NBN SPEED EXPLAINED

NBN SPEED TIERS

We offer four speed tiers. Which speed tier may be suitable for you depends on what you use the internet for and the maximum line speed of your **nbn** technology.

Even if you choose a higher speed tier, your **nbn** service can never go faster than the maximum line speed available at your premises. This is particularly relevant to those customers who will be connected by Fibre to the Node (FTTN) or Fibre to the Building (FTTB).

For FTTB and FTTN customers, we can't confirm your maximum line speed until your service is installed and activated. This means we will only offer the Standard + and Premium Speed Tiers once we have been able to test your service and determine whether these speeds can be achieved on your service.

If your **nbn** connection doesn't allow you to properly benefit from the speed tier you're on, we'll provide you with your maximum line speed, once it's available, along with alternative options.

Speed Tier	Basic	Standard	Standard +	Premium
Best For	This is our basic speed offer. It is good for light web browsing, social networking and emailing and a single voice service. Not good for media streaming (such as Netflix, Stan etc), not recommended for small businesses	This is our standard speed offering. Perfect when there are a few users with multiple devices. Good for web browsing, social networking, emailing, streaming video, and voice services	Faster than our standard speed offering. Perfect when there are a few users with multiple devices, and sharing the internet to stream HD movies, downloading and uploading large files, and voice services	Fast as it gets on NBN. Perfect when there are a few users with multiple devices, sharing the internet to stream 4K movies, downloading and uploading very large media or other files, and voice services
Typical minimum evening speeds. (7pm – 11pm)	6 Mbps download	15 Mbps download 4 Mbps upload	30 Mbps download 15 Mbps upload	60 Mbps download 24 Mbps upload
Typical minimum speeds outside 7pm – 11pm	11 Mbps download	22 Mbps Download 4 Mbps upload	45 Mbps download 15 Mbps upload	90 Mbps download 30 Mbps upload

NBN Co-EXISTENCE PERIODS

In some circumstances, and for FTTB and FTTN services only, NBN Co may reduce the power of an NBN Co Node to prevent interference with pre-existing ADSL services. This is called Co-Existence. This power reduction will have the effect of reducing bandwidth speed of your service.

NBN Co will disable Downstream Power Back-off in respect of an NBN Co Node when NBN Co is satisfied that Downstream Power Back-off is no longer required in respect of that part of the NBN Co FTTB Network or NBN Co FTTN Network.

NBN CONNECTION TYPES

NBN uses a number of connection types to deliver NBN to premises.

