



**Submission by AAPT Limited & PowerTel Limited
to the Australian Competition and Consumer Commission
in response to**

LSS Discussion Paper - April 2007

May 2007



Introduction

1. AAPT and PowerTel¹ welcome the opportunity to respond to the Australian Competition and Consumer Commission's (the **Commission**) LSS Discussion Paper (which comprises Chapter 5 of *Fixed Services Review: A second position paper* released April 2007) (the **Discussion Paper**) on the question of whether the Line Sharing Service (**LSS**) should be re-declared.
2. For reasons discussed below, AAPT submits that LSS utilisation, and hence downstream competition in markets to which LSS is an input, is yet to achieve its potential. So long as the pricing principles are correctly set for the LSS, AAPT submits that continued declaration of the LSS will encourage the economically efficient investment in infrastructure, and will help continue the progressive investment that has been adopted by many access seekers in the years since the LSS was declared.
3. In these circumstances, and where Telstra remains the monopoly supplier of the LSS, AAPT strongly urges the Commission to re-declare the LSS.
4. Before responding to individual questions raised by the Commission in the Discussion Paper, this submission addresses a number of overriding issues which AAPT submits are relevant to the context within which responses made to the Discussion Paper should be interpreted.

Overriding considerations to be taken into account by the Commission

Price certainty key factor in service take-up

5. AAPT acknowledges that the Commission is not required to release indicative prices as part of the process of releasing pricing principles for declared services that are not also classified as a core service.
6. However, in the context of the LSS, the absence of indicative prices for the LSS, together with the process of and time taken by the Commission and Tribunal considering and rejecting Telstra's LSS undertaking, has meant that for the period since declaration, access seekers have been without price certainty for the LSS.
7. The need for at least some degree of price certainty was implicitly (if not explicitly) acknowledged by the Commission itself by its act of making public its interim determinations in the LSS access disputes between Telstra and Chime and Telstra and Request². Indeed, the Commission noted in the Chime/Telstra interim determination – LSS Annual Charge – December 2006 that:
“By indicating the Commission's current understanding on key issues, it will provide more certainty to Chime on the LSS charges that it might face, and will tend to encourage Chime in progressing its plans for new services and further network build (which Chime submits has been dependent on achieving certainty in relation to both the ULLS and LSS).”³
8. As utilising the LSS in preference to the ULLS requires additional investment in splitters, the lack of price certainty will naturally have resulted in a suppression of demand for the LSS. As

1 Throughout this submission, references to AAPT should be taken to be references to both AAPT and PowerTel.

2 Chime/Telstra interim determination - LSS connection and disconnection charges - December 2006;

Request/Telstra interim determination - LSS connection and disconnection charges - December 2006;

Chime/Telstra interim determination - LSS annual charge - December 2006. AAPT note that before publishing a determination, the Commission must have regard to, inter alia, whether publication would be likely to promote competition in markets for listed carriage service and whether publication would be likely to facilitate the operation of Part XIC of the Act.

3 Chime/Telstra interim determination - LSS annual charge - December 2006 at 21.

a consequence, this will have dampened the potential for declaration to stimulate competition in downstream markets.

9. In these circumstances, AAPT submits that the Commission cannot, and should not, rely upon current service utilisation data as any indication of the potential take up of the LSS in a more (price) certain regulatory environment.

ULLS v LLS

10. The undercurrent of the Discussion Paper appears to ask whether the ULLS is a sufficiently robust substitute for LSS as to make re-declaration of LSS unnecessary.
11. In 2002, the Commission considered that data and voice services were separate markets, and that "*a business that wishes to provide data services only is a legitimate business in its own right*"⁴ and that "*access to data-related infrastructure, such as the high frequency band of the ULLS, should be considered in terms of its importance as an input to operate in data markets.*"⁵
12. AAPT contends that nothing has substantially changed in the market to justify a change in the Commission's assessment in 2002 as to the level of substitutability between the ULLS and LLS.

