

Virtual Private Networks

This is the last in a series of three articles on internet privacy. Our August “Guru” article explained how websites use your internet address to track your web activity. Last month, we listed ways to keep websites you visit from tracking what you do. Today, we’ll explain how to make yourself anonymous on the internet by subscribing to a virtual private network service.

Websites use your IP (internet protocol) address to track the information you search for and sites you visit, so if you can hide your IP address, you can’t be tracked. And that’s exactly what a virtual private network (VPN) service does.

By hiding your internet address and encrypting all data to and from the websites you visit, a VPN service transforms you into an anonymous “netizen.” Even your ISP¹ can’t track the sites you’re visiting—all it knows is that your internet data is going to and from a VPN server.

Here’s how it works:

The extremely well-thought-out diagram on the right will help.

Chuck² is ordering socks at socks.com from his computer via his router whose³ IP address is **173.72.238**. He doesn’t want to be tracked, so he subscribes to a VPN service through which all of his internet data is routed. When he navigates to the socks.com website (or anywhere on the internet), the VPN server overlays its own IP address of **146.34.872** and encrypts Chuck’s IP address in a kind of digital “wrapper” that socks.com can’t access. This is cool.

When socks.com provides the sock information that Chuck is seeking, it returns the data to the VPN server at **146.34.872**. The VPN server then extracts Chuck’s IP address from the digital wrapper and forwards the sock information to Chuck at **173.72.238**. If socks.com or any other website tries to send information to Chuck that he didn’t request, the VPN server will block the information. Thus, Chuck cannot be tracked!

The VPN service encrypts all of Chuck’s internet activities—including his email—so he can use unprotected Wi-Fi services (e.g., at Starbucks or MarketFair or Wegmans) without worry.

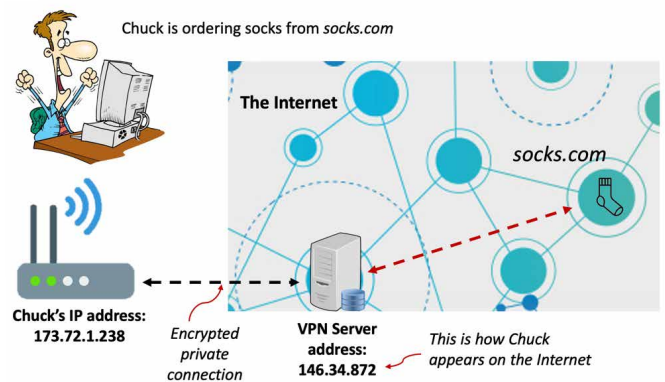
VPN Downsides

While VPN services offer excellent internet privacy, there are a few downsides.

First, there’s the cost. Most VPN services range from \$50 to \$100 per year. Many offer discounts if you sign up for more than one year. Second, your internet performance could suffer because the data is routed through the VPN’s servers (though many VPN services advertise “blazing speed”). Finally, some low-price VPN plans may have monthly data transfer limits. Fortunately, many VPNs will let you try their service free for a month or so, which I’d recommend.

FYI, I don’t use a VPN service, opting for the free DuckDuckGo browser extension and Brave Browser to satisfy my internet privacy needs—at least for now.

If you need help keeping your internet activities private, just contact our friendly tech volunteers at <https://www.princetonsenior.org/technology-lab/>.



Chuck is ordering socks. He seems quite excited. Chuck needs to get a life.

¹ E.g., Xfinity, Verizon, etc. who assigns your router its IP address.

² I don't think I know anyone named Chuck, so if you think it's you, it probably isn't.

³ I never considered a router to be a “who,” but let's just go with it.