

# nbn<sup>™</sup> Sky Muster™ satellite services connectivity guide

Optimise your satellite service's performance with this troubleshooting guide.

This downloadable guide is designed to help you troubleshoot connection issues with your satellite service.

Designed to be saved and used when problems occur, this handy reference guide includes some of the common issues that you may experience, and the steps you can take to improve your **nbn<sup>™</sup>** Sky Muster<sup>™</sup> satellite service connection.



This is general advice only. For any urgent issues please contact your internet provider or IT support.

nbn would like to acknowledge the Traditional Custodians of the land, sea and skies and pay our respects to the Elders, both past, present and future.

# Are you experiencing any of the following when trying to use your Sky Muster<sup>™</sup> satellite service connection?

Select an issue from the checklist below.



# I can't connect

#### **Common causes**

- An outage or network issue.
- A weather event or other external factors (e.g. damage to equipment by animals).
- Your nbn<sup>™</sup> connection box (NTD) or other equipment is experiencing a fault or installation issue.
- No power/loss of power.
- Outstanding internet provider account payment.
- If this is a new connection, your service may not yet be activated; or if you have recently changed plans or providers the update may still be processing in the system.

# Try these troubleshooting tips

### Check your nbn<sup>™</sup> connection box indicator light

Check the indicator light on your **nbn**<sup>™</sup> connection box (NTD) (also called the **nbn**<sup>™</sup> network termination device or NTD). You should call your internet provider if the light is:

- Pulsing white for 15 minutes or longer or;
- Pulsing red for longer than a minute after rebooting the device;
- Solid red and the device has already been rebooted.
- Solid amber light persisting when you are trying to use the internet (for example, clicking a link or typing in your browser).
- Lights cycling through amber, white, blue and red.

# 2 Perform a full power cycle routine

When troubleshooting your **nbn**<sup>™</sup> Sky Muster<sup>™</sup> connection, your first step should be to "power cycle" your **nbn™** connection box (also called the **nbn**™ network termination device or NTD). You can perform a power cycle by turning the connection box off and on again.

This will force it to forget its current settings which can remedy some basic problems. NB: Please do not press the **RESET** button on the **nbn<sup>™</sup>** connection box (NTD).

It is important to turn the devices off and on again, in the following order.

- 1. Turn off ALL devices.
- 2. Wait at least 10 minutes.
- **3.** Turn on the devices in the following order.
  - a. The **nbn**<sup>™</sup> connection box (NTD).
  - **b.** Wait until the blue round light is on, this indicates an active connection (this may take a few minutes).
  - c. Your router. Wait until all the lights have come back on.
  - d. Then your device e.g. computer, tablet or phone.
  - e. Test again are you able to access the internet now?

**Reminder**: In the event of a power outage at your premises, restoring the power with an alternative power option will usually allow you to reconnect to the **nbn**<sup>™</sup> Sky Muster<sup>™</sup> satellite service. However, if one of the **nbn<sup>™</sup>** Sky Muster<sup>™</sup> satellite ground stations is also experiencing a power loss, there may be further delays in reconnecting your service. If your premises is located in a Sky Muster™ satellite area, you will have the option of keeping your existing landline phone service active.

**3** Check for any network outages

- Check for any **nbn**<sup>™</sup> Sky Muster<sup>™</sup> or internet provider network outages.
- Network outages can either be on your internet provider's network, or on the **nbn**<sup>™</sup> network. You should check both.

# To check for a network outage, see our <u>Network Outage Page</u>, <u>phone your internet provider</u> or call 1800 687 626.

#### 4 Plug directly into the nbn<sup>™</sup> connection box (NTD)

\*If your internet provider requires you to use a username and password before you connect to the internet contact them directly before following the below process.

If your device has an Ethernet port, plug directly into the **nbn**<sup>™</sup> connection box (NTD), using an Ethernet cable, rather than using the wireless router. Repeat a full power cycle routine. If this fixes your problem, the router may be causing your problems.

If your router was provided by your internet provider, you will need to contact them, otherwise you will need to contact the manufacturer of the device directly for support.

If this is a new connection, your router may not be compatible, speak to your internet provider.

# **5** Check cables

Network cables may become faulty over time.

- If you have another network cable, try plugging in a new network cable or Ethernet cable from the router to the <u>nbn<sup>™</sup> connection box</u> (NTD).
- Check that the cable is plugged into UNI-D 1 (unless instructed otherwise by your internet provider).
- Check the cable from the router to your computer or device.
- Check all the cables are installed correctly, by making a nice solid "click" sound.

If you find the power cable to your **nbn**<sup>™</sup> connection box</sup> (NTD) is damaged, you should report it to your internet provider immediately. Never use damaged power cables.

### 6 Check the weather and other external factors

What's the weather like? If you are experiencing severe weather at your location or there is an **nbn**<sup>™</sup> network incident, this can cause a "white light outage" with your **nbn**<sup>™</sup> Sky Muster<sup>™</sup> connection.

