

**Optus Submission to**  
**Australian Competition and Consumer Commission**  
**on**  
**Review of the Line Sharing Service**  
**Public version**

**May 2007**

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## **1. Executive Summary**

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### **Declaration**

- 1.1 The Australian Competition and Consumer Commission (ACCC) declared the linesharing service (LSS) in 2002 and is now seeking submissions on the question of whether the LSS should continue to be a declared service. Optus' submissions on this matter are set out in Section 2.
- 1.2 Optus submits that declaration of the LSS promotes competition in the downstream high speed carriage services market and the local call market since:
  - (a) There are no adequate substitutes for the LSS, due to the limitations of alternative forms of infrastructure and various factors that impede a LSS access seeker's substitution to provision of services via the ULLS.
  - (b) Telstra continues to be the sole provider of the LSS as it is not feasible for a ULLS-based access seeker to provide the service.
  - (c) In the absence of a declared LSS some access seekers would be unable to compete on their merits against Telstra. Declaration of the LSS therefore promotes competition in the high speed carriage services market; and
  - (d) Without a declared LSS there would be a material decrease in the level of competition in the downstream high speed carriage services market, with the result that prices for these services would be higher and take-up would be lower. This in turn would retard the development of competition in the local call market via VOIP. By promoting the continued development of VOIP competition in the local call market, declaration of the LSS assists in overcoming barriers to entry in the local call market and so promotes competition in the local call market.
- 1.3 Optus also submits that continued declaration would meet the other criteria for declaration; ie, it would promote the efficient use of and investment in infrastructure (by promoting cost-reflective prices and reducing the potential for inefficient bypass), not impact any to any connectivity and will be in Telstra's legitimate business interests.
- 1.4 Optus considers that declaration of the LSS is in the long term interests of end users.

### **Pricing principles**

- 1.5 The ACCC is also seeking submissions on the pricing principles applying to the LSS. Optus' submissions on this matter are set out in Section 3.
- 1.6 Optus considers that the key issue to be addressed in determining these pricing principles is the allocation of common line costs. Optus submits that

the allocation of a proportion of common line costs to the LSS would be in the LTIE. The Commission could determine the efficient prices of the jointly produced LSS and line rental services according to joint production theory by estimating costs and demand functions for the services (and allocate common costs accordingly). Efficiency also requires that such line costs be geographically de-averaged.

## 2. Declaration

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- 2.1 In this chapter Optus submits that continued declaration of the LSS is in the long term interests of end users.
- 2.2 In summary, continued declaration promotes competition since:
- There are no adequate substitutes for the LSS, due to the limitations of alternative forms of infrastructure and various factors that impede a LSS access seeker's substitution to provision of services via the ULLS.
  - Telstra continues to be the sole provider of the LSS as it is not feasible for a ULLS-based access seeker to provide the service. Telstra has no incentive to offer a commercial LSS at reasonable terms since wants to put its own retail internet business (and voice business) at an advantage.
  - There has been a material increase in the level of competition in the downstream high speed carriage services market since the declaration of the LSS in 2002. The declared LSS has been responsible for a substantial proportion of the increase in the level of competition in the downstream high speed carriage services market.
  - In the absence of a declared LSS, some access seekers (those who offer internet services only) would be unable to compete against Telstra. Declaration of the LSS allows such access seekers to compete on their merits against Telstra and promotes competition in the high speed carriage services market.
  - The local call market is highly concentrated and uncompetitive, with significant barriers to entry (including high sunk costs and the existence of Telstra's legacy position as the incumbent). To some extent these barriers could potentially be overcome via providers utilising VOIP services to enter the market. VOIP is beginning to increase competition in the local call market, and likely to do so to a greater extent in the future.
  - Without a declared LSS there would be a material decrease in the level of competition in the downstream high speed carriage services market, with the result that prices for these services would likely be higher and take-up lower. This in turn would retard the development of competition in the local call market via VOIP.
- 2.3 Declaration is likely to promote the efficient use of infrastructure, by promoting cost-reflective prices and reducing the potential for inefficient duplication of infrastructure.
- 2.4 Declaration will not discourage investment by Telstra and it is in Telstra's legitimate business interests, provided that appropriate pricing principles are established which ensure Telstra is just able to recover its cost of investment.

## Promotion of competition

### *Upstream market*

- 2.5 The ACCC has asked for submissions on the extent to which other services may be substitutable for the LSS.
- 2.6 This section of Optus' submission addresses this question. It explores various potential alternatives to the LSS (ie equivalent wholesale high bandwidth carriage services) for an access seeker wishing to provide a retail internet service to its customers and concludes that there are no adequate substitutes for the LSS.
- 2.7 Optus considers that the relevant upstream market is the wholesale market for provision of the LSS to access seekers that seek to offer only data services (as opposed to both voice and data services) to consumers.

