Public Policy and Communications

Regulatory Affairs General Manager
Unit 11, Level 2
11 National Court
BARTON ACT 2600 Australia

Telephone 02 6208 0740
Facsimile 02 9218 3836

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Attention: John Bahtsevanoglou
Telecommunications Group
Australian Competition and Consumer Commission
GPO Box 520J
Melbourne VIC 3001

By email: john.bahtsevanoglou@accc.gov.au

Dear Mr Bahtsevanoglou

Response to the ACCC Proposal – "A strategic review of the regulation of fixed network services"

I refer to the proposal initiated by the Australian Competition and Consumer Commission in December 2005 on the future regulation of fixed network services. Telstra agrees with the Commission that now is an appropriate time to have a broad ranging inquiry into the full set of regulated services that afford access to the copper based fixed network. In fact, it is urgent and long overdue.

The telecommunications industry is today facing a vastly different competitive environment. Technology has changed. Consumer preferences have changed. Competition has changed. The structure of the telecommunications market has changed. But regulation has not changed. In fact, by every measure, regulation has expanded and become more intrusive than when they were introduced as "transitional" regulations almost a decade ago.

In light of the significant market growth and rollout of competitor infrastructure since 1997, characterising Telstra's entire customer access network as bottleneck infrastructure is simply flawed and unworkable. The regulatory regime must now be updated and simplified to remove complexity and address only the remaining true bottlenecks. In particular, as identified in Telstra's submission, to ensure that effective regulation only occurs in "bottleneck hotspots" the following actions are required:

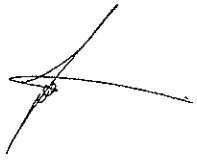
- first, the Commission should immediately undertake a detailed audit of the extent to which Telstra's customer access network remains a bottleneck;
- second, the Commission should deregulate in those areas that are not a bottleneck;
- third, the Commission should rationalise regulation in the bottleneck hotspot areas to encourage efficient infrastructure investment.

The complex web which now encompasses the fixed access network requires substantial deregulation. A complex and stultifying regulatory regime will jeopardise Australia's global competitiveness and continued development of telecommunications services. This certainly cannot be in the long term interests of end users. Telstra's **attached** proposal will aid in developing a targeted, streamlined regime that will facilitate the investment that provides the services Australian businesses and households demand.

Telstra Corporation Limited
ABN 33 051 775 556

Telstra looks forward to engaging further with the Commission to explore the proposal set out in this submission.

Yours sincerely



Tony Warren
General Manager Regulatory Affairs
Telstra Corporation Limited

TELSTRA CORPORATION LIMITED

Submission to the Australian Competition and Consumer Commission

Response to the ACCC Proposal – "A strategic review of the regulation of fixed network services"

February 2006

1. Executive Summary

Technology has changed. Consumer preferences have changed. Competition has changed. The structure of the telecommunications market has changed. But regulation has not changed. In fact, by every measure, regulation has expanded (see Table 1). There are now more regulations that are more punitive, more complex, and more intrusive than in 1997 - when they were first introduced as "transitional" regulations.

This paper is a response to a proposal by the Australian Competition and Consumer Commission entitled "A Strategic Review of the Regulation of Fixed Network Services" (the "**ACCC Proposal**"). Telstra agrees with the Commission that now is an appropriate time to have a broad ranging inquiry into the full set of regulated services that afford access to the copper based fixed network. In fact, it is urgent and long overdue.

In this paper Telstra highlights how the current regime, introduced in 1997 as a transitional regime, has grown in complexity, caused confusion, denied choices to consumers, and has discouraged investment and innovation.

There are now multiple regulated services, priced in various and often inconsistent ways all designed to do exactly the same thing – provide access to Telstra's customer access network. This approach to regulation discourages investment in infrastructure by all players. It is relegating Australia to second tier status. Such complexity is unnecessary. Access regulation can be greatly simplified and still achieve the core objective for which it was introduced – providing competitors with access to bottleneck infrastructure.

The extent of Telstra's bottleneck has greatly diminished in large parts of Australia (see the maps in Attachment A). Almost 100% of the Australian population have access to a wireless alternative to the incumbent fixed network. Almost half of Australian households will soon access a broadband connection. But more importantly perhaps, **by the end of this financial year, well over half of Australian households will have access to an alternative fixed access network**. In such a world the complex, multilayered and highly intrusive regulatory regime detailed above can no longer be justified.

Simply assuming the whole country is a bottleneck is clearly no longer plausible or defensible. It denies the existence of competition provided by substantial alternative infrastructure in many parts of Australia. Where bottlenecks have been eliminated, regulation clearly needs to be wound back, with transitional arrangements for existing wholesale customers.

In those parts of Australia where the customer access network still has "**bottleneck hotspots**", a role for continued regulation is clearly justified. But even in these areas, regulation must be simplified and streamlined – harmonised with the central themes of the *Trade Practices Act*. There is no good reason why there should be so many different access products for one bottleneck. There is definitely no good reason for further complicating the access regime by adding to the suite of fixed access declarations as mooted in the ACCC Proposal.

Telstra proposes that the Commission adopt a more targeted, simple and objective approach to access regulation which would reduce regime complexity and would ensure that only the remaining true bottlenecks are subject to regulated competitor access.

To ensure that effective regulation only occurs in these "**bottleneck hotspots**" the following actions are required[1]:

- first, the Commission should immediately **undertake a detailed audit** of the extent to which Telstra's customer access network remains a bottleneck;
- second, the Commission should **deregulate in those areas that are not a bottleneck**;
- third, the Commission should **rationalise regulation in the bottleneck hotspot areas** to encourage efficient infrastructure investment.

Without a clear, simple and coherent regulatory framework which includes substantial deregulation of the complex web which now encompasses the fixed access network, there is a real risk of Australia lagging behind the rest of the world in continued development of telecommunications services. A complex and stultifying regulatory regime cannot be in the long term interests of end users. A targeted, streamlined regime will facilitate the investment that provides the services Australian businesses and households demand.

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1 At page 28 of the ACCC Proposal, the Commission has called for the:
"development of a more formalised framework for forbearance... Such a framework could allow for the orderly withdrawal of regulation where it is no longer required. Any such withdrawal can also be considered prior to the ordinary expiry date of the declaration of a service, should market circumstances justify regulatory relief."

