TASK: Identify and Remove Suspicious Browser Extensions

OBJECTIVE: Understand the role of VPNs in protecting privacy and secure communication.

Report: VPN Setup, Usage, and Analysis 1. Objective The objective of this task is to understand the role of Virtual Private Networks (VPNs) in protecting privacy and ensuring secure communication.

2. Tools Used

VPN Client: ProtonVPN (Free version)

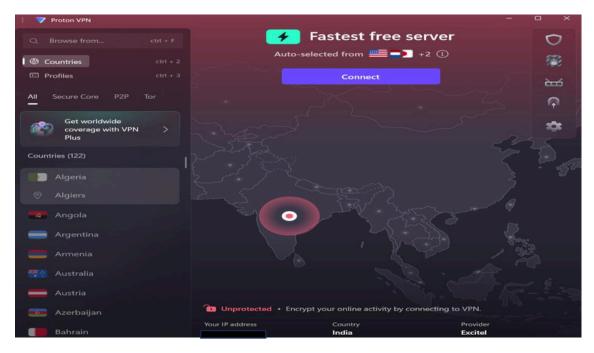
• Operating System: Windows 10/11 (x64)

3. Setup Procedure

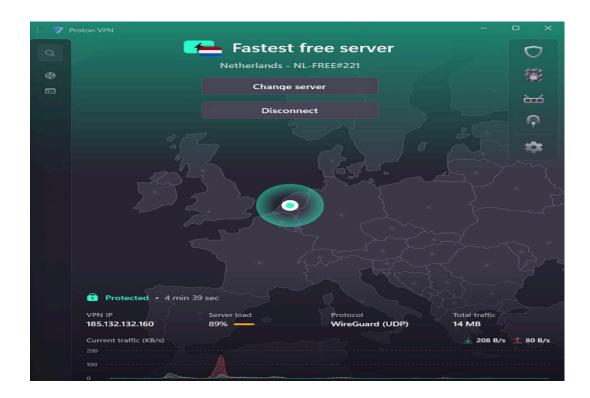
- 1. Downloaded ProtonVPN Free from the official website.
- 2. Installed the ProtonVPN client on Windows (allowed SmartScreen and installer permissions).
- 3. Logged in using the ProtonVPN free account.
- 4. Selected Fastest Free Server and clicked Connect.
- 5. Verified IP address before and after connection using whatismyipaddress.com.
- 6. Disconnected the VPN and compared browsing speed and IP details.

4. Screenshots

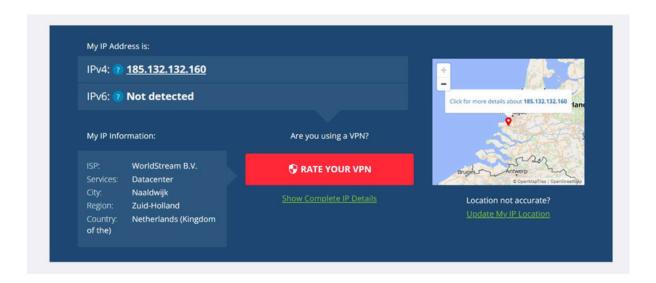
• Screenshot 1: ProtonVPN app opened (Unprotected, real IP visible).



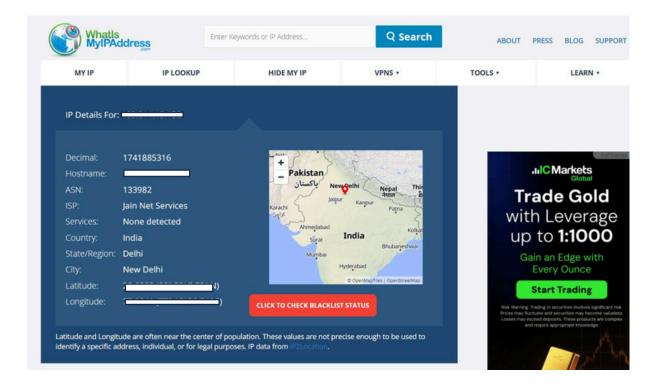
• Screenshot 2: ProtonVPN connected (new IP & location shown).



• Screenshot 3: whatismyipaddress.com → IP address while VPN is ON.



• Screenshot 4: whatismyipaddress.com → IP address after disconnecting VPN.



5. Observations

- Before VPN connection → Real IP address and actual location were visible.
- After VPN connection → IP address changed to the VPN server's location.
- Browsing worked normally but with slightly reduced speed due to encryption.

6. VPN Benefits

- Hides real IP address and location.
- Encrypts internet traffic (prevents snooping and MITM attacks).
- Protects privacy on public Wi-Fi networks.
- Helps bypass geo-restrictions and censorship.

7. VPN Limitations

- Free VPNs have limited server locations and slower speeds.
- Some VPNs may log user data (not all are trustworthy).
- Streaming platforms and some websites may block VPN traffic.
 - High encryption can cause slight latency in browsing and downloads.

8. Conclusion

VPNs are an effective tool for ensuring online privacy and secure communication. By masking IP addresses and encrypting data, they protect users from tracking, surveillance, and attacks on unprotected networks. However, free VPNs come with limitations such as restricted servers and slower speeds. Overall, VPNs play a crucial role in cybersecurity and safe browsing practices.