### The ULLS is not an adequate substitute for the LSS

- 2.8 The LSS allows the use of the high-frequency portion of the metallic wire, which provides access seekers with the capability to provide high speed data carriage services to end users. By contrast the ULLS allows the use of both the high-frequency portion and the voiceband portion of the communications wire, which provides access seekers with the capability to provide both high speed data and voice carriage services to end users. Despite these differences, it is reasonable to consider whether the ULLS is provided in the same market as the LSS.
- 2.9 The ULLS, like the LSS, is an input to the supply of services in the downstream data market. It would therefore be 'technically possible' for an access seeker wishing to supply such services to acquire the ULLS from Telstra as a substitute for acquiring the LSS.
- 2.10 However, there are a number of factors that impede a LSS access seeker's substitution to provision of services via the ULLS, including:
- the price of the ULLS (\$17.70) is substantially higher than the price of the LSS (\$2.50)<sup>1</sup>, as is appropriate given the additional capabilities offered by the ULLS over the LSS;
  - there are likely to be substantial costs imposed on access seekers as a result of a shift to use of the ULLS, since such a shift would require the access seeker to install additional infrastructure (eg, a voice switch, a different type of DSLAM); and
  - barriers to competition in the local call market (including high sunk costs and the existence of Telstra's legacy position as the incumbent) are likely to make it difficult for access seekers to successfully establish a presence in the voice market in competition with Telstra.

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<sup>1</sup> Press release from iiNet on ACCC Draft Final Determination on the Access Dispute between Chime and Telstra, 30 March 2007.

- 2.11 As a result of these factors, it is unlikely that access seekers would substitute the ULLS for the LSS in response to an increase in price.<sup>2</sup> Consequently, Optus submits that the LSS and ULLS are provided in distinct wholesale markets. Hence any substitution between the two services would be very limited. Broadly speaking, firms wishing to supply services in the downstream data market only will acquire the LSS, whilst firms wishing to supply both data and voice services will acquire the ULLS.
- 2.12 It follows that if the LSS were not declared, the availability of the ULLS would provide very little constraint on the commercial pricing of a LSS (assuming such a service was commercially available).
- 2.13 Moreover, even if the ULLS was considered an adequate substitute for the LSS, Telstra would still dominate the market since it has a significantly greater number of exchanges enabled with DSLAM infrastructure than do its competitors. Current data shows Telstra has 2,510 DSL enabled exchanges, dwarfing the most extensive rollouts by other carriers such as Optus, iiNet, PowerTel and TPG that have installed DSLAMs into 270, 275, 126 and 170 exchanges respectively (refer to Table 2).

Table 1: Internet Service providers with DSLAM infrastructure, 30 June 2006<sup>3</sup>

<b>Service providers with DSLAM infrastructure</b>	<b>Number of DSL enabled exchanges</b>
AAPT	22
Adam Internet <sup>4</sup>	29 (May 2007)
Amcom <sup>5</sup>	38 (May 2007)
iiNet <sup>6</sup>	275 (May 2007)
Internode/Agile <sup>7</sup>	90 (May 2007)
Netspace Networks	Not available
Nextep	Not available
Onthenet <sup>8</sup>	8 (May 2007)
Optus	270 (May 2007)
People Telecom	25
PowerTel	126
Primus	182
Regional Internet Australia	6
Soul	Not available

<sup>2</sup> That is, it is unlikely that access seekers would substitute the ULLS for the LSS in response to a small but substantial non-transitory increase in price (SSNIP), for example, an increase of 5%.

<sup>3</sup> ACMA (2006), *Communications Services Availability in Australia 2005–06*, November 2006, page 13.

<sup>4</sup> Adam Internet website, Exchange coverage, May 2007.

<sup>5</sup> Amcom Telecommunications Limited website, Exchange coverage, May 2007.

<sup>6</sup> iiNet website, Exchange coverage, May 2007.

<sup>7</sup> Internode website, Exchange coverage, May 2007.

<sup>8</sup> Onthenet website, Exchange coverage, May 2007.

Telstra <sup>9</sup>	2510 (May 2007)
TPG <sup>10</sup>	170 (May 2007)
TransACT	Not available
TSN Internet	27
Wideband networks	1

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<sup>9</sup> Internode website, Exchange coverage, May 2007.

<sup>10</sup> TPG website, Exchange coverage, May 2007.



### Wholesale DSL is not an adequate substitute for the LSS

- 2.14 Wholesale DSL is also an input to the supply of services in the downstream data market and hence its availability could potentially constrain the commercial pricing of a LSS. The degree of constraint exerted will depend on the level of competition in the supply of wholesale DSL.
- 2.15 There are currently a number of wholesale DSL services suppliers, namely, Telstra, Optus, PowerTel and Nextep. The approximate number of their wholesale broadband subscribers and their wholesale broadband revenue in June 2006 are illustrated below:

Table 3: Wholesale DSL suppliers and their number of wholesale broadband subscribers and wholesale broadband revenue as at June 2006.

