



IBO Guide

Broadband

Australia



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Broadband is a reliable and high-speed service, which makes it a great way to connect to the Internet. Customers can connect multiple devices and take advantage of the many benefits that the Internet has to offer. This guide is an introduction to Broadband and how it works.

What is Broadband?

Broadband is a high-speed Internet service. Multiple members of a household can use a Broadband service simultaneously – whether it be talking on the phone or connecting various Wi-Fi™ enabled devices around the home, such as computers, laptops, gaming consoles, smartphones, tablets, and some TVs. Broadband technology has been a widely used Internet solution for many years and for nbn™ technologies is available in different speeds.

Broadband Technologies

The technologies available vary based on your customer's location. Customers can check which technologies are available to them by checking for service availability via ACN and may be presented with ADSL, which requires an active phone service or nbn™ if the roll out in their area has commenced. Other Broadband technologies include Naked DSL which does not require an active phone service but utilises the same phone line and Hybrid Fibre Coaxial (HFC) which is a broadband service delivered over fibre optic cables. For information on which technologies are available via ACN, see the ACN Broadband Services Comparison section on page 9.

ADSL

ADSL is available to customers in metro and regional areas across Australia. ADSL works across a standard phone line. By splitting the phone line into two separate channels, one for data (Internet) and one for voice (phone calls), your customers can talk on the phone and be connected to the Internet at the same time. It is a reliable and "always on" service, meaning it will automatically stay connected to the Internet unless the customer manually disconnects the Internet or phone component or transfers the service away to another provider.

Typical line speeds for ADSL in Australia support download speeds between 1.5Mbps to 20Mbps and up to 1Mbps for uploads, but there are some factors that may impact the speed your customer will actually achieve including the distance from the exchange and environmental factors. For further information on typical line speeds and the impact of the distance from the exchange see page 6. ADSL is perfect for people who want to keep their home or small business phone, and have an Internet connection. It is important to ask your customer what they wish to use their Internet for so you can suggest a plan for them based on their usage. The Broadband Data Usage Guide on page 9 will assist you in recommending a data plan based on your customer's usage requirements. Customers who wish to download large files such as movies, music and online gaming will require a larger data allowance than customers who only use their Internet connection for checking emails and light browsing. ADSL is not recommended for customers currently on cable Broadband due to the lower line speeds on ADSL.

Naked DSL*

Naked DSL is available to customers residing in metro areas only. Naked DSL works across a standard phone line much like ADSL without the need to have an active phone service. If a phone service is required a Voice over Internet Protocol (VoIP) service can be added with an Analogue Telephone Adaptor (ATA). In order to make and receive calls, the customer must have a compatible telephone handset to connect to the ATA.

