

## **NBN and Private Networks Speed Explained**

### **About your Service**

Active Utilities purchase wholesale services of Activenet who have dimensioned their Network to perform at an expected level during peak times (7pm – 11pm 7 days a week).

It is during these times when the network is busiest and performance issues such as congestion are the most likely to occur, so monitoring our Network during this period provides more realistic information about the speeds you can expect from your service.

Our monitoring method is based on number of concurrent user against available bandwidth within our Network. We continually monitor all components of our Network to ensure we have the required bandwidth to cater for the number of concurrent users during the listed peak times.

Based on our method of management you can expect the below Minimum typical evening speeds during peak times (7pm – 11pm 7 days a week) with your service):

- **12Mbps / 1 Mbps services:** Minimum Typical evening speed 10 Mbps download
- **25Mbps / 5 Mbps services:** Minimum Typical evening speed 20 Mbps download
- **50Mbps / 20 Mbps services:** Minimum Typical evening speed 39 Mbps download
- **100 Mbps / 40 Mbps services:** Minimum Typical evening speed 68 Mbps download

Quoted speeds are based on a fixed connection from your PC to the provided Activenet modem. Activenet do not provide any service guarantees for devices connected Wirelessly.

### **The Technology**

Different technologies have different speed abilities, quoted speeds are based on an FTTP, HFC or approved FTTN/B or Fixed Wireless service using an approved modem with an ethernet connection from the modem to the selected PC.

All FTTN/B and Fixed Wireless services are required to have a feasibility survey completed prior to service activation to advise of available speeds to the premises.

In addition to the general factors that can affect all broadband speeds, the specific factors below may affect the actual speed experienced on your service depending on the Technology type used to connect your premises.

<b>Delivery Type</b>	<b>Description</b>	<b>Service Factors/Considerations</b>
<b>FTTP</b>  Fibre to the Premises	Optical fibre leading all the way to your premises, connecting to your Utility Box on an outside wall and internally wiring to your Connection Box.	Network Congestion
<b>FTTB</b>  Fibre to the Building	Optical fibre leading to a connection point (Main Distribution Frame) in the building with a final stretch of copper to your unit/apartment's wall socket.	Length copper line from your premises to the hub (typically in the basement of your building).  Weather conditions that may impact the copper.  Quality of copper line in your building, including overall length, condition and joins.  Slower performance while network coexists with legacy non-NBN services. (For NBN only)
<b>FTTN</b>  Fibre to the Node  (NBN Sites Only)	Optical fibre leading to a Node in your street or a street nearby with a final stretch of copper to your premises' wall socket.	Length of the copper line from your premises to the NBN node (typically in your street or a street nearby).  Weather conditions that may impact the copper.  Quality of copper line, including overall length, condition and joins.  Slower performance while network coexists with legacy non-NBN™ services.
<b>HFC</b>  Hybrid Fibre Coaxial  (NBN Sites Only)	Optical fibre leading to a Node in your street or a street nearby, with a final stretch of HFC cable to your premises. HFC cable will connect to your NBN Utility Box on an outside wall and wire internally to your NBN HFC modem.	Network Congestion
<b>Fixed Wireless</b>	Fixed antenna on your roof receives a wireless signal from your local Wireless tower, with internal wiring to your Connection Box.	Weather conditions like extreme heat and rain.  Signal strength or obstruction of the antenna's line of sight to the tower.

## Other Performance Impacts

Other contributing factors that could impact your service;

- **Hardware:** You will need a router capable of connecting you to the NBN/Private Network network which can handle the high speeds available to you. WiFi within the premises and router performance can often be the slow point in a NBN connection.
- **Network links:** External network factors such as physical location of host computer, global Internet link between Active Utilities and the destination and the backhaul network between your premises and Active Utilities. Congestion on domestic and international links can be present during peak times.
- **Users:** The amount of local users and devices in use at one time. Even with the high speeds of the internet it is possible to use all available bandwidth at once, which will affect the overall speed experience.
- **Software:** There are many applications and programs that access the Internet. These may be running in the background on your device performing various activities such as downloading updates and files and uploading information... all of this could cause congestion on your internal Network.