

Knowledge Base

Free Internet for Iran with Firefox

Creating a SOCKS proxy using Firefox, Termius on Windows



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Access to the Internet is increasingly restricted around the world, either by filtering on your computer, Internet service providers blocking access to some websites, government firewalls determining what you can read (censorship) or websites themselves blocking whole countries (geoblocking).

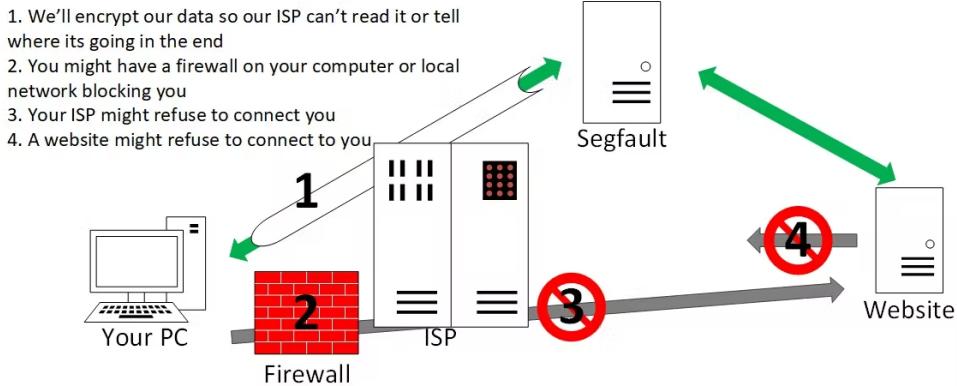
Using segfault and some free and readily available software you can bypass all these restrictions and more to open up your access to the internet.

By the end of this article you will have the ability to access the internet unfiltered, encrypt your internet traffic so it is harder to snoop on and make it appear you are accessing the internet from somewhere else (europe).

How this technique works?

You can skip straight to Getting Started and the rest of the article to see how to setup the proxy. But sometimes it helps to know what we're trying to do and why.

Circumventing Censorship



Our goal is to shield your internet traffic so that others can't see what data you are sending or receiving or which websites you're using. We do this by encrypting your connect and making it look like you're only talking to a single server (provided by Segfault).

Some of the more common ways your internet is censored is that connections are blocked by a firewall, either on your PC or your local network. Your ISP can see who you want to connect to and what type of information you're exchanging with a website and they can block that connection. Finally, websites themselves might refuse to connect to you because of where you live.

Limitations of this Method

1. Your ISP will know you're connect to a Segfault server. This might be in of itself suspicious.
2. You need to install Firefox which you might not be able to do on your system, and you need to be able to change its Network settings.
3. We wont cover connecting to the same Segfault server each time (limitation of Termius' free-tier and for simplification).

Strengths of this Method

1. It's free!
2. It uses software that appears mostly innocuous and readily available.

3. The encryption is very strong.
4. You can use this process with other server providers.

Getting Started

Prerequisites

A Windows PC

Firefox installed

Access to the Windows Store (you'll learn how to use it in this guide)

[Optional] A separate local Windows account dedicated to accessing the unfiltered internet, this is not covered in this guide you can read about this [here](#).

Outline of Process

1. Install Termius from the Windows Store
2. Add a 'host' which points to a SSH server
3. Add a 'dynamic' tunnel which uses that host.
4. Set the proxy settings in Firefox to point to that tunnel
5. Turn on the tunnel
6. Access the internet in Firefox ensuring its using the proxy

Steps

I'd recommend making use of a fresh account/profile on Windows. This will make the process cleaner.

Before turning on the proxy it can be helpful to check your IP, the easiest way to do this is to google "What's my ip".

A screenshot of a web browser window showing search results for "what's my ip". The browser is Google Chrome. The search bar at the top has "what's my ip" typed into it. Below the search bar, there are several search results. The first result is from "What Is My IP Address - See Your Public Address - IPv4 & IPv6" and shows the IP address "109." followed by some placeholder icons. This IP address is highlighted with a red rectangular box. Below the IP address, it says "Your public IP address". There is also a link "Learn more about IP addresses". The second result is from "What Is My IP? Shows Your Public IP Address - IPv4 - IPv6" and provides a brief description of what an IP address is. The third result is from "What Is My IP Address? (IPv4 & IPv6) - Show My IP" and shows the IP address "66.249.65.143" along with AS number and city information.

