

# **INTERNET ACTIVITY**

**AUSTRALIA**

EMBARGO: 11.30AM (CANBERRA TIME) MON 1 SEP 2003

## **C O N T E N T S**

	<i>page</i>
Notes .....	2
List of Tables .....	3

### **CHAPTERS**

<b>1</b> Summary of Internet activity findings .....	4
<b>2</b> Subscriber characteristics .....	9
<b>3</b> Technical and other services provided by ISPs .....	13
<b>4</b> Selected activity data .....	15

### **ADDITIONAL INFORMATION**

Explanatory Notes .....	17
Glossary .....	19

## **I N Q U I R I E S**

- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Peter Hodgson on Perth (08) 9360 5367.

## NOTES

ABOUT THIS PUBLICATION	<p>This publication presents statistics on Internet activity conducted through the Internet Service Provider (ISP) industry in Australia. It contains results from all identified ISPs operating in Australia in respect of the three months ended 31 March 2003.</p>
ABOUT THE CENSUS	<p>The Internet Activity Survey (IAS) is a census which collects details on aspects of Internet access services and other services provided by ISPs in Australia. The census population includes all ISPs registered with the Telecommunications Industry Ombudsman and those identified from other sources.</p> <p>Since the September 2001 quarter, the collection frequency of the IAS has changed from quarterly to biannual, and is now run in respect of the March and September quarterly reference periods each year.</p>
DATA QUALITY	<p>A routine process of checking and quality assurance is maintained to ensure data quality remains high. As a result of this process, the figures are subject to revision. Where possible, revised data has been shown in tables included in the publication.</p> <p>Estimates for data at the State/Territory and Statistical Division levels are derived from data provided for POPs (Point of Presence or servers). In recent cycles, changing access technologies, infrastructure and operational arrangements have been impacting on the quality of data at the POP level. As a result, data at the Statistical Division level cannot be adequately quality assured and could present misleading indicators of regional activity and usage. These data have not been published in this issue.</p>
CHANGES IN THIS ISSUE	<p>As noted above, regional data previously published in Table 5.1 have been removed from this issue and are available upon request. See Explanatory Note 15 for details.</p>
COMMENTS	<p>The ABS is currently reviewing the content of both the survey and the publication; comments and suggestions are welcome. These comments should be addressed to the Director, New Economy Business Statistics Centre, Australian Bureau of Statistics, GPO Box K881 Perth, WA, 6842.</p>
ROUNDING	<p>Where figures have been rounded, discrepancies may occur between the sum of the components and the total. Averages have been calculated using unrounded data.</p> <p>.....</p>
ABBREVIATIONS	<p>ABS Australian Bureau of Statistics DSL digital subscriber line ISP internet service provider POP point of presence TIO Telecommunication Industry Ombudsman</p>

Dennis Trewin  
Australian Statistician

## LIST OF TABLES .....

page

### SUMMARY OF INTERNET ACTIVITY

- 1.1** Internet activity summary, Australia ..... 6
- 1.2** Internet activity summary, State and Territory ..... 7

### SUBSCRIBER CHARACTERISTICS

- 2.1** Internet access plans, by ISP size, by subscriber type ..... 11
- 2.2** Subscribers and ISPs, by access technology type ..... 12

### TECHNICAL AND OTHER SERVICES PROVIDED BY ISPS

- 3.1** ISPs, by size, by type of support service provided ..... 14
- 3.2** ISPs, by size, by related services provided ..... 14

### SELECTED ACTIVITY DATA

- 4.1** Volume of data downloaded, by ISP size, by subscriber type ..... 16

**HIGHLIGHTS**

- For the first time, the total number of subscribers in Australia exceeded 5 million at the end of March quarter 2003. This represents an increase of 521,000 subscribers (11%) since the end of September quarter 2002. The majority of new subscribers (over 98%) were in the Household sector with over 4.4 million subscribers in total.
- The number of access lines available to subscribers increased by 34% to 857,470 between the September quarter 2002 and March quarter 2003. Matching this growth has been the increasing number of subscribers with permanent or non dial-up connections, with around 470,000 subscribers at the end of March quarter 2003, an increase of over 34% from the end of September quarter 2002. In particular, Digital Subscriber Line (DSL) connections increased by 65% reflecting the continued strong growth in broadband (access speeds equal to or greater than 256kbs) services. DSL is now the predominant technology utilised to deliver broadband services.
- Monthly/Quarterly/Annual access plans remained the most popular access plans with almost 3.5 million subscribers, or 69% of all subscribers choosing this option. However, the strongest growth was in subscribers with Hourly Access plans, which increased by 456,000 (48%).
- The increasing uptake of broadband services is also evident in the continued, if less substantial, increase shown in the volume of data downloaded by subscribers, up 5% between September quarter 2002 and March quarter 2003.
- The number of Points of Presence (POPs) declined by 285 (14%) over the six months to the end of March quarter 2003. The main reason for declining POP numbers is the rationalisation of POP operations by ISPs through use of different access technologies such as 0198 numbers or sharing POP infrastructure supplied by infrastructure providers.