FTTP – FIBRE TO THE PREMISES

FTTP is fibre to the premises & connects to your premises on a network termination device or NTD. It allows you to retain your current analogue phone service, and connect up to 4 different data services. A modem with a eWAN port is required.
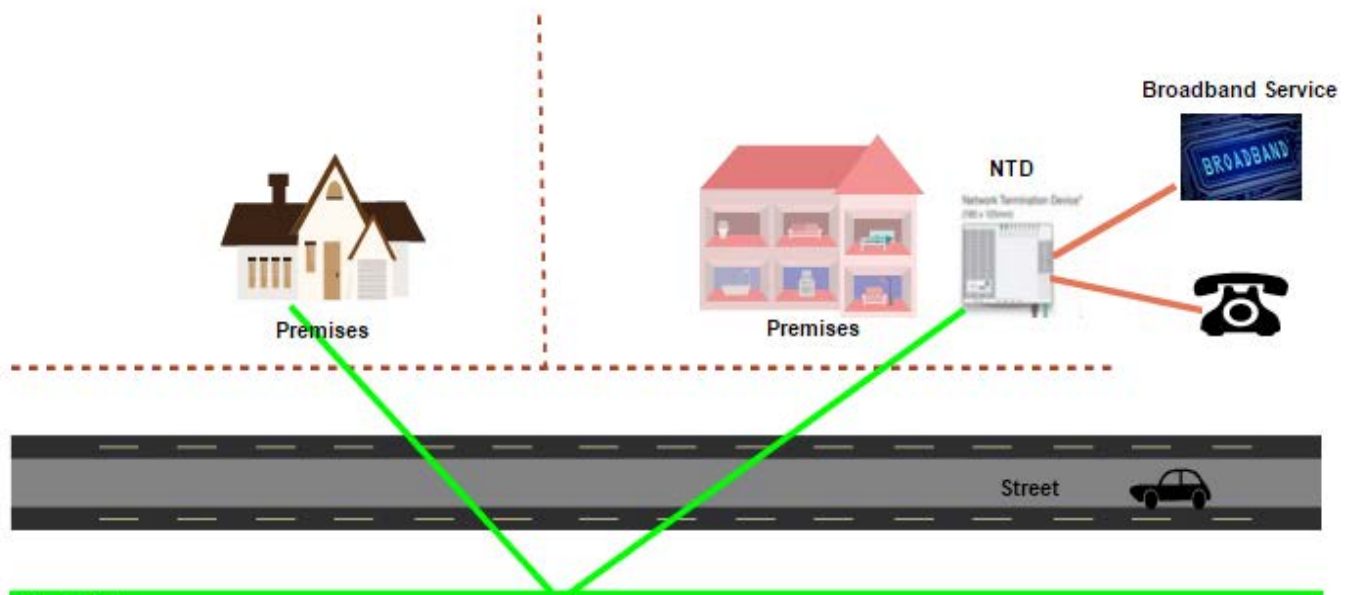

FTTB – FIBRE TO THE BASEMENT

FTTB is where fibre is installed to a building or apartment complex. It terminates at a node that converts the optical signal into one suitable for the existing copper cable to 'extend' the broadband service to all apartments or offices.

The technology that helps this occur over the copper telephone wire is called vectored DSL or VDSL, a faster version than the more common ADSL broadband. The VDSL modem will be very similar looking to the existing ADSL modems.

