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Internet Service Providers Survey: March 2008

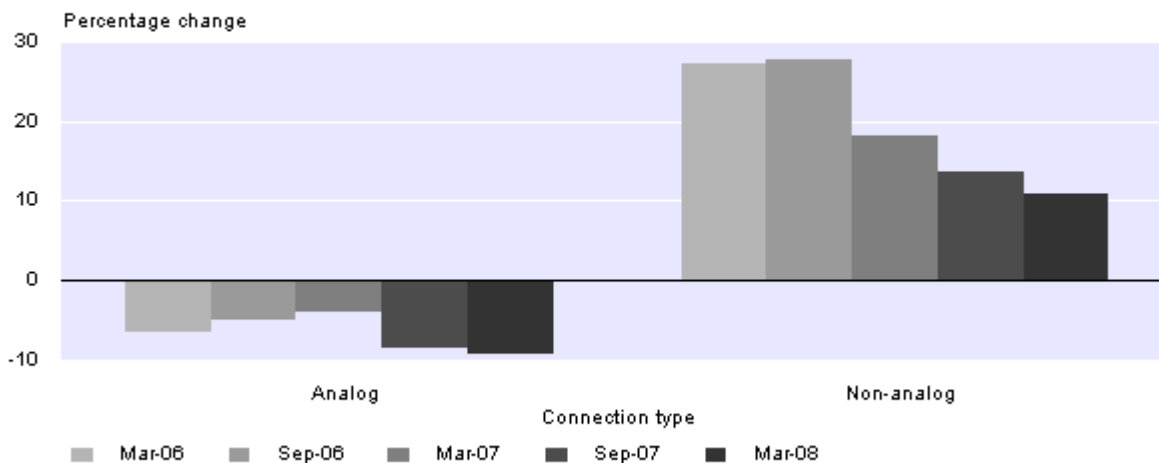
Highlights

In the six months ended 31 March 2008:

- The total number of subscribers continued to increase, with over 1.5 million internet users now in New Zealand.
- 891,000 non-analog (broadband) subscribers comprised 59.2 percent of all subscribers.
- The most common download speed was between 2Mbps and 10Mbps.
- The number of ISPs operating in New Zealand increased 5 percent to 60 enterprises.

Internet Subscriber Growth Rate

By connection type
March 2006–08



Note: Analog includes ISDN. Non-analog includes DSL, cellular, wireless, cable, satellite and other.

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There is a companion Media Release published – [Internet Service Provider Survey: March 2008](#).

Commentary

Internet Service Provider Survey

The Internet Service Provider Survey provides information on the total number and nature of subscribers who use New Zealand-based Internet service providers (ISPs) to connect either permanently or regularly to the Internet. This information allows a measurement of the global connectivity of New Zealanders, which is regarded as an important determinant in accelerating economic growth. A core set of official statistics on Internet service provision results from this survey. This will help individuals, communities, businesses and government to understand how information and communication technology is changing the economy and society.

Updated respondent data has led the revision of estimates from previous ISP surveys to maintain consistency with the March 2008 ISP survey and future surveys in the time series.

Internet service provision in New Zealand

For the six months ended 31 March 2008, there were 60 ISPs operating in New Zealand, with 1,504,000 subscribers. The number of subscribers increased 1.6 percent from 30 September 2007, (the lowest growth rate in the two years to March 2008).

Residential subscribers totalled 1,282,800 at the end of March 2008. They accounted for 85.3 percent of all subscribers and provided 78.5 percent of total revenue. Business and government subscribers totalled 221,200, accounting for 14.7 percent of all subscribers and providing 21.5 percent of total revenue.

Size of Internet service providers

Percentiles are a useful method for comparing ISP size over time. Percentiles are determined by sorting ISPs (by number of subscribers) from smallest to largest. The average number of subscribers within a percentile range is then calculated. At 31 March 2008, the smallest ISPs (0–20th percentile) had 55 subscribers on average, while the largest ISPs (81st–100th) had 122,400 subscribers. The average number of subscribers in ISPs above the 80th percentile has increased 20 percent since March 2006.