**ISPS**

There were 554 ISPs in Australia supplying Internet access services to 5.1 million active subscribers at the end of March quarter 2003. This is a decrease of 9 ISPs (2%) over the six month period to the end of March quarter 2002. Takeovers and mergers were the predominant reason for this decrease. There were:

- 7 Very large ISPs (with more than 100,000 subscribers) which provided Internet access to 3.6 million subscribers or 71% of all subscribers.
- 26 Large ISPs (10,001 to 100,000 subscribers) with 0.9 million subscribers or 18% of all subscribers
- 160 Medium ISPs (1,001 to 10,000 subscribers) with 0.5 million subscribers or 9% of all subscribers
- 251 Small ISPs (101 to 1,000 subscribers) with 0.1 million subscribers or 2% of all subscribers
- 110 Very small ISPs (100 or fewer subscribers) with 4,000 subscribers or less than 0.1% of all subscribers.

## POPS AND ACCESS LINES

At the end of March quarter 2003, ISPs provided 1,687 POPS and 857,470 access lines across Australia, resulting in a average of 5.9 subscribers per access line. This is considerably lower than the average of 7.1 subscribers per access line at the end of September quarter 2002.

The move to broadband technologies contributes to the reduction in the ratio of subscribers to access lines due to the 1:1 nature of these 'always on' connections and their non-reliance on POPS.

**1.1****INTERNET ACTIVITY SUMMARY, Australia**

		2001		2002		2003
		March	September	March	September	March
		Quarter	Quarter	Quarter(a)	Quarter	Quarter
<b>ISPs(b)(c)</b>						
Very Small	no.	129	112	102	102	110
Small	no.	330	299	276	254	251
Medium	no.	169	155	161	172	160
Large	no.	31	30	26	29	26
Very Large	no.	6	6	6	6	7
Total ISPs	no.	665	602	571	563	554
<b>Internet Access(c)</b>						
Points of presence	no.	2 310	2 171	r2 130	1 972	1 687
Access lines	no.	490 108	486 877	447 050	639 197	857 470
<b>Subscribers(c)</b>						
Business and government	'000	482	559	505	650	659
Household	'000	3 486	r3 726	3 724	3 904	4 417
Total	'000	3 968	r4 285	4 229	4 555	5 076
<b>Data Downloaded(d)</b>						
Business and government	million MBs	428	506	528	r740	782
Household	million MBs	611	780	1 303	r2 172	2 264
Total	million MBs	r1 039	1 286	1 831	r2 913	3 046

r revised

(a) The collection frequency for the Internet Activity Survey changed from a quarterly to a biannual following the September quarter 2001.

(b) See paragraph 7 of the Explanatory Notes for a description of ISP size categories.

(c) As at the end of the reference quarter.

(d) During the three months of the reference quarter.

**1.2**

## INTERNET ACTIVITY SUMMARY, State and territory

		2001		2002		2003
		March	September	March	September	March
		Quarter	Quarter	Quarter	Quarter	Quarter
NEW SOUTH WALES						
ISPs(a)	no.	283	244	236	240	212
Points of presence(b)	no.	781	704	682	662	546
Access lines(b)	no.	157 253	155 291	160 100	241 541	295 563
All subscribers(b)	'000	1 284	1 446	1 441	1 583	1 770
Data Downloaded(c)	million MBs	337	435	676	r1 132	1 074
VICTORIA						
ISPs(a)	no.	248	220	212	198	187
Points of presence(b)	no.	500	465	476	416	365
Access lines(b)	no.	137 465	141 313	114 544	163 855	241 274
All subscribers(b)	'000	1 047	1 160	1 045	1 180	1 338
Data Downloaded(c)	million MBs	250	347	457	r709	847
QUEENSLAND						
ISPs(a)	no.	170	161	151	150	146
Points of presence(b)	no.	437	422	418	357	315
Access lines(b)	no.	99 235	93 985	77 432	102 767	143 362
All subscribers(b)	'000	803	829	863	822	886
Data Downloaded(c)	million MBs	201	206	308	r524	464
SOUTH AUSTRALIA						
ISPs(a)	no.	73	70	74	65	57
Points of presence(b)	no.	186	188	180	172	142
Access lines(b)	no.	31 668	31 027	31 394	34 807	44 386
All subscribers(b)	'000	278	280	294	328	347
Data Downloaded(c)	million MBs	88	99	125	r141	193
WESTERN AUSTRALIA						
ISPs(a)	no.	109	100	100	92	85
Points of presence(b)	no.	239	224	221	221	205
Access lines(b)	no.	40 861	41 104	42 647	65 044	86 538
All subscribers(b)	'000	357	363	386	411	472
Data Downloaded(c)	million MBs	113	129	173	r273	303
TASMANIA						
ISPs(a)	no.	32	29	30	28	22
Points of presence(b)	no.	73	77	71	61	48
Access lines(b)	no.	10 793	10 354	9 159	12 404	20 876
All subscribers(b)	'000	88	95	88	98	109
Data Downloaded(c)	million MBs	17	31	36	r49	60