Table 1 – Changes since 1997 when current regulation was introduced

	1997	2006
Competitors	2-3 carriers Overall, Telstra's market share has declined by about 2% per annum since 1997.	153 carriers[2] 1,135 carriage service providers[3] 763 Internet service providers[4]
Broadband Services[5]	122,800	2,593,600 Plus broadband take-up has increased by 108.4 % in the year 04-05[6]
Wireless Broadband Services[7]	0	40,800
Mobile Carriers	3 major mobile network carriers operating 3 networks[8]	4 major mobile network carriers operating 6 networks, and almost 90 resellers in the Australian market[9]
Mobile Subscribers[10]	8 million 42% penetration	18.4 million 90% penetration
Text & Data Applications[11]	SMS: 1,916 million MMS: 0	SMS : 6,736 million MMS: 49.8 million
VoIP Providers[12]	0	43 consumer VoIP providers 19 IP centric provider
Prices[13]	In real terms the average price paid by consumers for PSTN and mobile telecommunications has fallen by 21% since 1997	
Pages of regulation	1,602	10,013

2 ACMA website, http://www.acma.gov.au/ACMAINTER.131174:STANDARD:1506303498:pc=PC_1625

3 ACMA, *Telecommunications Reports 2004-05*, at page 103.

4 ACMA, *Telecommunications Reports 2004-05*, at page 103.

5 ACCC, *Snapshot of broadband deployment*, 30 Sep 05.

6 ACMA, *Telecommunications Reports 2004-05*, at page 103.

7 ACCC, *Snapshot of broadband deployment*, 30 Sep 05

8 Telstra (GSM, 1993); Optus (GSM, 1993); and Vodafone (GSM, 1993)

9 ACMA, *Telecommunications Reports 2004-05*, at page 78. Telstra (GSM, CDMA); Optus (GSM); Vodafone (GSM); Hutchison (CDMA-Orange, WCDMA-3).

10 ACMA, *Telecommunications Reports 2004-05*, at page 70.

11 ACMA, *Telecommunications Reports 2004-05*, at page 80.

12 Telsyte Industry Profile, VoIP - *Consumer Information and Regulatory Participation*, December 2005.

13 ACCC, *Telecommunications Reports 2003-04*, Report 2, at page 75.

2. A complex, costly and confusing regulatory environment

Current regulation of Telstra's fixed access network is unduly complex. This is highlighted by the ACCC Proposal itself. For the Commission to outline the regime, 79 pages were required with over 80 questions being asked.

The current regime was designed for the market as it was 10 years ago - a time when the technologies which now allow for alternative infrastructure based competition simply did not exist.

Over the years as technology has developed, the application of the current regime has resulted in layer upon layer of access methodologies all designed to give competitors access to essentially the same thing – Telstra's fixed access network. We have:

- Domestic PSTN Originating access;
- Domestic PSTN Terminating access;
- Digital Data Access service;
- the Conditioned Local Loop service;
- the Integrated Service Digital Network Terminating Service;
- the Integrated Service Digital Network Originating Service;
- the Local Carriage Service;
- the Local PSTN Originating Service;
- the Local PSTN Terminating Service;
- the Unconditioned Local Loop Service; and
- the Line Sharing Service.

Over and above these fixed access declarations we have:

- the Domestic Transmission Capacity Service;
- Mobile Terminating Access; and
- the Analogue Subscription Television Broadcast Carriage Service (expiring in July 2007).

In addition, the Commission has used its powers under Part XIB to control the pricing of wholesale ADSL, even though technically it is not a "declared service".

A consequence of all these interventions is that competitors can supply a simple local call service, including local VoIP calls, to customers using Telstra's wholesale ADSL service together with seven, yes seven, different declared services – ULL, the line sharing service, the local call service and PSTN/ISDN originating/terminating access.

In comparison, all other regulated industries in Australia, such as gas, water, electricity, ports and rail have a much narrower set of declarations. Ironically, unlike telecommunications, these services actually are natural monopolies facing no real threat of infrastructure competition, and not subject to continual innovation and technological advancement.

Each of the regulated services that give access to Telstra's fixed access network has a different pricing structure (see the Table 2 below).

Table 2 – Access services and differing pricing structures

	Pricing Methodology	Averaged or de-averaged prices	Pricing unit	Alternate Services	Retail equivalent subject to price control
Local Call Resale	Retail Minus	Averaged	Per call	PSTN OTA, ULL	Yes
ULL	TSLRIC	De-averaged[14]	Per line	PSTN OTA, SSS, LCS, BA Resale	Yes
PSTN OTA	TSLRIC	De-averaged	Per minute	SSS, LCS, ULL	Yes
Basic Access Resale	Retail prices	Averaged	Per service	ULL	Yes
Wholesale ADSL	Part XIB impact – essentially retail minus	Averaged	Per service	SSS, ULL	No

This mess creates arbitrage opportunities between the various access mechanisms. For example, competitors can use timed/de-averaged PSTN OTA[15] to provide short local calls to business customers; while using untimed LCS[16] to provide long local calls to residential customers. Similarly, competitors can use de-averaged ULL to provide basic access and broadband in metro areas and averaged LCS and ADSL resale to provide such services in regional areas. The regulatory regime provides competitors with the lowest cost options; requiring Telstra's shareholders to pick up the tab[17].

Compare this to all the other regulated industries in Australia who now have much greater legislative protections around regulated pricing. On 10 February 2006, the Council of

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14 Telstra has lodged averaged undertakings but these are yet to be accepted by the ACCC

15 Originating and terminating access.

16 Local Call Service (resale of a local call and a basic access service).

17 The Government also uses retail price controls as a social policy tool. This brings a conflicting set of objectives which, through objective and implementation, increasingly distort market outcomes. The recent debate in respect of ULL averaging highlights these issues.

Australian Government agreed that all access regimes (with the very notable exception of telecommunications) would include the following principle:

> *Regulated access prices should be set so as to... generate revenue from a regulated service or services that is at least sufficient to meet the efficient* ***costs of providing access*** *to the regulated service or services* ***and*** *include a* ***return on investment*** *commensurate with the regulatory and commercial* ***risks involved.***[18]

Recent reforms to national regulation of the electricity industry afford investors even greater protections. A new policy body (the AEMC) sets the regulatory rules. The regulator (the AER) must comply with those rules when determining regulated prices. By separating the policy and regulatory processes the electricity market is unlikely to see the kind of inconsistent pricing approaches that plague telecommunications.

In short, there are now multiple different regulated services, priced in various and often inconsistent ways all designed to do exactly the same thing – provide access to Telstra's customer access network. It is distorting the market, undermining investment incentives. Such complexity is unnecessary. Access regulation can be greatly simplified and still achieve the core objective for which it was introduced.