Size of Internet Service Providers <i>By percentile range</i> March 2006–08					
Percentile range*	Average number of subscribers				
	Mar 2006	Sep 2006	Mar 2007	Sep 2007	Mar 2008
0–20th (small ISPs)	45	45	45	50	55
21st–40th	190	120	140	130	160
41st–60th	700	530	570	500	400
61st–80th	4,150	3,380	3,340	2,800	2,400
81st–100th (large ISPs)	102,300R	110,600R	117,000R	122,100R	122,400

*Percentile is calculated by sorting ISPs (by number of subscribers) from smallest to largest, then the average number of subscribers within a percentile range is calculated.

Note: All cells in this table have been randomly graduated rounded.

Symbol : R revised

ISP revenue from business and government subscribers

At 31 March 2008, 20 percent of ISPs received up to 20 percent of their revenue from business and government subscribers. Twenty-five percent received between 81 and 100 percent. There was a 42.9 percent increase from September 2007 in the number of ISPs that received between 21 and 40 percent of their revenue from business and government subscribers.

Other business activities of Internet service providers

In the six months to March 2008, 20 percent of ISPs provided wholesale of bandwidth to other ISPs, while 25 percent of ISPs sold Internet packages to other ISPs for resale. Seventy percent undertook none of the activities above, an increase from 58 percent at the end of March 2006.

Internet subscriber connection type

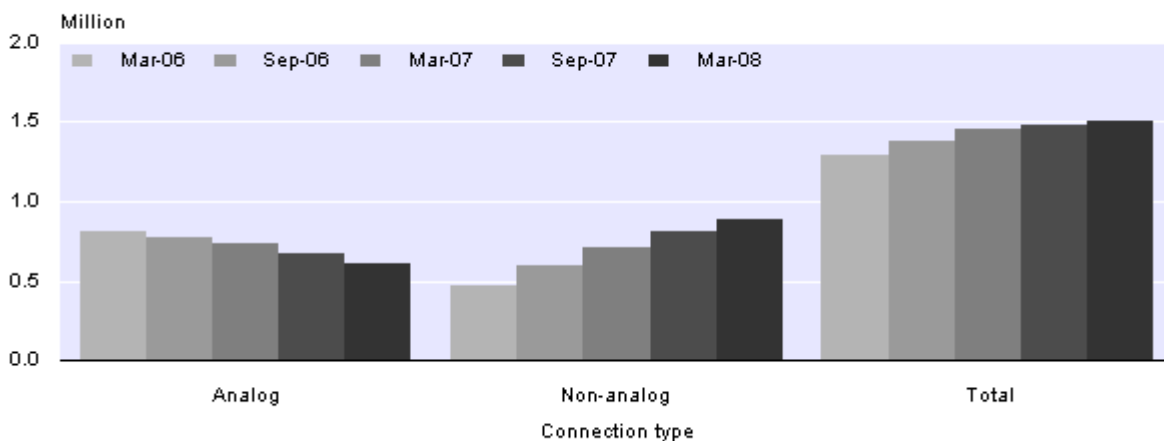
At 31 March 2008, the number of subscribers using analog (dial-up) connection technology was 613,000, down 9.3 percent since September 2007.

The number of non-analog (broadband) subscribers has increased by 10.7 percent from 30 September 2007, to reach 891,000 subscribers. Non-analog subscribers comprise 59.2 percent of the total number of subscribers. However, this growth rate has slowed from the previous year's growth of 27.2 percent. Of the non-analog connections, digital subscriber line (DSL) continued to be the most common connection technology, with 711,900 subscribers. The next most common non-analog connection technologies (in descending order) were: cellular, cable, wireless, satellite, and other.