r revised

(a) Based on State or Territory of operations not Head Office location.

(b) As at the end of the reference quarter.

(c) During the three months of the reference quarter.

**1.2****INTERNET ACTIVITY SUMMARY, State and territory *continued***

		2001		2002		2003
		March	September	March	September	March
		Quarter	Quarter	Quarter	Quarter	Quarter
.....						
NORTHERN TERRITORY						
ISPs(a)	no.	20	18	21	23	15
Points of presence(b)	no.	32	30	31	35	26
Access lines(b)	no.	4 523	4 163	3 661	4 701	6 860
All subscribers(b)	'000	38	45	43	37	38
Data Downloaded(c)	million MBs	9	9	16	r19	26
.....						
AUSTRALIAN CAPITAL TERRITORY						
ISPs(a)	no.	57	49	46	44	37
Points of presence(b)	no.	62	53	51	48	40
Access lines(b)	no.	8 310	9 640	8 113	14 078	18 611
All subscribers(b)	'000	73	68	71	95	116
Data Downloaded(c)	million MBs	24	28	40	r66	80
.....						
AUSTRALIA						
ISPs(a)	no.	665	602	571	563	554
Points of presence(b)	no.	2 310	2 171	r2 130	1 972	1 687
Access lines(b)	no.	490 108	486 877	447 050	639 197	857 470
All subscribers(b)	'000	3 968	r4 285	4 229	4 555	5 076
Data Downloaded(c)	million MBs	r1 039	1 286	1 831	r2 913	3 046

r revised

(a) Based on State or Territory of operations not Head Office location.

(b) As at the end of the reference quarter.

(c) During the three months of the reference quarter.



## CHAPTER 2

## SUBSCRIBER CHARACTERISTICS .....

### SUBSCRIBERS

At the end of March 2003, there were 5.1 million active Internet subscribers in Australia, comprised of 4.4 million household subscribers and 659,000 business and government subscribers.

Subscribers of the Large and Very large size categories of ISPs represented just over 88% of all Internet subscribers, an increase of 1.5 percentage points since the end of September quarter 2002.

### SUBSCRIBER GROWTH

At the end of March quarter 2003, there were 513,000 more household Internet subscribers and 9,000 more business and government Internet subscribers than at the end of September quarter 2002. Household subscribers totalled more than 4.4 million and represented over 87% of all subscribers.

### ACCESS PLANS

Of the 5.1 million Internet subscribers, only 0.3% (16,000) were on a free Internet access plan. This was a decrease of 1,000 from the end of September 2002. The majority were either ISP staff or subscribers taking advantage of promotional offers which include free access for a limited period within the initial contract.

The majority of Internet subscribers were still either on a monthly/quarterly/annual access plan (69% or 3.5 million subscribers), or an hourly access plan (28% or 1.4 million subscribers).

Hourly access plans increased in popularity with an additional 456,000 subscribers opting for them by the end of March quarter 2003 (an increase of over 48% in the number of subscribers with hourly access plans since the end of September quarter 2002). During the same period, the number of subscribers selecting Volume access plans decreased by 44%, with just 140,000 subscribers now using these plans, down from 248,000 subscribers at the end of September quarter 2002. This reflects changes in the emerging broadband market. Volume only plans were previously well represented in the range of packages available for early broadband service adopters but rising data costs have seen many choose fixed price alternatives.

Hourly access plans accounted for 23% (152,000) of business and government subscribers and 28% (1.2 million) of household subscribers. Approximately 68% (449,000) of business and government subscribers access the Internet via monthly/quarterly/annual access plans, while 69% (3.0 million) of household subscribers selected these plans.

## ACCESS TECHNOLOGY

The vast majority of subscribers continue to utilise dial-up access technology with over 4.6 million subscribers (an increase of 10% or 403,000 subscribers from the end of September quarter 2002); this represents 91% of all subscribers. By contrast, the number of subscribers with a non dial-up connection has increased by over 120,000 subscribers (34%) to 470,000 at the end of March quarter 2003; this encompasses 9% of all subscribers. This represents a slight slowing in the rate of growth seen in non dial-up connections since the end of September 2001.