The role of VoIP

13. A great deal is written about VoIP, particularly its cost competitiveness against traditional voice services. However, the packetisation of voice does not dramatically reduce the transmission bandwidth required for the carriage of voice calls. Moreover the much vaunted lower prices for VoIP reflect significantly lower service qualities particularly on the availability of a circuit for a specific call.
14. Further, VoIP is not an effective substitute for existing voice band analogue voice, for *at least* the following reasons:
 - unlike traditional phone services, the quality of a VoIP service depends on the quality of each of the end-user's handset and home network, broadband connection, VoIP service provider and the internet;
 - the ability of an end user to place a call to a B party over a VoIP service may depend on: (a) the equipment used by the B party; and (b) if the B party uses also uses a VoIP service, whether the B party uses the same VoIP service provider;
 - intelligent networks may not recognise the location of the A party and may be unable to map, or correctly map, the call;
 - security vulnerabilities exist in IP telephony protocols which expose end-users to security risks such as eavesdropping, denial of service, identity-related attacks, voicemail spam and viruses⁶. Communications Alliance has noted that: "*The bottom line is that security issues have the potential to cause serious harm to the acceptance of VoIP as a viable alternative to traditional voice services.*"⁷
 - VoIP services rely on mains power, while a traditional voice service is powered via the phone line. As such, an end-user relying upon a VoIP service as their primary telephone line would not be able to make phone calls during a power failure. In the case of an emergency, this could be life threatening.

4 Australian Competition & Consumer Commission, 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, at p. 39.

5 Ibid.

6 Communications Alliance Ltd, VoIP Security: What you can do about it as a VoIP or Internet Service Provider, Vol. 4, 28 August 2006.

7 Ibid.

15. To propose that access seekers should be substituting traditional voice with a VoIP service if they wish to acquire a broadband customer is therefore to suggest that access seekers should be required to provide sub quality (relative to PSTN) voice.

Transitioning to fibre to the node (FTTN)

16. AAPT remains concerned about the Commission's preference for "facilities based" competition over service based competition. By expressing a preference for facilities based competition, the Commission has, by extension, been promoting service based competitors to Telstra to become more vertically integrated by investing in network facilities.
17. In AAPT's June 2005 submission in response to the Commission's Local Services Review Discussion Paper, AAPT noted that there was then *"no solution to the vexed question of network modernisation of Telstra's access network, that is, what is meant to occur to a competitive user of the Unconditioned Local Loop if Telstra replaces part of the feeder network with fibre ..."*⁸ Two years on this question remains unanswered, despite current intense speculation about when and by whom a national fibre FTTN network will be built.
18. With respect, one reason may be that while the Commission has expressed a preference for facilities based competition - and therefore deployment of infrastructure - it has to date been unable to resolve access seekers' uncertainty over the implications of network modernisation. Indeed, the Discussion Paper fails to acknowledge that "network modernisation" may render both the ULLS and the LSS obsolete.
19. The acceptance that the copper network constitutes a bottleneck does not mean that the appropriate clearing of that bottleneck is merely by access to the copper. For example, where the length of copper involved is such that "reasonable" broadband services (defined by growing customer expectations of speeds) cannot be provided, the number of customers not able to be served will increase.

Responses to questions asked in the Discussion Paper

Substitutability of LSS

To what extent are other services substitutable for the LSS?

20. AAPT submits that there are no direct substitutes for the LSS, including for the same reasons as taken into account by the Commission when LSS was originally declared.

In particular, from the access seeker's perspective, what is the degree of substitutability between the LSS and ULLS?

21. An access seeker's decision as to whether to acquire a ULLS or LSS takes into account the following considerations:
- the type of service to be delivered to the end-user. For example, if the end-user requires an SHDSL service then the access seeker will need to acquire a ULLS to ensure full access to all the bandwidth available on the copper pair;
 - whether the end-user is already being supplied with a traditional voice service from Telstra and wishes to retain that service;
 - the capability of the particular DSLAM and other equipment the access seeker has installed in the relevant exchange. If the access seeker does not have a voice band filter (splitter) then the access seeker can only use the ULLS, not the LSS.

⁸ AAPT Limited, Submission by AAPT Limited to the Australian Competition and Consumer Commission in response to Local Services Review 2005 An ACCC Discussion Paper April 2005, June 2005, p.4.

- the availability of additional copper to the end-user. If there is not a spare additional copper pair available to an end-user's premises, the access seeker will need to acquire an LSS to deliver a broadband service to that end-user;
- when performing a transfer of a ULLS or LSS based service from an upstream wholesale DSL provider to an access seeker's DSLAM, the selection will depend on whether a ULLS or LSS is being used to by the upstream provider; and
- the relative price of the LSS and the ULLS, e.g. if a voice or broadband service can be delivered to an end-user over a ULLS or an LSS then the price at which either service is available is a relevant factor.

