



INTERNET ACTIVITY

AUSTRALIA

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C O N T E N T S

	<i>page</i>
Notes	2
List of tables	3

CHAPTERS

1 Summary of Internet activity findings	4
2 Subscriber characteristics	7
3 Technical and other services provided by ISPs	13
4 Selected activity data	16
5 Regional data	18

ADDITIONAL INFORMATION

Explanatory notes	24
Glossary	27
Reference maps	29

- For further information about these and related statistics, contact the National Information Service on 1300 135 070 or Dean Bloom on Brisbane 07 3222 6404.

NOTES

FORTHCOMING ISSUES

<i>ISSUE (Quarter)</i>	<i>RELEASE DATE</i>
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ABOUT THIS PUBLICATION

This publication, which is the first in a new series, presents statistics on Internet activity conducted through Australian Internet Service Providers (ISPs). It contains results from a survey of all identified ISPs providing Internet access services in respect of the three months ended September 2000. A time series of the main aggregates will be provided in subsequent releases.

ABOUT THE SURVEY

The Internet Activity Survey is a quarterly survey which collects details on the access characteristics of ISPs in Australia. The survey population includes all ISPs registered with the Telecommunications Industry Ombudsman as well as those identified from other sources.

The survey will measure changes in the structure of the ISP industry and the numbers of Australian households and organisations obtaining access to the Internet through ISPs. It will also measure movements in the type and amount of infrastructure available to provide Internet connectivity.

MORE INFORMATION ON ABS INFORMATION TECHNOLOGY STATISTICS

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 <URL: <http://www.abs.gov>>. 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 18 of the Explanatory Notes of this publication.

COMMENTS

The ABS welcomes comments and suggestions from users regarding survey content and publication presentation. These comments should be addressed to the Director, Science and Technology Statistics Section, Australian Bureau of Statistics, PO Box 10 Belconnen, ACT, 2616.

ROUNDING

Where figures have been rounded, discrepancies may occur between the sum of the component items and the total.

Dennis Trewin
Australian Statistician

LIST OF TABLES

page

SUMMARY OF INTERNET ACTIVITY FINDINGS

- 1.1** Internet Activity Summary, Australia 6
- 1.2** State and Territory Summary 6

SUBSCRIBER CHARACTERISTICS

- 2.1** Selected Characteristics of Internet Subscribers 8
- 2.2** Subscriber Churn Rates 9
- 2.3** Internet Access Plans 10
- 2.4** Internet Access Technology 12

TECHNICAL AND OTHER SERVICES PROVIDED BY ISPs

- 3.1** Access Support Provided by ISPs 14
- 3.2** Related Services Provided by ISPs 15

SELECTED ACTIVITY DATA

- 4.1** Volume of Data Downloaded 17

REGIONAL DATA

- 5.1** Selected Internet Activity by Statistical Division 20
- 5.2** Selected Internet Activity by ARIA Category 22

ISP s

There were 718 Internet Service Providers (ISPs) in Australia supplying Internet access services to 3.8 million active subscribers at the end of September quarter 2000. There were:

- 8 Very large ISPs (with more than 100,000 subscribers) which provided Internet access to 60% (2.3 million) of all Internet subscribers.
- 28 Large ISPs (with 10,001 to 100,000 subscribers) with 23% (0.9 million) of subscribers.
- 173 Medium ISPs (with 1,001 to 10,000 subscribers) with 13% (0.5 million) of subscribers.
- 377 Small ISPs (with 101 to 1,000 subscribers) with 4% (0.2 million) of subscribers.
- 132 Very small ISPs (with 100 or fewer subscribers) with only 0.1% (4,400) of subscribers.

Of the 718 ISPs operating in Australia, 595 (83%) had operations in only one State or Territory. Of these, 473 ISPs (66% of all ISPs) had operations at only one Point of presence (POP).

INTERNET SUBSCRIBERS

Of the 3.8 million Internet subscribers in Australia, there were 3.4 million Household subscribers and 432,000 Business and government subscribers. Internet subscribers are customers (individuals or businesses) with ISP accounts, and counts of subscribers are different to counts of people/organisations with Internet access because, at any particular time, subscribers may have accounts with more than one ISP.

During the September quarter 2000, there was an 11% (336,000) increase in the number of Household Internet subscribers and a 14% (52,000) increase in the number of Business and government Internet subscribers.

WEB SITES HOSTED

At the end of September quarter 2000, ISPs hosted 101,235 Business and government Web sites of which 3,710 (3.7%) provided an environment for secure transactions. Web hosting services were provided by 93% of ISPs and secure access transaction capabilities were provided by 48% of ISPs.

POPS AND ACCESS LINES

Across Australia, ISPs provided 2,244 Points of presence (POPs) and 521,645 access lines, which indicates that on average there were 7.4 subscribers per Internet access line. A POP is a geographical location where a subscriber can access (connect to) an ISP via access lines.

DATA DOWNLOADED

There were 1,052 million megabytes (Mbs) of data downloaded by Internet subscribers during the September quarter 2000, which is an average of 273 Mbs per subscriber. Household subscribers downloaded 595 million Mbs (average of 174 Mbs per Household

DATA DOWNLOADED

continued

subscriber) and Business and government subscribers downloaded 457 million Mbs (average of 1,058 Mbs per Business and government subscriber).