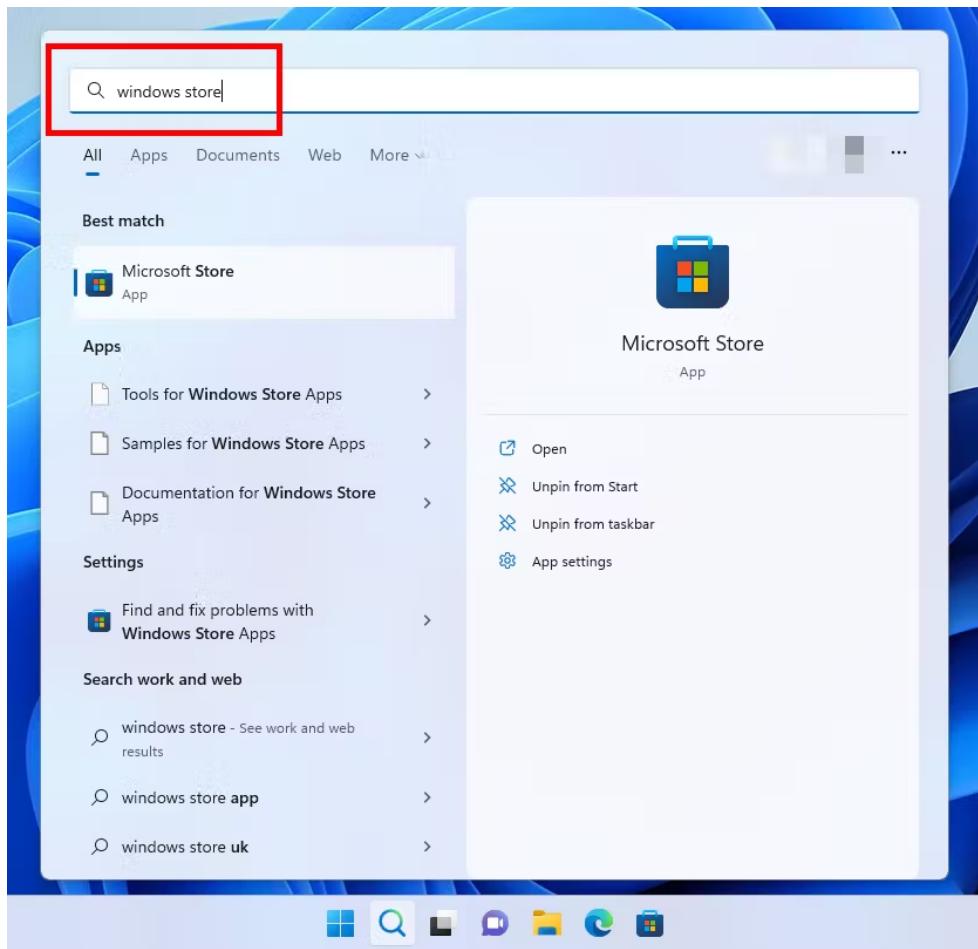
By the end of this process the IP shown (highlighted in red here) will be different.

Step 1

Open the Windows Store, the appearance of the icon can vary two are shown below.

