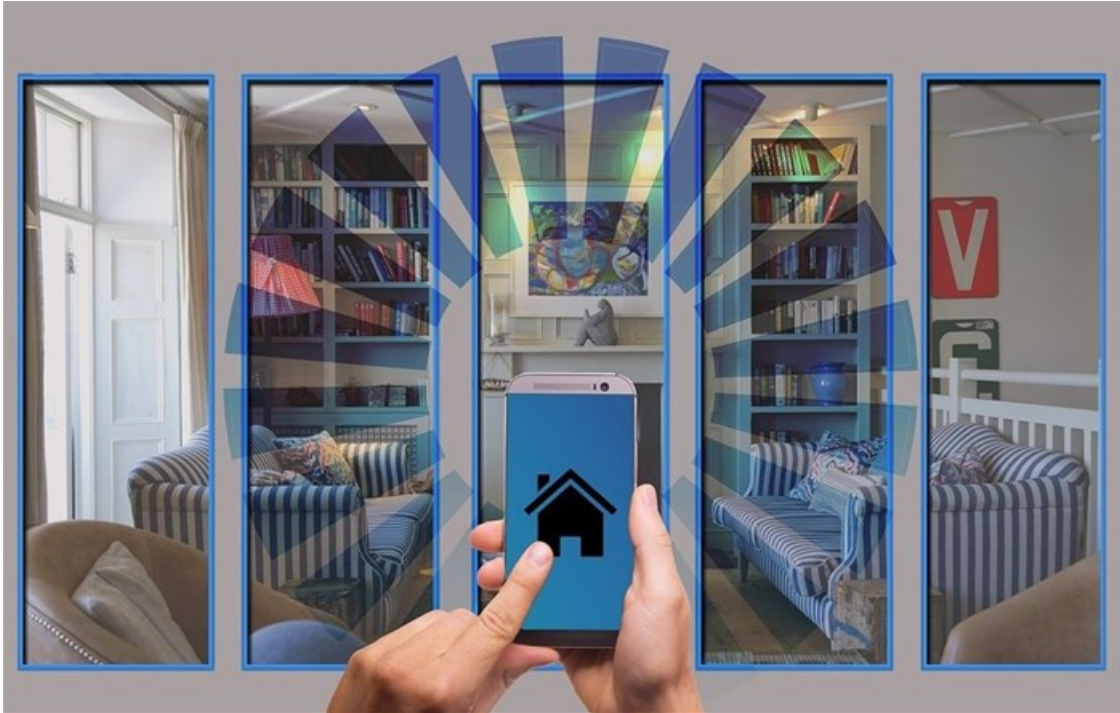


How can you stay secure at your smart home?

According to Statista, by 2020 we will have almost 31 billion internet of things (IoT) devices worldwide. However, nearly all smart home appliances, such as a smart TV, fridge, or thermostat, can become an easy target for cybercriminals. A Symantec study in 2018 showed a 600% increase in the number of IoT attacks between 2016 and 2017.



Source: pixabay.com

The rush to get IoT devices into the market makes the security one of the weakest parts of this technology.

“To protect IoT users against cyber attacks, the security of each device has to be tested and updated regularly. Unfortunately, to most of the manufacturers, this is not the main focus,” says Daniel Markuson, digital privacy expert at NordVPN.

According to him, simple technical specifications of IoT devices create even more difficulties in building the security infrastructure. It’s easy enough for hackers to familiarize themselves with the hardware or fake device identities.

What is more, there are still no standard controls or protocols for IoT developers to follow. And on top of that, end users often don’t have the tools or knowledge to reduce the risks themselves.

So how can you stay safe at your own smart home?

“The good news is that you can use encryption to better protect all connected devices you have at home. Setting up a virtual private network on your router will secure all network traffic, including IoT devices,” says Markuson.

A VPN connection on your router means protection against man-in-the-middle attacks and hackers who may try to compromise your Wi-Fi network. A VPN can also prevent home devices from participating in botnet attacks. If you set up a VPN on your router, you can connect and secure any number of gadgets with a single device slot. Any device that connects to it will automatically be private on the internet.

Still, connecting a VPN to your router has both pros and cons. Let's take a look at what they actually involve.

- **VPN router: the pros**

Online security. Setting up a VPN connection on your router means protection not only for your laptop or smartphone but for all your IoT devices. You can be sure that your home's entire network is secured by a VPN. It also makes it more difficult for hackers and cybercriminals to compromise or hack into your home Wi-Fi network.

Online privacy. Any device you connect to your VPN router will be private online – no matter if it's your smartphone, laptop, smart TV or fridge, gaming or streaming device. Neither your ISP nor anybody else will be able to track what you or your smart home devices are doing online.

Saving time. VPN router only needs one installation – once the router has a VPN on it, you don't need to configure each device separately. Connect your devices to the router in the regular way, and you'll be secure on the internet. Although setting up a VPN on a router manually may be complicated, you can get a special app, like FlashRouters Privacy App, which works with NordVPN.

Saving money. It's likely that you are not the only person using the internet in your household. With a VPN router, your family or roommates can connect to it, and you don't have to buy multiple subscriptions or licenses.

Protect your data non-stop. With a VPN router, you can be sure your online data is protected even when switching between different devices. This way, you'll never forget to encrypt.

- **VPN router: the cons**

Inability to control the IoT device remotely. A VPN will allow outbound connections while blocking incoming ones. Your gadgets will still be able to send you data, but no incoming communication with them will be possible. This solution may be inconvenient if you want to control them remotely. But the good news is that the encryption will block hackers too.

More devices – lower speed. If you connect many gadgets to the VPN router, you may experience slower communication than with each device using its own VPN. But the good news is that if you have a fast connection at home and a high-speed VPN, you won't experience this issue. In this case, the speed will still be decent even with 10-12 devices connected to the router.