

Task 8: Working with VPNs

Objective:

Understand how to set up and use a VPN to secure online traffic, change IP addresses, and explore VPN privacy features.

Tools:

ProtonVPN Free Tier

Steps Taken:

1. Downloaded and installed the ProtonVPN client from the official website.
2. Launched ProtonVPN and connected to the nearest free server.
3. Verified IP change using whatismyipaddress.com (before and after VPN connection).

My IP Address is:

IPv6: ? **2401:4900:be7d:e0bc:89c2:a58:e7ba:d941**

IPv4: ? **106.192.199.178**

My IP Information:

ISP:	Bharti Airtel Ltd.
City:	Delhi
Region:	Delhi
Country:	India

Your location may be exposed!

HIDE MY IP ADDRESS NOW

[Show Complete IP Details](#)

Location not accurate?
[Update My IP Location](#)

My IP Address is:

IPv4: ? **149.34.244.160**

IPv6: ? **Not detected**

My IP Information:

ISP:	DataCamp Limited
Services:	Public Proxy Server
City:	Amsterdam
Region:	Noord-Holland
Country:	Netherlands (Kingdom of the)

Looks like you're using a Proxy!

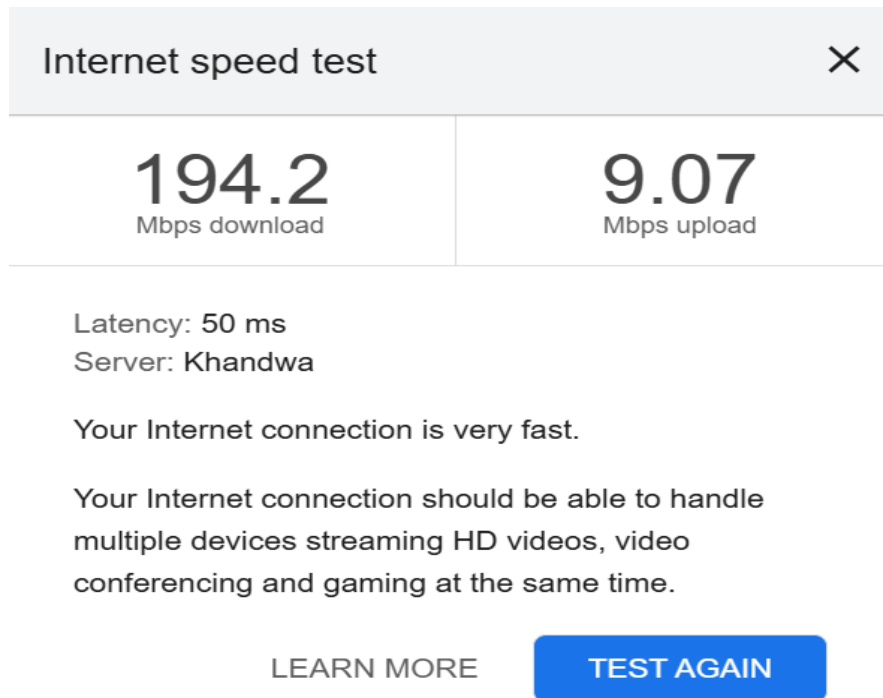
RATE YOUR PROXY

[Show Complete IP Details](#)

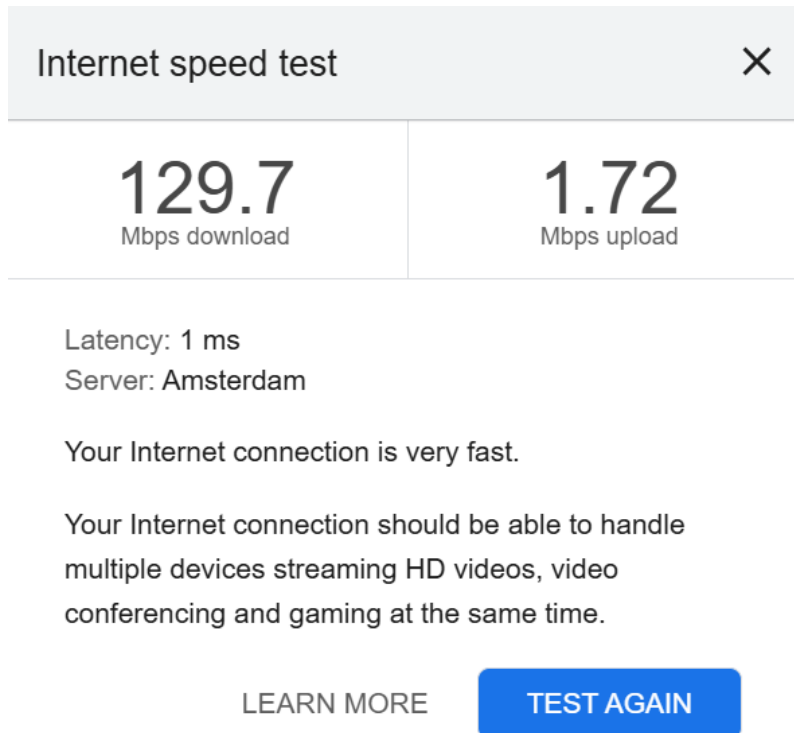
Location not accurate?
[Update My IP Location](#)

- Browsed a website to confirm that traffic was encrypted and routed through VPN.