<b>Wholesale DSL suppliers</b>	<b>Wholesale broadband subscribers</b>	<b>Wholesale broadband revenue (million)</b>
Telstra	c-i-c	c-i-c
Optus	c-i-c	c-i-c
PowerTel	c-i-c	c-i-c

- 2.16 As demonstrated by Table 3, Telstra's wholesale broadband subscribers and its revenue substantially outnumbered competitors such as Optus and PowerTel. It follows that if the LSS were not declared, Telstra's supply of a wholesale DSL product would provide very little constraint on the commercial pricing of the LSS. That is, Telstra would have very little incentive to price its LSS product competitively if its own DSL product was the primary substitute.

### HFC is not an adequate substitute for the LSS

- 2.17 HFC networks can be used to deliver high speed internet access. However as HFC networks are currently limited in coverage and expensive to deploy, further geographic roll out is expected to be limited. This lack of ubiquity means that alternative access provisions are required in many geographic regions. For example, Optus' HFC network passes approximately 2.2 million addresses in Brisbane, Melbourne and Sydney of which only 1.4 million are serviceable.<sup>11</sup> This is because of access problems with multi-tenant dwellings that do not allow them to be serviced by Optus' HFC infrastructure.

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<sup>11</sup> ACMA (2006), *Communications Services Availability in Australia 2005-2006*, November 2006, page 18.

- 2.18 Furthermore, there is no simple method of sharing voice and data bandwidth on HFC networks. Further, third-party access to HFC networks is generally neither sought, nor easily engineered.
- 2.19 Optus submits that technical limitations, lack of ubiquity and the high costs of rolling out cable networks means that Optus' HFC network will not competitively constrain Telstra's pricing of a LSS in the short to medium term.

#### Wireless is not an adequate substitute for the LSS

- 2.20 Wireless networks may be used to supply high speed internet services however Optus contends that they have significant limitations that do not, given current technical and coverage limitations, allow them to be considered as substitute services for fixed line broadband.
- 2.21 Optus believes that the current geographical extent of wireless networks (in terms of WiMAX, 3G and HSDPA) in Australia is limited. Wireless carrier Unwired is the main WiMAX provider with 60 000 customers, but its coverage is limited to Sydney and Melbourne.<sup>12</sup> Spectrum availability is likely to become a barrier to entry for other carriers as Unwired owns the majority of the core WiMAX spectrum (2.3 GHz and 3.4-3.5 GHz) in major Australian cities.<sup>13</sup> Further, third-party access to wireless networks is not generally available.
- 2.22 Turning to mobile networks, HSDPA can offer a speed up to 10-15 times faster than the existing network and the downloads speeds have the potential to reach 14.4 Mbps.<sup>14</sup> However Optus believes that the average download speed currently experienced by customers is between 500Kbps to 1.5Mbps.<sup>15</sup>
- 2.23 Optus is completing an upgrade to its HSDPA coverage that will allow it to reach 96% of the population by June 2007.<sup>16</sup> Vodafone has only upgraded half of its network to HSDPA.<sup>17</sup> Hutchinson's 3G network extends to only 55% of the population with no immediate plans to expand their coverage.<sup>18</sup> Optus submits that although carriers are improving their HSDPA coverage, the current download speeds experienced by customers do not yet make it an adequate substitute for fixed line broadband services.
- 2.24 At present Telstra is the dominant provider of mobile high speed data packet services (HSDPA) through its 3G / 850MHz network and has the most extensive network, covering 98% of the population. Notably Telstra refuses to provide access to services on its 3G / 850MHz network to Optus and other carriers on a wholesale basis. Further, even if Telstra did provide wholesale

<sup>12</sup> Morgan Stanley (2007), *Telecommunications 2007: Bandwidth Up, Prices Down*, 29 January 2007, page 5.

<sup>13</sup> Morgan Stanley (2007), *Telecommunications 2007: Bandwidth Up, Prices Down*, 29 January 2007, page 6.

<sup>14</sup> Morgan Stanley (2007), *Telecommunications 2007: Bandwidth Up, Prices Down*, 29 January 2007.

<sup>15</sup> Optus (2007), *High-speed Optus mobile broadband arrives*, Media Release, 30 March 2007.

<sup>16</sup> Optus (2007), *High-speed Optus mobile broadband arrives*, Media Release, 30 March 2007.

<sup>17</sup> ZDNet (2006), *Vodafone launches HSDPA*, 20 October 2006, <http://www.zdnet.com.au>.

<sup>18</sup> The Australian (2007), *Half-mill sign up to Next G*, 6 February 2007.

access, the associated terms and conditions would need to be favourable for it to act as realistic substitute for the LSS

It is not feasible for a ULLS access seeker to resell a linesharing service

- 2.25 Optus supports the Commission's view 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.
- 2.26 Optus submits that there are a number of barriers to resale of the LSS including:
- Resale would require various rewired connections at exchanges and such rewiring is not a Telstra product;
  - Telstra does not permit connections between access seeker DSLAMs; and
  - When an access seeker purchases a ULLS service, the filter (splitter) is now typically hardwired into the access seeker's DSLAM rather than being separate as was more common in the past. As a result it is not possible for the voice and data portions of the line to be split before the access seeker's DSLAM is reached.
- 2.27 Telstra therefore continues to be the sole provider of the LSS as it is not feasible for a ULLS-based access seeker to provide the service.