Accordingly, the degree of substitutability between the ULLS and LSS is a measure of the extent to which the factors listed above align.

22. The practical consequence of the above is that, from the access seeker's perspective, the LSS and ULLS will only be substitutable if the access seeker's intent is to offer its customers a bundle of internet and voice services. AAPT contends that, the market has not changed sufficiently to justify a departure from the Commission's conclusion in 2002 that:

"the ULLS would appear only to be economic for an efficient access seeker that provided both voice and data services. In the absence of voice revenues, an efficient access seeker of a full ULLS that is interested in solely providing high-speed services cannot fully recover its costs".

...

Line sharing, by contrast [to ULLS] enables carriers to provide ADSL services without the need to provide a range of services such as voice so as to remain viable. The Commission believes, therefore, that from a functional perspective the ULLS does not represent a viable option for those access seekers interested solely in providing high-speed data services; even if it is priced at efficient levels. This would mean that a considerable change in relative prices would be needed for substitutions to take place."⁹

Would the degree of substitutability change in the absence of a declared LSS?

23. Substitutability would change, because in the absence of a declared LSS there would be no LSS provided in the market. This is because Telstra would have no incentive to continue to make the LSS available.
24. Not all the customers who would have been offered a competitive alternative through the LSS would receive a competitive offer based on the ULLS. Therefore the absence of a declared LSS would result in reduction in competition for retail broadband services.

Does the LSS allow third parties to purchase a wholesale service from access seekers? How prevalent is this use of the LSS? How does this compare to the ULLS as an upstream service?

25. It is hard to make a comparison of the use of the LSS versus the ULLS as a means of providing wholesale services.

⁹ Australian Competition & Consumer Commission, 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, at p. 41.

Under what circumstances would it become technically or commercially feasible for an access seeker to purchase a ULLS service, and re-sell LSS services to a third party provider?

26. Neither AAPT nor PowerTel has considered acquiring a ULLS from Telstra to provide voice services and then making the non-voice band portion of the copper available for other access seekers. Further, neither AAPT nor PowerTel is aware of any other access seeker being involved in or contemplating the wholesale provision of a LSS.
27. While technically feasible, AAPT submits that there are no circumstances in which it is currently, or would in the future be, commercially feasible for an access seeker to purchase a ULLS service and re-sell LSS services to a third party provider. This is due to at least to the following factors:
 - the cost of installing what the Commission itself noted would be "*less efficient, legacy circuit-switched equipment*" in circumstances where such cost is "*not likely to be recovered in reasonable period through the provision of voice service, which are subject to low and declining yields and subject to price control.*"¹⁰
 - the development of a market for bundled services - AAPT is unaware of any situations where an end user would elect to receive broadband services and voice services from independent providers to the exclusion of Telstra.

Market definition

What is the relevant market at the upstream level? Does this differ by geography?

28. AAPT submits that the relevant market at the upstream level is: the wholesale market for the provision of broadband connectivity from a customer's premises to an aggregation point. This is a difficult market definition given the various means of providing broadband connectivity are not direct substitutes because of the different level of investment required. For example, LSS, ULLS and wholesale ADSL access each progressively requires the access seeker to install less equipment in respect of the broadband services only (as the LSS requires the installation of a splitter not required with the ULLS).
29. The services that are available in the upstream market vary within individual exchanges depending upon the distance of the customer premises being served from the exchange. For example, a customer more than 1.5km from the exchange will not be able to be supplied with a broadband service of 12mb/s other than via electronics located closer to the customer in a street side cabinet. On this basis, every geographic location has different market characteristics.
30. AAPT submits, however, that while the upstream market is not geographically homogenous, geographical differences are not sufficient for the different geographic locations to constitute different upstream markets. In fact, if such distinctions were to be drawn, it may be concluded that in all cases there is a geographic market unique to each end user's premises (because a broadband service connecting to an end user's premises is not a substitute for a broadband service connecting a different the end user premises).

What are the relevant downstream markets for consideration?

31. The downstream market most relevant to the LSS declaration is the high bandwidth carriage access service market – a national market for the supply of high bandwidth carriage access services to end-users.

¹⁰ Ibid. at p. 38.