There were 35.3 Internet subscribers per 100 inhabitants in New Zealand at the end of March 2008, compared with 34.9 per 100 six months earlier. The number of non-analog (broadband) subscribers increased from 19.0 to 20.9 per 100 inhabitants over the same period. Of the 20.9 non-analog subscribers per 100 inhabitants, 16.7 were using a DSL connection type and 4.2 were using other connection technologies.

Internet Subscribers by Connection Type

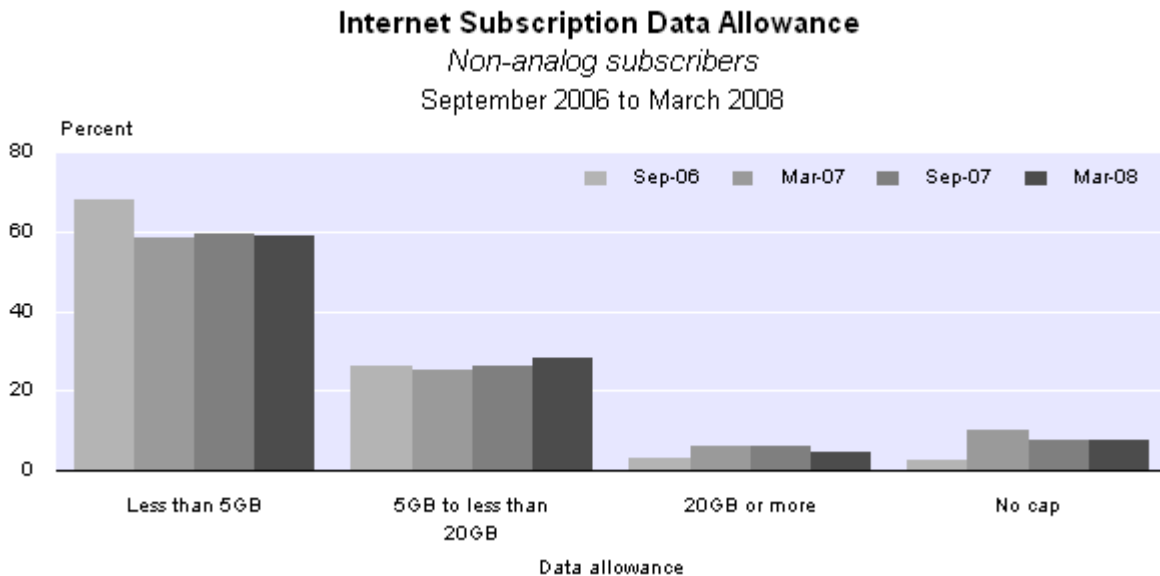
March 2006–08



Note: Analog includes ISDN. Non-analog includes DSL, cellular, wireless, cable, satellite and other.

Internet subscription data allowances

Of the 891,000 non-analog subscribers at 31 March 2008, 7.6 percent (67,400) had no data allowance cap (or data cap) on their subscription plan. Of subscribers who had a data cap, 59.3 percent (528,600) used plans with a data cap of less than 5GB, 28.4 percent (253,200) had a data cap between 5GB and less than 20GB, and 4.7 percent (42,000) had a data cap of 20GB or more.