3. A changed industry structure

The ACCC Proposal rightly notes that the telecommunications industry in undergoing significant technological change.[19] The Commission provides examples such as fixed and mobile wireless networks being "increasingly capable of offering a full array of more advanced services to retail customers without needing access to the PSTN or traditional fixed network"[20]. It notes that "advances in both fibre and HFC networks over the next few years will also provide an alternative to the traditional copper CAN based network".[21]

Many of these technologies are with us now: mobile telephony, HFC, fibre, high speed DSLAMs using ULL, wireless broadband and VoIP. Many will be further developed as viable alternative technologies over the timeframe the ACCC Proposal seeks to cover. They include

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18 National Competition Policy Review, Competition and Infrastructure Reform Agreement, 10 February 2006 (emphasis added).

19 ACCC Proposal, page 7.

20 ACCC Proposal, page 9.

21 ACCC Proposal, Page 8.

3G/4G; WiMax[22], Power wireline[23] and Ultrawideband. Telstra anticipates that full market entry of these services will occur in the 2007/08 year.

As at 30 September 2005, total broadband take-up totalled 2,593,600 subscribers, a 98% increase from the September 2004 figure of 1,311,100.[24] Approximately 60% of these customers were with a service provider other than Telstra. Moreover, this included 40,800 wireless broadband services in operation [25] with additional broadband wireless networks in development or being rolled out in metropolitan, regional, rural and remote areas. At least 26 of the 40 new carrier licences issued in 2004–05 were to carriers proposing to deploy broadband wireless access technologies.[26] The number of broadband subscribers is forecast to grow by 55% in 2006[27]. If this holds, it would see **broadband taken up by 4 million subscribers, almost 50% of Australian households**.

With increased broadband penetration, VoIP services are now poised to become important substitutive technologies in the Australian market. There were 43 consumer VoIP providers as at June 2005 and 19 IP centric providers as at April 2005.[28] The experience in France is illustrative:

> *"Last year France Telecom predicted that the proportion of VoIP (voice over internet protocol) telephony would rise to about 15 per cent of residential traffic by the end of 2005. But it said yesterday [12/01/06] that take-up was accelerating and would reach 40 per cent by the end of this year".*[29]

Mobile services are also substitutes for traditional fixed line services, with mobile penetration in Australia at 95 per cent of the population, and expected to approach 100% early next year.[30] There are now four major mobile network carriers with almost 90 resellers operating during 2004–05.[31] Mobile subscribers increased by 12 per cent to 18.4 million at 30 June 2005,

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22 Unwired expects to introduce WiMax on its existing network in 2007 (Unwired, 12 December 2005).

23 A number of Australian utilities are investigating this technology with at least 2 commencing trials – most prominently Aurora Energy in Tasmania that commenced a nine month commercial trail of its services in September 2005 and is reported to be "*very pleased with how it is going*" (Znet.com.au, 23 January 2006 – Powerline broadband trial pleases utility).

24 ACCC, *Snapshot of broadband deployment*, 30 Sep 05.

25 ACCC, *Snapshot of broadband deployment*, 30 Sep 05.

26 ACMA, *Telecommunications Performance Report*, 2004-2005, pg 2.

27 Citigroup Global Markets Equity Research, More Pain before Gain in 2006, 20 January 2006, pg 11.

28 Telsyte Industry Profile, *VoIP - Consumer Information and Regulatory Participation*, December 2005.

29 Tom Braithwaite in Paris, FT.com site: Popularity of broadband hits France Telecom, 13 January 2006.

30 Citigroup Global Markets Equity Research, More Pain before Gain in 2006, 20 January 2006, pg 11.

31 ACMA, Telecommunications Performance Report, 2004-2005, pg 79.

with a 12 per cent increase in call volumes over the 12 months to 31 March 2005.[32] Approximately 6.7 billion short message service (SMS) messages were sent in 2004–05, an increase of 33 per cent from 2003–04. Multimedia messaging service (MMS) take-up has also increased with 49.8 million sent in 2004–05, up from 13.7 million in the previous year. Laptop computers with embedded SIM cards that connect to Vodafone's 3G network will hit the Australian market in the next few months. This technology promises broadband speeds of up to 2Mbps.[33]

Significant market changes are also occurring in the rollout of alternate fixed access networks. It has been recently reported that Optus is moving its DSL resale base onto ULL.[34] Optus' chief executive is quoted as saying[35]:

> *"By the time the first phase of the [ULL] roll-out is complete in March [2006] we will lift our addressable market from about 1.2 million homes to over 4 million homes, which is over half the Australian market."*

Attachment A shows the extent of competitor infrastructure coverage in the major metropolitan areas of Australia as at September 2005. SingTel Optus' HFC network provides it with access to 69% of customers in Sydney, 75% of customers in Melbourne and 51% of customers in Brisbane. But taking the ULL and spectrum sharing based networks into account, as at September 2005 Telstra competitors had substantial amounts of alternative fixed line infrastructure in place. See Table 3 below.

Table 3: Number of Telstra lines reached by competitor infrastructure

City	Number of Telstra lines	Percentage of lines reached by competitors
Sydney	1.6 million	84 %
Melbourne	1.2 million	82%
Brisbane	0.6 million	67%
Adelaide	0.5 million	83%
Perth	0.6 million	92%
Canberra	0.14 million	72%

32 ACMA, *Telecommunications Performance Report*, 2004-2005, pg 3.

33 The Australian, 1 February 2006.

34 The Australian, 18 January 2006.

35 The Australian, 18 January 2006.

The following table (marked as Fig 2) from a November 2005 Macquarie Research report shows the roll out plans by a significant number of competitors. These plans mean the information in Table 3 and the maps in Attachment A underestimate the extent of competitive overbuild and will increasingly do so with every passing month as the roll-out of competitor infrastructure continues at pace.