32. As a consequence of weak substitutability of local telephony service with VoIP services provided over high bandwidth carriage services, and as a consequence of the bundling behaviour prevalent in the industry, the local telephony market¹¹ is also a relevant market.

In particular, what is the relevant product, geographical and temporal dimensions of the relevant markets?

33. (Product) As discussed above, the relevant downstream product market is the market for high band-width carriage access services.
34. (Geography) This is a single national geographic market.
35. (Temporal) Investors interested in supplying to the market primarily are investing in the exchange based equipment known as a DSLAM.
36. Typically an investment decision on a DSLAM relies upon a minimum 5 year life of that investment. That is, investors have been investing in DSLAMs on the assumption that the LSS declaration would be maintained past October 2007. AAPT submits this was a reasonable assumption given that none of the factors leading to the original declaration appear to have changed - except that investment has actually flowed as a consequence of the declaration.
37. AAPT has been investing in the Australian telecommunications market since 1991. This investment includes our investment in traditional voice switches. The plan to move customers to alternative access technologies (ULLS) will occur in conjunction with our replacement of this historic investment in voice services.
38. The legislative criteria of the LTIE include concern with the efficient investment in and utilisation of infrastructure. The Commission needs to at all times be mindful that it does not pursue a policy that is artificially skewed toward encouraging new entry if the consequence of that policy will be that entrants never recover their investments. The long run consequence of such a policy will be to deter future entry.
39. AAPT submits that in the circumstances, access seekers should be provided with at least 3 years clear notification of a final decision to cease declaration of the LSS (including in any geographic sub markets that the Commission might seek to define as a result of its Fixed Services Review).

Has the intensification of competition in the supply of high bandwidth carriage services changed the appropriate product or geographic dimension of any relevant market?

40. Given the Commission's approach to defining markets by reference to hypothetical [or potential/threatened] entry, AAPT submits that an increase in the level of actual entry should not of itself impact on market definition. That is, AAPT submits that a market is no more or less "competitive" following the decision of a person to install a DSLAM than it was when it became possible for that person to install a DSLAM as a consequence of the LSS declaration.
41. It is also important to acknowledge that while the ULLS and LSS are not direct substitutes, the LSS and ULLS both provide access seekers with the ability to provide broadband access services to customers through the establishment of DSLAMs. As a consequence, retaining the declaration of the ULLS while failing to re-declare the LSS would result in a reduction in the number of exchanges in which it would be economically viable to deploy DSLAMs.

¹¹The local telephony market was defined previously by the Commission as a national market for the supply of local telephony services (including fixed line calls and line rental) by service providers to end-users.

Has the introduction of VoIP technology changed the nature/scope of the relevant markets for consideration?

42. See AAPT's submission at paragraphs 13, 14 and 15 above. In summary, AAPT submits that VoIP is *at most* a weak substitute for traditional voice and of marginal relevance to an end-user's decision to acquire broadband services.

Has the existence of bundled services offerings at the retail level affected the nature/scope of the relevant markets for consideration?

43. Yes. However, it is AAPT's contention that the market for bundled services creates an additional market for analysis, not an alternative market for analysis.
44. Using the example of high speed internet services, the typical bundle is for voice service and high speed internet. It remains an efficient delivery mechanism for this bundle for a provider such as AAPT to acquire the LSS, the wholesale line rental service, the local call service and the pre-selection service and continue to provide the customer's voice services in the same manner AAPT provides voice service to a customer without a high speed internet service.
45. In fact, AAPT has been servicing its customer base by acquiring Telstra's wholesale ADSL service (which is delivered over the functional equivalent of the LSS). AAPT's first stage of development of new residential services is likely to utilise the LSS as a substitute for wholesale ADSL, with subsequent migration of the voice services to an alternative technology.

How, if at all, has the 2002 declaration of the LSS impacted on the relevant downstream markets for consideration?

46. The principal impact of the 2002 declaration of the LSS is that growth in the broadband services market has been enhanced, particularly in relation to the provision of downstream ADSL services to residential and small business users.
47. The main contribution of the LSS in this regard is that it has enabled re-use of the copper and avoided or delayed any shortfall in the availability of copper for access to end-users.
48. The ability to resell a wholesale DSL service does not form the basis on which to develop a truly differentiated and competitive service offering in the downstream voice and broadband markets. To be able to truly differentiate their service offerings and effectively compete, access seekers need to be competitive on multiple fronts including price, service levels (despite the poor level of fault rectification service levels offered by Telstra on LSS and ULLS) and the availability of various speeds and download limits. For this reason PowerTel has invested significantly in infrastructure and why both the ULLS and the LSS services are a critical component.