- Cloud, light rain, snow, fog, dust or smoke do not usually cause white light outages.
- You may need to wait until the weather clears to see if this resolves your problem.
- You could make notes of the dates and times of any weather events, such as lightning strikes or high wind speeds.
- Check there are no branches or trees close to your dish.
- Without climbing on the roof, see if you can see any cable or dish damage from wind, fallen branches, birds or rodents.
- If you can see damage or have experienced an extreme weather event, you will need to contact your internet provider.
- Please DO NOT attempt to repair the equipment yourself.

#### Check your devices

- Can you access the internet with another device, phone, tablet or laptop?
- If you can, you may need to update the Wi-Fi device drivers or the Wi-Fi adapter may need to be uninstalled and reinstalled, on your device that cannot access the internet. You may need to contact your local computer specialist for help with device driver updates.

### 8 New connections, plan changes and billing

New connections may take some time to activate after they are installed. If you have a new plan – or have made changes to your existing service and the activation is taking longer than expected, please contact your internet provider.

# Tips

To check for a network outage, see our <u>Network Outage Page</u>, <u>phone your internet provider</u> or call 1800 687 626.

Most **nbn**<sup>™</sup> Sky Muster<sup>™</sup> providers can be contacted by phone, email or social media (if you have a backup connection).

If you are having power issues you may want to investigate an alternate power source such as a UPS or generator.

To protect **nbn**<sup>™</sup> equipment you could consider using a surge protection device.

# If you have completed the above steps and you are still experiencing issues, please speak with your internet provider.

We recommend that you have the following information ready before contacting your internet provider.

- The address that is experiencing the issue (including property name, street number, street name, suburb or town).
- <u>nbn<sup>™</sup> connection box</u> (NTD) ID number.

Find out how to locate the ID number.

- Internet provider account number.
- <u>nbn<sup>™</sup> connection box</u> (NTD) light status. Is the light on your connection box:
  - Pulsing white for 15 minutes or longer or;
  - Pulsing red for longer than a minute after rebooting the device;
  - Solid red and the device has already been rebooted.
  - Solid amber light persisting when you are trying to use the internet (for example, clicking a link or typing in your browser).
  - Lights cycling through amber, white, blue and red.

# Some questions you can ask your internet provider

• Ensure you receive a support ticket or fault number and make a note of this number and the date.



# I can't access some websites/platforms

#### **Common causes**

- An incorrect web address or URL or scripting was added to a link.
- The website isn't working, the cache is loading old details or the website is congested.
- High traffic on a particular website or platform.
- Your current web browser is not compatible after it was updated.
- Your internet provider or your security software is blocking sites.
- A network outage or similar issue.
- An issue with the platform you are trying to access.

# Try these troubleshooting tips

#### 1 Try a different web browser

- On your device try a different web browser that you haven't used before (e.g. Google Chrome, Firefox, Safari or Microsoft Edge).
  - Sometimes browsers are congested with spare files called "cookies", or older copies of a webpage, located in your cache. Clearing cookies or your cache can help with this.
  - Sometimes a particular browser doesn't meet the website's security protocols.

### **2** Try a different computer, smartphone or tablet device.

• Check to see if you can access the website with another device - phone, tablet or laptop.

#### **3** Perform a full power cycle routine

When troubleshooting your **nbn**<sup>™</sup> Sky Muster<sup>™</sup> connection, your first step should be to "power cycle" your <u>**nbn**<sup>™</sup> connection box</u> (NTD) (also called the **<b>nbn**<sup>™</sup> network termination device or NTD). You can perform a power cycle by turning the connection box off and on again.

This will force it to forget its current settings which can remedy some basic problems. NB: Please do not press the RESET button on the **nbn™** connection box (NTD).

It is important to turn the devices off and on again, in the following order.

- 1. Turn off ALL devices.
- 2. Wait at least 10 minutes.
- **3.** Turn on the devices in the following order.
  - a. The <u>**nbn**<sup>™</sup> connection box</u> (NTD).
  - **b.** Wait until the blue round light is on, this indicates an active connection (this may take a few minutes).
  - c. Your router. Wait until all the lights have come back on.
  - d. Then your device e.g. computer, tablet or phone.
  - e. Test again are you able to access the internet now?

**Reminder**: In the event of a power outage at your premises, restoring the power with an alternative power option will usually allow you to reconnect to the **nbn**<sup>™</sup> Sky Muster<sup>™</sup> satellite service. However, if one of the **nbn**<sup>™</sup> Sky Muster<sup>™</sup> satellite ground stations is also experiencing a power loss, there may be further delays in reconnecting your service. If your premises is located in a Sky Muster<sup>™</sup> satellite area, you will have the option of keeping your existing landline phone service active.