Telstra has no incentive to offer a commercial LSS

- 2.28 Optus submits that in the absence of declaration Telstra would not have the appropriate incentives to offer a commercially acceptable service that would enable competition.
- 2.29 If the LSS were not a declared service, it would be in Telstra's commercial interests to ensure that access seekers were less able to compete with its own downstream business units (e.g. its retail broadband unit and/or its local calls retail unit). In the absence of declaration, it could achieve this discrimination in favour of its own retail broadband business unit by raising its rivals' costs of access (i.e. raising the price of any commercially available LSS) or by making any commercial LSS available only at an inferior quality compared to its own services. At the extreme it could simply not offer a commercial LSS.
- 2.30 As evidence of the lack of commercial agreement Optus notes that in the current regulatory environment of declaration the ACCC is arbitrating on eight line-sharing related access disputes between carriers and Telstra.<sup>19</sup>

*State of competition in the downstream high speed carriage services market*

- 2.31 Optus considers that the downstream markets most central to this inquiry are the market for high bandwidth carriage services and the local call market.

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<sup>19</sup> ACCC website register as at 18 May 2007.

- 2.32 It seems likely that there has been a material increase in the level of competition in the downstream high speed carriage services market since, and as a result of, the declaration of the LSS in 2002.
- 2.33 There are now around 467 internet service providers (ISPs) and non-Telstra ISPs account for 55% of the total market share in the broadband retail market.<sup>20 21</sup> The number of ISPs deploying their own ADSL network infrastructure has increased from 9 in the period 2004 to 2005 to 19 in the period 2005 to 2006.<sup>22</sup> Fourteen ISPs, including Telstra, Optus, iiNet and Internode, are now offering more advanced ADSL2+ services.<sup>23</sup>
- 2.34 Optus considers it likely that declaration of LSS access has been responsible for a substantial proportion of the competition in the retail broadband market, facilitating the entry of many ISPs into the marketplace.
- 2.35 Declaration of the LSS has allowed access seekers a method of competing in the broadband market. The LSS has encouraged ISPs to deploy their own DSLAMs at Telstra exchanges. Optus notes that confidential data available to the ACCC indicates that “take-up of each of the ULLS and LSS grew in the order of 100 per cent during calendar year 2006”.<sup>24</sup>
- 2.36 It is still concerning that competition is largely restricted to exchanges that service major metropolitan regions. This is evidenced by Telstra only offering ADSL2+ services only in those exchanges where competitors are offering such services, even though it has installed the technology across every exchange.<sup>25</sup> Furthermore, as noted in ULL access disputes, access seekers have encountered problems with customer migration.<sup>26</sup>

*Promotion of competition in the downstream high speed carriage services market*

- 2.37 Optus submits that non-discriminatory access between downstream suppliers of a service is very difficult to achieve if the access provider is vertically integrated, such that one of those downstream suppliers is in fact an affiliate of the access provider. In this case, the vertically integrated provider has the incentive to discriminate in favour of its own downstream affiliate and sabotage other access seekers. Telstra has little incentive to offer a commercial LSS at reasonable terms since it has the incentive to put its own downstream units at an advantage over access seekers.
- 2.38 As the result of likely actions by Telstra, in the absence of declaration some access seekers (those who seek to offer data services only, as opposed to both voice and data services) would be unable to compete on their merits and

<sup>20</sup> JP Morgan (2007), *Telstra Corporation IH07 result: Chasing growth at any cost*, 16 February 2007, page 18.

<sup>21</sup> ABS (2006), *8153.0: Internet Activity- Australia*, September 2006.

<sup>22</sup> ACMA (2006), *Communications Services Availability in Australia 2005–06*, November 2006, page 12.

<sup>23</sup> ACMA (2006), *Communications Services Availability in Australia 2005–06*, November 2006, page 14.

<sup>24</sup> ACCC (2007), *Fixed Services Review, a second position paper (public version)*, April 2007, page 10.

<sup>25</sup> Telstra (2006), *BigPond marks 10th Anniversary with launch of National High Speed Broadband*, Media Release, 10 November 2006.

<sup>26</sup> For example recent access dispute of Chime and Telstra (December 2006).

might be unable to remain in the market (regardless of if they were more efficient than Telstra).

- 2.39 Continued declaration of the LSS is required to maintain equality in bargaining power that would otherwise not exist between Telstra and access seekers in commercial negotiations. Declaration of the LSS allows access seekers to gain access to the LSS on equitable terms and compete on their merits against Telstra.
- 2.40 Consequently declaration of the LSS promotes competition in the high speed carriage services market.