DSL recorded the strongest growth amongst the non dial-up connection options with subscribers increasing from 127,000 (just under 3% of total subscribers) at the end of September quarter 2002 to 209,000 subscribers (just over 4% of total subscribers) at the end of March quarter 2003.

The IAS does not currently collect the number of subscribers utilising broadband access technology, however, by adding selected methods of access providing access speeds equal to or greater than 256kbs, a reasonable approximation of broadband service utilisation can be obtained. The addition of both dial-up and permanent wireless, satellite and other connections with permanent DSL, cable and microwave access technologies results in approximately 439,000 subscribers that can be considered to have broadband access at the end of September quarter 2002. This is an increase of approximately 139,000 (46%) subscribers from the end of the previous quarter.

**2.1****INTERNET ACCESS PLANS, by ISP size, by subscriber type .....**

	<i>Free Access</i>		<i>Monthly/ Quarterly/ Annual Access</i>		<i>Hourly Access</i>		<i>Volume Access</i>		<i>Other Access</i>		<i>All Access Plans</i>	
	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%
<b>BUSINESS AND GOVERNMENT SUBSCRIBERS</b>												
<b>ISPs(a)</b>												
Very Small	np	np	1	68	np	np	np	np	np	np	2	100
Small	np	np	20	74	4	15	2	8	np	np	27	100
Medium	np	np	59	60	29	29	7	7	np	np	99	100
Large	np	np	68	50	25	18	41	30	np	np	135	100
Very Large	—	—	301	76	np	np	np	np	—	—	395	100
Total	np	np	449	68	152	23	50	8	np	np	659	100
<b>HOUSEHOLD SUBSCRIBERS</b>												
<b>ISPs(a)</b>												
Very Small	np	np	2	68	np	np	np	np	np	np	3	100
Small	np	np	59	71	19	23	2	2	np	np	83	100
Medium	np	np	259	69	93	25	9	2	np	np	377	100
Large	np	np	583	77	150	20	9	1	np	np	761	100
Very Large	np	np	2 138	67	np	np	np	np	np	np	3 194	100
Total	np	np	3 039	69	1 248	28	89	2	np	np	4 417	100
<b>ALL SUBSCRIBERS</b>												
<b>ISPs(a)</b>												
Very Small	np	np	3	68	1	17	np	np	np	np	4	100
Small	3	2	79	72	23	21	4	3	2	1	110	100
Medium	np	np	318	67	122	26	16	3	np	np	476	100
Large	1	—	650	73	174	19	50	6	21	2	897	100
Very Large	np	np	2 438	68	1 080	30	np	np	np	np	3 589	100
Total	16	—	3 488	69	1 400	28	140	3	31	1	5 076	100

np not available for publication but included in totals where applicable, unless otherwise indicated

— nil or rounded to zero (including null cells)

(a) See paragraph 7 of Explanatory Notes for a description of ISP size categories.

**2.2****SUBSCRIBERS AND ISPS, by access technology type**

	SEPTEMBER QUARTER 2002			MARCH QUARTER 2003		
	Number of subscribers	Percentage of subscribers	Number of ISPs providing subscribers with this access(a)	Number of subscribers	Percentage of subscribers	Number of ISPs providing subscribers with this access(a)
	'000	%	no.	'000	%	no.
<b>Dial-up Total</b>						
Analog	r4 156	r91	525	4 536	89	507
Digital (ISDN)	r42	r1	165	64	1	97
Wireless	np	np	22	np	np	25
Satellite	np	np	99	np	np	108
Other	np	np	8	np	np	1
<i>Total dial-up</i>	4 204	92	541	4 607	91	523
<b>Permanent Total</b>						
Analog	39	1	321	31	1	262
DSL	127	3	245	209	4	310
Digital (ISDN)	np	np	151	16	—	125
Cable	np	np	11	np	np	25
Satellite	np	np	78	np	np	66
Microwave	1	—	28	3	—	36
Other	—	—	22	1	—	22
<i>Total permanent</i>	350	8	432	470	9	432
<b>Total</b>	<b>4 555</b>	<b>100</b>	<b>563</b>	<b>5 076</b>	<b>100</b>	<b>554</b>

r revised

np not available for publication but included in totals where applicable, unless otherwise indicated

— nil or rounded to zero (including null cells)

(a) ISPs are counted for each technology provided, hence the totals may not equal the sum of their components.

**ACCESS SUPPORT**

ISPs have traditionally provided a variety of technical support services to their subscribers including on-line, help desk and call out/on site support services.

On-line support services were provided by 79% of ISPs overall, with the larger ISPs (Very large ISPs 100% and Large ISPs 92%) more likely to provide this service than smaller ISPs (Very small ISPs 66% and Small ISPs 78%).

