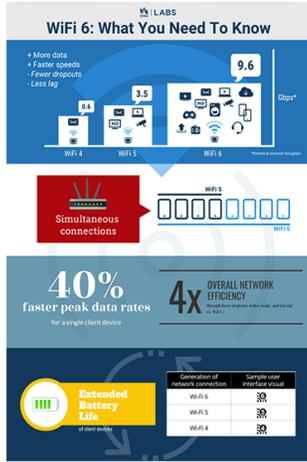


Should You Buy a Wifi 6 Router?



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As more consumers add home gadgets like smart security systems, smart thermostats, video doorbells, and water detection systems, the average household now contains about 25 connected devices. That number is expected to double to more than 50 connected devices by 2022, according to a new report by the Organisation for Economic Co-operation and Development.

All those devices can create bigtime traffic jams for the data on your WiFi network, as more ones and zeros try to get through your home's router to and from the internet.

Enter 802.11ax, more affectionately known as "WiFi 6," which you'll begin seeing in ads and product boxes by the end of 2019.

How it works

This new standard for wireless fidelity will include expanded range, a reduction in connection dropouts in dense environments, and enhanced power usage. Of course, WiFi 6 is faster, too, with a maximum theoretical throughput of nearly 10 gigabits per second, 40% higher than WiFi 5, which tops out at 7 Gbps.

The main improvement in the technology lies in its ability to handle wireless traffic from multiple devices simultaneously with fewer disruptions. WiFi 6 is designed to enhance the network's overall performance, rather than improving a device's individual operation. WiFi 6 can support eight simultaneous device connections, up from WiFi 5's four.

"To put that in perspective," said Oscar Tijerina, USAA Strategic Innovation Director, "this would allow your smart TV and your daughter's smartphone to be streaming 4K videos as your spouse takes a video call for work on a laptop, and your son enters the fourth hour of his nightly video gaming session – all at the same time without buffering or lag. All this while consuming less power from your wireless device batteries."

Here are some of what WiFi 6 promises to deliver:

- * More overall bandwidth per user for high-resolution video streaming
- * Support for more simultaneous streams of data with increased throughput
- * More channels to enable more routes for communication
- * Improved performance (as much as 4x) at the maximum range of an access point
- * Better performance in outdoor and cluttered environments

So, should you get a new router?

The answer is, it depends. Before you go rushing out to buy a new WiFi 6-compatible router, there are a few things to keep in mind.

* Both your router and your wireless devices will need to be WiFi 6-compliant in order to see any benefits from the new technology. Your old devices will still be able to connect to a WiFi 6 network, but if the new router isn't talking to a WiFi 6 device, you won't get any jump in performance.

* Your download speed is still dependent on the Internet plan you have. If you have a slow connection to the Internet, you won't see a noticeable difference in download speeds. According to Ookla's Speedtest report, the average household internet speed in the U.S. in 2018 was around 100 Mbps, not nearly enough to make the most of WiFi 6. In crowded places like a coffee shop or sporting event, WiFi 6 will improve speed and performance significantly.

* The term "WiFi 6" is the same as 802.11ax. The WiFi Alliance, which oversees the WiFi standards, has renamed all the older standards as well – so 802.11ac will now be referred to as "WiFi 5" and 802.11n is now "WiFi 4."

"If you're a smart home power user and want the ultimate in protecting your home, you might want to consider a WiFi 6-compliant router," said Tijerina, "because it could allow critical devices like security systems and water sensors to run with fewer hiccups. However, you'll need to have fast internet speed and a house full of devices before you'll notice a difference. If your router is less than two years old and you're happy with it, you're probably fine for the near future."

Want to participate in a smart home pilot? Check out what USAA Labs is doing in the IoT space on usaalabs.com.



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