*ACN ceased selling Naked DSL on 1 July 2016

nbn™

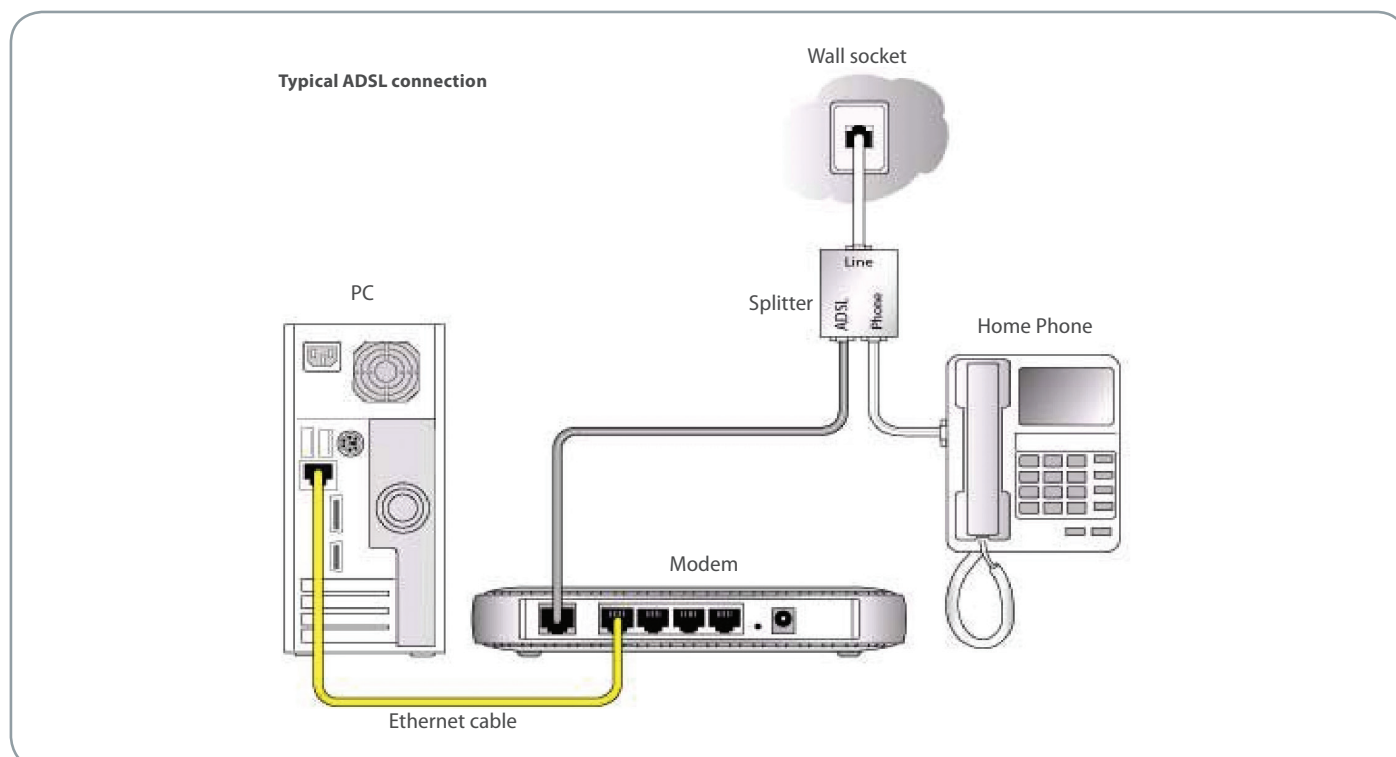
The National Broadband Network (nbn™) is an Australian Government initiative designed to facilitate the delivery of high-speed Broadband to all Australians. It is an open access telecommunications network, which will be based on several technologies including Fixed Wireless (FW), Satellite, Fibre to the Node (FTTN), Fibre to the Premises (FTTP), Fibre to the Building (FTTB) and Hybrid Fibre Coaxial (HFC) network. The current ADSL technology is based on copper wiring which, not only has speed limitations, but is also much more prone to environmental interference. The vision for nbnCo (the national, government-owned wholesale provider) is to connect every home, school and workplace in the country within the next decade. The Australian Government has forecast completion of the nbn™ by mid-2021.

IP Addresses

ACN provides each Broadband customer with a dynamic IP address. A dynamic IP address is when a new IP address is allocated each time a new session is started. ACN does not support or provide Static (non-changing) IP addresses.

How does Broadband work?

All Broadband services require a modem. ACN provides a wireless (Wi-Fi) modem free when they sign up to a 24 month plan or for a small upfront cost if they sign up to a 12 month plan. When the customer receives the Wi-Fi modem it will automatically be configured for use on our network. Setting up Wi-Fi is an effective way to connect multiple devices to the Internet. This is an easy process and requires just a couple of simple steps to make sure the wireless connection is secure. These instructions can be found in the installation guide of your customer’s modem. Your customers will also require a computer that supports Ethernet or wireless networking capability.



ADSL Broadband speeds are subject to various scenarios that can interfere with connectivity and result in inconsistent, latent and slower transmissions. The distance from your customer’s home and the exchange they are connected to is probably the largest factor that will determine download and upload speeds (see page 6). With an ADSL service, telephones and faxes can be used normally, even while multiple users are simultaneously surfing the Internet.