Different levels of help desk support offered were:

- business hours - provided by 90% of all ISPs
- extended hours - provided by 72% of all ISPs
- 24 hours - provided by 19% of all ISPs.

Call out/on site support services were provided by 68% of all ISPs.

Other technical support services provided by ISPs were start up disk/package services (provided by 53% of all ISPs) and pager services (provided by 30% of all ISPs).

**RELATED SERVICES**

Other related services provided by ISPs include:

- Web design - this service was provided by 64% of all ISPs
- Web hosting - provided by 93% of all ISPs
- Secure access or transactions capabilities - provided by 54% of all ISPs
- Network/systems integration - provided by 64% of all ISPs
- Training services - provided by 42% of all ISPs.

It should be noted that for some larger ISPs, these services were provided from other parts of the business that were not covered by the Internet Activity Survey and have therefore not been included in the statistics.

**3.1****ISPS, BY SIZE, BY TYPE OF SUPPORT SERVICE PROVIDED(a)(b)**

		Very Small	Small	Medium	Large	Very Large	Total
<b>Type of support service</b>							
Online support	no.	73	197	135	24	7	436
	%	66	78	84	92	100	79
Help desk							
Business hours	no.	94	230	145	24	5	498
	%	85	92	91	92	71	90
Extended hours	no.	67	182	119	24	5	397
	%	61	73	74	92	71	72
24 hours	no.	26	48	15	10	7	106
	%	24	19	9	38	100	19
Pager	no.	26	75	57	np	np	166
	%	24	30	36	np	np	30
Call out/on site	no.	72	177	113	np	np	377
	%	65	71	71	np	np	68
Start up disk/package	no.	25	134	107	21	6	293
	%	23	53	67	81	86	53

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Proportions are of total ISPs in each size group.

(b) See paragraph 7 of Explanatory Notes for a description of ISP size categories.

**3.2****ISPS, BY SIZE, BY RELATED SERVICES PROVIDED(a)(b)**

		Very Small	Small	Medium	Large	Very Large	Total
<b>Type of service</b>							
Web design	no.	68	176	101	np	np	356
	%	62	70	63	np	np	64
Training services	no.	43	117	63	np	np	230
	%	39	47	39	np	np	42
Network/Systems integration	no.	76	166	97	np	np	353
	%	69	66	61	np	np	64
Secure access or transactions	no.	46	131	103	17	—	297
	%	42	52	64	65	—	54
ISPs providing Web Hosting	no.	98	240	147	24	6	515
	%	89	96	92	92	86	93

np not available for publication but included in totals where applicable, unless otherwise indicated

— nil or rounded to zero (including null cells)

(a) Proportions are of total ISPs in each size group.

(b) See paragraph 7 of Explanatory Notes for a description of ISP size categories.

**DATA DOWNLOADED**

There were 3,046 million megabytes (MBs) of data downloaded by subscribers during the three months ended 31 March 2003, representing an average of 616 MBs per subscriber (a decrease of 35 MBs or 5% per subscriber over the revised September quarter 2002 figure). Average downloads fell across the board as ISPs moved away from offering plans with unlimited downloads to plans with capped limits on downloads.

Household subscribers, representing over 87% of all subscribers, downloaded 2,264 million MBs (74% of all data downloaded). This results in an average of 528 MBs per household subscriber, a decrease of 35 MBs or 6% per household subscriber from the revised September quarter 2002 figure of 563 MB per household subscriber.

Business and government subscribers downloaded 782 million MBs during the three months ended 31 March 2003, an average of 1,191 MBs per business and government subscriber. This represented a decrease of 15 MBs or 1% per business and government subscriber from the revised September quarter 2002 figure of 1,206 MBs per business and government subscriber.

The average MBs downloaded per subscriber serviced by Large and Very Large ISPs was 598 MBs per subscriber, this is significantly lower than the average MBs downloaded by subscribers serviced by all other ISPs (933 MBs per subscriber). Many of the smaller ISPs specialise in providing Internet access to business and government subscribers where a single subscriber may conceal a large number of users contributing to data downloads.