To what extent does the broader telecommunications-specific regulatory framework affect downstream market definitions?

49. As described above, VoIP services provided over ULLS do not have the same power backup as a traditional telephone service and this has led to concerns that the VoIP based telephone services may not meet service providers' requirements under the Emergency Services Determination.
50. Further, providers are required to provide a priority assistance service, including enhanced service restoration times for voice service for qualified customers. To date access seekers have been unable to negotiate a priority assistance arrangement with Telstra in relation to ULLS. As a consequence, providers would not be able to meet their regulatory requirements if they were providing a voice service over ULLS only.

Competition in the market for LSS

In the absence of declaration, are competitive rates for the LSS likely to be commercially negotiated?

51. AAPT assumes that by 'competitive rates' the Commission means a rate for LSS that reflects the long run marginal cost of supply.
52. Given that Telstra is currently the only supplier of LSS and is expected to remain the only supplier of LSS into the foreseeable future, AAPT submits that in the absence of a declaration, Telstra will not be constrained in its pricing and output decisions relating to LSS and would set terms and conditions of access in a manner consistent with that of a monopolist. Specifically, Telstra would likely:
 - increase the price of LSS;
 - restrict supply of LSS; or
 - refuse to supply the LSS.
53. This would result in a significant and disruptive impact on many access seekers' business plans, which rely on LSS being available at reasonable cost. Re-declaration of the LSS will prevent Telstra from engaging in such disruptive activity.
54. Telstra's conduct in relation to supply of the LSS since its declaration in 2002 indicates that in the absence of declaration, commercial agreement with access seekers as to the terms for supply of the LSS is unlikely:
 - Access disputes may only be brought to the Commission once attempts at commercial negotiations have failed¹², yet there are currently nine access disputes before the Commission brought by eight different access seekers in relation to the supply by Telstra of the LSS (the disputes have been lodged by Primus Telecom Pty Ltd (two disputes), Chime Communications Pty Ltd, Amcom Pty Ltd, Request Broadband Pty Ltd, Adam Internet Pty Ltd, Agile Pty Ltd, Network Technology (Aust) Pty Ltd and TPG Internet Pty Ltd¹³).
 - On 24 January 2007, Telstra commenced proceedings in the High Court challenging the constitutional validity of the telecommunications access regime, including as the regime applies to require Telstra to provide the LSS and ULLS¹⁴.

To what extent will the availability of other services, in particular the ULLS, constrain the pricing of the LSS in the absence of declaration? Has this changed since 2002?

55. AAPT submits that there are no effective substitutes for the LSS, including the ULLS. As such, AAPT submits that in the absence of declaration there would be no services that could constrain the pricing of the LSS or indeed necessarily provide sufficient incentive for Telstra to make the service available to access seekers at all. To date, section 46 of the *Trade Practices Act 1974* (Cth) and Part A competition notices have not proved effective or timely tools for curbing anti-competitive behaviour.

¹² See section 152CM of the *Trade Practices Act 1974* (Cth).

¹³ As reported by the Commission on 21 May 2007 at <http://www.accc.gov.au/content/index.phtml/itemId/635059/fromItemId/356715>

¹⁴ High Court of Australia proceedings no. S42 of 2007.

To what extent is the LSS expected to be a transitional service?

56. While AAPT anticipates that the Commission's question has been framed on the assumption that the LSS is transitional to ULLS deployment, for the reasons discussed above, voice over ULLS is not a complete substitute for traditional voice.
57. The LSS and ULLS are only transitional services in the sense that the delivery of higher speed broadband services will eventually require the deployment of new access technologies, initially in FTTN.

If the LSS is a transitional service, at what point is it no longer necessary to regulate it?

58. Where FTTN is deployed, neither the LSS nor ULLS will need to be regulated.
59. It should be noted that in a FTTN network there is no logical environment in which competing electronics would be deployed at the node and thus require a declared service (other than a ULLS from the node to the customer's premises if the FTTN is not built by Telstra).