Fig 2: Update on DSLAM roll outs

Name	Exchanges	Description	Speeds
Optus	100 Exch planned by June 2006 Further 240 exchanges planned	Optus is the second largest telecoms carrier in Australia and has over 800k dial-up subscribers, 162k DSL subscribers and over 1.3m voice resale customers. The company recently announced plans to launch a DSLAM network which will cover 100 exchanges by April 2006 and 340 exchanges once completely rolled out.	20 Mbps
iiNet	102 Exch - active 77 Excg - build 36 Exch - planned	iiNet was one of the first ISPs which committed to rolling out a DSLAM network. While the company was predominantly a WA based ISP, following the acquisition of OzEmail, it is now a national player. iiNet has the largest DSLAM footprint.	12 - 24 Mbps
Primus	134 Exch – active 111 Exch - planned	Primus has over 115k broadband customers and is currently rolling out a DSLAM network. The company has already started to port customers across to ULL and had 40k customers on ULL as at September 2006.	12 – 24 Mbps
Adam Internet	24 Exch	Adam Internet is a South Australian based ISP with revenues of ~$10mpa. The company is spending $10m installing DSLAMs in 24 South Australian exchanges. Adam Internet has also signed an agreement with utility services company ETSA for backhaul (virtually bypassing Telstra). Adam internet also provides other ISPs wholesale access to its DSLAMs.	12 – 24 Mbps
Internode	25 Exch - active 18 Exch - in build 15 Excg - planned	Internode is a South Australian based ISP which has started rolling out DSLAMs in selected exchanges in SA. Since then, Internode has seen significant growth and expanded its DSLAM foot print substantially.	12 – 24 Mbps
TNS Internet	4 Exch - active 8 Exch - build 6 Exch - planned	TNS Internet is a regional ISP based out of Port Macquarie. TNS mainly looks at rolling outs DSLAM infrastructure across regional exchanges via seeking the HiBIS subsidy. TNS states that it needs 30 HiBIS customers to make a DSLAM economic (vs 200 standard customers).	12 - 24 Mbps
Onthenet	7 Exch - active More planned	Onthenet is a niche Queensland based ISP. The company has been rolling out DSLAMs on a selective basis across Goldcoast and surrounding regions.	12 - 24 Mbps
Netspace	2 Exch - active	Netspace has deployed 2 DSLAMs on a trial basis in Victoria. It is currently assessing whether to invest in a larger DSLAM rollout.	na
TPG	Unknown	TPG is one of the largest ISPs in Australia with an estimated broadband subscriber base of over 100k. We understand that following TPG's inability to re-sign wholesale broadband rates with volume discounts with Telstra, they are investigating the roll out of their own DSL infrastructure.	na

Source: Macquarie Research, November 2005

In summary, almost 100% of the Australian population have access to a mobile alternative to the incumbent fixed network. Almost half of Australian households will soon access a broadband connection. But more importantly perhaps, **by the end of this financial year, well over half of Australian households will have access to an alternative fixed access network.**

These market changes have occurred despite the regulatory settings which have, however, distorted investment. It is important to note that most new investment is occurring in relatively unregulated mobiles markets; involves piggy-backing on Telstra's regulated infrastructure (i.e. using the ULLS and LSS services, because the regulatory environment specifically encourages this); and/or involves cherry-picking, in that it is concentrated in

urban areas. The real question is whether the investment required for sustainable competition can be expected to continue under the current complex, multilayered and highly intrusive regulatory regime.

4. A proposal for future regulation

Telstra proposes that the Commission adopt a more targeted, simple and approach to access regulation which would reduce regime complexity and would ensure that only true bottlenecks are subject to regulated competitor access.

In the ACCC Proposal, the Commission highlights the fact that this extensive and complex regime is at its core simply about giving competitors access to the Telstra customer access network where it is a bottleneck:

> *"The Commission recognises that the defining rationale for declaration of these services centres on the ubiquitous, bottleneck nature of the customer access network (CAN). It has been the Commission's view since the 1999 local services inquiry that what competitors have traditionally required access to in order to compete effectively in a range of markets is the CAN. A key issue in this inquiry, therefore, is to look at the enduring or sustainable nature of this bottleneck."*[36]

The Commission has further pointed out that the CAN is not necessarily an enduring or sustainable bottleneck:

> *"As well, while there should be no preconception that the existing declarations are sacrosanct, given the current state of emerging competition in the market and the traditionally enduring nature of the CAN bottleneck, the key issues of contention are more likely to be around the extent to which and the rapidity with which this bottleneck is dissipating."*[37]

It has also noted that Telstra recognises that the existing CAN bottleneck still persists "to a certain extent."[38]

The real challenge for the Commission, therefore, is to regulate Telstra's copper based fixed access network only to the extent that it is a bottleneck or more precisely only in those areas where it remains a bottleneck – the "**bottleneck hotspots**". This is consistent with the intent

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36 ACCC Proposal, page 1

37 ACCC Proposal, Page 2

38 ACCC Proposal, footnote 1, page 2

of the legislation, which was not designed to impose regulated access where existing market conditions already provide for the competitive supply of services.[39] The legislative criteria are open-ended and discretionary – they recognise that telecommunications is an evolving market driven by technological change. The Commission's approach in implementing the legislation needs to evolve with changing market conditions – in this case the emergence of infrastructure based competition.

A bottleneck occurs where there ***are no alternatives*** to a facility and ***no alternatives could be economically developed*** such that through ownership of the facility the facility owner is able to reduce, distort, harm or hinder competition in some other market.[40] The discussion in section 3 above and the maps in Attachment A show that in many parts of Australia Telstra's copper based fixed network is currently subject to substantial infrastructure based competition which is increasing over time. The copper based fixed access network is simply **not a nationwide bottleneck**. Regulation must recognise this and move with the times.

To ensure that effective regulation only occurs in the bottleneck hotspots the following actions are required[41]:

- first, the Commission should immediately **undertake a detailed audit** of the extent to which Telstra's customer access network remains a bottleneck;
- second, the Commission should **deregulate in those areas that are not a bottleneck**;
- third, the Commission should **rationalise regulation in the bottleneck hotspot areas** to encourage efficient infrastructure investment.

An audit of the bottleneck hotspots

Clearly there are parts of Australia where competitors are not bothering to invest in Australia's future and Telstra remains the only choice. In these bottleneck hotspots, Telstra accepts that regulation of its copper network continues to be necessary. But in those parts of Australia where there is substantial competition, regulation must be diminished, with clear

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39 Explanatory Memorandum to the Trade Practices Amendment (Telecommunications) Act 1997 (Cth):
"It is not intended that the access regime embodied in this Part impose regulated access where existing market conditions already provide for he competitive supply of services. In considering whether a thing will promote competition, consideration will need to be given to the existing levels of competition in the market to which the thing relates."

40 NECG, "The "uneconomic to develop" criterion after Duke", 9 August 2001, page 27. See also: Pitofsky, R. 'The essential facilities doctrine under United States antitrust law', accessed on 13/2/06 at http://www.ftc.gov/os/comments/intelpropertycomments/pitofskyrobert.pdf , p. 6.

41 At page 28 of the ACCC Proposal, the Commission has called for the:
"development of a more formalised framework for forbearance... Such a framework could allow for the orderly withdrawal of regulation where it is no longer required. Any such withdrawal can also be considered prior to the ordinary expiry date of the declaration of a service, should market circumstances justify regulatory relief."

transitional arrangements for existing wholesale customers. **Assuming the whole country is a bottleneck is factually wrong and no longer appropriate.**

Telstra is proposing that the Commission sponsor a detailed independent audit to ascertain where Telstra's copper based fixed access network remains a bottleneck. It is appropriate that this analysis be conducted on a local exchange area by local exchange area basis. Doing so guarantees a detailed itemisation of competitor infrastructure – thus leaving little room for error.