STATE AND TERRITORY

The larger States generally dominate Internet activity in Australia:

- New South Wales — 299 ISPs providing 33% of POPs, 34% of access lines, 34% of Internet subscribers and 32% of data downloaded by subscribers. On average there were 7.4 subscribers per Internet access line and 258 Mbs of data downloaded in the quarter per subscriber.
- Victoria — 267 ISPs providing 23% of POPs, 28% of access lines, 27% of Internet subscribers and 31% of data downloaded by subscribers. On average there were 6.9 subscribers per Internet access line and 321 Mbs of data downloaded in the quarter per subscriber.
- Queensland — 177 ISPs providing 19% of POPs, 18% of access lines, 20% of Internet subscribers and 17% of data downloaded by subscribers. On average there were 8 subscribers per Internet access line and 235 Mbs of data downloaded in the quarter per subscriber.
- South Australia — 78 ISPs providing 8% of POPs, 5% of access lines, 6% of Internet subscribers and 6% of data downloaded by subscribers. On average there were 8.7 subscribers per Internet access line and 238 Mbs of data downloaded in the quarter per subscriber.
- Western Australia — 113 ISPs providing 10% of POPs, 9% of access lines, 8% of Internet subscribers and 9% of data downloaded by subscribers. On average there were 6.6 subscribers per Internet access line and 312 Mbs of data downloaded in the quarter per subscriber.
- Tasmania — 30 ISPs providing 3% of POPs, 2% of access lines, 2% of Internet subscribers and 1% of data downloaded by subscribers. On average there were 9 subscribers per Internet access line and 181 Mbs of data downloaded in the quarter per subscriber.
- Northern Territory — 17 ISPs providing 1% of POPs, 1% of access lines, 1% of Internet subscribers and 1% of data downloaded by subscribers. On average there were 9.6 subscribers per Internet access line and 272 Mbs of data downloaded in the quarter per subscriber.
- Australian Capital Territory — 58 ISPs providing 3% cent of POPs, 3% of access lines, 2% of Internet subscribers and 3% of data downloaded by subscribers. On average there were 6.6 subscribers per Internet access line and 311 Mbs of data downloaded in the quarter per subscriber.

Capital city Statistical Divisions (SDs) accounted for 75% of subscribers, 77% of access lines and 82% of Mbs downloaded. Only 1.4% of subscribers were located in Very remote or Remote regions in Australia.

1.1

INTERNET ACTIVITY SUMMARY, Australia

Total

Very small ISPs (no.)	132
Small ISPs (no.)	377
Medium ISPs (no.)	173
Large ISPs (no.)	28
Very large ISPs (no.)	8
Total ISPs (no.)	718
Points of presence (no.)	2 244
Access lines (no.)	521 645
Business and government subscribers ('000)	432
Household subscribers ('000)	3 417
All subscribers ('000)	3 849
Data downloaded by business and government subscribers (millions Mb)	457
Data downloaded by household subscribers (millions Mb)	595
Data downloaded by subscribers (millions Mb)	1 052
Business and government Web sites (no.)	101 235
Business and government Web sites with secure transaction capabilities (no.)	3 710

1.2

STATE AND TERRITORY SUMMARY

	ISPs	POPs	Access lines	All subscribers	Data downloaded by subscribers
	no.	no.	no.	'000	millions Mb
New South Wales	299	738	176 078	1 301	336
Victoria	267	505	148 583	1 020	327
Queensland	177	427	96 035	771	181
South Australia	78	176	28 324	246	59
Western Australia	113	233	47 891	318	99
Tasmania	30	66	8 458	76	14
Northern Territory	17	30	3 183	30	8
Australian Capital Territory	58	69	13 093	86	27
Total for Australia	718	2 244	521 645	3 849	1 052

SUBSCRIBERS

At the end of the September quarter 2000, there were 3.8 million active Internet subscribers in Australia comprising 3.4 million Household Internet subscribers and 432,000 Business and government Internet subscribers. 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 different to counts of people/organisations with Internet access because, at any particular time, subscribers may have accounts with more than one ISP.

Only 3% of subscribers had permanent access to the Internet, with the remaining having dial-up access.

SUBSCRIBER GROWTH

During the September quarter 2000, there was an 11% (336,000) increase in the number of Household Internet subscribers and a 14% (52,000) increase in the number of Business and government Internet subscribers.

SUBSCRIBER CHURN

An important performance indicator for ISPs is the amount of Internet subscriber churn that is occurring (i.e. subscriber accounts closed during a period divided by all active subscriber accounts at the end of the period). For the September quarter 2000 the churn rate for Household Internet subscribers was 5.2% and for Business and government Internet subscribers it was 1.9%.

ACCESS TECHNOLOGY

The principal Internet access technology utilised by subscribers is analog connection. For dial-up subscribers, 89% (3.3 million) were connected to the Internet by an analog line and 10% (0.4 million) by digital connections. For permanently connected subscribers, 30% (32,000) were connected by analog and 19% (19,000) by digital. Small numbers of subscribers were connected to the Internet by emerging technologies such as wireless (WAP), cable, satellite and microwave.

ACCESS PLANS

Of the 3.8 million Internet subscribers, 18% (0.7 million) were on a free Internet access plan. Nearly all (99%) of the free Internet access plans related to Household subscribers.

The majority of fee paying Internet subscribers were either on a monthly/quarterly/annual access plan (64% or 2.4 million subscribers), or an hourly access plan (15% or 0.6 million subscribers). There were 79% (341,000) of Business and government subscribers on a monthly/quarterly/annual access plan, whereas 62% (2.1 million subscribers) of Household subscribers used these plans. There were 17% (73,000 subscribers) of Business and government subscribers on an hourly access plan while 15% (0.5 million subscribers) of Household subscribers were connected under this arrangement.

2.1 SELECTED CHARACTERISTICS OF INTERNET SUBSCRIBERS (a)

	<i>Business and government subscribers</i>	<i>Household subscribers</i>	<i>Total</i>
	'000	'000	'000
Subscribers at beginning of reference period			
Dial-up access	np	np	3 381
Permanent access	np	np	80
Total	380	3 081	3 460
New subscribers during reference period			
Dial-up access	np	np	548
Permanent access	np	np	26
Total	61	513	574
Subscribers who left during the reference period			
Dial-up access	np	np	184
Permanent access	np	np	1
Total	8	177	185
Subscribers at end of reference period			
Dial-up access	np	np	3 745
Permanent access	np	np	105
Total	432	3 417	3 849

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

(a) 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 different to counts of people/organisations with Internet access because, at any particular time, subscribers may have accounts with more than one ISP.

