



# Optimizing Your Internet Speed



# Tips for Optimizing Your WiFi Network

There are a variety of factors that can affect the performance of your WiFi network.

## 1 Properly locate your router.

This is the best place to start. The placement of your WiFi router is critical to maximizing the speed and reliability of your WiFi connection. Your router should be in the center of your home, closest to the location where you frequently use your devices. This is because walls, appliances, and distance will all degrade performance.

When troubleshooting WiFi problems, we often find the cause to be routers placed in suboptimal locations such as in the basement, the corner of the house, or an upstairs office. These locations are often used because they are conveniently located next to a telephone jack, so the initial installation was easier. However, it is well worth the effort to install your router in the best location possible for optimum performance.

## 2 Select the best frequency.

Our latest WiFi router provides dual band coverage in the 2.4GHz and 5GHz frequencies. If your devices support it, we recommend first selecting 5GHz, which is a faster frequency. However, if your WiFi is not working satisfactorily throughout your house, switch to 2.4GHz, which has a longer range. To learn more about selecting the best frequency, contact our Tech Support team.

## 3 Protect your devices from threats.

Viruses, adware, and spyware can make a device and WiFi network unusable. All devices should utilize a firewall and antivirus software, and be sure to stay current with all software updates.

## 4 Secure your WiFi network.

Are your neighbors using your WiFi? Remember, the more devices you have connected, the slower the WiFi performance. We highly recommend you secure your WiFi network with a password.

## 5 Minimize interference.

Because they operate in the same frequency, cordless phones should be located as far away from your WiFi router as possible to avoid speed and reliability problems. Other common causes of WiFi interference include fluorescent lights, compact fluorescent light bulbs, metal, mirrors, and radiant floor heat.





## Choose the right internet plan.

Internet usage has changed significantly in the recent years. Depending on your online activities and the number of devices you have connected, it may be time to upgrade your speed.



## How many family members are typically online and what are they doing?

- Streaming movies and TV shows?
- Downloading music? Playing games?
- Connecting on Facebook and Twitter?
- Posting on Instagram?

Many households now need more Internet speed to handle more users and more devices.



## Test the speed of your internet connection.

<https://www.speedtest.net/>

Limit the number of applications and devices using your Internet connection at the time you do your speedtest.

Test your wired (as opposed to WiFi) internet performance first. To do this, connect an ethernet cable from the cable of your router to your laptop or computer.



## How many internet-connected devices do you have?

In addition to desktop computers and laptops, be sure to count smartphones, tablets, ebook readers, gaming systems, cameras, smart TVs, and smart home equipment such as thermostats, surveillance systems, etc. Because your WiFi signal is shared by all devices on your network, the more devices you have connected, the slower your performance will be.


## A wired connection is always the best.


A **physical wired connection** from your internet router to your device is always the fastest, most reliable connection and should be used whenever it makes sense. Connecting your devices via WiFi is more convenient, but speed and reliability will be reduced.

Try to match each of your devices with the best connection option. For example, you might use a wired connection for desktop computers, laptops, and gaming consoles. Choose your WiFi network when using a mobile device or another device that doesn't support a wired connection.



### Contact Tech Support

 [csdept@nekbroadband.org](mailto:csdept@nekbroadband.org)

 877-635-3423

 [www.nekbroadband.org](http://www.nekbroadband.org)

## For maximum reliability, use an uninterruptible power supply.

We highly recommend using an Uninterruptible Power Supply (UPS). It offers the safety of a battery backup for your router and computer equipment. A UPS will also provide consistent, clean power to your Internet router and help avoid equipment damage resulting from power fluctuations.