For nbn™ there are several technologies including Fixed Wireless (FW), Satellite, Fibre to the Node (FTTN), Fibre to the Premises (FTTP), Fibre to the Building (FTTB) and Hybrid Fibre Coaxial (HFC) to deliver broadband to customers. Some of these technologies including FTTP and Fixed Wireless require the installation of nbn™ supplied equipment such as a Network Termination Device (NTD) (also known as a nbn connection box) and a fibre wall outlet. In addition for Fixed Wireless a fixed antenna will need to be installed to the roof or guttering of the customer’s premise. NBN Co decides the best access technology for each customer premises. With ACN’s nbn™ + Voice bundles, VoIP technology is used for calling – customers simply connect an ACN supplied Analogue Telephone Adaptor (ATA) to the modem to make phone calls over the internet.

It is important to note that set-up and connection fees will vary depending on whether a customer is transferring a similar service or installing a new service at their address. For more information on our set-up and connection fees refer to www.acnpacific.com/broadband.

How To Get ACN Broadband

One of the first questions to ask your customer is whether they already have a Broadband connection with another provider at the installation address. If they do, it is almost certain that ACN can service them with one of our products. Connection fees apply.

Broadband Availability

Even with our wide range of products, Broadband is not available to everyone and several factors need to be considered:

General Coverage

Broadband may simply not be available in all areas or regions. The best way to check is to have your customer complete a service availability check online via www.acnpacific.com/broadband. Only the products available at their address will be displayed.

Infrastructure

The infrastructure required to get ADSL Broadband is nearly always already installed into a customer's premises; this includes a phone line with telephone outlets. All your customer needs to do is plug their modem into the phone outlet at the wall.

ADSL Broadband is not available if there is no phone line running to the premises. Nearly all premises have a copper phone line installed and connected but, for very new premises, some apartment blocks or very remote areas, this is not always the case. In some situations a new copper line can be laid to the premises which can cost up to \$299.00 (this is a cost passed on by the wholesale supplier). The customer will then be able to use this new line to activate a Broadband connection.

Serviceable Line

Some installations of phone lines and services on the lines are incompatible with Broadband. The reasons for this are varied and relate more to the telephone system and how it was developed, built and extended over time. Unfortunately we are restricted by the infrastructure in the ground just like any other provider. In most cases, if a customer cannot get Broadband from ACN, it is unlikely they will be able to get Broadband from any other provider.

Hardware Required

In order to use the service, your customers will need a Broadband modem. ACN provides modems for free on new 24 month plans or at a small cost on new 12 month plans. The modems will be pre-configured and the customer simply has to plug and play.

Installation Timeframes

The end-to-end process for your customer, from placing their order online through to connection of their new ADSL Broadband service, should take up to 25 working days (depending on your customer's location). The installation process is as follows:

DAY 1	DAY 2	DAY 3	DAY 4
Order Submitted	Credit Assessment	ADSL order submitted to Carrier	Connection Date set by Carrier Equipment dispatched
Confirmation email	Rejection letter if not approved		Acknowledgement email including installation date/time & whether site visit required Courtesy phone call for site appointment confirmation Equipment dispatch courtesy SMS
Installation Date - 1 day	Installation Date +1 day	Broadband Connection Day + 2-5 days	
Installation Date reminder VIA SMS Installation Date reminder SMS	Phone Line service submitted to Carrier	Phone Line service is activated Welcome Email & SMS	

Transfer Scenarios

If your customer already has an ADSL Broadband connection with another provider, you will need to ensure that your customer does not cancel their service before connecting with ACN as this will interrupt the transfer process.



Note: your customer needs to provide their Account Number with their current provider for service transfer.

Distance from Exchange

The table below shows the maximum and typical theoretical speed for your ADSL customer's service based on the distance from their premises to the local exchange.

