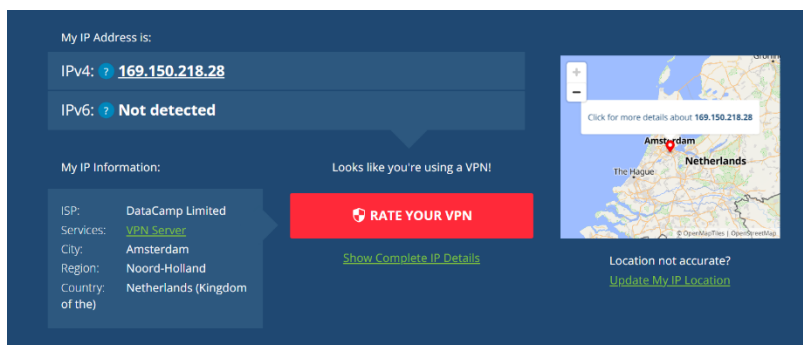


Connected to the proton vpn and it has changed my ip and I confirmed it in whatismyipaddress.com

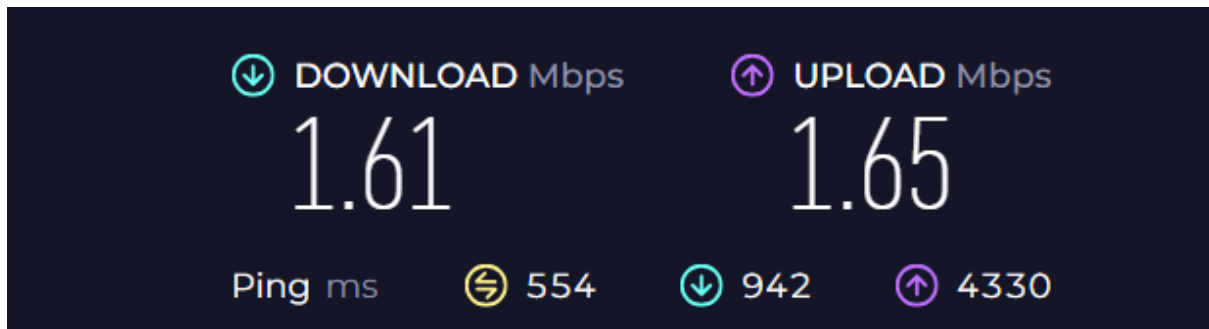


And checked the traffic when connected to the vpn and confirmed that the traffic is encrypted