After the audit, a decision needs to be made on which areas are not a bottleneck and which remain bottleneck hotspots. A bottleneck requires no alternatives or no alternatives that could be economically developed. Alternatively the Commission could adopt a conservative approach which would remove regulation only ***after*** alternatives are developed or are in the process of being developed. Such an approach only applies one limb of the bottleneck test but has the benefit of being based on clear and objective rules.

In considering the range of alternative infrastructures to Telstra's copper access network, there exist both fixed line access networks and alternative access technologies. In Telstra's view, the existence in a local exchange area of either: at least one competitor that has established or is in the process of establishing a fixed alternative such as ULL based DSLAMs, HFC cable or a fibre based network; or at least one alternative wireless network, suggests that in certain areas the customer access bottleneck does not exist.[42]

Wireless access technologies should be included in these criteria – they represent existing substitutes in a number of key geographic areas. Telstra believes the Commission should also consider the extent to which existing 3G and in the future 4G networks (for example, Unwired's and iBurst's networks), will further increase competition in the customer access network.[43]

Using the local exchange area follows the principles of market definition that traditionally starts with the narrowest possible markets. This is consistent with market realities where

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42 Once an entrant has sunk the required investments for entry more intense competition may be induced. The entrant is more committed to the market after it has incurred investments in its own infrastructure, and its lower variable costs (compared to those that would characterise a resale-based competitor) will provide an incentive for it to expand its output more aggressively: the greater the investment and the lower the variable costs, the more aggressive the entry. Moreover, such an entrant is likely to seek to offer multiple services over its network platform and will seek to achieve a high penetration of these services. As a result, where "network on network" competition is concerned, a very small number of supplies may be sufficient to generate competitive tension.

43 At that point it would become appropriate to review the use of the local exchange area in the bottleneck assessment.

some areas have high levels of competition and are effectively competitive, even in regional areas; while other areas, even urban areas, have little or no competitive overbuild.[44]

Telstra does not foresee any significant practical issues with the conduct of such an audit. The Commission clearly has the ability to require all industry participants to furnish the information necessary to conduct the audit via its Record-Keeping Rule (RKR) powers.

Deregulation in those areas that are no longer a bottleneck

The above methodology inherently assumes that ULL would remain available to competitors to develop alternative infrastructure[45] Telstra is also assuming that terminating access would continue to be available.[46] Competitors would also have access to transmission services where alternatives are not yet available.

Where competitive entry is enabled by other means, the requirement for ULL to remain a declared service should itself fall away. This is recognised by the ACCC Proposal[47]. In this regard, the continued declaration of ULL in CBD areas is now clearly inappropriate. The following table shows the number of optical fibre networks in each major CBD area (including Telstra's).[48] As early as 2002, the ACCC had calculated that 45% of buildings in CBD areas were accessible by infrastructure other than Telstra's. In the four years since, Telstra expects this to have increased.

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44 Telstra has considered the potential to aggregate exchange areas. An aggregation on the basis of ULL bands 1 to 4 is at a level that is arbitrary and not reflective of varying levels of competitive activity within each band. ULL bands are national and using such an approach cannot capture the geographic variations of competitive entry in different areas across the country. Another potential way to aggregate exchange areas is in relation to those exchange areas where competitors face similar dynamics to market entry such as customer densities and cost. However, this would require a subjective analysis of those characteristics. It is likely that those characteristics would vary depending on the identity of the competitor. An aggregation of exchange areas using subjective means is at odds with delivering a regime based on objective criteria. In the end, the inability for there to be demand side substitution between exchange areas argues against an aggregation.

45 Many of the issues in respect of the distorting effects of regulation will continue if the ULL service is not priced to reflect the cost of providing the service reflective of Telstra's social policy obligations to rural and regional Australia (see Telstra's submission in support of the ULLS monthly charges undertaking dated 23 December 2005: http://www.accc.gov.au/content/item.phtml?itemId=723020&nodeId=file43dd7cd675114&fn=Telstra's%20submission%20supporting%202005%20ULLS%20undertaking%E2%80%94main%20submission.pdf.)

46 See pages 131 to 135 of the Commission's June 2004 Final Decision on the Mobile Terminating Access Service, part of its Mobile Services Review that canvasses arguments as to whether or not a terminating access service is required to be declared to promote any-to-any connectivity.

47 At page 47:
"...one of the potential benefits of the ULLS is the possibility that access-seekers will use this service as a stepping stone to full facilities-based competition in the future, where it is feasible to roll-out duplicative copper or other cable directly to customers or the use of other access technologies."

48 2002 and 2004 Telecommunications Infrastructure in Australia, reports produced by the ACCC.

Table 4 – Number of optical fibre networks in CBD areas as at 2002 and 2004.

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Canberra	Hobart	Darwin
2002	10	9	6	5	7	5	1	3
2004	9	11	7	7	8	5	3	3

Therefore, Telstra's proposal would mean that in those areas where there are no bottlenecks, competition would occur between infrastructure providers (with ULL outside of CBD areas initially being one form of infrastructure competition). Once an area is recognised as a non-bottleneck area, the forced provision on regulated terms of originating access and local call resale (also ISDN access and DDAS in rural and regional areas) would not be required[49] for new end users.

The ongoing provision of services on regulated terms to competitors for existing end user customers would be grandfathered for a transitional period, at the end of which Telstra would be able to deal with access seekers on commercial terms. This transition path would avoid unnecessary disruption to competitors and end customers, while ensuring the benefits of more streamlined regulation.

Rationalising regulation in bottleneck hotspots

There is no good reason why there should be so many different access products for one bottleneck. Further, there is definitely no good reason for further complicating the access arrangements by adding to the suite of fixed access declarations as mooted in the ACCC Proposal.

Consequently, Telstra urges the Commission to extend the process of deregulation even to the bottleneck hotspots where appropriate. To begin with the Commission should immediately revoke the Local PSTN Originating and Terminating and the Conditioned Local Loop declarations. There is currently no demand for these services (none are currently supplied and there has been very little interest in them in the past).

More broadly the Commission needs to make a call on what service competitors can obtain to access the bottleneck hotspots – is it a resale product or is it an unbundled product. Telstra

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[49] At page 28 of the ACCC Proposal, the Commission endorses this approach:
"As and where facilities-based competition does develop, the Commission is inclined to progressively withdraw from the regulation of services no longer required to promote the LTIE, in favour of unregulated competition. ...Similarly, to the extent that ULLS-based competition gains a significant foothold, the need for resale based local service (line-rental and local calls) regulation is much diminished."

can see **no justification for the current smorgasbord approach where every possible mode of access (and price) appears to be catered for.**

5. What about the stepping stone model?

The excuse commonly given for the profusion of declarations is often labelled "the stepping stone model". The idea is that regulators provide different points of entry for competitors from pure resale options through to stripped down network elements. The theory is that competitors will enter the market using resale and then gradually move to ever more simple services as they develop their own networks. This process is facilitated by the regulator carefully setting prices at each level to ensure the right build buy signals are sent. Table 2 above, itemises the plethora of declared services and the varying pricing methodologies. Such precision "fine tuning" is a big ask in the circumstances and clearly does not happen in practice.

