At National Online Safety we believe in empowering parents, carers and educators with the information they need to hold an informed conversation about online safety with their children, should they feel it is needed. Please visit nationalonlinesafety.com for further guides, hints and tips for adults.

Part of our Privacy & Security Series

NOS Online Privacy & Security

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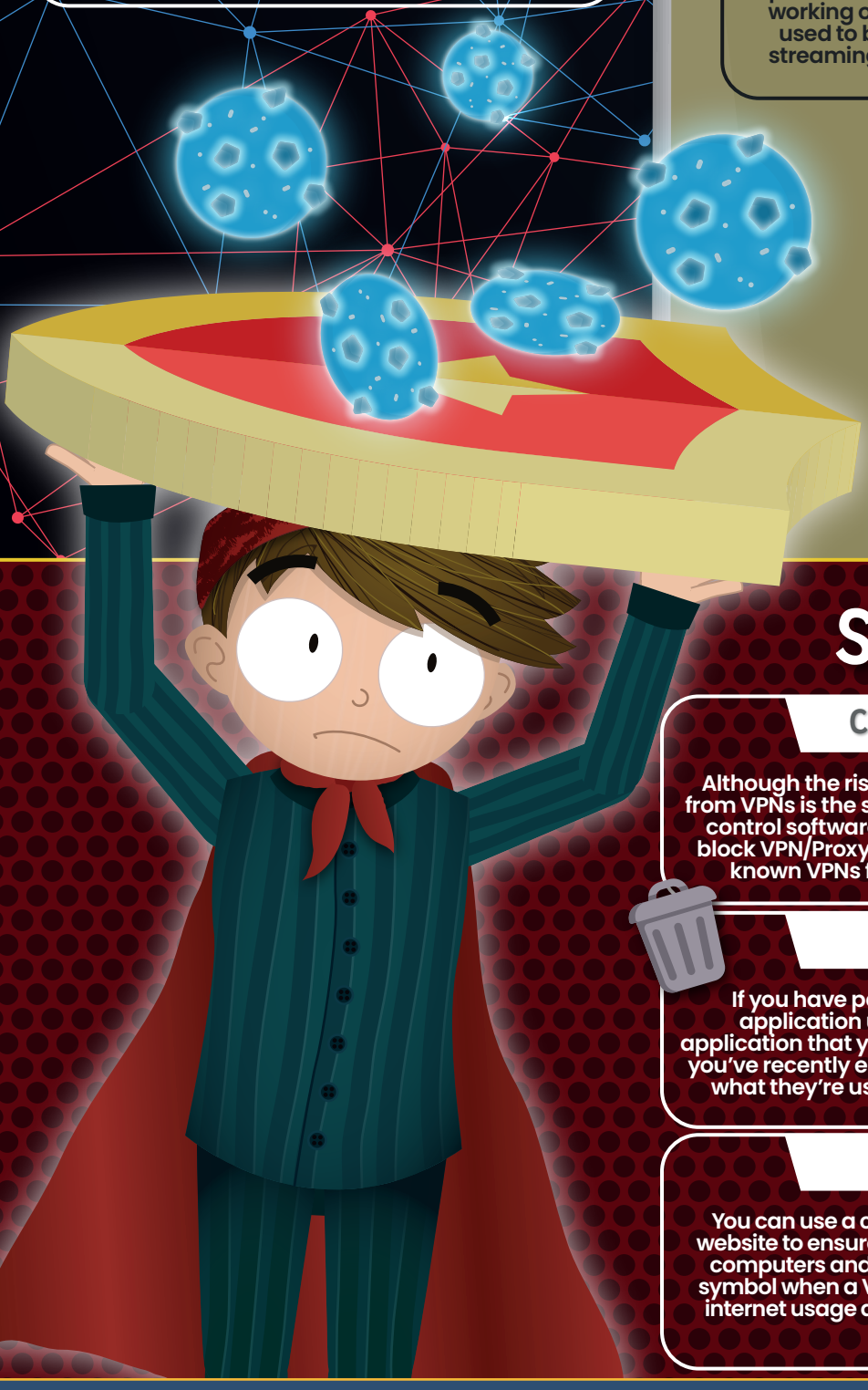
What you need to know about...

VIRTUAL PRIVATE NETWORKS (VPNs)

What are they?

'Virtual Private Networks (VPNs)'

A Virtual Private Network (VPN) is a privacy tool used to hide internet activity from prying eyes. Without a VPN, internet traffic is sent directly from your computer or smartphone, letting anyone in-between you and a website or service that you're accessing (such as a wireless hotspot owner or your ISP) see what you're doing. With a VPN, a secure tunnel is created between your computer or phone and what's known as the endpoint. The endpoint is merely the part of the internet where your connection comes out and can be in the same country as you or located anywhere else in the world.



What are they used for?

Hide location

Using a VPN has two main effects. First, as the tunnel is fully encrypted, nobody between you and the final endpoint can see what you're up to. Secondly, as all of your traffic looks as though it's coming from the endpoint, you can further avoid being tracked and monitored, hiding your real location from everyone.

Improved privacy

VPNs have many legitimate uses, e.g. running a VPN when on a wireless hotspot or hotel network that you don't trust, gives you additional security. Using a VPN also provides improved privacy, preventing ad networks from tracking you and working out where you live. VPNs are also often used to bypass protections, e.g. watching UK streaming TV when abroad by pretending that

Know the Risks

Bypass restrictions

Although a great privacy tool in the right hands, VPNs can be misused. Children can use them to bypass restrictions on web browsing, potentially affecting their privacy (and yours), and opening them up to inappropriate content. Children can also use VPNs to hide what they're doing and use the internet completely anonymously.

Age-inappropriate content

Parental control tools work by looking at the sites that a child is trying to visit, and then blocking according to a list of what's not allowed. VPNs create a secure tunnel, which means that web traffic can't be viewed, and parental controls stop working. Once on the open internet, a child using a VPN is unrestricted and can view anything they like, including inappropriate content.

Malware infections

Installing any unknown application is fraught with danger, and the same applies to many free VPN applications. By installing suspicious software, a child may be opening themselves up to being spied on and their private details being stolen. If you use a shared device with a child, an infection can also affect you. Malware can spread, and there's then a higher risk to other devices on your network.

Safety Tips

Check parental controls

Although the risks might seem entirely different, protection from VPNs is the same for all other threats. Check the parental control software that you're using to see if there's a filter to block VPN/Proxy traffic. If this is selected, it will prevent most known VPNs from working, along with proxy websites.

Remove VPNs

If you have parental control software that can restrict application use, make sure that you investigate any application that your child wants to install and block all VPNs. If you've recently enabled any applications, go back and check what they're used for and remove any VPNs that you find.

Ensure safe use

You can use a child's computer to try and view a restricted website to ensure that filtering is still in place. Also look out for computers and phones that display a different connection symbol when a VPN is connected to help monitor your child's internet usage and have open discussions with them about their online activities.

Our Expert

David Ludlow

This guide has been written by David Ludlow. David has been a technology journalist for more than 20 years, covering everything from internet security to the latest computing trends and the smart home. A father of two (a nine-year-old and a six-year-old), he's had to control and manage how his children access had to control and manage how his children access online services and use apps.