

**Senate Standing Committee on the  
Environment, Communications and the Arts**  
ANSWERS TO ESTIMATES QUESTIONS ON NOTICE  
**Broadband, Communications and the Digital Economy portfolio**  
Supplementary Estimates Hearings October 2008

**Question: 5**

**Topic: Availability of ADSL**

**Senator Lundy asked:**

I can tell you that there are residents in places like Wanneroo and running off the Stirling exchanges in Western Australia and South Australia that are being told that no services are available. As far as I can ascertain, it is either because of a pair gain system that Telstra is refusing to transpose or that there are some capacity constraints relating to the installation of DSLAMs. So I want to know if you can get the figure that takes into account not just the physical constraints between the exchange and the customer but also what physical constraints or commercial constraints are being imposed on decisions by Telstra not to install further DSLAMs to allow more ADSL to be rolled out.

**Answer:**

It is a commercial decision for all service providers, including Telstra, whether to deploy or upgrade broadband infrastructure and services in any particular region. The information concerning physical and commercial constraints that service providers take into account when making such decisions is held in confidence by service providers. The Department of Broadband, Communications and the Digital Economy does not have access to this information.

All Australian residents and small businesses that do not have access to metro-comparable broadband services on commercial terms are eligible for support under the Australian Broadband Guarantee.

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**Question: 6**

**Topic: ADSL Services (re RIM constraints)**

**Senator Lundy asked:**

What are the constraints with the number of DSLAMs or ADSL services available through remote integrated multiplexes or RIMs?

**Answer:**

The availability of Asymmetric Digital Subscriber Line (ADSL) services to customers that have their telephony services delivered via Remote Integrated Multiplexers (RIMs) depends on a number of factors.

The first factor is whether ADSL equipment has been installed in the RIM. When originally deployed RIMs did not include equipment to deliver ADSL services. The retrofitting of ADSL equipment into RIMs depends on there being space to accommodate the ADSL equipment. Space for ADSL equipment may not be available as a result of all the equipment space in the RIM being taken up by equipment delivering telephony and/or Integrated Services Digital Network services.

If ADSL equipment has been installed in a RIM, then the capacity of that equipment, that is the number of ADSL services it can support, will also be a constraint on the availability of ADSL services to customer premises connected to the RIM.

The availability of ADSL services from an enabled RIM will also depend on the length of the copper line from the RIM to the customer premises and the presence of any broadband blockers, such as small pair gain systems or loading coils, located between the RIM and the customer premises.

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**Question: 7**

**Topic: Next G Data Service Peak and Non-Peak Times Speeds**

**Senator Lundy asked:**

What sorts of speeds can people on the Next G data service get during a peak time and also at a non-peak time?

**Answer:**

**Peak versus non-peak network performance**

Telstra Next G services are delivered over an allocated spectrum band (850 MHz/2100 Mhz) which must be shared by all users of the network. During peak time, the number of users connected to the network would normally increase and may result in some degree of network congestion. This may affect the speed a user experiences. Conversely, during non-peak time, the number of users connected to the network generally decreases and therefore the speed that a user experiences may increase.

**Expected end user rates**

Telstra's Next G network is reported to reach 99 per cent of the Australian population with theoretical peak network downlink speeds of 14.4Mbps and 1.9Mbps uplink<sup>1</sup>. Telstra indicates that actual speeds may vary depending on the congestion, distance from the transmission tower, local conditions, hardware, software, user devices (such as USB modem) and other factors<sup>2</sup>.

Telstra claims its Next G service can deliver data services to compatible mobiles, Personal Digital Assistants or laptops with download speeds averaging 550kbps to 3Mbps, bursting up to 6Mbps in central business districts, metropolitan and other areas. The upload speeds average 300 kbps to 1 Mbps<sup>3</sup>. These speeds are consistent with what users are reporting on the Whirlpool website<sup>4</sup> and tests carried out by the APC Magazine in October 2008<sup>5</sup>.