The Commission itself notes the evidence that the stepping stone model works in practice is not strong.

> *"The Commission considers that while the stepping stone approach has probably not significantly promoted facilities based competition to the extent and within the timeframe originally envisaged, it is difficult to draw any firm conclusions on its performance in isolation of other factors in this regard."*[50]

In practice, the stepping stone model has been a failure and is being wound back around the world. Instead of a smooth transition from resale to facilities-based competition, regulators have found that competitors quickly find th e access option that gives them the greatest margin and then build their businesses around that. This problem becomes particularly acute when access prices are set below cost.[51]

In response, regulators started tilting the playing field ever more firmly towards half-way house options such as ULL. This in turn resulted in a stalling of investment in real alternative facilities. Around the world we have witnessed the perverse effect of new entrants mothballing their own investments and cheap-riding on the incumbent's network because the regulator has set particularly low access prices. In the United States, competitor (or CLEC)

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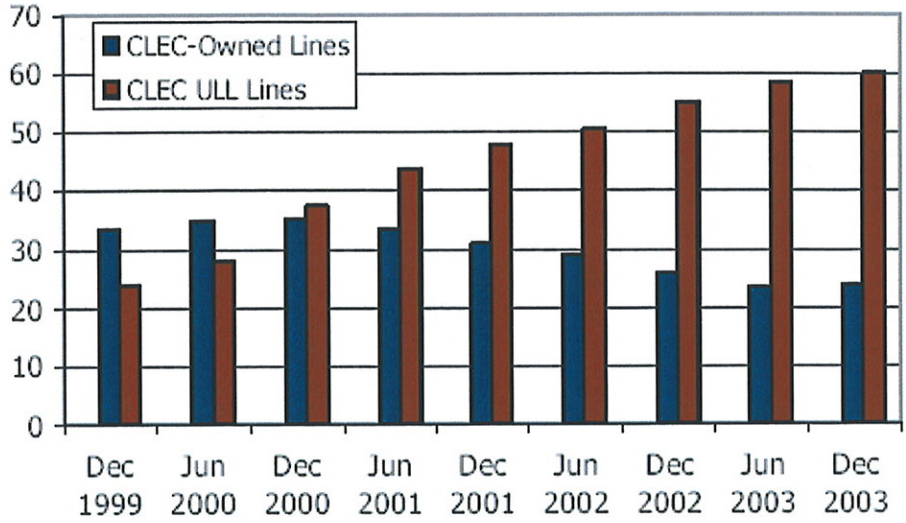
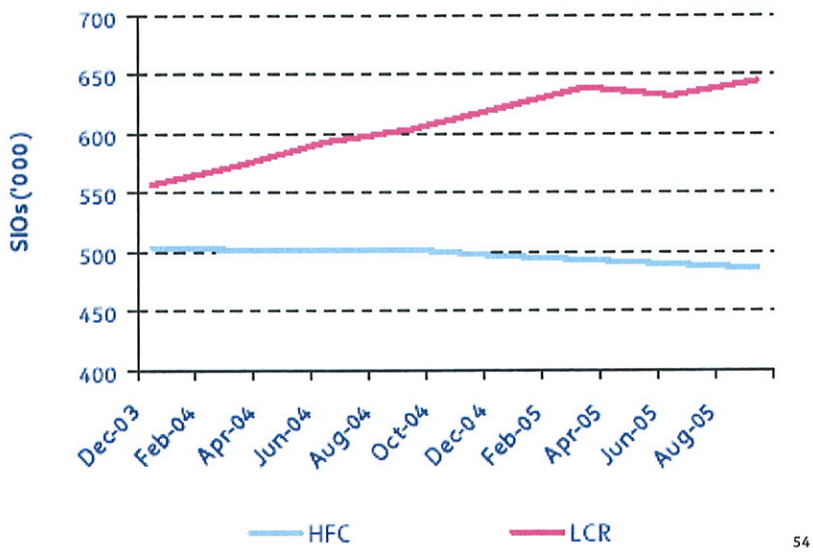
50 Page 27.

51 Broad availability of network elements at prices below their true cost can distort the typical entrant's investment decisions and cause it to lease the incumbent facilities rather than invest in its own technology. This can lead to an adverse effect on the variety of innovative services that are available to consumers. Regulation should not artificially promote or distort one form of competition based on access to incumbent facilities over facilities-based competition. Avoiding such distortion leads to the correct entry and investment signals being sent to new entrants. (See Mark Armstrong and David E.M. Sappington, "Regulation, Competition and Liberation", Mimeo, 2004, pages 19 and 34.)

investment in their own networks stalled when they got cheap prices for unbundled network elements set in the late 1990s (see graph below[52]).



A similar pattern can be seen in Australia. The graph below illustrates that since December 2003, SingTel Optus has increased its resale customer base by 86,000 while reducing its HFC direct connect customers by 19,000. A review of SingTel Optus' public statements indicates that over the past few years SingTel Optus has made no significant further investment in its HFC network (if any) yet is planning a $150 million residential DSL network rollout using ULLS.[53]



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52 Cap Analysis, presented by Jeffery Eisenach at Telstra's Regulatory Briefing, 1 December 2005.

53 http://www.optus.com.au/portal/site/aboutoptus/menuitem.813c6f701cee5a14f0419f108c8ac7a0/?vgnextoid=ea8292d718776010VgnVCM10000029867c0aRCRD

54 Sourced from SingTel Quarterly Management Discussion and Analysis

The alternate to the stepping stone model is a regime that actively encourages and incents direct investment in infrastructure rather than reliance on resale. The benefits of infrastructure based competition over resale based competition have been articulated by economist Jerry Hausman on behalf of Optus:

> *"Facilities based competition is much more beneficial to economic efficiency than is resale competition. ... Optus market action of investing hundreds of millions of dollars into its network demonstrates that local telecommunications is not a natural monopoly. Thus, facilities based competition is viable. Facilities based competition creates important dynamic economic efficiencies as carriers compete to lower their costs so they can lower their prices. Carriers also compete to offer new services to consumers which are another important form of dynamic efficiency. To the contrary, resale competition does not cause these dynamic economic efficiencies to occur... Facilities based competition eliminates the need for further regulation because market based competition determines prices and services offered. Thus, I consider resale-only based competition to be largely "artificial" regulatory based competition, while facilities based competition creates actual robust competition with significant gains in economic efficiency."*[55]

The cost of access regulation in terms of the negative and distorting impact on investment needs to be a prime consideration for the Commission. The market must be provided with the right incentives to invest and provide services in an environment where the market determines the winners and losers rather than a regulated construct that rewards those who do not innovate. Australia already lags much of the developed world in access to new technologies such as higher speed broadband services that consumers in other countries increasingly take for granted. These problems are only going to become worse going forward (and be further exacerbated if the scope of access regulation is extended) and the benefits of infrastructure based competition more elusive to Australians unless a clear rethink is had of the methodology being employed to achieve benefits for the long term interests of end users.

