Task 8 :Identify and Remove Suspicious Browser Extensions

Objective:

Use a free VPN service to observe how VPNs work, verify encryption, IP masking, and analyze benefits & limitations.

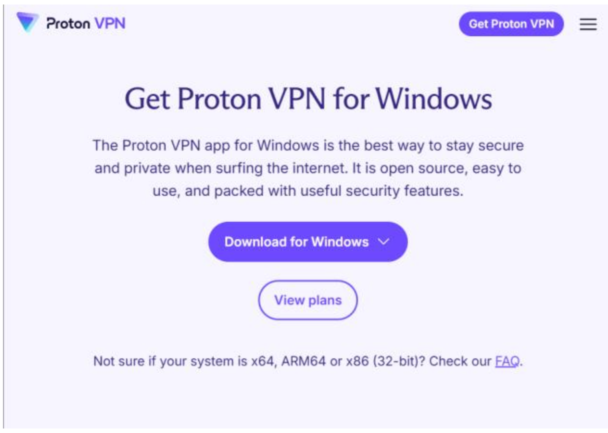
Step-by-Step Guide & Observations

1. Choose a Reputable Free VPN Service

- Selected VPN: ProtonVPN
- Reason: Open-source, based in Switzerland, strong privacy policy

2. Download and Install the VPN Client

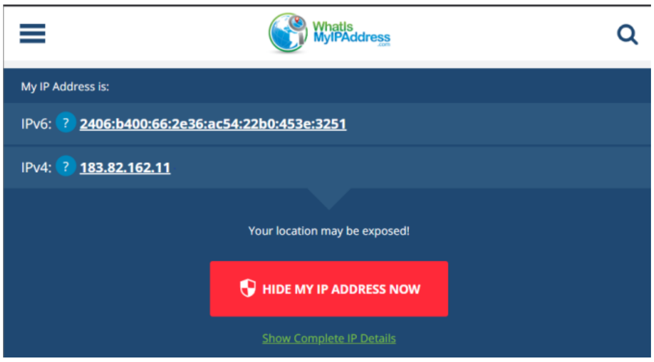
- Downloaded from https://protonvpn.com
- Installed the ProtonVPN client on Windows.



Get Proton VPN for Windows

The Proton VPN app for Windows is the best way to stay secure and private when surfing the internet. It is open source, easy to use, and packed with useful security features.

Not sure if your system is x64, ARM64 or x86 (32-bit)? Check our FAQ.



My IP Address is:

IPv6: ? 2406:b400:66:2e36:ac54:22b0:453e:3251

IPv4: ? 183.82.162.11

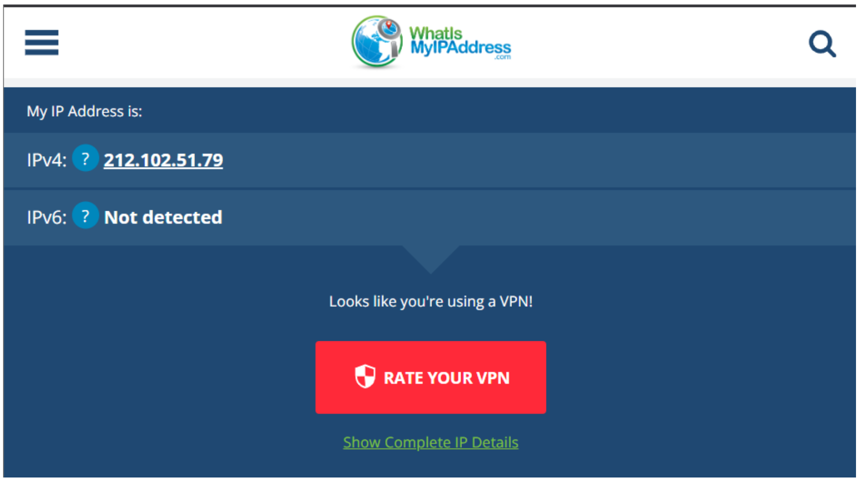
Your location may be exposed!

3. Connect to a VPN Server

- Logged in and connected to the Japan
- Chose the closest location for better speed.