2.2

SUBSCRIBER CHURN RATES (a)

	<i>Dial up access</i>	<i>Permanent access</i>	<i>Total</i>
	%	%	%
Business and government subscribers			
Very small ISPs	12.2	4.5	9.7
Small ISPs	7.1	5.2	7.0
Medium ISPs	2.8	4.5	2.9
Large ISPs	0.7	0.1	0.6
Very large ISPs	1.0	2.0	1.2
Total	2.0	1.5	1.9
Household subscribers			
Very small ISPs	16.2	44.0	16.5
Small ISPs	11.2	29.5	11.3
Medium ISPs	4.3	12.8	4.3
Large ISPs	2.1	23.7	2.1
Very large ISPs	6.1	—	6.0
Total	5.2	0.5	5.2
All subscribers			
Very small ISPs	14.2	6.3	13.3
Small ISPs	10.4	7.0	10.4
Medium ISPs	3.9	5.5	4.0
Large ISPs	1.9	0.1	1.9
Very large ISPs	5.8	0.9	5.7
Total	4.9	1.1	4.8

— nil or rounded to zero (including null cells)

(a) Subscriber churn rate equals the number of subscribers that left during the reference period divided by the number of subscribers at the end of the reference period.

2.3 INTERNET ACCESS PLANS

	FREE ACCESS .		MONTHLY/QUARTERLY/ ANNUAL ACCESS		HOURLY ACCESS	
	<i>Subscribers</i>	<i>Subscribers</i>	<i>Subscribers</i>	<i>Subscribers</i>	<i>Subscribers</i>	<i>Subscribers</i>
	'000	%	'000	%	'000	%
Business and government subscribers						
Very small ISPs	—	3	1	71	—	10
Small ISPs	—	1	25	74	8	22
Medium ISPs	1	1	61	53	50	44
Large ISPs	np	np	132	91	13	9
Very large ISPs	np	np	122	90	3	2
Total	6	1	341	79	73	17
Household subscribers						
Very small ISPs	—	4	2	73	—	15
Small ISPs	4	3	88	70	30	24
Medium ISPs	6	1	227	59	139	36
Large ISPs	100	14	389	53	172	23
Very large ISPs	569	26	1 399	64	174	8
Total	679	20	2 105	62	515	15
All subscribers						
Very small ISPs	—	4	3	72	1	13
Small ISPs	4	3	113	70	37	23
Medium ISPs	6	1	288	58	190	38
Large ISPs	np	np	521	59	185	21
Very large ISPs	np	np	1 521	66	176	8
Total	685	18	2 447	64	589	15

— nil or rounded to zero (including null cells)

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

2.3INTERNET ACCESS PLANS *continued*

	OTHER ACCESS		ALL ACCESS PLANS	
	<i>Subscribers</i>	<i>Subscribers</i>	<i>Subscribers</i>	<i>Subscribers</i>
	'000	%	'000	%
Business and government subscribers				
Very small ISPs	—	15	2	100
Small ISPs	1	3	34	100
Medium ISPs	3	3	116	100
Large ISPs	np	np	145	100
Very large ISPs	np	np	136	100
Total	12	3	432	100
Household subscribers				
Very small ISPs	—	8	3	100
Small ISPs	5	4	127	100
Medium ISPs	13	3	385	100
Large ISPs	73	10	733	100
Very large ISPs	27	1	2 169	100
Total	118	3	3 417	100
All subscribers				
Very small ISPs	—	10	4	100
Small ISPs	6	3	161	100
Medium ISPs	16	3	500	100
Large ISPs	np	np	879	100
Very large ISPs	np	np	2 306	100
Total	129	3	3 849	100

— nil or rounded to zero (including null cells)

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

2.4 INTERNET ACCESS TECHNOLOGY

	Subscribers '000	Subscribers %	ISPs providing this access (a) no.
Dial-up access			
Analog	3 349	89	642
Digital	380	10	132
Wireless	8	—	16
Satellite	3	—	8
Other	6	—	5
Total dial-up	3 745	100	696
Permanent access			
Analog	32	31	415
DSL	6	6	28
Digital	13	13	204
Cable	np	np	11
Satellite	np	np	8
Microwave	—	—	23
Other	1	1	18
Total permanent	105	100	503
Total	3 849	100	718

— 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.

CHAPTER **3**

TECHNICAL AND OTHER SERVICES PROVIDED BY ISPs

ACCESS SUPPORT

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

On-line support services were provided by 79% of ISPs with the larger ISPs (Very large ISPs 100% and Large ISPs 89%) more likely to provide this service than smaller ISPs (Very small ISPs 69% and Small ISPs 79%).

Different levels of help desk support were offered by ISPs, with the larger ISPs generally more likely to provide this service:

- business hours — this service was provided by 88% of ISPs;
- extended hours — provided by 64% of ISPs; and
- 24 hours — provided by 16% of ISPs.

Call out/on site support services were provided by 67% of ISPs .

Other technical services provided by ISPs were start up disk/package services (provided by 49% of ISPs) and pager services (provided by 21% of ISPs).

