SEPTEMBER 2004 8153.0

INTERNET ACTIVITY

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) FRI 18 FEB 2005

CONTENTS

INQUIRIES

- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Diane Braskic on Perth (08) 9360 5241.

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NOTES

INTRODUCTION

The Internet Activity Survey (IAS) is a census which collects details on aspects of Internet access services provided by Internet Service Providers (ISPs) in Australia. This publication contains results from all identified ISPs operating in Australia as at 30 September 2004.

DATA QUALITY

Estimates for data at the state/territory level 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 the data at the POP level. As a result, data presented at the state/territory level in Table 1.2 should be considered only as indicative measures of the distribution of Internet activity at the reference date and not changes over time.

CHANGES TO COLLECTION FREQUENCY AND TIMING

The previous issue of this publication notified of a change in frequency of the IAS from biannual to annual following the completion of the September quarter 2004 collection. While this decision has not been reversed, the change from biannual to annual frequency will now occur following the conduct of the March quarter 2005 collection. The annual collection will continue to measure changes in the structure of the ISP industry and the number of Australian households and organisations obtaining access to the Internet through ISPs.

COMMENTS

Comments and suggestions for both survey content and this publication are welcome and should be addressed to the Director, Innovation & Technology Business Statistics Centre, GPO Box K881, Perth, WA, 6842.

ROUNDING

Where figures have been rounded, discrepancies may occur between the sum of the components and the total. Averages have been calculated using unrounded data.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
DSL	digital subscriber line
Gbps	gigabits per second
ISP	Internet service provider
Kbps	kilobits per second
MB	megabyte
POP	point of presence
PSTN	public switched telephone network
TIO	Telecommunications Industry Ombudsman

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LIST OF TABLES

CHAPTER 1 SUMMARY OF INTERNET ACTIVITY FINDINGS

HIGHLIGHTS

- At the end of September 2004, total Internet subscribers in Australia numbered over 5.7 million. This was an increase of over 520,000 (10%) from the end of March 2004 and followed a slight increase (0.2%) recorded for the six months to the end of March 2004.
- The large growth (51%) in non dial-up subscribers from 861,000 at the end of March 2004 to 1.3 million at the end of September 2004 drove the increase in overall subscriber numbers. Non dial-up subscribers represented almost 23% of total Internet subscribers in Australia at the end of September 2004. This was the highest proportion of subscribers recorded for non dial-up technologies since the inception of the survey in September 2000.
- Most of the growth for non dial-up was in the household subscriber sector with an increase of 58% in household non dial-up subscribers from the number recorded at the end of March 2004. The number of household non dial-up subscribers at the end of September 2004 was 979,000 or over 75% of total non dial-up subscribers.
- The number of dial-up subscribers recorded at the end of September 2004 was just over 4.4 million. This was a small increase (2%) from the number recorded at the end of March 2004.
- There were 687 ISPs supplying Internet access to 5.7 million active subscribers at the end of September 2004. This was a decrease of 7 ISPs over the six month period from the end of March 2004. Changes influencing the numbers of ISPs varied from new Broadband-only ISPs entering the industry to a number of takeovers and mergers. There were 10 ISPs with over 100,000 subscribers at the end of September 2004.
- Data downloaded by subscribers during the September quarter 2004 increased significantly (72%) to 11,004 million MBs from the 6,409 million MBs downloaded during the March quarter 2004. Non dial-up subscribers accounted for 84% of the total data downloaded, reflecting the much faster download speeds available with non dial-up technology.
- Digital Subscriber Line (DSL) was the predominant access technology used for non dial-up Internet services with over 63% of total non dial-up subscribers being connected using this means. There were 549 ISPs (80% of total ISPs) providing Internet services using DSL access technologies at the end of September 2004.
- Using the definition currently adopted by the Australian Bureau of Statistics (ABS) to define broadband (“an 'always on' Internet connection with an access speed equal to or greater than 256kbps”), there were 1,290,000 broadband subscribers at the end of September 2004, an increase of 55% from the end of March 2004.
- The majority (87%) of Australian Internet subscribers used monthly, quarterly or annual plans to access the Internet at the end of September 2004. Hourly access plans were the next most dominant means of accessing the Internet with 12% of subscribers.

