

# Internet Service Provider Survey: 2012

Embargoed until 10:45am – 12 October 2012

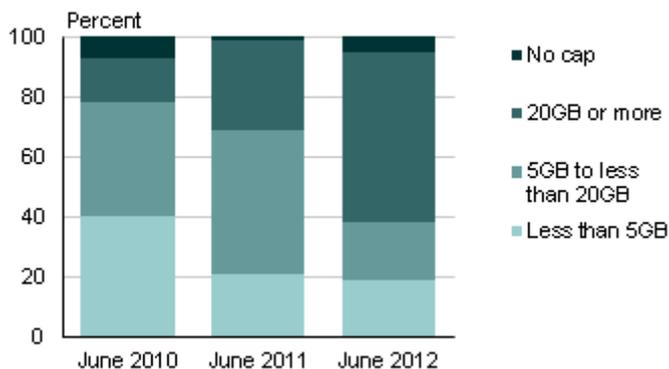
## Key facts

This year, compared with 2011:

- The total number of mobile handset subscribers rose to more than 2.5 million.
- The number of subscribers with data caps of 50 gigabytes (GB) or more increased by almost 800 percent.
- The total number of broadband subscribers increased by 11 percent, to more than 1.6 million.
- Fibre optic connections had the largest growth of all broadband connections, with a 46 percent increase, to 5,400.
- On average, subscribers are consuming 7GB more data per month.

### Internet subscription data cap

Broadband subscribers  
As at June 2010–12



Source: Statistics New Zealand

Geoff Bascand  
Government Statistician

12 October 2012  
ISSN 1178-0509

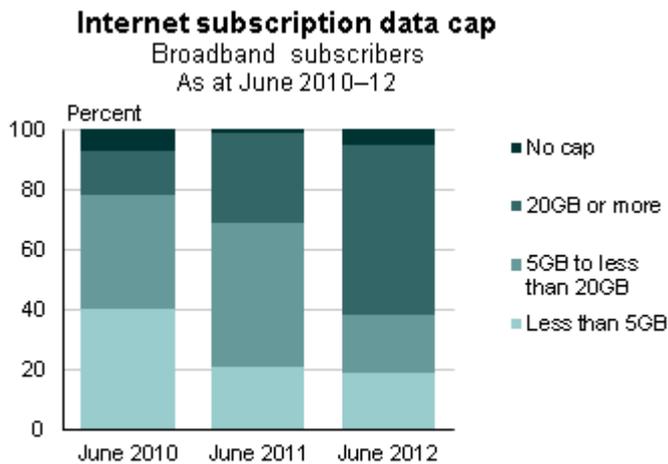
## Commentary

- [Rise in higher data caps](#)
- [Kiwis connected on the go](#)
- [Fibre optics grow faster](#)
- [Our need for speed](#)
- [Keeping customers safe](#)

### Rise in higher data caps

More choice and flexibility from Internet service providers (ISPs) saw an increase in the number of subscribers with higher data caps this year. In just one year, the total number of subscribers with a data cap of 20 gigabytes (GB) or more increased by almost 500,000. This group now makes up more than 50 percent of subscribers.

While the numbers continue to rise for higher caps, those with lower data caps (less than 20GB) dropped about 40 percent to 600,000 subscribers, down from just under 1 million in 2011. Overall, the number of subscribers with a data cap increased 7 percent this year. The total number without a data cap increased 275 percent.



Source: Statistics New Zealand

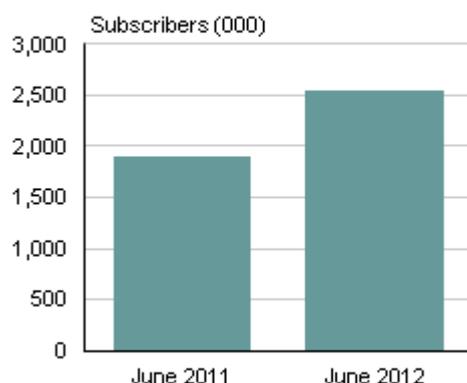
With the increasing availability of higher data cap (and no data cap) plans, we are starting to enjoy unlimited digital streaming of movies and TV shows. In June 2012, the average subscriber consumed an estimated 16GB of data, compared with 9GB last year. This is equivalent to streaming 61 more episodes of Shortland Street per month than we did this time a year ago.