Distance	Maximum Theoretical Estimated Download Line Speed	Typical Line Speed
0 -1.7 KM	Up to 24 Mbps	Up to 15 Mbps or faster
1.8 KM	Up to 18 Mbps	Up to 12 Mbps
2.2 KM	Up to 16 Mbps	Up to 10 Mbps
2.4 KM	Up to 14 Mbps	Up to 10 Mbps
2.6 KM	Up to 12 Mbps	Up to 8 Mbps
2.9 KM	Up to 10 Mbps	Up to 7 Mbps
3.2 KM	Up to 8 Mbps	Up to 6 Mbps
3.5 KM	Up to 6 Mbps	Up to 5 Mbps
4.1 KM	Up to 4 Mbps	Up to 4 Mbps

To check the customer's distance from the exchange visit www.adsl2exchanges.com.au and:

1. Enter the customer's phone number (if applicable) or their address. You will then be displayed with a map.
2. Click on the  icon to see the location of your customer's exchange.
3. Click on the  icon to see:
 - Straight line distance from your customer's premises to the exchange.
 - Estimated copper cable length from the customer's premises to the local exchange.
 - Estimated maximum theoretical speed.

ADSL Broadband Speed

It is important to note that the distance from the customer's premises to the exchange will be a major factor in the Internet speed they will receive (see page 6). This is because Broadband services are delivered to their home or business over copper wires, and therefore the speed of their connection is impacted by the distance the information needs to travel between the exchange and the customer's premises.

It is also important to understand that there are additional factors that can impact the customer's speed, such as:

- The quality of their phone line.
- The distance between their property and the exchange. The closer they are to the exchange, the quality of their ADSL performance will increase. Internet cabling normally does not travel in a straight line hence people across the road can be connected to a completely different exchange.
- The building structure and modem location. Signal strength will diminish if the Wi-Fi™ signals require travelling through walls.
- The amount of people utilising the service at the same time. The speed will be divided by the amount of devices connected to the service.
- The Exchange or Digital Subscriber Line Access Multiplexer (DSLAM) the customer's service is connected to is experiencing congestion.

The table below provides the minimum speed requirements for specific traffic types:

	Minimum Speed Requirement
Email	< 1Mbps
Web Surfing	>1.6Mbps
Facebook	>1.6Mbps
Skype	Normal Quality: >500Kbps upload and download HD Quality: >1.5Mbps upload and download
Online Gaming	>1Mbps
Internet TV (Netflix) and Youtube	Standard Definition >3Mbps High Definition: >5Mbps