### **4** Check that your computer doesn't have any issues

- Try rebooting your computer in "Safe Mode with Networking".
  - If you can now load the website, then you may have something wrong with your antivirus software (try disabling web shield in your antivirus software to see if there is an improvement).
  - Check for spyware, viruses, and malware. These are easily downloaded and installed, without your knowledge, while you're on the internet.
  - Scan your computer for malware. (You will need to follow your device's user instructions on how to do this).
  - There are various free and subscription-based utilities available that can help detect, eradicate and prevent these programs from being downloaded and installed.

### 5 Plug directly into the nbn<sup>™</sup> connection box (NTD)

If you have an Ethernet port on your device, plug directly into the **nbn**<sup>™</sup> connection box (NTD), using an Ethernet cable, rather than using the wireless router. Repeat and complete another full power cycle. If this fixes your problem, the router may be causing your problems. If your router was provided by your internet provider, you will need to contact them, otherwise you will need to contact the device's manufacturer directly for support.

# 6 Check your account usage

Speed limiting can cause some websites and platforms to time out. If you are on a **nbn**<sup>™</sup>
 Sky Muster<sup>™</sup> plan, log into your account and check your current status. You may have had your service shaped or the speed limited.

#### Check what speed plan you are on

- If you are on a **nbn**<sup>™</sup> Sky Muster<sup>™</sup> Plus plan, check whether or not your monthly metered data during peak or off-peak times has been shaped, by calling your internet provider or alternatively logging into your account on their website if the option is available.
- If you're on a **nbn**<sup>™</sup> Sky Muster<sup>™</sup> plan and regularly running out of data, consider talking to your internet provider about whether upgrading your plan to a Sky Muster<sup>™</sup> Plus service may better suit your needs please note these are not offered by all internet providers.
- If you are on a **nbn**<sup>™</sup> Sky Muster<sup>™</sup> Plus plan and regularly running out of metered data, consider talking to your internet provider about upgrading your plan to include more metered data (if available).

### Tips

To check for a network outage, see our <u>Network Outages page</u>, <u>phone your internet provider</u> or call 1800 687 626.

Most **nbn**<sup>™</sup> Sky Muster<sup>™</sup> providers can be contacted by phone, email or social media (if you have a backup connection).

If you are able to, try accessing the website or platform with another technology, such as 4G. Do you know anyone else who uses the website or platform? Ask them if they are also experiencing issues.

# If you have completed the above steps and you are still experiencing issues, please speak with your internet provider.

We recommend that you have the following information ready before contacting your internet provider

- The address that is experiencing the issue (including property name, street number, street name, suburb or town).
- <u>nbn™ connection box</u> (NTD) ID number.
  Find out how to locate the ID number.
- Internet provider account number.
- \_\_\_\_\_\_ nbn<sup>™</sup> connection box (NTD) light status.
  - Pulsing white for 15 minutes or longer or;
  - Pulsing red for longer than a minute after rebooting the device;
  - Solid red and the device has already been rebooted.
  - Solid amber light persisting when you are trying to use the internet (for example, clicking a link or typing in your browser).
  - Lights cycling through amber, white, blue and red.
- Any troubleshooting that you have already conducted.
- Is there a particular time of day that the issue occurs?
- Are you experiencing any other issues, such as slow speeds or dropouts?
- How many people are using the internet at the same time?
- Are you using a Virtual Private Network (VPN)?
- The platform or website you are accessing that is experiencing issues.

# Some questions you can ask your internet provider

- Ensure you receive a support ticket or fault number and make a note of this number and the date.
- Has your internet provider contacted **nbn** about this issue?
- Are others experiencing the same issue?



# My speed is slow

#### **Common causes**

- Severe weather.
- Set-up of some applications or software such as Virtual Private Network (VPN).
- Satellite latency.
- **nbn**<sup>™</sup> connection box (NTD) or other equipment faults or installation issues.
- The devices you are using to connect to the internet.
- Multiple devices being used simultaneously (particularly for video streaming during busy times in the evening).
- Data has been shaped.
- Not connected to the correct Wi-Fi network.

# Try these troubleshooting tips

#### Perform a full power cycle routine

When troubleshooting your **nbn**<sup>™</sup> Sky Muster<sup>™</sup> connection, your first step should be to "power cycle" your **nbn**<sup>™</sup> connection box (NTD) (also called the **nbn**<sup>™</sup> network termination device or NTD). You can perform a power cycle by turning the **nbn™** connection box (NTD) off and on again.

This will force it to forget its current settings which can remedy some basic problems. NB: Please do not press the **RESET** button on the **<u>nbn</u><sup>™</sup> connection box** (NTD).

It is important to turn the devices off and on again, in the following order.

- 1. Turn off ALL devices.
- 2. Wait at least 10 minutes.
- 3. Turn on the devices in the following order.
  - a. The <u>**nbn**™ connection box</u> (NTD).
  - b. Wait until the blue round light is on, this indicates an active connection (this may take a few minutes).
  - c. Your router. Wait until all the lights have come back on.
  - d. Then your device e.g. computer, tablet or phone.
  - e. Test again are you able to access the internet now?