### Kiwis connected on the go

Increased smartphone use and our urge to connect to the Internet wherever we go saw the total number of mobile handset subscriber numbers rise. The total number of mobile broadband users increased 34 percent this year, to more than 2.5 million – more than half the population.

## Total mobile handset subscribers

As at June 2011–12



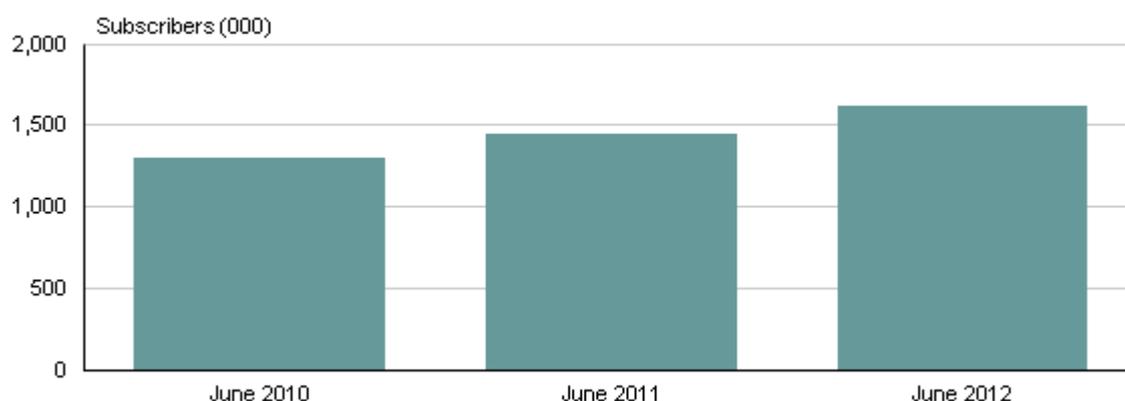
Source: Statistics New Zealand

## Fibre optics grow faster

Ninety-three percent of fixed Internet subscribers are using a broadband connection. The total number of broadband customers increased by 11 percent this year, to more than 1.6 million.

## Total broadband subscribers

As at June 2010–12

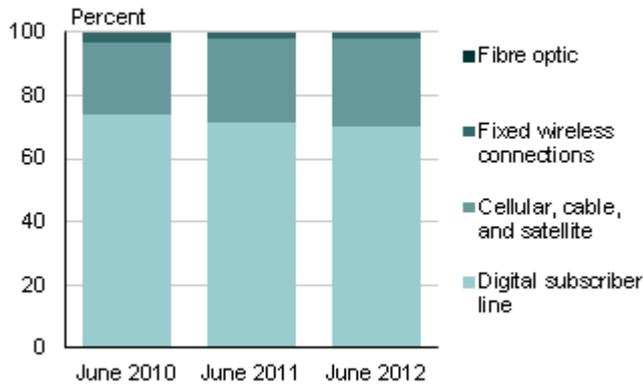


Source: Statistics New Zealand

The total number of subscribers in the cellular, cable, and satellite broadband connections category increased by 18 percent this year, to more than 400,000 subscribers. Fibre optic subscriber numbers increased by 46 percent, from 3,700 in 2011 to 5,400 subscribers this year. Digital subscriber line (DSL) still remains the most popular connection type, with a 9 percent increase to more than 1.1 million subscribers this year.

### Broadband subscribers by connection type

As at June 2010–12



Source: Statistics New Zealand

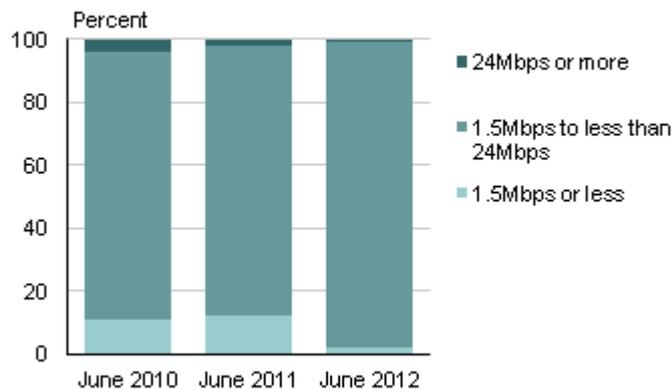
### Our need for speed

The majority of subscribers (96 percent) are downloading data at speeds between 1.5 to 24 megabits per second (Mbps), up from 86 percent in this speed category last year. The total number of subscribers in the lowest downloading speed category (less than 1.5 Mbps) decreased to just 2 percent, compared with 12 percent in 2011.