RELATED SERVICES

Other related services provided by ISPs include Web design and Web hosting, providing secure access or transaction capabilities, providing network/systems integration services and training services. Services were provided as follows:

- Web design — this service was provided by 70% of ISPs;
- Web hosting — provided by 93% of ISPs;
- secure access or transactions capabilities — provided by 48% of ISPs;
- network/systems integration — provided by 61% of ISPs; and
- training services — provided by 44% of 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 ACCESS SUPPORT PROVIDED BY ISPs(a)

		<i>Very small ISPs</i>	<i>Small ISPs</i>	<i>Medium ISPs</i>	<i>Large ISPs</i>	<i>Very large ISPs</i>	<i>Total</i>
Online support service							
	no.	91	296	149	25	8	569
	%	69	79	86	89	100	79
Business hours help desk							
	no.	102	334	163	26	7	632
	%	77	89	94	93	88	88
Extended hours help desk support							
	no.	70	235	124	24	7	460
	%	53	62	72	86	88	64
24 hour help desk support							
	no.	29	46	17	14	6	112
	%	22	12	10	50	75	16
Pager service							
	no.	27	88	31	np	np	153
	%	20	23	18	np	np	21
Call out/on site support services							
	no.	85	271	116	np	np	483
	%	64	72	67	np	np	67
Start up disk/package							
	no.	31	182	112	22	7	354
	%	23	48	65	79	88	49

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

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

3.2

RELATED SERVICES PROVIDED BY ISPs(a)

		<i>Very small ISPs</i>	<i>Small ISPs</i>	<i>Medium ISPs</i>	<i>Large ISPs</i>	<i>Very large ISPs</i>	<i>Total</i>
Web design							
	no.	86	290	119	np	np	505
	%	65	77	69	np	np	70
Training services							
	no.	51	183	72	np	np	313
	%	39	49	42	np	np	44
Network/Systems integration							
	no.	75	236	105	14	5	435
	%	57	63	61	50	63	61
Secure access or transactions							
	no.	50	171	105	13	3	342
	%	38	45	61	46	38	48
Web hosting							
	no.	108	366	164	22	7	667
	%	82	97	95	79	88	93

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

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

DATA DOWNLOADED

There were 1,052 million megabytes (Mbs) of data downloaded by Internet subscribers during the September quarter 2000. Household subscribers downloaded 595 million Mbs (57%) while Business and government subscribers downloaded 457 million Mbs (43%). The majority of the Mbs downloaded came from the larger ISPs. Downloads from Very large ISPs accounted for 34% of the Mbs downloaded by subscribers, with Large ISPs and Medium ISPs accounting for 39% and 20% respectively.

There was an average of 273 Mbs of data downloaded per Internet subscriber during the three months of the September quarter 2000. Household subscribers downloaded an average of 174 Mbs of data and Business and government subscribers downloaded an average of 1,058 Mbs of data.

Internet subscribers serviced by smaller ISPs tended to have higher average Mbs download levels (an average of 1,250 Mbs for Very small ISPs and 404 Mbs for Small ISPs) than subscribers serviced by larger ISPs (154 Mbs for Very large ISPs and 471 Mbs for Large ISPs).

4.1

VOLUME OF DATA DOWNLOADED

	<i>Data downloaded</i>	<i>Data downloaded</i>
	millions Mb	%
Business and government subscribers		
Very small ISPs	5	1
Small ISPs	15	3
Medium ISPs	56	12
Large ISPs	269	59
Very large ISPs	112	25
Total	457	100
Household subscribers		
Very small ISPs	1	—
Small ISPs	50	8
Medium ISPs	155	26
Large ISPs	145	24
Very large ISPs	244	41
Total	595	100
All subscribers		
Very small ISPs	5	—
Small ISPs	65	6
Medium ISPs	211	20
Large ISPs	414	39
Very large ISPs	356	34
Total	1 052	100

— nil or rounded to zero (including null cells)

INTRODUCTION

The details presented on access lines, Internet subscribers and volume of data downloaded in the following tables relate to a combination of data for dial-up and permanent subscribers as well as Household and Business and government subscribers. Accordingly, the details should be used with caution as the proportions of types of subscribers would vary between regional areas.

STATISTICAL DIVISIONS

There was a wide distribution of ISPs across Statistical Divisions (SDs) in Australia, with the highest concentration occurring in the Capital city SDs. Capital city SDs accounted for 77% of access lines, 75% of subscribers, 82% of Mbs downloaded. They recorded an average of 7.2 subscribers per access line and an average of 301 Mbs of data downloaded per subscriber. This compares with 8.1 subscribers per access line and an average of 191 Mbs of data downloaded per subscriber for all other SDs across Australia.

- New South Wales — Sydney SD had 224 ISPs servicing 970,000 subscribers (75% of State subscribers). All other SDs in the State had 126 ISPs servicing 331,000 subscribers.
- Victoria — Melbourne SD had 230 ISPs servicing 855,000 subscribers (84% of State subscribers). All other SDs in the State had 73 ISPs servicing 165,000 subscribers.
- Queensland — Brisbane SD had 119 ISPs servicing 417,000 subscribers (54% of State subscribers). All other SDs in the State had 98 ISPs servicing 354,000 subscribers
- South Australia — Adelaide SD had 68 ISPs servicing 212,000 subscribers (86% of State subscribers). All other SDs in the State had 21 ISPs servicing 34,000 subscribers.
- Western Australia — Perth SD had 94 ISPs servicing 264,000 subscribers (83% of State subscribers). All other SDs in the State had 34 ISPs servicing 54,000 subscribers.
- Tasmania — Greater Hobart SD had 27 ISPs servicing 45,000 subscribers (59% of State subscribers). All other SDs in the State had 18 ISPs servicing 31,000 subscribers.
- Northern Territory — Darwin SD had 16 ISPs servicing 23,000 subscribers (77% of Territory subscribers). In the other SDs in the Territory there were 12 ISPs servicing 7,000 subscribers.
- Australian Capital Territory — Canberra SD had 58 ISPs servicing 86,000 subscribers (100% of Territory subscribers).

ACCESSIBILITY

The accessibility of regions across Australia has been categorised according to their remoteness. This categorisation is based on a region's Accessibility/Remoteness Index of Australia (ARIA) score. For more details on the ARIA refer to paragraph 9 of the Explanatory Notes.

Nearly all subscribers accessed a Point of presence (POP) located in either Highly accessible (90%) or Accessible (7%) regions in Australia. There was only 1% (53,000) of

ACCESSIBILITY *continued*

subscribers that accessed a POP in Very remote or Remote regions and 2% (76,000) in Moderately accessible regions. The number of subscribers per access line in Highly accessible regions was 7.2, in Accessible regions 9.2, Moderately accessible regions 8.7, Remote regions 9.7 and Very remote regions 7.1.