**Reminder**: In the event of a power outage at your premises, restoring the power with an alternative power option will usually allow you to reconnect to the **nbn<sup>™</sup>** Sky Muster<sup>™</sup> satellite service. However, if one of the **nbn<sup>™</sup>** Sky Muster<sup>™</sup> satellite ground stations is also experiencing a power loss, there may be further delays in reconnecting your service. If your premises is located in a Sky Muster™ satellite area, you will have the option of keeping your existing landline phone service active.

#### 2 Plug directly into the nbn<sup>™</sup> connection box (NTD)

If your device has an Ethernet port, plug a device or computer directly into the **nbn™** connection box (NTD), using an Ethernet cable, rather than using the wireless router. Repeat Step 1 and complete a power cycle. Repeat and complete another full power cycle. If this fixes your problem, the router may be causing your problems.

If your router was provided by your internet provider, you will need to contact them, otherwise you will need to contact the device's manufacturer directly for support.

#### **3** Do a speed test

If you are also experiencing slow speeds with dropouts, you can perform an easy online test, as below.

- If your device has an Ethernet port, connect your device to your <u>nbn<sup>™</sup> connection box</u> (NTD) using an Ethernet cable.
- 2. You can check your speed through your internet provider's dashboard or by using an online speed test tool.

#### If you are connecting with **nbn**<sup>™</sup> Sky Muster<sup>™</sup> Plus there are two tests you can do:

- 1. www.plustest.nbnco.com.au
- 2. An online tool such as www.fast.com

#### If you are connecting with **nbn**<sup>™</sup> Sky Muster<sup>™</sup> service use an online tool such as www.fast.com

- **3.** When you complete the speed test, make a note of your download and upload speed results. The easiest way to do this is taking a screenshot of the results and saving to a folder with the date and time of the speed test recorded.
- **4.** If you notice a poor result contact your internet provider for assistance.
- \* Keep in mind running a speed test does use data.
- \* You should run the speed test at various times of the day and night, especially when you think your speed is slow. It is best to connect directly to the **nbn**<sup>™</sup> connection box</sup> (NTD) and turn off all other devices when testing your speed.

#### 4 Are you using a Virtual Private Network (VPN)?

You can test if this may be slowing your speed by turning off your VPN and conducting another speed test. For more information, please read the **nbn**<sup>™</sup> Sky Muster<sup>™</sup> Satellite Service VPN Fact Sheet

# **5** Check that your computer doesn't have any issues

- Try rebooting your computer in "Safe Mode with Networking".
  - If you can now load the website, then you may have something wrong with your antivirus software (try disabling web shield in your antivirus software to see if there is an improvement).
  - Check for spyware, viruses, and malware. These are easily downloaded and installed, without your knowledge, while you're on the internet. Scan your computer for malware. (You will need to follow your device's user instructions on how to do this).
  - There are various free and subscription-based utilities available that can help detect, eradicate and prevent these programs from being downloaded and installed.

# 6 Check your account usage

If you are on a **nbn**<sup>™</sup> Sky Muster<sup>™</sup> plan, log into your account and check your current status. You may have had your service shaped or the speed limited.

- Check what speed plan you are on.
- If you are on a **nbn**™ Sky Muster™ Plus plan, check whether or not your monthly metered data during peak or off-peak times has been shaped, by calling your internet provider or alternatively logging into your account on their website if the option is available.
- If you are on a **nbn**<sup>™</sup> Sky Muster<sup>™</sup> plan and regularly running out of data, consider talking to your internet provider about upgrading your plan to a Plus plan (not offered by all providers) such as **nbn**<sup>™</sup> Sky Muster<sup>™</sup> Plus satellite service.
- If you are on a **nbn<sup>™</sup>** Sky Muster<sup>™</sup> Plus plan and regularly running out of metered data, consider talking to your internet provider about upgrading your plan to include more metered data, if available.

# Tips

Most **nbn**<sup>™</sup> Sky Muster<sup>™</sup> providers can be contacted by phone, email or social media (if you have a backup connection).

Not all internet providers that offer **nbn**<sup>™</sup> Sky Muster<sup>™</sup> satellite plans offer Sky Muster<sup>™</sup> Plus plans.

We recommend that you have the following information ready before contacting your internet provider

- The address that is experiencing the issue (including property name, street number, street name, suburb or town).
- <u>nbn™ connection box</u> ID number (NTD).
   Find out how to locate the ID number.
- Internet provider account number.
- Any troubleshooting that you have already conducted.
- Is there a particular time of day that the issue occurs? Include previous speed test results from various times throughout the day.
- Are you experiencing any other issues, such as dropouts?
- How many people are using the internet at the same time?
- Are you using a Virtual Private Network (VPN)?

# Some tips you can ask your internet provider

• Ensure you receive a support ticket or fault number and make a note of this number and the date.



# My connection drops out

#### **Common causes**

- An outage or network issue.
- A weather event or other external factors (e.g. damage to equipment by animals).
- Your<u>nbn<sup>™</sup> connection box</u> (NTD), or other equipment is experiencing a fault or installation issue.