1.1 INTERNET ACTIVITY SUMMARY, Australia

		2002	2003		2004	
		September Quarter	*March Quarter*	*September Quarter*	*March Quarter*	*September Quarter*
ISPs(a)(b)						
Very small	no.	102	110	153	176	171
Small	no.	254	251	316	319	323
Medium	no.	172	160	163	165	157
Large	no.	29	26	27	25	26
Very large	no.	6	7	8	9	10
Total	no.	**563**	**554**	**667**	**694**	**687**
Internet Access Lines(b)(c)						
Dial-up	no.	—	—	626 554	623 839	658 555
Non dial-up	no.	—	—	680 933	850 506	1 300 359
Total	no.	**639 197**	**857 470**	**1 307 487**	**1 474 345**	**1 958 914**
Subscribers(b)(c)						
Dial-up						
Business and government	'000	—	520	505	499	524
Household	'000	—	4 087	4 017	3 859	3 916
Total	'000	—	4 607	4 522	4 359	4 441
Non dial-up						
Business and government	'000	—	139	190	241	321
Household	'000	—	331	499	620	979
Total	'000	—	470	690	861	1 300
Total						
Business and government	'000	650	659	696	740	846
Household	'000	3 904	4 417	4 516	4 480	4 895
Total	'000	**4 555**	**5 076**	**5 211**	**5 220**	**5 741**
Data Downloaded(c)(d)						
Dial-up						
Business and government	million MBs	—	—	178	137	253
Household	million MBs	—	—	1 341	1 457	1 465
Total	million MBs	—	—	1 520	1 594	1 718
Non dial-up						
Business and government	million MBs	—	—	1 169	1 294	2 307
Household	million MBs	—	—	1 976	3 521	6 979
Total	million MBs	—	—	3 145	4 815	9 287
Total						
Business and government	million MBs	740	782	1 347	1 431	2 560
Household	million MBs	2 172	2 264	3 317	4 978	8 444
Total	million MBs	**2 913**	**3 046**	**4 665**	**6 409**	**11 004**

— nil or rounded to zero (including null cells)

(a) See paragraph 6 of the Explanatory Notes for a description of ISP size categories.

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

(c) The collection of separate access technology details commenced from the March quarter 2003 for subscribers and from the September quarter 2003 for Internet access lines and data downloaded.

(d) During the three months up to the reference date, also refered to as the reference quarter.

1.2 INTERNET ACTIVITY SUMMARY(a), states and territories

		2002	2003		2004	
		September Quarter	*March Quarter*	*September Quarter*	*March Quarter*	*September Quarter*
NEW SOUTH WALES						
ISPs(b)(c)	no.	240	212	236	254	256
Access lines(c)	no.	241 541	295 563	449 591	470 122	667 338
All subscribers(c)	'000	1 583	1 770	1 828	1 782	1 935
Data downloaded(d)	million MBs	1 132	1 074	1 672	2 034	3 603
VICTORIA						
ISPs(b)(c)	no.	198	187	213	215	213
Access lines(c)	no.	163 855	241 274	347 371	395 898	520 398
All subscribers(c)	'000	1 180	1 338	1 394	1 413	1 565
Data downloaded(d)	million MBs	709	847	1 197	1 721	2 925
QUEENSLAND						
ISPs(b)(c)	no.	150	146	170	173	174
Access lines(c)	no.	102 767	143 362	219 800	249 848	347 658
All subscribers(c)	'000	822	886	923	944	1 026
Data downloaded(d)	million MBs	524	464	688	999	1 789
SOUTH AUSTRALIA						
ISPs(b)(c)	no.	65	57	62	60	61
Access lines(c)	no.	34 807	44 386	84 533	90 480	121 458
All subscribers(c)	'000	328	347	343	360	413
Data downloaded(d)	million MBs	141	193	396	572	655
WESTERN AUSTRALIA						
ISPs(b)(c)	no.	92	85	96	94	88
Access lines(c)	no.	65 044	86 538	137 786	187 431	199 435
All subscribers(c)	'000	411	472	472	480	519
Data downloaded(d)	million MBs	273	303	522	798	1 367
TASMANIA						
ISPs(b)(c)	no.	28	22	24	22	23
Access lines(c)	no.	12 404	20 876	28 109	34 697	36 999
All subscribers(c)	'000	98	109	107	107	111
Data downloaded(d)	million MBs	49	60	78	126	231
NORTHERN TERRITORY						
ISPs(b)(c)	no.	23	15	18	18	13
Access lines(c)	no.	4 701	6 860	9 340	13 363	11 633
All subscribers(c)	'000	37	38	35	32	32
Data downloaded(d)	million MBs	19	26	25	35	51

(a) See 'Data Quality' in the Notes section on page 2 and paragraph 11 in the Explanatory Notes for information about the validity of making comparisons over time for state and territory data.

(b) Based on state or territory of operations, not Head Office location, therefore, ISPs with multi-State operations will be counted more than once.

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

(d) During the three months up to the reference date, also refered to as the reference quarter.