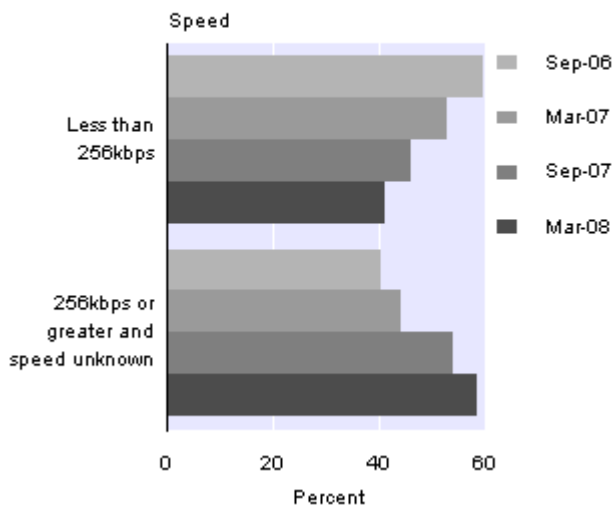


Internet subscriber speeds

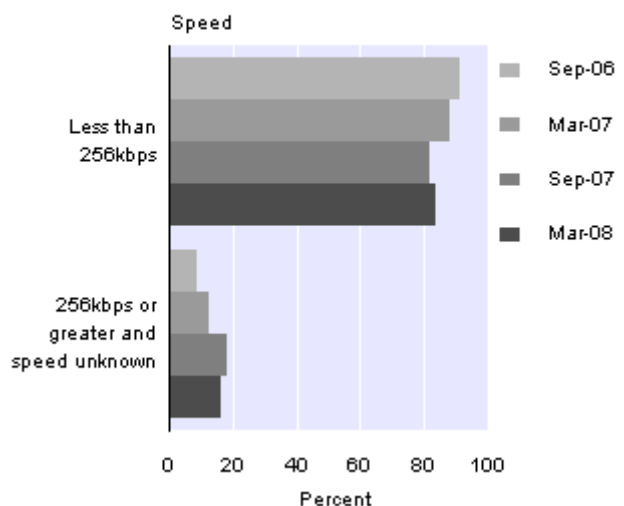
At 31 March 2008, 41.3 percent of all subscribers (620,400) had subscription-plan download speeds of less than 256kbps, and 58.7 percent (883,600) had download speeds of more than 256kbps and speed unknown.

While 83.7 percent of subscribers had upload speeds of less than 256kbps, 16.3 percent had upload speeds greater than 256kbps.

Internet Subscribers by Download Speed
September 2006 to March 2008



Internet Subscribers by Upload Speed
September 2006 to March 2008



The number of subscribers with download speeds between 128kbps to less than 256kbps has increased between 21 and 30 percent.

During the same period, upload speeds of 128kbps and 256kbps was the highest ranking category. The next most common upload speeds (in descending order) were: less than 64 kbps, 512kbps to 2Mbps, 2Mbps to 10Mbps, 256kbps to 512kbps, 10Mbps or greater, unknown upload speed, and 64kbps to 128kbps.

Filtering services supplied by ISPs

The Internet Service Provider Survey: March 2008 measures only the uptake of filtering services which are supplied by the ISPs. There are many other alternatives available to subscribers, including purchasing and downloading software, which are outside the scope of this survey.

Email filtering

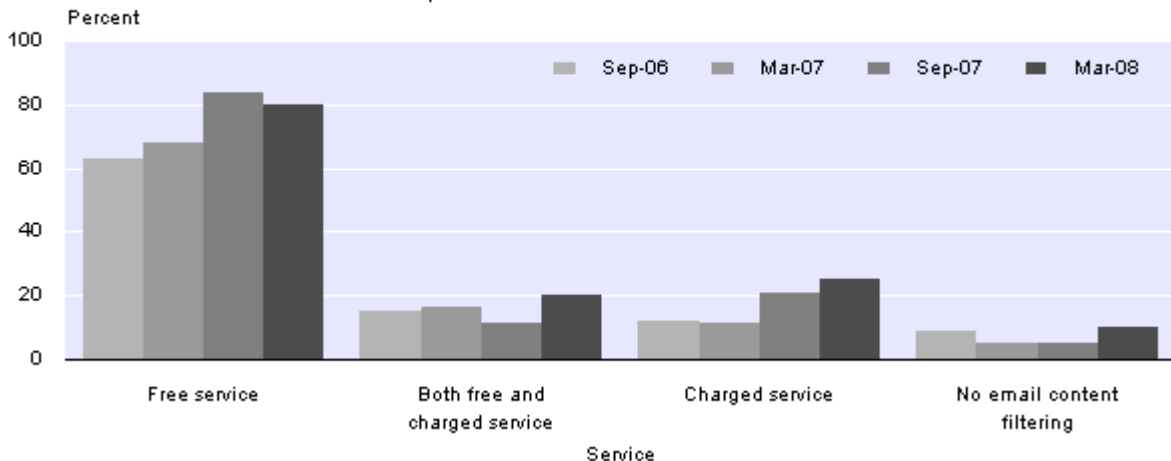
At 31 March 2008, 97.9 percent of Internet subscribers (1,472,700) had adopted an email filtering product offered by their ISPs. Eighty percent of ISPs provided a free email filtering service to their subscribers, 25 percent provided a charged service and 20 percent of ISPs provided both a free and charged service.