### Internet download speeds

Broadband subscribers

As at June 2010–12



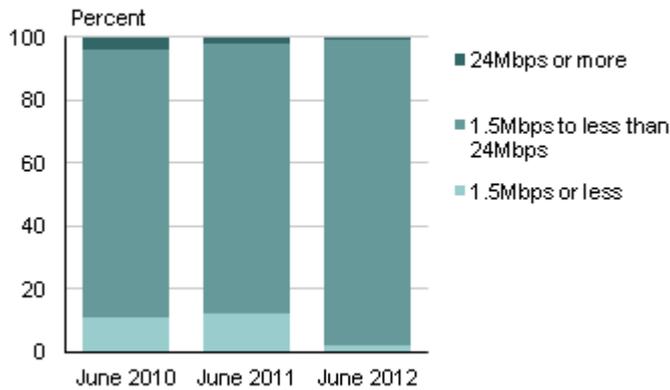
Source: Statistics New Zealand

Uploading speeds are continuing to rise, with 27 percent of broadband subscribers in the '1.5 Mbps or more' category, compared with 18 percent in 2011.

Although the majority of subscribers are still in the lower uploading speed category (less than 1.5 Mbps), the number of subscribers signing up for lower speeds is rising at a lower rate than those signing up for higher speeds. The total number of subscribers in the 'less than 1.5 Mbps' category rose 3 percent in the past two years, while those in the '1.5 Mbps or more' category rose more than 180 percent.

## Internet download speeds

Broadband subscribers  
As at June 2010–12



Source: Statistics New Zealand

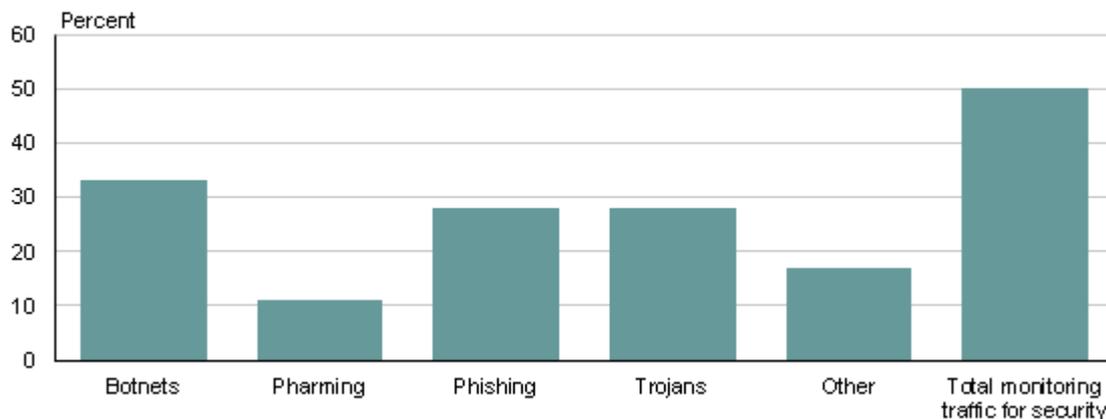
## Keeping customers safe

Fifty percent of ISPs monitor the traffic in their customers' accounts for signs of compromised security, including botnets, pharming, phishing, and trojans. Only 1 percent showed signs of compromised security, compared with 3 percent last year. One-third of the ISPs who monitored security threats reported that they most commonly monitored for botnets, followed closely by phishing and trojans equally.

A botnet is a collection of compromised computers that have been set up to forward transmissions (including spam or viruses) to other computers. Phishing is attempting to get information (such as credit card details and passwords) by acting as a trustworthy entity. A trojan is a type of harmful software that masquerades as a legitimate file or helpful program to gain unauthorised access to a computer. See the [Definitions](#) section for more detail.

## Internet security monitoring

Dial-up and broadband subscribers  
June 2012



Source: Statistics New Zealand

For more detailed data see the Excel tables in the 'Downloads' box.