**4.1****VOLUME OF DATA DOWNLOADED (a)(b), by ISP size, by subscriber type .....**

	MARCH QUARTER 2002		SEPTEMBER QUARTER 2002		MARCH QUARTER 2003	
	<i>Data downloaded</i>	<i>Data downloaded</i>	<i>Data downloaded</i>	<i>Data downloaded</i>	<i>Data downloaded</i>	<i>Data downloaded</i>
	million MBs	%	million MBs	%	million MBs	%
<b>BUSINESS AND GOVERNMENT SUBSCRIBERS</b>						
<b>ISPs</b>						
Very Small	10	2	14	2	9	1
Small	34	6	36	r5	74	9
Medium	68	13	175	r24	125	16
Large	226	43	260	r35	278	36
Very Large	190	36	r255	r34	296	38
Total	528	100	r740	100	782	100
<b>HOUSEHOLD SUBSCRIBERS</b>						
<b>ISPs</b>						
Very Small	1	—	r1	—	1	—
Small	26	2	20	1	34	2
Medium	103	8	123	r6	277	12
Large	193	15	306	r14	395	17
Very Large	980	75	r1 723	r79	1 557	69
Total	1 303	100	r2 172	100	2 264	100
<b>ALL SUBSCRIBERS</b>						
<b>ISPs</b>						
Very Small	10	1	15	1	9	—
Small	60	3	57	2	109	4
Medium	172	9	299	r10	403	13
Large	420	23	566	r19	672	22
Very Large	1 170	64	r1 976	r68	1 853	61
Total	1 831	100	r2 913	100	3 046	100

r revised

— nil or rounded to zero (including null cells)

(a) Volume of data downloaded during the three months of the reference quarter.

(b) See paragraph 7 of Explanatory Notes for a description of ISP size categories.



## EXPLANATORY NOTES .....

INTRODUCTION	<b>1</b> This publication presents results from the Internet Activity Survey (IAS) in respect of the three months ending 31 March 2003. The IAS is a census that covers all identified Internet Service Providers (ISPs) providing Internet access across Australia.										
CENSUS SCOPE AND METHODOLOGY	<p><b>2</b> The scope of the IAS is all Australian based ISPs operating during the reference period. ISPs are defined as businesses that supply Internet connectivity services to individuals, households, businesses and other organisations. Libraries, Internet kiosks and Internet cafes which provide Internet access on a casual basis are excluded from the census.</p> <p><b>3</b> The primary source of the census population frame is the Telecommunications Industry Ombudsman with which ISPs are required to register. The TIO list is supplemented where required with ISPs identified from other sources such as Internet association membership lists and industry media.</p> <p><b>4</b> The IAS is conducted as a mail-out, mail-back census.</p>										
SUBSCRIBERS	<b>5</b> Active subscribers are defined as customers having accounts with ISPs who have accessed the Internet or paid for access to the Internet during the 90 days of the reference period. Counts of subscribers are not the same as counts of people/organisations with Internet access because subscribers may have accounts with more than one ISP and conversely an ISP subscriber account may provide Internet access (and email addresses) for several people/organisations.										
STATISTICAL UNIT	<p><b>6</b> The unit for which statistics were reported in the census was the legal entity providing Internet access.</p> <p><b>7</b> ISPs in this census have been classified by size according to the number of subscribers ISPs reported for at the end of the reference period. The size categories are defined as follows:</p> <table> <tr> <td>Very Small ISP</td><td>1 - 100 subscribers</td></tr> <tr> <td>Small ISP</td><td>101 - 1,000 subscribers</td></tr> <tr> <td>Medium ISP</td><td>1,001 - 10,000 subscribers</td></tr> <tr> <td>Large ISP</td><td>10,001 - 100,000 subscribers</td></tr> <tr> <td>Very Large ISP</td><td>100,001 + subscribers</td></tr> </table>	Very Small ISP	1 - 100 subscribers	Small ISP	101 - 1,000 subscribers	Medium ISP	1,001 - 10,000 subscribers	Large ISP	10,001 - 100,000 subscribers	Very Large ISP	100,001 + subscribers
Very Small ISP	1 - 100 subscribers										
Small ISP	101 - 1,000 subscribers										
Medium ISP	1,001 - 10,000 subscribers										
Large ISP	10,001 - 100,000 subscribers										
Very Large ISP	100,001 + subscribers										
POINTS OF PRESENCE	<b>8</b> The number of POPs relates to the sum of POPs made available by individual ISPs. This may be more than the number of physical POPs due to the sharing of POPs between ISPs.										
REFERENCE PERIOD	<b>9</b> Data contained in this publication relate to ISPs which were operating in Australia at the end of the reference quarter. Counts of ISPs reflect only those businesses operating at the end of the reference quarter. Volume of data downloaded figures relate to data downloaded during the three months of the reference quarter.										
RELIABILITY OF DATA	<p><b>10</b> As the IAS does not have a sample component, the data are not subject to sampling variability. However, other inaccuracies collectively referred to as non-sampling error may affect the data. These non-sampling errors may arise from a number of sources, including:</p> <ul style="list-style-type: none"> <li>■ errors in the reporting of data by respondents</li> </ul>										

RELIABILITY OF DATA *continued*

- errors in capturing or processing of data
- estimation for missing or mis-reported data
- definition and classification errors.