# Try these troubleshooting tips

#### 1 Check your nbn<sup>™</sup> connection box (NTD) indicator light

Check the indicator light on your **nbn**<sup>™</sup> connection box</sup> (also called the **nbn**<sup>™</sup> network termination device or NTD) at the time of the dropout. You should call your internet provider if the light is:

- Pulsing white for 15 minutes or longer or;
- Pulsing red for longer than a minute after rebooting the device.
- Solid red and the device has already been rebooted.

#### 2 Perform a full power cycle routine

When troubleshooting your **nbn**<sup>™</sup> Sky Muster<sup>™</sup> connection, your first step should be to "power cycle" your **nbn**<sup>™</sup> connection box (NTD) (also called the **nbn**<sup>™</sup> network termination device or NTD). You can perform a power cycle by turning the **nbn**<sup>™</sup> connection box (NTD) off and on again.

This will force it to forget its current settings which can remedy some basic problems. NB: Please do not press the **RESET** button on the **nbn™** connection box (NTD).

It is important to turn the devices off and on again, in the following order.

- 1. Turn off ALL devices.
- 2. Wait at least 10 minutes.
- 3. Turn on the devices in the following order.
  - a. The **nbn**<sup>™</sup> connection box (NTD).
  - **b.** Wait until the blue round light is on, this indicates an active connection (this may take a few minutes).
  - c. Your router. Wait until all the lights have come back on.
  - d. Then your device e.g. computer, tablet or phone.
  - e. Test again are you able to access the internet now?

**Reminder**: In the event of a power outage at your premises, restoring the power with an alternative power option will usually allow you to reconnect to the **nbn**<sup>™</sup> Sky Muster<sup>™</sup> satellite service. However, if one of the **nbn**<sup>™</sup> Sky Muster<sup>™</sup> satellite ground stations is also experiencing a power loss, there may be further delays in reconnecting your service. If your premises is located in a Sky Muster<sup>™</sup> satellite area, you will have the option of keeping your existing landline phone service active.

#### 3 Plug directly into the nbn<sup>™</sup> connection box (NTD)

If your device has an Ethernet port, plug a device or computer directly into the **nbn**<sup>™</sup> connection box (NTD), using an Ethernet cable, rather than using the wireless router. Repeat Step 1 and complete a power cycle. Repeat and complete another full power cycle. If this fixes your problem, the router may be causing your problems.

If your router was provided by your internet provider, you will need to contact them, otherwise you will need to contact the device's manufacturer directly for support.

# 4 Check cables

Network cables may become faulty over time.

- If you have another network cable, try plugging in a new network cable or Ethernet cable from the router to the <u>nbn<sup>™</sup> connection box</u> (NTD).
- Check that the cable is plugged into UNI-D 1 (unless instructed otherwise by your internet provider).
- Check the cable from the router to your computer or device.
- Check all the cables are installed correctly, by making a nice solid "click" sound.

If you find the power cable to your **nbn**<sup>™</sup> connection box</sup> (NTD) is damaged, you should report it to your internet provider immediately. Never use damaged power cables.

### 5 Check the weather and other external factors

What's the weather like? If you are experiencing severe weather at your location or there are **nbn**<sup>™</sup> network incidents, this can cause a "white light outage" with your **nbn**<sup>™</sup> Sky Muster<sup>™</sup> connection.

- Cloud, light rain, snow, fog, dust or smoke do not usually cause white light outages.
- You may need to wait until the weather clears to see if this resolves your problem.
- Make notes of the dates and times of any weather events, such as lightning strikes or high wind speeds.
- Check there are no branches or trees close to your dish.
- Without climbing on the roof, see if you can see any cable or dish damage from wind, fallen branches, birds or rodents.
- If you can see damage or have experienced an extreme weather event, you will need to contact your internet provider.
- Please DO NOT attempt to repair the equipment yourself.

#### 6 Connect your Wi-Fi device or re-locate your device closer to the access point Keep your Wi-Fi/router:

- Clear of thick walls or furniture.
- Away from other electronics (e.g. microwaves).
- · Consider that the router is the correct size for your property.

#### Do a speed test

If you are also experiencing slow speeds with dropouts, you can perform an easy online test, as below.

- If your device has an Ethernet port, connect your device to your <u>nbn<sup>™</sup> connection box</u> (NTD) using an Ethernet cable.
- **2.** You can check your speed through your internet provider's dashboard or by using an online speed test tool.

If you are connecting with **nbn<sup>™</sup> Sky Muster<sup>™</sup> Plus** there are two tests you can do:

- 1. www.plustest.nbnco.com.au
- 2. The online tool such as www.fast.com

If you are connecting with **nbn**<sup>™</sup> Sky Muster<sup>™</sup> service use an online tool such as www.fast.com

- **3.** When you complete the speed test, make a note of your download and upload speed results. The easiest way to do this is taking a screenshot of the results and saving to a folder with the date and time of the speed test recorded.
- 4. If you notice a poor result contact your internet provider for assistance.

