



Name:

Date:

Score:

PART 11

10 Interesting VPN Facts & Real-World Insights

Interactive Student Worksheet & Study Guide

Based on the VPN.com VPN Guide: <https://www.vpn.com/vpn/>

What Is a VPN Worksheet

Part 11: 10 Interesting VPN Facts & Real-World Insights

Review these highly valuable, real-world facts and insights regarding the history, market, and technology of VPNs.

1. FIRST VPN PROTOCOL

PPTP (Point-to-Point Tunneling Protocol) was developed by a vendor group including Microsoft and published as RFC 2637 in July 1999 to support remote-access VPNs. [6]

2. MARKET VALUATION

The global VPN market has experienced rapid growth, driven by rising remote work requirements and enterprise security demands.

3. WIREGUARD REVOLUTION

WireGuard features a highly streamlined codebase designed for efficiency, making it easier to audit for security vulnerabilities than traditional protocols. [4]

4. STRICT AUDITING STANDARDS

Top VPN providers hire external auditors (like Cure53 or PwC) to perform independent code reviews and verify that they log no user activity.

5. 5-EYES ALLIANCE ORIGINS

The Five Eyes alliance grew from the 1946 UKUSA signals-intelligence agreement between the US and UK, later joined by Canada, Australia and New Zealand.

6. DEEP PACKET INSPECTION

Deep Packet Inspection (DPI) examines packet contents and traffic patterns, not just headers, and some firewalls use it to detect and block common VPN protocols.

7. CORPORATE USAGE

A large percentage of enterprise employees globally utilize secure VPNs to log in to internal databases, making it a key security standard.

8. DECENTRALIZED VPNS

Decentralized VPNs (dVPNs) distribute traffic across a network of peer-run nodes, reducing reliance on a single centralized provider.

9. TOR VS. VPN ANONYMITY

A VPN tunnels traffic through a single provider, while Tor (The Onion Router) sends traffic through three volunteer relays (guard, middle and exit) so no single relay knows both ends.

10. COST OF DATA BREACHES

Employing a zero-trust secure access model with a VPN helps organizations protect intellectual property and mitigate the financial impact of data breaches.

Technical References & Sources

Cited publications, cryptographic specifications, and official document standards utilized across this worksheet.

SCHOLARLY & INDUSTRY REFERENCES

[1] NIST. (2020). SP 800-77 Rev. 1: Guide to IPsec VPNs.

<https://csrc.nist.gov/pubs/sp/800/77/r1/final>

[3] WireGuard. (n.d.). Protocol & Cryptography.

<https://www.wireguard.com/protocol/>

[5] OpenVPN. (n.d.). OpenVPN 2.6 Manual.

<https://openvpn.net/community-resources/reference-manual-for-openvpn-2-6/>

[2] WireGuard. (n.d.). WireGuard: fast, modern, secure VPN tunnel.

<https://www.wireguard.com/>

[4] Donenfeld, J. A. (2017). WireGuard: Next Generation Kernel Network Tunnel. NDSS Symposium.

<https://www.ndss-symposium.org/ndss2017/ndss-2017-programme/wireguard-next-generation-kernel-network-tunnel/>

[6] IETF. (1999). RFC 2637: Point-to-Point Tunneling Protocol (PPTP).

<https://datatracker.ietf.org/doc/html/rfc2637>