1.2 INTERNET ACTIVITY SUMMARY(a), states and territories *continued*

		2002	2003		2004	
		September Quarter	*March Quarter*	*September Quarter*	*March Quarter*	*September Quarter*
AUSTRALIAN CAPITAL TERRITORY						
ISPs(b)(c)	no.	44	37	38	34	34
Access lines(c)	no.	14 078	18 611	30 957	32 506	53 995
All subscribers(c)	'000	95	116	110	102	140
Data downloaded(d)	million MBs	66	80	87	126	318
AUSTRALIA						
ISPs(b)(c)	no.	563	554	667	694	687
Access lines(c)	no.	639 197	857 470	1 307 487	1 474 345	1 958 914
All subscribers(c)	'000	4 555	5 076	5 211	5 220	5 741
Data downloaded(d)	million MBs	2 913	3 046	4 665	6 409	11 004

(a) See 'Data Quality' in the Notes section on page 2 and paragraph 11 in the Explanatory Notes for information about the validity of making comparisons over time for state and territory data.

(b) Based on state or territory of operations, not Head Office location, therefore, ISPs with multi-State operations will be counted more than once.

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

(d) During the three months up to the reference date, also refered to as the reference quarter.

CHAPTER 2 SUBSCRIBER CHARACTERISTICS

SUBSCRIBERS

At the end of September 2004, there were 5.7 million active Internet subscribers in Australia, comprised of almost 4.9 million household subscribers and 846,000 business and government subscribers.

The majority of subscribers (75%) accessed the Internet via services provided by Very large ISPs. These ISPs are also predominant in the provision of non dial-up Internet services with 982,000 non dial-up subscribers, comprising of 185,000 business and government subscribers and 796,000 household subscribers.

The 4.9 million household subscribers accounted for 85% of total subscribers and for almost 80% of the increase in the total number of subscribers for the six months to the end of September 2004. The number of business and government subscribers grew by 106,000 or 14% in the same period.

ACCESS PLANS

The majority of Internet subscribers remained on either monthly/quarterly/annual plans (87% or almost 5.0 million subscribers), or hourly access plans (12% or 673,000 subscribers at the end of September 2004. The number of subscribers using volume only access plans (56,000) represented only 1% of total subscribers at the end of September 2004.

Some 725,000 business and government subscribers (86%) accessed the Internet via monthly/quarterly/annual plans, while almost 4.3 million household subscribers (87%) selected these plans.

ACCESS TECHNOLOGY

Despite the large increase (51%) shown in the number of subscribers using non dial-up access technologies to access the Internet in the six months to the end of September 2004, the majority of subscribers (over 4.4 million) continued to utilise dial-up access technologies. At the end of September 2004, non dial-up subscribers comprised 23% of all subscribers while the proportion of dial-up subscribers fell to a historic low of 77% of total subscribers.

DSL recorded the strongest growth amongst the non dial-up connection technologies with Internet subscribers increasing from 512,000 (just under 10% of total subscribers) at the end of March 2004 to 822,000 subscribers (over 14% of total subscribers) at the end of September 2004.

ACCESS TECHNOLOGY *continued*

Using the definition of broadband adopted by the ABS (those technologies providing access speeds of 256kbps or greater), the number of broadband subscribers at the end of September 2004 was almost 1.3 million, an increase of 55% over the 834,000 broadband subscribers recorded at the end of March 2004. Broadband subscribers represented 22% of all Internet subscribers.

While household subscribers comprise the majority of broadband connections (76% or 979,000), these technologies represented only 20% of total household subscribers. A much higher proportion of business and government subscribers (311,000 or 37% of all business and government subscribers) have taken advantage of faster access speeds.

2.1 INTERNET SUBSCRIBERS(a), by access technology, by subscriber type, by ISP size(b)

	DIAL-UP		NON DIAL-UP		TOTAL	
	Number of subscribers	*Proportion of subscribers*	*Number of subscribers*	*Proportion of subscribers*	*Number of subscribers*	*Proportion of subscribers*
	'000	%	'000	%	'000	%
BUSINESS AND GOVERNMENT SUBSCRIBERS						
Very small	1	—	2	1	3	—
Small	19	4	20	6	39	5
Medium	66	13	35	11	101	12
Large	102	19	79	25	181	21
Very large	336	64	185	58	522	62
Total	***524***	***100***	***321***	***100***	***846***	***100***
HOUSEHOLD SUBSCRIBERS						
Very small	3	—	1	—	4	—
Small	86	2	11	1	97	2
Medium	299	8	48	5	347	7
Large	551	14	122	13	673	14
Very large	2 977	76	796	81	3 774	77
Total	***3 916***	***100***	***979***	***100***	***4 895***	***100***
ALL SUBSCRIBERS						
Very small	4	—	3	—	8	—
Small	105	2	31	2	136	2
Medium	365	8	83	6	448	8
Large	652	15	201	15	854	15
Very large	3 314	75	982	76	4 295	75
Total	***4 441***	***100***	***1 300***	***100***	***5 741***	***100***

— nil or rounded to zero (including null cells)

(a) As at the end of September 2004.