**3G technical standards**

Telstra is currently upgrading its Next G network to reach theoretical peak downlink speeds of up to 21Mbps by the end of 2008, and a forward view to 42Mbps by the end of 2009<sup>6</sup>.

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<sup>1</sup> <http://www.telstra.com.au/abouttelstra/corp/facts/mobiles.cfm>

<sup>2</sup> [http://www.spreadthegoodstuff.com/stuff\\_on\\_your\\_mobile/mobile\\_broadband.asp](http://www.spreadthegoodstuff.com/stuff_on_your_mobile/mobile_broadband.asp)

<sup>3</sup> <http://my.bigpond.com/internetplans/broadband/wireless/overview/default.jsp>

<sup>4</sup> <http://forums.whirlpool.net.au/forum-replies-archive.cfm/943314.html>

<sup>5</sup> APC Magazine: Affordable Mobile Broadband October 2008

<sup>6</sup> Next G steps up with 21Mbps HSPA devices ready: CommunicationsDay Issue 3383. 24 October 2008

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According to the 3G Americas paper on standards for wireless technologies, the following is a comparison of theoretical peak rates with typical user rates<sup>7</sup>.

<i>Technology</i>	<i>Theoretical Peak Speeds</i>	<i>Expected User Experience</i>	<i>Notes</i>
3G/HSPA (HSUPA/HSDPA)	Upload: 5.76 Mbps Download: 14.4 Mbps	Upload: 100 to 300 kbps Download: 500 kbps to 4 Mbps	Currently provided by Telstra
3G/HSPA+ (Rel 7)	Upload: 11.5 Mbps Download: 28 Mbps	Upload: >3 Mbps Download: >5 Mbps	Telstra planned rollout in first half of 2009
3G/HSPA+ (Rel 8)	Upload: 11.5 Mbps Download: 42 Mbps	Unknown	Telstra planned rollout at end of 2009

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<sup>7</sup> 3G Americas, Rysavy Research: Edge, HSPA, and LTE Broadband Innovation. September 2008

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**Question: 8**

**Topic: Regional Telecommunications Inquiry 2002 – recommendation 2.7 - Removal of  
Pair Gain Systems**

**Senator Lundy asked:**

Can you tell me whatever happened to that recommendation, given it was at least in theory adopted by the then government?

What information can you give the committee about the current state of play with the pervasive place still of pair gain systems in the physical network, given the constraining effect on broadband services?

**Answer:**

The Report of the Regional Telecommunications Inquiry (RTI), *Connecting Regional Australia*, was published in 2002. Recommendation 2.7 of the RTI Report states:

*Telstra should promptly confirm to the Government that it has an effective strategy for improving as soon as possible the quality of telephone services affected by the use of 6/16 and similar pair gain systems. Telstra should give a formal undertaking to the Government including providing timeframes in relation to any actions required to implement such a strategy. Progress in meeting this strategy should be monitored by the Australian Communications Authority and reported publicly.*

A Deed of Undertaking between the Government and Telstra outlining Telstra's strategy, including timeframes, to improve, as soon as possible, phone services affected by the use of 6/16 and similar pair gain systems was executed on 18 December 2003 and operates until 31 December 2008. The Deed is available at [http://www.dbcde.gov.au/\\_\\_data/assets/pdf\\_file/0004/10597/Deed\\_of\\_Undertaking.pdf](http://www.dbcde.gov.au/__data/assets/pdf_file/0004/10597/Deed_of_Undertaking.pdf).

Under the Deed Telstra agreed to:

- (a) improve the overall grade of service of the type of pair gain system known as mini-line concentrator (MLC) systems (which include 6/16 and similar pair gain systems) in Telstra's network; and
- (b) report to the Australian Communications and Media Authority (ACMA) on Telstra's progress in improving the grade of service of these systems.