*State of competition in the downstream local call market*

- 2.41 Optus submits that the local call market is currently highly concentrated and uncompetitive.
- 2.42 As illustrated in the table below, competition has been slow to emerge in the markets for local call services. Telstra's market share of retail local telephony services stood at 75.3% in 2004-2005, with Optus, Australia's second largest fixed telephony service provider accounting for 16.3%. Telstra's copper local loop remains the sole ubiquitous local telephony network in Australia. This level of concentration indicates significant barriers to entry in the local call market.

Table 4: Local Telephony Market Share<sup>27</sup>

<b>Local Telephony Market Share</b>			
	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>
<b>Telstra</b>	77.0	75.4	75.3
<b>Optus</b>	14.4	15.0	16.3
<b>Other</b>	8.7	9.5	8.4

- 2.43 The highly concentrated nature of the local telephony market results from significant barriers to entry. As the Australian Competition Tribunal stated in *Application by Optus Mobile Pty Limited & Optus Networks Pty Limited [2006]*, “there are significant barriers to entry to the fixed-line market which include high sunk costs and the existence of Telstra’s legacy position as the incumbent”.<sup>28</sup>
- 2.44 The use of VoIP services is having an increasing impact on competition in the local call market. There are currently 224 service providers in Australia (business and consumer) that support approximately 110 000 registered VOIP subscribers.<sup>29</sup>
- 2.45 The use of VOIP services is also likely to further increase competition in the local call market in future. National VOIP penetration is expected to steadily increase, reaching 27% of households by the end of 2009.<sup>30</sup> It would thus appear that VOIP has the potential to overcome barriers to entry in the local call market.

*Promotion of competition in the downstream local call market*

- 2.46 Optus submits that the continued declaration of the LSS is likely to stimulate competition for the provision of local call services. Telstra has substantial market power in the provision of local calls although there is potential for VoIP services to become legitimate substitutes.
- 2.47 However, as evidenced by Optus’ previous comments on wireless networks, the majority of consumers connect to broadband services are using a fixed line connection. A broadband connection (wireless or fixed) allows, and is a prerequisite for, subscription to VoIP services. Optus expects that the number of VoIP users will move, more or less, in line with the expansion of fixed and wireless broadband networks. It has been forecast that by 2010, 13% of broadband users will subscribe to a VoIP service.<sup>31</sup> There has also been entry

<sup>27</sup> ACCC (2005), *Telecommunications Market Indicator Report 2004-2005*, page 6.

<sup>28</sup> *Application by Optus Mobile Pty Limited & Optus Networks Pty Limited [2006]* ACompT 8, para 88.

<sup>29</sup> IDC (2007), *Market Analysis, Asia/Pacific (Excluding Japan) Consumer VoIP 2007-2011 Forecast and Analysis*, February 2007, pages 4 and 5.

<sup>30</sup> IDC, *Market Analysis, Asia/Pacific (Excluding Japan) Consumer VoIP 2007-2011 Forecast and Analysis*, February 2007, page 38.

<sup>31</sup> IDC (2007), *Market Analysis, Asia/Pacific (Excluding Japan) Consumer VoIP 2007-2011 Forecast and Analysis*, February 2007, page 37.

of broadband suppliers into the consumer VoIP market - namely iiNet, Primus, TPG,<sup>32</sup> Amcom and Regional Internet Australia.<sup>33</sup>

- 2.48 Without a declared LSS there would be a material decrease in the level of competition in the downstream high speed carriage services market, with the result that prices for these services would be higher and take-up would be lower. This in turn would retard the development of competition in the local call market via VOIP.
- 2.49 The VoIP market is still very much in a premature stage and continued declaration of the LSS will encourage ISPs to enter the VoIP market. Optus submits that a well developed VoIP product should be considered a viable substitute to current fixed line services. Therefore further development and competition in VoIP services will likely influence prices in the fixed line local call market.
- 2.50 By promoting the continued development of VOIP competition in the local call market, declaration of the LSS removes barriers to entry in the local call market and so promotes competition in the local call market.

#### **Any to any connectivity**

- 2.51 Optus considers that continued declaration would not impact on any to any connectivity. Optus therefore concurs with the ACCC's view that:

*"The Commission does not see LSS as posing any threat to the integrity and goal of any-to-any connectivity. Accordingly, the declaration of a LSS is not expected to detract from the achievement of any-to-any connectivity."*<sup>34</sup>

#### **Use of infrastructure**

- 2.52 Optus considers that continued declaration will promote the efficient use of infrastructure, taking into account allocative, productive and dynamic efficiency.
- 2.53 Declaration will promote allocative efficiency as it results in prices for the LSS that are closer to marginal cost than would otherwise likely to be achieved commercially. Declaration may lead to more efficient use of infrastructure as it encourages sharing of resources and greater utilisation of existing infrastructure.
- 2.54 Optus further believes that declaration of LSS will overcome of the issue of network shortfall that might otherwise prohibit or increase the cost of rolling out DSL services.
- 2.55 Optus concurs with the findings of the ACCC in the 2002 LSS final decision that:

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<sup>32</sup> IDC (2007), *Market Analysis, Asia/Pacific (Excluding Japan) Consumer VoIP 2007-2011 Forecast and Analysis*, February 2007, page 6.