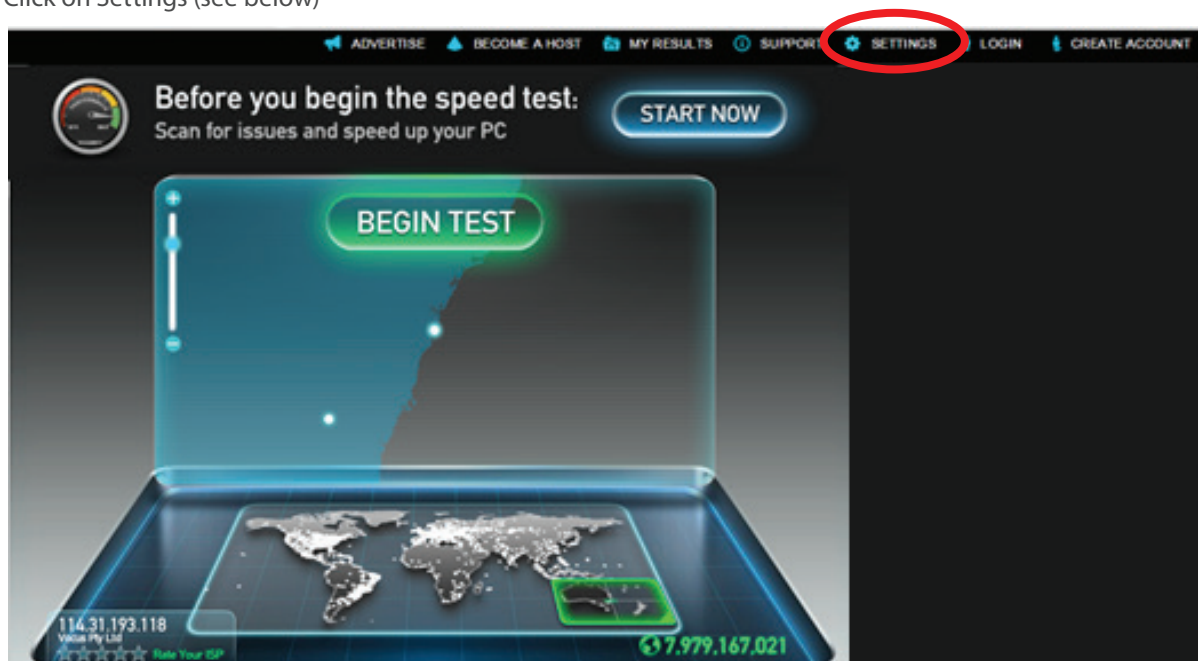
Broadband Speed Tests

To get the most accurate measure of the Broadband speed experienced it is important to select specific servers based on the customer’s location. The table below identifies the best servers based on the type of Broadband product and location:

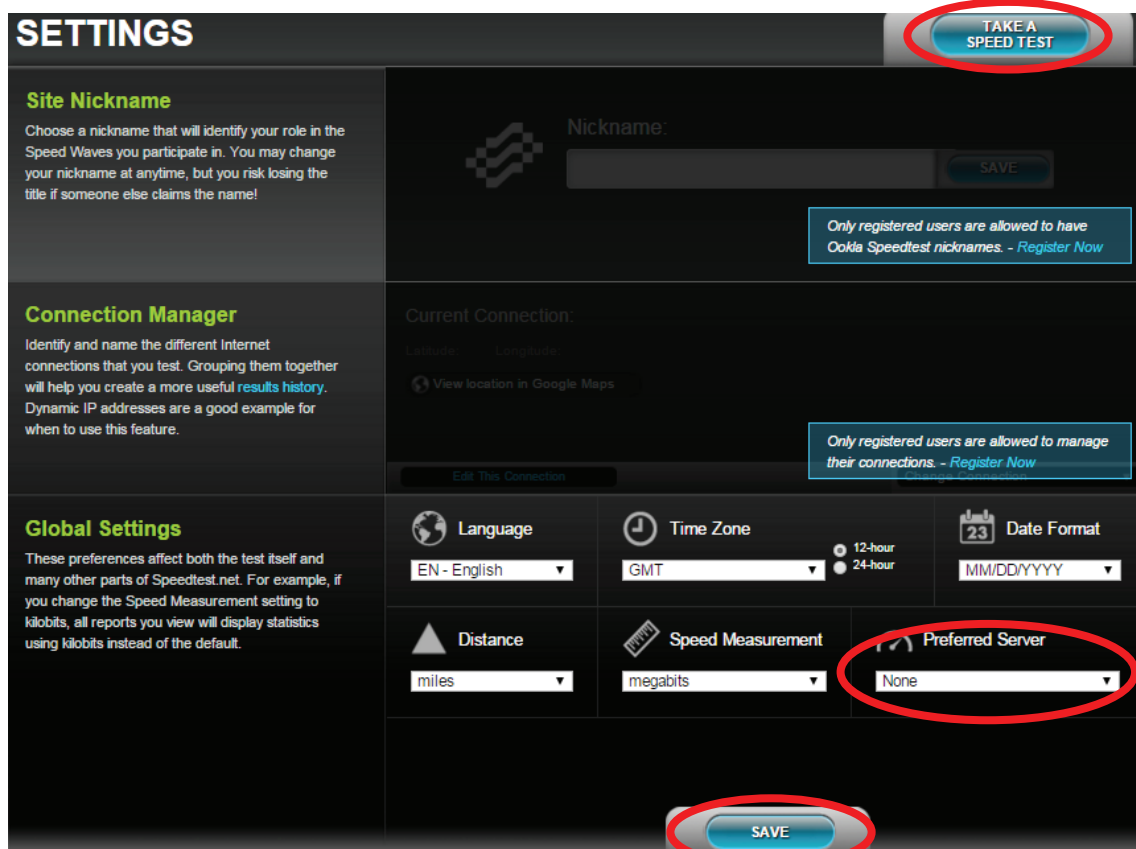
Broadband Project	Location	Best Server	Option 1	Option 2
nbn™	Australia wide	Brisbane	Telstra	Optus
ADSL	QLD, WA	Brisbane	Telstra	Optus
ADSL	VIC, TAS	Melbourne	Telstra	Softlayer Technologies
ADSL	NSW, SA, NT, ACT	Sydney	Exetel	Vodafone