(b) See paragraph 6 of the Explanatory Notes for a description of ISP size categories.

2.2 INTERNET SUBSCRIBERS(a), by access plans, by subscriber type, by ISP size(b)

	MONTHLY/ QUARTERLY/ ANNUAL ACCESS		HOURLY ACCESS		VOLUME ONLY ACCESS		FREE & OTHER ACCESS COMBINED		TOTAL ALL ACCESS	
	Number of subscribers	*Proportion of subscribers*	*Number of subscribers*	*Proportion of subscribers*	*Number of subscribers*	*Proportion of subscribers*	*Number of subscribers*	*Proportion of subscribers*	*Number of subscribers*	*Proportion of subscribers*
	'000	%	'000	%	'000	%	'000	%	'000	%
BUSINESS AND GOVERNMENT SUBSCRIBERS										
Very small	np	np	np	np	np	np	—	1	3	100
Small	31	80	4	11	3	8	—	1	39	100
Medium	74	73	21	21	1	1	5	5	101	100
Large	132	73	21	12	27	15	1	—	181	100
Very large	np	np	np	np	np	np	—	—	522	100
Total	***725***	***86***	***75***	***9***	***39***	***5***	***7***	***1***	***846***	***100***
HOUSEHOLD SUBSCRIBERS										
Very small	np	np	np	np	np	np	—	9	4	100
Small	76	78	16	17	1	1	5	5	97	100
Medium	257	74	73	21	4	1	13	4	347	100
Large	567	84	98	15	7	1	1	—	673	100
Very large	np	np	np	np	np	np	3	—	3 774	100
Total	***4 257***	***87***	***598***	***12***	***18***	—	***23***	—	***4 895***	***100***
ALL SUBSCRIBERS										
Very small	6	82	np	np	np	np	—	5	8	100
Small	107	78	20	15	4	3	5	4	136	100
Medium	331	74	93	21	5	1	19	4	448	100
Large	699	82	119	14	33	4	2	—	854	100
Very large	3 839	89	np	np	np	np	4	—	4 295	100
Total	***4 982***	***87***	***673***	***12***	***56***	***1***	***30***	***1***	***5 741***	***100***

— nil or rounded to zero (including null cells)

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

(a) As at the end of September 2004.

(b) See paragraph 6 of the Explanatory Notes for a description of ISP size categories.

2.3 INTERNET SUBSCRIBERS AND ISPS, by access technology

	MARCH QUARTER 2004			SEPTEMBER QUARTER 2004		
	Number of subscribers	*Proportion of subscribers*	*Number of ISPs reporting subscribers with this access technology*(a)	*Number of subscribers*	*Proportion of subscribers*	*Number of ISPs reporting subscribers with this access technology*(a)
	'000	%	no.	'000	%	no.
Dial-up						
Analog	4 297	82	614	4 358	76	610
DSL	—	—	—	—	—	—
ISDN (Digital)	60	1	142	82	1	115
Microwave	—	—	—	—	—	—
Satellite	np	np	25	np	np	25
Other	np	np	1	np	np	—
Total	***4 359***	***84***	***620***	***4 441***	***77***	***614***
Non dial-up						
Analog	22	—	47	11	—	38
DSL	512	10	526	822	14	549
ISDN (Digital)	10	—	131	50	1	98
Cable	np	np	78	np	np	81
Satellite	np	np	102	np	np	102
Microwave	—	—	—	—	—	—
Fixed Wireless	4	—	84	6	—	81
Mobile Wireless	6	—	47	9	—	42
Other	6	1	10	3	—	15
Total	***861***	***16***	***584***	***1 300***	***23***	***596***
Total	**5 220**	**100**	**694**	**5 741**	**100**	**687**

— nil or rounded to zero (including null cells)