Web filtering

At 31 March 2008, 15 percent of ISPs offered their subscribers a free web filtering service, 15 percent provided a charged service and 5 percent provided both a free and charged service. Seventy-five percent of ISPs did not offer web filtering services.

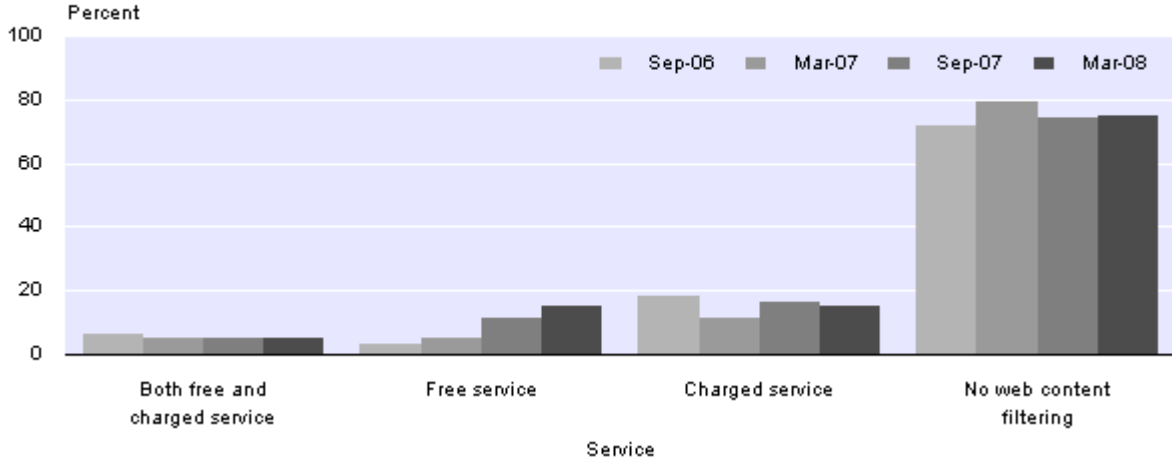
Email Filtering Offered by Internet Service Providers

