

What is the Difference Between Modems and Routers?

Your modem acts as the bridge between your LAN (local area network) and the Internet. You plug your DSL modem into a telephone jack (once you subscribe to DSL service) and you get a standard Ethernet cable output that you can plug into any router (or single computer) to connect to the internet.

Your router, on the other hand, creates a network between the computers and other internet connected devices in your home. It sits between your Internet connection and your LAN. It lets you connect multiple devices to the internet through one physical internet connection and lets those devices communicate with one another over the LAN. Your router also offers some protection to your devices from being directly exposed to the internet.

Why Do We Tell You to Reset the Router?

Routers are like small computers: They use memory, a processor, and an operating system. And that means, just like your computer, they too benefit from a fresh start every now and then.

Most internet service providers assign a temporary IP address—a series of numbers that function much like a street address—to each of your personal mobile devices to help them send and receive information. The static addresses, which are more expensive, are usually reserved for business use. Without a static IP address the IP address for your phone, laptop or other internet connected device can change at any time. And, when your router doesn't catch on to that change, the network connection gets out of sync. That's when a quick power recycle can set things straight.

With users adding things like smartphones, smart TVs, and Wi-Fi-enabled home security devices to their networks we are reaching the limits for old-school router technology. Consumers now have multiple devices that connect to the internet and that's increasing the demand on your networking load. When that happens, your router can run out of memory or slow down until the system grinds to a halt. With less than 1GB of on-board memory, the average wireless router can get hung up in download requests. But a quick restart will flush away all that baggage. And during a reboot, routers are pretty good at finding channels with less traffic, thereby raising their performance speeds.