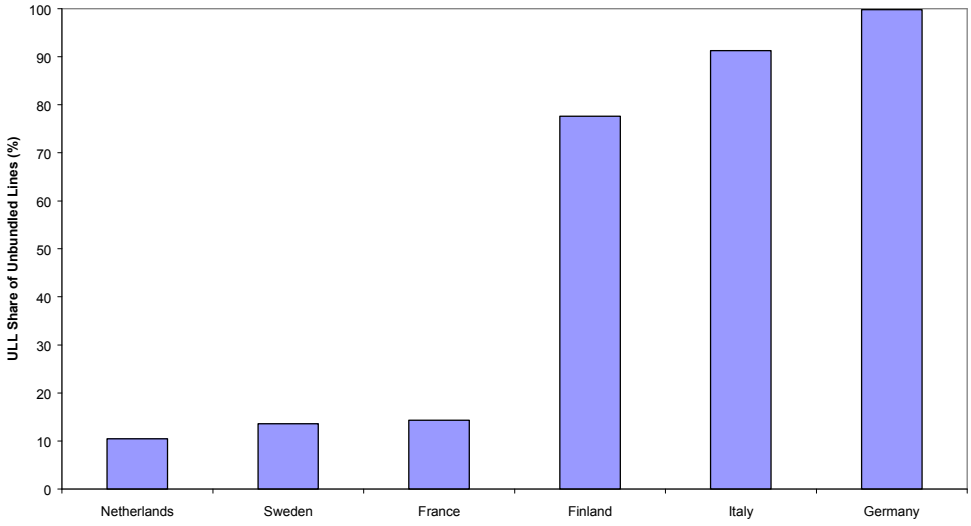
[87] ERG (05) 23 'Broadband Market Competition Report – Annex.

Figure 7: ULLS share of total unbundled lines, absolute definition[1], October 2005



Source: European Commission, European Electronic Communications Regulation and Markets 2005 (11th Report), 20 February 2006.
Notes: (1) Based on EU countries with more than 200,000 unbundled lines (either ULLS or LSS).

Figure 8: ULLS share of total unbundled lines, relative definition[1], October 2005



Source: European Commission, European Electronic Communications Regulation and Markets 2005 (11th Report), 20 February 2006; CIA World Factbook.
Note: Based on EU countries where more than 5% of PSTN lines are unbundled.

Appendix C: United States Precedent

Summary

Until 2002 the Federal Communications Commission of the United States (FCC) required incumbent local exchange carriers to unbundle the high frequency spectrum of copper loop (HFPL) to enable competing local exchange carriers to provide DSL services under the "Line Sharing Order". In May 2002, the US Court of Appeal for the District of Columbia Circuit decided that the Line Sharing Order must be vacated and remanded. In August 2003, the FCC reversed its earlier stance, and declined to make unbundling of the HFPL compulsory except on a grandfathered basis. Telstra submits that the FCC's reasoning is applicable to the LSS re-declaration inquiry in Australia.

Background

The FCC uses the term "line sharing" to describe when a competing carrier provides xDSL service over the same line that the incumbent LEC uses to provide voice service to a particular end user, with the incumbent LEC using the low frequency portion of the loop and the competing carrier using the HFPL. Line sharing, in the American context, is an equivalent service to the Australian LSS.

US Court of Appeal decision

The United States Court of Appeals vacated the Line Sharing Order,[88] noting its agreement with petitioners' primary attack on that order on the grounds that the FCC completely failed to consider the relevance of competition in broadband services coming from cable (and to a lesser degree satellite). The Court noted that "*The Commission's own findings repeatedly confirm both the robust competition, and the dominance of cable, in the broadband market*." It also noted that at the end of June 2001, cable companies had 54% of high-speed lines, compared to the 28% share of ADSL. This and other evidence pointed to the existence of intense facilities-based competition.

The FCC's response at the time, that failing to unbundle line sharing would impair an access seeker's ability to provide the services that it seeks to offer (namely ADSL), was expressly rejected by the Court. The Court said that unbundling is not a costless activity or an unqualified good, and that the FCC cannot, consistent with the statute, blind itself to the availability of elements outside the incumbent's network.

[88] D.C. Circuit No. 00-1012, decided May 24, 2002.