To carry out a Broadband speed test, we recommend following these simple steps:

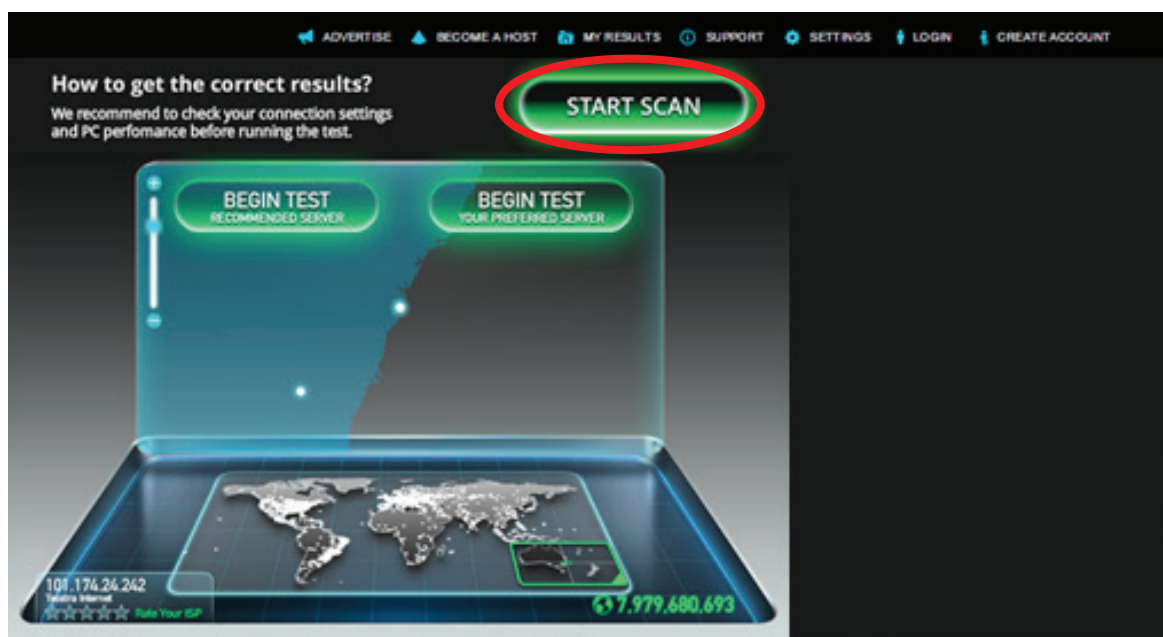
1. Connect the device directly to the modem using an Ethernet cable
2. Visit speedtest.net
3. Click on Settings (see below)



4. In the “Preferred Server” section (see below) select the appropriate server based on the Broadband Speed Tests table on page 7.



5. Click on "Save" (see above). This will ensure your Preferred Server is automatically selected for future speed tests.
6. Click on "Take a Speed Test" (see above)
7. As the Preferred Server has been saved, click on "Begin Test Your Preferred Server" (see below)



8. When completed click on "Test Again". We recommend 3 consecutive speed tests are carried out.
9. When the speed tests have been completed, unplug the Ethernet cable and repeat the test 3 times over Wi-fi.
10. If your customer is concerned about the results of their ACN Broadband speed test they should contact Customer Service to discuss alternative Broadband options.

