

**Picture an open highway.** Cars are speeding by until suddenly, the lanes merge to a single lane. Traffic slows down to a screeching halt until finally, the highway opens up again.

Bandwidth is a highway. **More bandwidth means more data to devices faster.**

Hardwire your device to an Ethernet cord and run an **Internet Speed Test**. If you notice that your speeds are not as high as you thought that is because your Internet speeds can be impacted by a variety of factors:

- **Infection:** Your computer could be infected with malware/spyware
- **Things That Can Slow You Down:** Toolbars on Internet browsers can slow speeds, as well as not shutting down the computer frequently enough
- **Multiple Products:** software updates, individuals on your network, and multiple devices can all weigh down your speeds -- more cars means more traffic!
- **Upgrades:** You might not have enough RAM, the latest operating system upgrade, browser, or wireless driver updates, or the newest network interface card - all of which can prevent reaching maximum Internet speeds
- **The Router:** The location of the router and the age of the router can contribute to slow speeds
- **Conflicting Signals:** wireless cameras, microwaves, and cordless phones all run on the same frequency as many routers, slowing Internet speeds
- **Streaming:** Streaming products and devices require an enormous amount of bandwidth. If there are users on your network streaming media, you might encounter slower Internet speeds

## How Do Multiple Devices Affect My Speed?

Multiple devices will affect your speed the same way more cars on the highway will - speeds get slower as more devices share the same bandwidth. There are several ways multiple devices impact Internet speeds.

- **Old and New Products:** Different devices speak in different languages over wireless internet. The wireless standards are B, G, N in order of oldest and slowest to newest and fastest
- **Multiple Products:** When there are more devices on the network, less speed is sent to each device as they are all sharing the same amount of the speed. The more devices there are, the more your bandwidth is pulled into multiple directions

## Maximizing Your Internet Performance

To maximize your Internet performance, try some of the solutions below.

- Eliminate all malware/spyware from your devices
- Clear your cache, cookies, and browsing history
- Use your Ethernet cord to connect directly to the source
- Remove extraneous toolbars from your browser
- Restart the router
- Uninstall unnecessary software on your computer to free up RAM
- Update your software when no one is using the Internet
- Update your browser operating system and wireless driver updates
- Upgrade to the newest network interface card
- Make sure your router has the most advanced firmware
- Turn off devices that aren't being used - gaming platforms, cable boxes, cellular devices