Before VPN connection:



After VPN connection:

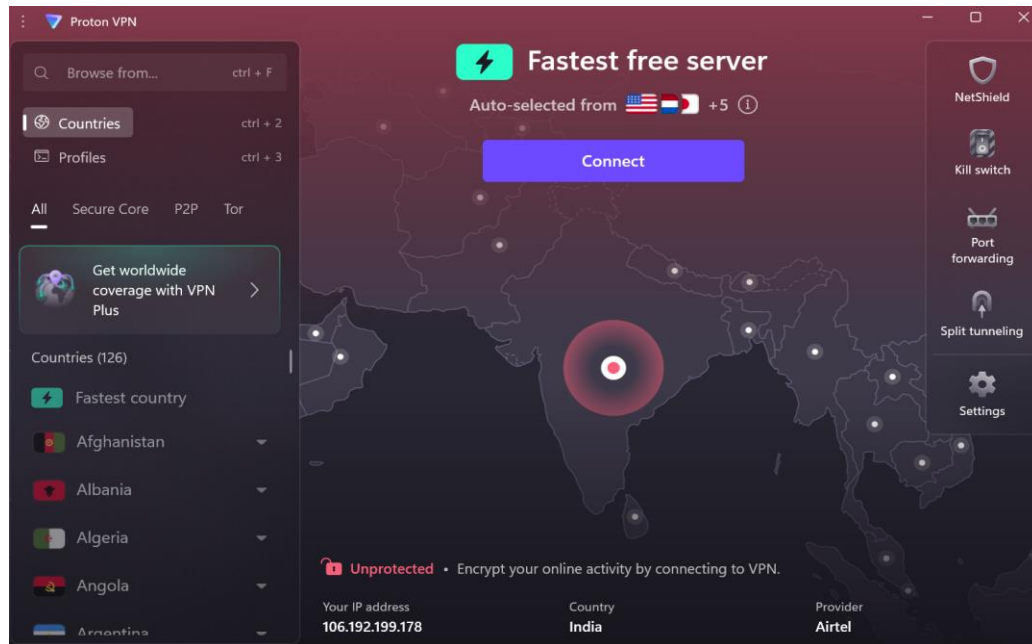


- Disconnected VPN and compared browsing speed and IP visibility.

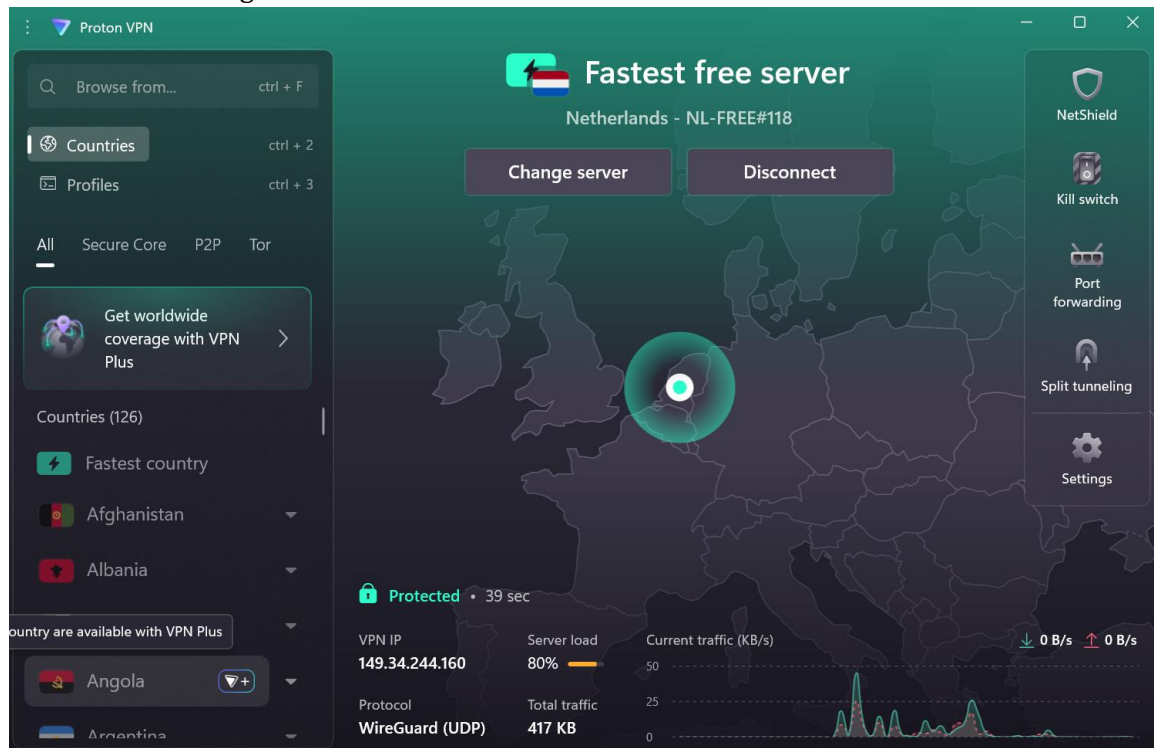
6. Researched ProtonVPN features such as AES-256 encryption, OpenVPN/IKEv2 protocols, and privacy policies.

Screenshot of connection status:

Before VPN: Normal ISP IP visible



After VPN: IP changed to VPN server location.



Summary: VPN Benefits and Limitations

Benefits:

- Encrypts traffic to protect against hackers and ISP tracking.
- Masks IP address to hide location and identity.
- Provides security on public Wi-Fi networks.
- Helps bypass geo-restrictions and censorship.

Limitations:

- Free VPNs may have speed and server restrictions.
- Some block streaming or torrenting services.
- Connection may drop, exposing real IP address.
- Not a full substitute for strong cybersecurity practices.