Please note, the results screen of the speed test may contain advertisements which are outside of ACN's control. We recommend that your customer ignores these advertisements.

Broadband Data Usage Guide

The table below provides a guide on the average amount of data required for common online activities.

	Data Requirements Average	100GB plan	500GB plan	1000GB plan
Email	50 KB per email	✓	✓	✓
Web Surfing	2.5 MB per minute	✓	✓	✓
Facebook	2 MB per minute	✓	✓	✓
Skype	360 KB per minute	✓	✓	✓
Online Gaming	1.5 MB per minute	✓	✓	✓
YouTube	8.3 MB to 60 MB per 5 minutes Dependent on quality	✓	✓	✓
Internet TV (Netflix)	8.3 MB to 60 MB per 5 minutes Dependent on quality	✗	✓	✓
Downloading Movies & TV	estimates 3 GB per hour for full HD and 700 MB per hour for SD	✗	✓	✓

- ✓ Safe
- ✓ Caution customer may go over their data allowance
- ✗ Warning customer likely to go over their data allowance

Source: www.whistleout.com.au/Broadband/Guides/Broadband-Usage-Guide

To assist with determining data requirements for your customers' specific usage you can use a calculation tool available via Broadbandnow www.broadbandnow.org/resources/data-usage-calculator.

ACN Broadband Services Comparison

ACN Product	ADSL Standalone	ADSL Bundle	nbn™ Broadband	nbn™ + Voice
Maximum theoretical speed	Up to 20 Mbps download	Up to 20 Mbps download	Up to 100 Mbps download*	Up to 100 Mbps download*
	Up to 1 Mbps upload	Up to 1 Mbps upload	Up to 40 Mbps upload	Up to 40 Mbps upload
Provisioning Timeframe	Up to 25 working days	Up to 25 working days	Between 14-25 working days Subject to Service Class	Between 14-25 working days Subject to Service Class
Connection Fee	\$80.00	\$80.00	\$49.00	\$49.00
Service Term	12 or 24 months	12 or 24 months	12 or 24 months	12 or 24 months
Equipment Required?	Modem	Modem	Modem	Modem + VoIP ATA
Phone Line or VoIP Service required?	Phone Line	Phone Line	N/A	VoIP
Do you require Unlimited calls within Australia?	✗	✓ ^	✗	✓ ^
International Calls included?	✗	✗	✗	✓ ^

*Speed varies based on nbn™ technology. Fixed Wireless technology only supports up to 25/5 Mbps speeds. ^Varies by plan.

Online Sign- Up

There are no paper forms for ordering Broadband. Your customers will need to order online via your Direct Storefront or www.acnpacific.com/broadband where your customer’s service address will be checked for service availability prior to completing their order.

Customer Points

*,\$,~ See ACN’s Compensation Plan available from your IBO Back Office for full details, terms and conditions.

Broadband*,\$,~		
Plan	Customer Points	Commission Earning Rate
All ADSL Plans	1	50%
Broadband + Phone Bundle Plan	4	100% (Line rental and local calls are commissionable at 50%)

nbn™ Broadband*,\$,~		
Plan	Customer Points	Commission Earning Rate
All nbn™ Broadband Only Plans	3	100% (Equipment, installation & connection revenue is not commissionable)
All nbn™ Voice + Broadband Bundle Plans	4	100% (Equipment, installation & connection revenue is not commissionable)

Claiming Missing Customers

When your customers place their orders online via acnpacific.com, entry of your Business ID is not a mandatory field. This is a global ACN policy which ensures that all customers are able to complete their order for ACN services, with or without their IBO’s Business ID. This ultimately means that we don’t prevent any customer from signing up for ACN services the first time they try.

If your customer does not enter your Business ID in their order, don’t worry! Your customer can be claimed back via IBO Back Office. Read [ACN’s guide to Claiming Missing Customers](#) on IBO Back Office for more details.

Tip: to avoid losing your new customers, ensure they sign-up for ACN services via your Direct Storefront where your Business ID is automatically populated.