



Optimising your internet connection by checking your equipment

Description

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Youâ??ve used our resources to [find the best internet technology](#) for your needs, and how to find the [best provider and plan](#). Now itâ??s time to optimise your internet connection by checking your equipment, starting with your Wi-Fi router. Home Wi-Fi is now as essential as electricity and hot water. But when was the last time you checked your home setup to make sure your internet connection runs smoothly?

Why is a Wi-Fi connection important?

Your Wi-Fi router takes your internet connection and distributes it wirelessly throughout your home. Many devices rely on a Wi-Fi connection to access the internet. You can use it to your advantage if you have a poor mobile phone signal by enabling Wi-Fi calling on your phone to make calls and send texts. A strong Wi-Fi connection improves how you use your household devices and enhances overall connectivity.

How to check your Wi-Fi router

There are key ways to identify if your Wi-Fi router is not working properly and may need replacing.

1. Increased connectivity issues

Youâ??ve improved your internet by checking your technology, plan, and provider, but your connection still seems slow. Streaming services keep buffering, video calls drop out, or the connection struggles when multiple people are online at the same time. This may indicate your Wi-Fi router is experiencing issues.

2. The age of your router

As your Wi-Fi router ages, the technology it uses can become obsolete, experience security vulnerabilities, and be more prone to interference. Consider the following:

1. **Regular updates:** Keep your Wi-Fi router updated, just as you do with your phone and other devices.



2. **Wi-Fi standards:** If your router is using an older Wi-Fi version, like Wi-Fi 4 (802.11g), it might be time for an upgrade. Newer versions, like Wi-Fi 5 (802.11ac) and Wi-Fi 6 (802.11x), provide faster internet, better security, and improved performance when multiple devices are connected. Wi-Fi 7 is also on the way, so if you're upgrading, check if your new router supports it.

To check what Wi-Fi standard your router uses, you can:

- o Look for a sticker on the bottom or back of the router, which often lists the Wi-Fi version.
- o Log into your router's settings by typing its IP address (e.g., 192.168.1.1 or 192.168.0.1) into a web browser and checking the Wi-Fi settings.
- o Search for your router model on the manufacturer's website to find its specifications.
- o Check your device's Wi-Fi connection details—some devices display the Wi-Fi standard in network settings.

- **Security enhancements:** Wi-Fi routers receive security updates over time. WPA3, introduced with Wi-Fi 6, provides stronger encryption and better protection for individual devices. Older routers may not support these updates.
- **Dual-band and tri-band routers:** Older routers may only support the 2.4GHz band. Newer routers offer dual-band (2.4GHz and 5GHz) or tri-band options, reducing congestion and improving performance.

3. Your Wi-Fi is overheating

If your Wi-Fi router overheats, it could be struggling to handle the number of connected devices and the speeds required. Overheating can cause performance issues and may indicate it's time for an upgrade.

4. You've changed your internet speed or connection type

If you've upgraded your internet plan or switched to a different technology (such as NBN or fibre), your current router may not be capable of handling the increased speeds. Upgrading your router ensures you're getting the most from your connection.

Other equipment issues to consider

1. Where your router is positioned

The placement of your router matters. If it's too far from your devices (particularly if you have a large house or business) or blocked by thick walls or large appliances, your connection may suffer. Consider moving it to a central location or using a mesh Wi-Fi system or range extenders to improve coverage. Visit our [Wi-Fi Extenders](#) page for more information on mesh routers, access points and point-to-point connections.

2. The age and performance of your devices

Older devices may not support the latest Wi-Fi standards, which can affect your internet



experience. Check if your laptop, phone, or smart devices are compatible with newer Wi-Fi technologies.

3. Potential interference from other devices

Appliances such as microwaves, cordless phones, and baby monitors and even fish tanks can interfere with Wi-Fi signals, especially on the 2.4GHz band. If you experience inconsistent speeds, try switching your devices to the 5GHz band or repositioning your router away from these sources.

4. Rebooting and resetting your router

Regularly rebooting your router can help maintain a stable connection. If you're experiencing issues, try turning it off at both the power source and the router itself for 10 seconds and restarting it. Resetting your router to factory settings may also resolve persistent problems.

5. Check cords

Check cords such as ethernet cords for any damage, and they are plugged in firmly.

Quick troubleshooting checklist

• Have you tried rebooting your router?

• Is your router running the latest firmware?

• Are you using a newer Wi-Fi standard (Wi-Fi 5 or Wi-Fi 6)?

• Is your router positioned centrally in your home?

• Are too many devices competing for bandwidth?

For more information

Check out these resources on [avoiding the Wi-Fi gap](#) and when to consider [replacing your Wi-Fi router](#), and visit our page on [routers](#) for more information. You can also visit our [equipment](#) section.

The following fact sheets from nbn® are also a fantastically simple reference tool when looking at how to improve your in-home or business connectivity:

- [Home optimisation fact sheet](#)
- [Internet connectivity 101](#)
- [Optimisation fact sheet for businesses](#)
- [Optimisation fact sheet for new developments and renovations](#)

These fact sheets and more can be found on nbn's [optimisation](#) page.

If you've checked all these factors and are still experiencing connectivity issues, contact the [Regional Tech Hub](#), and we can talk you through your options.

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1. News
2. Resources
3. Tech Tips

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1. improve internet
2. optimise internet
3. Regional Tech Hub
4. replacing router
5. routers
6. wi-fi routers

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