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

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

2.4 INTERNET SUBSCRIBERS AND ISPS, by subscriber type, by download speed

	MARCH QUARTER 2004			SEPTEMBER QUARTER 2004		
	Number of subscribers	*Proportion of subscribers*	*Number of ISPs reporting subscribers with this download speed range*(a)	*Number of subscribers*	*Proportion of subscribers*	*Number of ISPs reporting subscribers with this download speed range*(a)
	'000	%	no.	'000	%	no.
BUSINESS AND GOVERNMENT SUBSCRIBERS						
Less than 256kbps	515	70	540	535	63	526
Broadband(b)						
256kbps to less than 512kbps	94	13	428	140	17	459
512kbps to less than 1.5Mbps	97	13	425	84	10	434
1.5Mbps to less than 2Mbps	np	np	327	np	np	327
2Mbps or greater	np	np	151	np	np	150
Total Broadband (256kbps or greater)	***225***	***30***	***526***	***311***	***37***	***548***
Total all access speeds	**740**	**100**	**620**	**846**	**100**	**614**
HOUSEHOLD SUBSCRIBERS						
Less than 256kbps	3 871	86	583	3 916	80	574
Broadband(b)						
256kbps to less than 512kbps	192	4	404	390	8	446
512kbps to less than 1.5Mbps	244	5	322	222	5	346
1.5Mbps to less than 2Mbps	np	np	212	np	np	213
2Mbps or greater	np	np	43	np	np	28
Total Broadband (256kbps or greater)	***609***	***14***	***438***	***979***	***20***	***473***
Total all access speeds	**4 480**	**100**	**622**	**4 895**	**100**	**613**
ALL SUBSCRIBERS						
Less than 256kbps	4 386	84	633	4 451	78	624
Broadband(b)						
256kbps to less than 512kbps	287	5	502	530	9	544
512kbps to less than 1.5Mbps	341	7	469	305	5	483
1.5Mbps to less than 2Mbps	np	np	358	np	np	366
2Mbps or greater	np	np	157	np	np	154
Total Broadband (256kbps or greater)	***834***	***16***	***576***	***1 290***	***22***	***598***
Total all access speeds	**5 220**	**100**	**694**	**5 741**	**100**	**687**

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

(a) ISPs are counted for each download speed range, hence, totals may not equal the sum of components.

(b) See Glossary for definition of broadband.

CHAPTER 3 ISPS AND SPAM

ISPS

Of the 687 active ISPs in Australia at the end of September 2004, 494 (72%) offered their subscribers a SPAM filtering product as either a free or charged service. This was a seven percentage point increase from the end of March 2004. At the end of September 2004, there were 386 ISPs offering SPAM filtering products as a free service, 40 ISPs offering SPAM filtering products as a charged service and a further 70 ISPs who provided both a free and charged service.

SUBSCRIBERS

At the end of September 2004, 24% of all subscribers (almost 1.4 million Internet subscribers) had adopted a SPAM filtering product offered by their ISP, an increase of over 25% from the proportion recorded at the end of March 2004 (19%). Some 214,000 business and government subscribers (25%) had adopted a SPAM filtering product offered by their ISP at the end of September 2004. This was a similar proportion to the almost 1.2 million household subscribers (24%) who had also done so.

The uptake of SPAM filtering products was very similar across both access types with 25% of dial-up subscribers and 21% of non dial-up subscribers having adopted these services. This compared with take up of 19% for dial-up subscribers and 20% for non dial-up subscribers recorded at the end of March 2004. When cross-classified by subscriber type, the uptake for business and government non dial-up subscribers at the end of September 2004 increased to almost 23% (73,000 subscribers) while the uptake by household non dial-up subscribers remained static at 20%.

It should be noted that the IAS only measures the uptake of SPAM filtering products by subscribers where the product is supplied by the ISP. There are many other alternatives available to subscribers including the purchase and downloading of software available on the Internet, and the downloading of freeware from the Internet.

3.1 ISPS AND SPAM FILTERING PRODUCTS, by type of service offered

	March Quarter 2004	*September Quarter 2004*
	no.	no.
ISPs offering SPAM filtering products as a free service only	354	386
ISPs offering SPAM filtering products as a charged service only	44	40
ISPs offering SPAM filtering products as both a free and a charged service	50	70
ISPs not offering a SPAM filtering product	246	189

3.2 INTERNET SUBSCRIBERS ADOPTING AND ISPS OFFERING SPAM FILTERING PRODUCTS, by access technology, by subscriber type

	MARCH QUARTER 2004		SEPTEMBER QUARTER 2004	
	Number of ISPs offering SPAM filtering products(a)	*Subscribers who have adopted SPAM filtering products*	*Number of ISPs offering SPAM filtering products*(a)	*Subscribers who have adopted SPAM filtering products*
	no.	'000	no.	'000
Dial-up				
Business and government subscribers	268	103	375	141
Household subscribers	374	731	418	968
Total	*400*	*833*	*444*	*1 109*
Non dial-up				
Business and government subscribers	253	47	393	73
Household subscribers	226	126	354	200
Total	*283*	*172*	*428*	*273*
Total				
Business and government subscribers	319	149	442	214
Household subscribers	397	856	439	1 168
Total	*448*	*1 005*	*494*	*1 382*

(a) ISPs are counted for each type of subscriber, hence, totals may not equal sum of components.