## Definitions

### About the Internet Service Provider Survey

The Internet Service Provider (ISP) Survey collects information on businesses that provide Internet access to New Zealand households and businesses. This information allows us to measure the global connectivity of New Zealanders, which is an important factor in economic growth and social well-being. Measuring New Zealand's global connectivity will help individuals, communities, businesses, and government understand the role of information and communication technology in the economy and society.

### Further definitions

**Active subscriber:** a customer that has accessed the Internet or paid for access to the Internet through this Internet service provider within the last 90 days. 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 broadband connection subscribers
- free or discounted connections offered for staff
- free or discounted connections offered for customers.

Excludes:

web-hosting-only subscribers

email-only subscribers.

**Active mobile handset subscriber:** a subscriber who has used a mobile phone to connect to the Internet within the last three months.

**ANZSIC06:** Australia and New Zealand Standard Industrial Classification 2006 codes. These are the codes used to classify and categorise all businesses on the Statistics NZ Business Frame. See [Data quality](#) for the specific codes used to classify Internet Service Provider Survey data.

**Botnet:** a collection of compromised computers that, although their owners are unaware of it, have been set up to forward transmissions (including spam or viruses) to other computers on the Internet.

**Broadband:** technologies that provide an 'always on' service. This includes digital subscriber line (DSL), cable, fibre optic, satellite, cellular, and fixed wireless.

**Business Frame:** a register of all economically significant businesses operating in New Zealand.

**Data cap:** 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 subscribers reach the cap, lower speed or extra access charges may apply. Also referred to as a data allowance.

**Data card:** a card which contains data or which is used for data operations (examples: Vodafone 3G card or Telecom Aircard).

**Dial-up connection:** connection to the Internet via a dial-up modem and software that uses the public switched telephone network (PSTN). Includes integrated services digital network (ISDN) and analogue connections.

**Dongle:** a device that is connected to a computer to allow access to wireless broadband or use of protected software.

**Economically significant enterprises:** enterprises that produce goods and services in New Zealand. They must meet at least one of the following criteria:

- greater than \$30,000 annual GST expenses or sales
- 12-month rolling mean employee count of greater than three
- part of a group of enterprises
- registered for GST and involved in agriculture or forestry
- over \$40,000 of income recorded in the IR10 annual tax return (this includes some businesses in residential property leasing and rental).

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

**Gigabyte (GB):** a measure of the volume of data. Gigabyte represents a data unit of one billion bytes.

**Internet protocol (IP):** a system for assigning a unique identifier to all devices connected to the Internet. Each device is assigned, and can be identified by, a unique address. This address is made up of a series of numbers (similar to a phone number).

**Internet Protocol version 6 (IPv6):** the next generation Internet Protocol, which greatly expands the IP number space and is the approved standard to replace IPv4.

**Internet Service Providers (ISPs):** Businesses that supply Internet connections to individuals, households, businesses, and other organisations. We break down the results of the Internet Service Provider Survey by size of provider. There are five sizes:

- Very small: Providers with between 1 and 100 subscribers
- Small: Providers with between 101 and 1,000 subscribers
- Medium: Providers with between 1,001 and 10,000 subscribers
- Large: Providers with between 10,001 and 100,000 subscribers
- Very large: Providers with 100,001 or more subscribers.

**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).

**Pharming:** a hacker's attack aiming to redirect a website's traffic to a bogus website. Pharming can be conducted either by changing the host's file on a victim's computer or by exploiting a vulnerability in DNS server software.

**Phishing:** an attempt to acquire sensitive information such as user names, passwords, and credit card details by masquerading as a trustworthy entity in an electronic communication, such as an email.

**Rolling mean employment (RME):** a 12-month moving average of the monthly employee count (EC) figure. The EC is obtained from taxation data.

**Trojan:** software that appears to perform a desirable function for the user prior to run or install, but (perhaps in addition to the expected function) steals information or harms the system.

**USB modem:** a small portable USB device that functions as a modem and plugs into a laptop or desktop computer.

## **Related links**

### **Upcoming releases**

*Internet Service Provider Survey: 2013* will be released in October 2013.

Information and Communication Technology Supply Survey is released every two years and measures the sale of goods and services from businesses associated with Information and Communication Technology (ICT) industries. This will be released 19 March 2013.

Business Operations Survey (BOS): Business Operations Survey (BOS) – Business Use of Information and Communication Technology provides information on the current state of ICT use by businesses as well as considerations, activities, and outcomes. Every second year a Business Use of ICT module is included in the annual Business Operations Survey. This will be released 15 April 2013.