**11** Every effort has been made to reduce non-sampling error to a minimum by careful design and testing of questionnaires, efficient operating procedures and systems, and appropriate methodology.

## ACKNOWLEDGEMENT

**12** ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

**13** In particular, the ABS acknowledges the assistance of the TIO in providing regular lists of registered ISPs.

## RELATED PUBLICATIONS

**14** Other ABS publications on information technology and telecommunications in Australia are:

*Business Use of Information Technology, 2001-02*, cat. no. 8129.0

*Government Use of Information Technology, Australia, 1999-2000*, cat. no. 8119.0

*Household Use of Information Technology, Australia, 2000*, cat. no. 8146.0

*Information Technology, Australia 2000-01*, cat. no. 8126.0

*Use of Information Technology on Farms, Australia, June 2000*, cat. no. 8150.0

AVAILABILITY OF  
UNPUBLISHED STATISTICS

**15** The ABS may make available on request certain unpublished statistics from this census, subject to the application of confidentiality provisions. In previous issues of this publication, data at the Statistical Division was included in Table 5.1; these data are now available upon request. Please contact Peter Hodgson by telephone on 1800 136 387 during business hours or via email on [peter.bodgson@abs.gov.au](mailto:peter.bodgson@abs.gov.au) at any time.

MORE INFORMATION ON ABS  
INFORMATION TECHNOLOGY  
STATISTICS

**16** Information about ABS activities in the field of information technology statistics is available from the Information Technology Statistics theme page on the ABS web site <<http://www.abs.gov.au>>. To access the theme page, select Themes from the menu on the home page. Details of other ABS publications relating to the production and use of information technologies in Australia can be found in paragraph 14 of the Explanatory Notes of this publication.

## GLOSSARY .....

<b>Access plan</b>	The Internet access package options available to subscribers from ISPs.
<b>Access lines</b>	Lines, points, ports, modem access points available to subscribers to access their ISP.
<b>Active subscribers</b>	Subscribers who have accessed the Internet or paid for access to the Internet through an ISP in the 90 days during the reference period.
<b>Analog/Public Switched Telephone Network (PSTN)</b>	A telecommunications network operated by a carrier to provide services to the public.
<b>Average data downloaded per subscriber</b>	Calculated by dividing the volume of data downloaded during the three months of the reference quarter by an estimate of the number of subscribers at the midpoint of the reference quarter.
<b>Average number of subscribers per access line</b>	Calculated by dividing the number of active subscribers at the end of the reference quarter by the number of access lines at the end of the reference quarter.
<b>Broadband</b>	Internet connection with an access speed equal to or greater than 256Kbps.
<b>Business and government subscribers</b>	All businesses, corporations, non-profit organisations and government organisations who obtain access to the Internet through an ISP.
<b>Cable</b>	Describes those technologies including coaxial cable, fibre optic cable and hybrid fibre coaxial which are capable of transmitting data at speeds of up to 2Gbps. Most cable in Australia is coaxial cable associated with cable television networks; these provide data transfer rates of up to 36Mbps but more often around 10Mbps. Limited fibre optic cable networks exist in many CBDs in metropolitan areas around Australia and offer the highest data transfer rates (up to 2Gbps) and best security as they transmit light rather than electricity but are an expensive option for both ISPs and subscribers. Hybrid fibre coaxial is, as the name implies, a hybrid cable providing some of the benefits of both the alternatives at a lower cost than fibre optic and higher speeds than coaxial.
<b>Data downloaded</b>	Volume of data downloaded by subscribers from the Internet in megabytes (MBs).
<b>Dial-up subscribers</b>	Subscribers who connect to the Internet via modem and dial-up software.
<b>Digital/Integrated Services Digital Network (ISDN)</b>	A digital access technique for both voice and data. Digital alternative to an analog public switched telephone service and carries data or voltages consisting of discrete steps or levels, as opposed to continuously variable analog data. Integrated Services Digital Network (ISDN) enables digital transmission over the PSTN.
<b>Digital Subscriber Line (DSL)</b>	More properly referred to as xDSL as this covers several digital technologies (e.g. asymmetric DSL or ADSL and Symmetric DSL or SDSL) for fast two-way data connections over the PSTN.
<b>Free access</b>	Free access to an email and web browsing account often provided by ISPs to staff or to subscribers as part of an introductory offer or heavily subsidised by on-screen advertising.
<b>Hosted websites</b>	Customer websites maintained by ISPs on their servers.
<b>Hourly access plan</b>	A subscription option where customers pay for Internet access on an hours-on-line basis.
<b>Household subscribers</b>	Households and private individuals who subscribe to Internet access via an ISP. This may include some home based businesses.

