

Task 8: VPN Setup and Privacy Understanding

■ Objective

To understand the role of VPNs (Virtual Private Networks) in protecting privacy and enabling secure communication online.

■ Tools Used

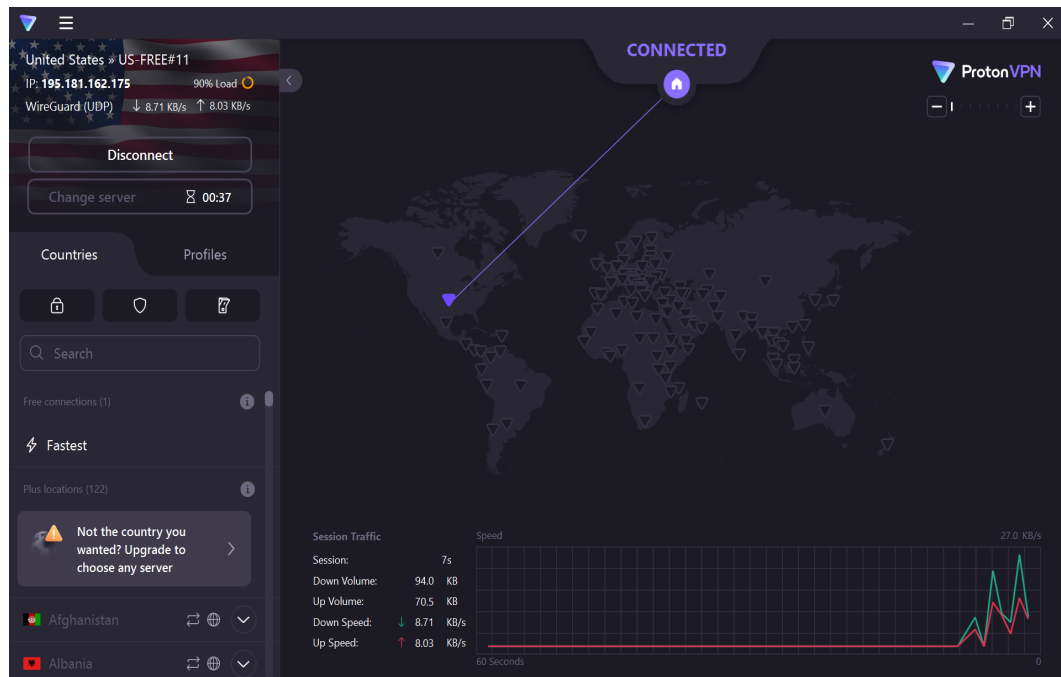
- VPN Client: ProtonVPN (Free Tier)
- Verification Tool: whatismyipaddress.com
- Browser: Chrome / Firefox

■ Steps Performed

- VPN Selection: Chose ProtonVPN Free Tier for its no-log policy and unlimited free usage.
- Sign-Up & Installation: Created a ProtonVPN account, downloaded and installed the client.
- VPN Connection: Launched the client, selected a free U.S. server, and connected successfully using WireGuard protocol.
- IP Address Verification: Before connecting - ISP's IP; After connecting - new IP 195.181.162.175 (United States).
- Traffic Encryption Check: Browsed websites (Wikipedia, YouTube) to confirm encrypted traffic.
- Speed Comparison: With VPN – slightly slower; Without VPN – normal speed restored.
- VPN Features Studied: AES-256 encryption, WireGuard/OpenVPN protocols, kill switch, no-logs policy.

■ Deliverable Screenshot

ProtonVPN Connected (U.S. Server)



■ Summary

■ Benefits of VPN:

- Hides real IP address, enhancing privacy.
- Encrypts traffic, especially on unsafe Wi-Fi.
- Bypasses geo-restrictions and censorship.
- Prevents ISP from tracking browsing activity.

■ Limitations of VPN:

- Free VPNs often have speed/data/server limits.
- Must trust VPN provider as they can see traffic.
- Cannot protect against malware or phishing.
- Some services block VPN traffic.

■ Outcome

Successfully connected to ProtonVPN, verified IP address change and encrypted browsing. Gained practical understanding of VPN's role in online privacy and cybersecurity.