CHAPTER 4 DATA DOWNLOADED

ALL ACCESS TECHNOLOGIES

There were 11,004 million megabytes (MB) of data downloaded by subscribers during the three months ended 30 September 2004. This was an increase of 72% from the 6,409 million MBs downloaded by subscribers during the three months ended 31 March 2004.

An average of 2,057 MBs per subscriber was downloaded during the three months ended 30 September 2004. This was an increase of 829 MBs per subscriber or 68% over the March quarter 2004 figure of 1,228 MBs per subscriber. Please refer to the Glossary for a description of how average data downloaded per subscriber is calculated.

Household subscribers, representing 85% of all subscribers, downloaded 8,444 million MBs (77% of all data downloaded). This resulted in an average of 1,842 MBs per household subscriber, an increase of 733 MBs per subscriber or 66% over the March quarter 2004 figure of 1,109 MBs per subscriber.

Business and government subscribers downloaded 2,560 million MBs during the three months ended 30 September 2004. This was an increase of 1,129 million MBs (79%) from the March quarter 2004. Average downloads per business and government subscriber rose by 1,377 MBs (70%) to 3,340 MBs per subscriber.

DIAL-UP AND NON DIAL-UP ACCESS TECHNOLOGIES

Non dial-up subscribers downloaded 9,287 million MBs during the three months ended 30 September 2004, representing 84% of all data downloaded and an increase of 93% in the amount of data downloaded by non dial-up subscribers from the March quarter 2004. An average of 9,565 MBs was downloaded by non dial-up subscribers. In contrast, dial-up subscribers downloaded 1,718 million MBs at an average of 392 MBs per subscriber. The faster download speeds offered by the majority of the non dial-up connections allow more data to be downloaded within the same time online, leading to the higher average downloads by non dial-up subscribers. This, combined with the increase of 51% in the number of non dial-up subscribers, contributed to the large growth in data downloaded.

Business and government non dial-up subscribers downloaded 2,307 million MBs at an average of 8,839 MBs per subscriber, while household non dial-up subscribers downloaded a total of 6,979 million MBs at an average of 9,832 MBs per subscriber. In comparison, business and government dial-up subscribers downloaded 253 million MBs at an average of 500 MBs per subscriber, while download levels for household dial-up subscribers remained virtually static at just under 1.5 million MBs, an average of 378 MBs per subscriber for the three months ended September 2004.

4.1 VOLUME OF DATA DOWNLOADED, by access technology, by subscriber type, by ISP size(a)

	MARCH QUARTER 2004						SEPTEMBER QUARTER 2004					
	Dial-up		*Non dial-up*		*Total*		*Dial-up*		*Non dial-up*		*Total*	
	million MBs	*%*	*million MBs*	*%*	*million MBs*	*%*	*million MBs*	*%*	*million MBs*	*%*	*million MBs*	*%*
BUSINESS AND GOVERNMENT SUBSCRIBERS												
Very small	1	1	41	3	42	3	1	—	57	2	57	2
Small	9	7	167	13	177	12	13	5	230	10	243	10
Medium	34	25	171	13	205	14	25	10	250	11	275	11
Large	26	19	683	53	709	50	70	28	835	36	905	35
Very large	66	48	231	18	297	21	144	57	935	41	1 079	42
Total	***137***	***100***	***1 294***	***100***	***1 431***	***100***	***253***	***100***	***2 307***	***100***	***2 560***	***100***
HOUSEHOLD SUBSCRIBERS												
Very small	2	—	5	—	7	—	1	—	18	—	19	—
Small	34	2	51	1	85	2	37	2	91	1	128	2
Medium	161	11	128	4	289	6	115	8	309	4	424	5
Large	239	16	798	23	1 037	21	254	17	1 543	22	1 797	21
Very large	1 021	70	2 538	72	3 559	71	1 059	72	5 018	72	6 077	72
Total	***1 457***	***100***	***3 521***	***100***	***4 978***	***100***	***1 465***	***100***	***6 979***	***100***	***8 444***	***100***
ALL SUBSCRIBERS												
Very small	3	—	47	1	50	1	2	—	74	1	76	1
Small	44	3	218	5	262	4	50	3	321	3	371	3
Medium	195	12	299	6	494	8	140	8	559	6	699	6
Large	265	17	1 482	31	1 747	27	324	19	2 378	26	2 702	25
Very large	1 088	68	2 769	58	3 856	60	1 203	70	5 953	64	7 156	65
Total	***1 594***	***100***	***4 815***	***100***	***6 409***	***100***	***1 718***	***100***	***9 287***	***100***	***11 004***	***100***

— nil or rounded to zero (including null cells)

(a) See paragraph 6 of the Explanatory Notes for a description of the ISP size categories.