ACMA publishes a report of Telstra's progress on its website at [http://www.acma.gov.au/WEB/STANDARD/pc=PC\\_1963](http://www.acma.gov.au/WEB/STANDARD/pc=PC_1963).

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According to the information available on this website, the number of MLC systems in Telstra's network is as follows:

**Telstra Mini-line concentrator systems**

	2004	2005	2006	2007
Number of MLC systems in Telstra's network	4,397	3,715	3,206	2,904

Notes:

1. MLC system means the type of pair gain system known as a mini-line concentrator system and includes 6/16 pair gain and other similar systems.
2. Under the deed, Telstra is required to report annually, rather than quarterly, effective 1 January 2006. Annual data for calendar years 2004 and 2005 is provided for comparison.

ACMA does not collect information on the number other pair gains systems in Telstra's network.

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**Question: 15**

**Topic: Mapping**

**Senator Nash asked:**

So how long had you been working on it prior to the last estimates when we had this discussion, at which point you indicated to the committee that it was still a couple of weeks away? How long had you been working on it up until that point in time as a possibility?

**Answer:**

Work on determining the number of premises unable to access a terrestrial broadband service commenced under the Broadband Connect Infrastructure Program in 2006. This work was further refined to assess the number of premises unable to access a metro-comparable broadband service for the purposes of the Australian Broadband Guarantee.

Work to visually represent premises without access to metro-comparable broadband services (as defined in the Australian Broadband Guarantee Guidelines) in a form that would be of assistance to service providers seeking to register with the Australian Broadband Guarantee was undertaken from late March 2008. A range of modelling and presentational styles were considered but were ultimately deemed not to convey sufficient or accurate information. This was due to a number of factors including commercial-in-confidence restrictions placed by some internet service providers on information about their networks and limitations in some data sources which were developed for other purposes.

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**Question: 16**

**Topic: Lisp Pty Ltd – Customer Direct Debit**

**Senator Nash asked:**

It has been raised with me that apparently there are some issues with the direct debit accounts from that previous provider [Lisp Pty Ltd]. I do not know if this is something the Department is aware of, but apparently people are experiencing some difficulty in ceasing that direct debit:

1. Is that something that the Department is aware of?
2. Are you giving any advice surrounding that?
3. What should people do if they are encountering that?

**Answer:**

1. Satellite broadband services to Lisp Pty Ltd customers were switched off on 9 October 2008, as a result of a financial dispute between Lisp's supplier, Wholesale Broadband, and the satellite's owner, IPSTAR Australia. The Department's Australian Broadband Guarantee Consumer Support area has received four calls from customers concerned about their direct debit arrangements.
2. The Department's advice to these callers has been to contact their financial institution for advice. The Department has also contacted Lisp's direct debit provider EziDebit. EziDebit advised that it has placed all Lisp customer debit accounts on hold pending further developments.
3. Lisp customers who are concerned about their direct debit arrangements should contact their financial institution or EziDebit, telephone (07) 3124 5500 or email [support@ezidebit.com.au](mailto:support@ezidebit.com.au).



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**Question: 44**

**Topic: Underserved Premises**

**Senator Birmingham asked:**

Perhaps—and you can take this on notice—if you could give us a state-by state breakdown of the department’s estimates, that would be helpful.

**Written Question**

How many homes and business premises does the Department estimate there are in Australia, broken down for each State and Territory? How many such homes and business premises are estimated to be underserved in their access to broadband, broken down for each State and Territory? What definition of underserved does the Department apply to reach these?

**Answer:**

The Government’s Australian Broadband Guarantee is a targeted funding program that provides registered Internet service providers with a per-customer incentive payment to deliver metro-comparable broadband services to residential and small business customers without access to these services. The administration of the program requires the Department to develop estimates of the number of premises that do not have access to metro-comparable broadband services. In the context of the Australian Broadband Guarantee program, premises without access to metro-comparable broadband services are referred to as underserved premises.