4. Verify IP Address Has Changed

- Before VPN: My IP was 183.82.162.11
- After VPN: IP showed as 212.102.51.79 (Japan)
- Tool Used: https://whatismyipaddress.com



My IP Address is:

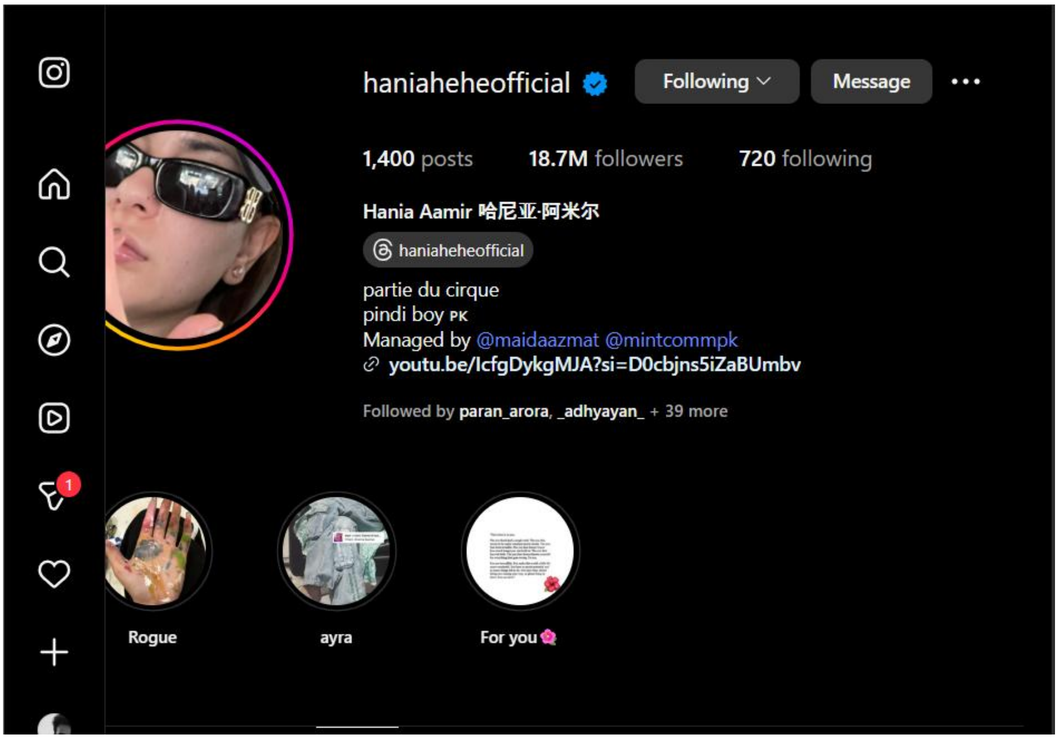
IPv4: ? 212.102.51.79

IPv6: ? Not detected

Looks like you're using a VPN!

5. Browse a Website to Confirm Traffic is Encrypted

- Visited multiple sites (e.g., Reddit, GitHub).
- All data went through an encrypted tunnel (HTTPS + VPN encryption).



haniaheheofficial

1,400 posts 18.7M followers 720 following

Hania Aamir 哈尼亚·阿米尔

haniaheheofficial

partie du cirque
pindi boy PK
Managed by @maidaazmat @mintcommpk
youtu.be/IcfgDykgMJA?si=D0cbjns5iZaBUmbv

Followed by paran_arora, _adhyayan_ + 39 more

Due to restriction by Indian Government to Pakistani actors Instagram accounts , can be visible now after connecting to VPN.

6. Disconnect VPN and Compare Speed/IP

- After disconnecting:
  - IP Address: Reverted to original local IP.
  - Browsing Speed: Slightly faster after disconnecting (VPN adds some latency).
  - Used speedtest.net for comparison.

7. Researched VPN Encryption and Privacy Features

- Encryption Used: AES-256 encryption with 4096-bit RSA key exchange.
- Protocols Supported: OpenVPN and WireGuard (Proton uses both)
- Privacy: No logs, DNS leak protection, kill switch (enabled)