A DSL modem will not work on a VDSL service, but some VDSL modems may work on both DSL and VDSL.

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In addition to the data service, a Voice Continuity service is available. This is achieved by the installation of a splitter that allows an existing analogue voice handset to be connected to the NBN service. The splitter and its professional, hardwired installation is performed by NBN technicians, at an additional cost. The Voice Continuity service remains active for 18 months after the installation of the NBN service, after which time, the Voice Continuity service will cease to operate. Unlike FTTP, there is no permanent analogue voice port available on FTTB.
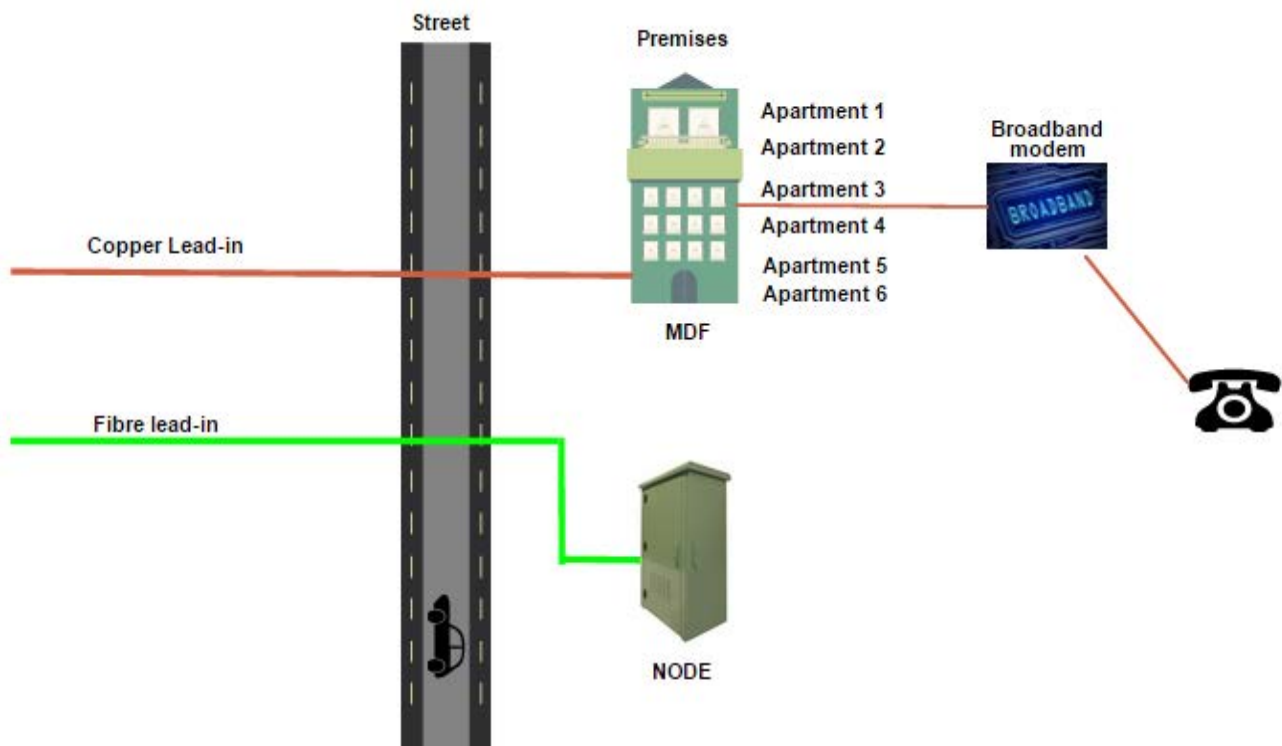


