



## SNAPSHOT OF BROADBAND DEPLOYMENT AS AT 30 SEPTEMBER 2005

This report details the deployment of broadband services throughout Australia as at 30 September 2005. The report is based on data provided by the major carriers of broadband services.

The report includes aggregated data in relation to the availability of broadband services and gives estimated numbers of services in operation in respect of cable, satellite, ADSL, other DSL and miscellaneous offerings including wireless.

### Main findings:

- As at 30 September 2005 total broadband take-up was 2,593,600.
- Broadband take-up has increased by 1,282,500 or 98 per cent, from the September 2004 figure of 1,311,100.
- The take-up of ADSL services is now at 1,895,400.
- Growth of DSL-based services continues to be significant. However, take-up of satellite broadband is growing steadily also.
- Additional wireless broadband figures have been included in this report.
   However, as not all wireless providers have provided data, the take-up figures are incomplete. While the figures may be understated to a degree, the ACCC does not expect that this is to a material extent.
- Total quarterly growth in broadband was at 19 per cent for the September 2005 quarter:
  - This is broadly in line with the June 2005 figure (18.4 per cent).

	Broadband	l figures-	–31 July 20	01 to 30 Jun	e 2005	
	Cable	Satellite	ADSL	Other DSL	Other	Totals
31-Jul-01	92500	2200	26600*	1400*	100	122800
31-Mar-02	124200	7400	64200*	3900*	100	199800
30-Jun-02	140900	9000	97200*	10900*	100	258100
30-Sep-02	158200	10700	120600*	22200*	500	312200
31-Dec-02	173200	12200	139900*	38000*	200	363500
31-Mar-03	191900	12600	160600*	58200*	300	423600
30-Jun-03	215400	13000	193500*	94600*	300	516800
30-Sep-03	236300	13200	225000*	136000*	300	610800
31-Dec-03	251200	13300	251500*	182400*	300	698700
31-Mar-04	283300	13200	288900*	243600*	300	829300
30-Jun-04	324400	12900	363100*	347100*	300	1,047,800
30-Sep-04	375,900	12,700	867,100*	54,300*	300	1,311,100
30-Dec-04	404,300	13,500	1,054,600	75,600	300	1,548,300
31-Mar-05	438,700	14,400	1,298,100	88,200	300	1,839,700
30-Jun-05	·					
	473,000	17,800	1,575,500	112,200	300	2,178,800
30- Sep-05	510,600	22,000	1,895,400	124,800	40,800	2,593,600

<sup>\*</sup> Telstra reported statistics for its wholesale *asymmetric* 'Layer 2' broadband product under the 'ADSL' category for the first time in the September 2004 quarter. In all previous quarters, the statistics for this product were included under the 'other DSL' category. This changed reporting format does not affect the time series for total DSL subscribers ('ADSL' + 'other DSL') or the time series for total broadband subscribers.

Note changes to time series (Q2 2005) due to revised estimates of re-sale figures for ADSL. There may be some inconsistency in the way that providers are reporting data. The ACCC is currently working to resolve some outstanding issues to enhance the integrity of the data.

Percentage broadband growth						
	Cable	Satellite	ADSL	Other DSL	Other	Totals
QUARTERLY						
Q2 02 Growth	13.4	23.3	51.4	179.5	0.0	29.2
Q3 02 Growth	12.3	18.9	24.1	103.7	400.0	21.0
Q4 02 Growth	9.5	14.0	16.0	71.2	-60.0	16.4
Q1 03 Growth	10.8	3.3	14.8	53.2	50.0	16.5
Q2 03 Growth	12.2	3.2	20.5	62.5	0.0	22.0
Q3 03 Growth	9.7	1.5	16.3	43.8	0.0	18.2
Q4 03 Growth	6.3	0.8	11.8	34.1	0.0	14.4
Q1 04 Growth	12.8	-0.8	14.9	33.6	0.0	18.7
Q2 04 Growth	14.5	-2.3	25.7	42.5	0.0	26.3
Q3 04 Growth	15.9	-1.6	_*	_*	0.0	25.1
Q4 04 Growth	7.6	6.3	21.6	39.2	0.0	18.2
Q1 05 Growth	8.5	7.0	23.1	16.6	-0.4	18.8
Q2 05 Growth	7.8	23.2	21.4	27.2	2.2	18.7
Q3 05 Growth	7.9	24.0	20.3	11.3	_†	19.0

<sup>†</sup> Additional wireless figures have been reported and included in the "Other" category for the first time in this quarter. As these were not reported in previous quarters, and as not all wireless providers provided data for the Broadband Snapshot, it has not been possible to calculate take-up figures that are representative of the growth of wireless and "other" broadband technologies in the past quarter and year.

Percentage broadband growth						
ANNUAL						
	Cable	Satellite	ADSL	Other DSL	Other	Totals
Dec 03-Dec 04	60.9	1.5	_*	_*	0.0	121.6
Mar 04–Mar 05	54.8	9.1	_*	_*	-1.1	121.8
Jun 04–Jun 05	45.8	37.8	_*	_*	-1.8	108.3
Sep 04-Sep 05	35.6	73.9	118.6	129.7	_†	97.8

<sup>\*</sup> Telstra reported statistics for its wholesale *asymmetric* 'Layer 2' broadband product under the 'ADSL' category for the first time in the September 2004 quarter. In all previous quarters, the statistics for this product had been reported under the 'other DSL' category. Consequently, it had not been possible to calculate 'DSL' and 'other DSL' growth figures for the September 2004 quarter (quarterly growth) and the December 2004, March 2005, and June 2005 quarters (annual growth) until now.