<sup>33</sup> Amcom and Regional Internet Australia websites.

<sup>34</sup> ACCC (2002), *Final Decision on LSS*, August 2002, page 69.

*"The Commission agrees that the key advantages of line sharing is that it promotes optimal use of cooper loop. For example, the simultaneous provision of services on one line by two separate providers will obviate the need to install a separate line for consumers wishing to be supplied data services by one service provider and voice services from a different service provider"*

- 2.56 Turning to productive efficiency, declaration of LSS reduces Telstra's network costs. Given the limitations of the trunk switches, long held data calls which are carried over the PSTN network often lead to excess capacity loads on the network and line sharing will therefore result in long held data being taken off Telstra's PSTN network, hence a lower capital expenditure requirement for Telstra due to a reduction in trunk switching capacity.
- 2.57 Further, declaration of the LSS reduces the potential for inefficient duplication of infrastructure. In the absence of declaration, given the likelihood that any commercially available LSS would be priced substantially above the efficient cost of providing the service (due to Telstra's incentive to raise its rivals' costs), it is possible that some of Telstra's rivals might choose instead to bypass Telstra's CAN and build competing infrastructure with which to supply high speed carriage services. If such infrastructure was more costly than the CAN (yet less costly on a per-service basis than the price of the commercial LSS), then such bypass would be inefficient.<sup>35</sup> By reducing the risk of inefficient bypass, declaration of the LSS promotes productive and dynamic efficiency.
- 2.58 Finally, declaration will promote productive and dynamic efficiencies among access seekers by virtue of the fact that it promotes competition. As the Tribunal noted in the recent ULLS decision:

*"a term or condition of access that has the effect of promoting competition in telecommunications markets will normally have the effect of providing incentives for telecommunications service providers to pursue productive and dynamic efficiencies. By finding lower cost ways of producing services now (and in the future), service providers are able to offer lower prices to end users for their products in order to win greater market share."*<sup>36</sup>

### **Investment in infrastructure**

- 2.59 Optus submits that declaration of LSS will not discourage investment by Telstra, provided that appropriate pricing principles are established which ensure Telstra is able to recover its cost of investment for any given line on which a LSS is provided. In fact, given the LSS provides Telstra an additional revenue stream from its existing infrastructure, Optus believes that declaration will provide positive incentives for Telstra to undertake efficient network investment.
- 2.60 It is expected that declaration of LSS will result in increased investment in DSLAMs and associated network infrastructure. In particular, line sharing will provide new entrants with further incentives to:

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<sup>35</sup> Inefficient bypass in the context of the ULLS is discussed in a paper by Analysys: *Comparative Costing of Wireless Access Technologies, Final Report for the ACCC, 5 May 2006.*

<sup>36</sup> *Telstra Corporation Ltd (No 3) [2007] ACompT 3, para 175*



- (a) deploy a full range of services at exchanges where it was previously uneconomical to deploy because the cost of offering DSL based services without line sharing would be prohibitive; and
- (b) achieve a return on investment at those exchanges which have already been deployed by giving access seeker the opportunity to deploy DSL services in an efficient manner.

**Legitimate commercial interests**

- 2.61 Optus submits that declaration will be in Telstra's legitimate business interests provided that appropriate pricing principles are established which ensure Telstra is just able to recover its cost of investment (including a nominal return on capital) for any given line on which a LSS is provided.
- 2.62 A further reason why declaration will not adversely impact on Telstra's legitimate commercial interest is that, as previously stated, line sharing provides Telstra an additional revenue stream from its existing infrastructure and at the same time reduces the network costs as a result of the long held data calls being taken off the PSTN network.

### 3. Pricing Principles

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- 3.1 In this chapter Optus considers pricing principles to apply to the LSS. Reasonable principles should ensure Telstra is just able to recover its cost of investment including a normal return on capital invested, for any given line on which a LSS is provided.
- 3.2 Optus submits that the key issue to be addressed in determining these pricing principles is the allocation of common line costs.
- 3.3 In this chapter Optus submits the following:
- In submissions on this matter in 2002, Optus advocated zero allocation of common line costs to the LSS.<sup>37</sup>
  - Between 2002 and 2007, however, the environment has changed in relevant ways. In particular, the demand for retail internet services has increased and the WLR and LCS services have been declared. These changes have removed the main justification for zero allocation.
  - Optus considers that allocation of a proportion of common line costs to the LSS would be in the LTIE.
  - The Commission could determine the efficient prices of the jointly produced LSS and line rental services according to joint production theory by estimating costs and demand functions for the services (and allocate common costs accordingly).
  - Telstra's proposed pricing method is arbitrary and likely to cause Telstra to over-recover where it is the voice service provider on a line.
  - The argument that LSS should bear a greater share of common costs to compensate for VOIP-related revenue leakage is unconvincing.
  - Efficiency requires that line costs be geographically de-averaged.