FTTN – FIBRE TO THE NODE

FTTN is like FTTB except the node is installed on the street outside the premises so it can service multiple premises. The ideal location would be next to an existing telecommunications pillar.

The technology from the node to the Multiple Dwelling Unit (apartment building, townhouses, etc) or Single Dwelling Unit (freestanding house) is also vectored DSL or VDSL. The connection and installation inside the dwelling will be the same as for ADSL. The node needs to be reasonably close to the dwelling so the copper length is kept as short as possible.

A DSL modem will not work on a VDSL service, but some VDSL modems may work on both DSL and VDSL.

In addition to the data service, a Voice Continuity service is available. This is achieved by the installation of a splitter that allows an existing analogue voice handset to be connected to the NBN service. The splitter and its professional, hardwired installation is performed by NBN technicians, at an additional cost. The Voice Continuity service remains active for 18 months after the installation of the NBN service, after which time, the Voice Continuity service will cease to operate. Unlike FTTP, there is no permanent analogue voice port available on FTTN.

NBN SPEED EXPLAINED
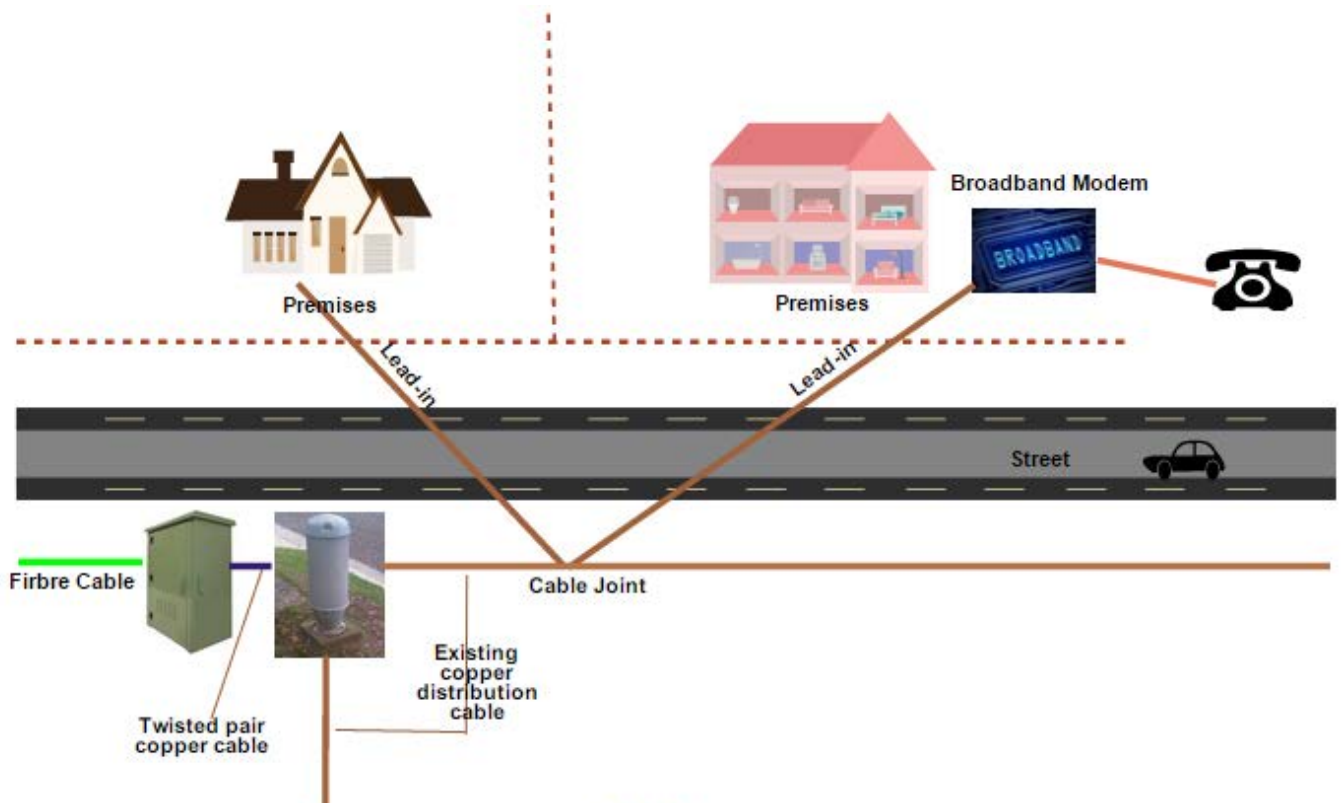
FIXED WIRELESS

Fixed wireless is where NBN will install radio base stations like the ones used for mobile phones and then install an antenna and a fixed modem (NTD) in the premises. This NTD is only for broadband service, the telephony stays on the existing copper wires for now. A modem with eWAN port is required.
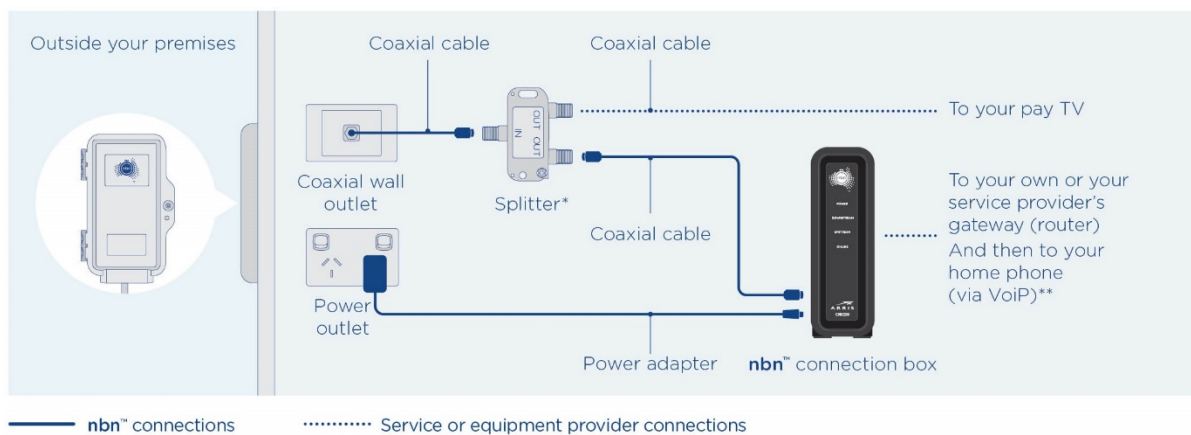
NBN SPEED EXPLAINED