\*You should run the speed test at various times of the day and night, especially when you think your speed is slow. It is best to connect directly to the **nbn™** connection box (NTD) and turn off all other devices when testing your speed. Keep in mind running a speed test does use data.

### Tips

Most **nbn**<sup>™</sup> Sky Muster<sup>™</sup> providers can be contacted by phone, email or social media (if you have a backup connection).

Connect to the right Wi-Fi band. There are typically two Wi-Fi bands on most routers, each with their own pros and cons. For more information about Wi-Fi bands, check our <u>in-home optimisation tips</u>.

Consider using a tool that tracks your internet quality over time - for example: <u>Ping Plotter</u>. You can use these tools to get information about when dropouts occur to pass on to your internet provider.

We recommend that you have the following information ready before contacting your internet provider

- The address that is experiencing the issue (including property name, street number, street name, suburb or town).
- <u>nbn™ connection box</u> (NTD) ID number.

Find out how to locate the ID number.

- Internet provider account number.
- **nbn**<sup>™</sup> connection box (NTD) light status.
  - Pulsing white for 15 minutes or longer or;
  - Pulsing red for longer than a minute after rebooting the device;
  - Solid red and the device has already been rebooted.
- Any troubleshooting that you have already conducted.
- Is there a particular time of day that the issue occurs? Take a record of the number of dropouts and when they are occur (time and day).
- Are you experiencing any other issues, such as slow speeds?
- How many people are using the internet at the same time?
- Are you using a Virtual Private Network (VPN)?
- O Do you have any new electronic equipment or appliances running in your home?

# Some tips you can ask your internet provider

• Ensure you receive a support ticket or fault number and make a note of this number and the date.



# My connection buffers

#### **Common causes**

- Your streaming internet provider is experiencing issues.
- A network outage or similar issue.
- A weather event or other external factors (e.g. damage to equipment by animals).
- Your<u>nbn<sup>™</sup> connection box</u> (NTD), or other equipment is experiencing a fault or installation issue.
- Set-up of some applications or software such as Virtual Private Network (VPN).
- The devices you are using to connect to the internet.
- Too many users sharing the one connection.

# Try these troubleshooting tips

#### 1 Your streaming service

- Turn off video autoplay settings for websites with embedded streaming content.
- Check the streaming service's website or social media for any current streaming or technical issues.
- Try streaming from a different device on an alternative network. This will determine if the issue is specific to your internet provider.
- Try a different streaming service.

# 2 Check your account usage

If you are on a **nbn**<sup>™</sup> Sky Muster<sup>™</sup> plan, log into your account and check your current status. You may have had your service shaped or the speed limited.

- Check what speed plan you are on.
- If you are on a **nbn**<sup>™</sup> Sky Muster<sup>™</sup> Plus plan, check whether or not your monthly metered data during peak or off-peak times has been shaped, by calling your internet provider or alternatively logging into your account on their website if the option is available.
- If you are on a **nbn**<sup>™</sup> Sky Muster<sup>™</sup> plan and regularly running out of data, consider talking to your internet provider about upgrading your plan to a Plus plan (not offered by all providers) such as **nbn**<sup>™</sup> Sky Muster<sup>™</sup> Plus satellite service.
- If you are on a **nbn**<sup>™</sup> Sky Muster<sup>™</sup> Plus plan and regularly running out of metered data, consider talking to your internet provider about upgrading your plan to include more metered data, if available.

#### **3** Do a speed test

If you are also experiencing slow speeds with dropouts, you can perform an easy online test, as below.

- If your device has an Ethernet port, connect your device to your <u>nbn<sup>™</sup> connection box</u> (NTD) using an Ethernet cable.
- 2. You can check your speed through your internet provider's dashboard or by using an online speed test tool.

If you are connecting with **nbn<sup>™</sup> Sky Muster<sup>™</sup> Plus** there are two tests you can do:

- 1. www.plustest.nbnco.com.au
- 2. An online tool such as www.fast.com

#### If you are connecting with **nbn<sup>™</sup> Sky Muster<sup>™</sup>** service use an online tool such as www.fast.com

- **3.** When you complete the speed test, make a note of your download and upload speed results. The easiest way to do this is taking a screenshot of the results and saving to a folder with the date and time of the speed test recorded.
- 4. If you notice a poor result contact your internet provider for assistance.

\*You should run the speed test at various times of the day and night, especially when you think your speed is slow. It is best to connect directly to the **nbn**<sup>™</sup> connection box</sup> (NTD) and turn off all other devices when testing your speed.

\*Keep in mind running a speed test does use data.

### 4 Perform a full power cycle routine

When troubleshooting your **nbn**<sup>™</sup> Sky Muster<sup>™</sup> connection, your first step should be to "power cycle" your <u>**nbn**<sup>™</sup> connection box</u> (also called the **nbn**<sup>™</sup> network termination device or NTD). You can perform a power cycle by turning the <u>**nbn**<sup>™</sup> connection box</u> (NTD) off and on again.