5.1 SELECTED INTERNET ACTIVITY BY STATISTICAL DIVISION (a)

	ISPs(b)	POPs	Access lines	All subscribers	Data downloaded by subscribers	Average number of subscribers per access line(c)	Average data downloaded per subscriber(c)
	no.	no.	no.	'000	millions Mb	no.	Mb
New South Wales							
Sydney	224	332	128 040	970	265	7.6	273
Hunter	41	62	8 883	74	16	8.3	222
Illawarra	47	60	8 820	56	12	6.3	223
Richmond-Tweed	26	30	2 475	26	13	10.6	504
Mid-North Coast	22	60	5 448	47	7	8.6	154
Northern	13	35	1 934	18	4	9.4	218
North Western	10	17	1 121	15	1	13.6	58
Central West	17	32	1 899	18	4	9.2	247
South Eastern	24	45	2 173	20	2	9.1	103
Murrumbidgee	15	28	1 776	20	3	11.4	140
Murray	22	27	12 960	33	7	2.6	218
Far West	10	10	549	3	—	6.1	101
Total	299	738	176 078	1 301	336	7.4	258
Victoria							
Melbourne	230	292	128 896	855	297	6.6	348
Barwon	35	42	5 930	38	6	6.4	np
Western District	8	11	2 404	9	2	3.6	194
Central Highlands	24	26	2 151	22	4	10.4	np
Wimmera	6	11	np	5	—	np	np
Mallee	11	14	np	9	1	np	98
Loddon	20	29	2 558	24	7	9.4	285
Goulburn	16	28	1 918	22	7	11.5	np
Ovens-Murray	10	11	655	5	1	8.3	149
East Gippsland	8	16	665	9	1	14.2	62
Gippsland	18	25	2 091	22	2	10.3	82
Total	267	505	148 583	1 020	327	6.9	321
Queensland							
Brisbane	119	143	59 108	417	115	7.1	276
Moreton	62	93	15 028	187	37	12.4	198
Wide Bay-Burnett	20	30	3 234	27	5	8.3	183
Darling Downs	18	34	3 351	21	5	6.1	223
South West	3	np	np	2	np	np	np
Fitzroy	16	23	4 402	32	4	7.2	114
Central West	3	np	np	np	np	9.4	6
Mackay	16	20	1 844	16	4	8.8	247
Northern	14	28	3 524	29	6	8.2	197
Far North	20	25	3 743	30	6	7.9	188
North West	6	10	953	np	1	np	np
Total	177	427	96 035	771	181	8.0	235

— nil or rounded to zero (including null cells)

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

(a) Subscribers and data downloaded has been apportioned to a Statistical Division (SD) according to the location of their POP where the activity took place.

(b) ISPs are counted in each SD where that ISP has a presence.

(c) Average figures are calculated using actual data as opposed to rounded figures.

5.1 SELECTED INTERNET ACTIVITY BY STATISTICAL DIVISION (a) *continued*

	ISPs(b)	POPs	Access lines	All subscribers	Data downloaded by subscribers	Average number of subscribers per access line(c)	Average data downloaded per subscriber(c)
	no.	no.	no.	'000	millions Mb	no.	Mb
South Australia							
Adelaide	68	81	25 424	212	54	8.3	256
Outer Adelaide	5	9	np	5	1	np	119
Yorke and Lower North	5	10	np	3	np	np	np
Murray Lands	9	21	686	7	1	10.7	106
South East	8	17	564	6	1	11.0	83
Eyre	5	12	269	8	np	28.5	np
Northern	9	26	573	4	1	7.3	283
Total	78	176	28 324	246	59	8.7	238
Western Australia							
Perth	94	107	39 216	264	88	6.7	334
South West	20	31	3 056	23	4	7.5	191
Lower Great Southern	8	13	970	6	1	6.2	191
Upper Great Southern	np	np	np	np	np	4.9	186
Midlands	5	13	723	5	1	6.8	233
South Eastern	12	19	1 364	7	2	5.2	235
Central	10	18	1 041	6	1	5.8	175
Pilbara	5	14	759	3	1	4.2	359
Kimberley	np	np	np	np	np	6.2	139
Total	113	233	47 891	318	99	6.6	312
Tasmania							
Greater Hobart	27	32	5 028	45	11	8.9	250
Northern	15	16	1 993	13	2	6.3	131
Mersey-Lyell	8	18	1 437	19	1	12.9	49
Total	30	66	8 458	76	14	9.0	181
Northern Territory							
Darwin	16	17	2 496	23	7	9.0	298
Northern Territory — Balance	10	13	687	8	2	11.6	199
Total	17	30	3 183	30	8	9.6	272
Australian Capital Territory							
Canberra	58	69	13 093	86	27	6.6	311
Total	58	69	13 093	86	27	6.6	311
Total for Australia	718	2 244	521 645	3 849	1 052	7.4	273

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

(a) Subscribers and data downloaded has been apportioned to a Statistical Division (SD) according to the location of their POP where the activity took place.

(b) ISPs are counted in each SD where that ISP has a presence.

(c) Average figures are calculated using actual data as opposed to rounded figures.