At 30 October 2008, the number of premises that are estimated by the Department to be underserved for the purposes of the Australian Broadband Guarantee was:

<b>State</b>	<b>Number of underserved premises</b>
<b>WA</b>	71,437
<b>SA</b>	68,228
<b>NT</b>	13,559
<b>QLD</b>	232,820
<b>NSW</b>	200,128
<b>ACT</b>	5,232
<b>VIC</b>	97,228
<b>TAS</b>	33,868
<b>TOTAL</b>	722,500

This estimate was determined by applying the Australian Broadband Guarantee criteria for what constitutes underserved premises to information held by the Department on the footprint of terrestrial broadband networks and the location of addresses in Australia. This estimate does not yet take account of the impact of the recent widespread deployment of wireless broadband services by mobile telephone carriers. The Department is presently working with

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those carriers to understand the extent of coverage and the availability of services and will revise this figure accordingly in the light of information received.

The Australian Broadband Guarantee criteria for what constitutes underserved premises are, in summary, residential or small business premises that are without access to a terrestrial broadband service that:

- provides at least 512kbps download speed and 128kbps upload speed;
- provides a monthly data allowance of 3 GB; and
- is provided at a price to the customer of not more than \$2,500 over three years.

Information regarding the footprint of terrestrial broadband networks has been supplied to the Department by carriers participating in the program and has been supplemented by other reputable data sources. It includes information on the following types of networks:

- exchange based ADSL networks;
- Hybrid Fibre Coaxial cable networks; and
- wireless broadband networks.

The number of addresses on a state by state basis that was used for the estimate of underserved premises for the Australian Broadband Guarantee at 30 October 2008 is detailed in the table below:

<b>State</b>	<b>Number of premises</b>
<b>WA</b>	1,191,068
<b>SA</b>	841,853
<b>NT</b>	78,718
<b>QLD</b>	2,378,005
<b>NSW</b>	3,481,946
<b>ACT</b>	178,997
<b>VIC</b>	2,834,074
<b>TAS</b>	276,520
<b>TOTAL</b>	11,261,181

Further information about the Australian Broadband Guarantee program, including the criteria for determining underserved premises, is provided in the program's Guidelines issued in July 2008 which are available at [http://www.dbcde.gov.au/communications\\_for\\_business/funding\\_programs\\_\\_and\\_\\_support/broadband\\_guarantee](http://www.dbcde.gov.au/communications_for_business/funding_programs__and__support/broadband_guarantee)

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**Question: 45**

**Topic: Outstanding matters relating to OPEL Networks**

**Senator Birmingham asked:**

Have all outstanding claims and disagreements relating to the cancelled OPEL contract been resolved? If not, what claims and disagreements remain unresolved? What legal costs have been incurred by the Government in the settlement of matters stemming from the cancellation of the OPEL contract? What compensation, if any, has been paid by the Government to parties to the OPEL contract?

**Answer:**

The Department notified OPEL on 1 April 2008 that it did not accept OPEL's implementation plan as it failed to meet the terms of the conditions precedent agreed with the Commonwealth, and OPEL's Funding Agreement was terminated from that date.

The Funding Agreement with OPEL Networks was deemed to have been terminated without liability, other than a potential claim for up to \$2.5 million for OPEL's costs associated with developing the Implementation Plan. No compensation or payment has been paid by the Government to OPEL or the partner entities.

The reasons for terminating the Funding Agreement with OPEL Networks were provided by the Department of Broadband, Communications and the Digital Economy to the Committee during Budget Estimates in May this year, and were provided in correspondence to the OPEL partner entities.

The following legal costs have been incurred in relation to matters arising from the termination:

1. \$ 10,826.20 (inc GST) for legal services provided by the Australian Government Solicitor; and
2. \$ 6,873.53 (inc GST) for legal services provided by Clayton Utz.

These costs represent the general legal advice the Department has received in relation to the OPEL matter since the date the Funding Agreement was terminated, and attendance by lawyers at a debriefing meeting on 17 April 2008.