This will force it to forget its current settings which can remedy some basic problems. NB: Please do not press the **RESET** button on the **nbn™** connection box (NTD).

It is important to turn the devices off and on again, in the following order.

- 1. Turn off ALL devices.
- 2. Wait at least 10 minutes.
- 3. Turn on the devices in the following order.
  - a. The <u>**nbn**<sup>™</sup> connection box</u> (NTD).
  - **b.** Wait until the blue round light is on, this indicates an active connection (this may take a few minutes).
  - c. Your router. Wait until all the lights have come back on.
  - d. Then your device e.g. computer, tablet or phone.
  - e. Test again are you able to access the internet now?

**Reminder**: In the event of a power outage at your premises, restoring the power with an alternative power option will usually allow you to reconnect to the **nbn**<sup>™</sup> Sky Muster<sup>™</sup> satellite service. However, if one of the **nbn**<sup>™</sup> Sky Muster<sup>™</sup> satellite ground stations is also experiencing a power loss, there may be further delays in reconnecting your service. If your premises is located in a Sky Muster<sup>™</sup> satellite area, you will have the option of keeping your existing landline phone service active.

5

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#### Check the weather

What's the weather like? If you are experiencing severe weather at your location or there are **nbn**<sup>™</sup> network incidents, this can cause a "white light outage" with your **nbn**<sup>™</sup> Sky Muster<sup>™</sup> connection.

- Cloud, light rain, snow, fog, dust or smoke do not usually cause white light outages.
- You may need to wait until the weather clears to see if this resolves your problem.
- Make notes of the dates and times of any weather events, such as lightning strikes or high wind speeds.
- Check there are no branches or trees close to your dish.
- Without climbing on the roof, see if you can see any cable or dish damage from wind, fallen branches, birds or rodents.
- If you can see damage or have experienced an extreme weather event, you will need to contact your internet provider.
- Please do NOT attempt to repair the equipment yourself.

#### 6 Check the location of your Wi-Fi/router

Your Wi-Fi signal loses its intensity as your device gets further away from your router, which can potentially impact the quality of your internet experience. Keep your wireless router:

- Clear of thick walls or furniture.
- Away from other electronics, including microwaves.
- Consider that the router is the correct size for your property.

### Tips

You may want to re-assess your Wi-Fi setup and if your router and it's software is up-to-date. Typically, your Wi-Fi router should be replaced every few years. Speak to your internet provider if you have questions about your router.

- Speak to your internet provider about how a Wi-Fi extender or mesh setup can improve the coverage at your location.
- You can further help optimise your connectivity by reading our in-home optimisation tips.
- Most **nbn**<sup>™</sup> Sky Muster<sup>™</sup> providers can be contacted by phone, email or social media (if you have a backup connection).
- Make sure your streaming apps are up to date.
- If you are experiencing low video quality on video streaming services, like Netflix and YouTube, you may want to change your settings from low definition to standard definition (SD) or high definition (HD) (1080p).

\*Note that changing these settings will increase your data usage when using these apps.

We recommend that you have the following information ready before contacting your internet provider.

- The address that is experiencing the issue (including property name, street number, street name, suburb or town).
- O <u>nbn<sup>™</sup> connection box</u> (NTD) ID number.

Find out how to locate the ID number.

- Internet provider account number.
- nbn<sup>™</sup> connection box (NTD) light status.
  - Pulsing white for 15 minutes or longer or;
  - Pulsing red for longer than a minute after rebooting the device;
  - Solid red and the device has already been rebooted.
  - Solid amber light persisting when you are trying to use the internet (for example, clicking a link or typing in your browser).
  - Lights cycling through amber, white, blue and red.
- Any troubleshooting that you have already conducted.
- Is there a particular time of day that the issue occurs?
- Are you experiencing any other issues, such as slow speeds?
- How many people are using the internet at the same time?
- Are you using a Virtual Private Network (VPN)?
- The details of the platforms/websites that are buffering.

# Some tips you can ask your internet provider

• Ensure you receive a support ticket or fault number and make a note of this number and the date.