5.2 SELECTED INTERNET ACTIVITY BY ARIA CATEGORY (a)

	ISPs(b)	POPs	Access lines	All subscribers	Data downloaded by subscribers	Average number of subscribers per access line(c)	Average data downloaded per subscriber(c)
	no.	no.	no.	'000	millions Mb	no.	Mb
New South Wales							
Highly accessible	267	530	163 939	1 184	320	7.2	270
Accessible	55	169	10 182	97	14	9.6	147
Moderately accessible	21	32	np	np	2	10.4	np
Remote	np	np	np	np	np	10.2	7
Very remote	np	np	np	np	np	26.0	148
Total	299	738	176 078	1 301	336	7.4	258
Victoria							
Highly accessible	258	454	145 823	985	np	6.8	np
Accessible	29	39	2 357	31	np	13.3	np
Moderately accessible	5	12	403	5	np	11.2	np
Remote	—	—	—	—	—	—	—
Very remote	—	—	—	—	—	—	—
Total	267	505	148 583	1 020	327	6.9	321
Queensland							
Highly accessible	153	282	81 366	654	160	8.0	244
Accessible	27	56	7 682	59	13	7.7	214
Moderately accessible	27	56	4 875	39	8	7.9	196
Remote	9	np	np	np	1	8.7	np
Very remote	3	np	np	np	—	8.3	np
Total	177	427	96 035	771	181	8.0	235
South Australia							
Highly accessible	71	96	26 066	220	55	8.4	251
Accessible	13	39	np	np	np	7.7	129
Moderately accessible	11	np	779	9	np	12.0	np
Remote	4	12	np	2	1	np	264
Very remote	3	np	np	np	np	39.0	124
Total	78	176	28 324	246	59	8.7	238
Western Australia							
Highly accessible	99	131	41 686	283	92	6.8	325
Accessible	16	27	2 327	14	np	6.2	np
Moderately accessible	np	20	np	7	1	np	197
Remote	np	10	np	np	np	7.3	234
Very remote	17	45	2 577	np	np	np	225
Total	113	233	47 891	318	99	6.6	312

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

— nil or rounded to zero (including null cells)

(a) Subscribers and data downloaded by subscriber has been apportioned to an Accessibility/Remoteness Index of Australia (ARIA) category according to the location of the POP where the activity took place. For a

description of ARIA refer to paragraphs 8 to 11 of the Explanatory Notes.

(b) ISPs are counted in each Statistical Division (SD) where that ISP has a presence.

(c) Average figures are calculated using actual data as opposed to rounded figures.

5.2

SELECTED INTERNET ACTIVITY BY ARIA CATEGORY (a) *continued*

	ISPs(b)	POPs	Access lines	All subscribers	Data downloaded by subscribers	Average number of subscribers per access line(c)	Average data downloaded per subscriber(c)
	no.	no.	no.	'000	millions Mb	no.	Mb
<i>cont.</i>							
Tasmania							
Highly accessible	28	48	7 021	57	np	8.2	np
Accessible	np	np	np	np	1	14.1	np
Moderately accessible	np	np	np	np	np	5.5	16
Remote	—	—	—	—	—	—	—
Very remote	—	—	—	—	—	—	—
Total	30	66	8 458	76	14	9.0	181
Northern Territory							
Highly accessible	—	—	—	—	—	—	—
Accessible	np	np	2 496	23	np	9.0	np
Moderately accessible	—	—	—	—	—	—	—
Remote	10	11	np	np	2	11.8	np
Very remote	np	np	np	np	np	7.2	61
Total	17	30	3 183	30	8	9.6	272
Australian Capital Territory							
Highly accessible	58	69	13 093	86	27	6.6	311
Accessible	—	—	—	—	—	—	—
Moderately accessible	—	—	—	—	—	—	—
Remote	—	—	—	—	—	—	—
Very remote	—	—	—	—	—	—	—
Total	58	69	13 093	86	27	6.6	311
Australia							
Highly accessible	641	1 610	478 994	3 469	991	7.2	286
Accessible	113	362	27 413	251	41	9.2	164
Moderately accessible	57	147	8 739	76	12	8.7	159
Remote	20	57	2 787	27	4	9.7	143
Very remote	22	68	3 712	26	4	7.1	135
Total	718	2 244	521 645	3 849	1 052	7.4	273

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

— nil or rounded to zero (including null cells)

(a) Subscribers and data downloaded by subscriber has been apportioned to an Accessibility/Remoteness Index of Australia (ARIA) category according to the location of the POP where the activity took place. For a

description of ARIA refer to paragraphs 8 to 11 of the Explanatory Notes.

(b) ISPs are counted in each Statistical Division (SD) where that ISP has a presence.

(c) Average figures are calculated using actual data as opposed to rounded figures.

EXPLANATORY NOTES

INTRODUCTION

1 This publication presents results from a survey covering all identified Internet Service Providers (ISPs), entitled the Internet Activity Survey, in respect of the September quarter 2000.

SURVEY SCOPE AND METHODOLOGY

2 The scope of the Internet Activity Survey 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 survey.

3 The primary source of the survey population frame is the Telecommunications Industry Ombudsman (TIO) with which ISPs are required to register. The TIO list is supplemented where necessary with ISPs identified from other sources such as Internet association membership lists and industry media.

4 The Internet Activity Survey is conducted as a mail out, mail back survey. ABS is investigating secure means of capturing this data electronically for future iterations of this survey.

SUBSCRIBERS

5 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, at any particular time, 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

6 The unit for which statistics were reported in the survey was the trading entity providing Internet access. In most cases this equates with the ABS concept of the management unit. The management unit is the highest-level accounting unit within a business or organisation, having regard for industry homogeneity, for which accounts are maintained. In nearly all cases it coincides with the legal entity owning the business (i.e. company, partnership, trust, sole operator etc.)

7 ISPs in this survey have been classified by size according to the number of subscribers ISPs reported for at the end of the reporting 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

8 The data contained in Tables 5.1 and 5.2 have been classified on a geographical basis by allocating Points of presence (POP) details:

STATISTICAL UNIT *continued*

- to Statistical Divisions (SDs) within States and Territories, as set out in the AUSTRALIAN STANDARD GEOGRAPHICAL CLASSIFICATION (ASGC) (Cat. no. 1216.0). The SD is the largest and most stable geographical unit within each State and Territory. Reference map 1 at the back of this publication shows the SD boundaries; and
- to ACCESSIBILITY/REMOTENESS INDEX OF AUSTRALIA (ARIA) categories, as outlined in ACCESSIBILITY/REMOTENESS INDEX OF AUSTRALIA (ARIA), *Department of Health and Aged Care Occasional Papers, Series No. 6, March 1999*. The results in Table 5.2 are experimental in nature as the classification of remoteness is still in its early stages of development.. Reference map 2 at the back of this publication shows the ARIA boundaries.