4.2 AVERAGE DATA DOWNLOADED BY SUBSCRIBERS(a), by access technology, by subscriber type, by ISP size(b)

	MARCH QUARTER 2004			SEPTEMBER QUARTER 2004		
	Dial-up	*Non dial-up*	*Total*	*Dial-up*	*Non dial-up*	*Total*
	MB/subscriber	MB/subscriber	MB/subscriber	MB/subscriber	MB/subscriber	MB/subscriber
BUSINESS AND GOVERNMENT SUBSCRIBERS						
Very small	768	18 807	11 948	387	24 455	15 710
Small	425	10 930	4 731	635	13 746	6 493
Medium	483	6 869	2 133	346	8 956	2 769
Large	356	9 488	4 903	924	10 749	5 888
Very large	199	2 031	665	429	6 859	2 285
Total	*274*	*5 669*	*1 963*	*500*	*8 839*	*3 340*
HOUSEHOLD SUBSCRIBERS						
Very small	610	6 242	1 739	379	19 424	4 330
Small	389	5 983	882	422	9 440	1 328
Medium	467	4 587	776	348	9 210	1 166
Large	440	10 004	1 665	490	16 428	2 941
Very large	350	5 368	1 049	361	8 776	1 732
Total	*374*	*5 968*	*1 109*	*378*	*9 832*	*1 842*
ALL SUBSCRIBERS						
Very small	655	15 322	6 408	381	23 048	9 523
Small	397	9 162	1 956	464	12 170	2 776
Medium	469	5 660	1 054	348	9 095	1 510
Large	430	9 759	2 275	546	13 858	3 533
Very large	334	4 720	1 004	368	8 407	1 798
Total	*362*	*5 885*	*1 228*	*392*	*9 565*	*2 057*

(a) See Glossary item 'Average data downloaded per subscriber' for a description of the calculation process.

(b) See paragraph 6 of the Explanatory Notes for a description of ISP size categories.

EXPLANATORY NOTES

INTRODUCTION

1 This publication presents results from the Internet Activity Survey (IAS) conducted in respect of the three months ending 30 September 2004.

CENSUS SCOPE AND METHODOLOGY

2 The IAS is a census that covers all identified Internet Service Providers (ISPs) providing Internet access across Australia. The scope of the IAS is all Australian based ISPs operating at the end of the reference period. ISPs are defined as businesses that supply Internet connectivity and access services to individuals, households, businesses, government and other organisations. Libraries, Internet kiosks and Internet cafes which provide Internet access on a casual basis are excluded from the census. The primary source of the IAS population frame is the Telecommunications Industry Ombudsman (TIO) with which ISPs are required to register. The TIO list is supplemented with ISPs identified from other sources such as Internet association membership lists and industry media.

3 The IAS is conducted as a mail-out, mail-back census.

SUBSCRIBERS

4 Active subscribers are defined as subscribers having accounts with ISPs who have accessed the Internet or paid for access to the Internet during the three months 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. Conversely, a single ISP subscriber account may provide Internet access (or email addresses) for several people/organisations.

STATISTICAL UNIT

5 The unit for which statistics were reported in the census was the legal entity providing Internet access.

6 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:

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

REFERENCE PERIOD

7 At present, the IAS is conducted biannually and the reference quarters are March and September. This equates to the end of March and September for most data items collected and the three months ended March and September for volume of data downloaded. This publication includes information reported by ISPs which were operating in Australia at the end of the reference quarter. Figures on the volume of data downloaded relate to data downloaded during the three months of the reference quarter as reported by ISPs still in operation at the end of the reference quarter. No attempt is made to collect volume of data downloaded from ISPs who ceased operation during the three months to the end of the reference quarter.

8 Following the March quarter 2005 collection, the frequency of the IAS will reduce from biannual to annual.

RELIABILITY OF DATA

9 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 errors, may affect the data. These non-sampling errors may arise from a number of sources, including:

- errors in the reporting of data by respondents;
- errors in capturing or processing of data;
- estimation for missing or misreported data; and
- definition and classification errors.

10 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.

11 Estimates for data at the state/territory level are derived from the data provided for POPs (Points of Presence or servers). In recent cycles, changing access technologies, infrastructure and operational arrangements have been impacting on the quality of the data at the POP level. As a result, data presented at the state/territory level should be considered only indicative measures of Internet activity at the reference date.

12 The same issues related to the quality of POP data have had a more significant impact at the Statistical Division level. These data cannot be adequately quality assured and could present misleading indicators of regional activity and usage. These data are no longer available for release.