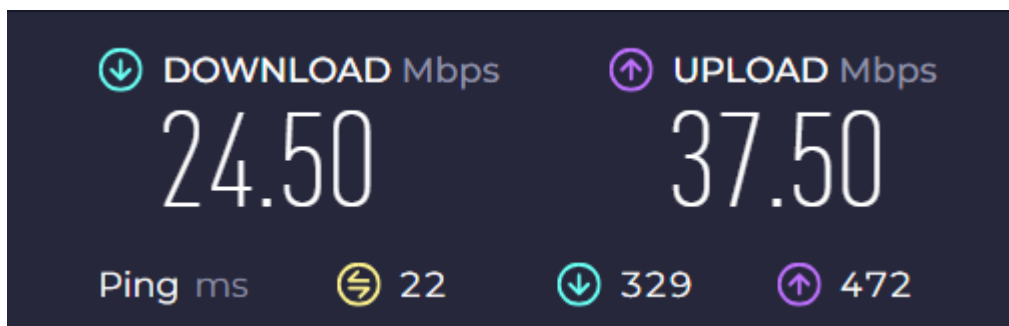
3085	7.240450	169.150.218.26	192.168.5.133	TCP	66	443	→	50061	[ACK]	Seq=309183	Ack=966645	Win=7137	Len=0	SLE=968165	SRE=970875
3086	7.240450	169.150.218.26	192.168.5.133	TCP	66	443	→	50061	[ACK]	Seq=309183	Ack=966645	Win=7137	Len=0	SLE=968165	SRE=970875
3087	7.240450	169.150.218.26	192.168.5.133	TCP	66	443	→	50061	[ACK]	Seq=309183	Ack=966755	Win=7137	Len=0	SLE=968165	SRE=970875
3088	7.240450	169.150.218.26	192.168.5.133	TCP	66	443	→	50061	[ACK]	Seq=309183	Ack=968055	Win=7148	Len=0	SLE=968165	SRE=970875
3089	7.240450	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309183	Ack=970875	Win=7148	Len=0		
3090	7.240450	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3091	7.240818	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3092	7.240844	192.168.5.133	169.150.218.26	TCP	54	50061	→	443	[ACK]	Seq=1034151	Ack=309315	Win=16380	Len=0		
3093	7.241122	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3094	7.241122	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3095	7.241147	192.168.5.133	169.150.218.26	TCP	54	50061	→	443	[ACK]	Seq=1034151	Ack=309447	Win=16379	Len=0		
3096	7.241705	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3097	7.241705	169.150.218.26	192.168.5.133	SSLv2	186					186	Encrypted Data, Encrypted Data				
3098	7.241705	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309645	Ack=972285	Win=7160	Len=0		
3099	7.241705	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309645	Ack=973695	Win=7171	Len=0		
3100	7.241705	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309645	Ack=975215	Win=7171	Len=0		
3101	7.241705	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3102	7.241737	192.168.5.133	169.150.218.26	TCP	54	50061	→	443	[ACK]	Seq=1034151	Ack=309711	Win=16378	Len=0		
3103	7.242317	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3104	7.242347	192.168.5.133	169.150.218.26	TCP	54	50061	→	443	[ACK]	Seq=1034151	Ack=309777	Win=16383	Len=0		
3105	7.243369	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=976625	Win=7183	Len=0		
3106	7.243369	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=978035	Win=7194	Len=0		
3107	7.243551	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=982265	Win=7228	Len=0		
3108	7.243551	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=983675	Win=7240	Len=0		
3109	7.244225	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=985085	Win=7251	Len=0		
3110	7.244225	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=986495	Win=7262	Len=0		
3111	7.244225	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=987905	Win=7274	Len=0		
3112	7.244225	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3113	7.244444	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=990725	Win=7297	Len=0		
3114	7.244689	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=992135	Win=7308	Len=0		
3115	7.244689	169.150.218.26	192.168.5.133	TCP	54	443	→	50061	[ACK]	Seq=309777	Ack=993545	Win=7319	Len=0		
3116	7.244689	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3117	7.244689	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3118	7.244752	192.168.5.133	169.150.218.26	TCP	54	50061	→	443	[ACK]	Seq=1034151	Ack=309909	Win=16383	Len=0		
3119	7.245536	169.150.218.26	192.168.5.133	SSLv2	186					186	Encrypted Data, Encrypted Data				
3120	7.245536	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				
3121	7.245536	169.150.218.26	192.168.5.133	SSLv2	120					120	Encrypted Data				

Speed changes when connected to vpn and feels faster without vpn

With vpn:



Without vpn:



Ip changed when disconnected vpn

```
Wireless LAN adapter Wi-Fi:  
Connection-specific DNS Suffix . :  
IPv4 Address. . . . . : 192.168.5.133  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . : 192.168.5.164
```

VPN Encryption:

- VPNs use strong encryption algorithms like **AES-256** to secure your internet traffic.
- VPN protocols such as **OpenVPN**, **WireGuard**, and **IKEv2/IPSec** create an **encrypted tunnel** between your device and the VPN server.
- This tunnel ensures that even if someone intercepts the data, they **cannot read or tamper with it**.

Privacy Features:

- **IP Address Masking:** Hides your real IP address and replaces it with the VPN server's IP.
- **No-logs Policy:** Trusted VPNs don't store browsing data or connection logs.
- **Kill Switch:** Disconnects internet access if the VPN drops, preventing data leaks.
- **DNS Leak Protection:** Ensures DNS queries go through the encrypted tunnel.
- **Split Tunneling:** Lets you choose which apps use the VPN and which don't.

Summary: VPN Benefits and Limitations

Benefits:

- **Encrypts internet traffic**, protecting data from hackers and snooping.
- **Hides your IP address**, improving anonymity.
- **Accesses geo-blocked content**, such as streaming services or restricted websites.
- **Protects on public Wi-Fi**, such as in cafes or airports.
- **Bypasses censorship**, useful in restricted regions.

Limitations:

- **Slower speeds** due to encryption overhead and server distance.
- **Not 100% anonymous**—VPNs can still log or be compelled to share data.
- **May be blocked** by some websites or streaming services.
- **Free VPNs** often come with poor security, ads, or sell user data.
- **Doesn't protect from malware** unless bundled with security features.