

Determining the Bandwidth of a Multilayer VPN

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Abstract

Protecting information and transferring data over a Virtual Private Network (VPN) are important issues nowadays, as the risks of cybercrime and data theft are increasing in all developed countries. A VPN is a lightweight program that connects your devices to remote servers scattered around the world, hiding your real IP address. This way, when you go online and access a particular website, your internet company cannot see what web services you are using, and the website host cannot determine your true location. VPNs also use several data encryption technologies to encrypt information exchanged over a wireless or wired network, making it unreadable to outsiders. Protecting yourself with a VPN is one of the few possible and 100% legal ways to protect your data and disappear from mass surveillance agents. This paper discusses ways to ensure the security of data transmission over the Internet using multi-layer tunneling. © 2026 IEEE.

Author keywords

optimal route; routing; virtual channel; virtual network; VPN

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