Is declaration of the LSS required to promote competition in the relevant downstream market(s)? If so, to what extent and why?

60. Yes. In the absence of declaration AAPT does not believe there would be a LSS offered in the market on terms and conditions that would enable access seekers to compete in the market for high speed internet access services, unless those access seekers were prepared to offer voice services.

Is declaration of the LSS likely to impact on the level of competition in the market within which wholesale ADSL is supplied?

61. Yes.

Is continued declaration of the LSS likely to lead to lower prices or improved quality for end-users of high-speed data services, compared to the case where the LSS is not re-declared?

62. Yes.

To what extent is the level of competition in high-speed data markets a result of the availability of a declared LSS?

63. Entirely.

Is continued declaration of the LSS likely to lead to lower prices or improved quality for end-users of traditional voice call services, compared to the case where the LSS is not re-declared?

64. Yes. Customers using high speed internet services provided over LSS still do utilise some VoIP providers, thus providing competitive constraints (albeit weak) on pricing for voice services.

How does consumer demand for high speed data services compare to the relevant voice call markets? To what extent can a consumer obtain a line to their premises solely for the use of data services? To what extent does the current regulatory regime affect the ability of consumers to obtain a line for these purposes? How does this affect demand for the LSS and/or the ULLS?

65. AAPT submits that the Commission should not compare demands: just because people like apples, does not mean they also like oranges, or like oranges to the same extent. In theory demand schedules for each of high speed data services and voice call services could be constructed which include cross price elasticities. AAPT does not, however, have enough available data to estimate these demand schedules.

Would continued declaration of LSS affect barriers to entry to the downstream markets or the state of competition in the downstream markets?

66. Yes, it would lower them. AAPT repeats its responses above.

Will declaration achieve any-to-any connectivity?

Will removing declaration of the LSS affect any-to-any connectivity in any way?

67. No.

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

68. For so long as pricing principles are correctly set, AAPT submits that the continued declaration of the LSS will encourage economically efficient investment in infrastructure.
69. It is clearly inefficient for access seekers to invest in their own access network that duplicates Telstra's copper CAN (and in any event this is unlikely to happen due to the sheer size of the investment involved). It is also not desirable for access seekers to undertake no investment at all and simply resell Telstra's services.
70. Re-declaration of the LSS will help continue the progressive investment that has been adopted by many access seekers in the years since the ULLS and subsequently the LSS services were declared.
71. AAPT submits that the provision of voice and broadband services over a single copper loop promotes the efficient use of infrastructure. Re-declaration of the LSS will ensure that access seekers will have continued access to the high bandwidth portion of the copper loop on reasonable terms. Promoting use of the LSS in turn promotes the efficient use of the copper loop.

Is continued declaration of the LSS required to ensure the efficient use of infrastructure used to supply listed services? If so, why and to what extent?

72. Yes. In the absence of declaration Telstra is the only provider able to utilise the above-voice frequencies of a copper line used to provide a traditional voice service.
73. A ULLS providing voice as well as a high speed internet access service is not a substitute for the traditional voice service. Consequently Telstra would have a degree of market power in the upstream market of high speed access provided over above voice frequencies and would likely constrain output and raise prices. The most effective remedy is the re-declaration of the LSS.

What impact would continued declaration of the LSS have on the efficient use of infrastructure in terms of use of alternative products that utilise the underlying infrastructure such as ULLS and xDSL?

74. The majority of the investment to utilise the LSS is the DSLAM and backhaul transmission to the exchange. As technology develops to provide higher speed data services and more integrated VoIP technologies it will be feasible to upgrade these investments to enable a service utilising the LSS. To this extent, the continued declaration of the LSS facilitates further investment in DSLAM technology.

Is section 152AB(2)(e)(ii) directly relevant to a consideration of the efficient use of infrastructure used to provide carriage services, or services supplied by means of carriage services?