ACCESSIBILITY/REMOTENESS
INDEX OF AUSTRALIA

9 The ARIA methodology was developed by the National Key Centre for Social Applications of Geographical Information Systems at the University of Adelaide. The work was funded by the Commonwealth Department of Health and Aged Care and a number of organisations, including the ABS, helped develop the final product.

10 The ARIA defines remoteness in terms of accessibility to defined service centres. Remoteness values for 11,338 populated localities are derived in terms of road distance to those service centres. Localities which are more remote have less access to service centres and conversely, those which are less remote have greater access to service centres. The Department of Health and Aged Care recommends the following five categories of remoteness:

- Highly Accessible (ARIA score: less than 1.84) — relatively unrestricted accessibility to a wide range of goods and services and opportunities for social interaction.
- Accessible (ARIA score: 1.84 - 3.51) — some restrictions to accessibility of some goods, services and opportunities for social interaction.
- Moderately Accessible (ARIA score: 3.51 - 5.80) — significantly restricted accessibility of goods, services and opportunities for social interaction.
- Remote (ARIA score: 5.80 - 9.08) — very restricted accessibility of goods, services and opportunities for social interaction.
- Very Remote (ARIA score: 9.08 or more) — locally disadvantaged, with very little accessibility of goods, services and opportunities for social interaction.

11 In order to classify POP details to ARIA categories, they were first coded to Statistical Local Area (SLA) based on their location. The average ARIA index value for the SLA was then used to derive an ARIA category for each POP. Because of the small number of responses to some of the State ARIA categories, it has been necessary to amalgamate some of the categories.

12 On 15 January 2001, the ABS released an information paper on plans to introduce a classification of remoteness. The publication, *Information Paper: ABS Views on Remoteness* (Cat. No. 1244.0), details the proposed classification and invites comments from potential users of the remoteness classification and other interested parties.

REFERENCE PERIOD

13 Data contained in this publication relate to ISPs which operated in Australia at any time during the reference quarter. However, counts of ISPs reflect only those businesses operating at the end of the reference period.

RELIABILITY OF DATA

14 As the survey 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:

RELIABILITY OF DATA *continued*

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

15 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.

ACKNOWLEDGMENT

16 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*.

17 In particular, the ABS acknowledges the assistance of the Telecommunications Industry Ombudsman in providing regular lists of registered ISPs.

RELATED PUBLICATIONS

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

Business Use of Information Technology, Australia, 1999–2000
(Cat. no. 8129.0).

Computing Services Industry, Australia, 1998–99 (Cat. no. 8669.0).

Government Use of Information Technology, Australia, 1997–98
(Cat. no. 8119.0).

Household Use of Information Technology, Australia, 1999
(Cat. no. 8146.0).

Information Technology, Australia 1998–99 (Cat. no. 8126.0).

Use of Information Technology on farms, Australia, 1998–99
(Cat. no. 8150.0).

Use of the Internet by Householders, Australia, November 2000
(Cat. no. 8147.0).

AVAILABILITY OF
UNPUBLISHED STATISTICS

19 The ABS may make available on request certain unpublished statistics from this survey, subject to the application of confidentiality provisions.

ABBREVIATIONS

- nil or rounded to zero (including null cells)
- ABS Australian Bureau of Statistics
- ARIA Accessibility/Remoteness Index of Australia
- ISP Internet Service Providers
- Mb Megabytes
- n.p. not available for publication but included in totals where applicable
- POP Points of presence
- SD Statistical Division
- TIO Telecommunications Industry Ombudsman

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 and carries continuously variable signals or data.
Business and government subscribers	All businesses, corporations, non-profit organisations and government organisations who obtain access to the Internet through an ISP.
Business hours telephone service	A telephone support service which operates during normal business hours.
Cable modem	A modem that sends and receives data through a coaxial cable television network instead of through telephone lines as do conventional modems. Cable modems, which have speeds of 500 Kbps, can transmit data faster than current conventional modems.
Data downloaded	Volume of data downloaded by subscribers from the Internet.
Dial-up access	Subscribers who connect to the Internet via modem and dial-up software.
Digital/Integrated Services Digital Network (ISDN)	A digital access technique for both voice and data. Digital alternative to an analogue 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.
Digital Subscriber Line (DSL)	Often referred to as xDSL and refers to several digital technologies (eg asymmetric DSL or ADSL and Symmetric DSL or SDSL) for fast two-way data connections over the PSTN.
Free access	Free access to an e-mail and Web browsing account.
Hosted Web sites	Customer Web sites maintained by ISP on their servers.
Hourly access plan	A subscription option where customers pay for dial-up access on an hourly basis.
Household subscribers	Households and private individuals who subscribe to Internet access via an ISP. This may include some home based businesses.
Internet	This is 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 cafe	A venue that offers access to personal computers or other terminals that are connected to the Internet and paid for on a non-subscription basis.
Internet Service Provider (ISP)	Resident Australian individuals or businesses offering Internet access services to customers.
Megabyte (Mb)	A data unit of 1,048,576 bytes, sometimes interpreted as 1 million bytes.

