





nbn™ speeds explained

Speeds on the **nbn** network can vary due to a number of factors, and explanations can often get a bit technical. To keep things simple, we have likened it to how fast you can drive a car.

Factors influencing speed	The nbn technology connected to your premises	Your speed tier	The service provider's network capability	Your in home setup and how you use your service
How fast you can drive a car	 <p>The model of your car and the maximum speed it can achieve</p>	 <p>The speed limit of the road you are driving on</p>	 <p>The number of lanes the service provider has built to carry the traffic</p>	 <p>The local driving conditions and how well you maintain your car</p>

As you keep reading, you'll find more information on the different **nbn** technologies, including the estimated maximum speeds for each type.


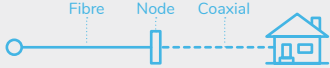
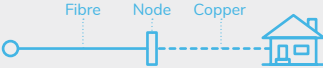

The **nbn** technology connected to your premises

nbn co is rolling out a mixture of different technologies, to connect homes and businesses across Australia. Your maximum line speed is the maximum speed the infrastructure is capable of, and is determined by the type of technology nbn co makes available at your premises. The infrastructure connected to your address is the same, regardless of which service provider you choose.

It is normal for the speed of your internet connection to be slower than the maximum line speed, and speeds will vary due to a range of additional factors.

Technology types provided by nbn co

Based on the technology type nbn co has rolled out in your area, one of the following options will be available at your address.

Fibre to the Premises (FTTP)	Hybrid Fibre Coaxial (HFC)
<p>Optical Fibre leading all the way to your address, with an nbn connection box (NTD¹) inside your premises.</p> 	<p>Optical Fibre leading to a node, then Coaxial Cable to your address, with an nbn connection box (NTD¹) inside your premises.</p> 
Fibre to the Node (FTTN)	Fibre to Building (FTTB)
<p>Optical Fibre leading to a node in the street, then connects via existing copper cable to your address, wired to a wall socket inside your premises.</p> 	<p>Optical Fibre leading to a node within the building communications room, then copper cable to your apartment, wired to a wall socket inside your premises.</p> 

Factors influencing copper line speed

Technologies using copper cable have additional factors which may reduce speeds, including:

- The length of copper cable from the node to your wall socket
- The condition of the copper, and exposure to the elements
- Any additional wall sockets, intercoms, or alarm systems connected within the home
- Any internal or external electrical interference

Your speed tier

We generally offer three speed tiers with different typical evening speeds. Basic nbn™ services have a maximum achievable speed of 12 Mbps for downloading into the home and 1 Mbps for uploading from the home. Our Standard Evening Speed Boost has a typical evening speed of 15 Mbps, and our Premium Evening Speed Boost has 60 Mbps for downloading into the home.

A typical evening is usually the peak user period between 7pm-11pm each day. The evening speeds are what a service may experience during those times. Adding a Speed Boost may improve your online experience, depending on how you use service.

Speed tier	Basic	Standard Evening Speed Boost	Premium Evening Speed Boost
Suitable for	One or two users online separately or at the same time	Several users and devices online and connected at the same time	Multiple users and devices online and connected at the same time
How you use your service	<ul style="list-style-type: none"> • Browse the web • Social networking • Streaming video to a device 	<ul style="list-style-type: none"> • Work or study • Social networking • Streaming HD video • Casual gaming 	<ul style="list-style-type: none"> • Work or study • Video chat with loved ones • Streaming 4K video • Hardcore gaming

1. Also known as network termination device (NTD).

Estimated maximum speeds for each nbn technology type

Technology type provided by nbn	Speed tiers available	Typical evening speeds ²	Maximum speed ranges	Potential range of actual user speeds
Fibre to the Premises (FTTP) and Hybrid Fibre Coaxial (HFC)	Basic	1-12 Mbps	12 Mbps (download) and 1 Mbps (upload)	Regardless of the nbn technology type connected at your address, the actual speed of your service will be slower than the maximum line speed. It's important you refer to the "Things that affect your internet speed" section in this guide to maximise your download and upload speed.
	Standard	15 Mbps	25 Mbps (download) and 5 Mbps (upload)	
	Premium	60 Mbps	100 Mbps (download) and 40 Mbps (upload)	
Fibre to the Node (FTTN) and Fibre to the Building (FTTB)	Basic	1-12 Mbps	12 Mbps (download) and 1 Mbps (upload)	
	Standard	15 Mbps	25 Mbps (download) and 5 Mbps (upload)	
	Premium	Not currently offered by Belong		

Even if you move to a higher speed tier by purchasing a Speed Boost, your nbn network speed can never go faster than the maximum line speed.

This means for Fibre to the Node (FTTN) and Fibre to the Building (FTTB) services, which use a combination of copper and fibre cables, a Speed Boost may not improve your speeds, if the maximum line speed is slower than the Speed Boost tier you have chosen.

To test your service speed or maximum line speed, your service needs to be connected and active.

The service provider's network capability

Service providers are required to purchase network capacity (bandwidth) from nbn co, to allow their customers access to the internet. Network capacity upgrades are required as service providers connect more customers.

At Belong, we are working to provide a consistent speed experience for our customers on the nbn network. To optimise network performance and ensure our network capability, we monitor and make adjustments regularly with Telstra and nbn co.

Things that affect your internet speed

There are a number of factors relating to your in-home setup and use, which can affect how your service performs. Understanding these factors will help you get the most out of your connection.

Modem

Modems and routers will perform differently depending on their specifications.

You will generally get better performance when connecting devices via an Ethernet cable where possible.

Devices

Speeds to each device will vary due to settings, configuration, and the type of device connected.

Your speed will be shared across your home network, as you connect more devices.

You can also do updates, virus scans, and optimisation steps to keep your device safe and performing in top condition.

Wi-Fi

Your Wi-Fi speed and your service line speed are different. Mirrors, walls, and nearby electrical devices will interfere with your Wi-Fi signal.

Tips: To improve your Wi-Fi performance try placing your modem in a central location within your home. You can test your service line speed by connecting via an Ethernet cable.

Visit our [FAQ](#) page for more tips.

Content

Speed to a certain site may be impacted by other users, so keep that in mind when you are downloading, streaming, or accessing sites for work or study. Gaming, browsing, or downloading

may also be slower if content is hosted internationally.

Wires and cabling

Sometimes the wiring to your home or within your home may be damaged, corroded, or in poor condition, which can reduce your internet speeds.

If you are experiencing a slow connection, Belong can test and arrange repairs for any external network damage we find. Some in-home repairs may require you to arrange your own electrician, but we will let you know if this is needed.

Getting the most out of your service

We are continuously working to provide you with a hassle free service, so if you think your service isn't as fast as it should be, visit our [FAQ](#) page or check out our [online troubleshooting tool](#).

If you are still having issues, let us know so we can help you get the most out of your service on the nbn network.

². Refers to the speed between 7pm-11pm, 7 days a week.
nbn™ is a trademark of nbn co limited and is used under licence.
nbn™ speeds explained | Version 12.1