<b>Internet</b>	A world-wide public computer network. Organisations and individuals can connect their computers to this network and exchange information across a country and/or across the world. The Internet provides access to a number of communication services including the World Wide Web and carries email, news, entertainment and data files.
<b>Internet Service Provider (ISP)</b>	Resident Australian individuals or businesses offering Internet access services to customers.
<b>ISDN</b>	See Digital/Integrated Services Digital Network (ISDN).
<b>Kilobit (Kb)</b>	A data unit of 1,024 bits. Data speeds are generally referred to kilobits rather than kilobytes (hence Kbps)
<b>Megabit (Mb)</b>	A data unit of 1,048, 576 bits, sometimes interpreted as 1 million bits. Faster data speeds are generally referred to in megabits rather than megabytes (hence Mbps)
<b>Megabyte (MB)</b>	A data unit of 1,048, 576 bytes, sometimes interpreted as 1 million bytes.
<b>Microwave radio</b>	A communication link that uses point-to-point radio transmission.
<b>Monthly/quarterly/annual access plan</b>	A subscription option where customers pay a flat monthly/quarterly/annual fee, and receive either a set period of time on-line during the month/quarter/year, usually with additional fees for exceeding that time or set download limits, or a flat monthly/quarterly/annual fee for unlimited access time during the month/quarter/year with other limits usually applying e.g. maximum single session times.
<b>On-line support service</b>	The ability to get support from an ISP on-line either through search facilities or dialogue with an ISP's help desk staff on-line.
<b>Permanent connections</b>	Permanent subscriber access to the Internet via non dial-up permanent modem, Integrated Services Digital Network, DSL, Cable, Wireless, Satellite, dedicated data service, frame relay, etc. Also referred to as non dial-up.
<b>Point of Presence (POP)</b>	A server in a geographic location where an ISP can be accessed by a dial-up subscriber via access lines.
<b>PSTN</b>	See Analog/Public Switched Telephone Network (PSTN).
<b>Satellite/communications satellite</b>	A satellite stationed in geosynchronous orbit that acts as a microwave relay station, receiving signals sent from a ground based station, amplifying them, and retransmitting them on a different frequency to another ground-based station. Satellites can be used for high-speed transmission of computer data.
<b>Start up disk/package</b>	A CD-ROM or floppy disk containing software for Windows or Macintosh systems that includes configuration information for the dial-up software plus an email 'client' program (e.g. Eudora/Pegasus) plus a navigator package.
<b>Subscriber</b>	An ISP customer to whom Internet access is provided. Included are paying and non paying customers, email only subscribers, dial-up subscribers and those with permanent (non dial-up) connections. Excluded are customers who purchase other services from an ISP, such as web hosting, but do not obtain Internet access.
<b>Virtual ISP</b>	An ISP who does not own or operate their own network of servers (POPs) but instead relies on infrastructure provided by a third party.
<b>Virtual POP</b>	A POP which is provided by a third party infrastructure business or another ISP for use by multiple ISPs including those used by Virtual ISPs.
<b>Web hosting</b>	See Hosted websites
<b>Wireless Application Protocol (WAP)</b>	A standard for providing Internet access and other data-based services, such as e-mail, electronic transactions, news and weather reports, over wireless networks generally via mobile phones. Now largely superceded by IEEE 802.11x or WiFi.







## FOR MORE INFORMATION . . .

<i>INTERNET</i>	<b>www.abs.gov.au</b> the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
<i>LIBRARY</i>	A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
<i>CPI INFOLINE</i>	For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c per minute).
<i>DIAL-A-STATISTIC</i>	For the latest figures for National Accounts, Balance of Payments, Labour Force, Average Weekly Earnings, Estimated Resident Population and the Consumer Price Index call 1900 986 400 (call cost 77c per minute).

## INFORMATION SERVICE

Data already published that can be provided within five minutes will be free of charge. Our information consultants can also help you to access the full range of ABS information—ABS user pays services can be tailored to your needs, time frame and budget. Publications may be purchased. Specialists are on hand to help you with analytical or methodological advice.

<i>PHONE</i>	1300 135 070
<i>EMAIL</i>	client.services@abs.gov.au
<i>FAX</i>	1300 135 211
<i>POST</i>	Client Services, ABS, GPO Box 796, Sydney NSW 2001

## WHY NOT SUBSCRIBE?

ABS subscription services provide regular, convenient and prompt deliveries of ABS publications and products as they are released. Email delivery of monthly and quarterly publications is available.

<i>PHONE</i>	1300 366 323
<i>EMAIL</i>	subscriptions@abs.gov.au
<i>FAX</i>	03 9615 7848
<i>POST</i>	Subscription Services, ABS, GPO Box 2796Y, Melbourne Vic 3001



2815300003037

ISSN 1443 5063

RRP \$21.00