6. What about network modernisation & FTTN?

The discussion and the proposals set out above go to the question of how legacy regulation can be improved or, more specifically, how the implementation of Part XIC can be more carefully targeted to just regulating the bottleneck hotspots. The Commission, however, has

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[55] Submission to the Productivity Commission's Inquiry into International Telecommunications Market Regulation, p.15

also canvassed the impact of fibre to the node ("**FTTN**") investments. This is a critical issue for Australia's future development.

What is FTTN?

The current Telstra network can largely be characterised as one where households are connected to some 5500 exchanges by copper pairs and these exchanges are connected to each other in large part by fibre optic cable.

FTTN, as the name suggests, essentially involves taking fibre optic cable further out from the exchange to a node – essentially a street cabinet – and then servicing customers using copper pairs from that node.

Why do FTTN?

Many seem to hold the view that Telstra will roll-out the FTTN network regardless of the regulatory settings. This view is advanced on the basis of one or more of three arguments. First, because FTTN will generate substantial cost savings by replacing major segments of the CAN thereby eliminating major maintenance and repair costs. Second, that somehow FTTN will assist Telstra to stave off the decline in PSTN revenues and that can justify the huge investment costs. Third, that market forces – the competition – will force Telstra to deploy FTTN. Each of these arguments is flawed.

While FTTN undoubtedly would afford Telstra some cost savings, these are insufficient alone to justify the significant investment required. Similarly, neither PSTN retention nor the forces of competition provide sufficient incentives to incur these costs in the current regulatory environment. To be attractive on these grounds, the investment would need to afford an investor the opportunity to differentiate its retail services. Regulated access to an investment would destroy its value as a basis for differentiation, and the risk of this so reduces the expected return on investment as to make it unviable.

Telstra's two reasons for deploying FTTN are as follows.

The first reason is commonly known as **network modernisation**. This is an incremental process, almost line by line, by which the old technology in the network is replaced over time by FTTN and new expanded parts of the network are serviced by FTTN or even fibre all the way to the home. Essentially FTTN is the latest forward looking technology and where network replacement is needed to meet demand or replace aged technology it will be considered as an option for deployment where the economics make sense for Telstra do so in that particular area.

The second reason for deploying FTTN is to improve **available broadband data speeds**. In this way Telstra can generate new revenue streams by providing the new services that those higher data speeds facilitate. Not to protect existing revenues or for cost saving reasons but to find new revenues for Telstra's shareholders from new services, many which do not exist today.

There are significant constraints on the extent to which high speed broadband can be offered to customers served by the existing long copper runs. In very general terms, customers that live within 1.5kms of an exchange building (which houses the necessary electronics known as DSLAMs) can receive broadband speeds of greater than 1.5Mbps. Those customers that live further away from an exchange building can receive broadband speeds up to 1.5Mbps but their ability to receive greater speeds will decrease the further they live from the exchange building. In the urban areas of Australia, approximately 40% of customers live within the 1.5km radius and 60% outside the 1.5km radius.

What FTTN does is bring the electronics much closer to those 60% of the customers that live outside the 1.5km radius. Essentially the DSLAMs are placed in the nodes and from there service the customers with higher speed broadband services.

The first diagram below shows the current situation in Australia where significant FTTN investment has not been undertaken. Those households close to an exchange can receive services with speeds of up to 24Mbps[56] from both Telstra's and competitor infrastructure located within the exchange while those further than 1.5km from an exchange can only receive services with much lower speeds, in some cases only up to 1.5Mbps.

The second diagram shows what would happen if Telstra did invest in FTTN. Those households close to an exchange would have no change. They could co ntinue to receive speeds of up to 24Mbps from both Telstra's and competitor infrastructure located within an exchange. However, those customers further than 1.5 km from an exchange would receive services from a node connecting back to the exchange via fibre either from Telstra's or competitor infrastructure from the node. Those households would now also be able to receive speeds of up to 24Mbps.

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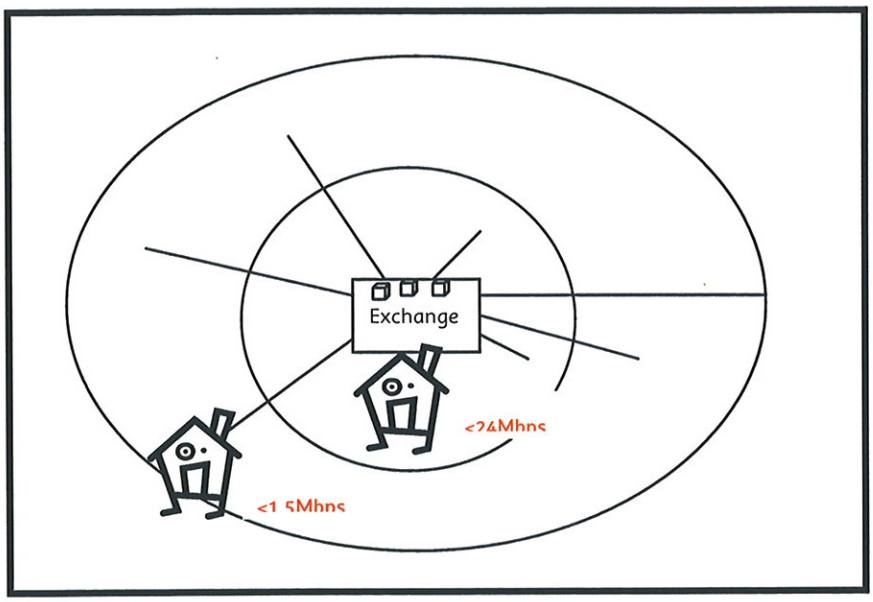
[56] Speeds will vary according to distance and network configuration. Telstra's proposal is for a minimum standard access speed of 12Mbps for most households.