ACKNOWLEDGMENT

13 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*.

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

RELATED PUBLICATIONS

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

Business Use of Information Technology, 2002–03, cat. no. 8129.0
Government Technology, Australia, 2002–03, cat. no. 8119.0
Household Use of Information Technology, Australia, 2002 and 2003, cat. no. 8146.0
Information and Communication Technology, Australia 2002–03, cat. no. 8126.0
Use of Information Technology on Farms, Australia, 2002–03, cat. no. 8150.0

DATA AVAILABLE ON REQUEST

16 As well as the statistics included in this and related publications, the ABS may have other relevant data available on request and for a charge. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

MORE INFORMATION ON ABS INFORMATION TECHNOLOGY STATISTICS

17 Information about ABS activities in the field of information technology statistics is available from the Industry/ Information Technology theme page on the ABS web site <http://www.abs.gov.au>.

GLOSSARY

Access plan	The Internet access package options available to subscribers from ISPs.
Access lines	Lines, points, ports, modem access points available to subscribers to access their ISP.
Active subscribers	Subscribers who have accessed the Internet or paid for access to the Internet through an ISP in the 90 days during the reference period.
Analog/Public Switched Telephone Network (PSTN)	A telecommunications network operated by a carrier to provide services to the public.
Average data downloaded per subscriber	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.
Bit	Abbreviation for *bi*nary digi*t* and describing the smallest unit of information handled by a computer. One bit expresses a 1 or a 0 in a binary numeral, or a true or false logical condition. See also Byte.
Broadband	Defined by ABS as an 'always on' Internet connection with an access speed equal to or greater than 256Kbps.
Business and government subscribers	All businesses, corporations, non profit organisations and government organisations who obtain access to the Internet through an ISP. Some ISPs are unable to separate out subscriber numbers for business and government. These ISPs provide business plan subscribers as a proxy.
Byte	Abbreviation for *b*inary *te*rm. A unit of data, today almost always consisting of 8 bits. A byte can represent a single character, such as a letter, a digit, or a punctuation mark. See also kilobit and kilobyte.
Cable	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.
Data downloaded	Volume of data downloaded from the Internet by subscribers in megabytes (MBs).
Dial-up subscribers	Subscribers who connect to the Internet via modem and dial-up software utilising the public switched telecommunication network (PSTN).
Digital Subscriber Line (DSL)	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.
Free access	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.
Fixed Wireless Internet access	Point to point microwave link, generally building to building or tower to building which allows subscribers within the receiving building to access the Internet. Sender and receiver must be within line of sight and no more than 22 kilometres apart.
Hourly access plan	A subscription option where customers pay for Internet access on an hours-on-line basis.
Household subscribers	Households and private individuals who subscribe to Internet access via an ISP. This may include some home based businesses. Some ISPs are unable to separate out subscriber numbers for households. These ISPs provide residential plan subscribers as a proxy.

Internet	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.
Internet Service Provider (ISP)	Resident Australian individuals or businesses offering Internet access services to customers.
Integrated Services Digital Network (ISDN)	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. ISDN enables digital transmission over the PSTN.
Kilobit (Kb)	A data unit of 1,024 bits and generally abbreviated as kb or kbit. Data speeds are generally referred to in kilobits (kbps) rather than kilobytes.
Kilobyte (KB)	A data unit of 1,024 bytes and generally abbreviated as KB or Kbyte.
Megabit (Mb)	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)
Megabyte (MB)	A data unit of 1,048, 576 bytes, sometimes interpreted as 1 million bytes.
Mobile Wireless Internet access	Mobile Internet access via 'hotspots' using a microwave connection often referred to as WiFi. Most commonly utilised by laptop users although it is also becoming increasingly popular within homes and businesses with multiple computers.
Monthly/quarterly/annual access plan	A subscription option where customers pay a flat monthly/quarterly/annual fee, and receive either a set period of time online 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.
Non Dial-up connections	Refers to permanent and 'always on' connections to the Internet via a variety of technologies including Integrated Services Digital Network (ISDN), Digital Subscriber Lines (DSL), Cable, Wireless, Satellite, dedicated data service, frame relay, etc.
PSTN	See Analog/Public Switched Telephone Network (PSTN).
Satellite/communications satellite	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.
SPAM	SPAM is defined as unsolicited electronic messaging, regardless of its content.
Subscriber	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.
Volume Only	Volume only plan subscribers are only billed for data downloaded. They do not pay for time spent online and pay no monthly/quarterly/annual access fees but can be billed by any of these periods for data downloaded.

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INTERNET	**www.abs.gov.au** 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.
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