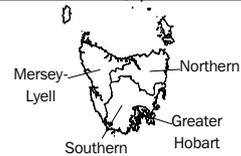
Microwave radio	A communication link that uses point-to-point radio transmission.
Monthly/quarterly/annual access plan	A subscription option where customers pay a flat monthly/quarterly/annual fee, and receive either a set period of time on-line during the month/quarter/year, usually with additional 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.
Non-profit organisations	Industry and trade associations, clubs, cultural organisations, community service organisations and similar organisations.
On-line support service	The ability to get support from an ISP on-line either through search facilities or on-line dialogue with ISPs help desk staff on-line.
Permanent access	Permanent subscriber access to the Internet via permanent modem, Integrated Services Digital Network, dedicated data service, frame relay, etc.
Point of Presence (POP)	A geographic location where an ISP can be accessed by a subscriber.
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.
Secure transaction capabilities	Includes Web sites with on-line payment facilities (e.g. payments performed on-line in a web browser using secure protocols to protect the information) and Web sites with the ability to conduct real time on-line payments (e.g. on-line payments for which there is a real time connection to credit/debit card processing networks).
Start up disk/package	A CD-ROM or floppy disk containing software for Windows or Macintosh systems that includes configuration information for the dial-up software plus an e-mail 'client' program (e.g.: eudora or pegasus) plus a navigator package.
Subscriber	An ISP customer to whom Internet access is provided. Included are paying and non paying customers, e-mail only subscribers, dial-up subscribers and those with permanent connections. Excluded are customers who purchase other services from an ISP, such as Web hosting, but do not obtain Internet access.
Subscriber Churn Rate	Is calculated by dividing the number of subscribers that left during the reference period by the number of subscribers at the end of the reference period.
Subscribers who left during the reference period	Is calculated by adding the number of new subscribers during the reference period to the number of subscribers of the start of the reference period, then subtracting the number of subscribers at the end of the reference period.
Web hosting	See Hosted Web sites.
Wireless Application Protocol (WAP)	A standard for providing Internet access and other data-based services, such as e-mail, electronic transactions, news and weather reports, over wireless networks.
24 hr telephone service	A telephone support service which operates around the clock.

REFERENCE MAPS

A1 STATISTICAL DIVISIONS—1 July, 2000



This map does not show the Statistical Division of Other Territories

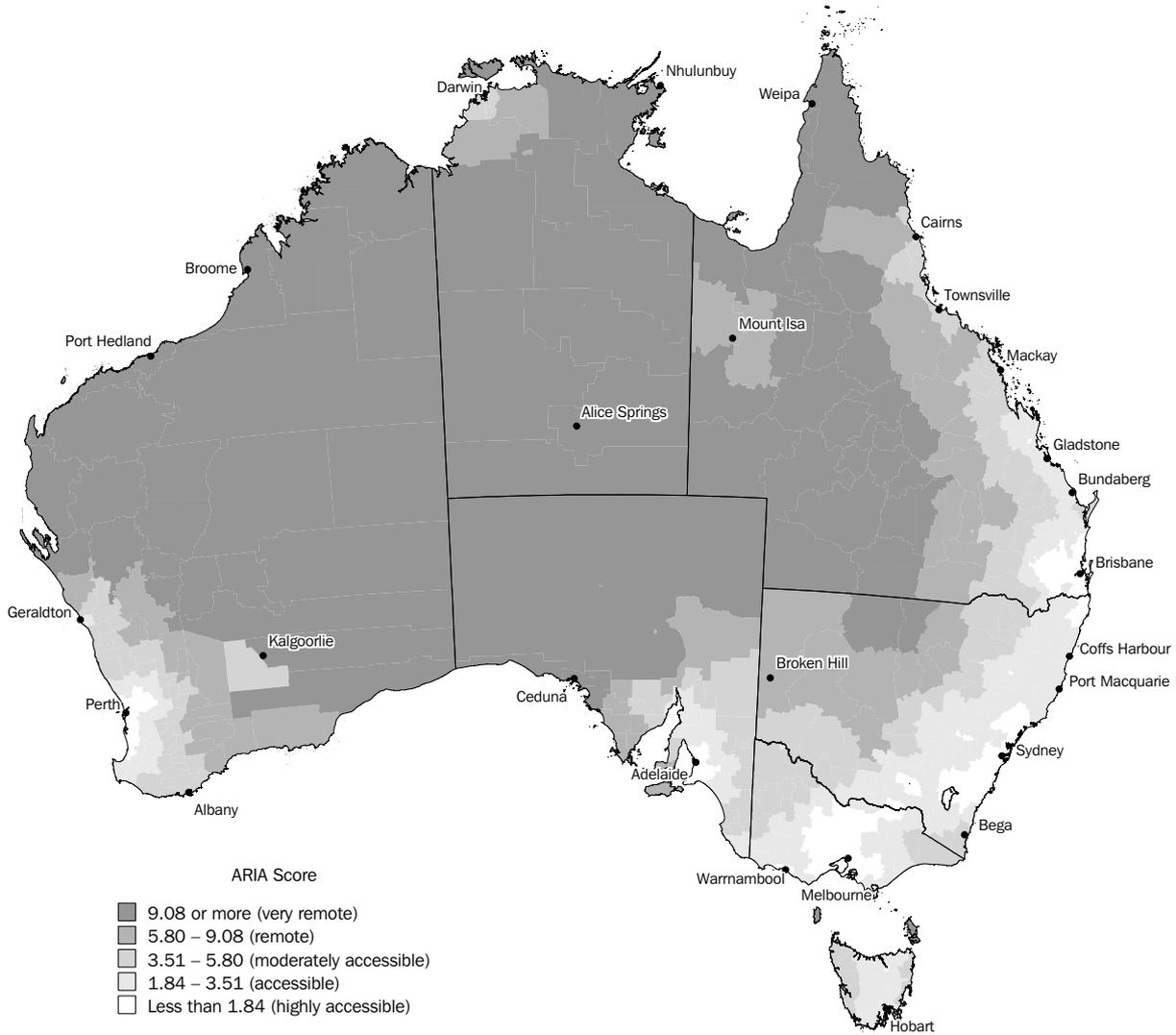


Enlargement



A2

ACCESSIBILITY/REMOTENESS INDEX OF AUSTRALIA, By Statistical Local Area



FOR MORE INFORMATION...

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- DIAL-A-STATISTIC* 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).

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