Household Use of Information and Communication Technology is released every three years and provides information on the access households and individuals have to ICT. This will be released in 8 May 2013.

The release calendar lists all our upcoming information releases by date of release.

Subscribe to information releases, including this one, by completing the online subscription form.

### **Past releases**

Internet Service Provider Survey – information releases has links to past releases.

### **Related information**

Government Use of Information and Communication Technology was a one-off release that looked at government computer and Internet use, website features, and expenditure on ICT.

## Data quality

### Period specific information

This section has information about data that has changed since the last release.

- [Population size](#)
- [Response rates](#)
- [Consistency with other periods or datasets](#)

### General information

This section contains information about data that has not changed between releases.

- [Reference period](#)
- [Accuracy of the data](#)
- [Consistency of terms and variables](#)
- [More information](#)

## Period specific information

### Population size

The population size has remained stable since 2009 when the Internet Service Provider (ISP) Survey moved to an annual collection from six-monthly. Small changes in the population size can be explained by:

- new businesses being created and others going out of business, including ISPs absorbing other ISPs
- gaps in population selection method
- change in definition of the scope of the survey.

### Response rates

We sent the survey to just over 70 businesses. The required overall response rate was 85 percent. The response rate achieved was 90 percent. The response rate achieved for key businesses was 100 percent, which met the target.

### Consistency with other periods and datasets

### Data source

The Internet Service Provider Survey is a survey sent to all New Zealand based Internet service providers. This release provides the results of the ISP survey 2012.

### Questionnaire changes

The following changes have been made to the ISP questionnaire for 2012.

- The selection of possible activities undertaken by a business has been expanded to include provision of mobile handset subscriptions.

- What is included in the cellular technology section is expanded, based on feedback received.
- Download speed options have been changed to reflect the speeds ISPs currently advertise.

## **General information**

### **Reference period**

The survey was posted out in July 2012, with a reference period of the last financial year for which the business had results available in July 2012. All respondents had a 30 June 2012 balance date. This aligns with the reference period used by other Organisation for Economic Co-operations and Development (OECD) member countries. Prior to 2009, we collected data in March and September each year. As a result of the change to the June reference date, there is a 15-month gap between the 2008 and 2009 ISP surveys.

### **Accuracy of the data**

#### **Scope**

We included connections to the Internet via mobile phone for the first time in 2011, so the scope of the questionnaire no longer required Internet connectivity to be “permanent or regular”. Mobile phones are becoming the preferred method to access the Internet and in order for the ISP Survey to cover all businesses that supply Internet connectivity, this change was required.

#### **Target population**

The target population is defined as "All resident New Zealand Internet service providers", where Internet service providers (ISPs) were defined as economically significant businesses that supply Internet connectivity services to individuals, households, businesses, and other organisations in New Zealand.

Connections to the Internet via mobile phones were included for the first time last year. The purpose of this change was to improve the coverage of ISPs.

For a definition of economically significant businesses refer to the [Definitions](#) section.

#### **Survey population**

Businesses who provide Internet connections via a mobile phone are now included in the survey population.

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

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

## Methodology

No changes were made to the population selection process this year. In the past (2005–09) we used lists of ISPs obtained from NetGuide and Internet NZ to select the population. From 2010 onwards, the population was sourced from the Statistics New Zealand Business Frame. The population was defined in terms of the ANZSIC06. It specifically included businesses in:

- **ANZSIC J591000:** this code classifies Internet service providers and web search portals. It includes businesses mainly engaged in providing Internet access services. Also included are businesses which provide web search portals used to search the Internet.
- **ANZSIC J580100:** this code classifies wired telecommunications network operation. It includes businesses mainly engaged in operating, maintaining, or providing access to facilities for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Businesses primarily operate fixed (wired) telecommunications infrastructure, but may also use other technologies to deliver services.
- **ANZSIC J580200:** this code classifies other telecommunications network operations. It includes businesses mainly engaged in operating and maintaining switching and transmission facilities that provide omni-directional or point-to-point communications via wireless telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies, including communications via airwaves and through satellite systems.
- **ANZSIC M70000:** this code classifies computer system design and related services. It includes businesses mainly engaged in providing expertise in the field of information technologies such as writing, modifying, testing, or supporting software to meet the needs of a particular consumer; or planning and designing computer systems that integrate computer hardware, software, and communication technologies.