<sup>†</sup> Additional wireless figures have been reported and included in the "Other" category for the first time in this quarter. As these were not reported in previous quarters, and as not all wireless providers provided data for the Broadband Snapshot, it has not been possible to calculate take-up figures that are representative of the growth of wireless and "other" broadband technologies in the past quarter and year.

# Broadband services—roll out/coverage as at 30 September 2005

	Cable	Satellite	ADSL	XDSL	Other
Geographic Availability	<ul> <li>All state and territory metro areas except:         <ul> <li>Northern Territory</li> </ul> </li> <li>Many regional areas except:         <ul> <li>Tasmania</li> <li>Northern Territory</li> </ul> </li> </ul>	Australia wide	<ul> <li>All state and territory CBDs</li> <li>All state and territory metro areas</li> <li>Majority of all state and territory regional centres</li> </ul>	<ul> <li>All state and territory CBDs</li> <li>All state and territory metro areas except limited for:         <ul> <li>South Australia</li> <li>Tasmania</li> <li>Northern Territory</li> </ul> </li> </ul>	<ul> <li>Metro areas in</li> <li>Adelaide</li> <li>Brisbane</li> <li>Canberra</li> <li>Melbourne</li> <li>Perth</li> <li>Sydney</li> <li>Some regional areas of Victoria</li> </ul>

### **Definitions**

**Broadband** is defined in this context to mean any high speed connection greater than 200kbits/sec over a mix of media. This definition of broadband excludes PSTN dial-up connections that run at 56 kbit/sec and ISDN dial up connections which run at either 64 or 128 kbit/sec. Satellite services with a broadband capability, that may or may not be being utilised, are included in the survey.

**Cable** is a data service that is delivered to a subscriber through channels in a coaxial cable or optical fibre cable to a cable modem installed externally or internally to a subscriber's computer or television set.

A **satellite** connection is an arrangement in which the upstream (outgoing) and the downstream (incoming) data are sent from, and arrive at, a computer through a satellite. Each subscriber's hardware includes a satellite dish antenna and a transceiver that operates in the microwave portion of the radio spectrum. A satellite installation can be used even where the most basic utilities are lacking such as regional and remote locations.

**DSL** (digital subscriber line) is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines. DSL consists of a series of data link layer protocols enabling broadband capacity over continuous copper circuits of digital subscriber lines. DSL lines can carry both data and voice signals and the data part of the line is continuously connected. The term DSL is used to refer to different variations of DSL, HDSL and RADSL. In this report the term **other DSL** refers to all types of DSL excluding ADSL (see below). While ADSL is a subset of DSL, it is reported separately here given its prominence compared to other DSL technology.

**DSL** (**ADSL**) (asymmetric digital subscriber line) is a technology for transmitting digital information at a high bandwidth on existing phone lines to homes and businesses. Unlike regular dial-up phone service, ADSL provides continuously available, 'always on' connection. ADSL is asymmetric in that it uses most of the channel to transmit downstream to the user and only a small part to receive information from the user, for example 512K up/128K down. ADSL is reported separately given the prominence of ADSL compared to other DSL technology.

Other includes LMDS (local multipoint distribution system), microwave, laser, and additional forms of broadband wireless access including fixed radio and those utilising spectrum in the 1.9 GHz and 3.4-3.5 GHz frequencies. LMDS is a system for broadband microwave wireless transmission direct from a local antenna to homes and businesses within a line-of-sight radius. It uses the range of electromagnetic spectrum in the vicinity of 28 gigahertz and offers a bandwidth of up to 1.5 Gbit/sec downstream and 200 Mbit/sec upstream to users. Low-powered infrared lasers can also be used to carry data over light. One form is point-to-point products used to provide high-speed connections between two buildings. Another type provides multiple high-speed connections through the air at much shorter distances, either in a point-to-multipoint fashion or in a meshed architecture. Microwave broadband refers to the general wireless transmission of signals by way of electromagnetic energy having a large bandwidth and a frequency higher than 1 Gigahertz. As not all wireless providers have provided data for the Broadband Snapshot, the survey of wireless take-up is incomplete and may understate actual figures.

## **Background to collection of statistics**

### Data required by the ACCC

The carriers were asked to provide data in respect of the following questions:

- a) the geographic availability of their service
- b) the total number of end-user connections.<sup>1</sup>

### Method of collection

The carriers were asked to provide a report covering the June 2005 – September 2005 period. Data was requested from and submitted by nine carriers.

The carriers provided this data to the ACCC on the basis that individual statistics would be treated as confidential and only aggregate data would be published.

### **Notes**

Figures are approximate to the nearest hundred, but an error rate of approximately 5 per cent is assumed.

Not all broadband providers are included. As the survey is not a census of broadband take-up activity, the ACCC considers that the figures presented may understate total subscriber numbers although not to a material extent.

ADSL is a subset of DSL but is reported separately given the level of take-up.

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<sup>&</sup>lt;sup>1</sup> Within the confines of this report a connection is the successful completion of necessary arrangements so that two or more parties can communicate over a network.