75. Section 152AB(2)(e)(ii) requires the Commission to take into account in any consideration of the promotion of the long term interests of end users, the extent to which the economically efficient use of and investment in any infrastructure by which listed services are, or are likely to become, capable of being supplied, will be encouraged. A list of those matters that must be considered as part of any enquiry relevant to section 152AB(2)(e)(ii) is set out in subsections 152AB(6) and 152AB(7).
76. Sections 152AB(2)(e)(ii), 152AB(6) and 152AB(7) were introduced on the basis that "[p]roviding more guidance on how the efficient investment limb of the LTIE test should be

*interpreted would provide clarification that the ACCC should have regard to the promotion of efficient development of new or enhanced telecommunications networks when applying the LTIE test. This would increase the probability of network investment proceeding, which has the potential to provide benefits to consumers through more innovation and potentially greater competition." It was considered that "[t]his would make more certain the ACCC's already existing practice which is to consider enhancements to existing infrastructure and the establishment of new networks when considering the economically efficient operation and use of, and investment in, the infrastructure over which carriage services are provided."*¹⁵

77. As such, AAPT submits that section 152AB(2)(e)(ii) is relevant to the extent that it provides a basis for the continued declaration of the LSS. The availability of the LSS will encourage investment by access seekers in DSLAMs in further development of their network.

What impact has declaration of the LSS had on investment in new (upgraded) technologies provided over the high-bandwidth data portion of Telstra's local access network?

78. AAPT notes that iiNet was the first internet service provider to offer ADSL2+ on a national scale¹⁶. As iiNet's business model is built on the LSS platform, it is reasonable to suppose that declaration of the LSS enabled or at least brought forward this innovation.

Is continued declaration of the LSS required to promote efficient investment in infrastructure? Would the removal of declaration encourage more efficient investment in new or existing infrastructure?

79. Yes, for the reasons set out above, AAPT submits that continued declaration of the LSS is required to promote efficient investment in infrastructure.

Would the continued declaration of the LSS distort investment incentives by inhibiting efficient investment in the ULLS, or in other inter-modal delivery platforms currently used to provide high-speed data services to end-users?

80. No, the continued declaration will not change Telstra's incentives to utilise only the above voice frequencies for the provision of ADSL.

What impediments do access seekers face in migrating from LSS to ULLS services?

81. There are a number of impediments to an access seeker considering a migration from an LSS to a ULLS, including:
- whether the end-user is being supplied with a voice service from Telstra (or a Telstra reseller) and wishes to retain that service;
 - the availability of additional copper to provide access to the end-user. If the customer would like to retain their telephony service with Telstra and there is no spare copper pair available to an end-user's premises, the access seeker could not migrate the customer to ULLS;
 - costs, given that the ULLS is more expensive;
 - that there is no process available for such a migration. AAPT note that development of such a process could be quite complex, involving, among other things, co-ordination of activities required to be carried out at the end-user premises (e.g. installation of certain customer premises equipment) and the porting of the geographic number from Telstra to the access seeker; and
 - that a migration is unlikely to occur without disruption to end-user services.

¹⁵ Telecommunications Legislation Amendment (Competition and Consumer Issues) Bill 2005 Explanatory Memorandum, p24.

¹⁶ <http://www.iinet.com.au/about/timeline.html>, 14 May 2007.

How would declaration of the LSS affect the plans of the access provider to invest in maintenance, improvement and expansion of its local loop infrastructure?

82. Assuming the application of the Commission's usual pricing principles (TSLRIC), there should be no impact.

If the LSS declaration is removed, what options does an access seeker that elects to take the ULLS have in terms of the provision of voice services?

83. An access seeker acquiring the ULLS can provide voice services in one of two principle ways. The first is to replicate what happens with the Telstra network and use the voice frequencies to provide an analogue voice service, and the second is to provide a voice service over the xDSL component.
84. If the first of these options is pursued, the access seeker needs to either place a voice switch in the exchange beside the DSLAM, which would in all cases be uneconomic, or they can put some kind of multiplexing equipment in that will aggregate the voice channels from that exchange to then take these as voice circuits to the location of the access seeker's voice switch. AAPT believes that there is at least one provider utilising this solution in Australia.
85. If the second option is pursued, the access seeker has two options: voice over DSL and voice over IP. The distinction between the two is that in the former the access line is used to transmit standard digitised voice (akin to the technology used for ISDN) whereas the latter requires the conversion of the voice data into IP packets in the customer's premises. While there are multiple instances in the industry where access seekers are using the ULLS for provision of voice only services in both these modes, these are primarily for provision of services to business customers (where multiple voice services are being provided over one copper pair).
86. The additional cost of providing a voice service in conjunction with a high speed internet service is unlikely to be economically efficient as a substitute for Telstra's existing voice access services in supplying the standard residential household.