#### **The LSS should bear a portion of common line costs**

- 3.4 As highlighted by the Commission, there are two main cost elements involved in the provision of LSS – the incremental (specific) cost and the line cost.<sup>38</sup> Optus submits that it is an opportune time for the Commission to re-visit allocating a proportion of common line costs to the LSS.
- 3.5 In its previous submissions on this matter, Optus advocated zero allocation of common line costs to the LSS.<sup>39</sup> However the market environment has changed significantly, in particular, the demand for retail broadband services

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<sup>37</sup> Optus (2002), *Optus Submission in response to the ACCC Draft Decision of Line Sharing Service*, May 2002.

<sup>38</sup> ACCC (2007), *Fixed Services Review – a second position paper (public version)*, April 2007, page 68.

<sup>39</sup> Optus (2002), *Optus Submission in response to the ACCC Draft Decision of Line Sharing Service*, May 2002.

has increased and the WLR service is now declared.<sup>40</sup> These changes have removed the main justifications for zero allocation.

- 3.6 Optus produced its previous submission in the context of a broadband market that was relatively immature, with the Commission forecasting a DSL penetration rate of between only 3 and 5 per cent.<sup>41</sup> Under such a scenario demand for LSS was small relative to voice demand and allocation of common costs to the LSS would have been inefficient. Now there are over 100,000 LSS SIOs and as such the market dynamics have clearly changed.<sup>42</sup>
- 3.7 As there is no line cost charge included in the LSS, Telstra must recoup line costs through the prices charged for other services using the line, including its WLR service. In previous discussions, the Commission has correctly rejected an LSS contribution to line costs as it would have enabled Telstra to ‘double-dip’ on costs that it already recovers.<sup>43</sup> Optus submits that the declaration of the WLR service now present a basis for LSS to bear a portion of common costs as it affords the Commission a mechanism to ‘balance’ prices across WLR and LSS.
- 3.8 Without the inclusion of common line cost in the price of line-sharing, WLR carriers are effectively subsidising the LSS. It is inefficient for LSS carriers not to contribute to the full costs of the service they are using. This situation creates a “disassociation between prices and costs for these services” and effectively allows LSS carriers to supply broadband services below cost.<sup>44</sup> Further, such pricing would be inconsistent with competitive neutrality, would not promote competition on the merits and might encourage inefficient market choices between substitute services.
- 3.9 As a result, Optus submits that allocation of a proportion of common line costs to the LSS would be in the long term interests of end users.

### **Method of allocation**

- 3.10 Optus submits that common costs should be allocated amongst the services which use the common line input according to an economically efficient allocation method which allows Telstra to recover its efficient costs and no more.

#### *An efficient pricing methodology*

- 3.11 Ideally, the Commission would employ Ramsey pricing principles to allocate the common costs. Optus considers that Ramsey-Boiteux pricing provides the most economically efficient method of allocating common costs across the services. However, it has been noted that the Ramsey methodology entails an information burden in terms of calculating price elasticities and

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<sup>40</sup> WLR declared on 1 August 2006.

<sup>41</sup> ACCC (2002), *Final Decision on LSS*, August 2002, page 37.

<sup>42</sup> Number of lines assumed to be at least the iiNet customer base (source: iiNet 2006 Annual Report, page 1).

<sup>43</sup> ACCC (2007), *Fixed Services Review – a second position paper (public version)*, April 2007, page 69.

<sup>44</sup> ACCC (2002), *Final Decision on LSS Declaration*, August 2002, page 96.

other specific cost parameters.<sup>45</sup> Optus does not consider that the difficulties involved in estimating Ramsey prices are insurmountable. The Commission, however, has previously considered that using a simpler allocation rule may be more appropriate.<sup>46</sup>

- 3.12 As an alternative to Ramsey pricing, costs could be allocated in a manner which is less demanding yet still consistent with joint production theory. According to Kahn, the marginal cost of products which share joint costs can be determined from their joint supply function and their separate demand functions.<sup>47</sup>
- 3.13 The theory of joint production is well established and is clearly applicable, since the joint input (the customer access line) is used to supply multiple outputs (various voice and data services). Allocative efficiency requires that prices are set across the joint outputs such that:
- (a) The net marginal costs of each output, data (LSS) and voice (line rental/WLR), sum to equal the marginal cost of the joint input being supplied (the line); and
  - (b) The separate demands for the joint outputs at the given prices are identical.
- 3.14 There are situations where this methodology may not be useful, if for example the demand for one service is very small relative to the other. This does not appear to apply in the circumstances at hand (in contrast to the circumstances applying in 2002, when the demand for a LSS was arguably small relative to voice demand).
- 3.15 Optus proposes that the Commission consider the potential for estimating input costs, incremental costs for the LSS and line rental services and demand functions for the two services and then proceed to determine the efficient prices of the services (and allocate common costs accordingly). If the Commission wished to investigate this possibility further Optus would be happy to provide further details of how efficient prices could be estimated.