# Information on the **nbn**<sup>™</sup> connection box (NTD)

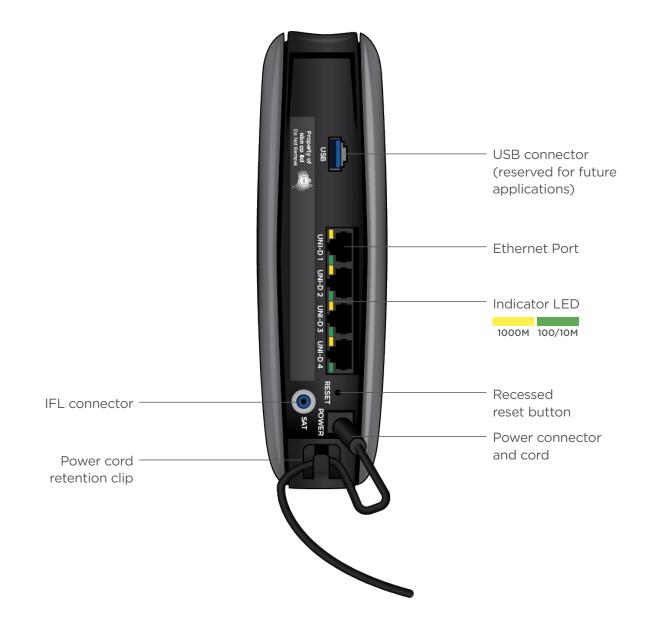
Most **nbn**<sup>™</sup> connections have an **nbn**<sup>™</sup> connection box (NTD). There are some different **nbn**<sup>™</sup> connection boxes (NTD) that are dependent on the different technology types. To help with the identification of your connection type, or you are unsure of the connection type at your premises, you can check your address at <u>nbn.com.au/check</u>. Here you will be able to identify your premises connection box information.

This section shows how to identify where the ID number and status lights are located on your **nbn**<sup>™</sup> <u>connection box</u> (NTD). We recommend you have this information prior to contacting your internet provider.

### **Connection type**

# **nbn<sup>™</sup>** connection box (NTD)

The back of the **nbn**<sup>™</sup> connection box (NTD) has a row of ports, as shown below:



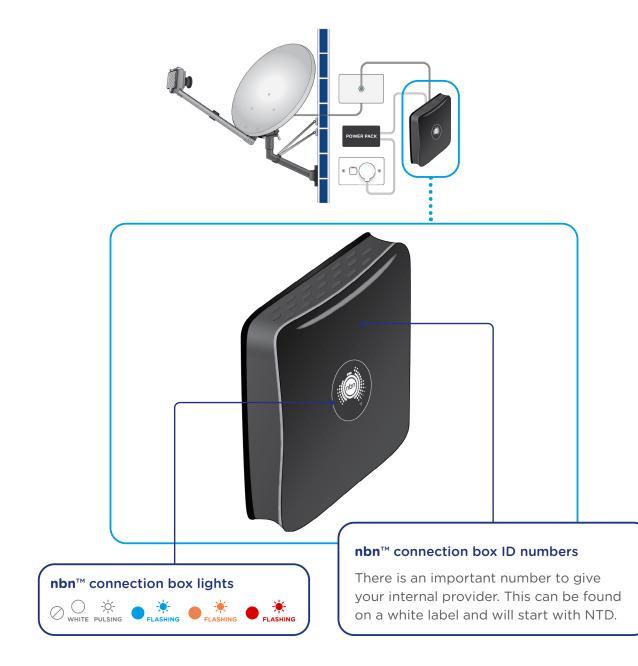
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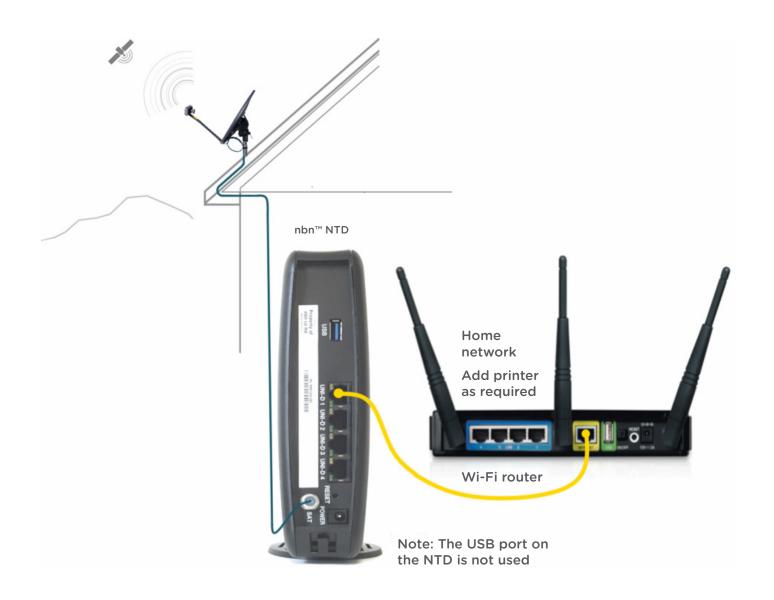
This section shows how to identify where the ID number and status lights are located on your <u>nbn™</u> <u>connection box</u> (NTD). We recommend you have this information prior to contacting your internet provider.

### **Connection type**

# **nbn<sup>™</sup> Sky Muster<sup>™</sup> or nbn<sup>™</sup> Sky Muster<sup>™</sup> Plus satellite**



# **nbn<sup>™</sup> Sky Muster<sup>™</sup> NTD connection box and a typical router set-up.**



\*If any of the above equipment is missing, please contact your **nbn**<sup>™</sup> Sky Muster<sup>™</sup> <u>internet provider</u>.

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