These ANZSIC codes are used in conjunction with previous final survey lists and a keyword search.

## Data collection

The Internet service provider survey is a postal survey of all businesses that meet the population selection criteria.

## Non-sampling error

Non-sampling errors include mistakes by respondents when completing questionnaires, variation in the respondents' interpretation of the questions asked, and errors made during the processing of the data. Statistics NZ has extensive procedures to minimise this type of error, but they may still occur and are not quantifiable.

## Sampling error

The ISP Survey is a census rather than a sample, therefore the data is not subject to sample error.

## Imputation

Where data was missing or required clarification, respondents were contacted in the first instance. When necessary, missing data for individual questions was imputed based on historical data collected. Data for businesses who did not respond to the survey was not imputed.

## Consistency of terms and variables

Terms and variables can differ between datasets and over time and may not be directly comparable. See the Definitions section for terms and variables used in this release.

## More information

See more [information about the Internet Service Provider Survey](#)

## Liability

While care and diligence has been used in processing, analysing, and extracting data and information in this publication, Statistics NZ gives no warranty it is error-free and will not be liable for any loss or damage suffered by the use directly, or indirectly, of the information in this publication.

## Timing of published data

Our information releases are delivered electronically by third parties. Delivery may be delayed by circumstances outside our control. Statistics NZ does not accept responsibility for any such delay.

## Crown copyright©



This work is licensed under the [Creative Commons Attribution 3.0 New Zealand](#) licence. You are free to copy, distribute, and adapt the work, as long as you attribute the work to Statistics NZ and abide by the other licence terms. Please note you may not use any departmental or governmental emblem, logo, or coat of arms in any way that infringes provision of the [Flags, Emblems, and Names Protection Act 1981](#). Use the wording 'Statistics New Zealand' in your attribution, not the Statistics NZ logo.

## **Revisions**

Some of the figures from 2010 and 2011 have been amended due to revised figures given by the respondents. Revisions were applied to Table 1 - Broadband connection type, Table 2 - Internet subscriber download and upload speeds, Table 4 - Internet subscription data cap, Table 13 - Internet subscriber compromised security and Table 14 - Internet subscriber type.

## Contacts

**For media enquiries contact:**

Hamish Hill  
Wellington 04 931 4600  
**Email:** [info@stats.govt.nz](mailto:info@stats.govt.nz)

**For technical information contact:**

Uthpala Vattala and/or Keely Betham  
Wellington 04 931 4600  
**Email:** [info@stats.govt.nz](mailto:info@stats.govt.nz)

**For general enquiries contact our Information centre:**

Phone: 0508 525 525 (toll free in New Zealand)  
+64 4 931 4600 (outside of New Zealand)  
**Email:** [info@stats.govt.nz](mailto:info@stats.govt.nz)

**Subscription service:**

Subscribe to information releases, including this one, by completing the online subscription form.

**Correction notifications:**

Subscribe to receive an email if a correction notice is published for Internet Service Provider Survey.

Unsubscribe to correction notifications for Internet Service Provider Survey.

Subscribe to all to receive an email if a correction notice is published for any of our information releases.

Unsubscribe to all if you change your mind.

## Tables

The following tables are available in Excel format from the 'Downloads' box. If you have problems viewing the files, see [opening files and PDFs](#).

1. Broadband connection type, at 30 June 2010–12
2. Internet subscriber download and upload speeds, broadband subscribers, at 30 June 2010–12
3. Size of Internet service providers, at 30 June 2010–12
4. Internet subscription data cap, broadband subscribers, at 30 June 2010–12
5. Residential and business Internet subscription data cap, at 30 June 2012
6. Internet subscriber average data consumption, broadband subscribers, June 2011–12
7. Unmetered and uncharged data, broadband subscribers, June 2011–12
8. Mobile handset subscribers, at 30 June 2011–12
9. Availability of Internet Protocol version 6, June 2010–12
10. Barriers to installation of Internet Protocol version 6, June 2010–12
11. Other business activities of Internet service providers, year ended June 2010–12
12. Internet security monitoring, dial-up and broadband subscribers, June 2011–12
13. Internet subscriber compromised security, dial-up and broadband subscribers, June 2011–12
14. Internet subscriber type, dial-up and broadband subscribers, at June 2010–12