#### *Telstra's proposed pricing methodology*

- 3.16 Optus considers that an estimation of prices according to the above methods would be preferable to some other 'rule of thumb' pricing.
- 3.17 In this context, Optus notes Telstra's proposed solution of 'balancing' the prices of the LSS and WLR services in a recent access dispute with Chime.<sup>48</sup> Telstra proposed that either 50 per cent or 33 per cent of common costs be attributed to the LSS.
- 3.18 Optus notes that under Telstra's proposal the inclusion of a line-related cost in LSS charges was to result in a reduction of charges for the WLR service.

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<sup>45</sup> ACCC (2002), *Final Decision on LSS*, August 2002, page 32.

<sup>46</sup> ACCC (2002), *Final Decision on LSS*, August 2002, page 96.

<sup>47</sup> Kahn, A (1998), *The Economics of Regulation; principles and institutions*, pages 79 and 80.

<sup>48</sup> ACCC (2006), *Interim Determination on the Access Dispute between Chime Communications Pty Ltd and Telstra Corporation Limited*, 21 December, page 7.

Optus agrees in principle with an adjustment in this direction, which would promote allocative efficiency and ensure the correct pricing signals exist for the supply of services in the relevant markets. However Optus considers that the proposal has some inadequacies.

- 3.19 First, the proposal appears likely to cause Telstra to over-recover where it is the voice service provider on a line. Under the proposal Telstra will gain an additional contribution to its line costs due to the allocation of a portion of those costs to the LSS. This contribution will be balanced to some extent by a rebate *where a Telstra wholesale customer is the voice service provider* on a line, however there is no such balancing effect where Telstra is the voice service provider. Due to Telstra's market power in the line rental market it is unlikely that rebates will be passed through to customers.
- 3.20 Second, the rebate is limited to \$15 and it is not clear to Optus how this value has been calculated. This value appears arbitrary and may compensate WLR based carriers to an insufficient extent in certain circumstances.

#### *Impact of VOIP on Telstra's cost recovery*

- 3.21 It has been suggested that the increasing popularity of VOIP at the expense of traditional voice services may undercut Telstra's ability to recover the costs of its network, as the result of revenue leakage. Since VOIP services can only be provided if the user also purchases high speed carriage services, and high speed carriage services *may* be provided by LSS access seekers, the argument may be made that the LSS should bear a greater share of common costs to compensate for this revenue leakage.
- 3.22 However, the cost allocation principles discussed in the previous section are designed to ensure that Telstra is able to recover its cost of investment, provided the customer takes both a line rental service and a LSS. It follows that the VOIP-related revenue leakage discussed above can occur only if retail customers are able to forego their voice line and purchase DSL without dial tone (i.e. "naked DSL").
- 3.23 Telstra, however, requires any retail customer purchasing data carriage services from a LSS access seeker to also pay for a line rental (either the WLR or Telstra's own line rental service).<sup>49</sup> That is, the retail customers of LSS access seekers are not able to purchase naked DSL. Therefore Telstra must be able to recover its cost of investment for any given line on which a LSS is provided.
- 3.24 Consequently, the VOIP-related revenue leakage discussed above is unrelated to LSS access seekers. Rather, the predicted leakage, if it occurs, could only result from VOIP services purchased in association with high speed carriage services provided by other infrastructure competitors, principally wireless competitors, who can offer naked DSL.

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<sup>49</sup> This is consistent with the ACCC's service description for the LSS (use of the nonvoiceband frequency spectrum of unconditioned communications wire (over which wire an underlying voiceband PSTN service is operating)).

- 3.25 In summary, the argument that LSS should bear a greater share of common costs to compensate for VOIP-related revenue leakage is unconvincing. It would not be reasonable to increase the cost of the LSS to compensate Telstra for the losses it may suffer due to competition from other infrastructure competitors.

### **Geographical averaging**

- 3.26 The Commission has asked for submissions on the question of whether, in the event that the LSS is re-declared and an allocation of line costs was made to the LSS, the resulting LSS charges should be geographically de-averaged.
- 3.27 In its May 2007 decision on Telstra's ULLS appeal the Australian Competition Tribunal found that geographical averaging of charges in the ULLS context would not promote competition in urban or rural areas and would not promote the efficient use of or investment in infrastructure.<sup>50</sup>
- 3.28 Optus considers that with respect to the promotion of competition and of the efficient use of and investment in infrastructure, the same arguments apply to geographical averaging of charges in the LSS context.
- 3.29 Accordingly, Optus submits that LSS charges should be de-averaged.

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<sup>50</sup> *Telstra Corporation Ltd (No 3) [2007] ACompT 3*, para 179.