Federal Communications Commission

The matter was subsequently remanded to the FCC which, in an August 2003 decision,[89] removed the line sharing obligation except on a grandfathered basis. The cited reasons for this change of position were as follows:

- Taking account of all potential revenues from services that can be provided over the stand-alone loop, including voice, voice over xDSL, data and video services, the FCC concluded:

  that the increased operational and economic costs of a stand-alone loop (including costs associated with the development of marketing, billing and customer care infrastructure) are offset by the increased revenue opportunities afforded by the whole loop. [90]

- The FCC could no longer find that CLECs are unable to obtain the HFPL from other CLECs through line splitting (equivalent to line sharing in Australia). Significant strides were said to have been made by competitors in the local market, and Covad's announced plans to offer wholesale ADSL through line splitting were cited.[91]

- Allowing CLECs unbundled access to the whole loop and to line splitting but not requiring the HFPL to be separately unbundled:

  *creates better competitive incentives than the alternatives**. This is largely due to the difficulties in pricing the HFPL as a separate element**." Some regulatory pricing choices for HFPL could give CLECs an "irrational cost advantage over competitive LECs purchasing the whole loop and over the incumbent LECs.*[92] (Emphasis added)

  Rules requiring line sharing may skew competitive LECs' incentives toward providing a broadband-only service to mass market consumers, rather than a voice-only service or, perhaps more importantly, a bundled voice and xDSL service offering.

- Permanent readoption of line sharing rules would likely discourage innovative arrangements between voice and data CLECs and greater product differentiation between ILECs and CLECs, counter to the express goals of the statute.[93]

- The FCC acknowledged that:

  the fact that broadband is actually available through another network platform…helps alleviate any concern that competition in the broadband market may be heavily dependent on unbundled access to the HFPL

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[89] FCC 03-36, released August 21, 2003, paras 255 – 263. Copper loop unbundling remained mandatory.
[90] Ibid., para. 258.
[91] Ibid., para. 259.
[92] Ibid., para. 260.
[93] Ibid., para. 261.

but stated nonetheless that cable modem's lead in broadband deployment was not dispositive in the impairment analysis.[94]

In short, the FCC held the same concerns about the difficulty of identifying the efficient price for HFPL and the costs from getting this wrong, as enunciated above.

Applicability to Australia of FCC arguments for non re-declaration

The arguments that persuaded the FCC to remove the line sharing obligation are applicable to the current situation in Australia regarding re-declaration of LSS. The FCC's arguments emphasised:

1. The commercial viability of ULLS-based entrants;

2. The ability of CLECs to obtain HFPL from other CLECs;

3. Difficulties in setting HFPL prices that do not give irrational cost advantages to one type of carrier or another; and

4. Risks that rules requiring line sharing may skew competitive incentives for entrants towards providing a broadband-only service to mass market consumers.

The discussion below addresses the validity of each of these points for the Australian telecommunications industry.

First, regarding the commercial viability of ULLS-based entrants in the high speed data services segment, the Commission itself noted in the reasons for its ULLS interim determination that:

> *the Commission considers that the new interim determination will be beneficial to the promotion of competition and the interests of end-users.* [95]

If it was not the Commission's view that the interim prices were commercially viable for access seekers, it would not have reached that conclusion. Further support for the commercial viability of ULLS-based entrants is found in the growth rates to date in ULLS take-up among access seekers, which have remained near 100% per annum for the past six years.

Second, the discussion in section 3.1.1.2 above makes it clear that there is no technical obstacle to the sale of LSS-like services by ULLS-based operators. However, evidence of such

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[94] Ibid., para. 263.
[95] ACCC, Interim Determination in the access dispute between Chime Communications and Telstra ULLS, Attachment B: "Reasons for Interim Determination", p. 18.

3rd party resale behaviour would not be expected to be observed in the marketplace as long as LSS remains available at regulated marginal-cost prices.

Third, the difficulties in setting optimal relative prices for LSS and ULLS are as formidable here as they were in the FCC's view for the American setting. By permitting the LSS price to be determined by the market, as it effectively has been in the United States since the FCC removed the Line Sharing Order, the burden of cost recovery of the copper loop can be flexibly reassigned between voice and data services as demand and technology conditions change. An inability to react to such changes, such as LSS price regulation would necessarily impose, must create irrational cost advantages to either LSS- or ULLS-based access seekers over time.

Finally, the skewing of access seeker business models towards broadband-only, rather than an efficient mixture of pure broadband and broadband and voice bundles is likely to result from current regulatory pricing indications for LSS. Exactly the same reasoning that the FCC used is applicable here in the present context.