



# What is firmware and why do I need to update it?

Most of us understand how important it is to keep our smartphones, laptops and other connected devices updated with the latest version of the operating system, otherwise known as “the OS”. With each new OS version— whether it’s Apple iOS, Google Android, Microsoft Windows or something else— updates are made to fix bugs, add new functionality, improve performance, or enhance the important security features that protect our personal data and privacy.

Fortunately, most device manufacturers make the update process simple. They send us a notification when a new version of the OS is ready, and all we have to do is confirm we want to install it. A few minutes later, our device is updated and ready to use again.

But what about the Wi-Fi router that’s been sitting on the shelf untouched for the last couple of years? Does it need updating, too? The answer is yes, of course! The software that runs on your Wi-Fi router is known as “firmware”, and even if your home Wi-Fi seems to be working well, regularly updating the firmware on your router is extremely important.

## **What exactly is firmware?**

Firmware is the software that comes preinstalled on the router. Every router manufacturer has its own version of this software. And, like the operating systems that run on your smart phone or your personal computer, it controls all the inner workings of the device. For example, it’s the firmware that makes it possible for your router to communicate wirelessly with your devices; it helps protect your network from malware, viruses and other threats; and it provides the administration software that you use to manage your router’s settings.

## **Why do I need to update my firmware?**

You might be wondering, why do I have to worry about updating the firmware on my router if everything seems to be working just fine? One obvious reason is performance. Everybody wants their home Wi-Fi to be fast and accessible from every room in the house. Firmware updates provide bug fixes and technology improvements that lead to a better overall Wi-Fi experience for you and your family.



Another critical advantage of keeping your router firmware up to date is the security protection it provides. We hear about new threats to our online security almost every week. Increasingly, these threats are specifically targeting home Wi-Fi networks. For example, did you know that if your router is poorly secured it can be taken over remotely by a hacker? What's worse, hackers can then use it, along with thousands of other hijacked routers, to launch malicious cyberattacks on organizations and their websites and networks. If your firmware is out of date, your router could be hijacked in this way and there's a good chance you wouldn't even know it.

While there are many different aspects of home network security (such as changing your passwords regularly), the first in preventing serious problems is to make sure you always have the latest firmware version installed on your router.

### **How do I update my router firmware?**

Making sure your firmware is up to date is clearly important, but how do you go about updating it? If you purchased a "Managed Wi-Fi" service from your Internet Service Provider, then the answer is simple. You can call your ISP to find out if your router has the latest firmware version, or you can do nothing. Because as part of your Managed Wi-Fi service, your ISP should ensure that your router always has the latest version installed. They don't even need to come to your house; they can do it all remotely.

On the other hand, if you've purchased your own router, there are several steps involved in updating your firmware. First you need to consult the router's user manual and find out how to log in to your router's administration panel from your computer. Once you're logged in, there is sometimes an option to download and install the latest firmware. If your router doesn't provide this option, you need to verify which version of the firmware you currently have and then search the Internet to find out where to download the latest version. Once you've downloaded it, you need to follow the detailed instructions that explain how to get the new firmware from your computer to your router. This can be a complicated and time-consuming process, especially if you're not very technical.

### **Should I consider getting Managed Wi-Fi?**

A Managed Wi-Fi service provides many benefits, one of which is that you never have to worry about updating your firmware. You can take advantage of the latest features and be confident you're protected from known security threats. To learn more about Managed Wi-Fi, contact your service provider.