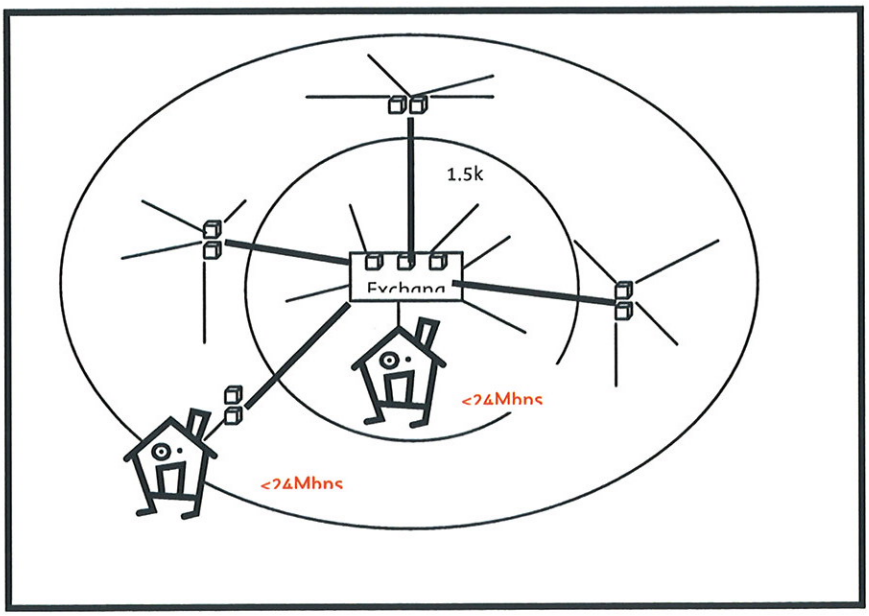
Diagram 1



DSLAM = 

Copper wire = _____

Diagram 2



DSLAM = 

Copper wire = _____

Fibre = _____

What are the implications of FTTN?

Competitors who have rolled out their own DSLAMs into exchange buildings in metropolitan areas will be affected. These DSLAMs cannot serve customers who are serviced by FTTN[57]. Therefore, a full FTTN deployment in metropolitan areas (i.e. a roll out of fibre and DSLAMs to some 20,000 notes) would mean that DSLAMs housed in exchanges buildings would only be able to service approximately 40% of the customer base, some 3 million customers, with the rest of the customer base serviced from the nodes. However, DSLAMs in exchanges accessing an available customer base of around 3 million can hardly be characterised as "stranded" or "by-passed"[58].

What should regulation do?

Nevertheless, some of Telstra's competitors are painting FTTN as some kind of doomsday scenario for competition and are demanding intervention. In response the Commission is:

- examining imposing ever more onerous conditions upon Telstra's ability to use FTTN as a network modernisation tool; and

- seeking competitors' views upon whether it may be appropriate to undertake a declaration inquiry under Part XIC into wholesale broadband services, in particular, wholesale ADSL services, and/or other forms of DSL services.

Such a response may be in the long term interests of competitors; but cannot be in the long term interests of end user consumers – particularly those consumers that live greater than 1.5kms from an exchange.

Telstra accepts that existing ULL customers have rights to procedural fairness and, like all lessees, if they are impacted upon by FTTN must be given due warning of any adverse changes to the network. Accordingly, Telstra has outlined a series of notification protocols in its most recent ULL undertaking for network modernisation[59].

However, Telstra has made it perfectly clear that it will not invest in a significant FTTN rollout – the kind of roll out needed if all metropolitan customers are to be able to access higher speed broadband services – if that investment is subjected to the "transitional" regulations

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57 The electrical signal from the DSLAM in the node drowns out the signal coming from a DSLAM in the exchange building.

58 As suggested at page 49 of the ACCC Proposal.

59 See paragraph 103: http://www.accc.gov.au/content/item.phtml?itemId=723020&nodeId=file43dd7cd675114&fn=Telstra's%20submission%20supporting%202005%20ULLS%20undertaking%E2%80%94main%20submission.pdf.

that were put in place in 1997 to govern the 100 year old legacy copper bottleneck. Why? Its simple, those "transitional" regulations would mean that the shareholders of Telstra's competitors would benefit rather than Telstra's shareholders.

In short, without safeguards to ensure that legacy regulation is confined to legacy services, Telstra will not spend the billions of dollars required to bring higher speed broadband services to those 60% of the customer base that live greater than 1.5kms from an exchange. The Commission and others have questioned Telstra's sincerity on this issue. Telstra has made clear in a statement to the ASX that it will not roll out a broad scale FTTN network unless and until the necessary regulatory safeguards are in place. The company is aware of its legal obligations in making such a statement[60].

What safeguards does Telstra require and why?

Telstra is seeking legislative amendments that impose a freeze on the declaration of new services under Part XIC and limit the operation of Part XIB to those services declared under Part XIC. This would mean that all ***new*** services supplied over FTTN would be regulated by the same provisions of the Trade Practices Act that regulate all other industries[61] – most importantly Part IIIA and Part IV.

The general provisions of the Trade Practices Act result in regulation only where it is justified, unlike the legacy network regime. The recent changes to the general provisions require the regulator to set prices in a way that ensures a competitive return on investment, unlike the legacy network regime. The provisions in Part IV could never be used like the legacy network competition notice provisions in Part XIB - as a backdoor mechanism for imposing competitor access on Telstra's network.

What safeguards remain for competition?

New and emerging technologies, innovation and investment are the safeguards for competition. The world of new applications, content and technology – both fixed and wireless - will see a different landscape emerge with different players competing with different platforms and customer value propositions. Regulation should not feature, and should not pre-judge outcomes in a dynamic market environment.

If Telstra is provided with the regulatory safeguards as described above and is therefore in a position to make the FTTN investment over the estimated **3 year period for full roll-out,** the

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60 http://www.asx.com.au//asxpdf/20051221/pdf/3tv6fm5437wg7.pdf

61 Including those industries based on infrastructure with bottleneck characteristics such as gas, electricity, water, rail, ports etc.

model for future regulation as described by Telstra in Part 4 above is still applicable. Where an exchange area is found to no longer be a bottleneck hotspot, new customers in that area are to be served by infrastructure providers. For those customers beyond a node, in many areas they will have pre-existing access to alternative infrastructure such as HFC or will progressively have access to competing infrastructure - such as ULL from the node and new technologies such as WiMax. Telstra will provide competitor access to its infrastructure on commercial terms.

Investment and competitive tension in new technologies should occur in an unregulated market without the distorting effects of unnecessarily intrusive regulation. Before regulatory intervention takes place, actual market failure should be the benchmark rather than speculation. If competitive entry in some areas subsequently failed and bottlenecks were re-established, which should not be the case if the correct incentives for infrastructure build exist, then regulation could always be reimposed (through Part IIIA).

Telstra looks forward to engaging further with the Commission to explore the proposal set out in this submission.

Telstra Corporation Limited

22 February 2006