HYBRID FIBRE CABLE

An **nbn**™ Hybrid Fibre Coaxial (HFC) connection is used in circumstances where the existing 'pay TV' or cable network can be used to make the final part of the **nbn**™ network connection. In this circumstance, a HFC line will be run from the nearest available fibre node, to your premises, similar to FTTP.

Hybrid Fibre Coaxial (HFC) connections require an **nbn**™ network device to be installed at the point where the HFC line enters your home. This device requires power to operate.

Outside your premises — Coaxial cable — Coaxial cable — To your pay TV

Coaxial wall outlet — Splitter* — Coaxial cable — To your own or your service provider's gateway (router) And then to your home phone (via VoiP)**

Power outlet — Power adapter — **nbn**™ connection box

—— **nbn**™ connections   ·········· Service or equipment provider connections

*If you have a pay TV or cable internet service connected to the same wall outlet as your **nbn**™ connection box, you will need a splitter.
**Your service provider will supply a gateway (router) and Ethernet cable to connect your internet and phone devices as required.

OUR NETWORK CAPACITY

During busy periods, like 7-11pm in the evening, broadband speeds can slow down as more premises use the internet at the same time. We purchase enough capacity to deliver our customers the 'typical speeds' outlined in the table below. We continually monitor traffic and adjust capacity to meet demand from our customers and deliver these speeds.

YOUR SET UP AND INTERNET USAGE

There are number of factors related to your in-premises set-up and internet usage that can affect your broadband performance. These factors are the responsibility of the customer. We have outlined the key factors below:

Modem: The quality and age of your modem will impact the performance of your connection. We recommend using a modem supplied by us. We can remotely access a modem supplied by us, which helps us to remedy any problems that may occur with your service.

Wi-Fi: It is important to distinguish between the speed performance of your internet and the speed of your Wi-Fi service.
The speed of your internet service is the speed up to your modem, and is basically external to your premises. This is what we provide to you. Wi-Fi is a wireless technology that allows you to connect your smartphone, PC etc to your modem without using a wire connector, this is internal to your premises, and is not supplied by us.

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Your Wi-Fi performance can be impacted by where you place your modem, as well as any radio or electrical interference with other devices in or near your premises. Improve your Wi-Fi performance by placing your modem centrally in your premises, or near the stairwell in a two-storey building. In some buildings, especially those with multiple floors, or with reinforced concrete walls, you may need a Wireless Repeater to improve Wi-Fi performance.

In-premises wiring: If the copper lines within your premises are damaged, corroded, badly connected or poorly configured, it can significantly reduce your nbn speed.

Devices: If your connection is slow on one device only, the problem could be malware, viruses or it might be too old to support higher speeds. If you're downloading on multiple devices at once, your available bandwidth is shared between these devices. The more devices connected, the more bandwidth you share between them, and the slower your experience will be.

Content: Downloads taking too long? This can happen if the source of the content you're trying to access is affected by congestion. An example is when a lot of users try and access the same website simultaneously. Also, remember that downloads from international websites are usually slower than Australian websites.

USEFUL LINKS:

https://www.nbnco.com.au/learn-about-the-nbn/in-home-optimisation.html   This is a link to the NBNCo web site , providing very helpful information for optimising your premises for NBN services.

https://www.nbnco.com.au/learn-about-the-nbn/speed.html   This link provides useful information to assist in selecting the right NBN plan for your intended usage.