

Router Optimization Guide

This router optimization guide applies to all consumer routers with a few exceptions, including Apple Routers which have been discontinued by Apple and are not recommended.

1. Before starting the optimization process, we recommend you download any available firmware updates from your router manufacturer. Please be aware, though, that in rare cases these updates may brick your router if it already has an internal hardware problem.
2. First, connect to the default wireless network listed on the back or bottom of the router with the security key printed on the router. Then, connect to your router with your web browser by entering your router's IP address in the address bar. For most routers, this IP address will be 192.168.1.1, 192.168.2.1, or 192.168.0.1. Type the Default IP Address associated with your router in your web browser. Login to the router using the default username/password, which will typically be admin/admin or admin/password (or with your own credentials if you have already changed the default settings).
3. If you have a Dual-Band Router, under the Wireless Settings section, create wireless names for the 5GHz network and the 2.4 GHz network. Example:
 - a. Wireless Network 2.4 GHz b/g/n
Name (SSID): My Network
 - b. Wireless Network 5 GHz a/n
Name (SSID): My Network 5G
4. Most importantly, under the Wireless Settings section, do not use "Auto" for the channel settings. If your router is Dual-Band (meaning it supports 2.4 GHz and 5 GHz), change both frequencies to a Static Channel rather than Auto.
 - a. 2.4 GHz Band - Try using channel 1,6 or 11. If a channel is slow, try a different channel to see if it works better. You may need to change it a couple times to find the fastest speed. If the channel size/width is set to 20/40 MHz, change it to 20 MHz only for better reliability.
 - b. 5 GHz Band – Change from Auto to a single, static channel to improve connectivity (for example, 53 or 157). If the Channel Size/Width is on Auto, or 20/40 MHz, change it to 20 MHz only for better reliability. Please note though that 40 MHz is required to achieve connection speeds greater than 100 Mbps.
5. Research your specific router online to locate the WMM setting for wireless. if one exists. Disable WMM to help increase the wireless speed.
6. Once you have completed the steps outlined above, connect your Wi-Fi devices to the 5 GHz network only. If a device doesn't see the 5 GHz network name that you created, then it doesn't support 5 GHz connections and you should use the 2.4 GHz connection instead.

If your router does not support 5 GHz, you should consider upgrading your router. Wireless speeds over 2.4 GHz have a limitation of 10-15 Mbps, while 5 GHz can reach up to 100+ Mbps. We recommend Wireless AC ASUS routers, which can be found in the [Everywhere Wireless Wi-Fi Store](#).

If you require further assistance, please feel free to contact us at support@everyherewireless.com. You can also reach our Support Team at (312) 361-0052 (Option 1).



2 Gigabit - FAQs

2 Gbps Explained

Everywhere Wireless 2 Gbps (Gigabits per second) Internet service requires certain equipment and conditions. Please use this guide to understand how these speeds are delivered, as well as how you can optimize your Internet connection to achieve the fastest speeds.

Computer and Device Requirements

In order to determine if your device has certain hardware and software requirements, it is easiest to research the technical specifications by searching on Google using the model number of the device and/or computer.

- Your device should have a 2.5/5 Gigabit Ethernet (2.5/5GBASE-T) interface or adapter for when you use a wired connection.
- Your desktop or laptop should have a minimum of an Intel Core i5 (or faster) processor and a solid-state OS drive (SSD).
- Use a wireless router that supports 2.5/5 Gigabit Ethernet for the hardwired Ethernet connection and the latest wireless standard, 802.11ax (Wi-Fi 6) or better.
- In addition to your wireless router, any wireless device you use should have the latest standard wireless adapter, equivalent to 802.11ax (Wi-Fi 6) or better.
- Your computer should be running the latest Operating System (Windows or MacOS) and should use a recent version of one of the following Web browsers for the best speeds: Chrome, Firefox, Edge, or Safari.

The Checklist

1. Are you using an 802.11ax (Wi-Fi 6) compatible router and devices?
2. Does your computer pass the requirements listed above?
3. Is your computer plugged in directly to your router using an Ethernet Cable?
4. Do you have a 2.5/5 Gbps connection from the computer to the router?
5. Did you turn off and disconnect other devices on your network?

FAQs

What is 2 Gigabit Internet?

- **2 Gigabit** Internet is the fastest broadband Internet connection available to residential customers in Chicago, allowing you to browse the web and upload or download files faster than ever before. **2 Gigabits** per Second (Gbps) is equal to up to 2,000 Mbps connection – which is 20 times faster than the Internet connection that most American households have today! With **2 Gigabit** Internet service, you get what you want instantaneously without buffering or waiting. Just click and you're there.



How can I test the Internet speed that I'm getting at my home or business?

- We recommend that you use [speedtest.net](https://www.speedtest.net). Please note that when you perform a speed test, there are many variables that can slow down the results. Speeds may vary; therefore, you may need to test speeds several times, through different hosts available on speedtest.net.

What type of cable should I use between my router and my computer?

- We recommend you use Ethernet cable that is rated as CAT6 or better.

What other factors will affect the Internet speed in my home or business?

- Hardware limitations: Some devices on your home network may not meet all the hardware requirements listed above. While these devices will still be able to connect to the Internet, they will not see the maximum speed offered by your connection.
- Website limitations: Although **Everywhere Wireless** delivers your home or business a lightning fast connection to the Internet, once traffic passes outside of the **Everywhere Wireless** network it may be affected by routing and congestion. For this reason, **Everywhere Wireless** cannot guarantee speeds to every website and service on the Internet.
- VPNs (Virtual Private Networks): Speeds will be limited over VPNs to the speed of the server on the other end.
- Number of devices connected to your network: Since your connected devices share the bandwidth delivered to your home or business, the more devices you have running simultaneously, the less speed will be available to individual devices.

Why is the Wi-Fi slow? My wireless speeds are much slower than the advertised

- Wireless connections are generally slower than wired connections and cannot be expected to achieve maximum advertised speeds. This can be due to many things including interference from neighboring devices, the configuration of your home, device limitations and other environmental factors.
- When testing speeds, always use a hardwired Ethernet connection directly from your computer to your router. Testing speeds while connected wirelessly will not achieve accurate or the maximum achievable result.
- To maximize your wirelessly delivered speeds, follow our Optimization Guide. If you need further assistance please contact our support team at support@everyherewireless.com or (312) 361-0052, option 1.