In the event that the LSS was not re-declared, would it be commercially feasible for an access seeker to purchase a ULLS line and re-sell a voice service to a third party provider should it not wish to provide voice services?

87. No.

Would this require an access seeker to purchase some form of 'inter-connect cable' service from Telstra, and if so would this likely be a bottleneck service?

88. No. No additional backhaul network would be required.

What costs would be involved in an access seeker provisioning a ULLS line to provide voice services over the 'voice-band' frequency component of the line? What costs would be involved in an access seeker provisioning a ULLS line to provide voice services over the high-bandwidth data component of the line?

89. Neither AAPT nor PowerTel use the voice-band portion of a ULLS service to provide voice services and so neither is able to provide specifics as to the cost of doing so.

What are the technological and price differences (if any) between DSLAMS that used the LSS to supply downstream services and DSLAMS that use the ULLS to supply downstream services?

90. The additional costs involved in using LSS compared to ULLS include costs related to:
- external splitters;
 - additional copper cable infrastructure;

- additional racks and the space required to accommodate the additional racks in each Telstra exchange; and
- additional O&M and installation costs.

In the absence of a LSS declaration, how commercially or legally feasible would it be for access seekers to purchase a ULLS and not provide a voice service? Is the feasibility of this option likely to change over time?

91. This situation already applies in circumstances where the customer's requirements for a data service result in the deployment of a technology that uses the entire band-width (not just the above voice frequencies) (e.g. VHDSL). The value the customer places on the data service must be sufficient for them to be prepared to incur the costs of an additional line dedicated to data services. In general, however, customers are not prepared to pay this cost, so its feasibility is limited.

To what extent (if any) do access seekers that have purchased a ULLS line, re-sell voice services on this line via a third party?

92. AAPT does not do this and we are not aware of any other provider who does.

How would continued declaration of the LSS affect the plans of new or existing entrants to invest in alternative infrastructure, such as that utilising alternative delivery platforms (e.g. wireless), to provide high-speed data services to end-users?

93. AAPT assumes this question refers to technologies that do not use the copper loop in any way. High speed data services using alternative delivery platforms (e.g. wireless) are not direct substitutes for high speed data services using the copper network. Such services provide different access speeds (usually slower) and additional functionality (a degree of portability). As such the absence of the LSS declaration is only likely to have a minor effect on the incentives to invest in alternative infrastructure.

Legitimate commercial interest of the access provider supplying LSS

Would continued declaration of the LSS compromise Telstra's legitimate commercial interests with respect to the price or non-price terms of access?

94. No.

Pricing Principles

In the event that the LSS was re-declared, what impact would including a portion of line costs in the LSS price have on the components of the LTIE test?

95. AAPT has previously accepted that the LSS should bear a component of the network costs. However, the corollary is that the revenues that Telstra makes from ADSL services and the wholesale LSS service need to be included in all other pricing models relating to Telstra's copper network. To date, Telstra has consistently excluded ADSL and even ISDN revenues from these models.

96. Given current pricing arrangements, and for the purpose of the Commission determining pricing principles or arbitrating a dispute, no provision for line costs should be included in the LSS price, as to do so would result in Telstra earning above cost revenues across the totality of its network.

In the event that the LSS is re-declared, should an allocation of line costs be made to the LSS? Specifically:

- (a) which services should be included in the re-balancing (including their relevant 'functional' level)?
- (b) should the resulting LSS charges be geographically de-averaged?
- (c) what type of transition path from the current pricing structure would be reasonable (if any)?

97. See response at paragraphs 96 and 97 above.

If there is an allocation of line costs to the LSS price, what (if any) adjustments should be made to the pricing principles governing the supply of other regulated services? How should these adjustments be implemented?

98. See response at paragraphs 96 and 97 above.

In the event that the LSS was not re-declared, what (if any) adjustments should be made to the pricing principles governing the supply of other regulated services?

99. None, as the existing pricing principles do not reflect any line costs being attributed to the LSS.

Has the take-up of VoIP services had a material impact on Telstra's ability to recover costs of providing a line? If not, over what realistic time period is this likely to have an impact on Telstra's ability to recover costs?

100. See the discussion about the role of VoIP above. AAPT's understanding is that, at this stage, VoIP is proving to be a greater substitute for international and national traffic via phone cards than for international and national traffic using traditional voice services.