September 2006 to March 2008



Web Content Filtering Offered by Internet Service Providers

September 2006 to March 2008

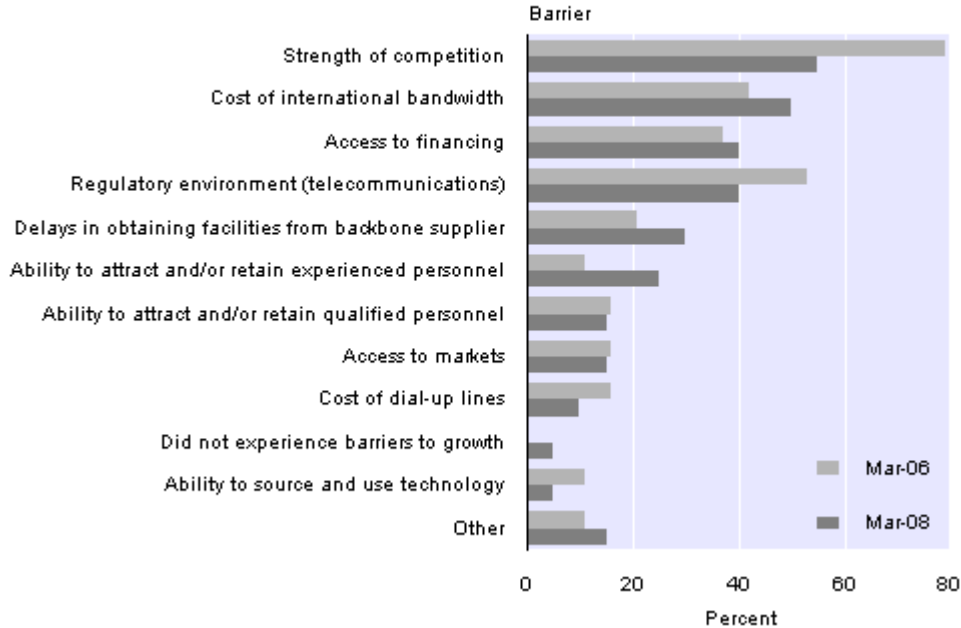


Internet service provider barriers to growth

For the six months ended 31 March 2008, 55 percent of ISPs identified strength of competition as the greatest barrier to the growth of their operations. Other common barriers recognised were the cost of international bandwidth (50 percent), the delays in obtaining facilities from backbone suppliers (30 percent), the regulatory environment relating to telecommunications (40 percent), and access to financing (40 percent). Five percent of ISPs reported they did not experience barriers to their growth.

Barriers to Internet Service Provider Growth

March 2006 and March 2008



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Technical notes

Survey background

The Internet Service Provider Survey provides information on the total number and nature of subscribers who use New Zealand-based Internet service providers (ISPs) to connect either permanently or regularly to the Internet. This information allows a measurement of the global connectivity of New Zealanders, which is regarded as an important determinant in accelerating economic growth. A core set of official statistics on Internet service provision results from this survey and this will help individuals, communities, businesses and government to understand how information and communication technology is changing the economy and society.

Data collection

The Internet Service Provider Survey: March 2008 was a postal survey of all organisations meeting the population selection criteria. The population was constructed by combining ISP industry lists with names of ISP organisations from the Statistics New Zealand Business Frame, according to the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 category J591000.

- J591000 Internet Service Providers and Web Search Portals. This class consists of units mainly engaged in providing Internet access services. Also included are units which provide web-search portals used to search the Internet. Primary activities are Internet access provision, Internet access service (online), and Internet service provision.

The survey used a six-monthly reference period ending 31 March 2008. No financial information was requested from respondents. The survey was posted out in April 2008.

Target population

The target population was defined as: 'All resident New Zealand Internet service providers', where Internet service providers were defined as economically significant businesses that supply permanent or regular Internet connectivity services to individuals, households, businesses and other organisations in New Zealand.

A business is considered economically significant if it is found on the Statistics NZ Business Frame and meets one or more of the following criteria:

- has greater than \$30,000 annual GST expenses or sales
- had more than two employees over the last year
- is in a GST-exempt industry (except for residential property leasing and rental)
- is part of a group of enterprises.

For the purposes of this survey, the population included all resident ISPs, regardless of their rolling mean employee (RME) measurement, found on the Statistics NZ Business Frame or other employment measures.

Exclusions

Enterprises that provided other Internet services such as web and domain hosting, but who did not provide ISP services, were excluded from the population. This was because the above enterprises were not strictly classified as ISPs. Web-hosting units did not interact directly with the public. Since the public access their website through an ISP, their activity was already covered by the survey. Including them would have resulted in double counting.

Businesses that provided occasional or unmetered access (including Internet cafes, kiosks, libraries, universities) were also excluded. The activity of this group was covered by the ISP each subscribed to, so they did not need to be surveyed separately.

Connections to the Internet via mobile phone were also excluded as this is neither a permanent nor regular Internet connection and thus is beyond the scope of this survey. However mobile (cellular) data-card-only subscriptions to the Internet are included.

The selection unit for inclusion in the population was set at the enterprise level.

Response rate

The target response rate for the Internet Service Provider Survey: March 2008 was 85 percent for units in the population list, with 100 percent collection required of identified key respondents. The actual overall response rate achieved was 99 percent overall and 100 percent for key respondents. The non-response key enterprise was manually imputed with historical data.

The population for the survey was 73 enterprises.

Imputations

Where data was missing or required clarification, respondents were contacted in the first instance. When necessary, missing data was imputed. Either of these situations potentially leads to revisions.

Updated respondent data has led to the revision of estimates from previous ISP surveys to maintain consistency with the March 2008 ISP survey and future surveys in the time series.

Internet subscribers in New Zealand <i>March 2006–08</i>				
	Mar 2006	Sep 2006	Mar 2007	Sep 2007
Previous released	1,287,900	1,382,600	1,464,300	1,505,100
Revised	1,282,500	1,372,200	1,448,700	1,480,700
Difference	-5,400	-10,400	-15,600	-24,400

- (1) All cells in this row have been randomly rounded to base 3.
- (2) The numbers of subscribers has been rounded to nearest 100.

Reliability of the data

Given that the Internet Service Provider Survey: March 2008 is a census rather than a sample, the data is not subject to sample variability. However, other inaccuracies, such as non-sampling errors, may affect the data. These non-sampling errors may arise from sources such as:

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

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

Definitions

Internet service providers (ISPs)

Businesses that supply Internet connectivity services to individuals, households, businesses and other organisations.

Active subscriber

This is a customer who within the last 90 days has accessed the Internet or paid for access to the Internet through an ISP. Under this definition the following inclusions and exclusions are made:

includes:

- all subscribers who obtain access to the Internet through an ISP
- both dial-up and non-dial-up connection subscribers.

excludes:

- web-hosting-only subscribers
- email-only subscribers
- connections to the Internet via mobile phone.

Mbps and kbps

Mbps and kbps are measures of download and upload speed. Mbps stands for megabits per second (1,000,000 bits per second) and kbps stands for kilobits per second (1,000 bits per second).

Internet subscription data allowance

An Internet subscription data allowance is a method employed by ISPs to limit the volume of data downloaded and/or uploaded by subscribers during a fixed period, normally a month. Once a fixed data cap has been reached, lower speed or extra access charges may apply.

Email filtering

Email filtering is a service offered by ISPs that monitors email messages. It will either pass the message through unchanged for delivery to the user's mailbox, redirect the message for delivery elsewhere, or delete or edit the message. Common uses for email filters include removal of spam and computer viruses.

Web filtering

Web filtering is a service offered by ISPs that filters by keyword or blocks by URL what a web browser will display, usually for the benefit of children.

Business Frame

A register maintained by Statistics NZ of all economically significant businesses operating in New Zealand.

Enterprise

A business or service entity operating in New Zealand. It can be a company, partnership, trust, estate, incorporated society, producer board, local or central government organisation, voluntary organisation or self-employed individual.

Rolling mean employment (RME)

This is the 12-month moving average of the monthly employment count, derived from employer monthly schedule data.

More information

For more information, follow the [link](#) from the technical notes of this release on the Statistics New Zealand website.

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Timing

Timed statistical releases are delivered using postal and electronic services provided by third parties. Delivery of these releases may be delayed by circumstances outside the control of Statistics NZ. Statistics NZ accepts no responsibility for any such delays.

Tables

The following tables are printed with this Hot Off The Press and can also be downloaded from the Statistics New Zealand website in Excel format. If you do not have access to Excel, you may use the [Excel file viewer](#) to view, print and export the contents of the file.

1. Internet service providers and subscribers in New Zealand, March 2006–08
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5. Internet service provider revenue, from business and government subscribers
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