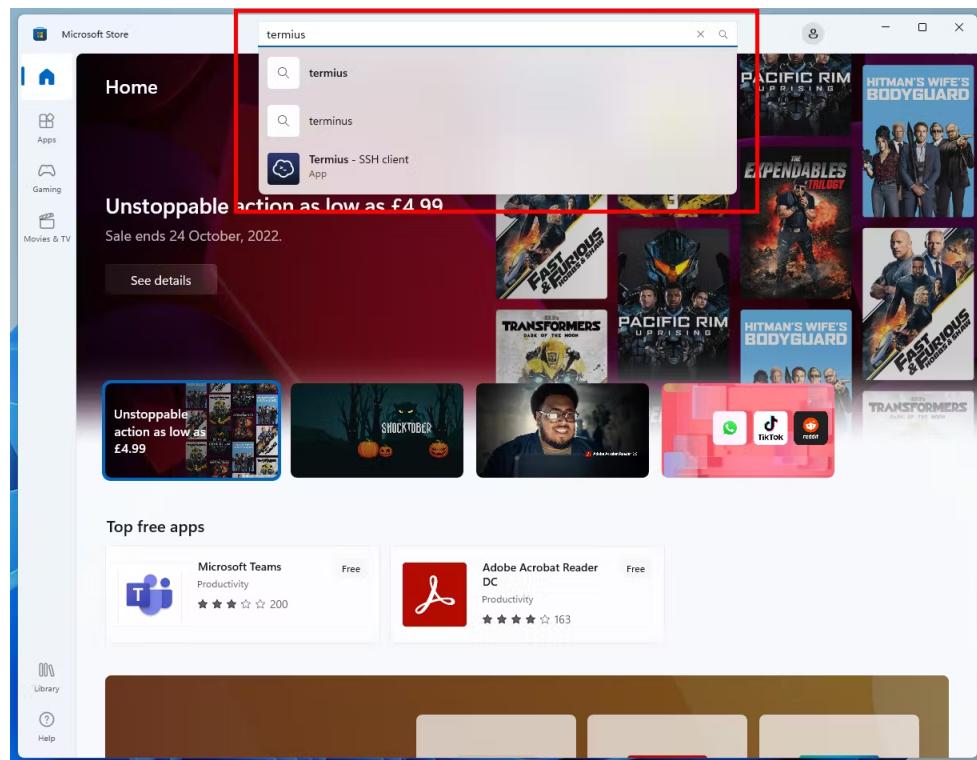


If you don't see it immediately the easiest thing to do is open the start bar and search for "Windows Store".



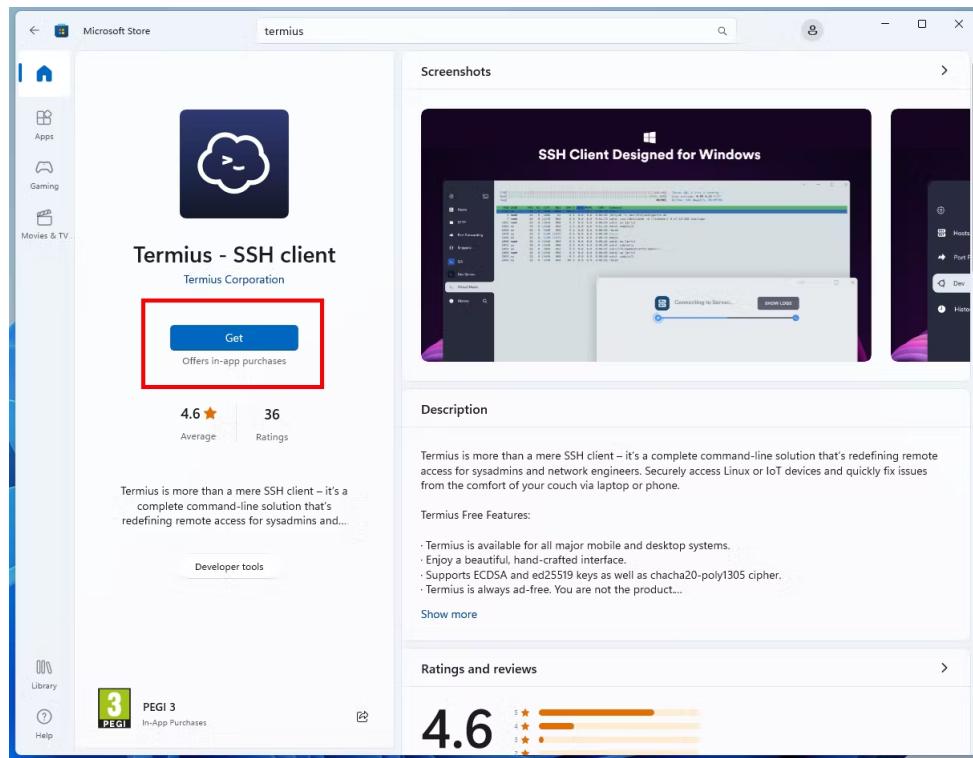
Step 2

Now search for "Termius" in the Windows Store.



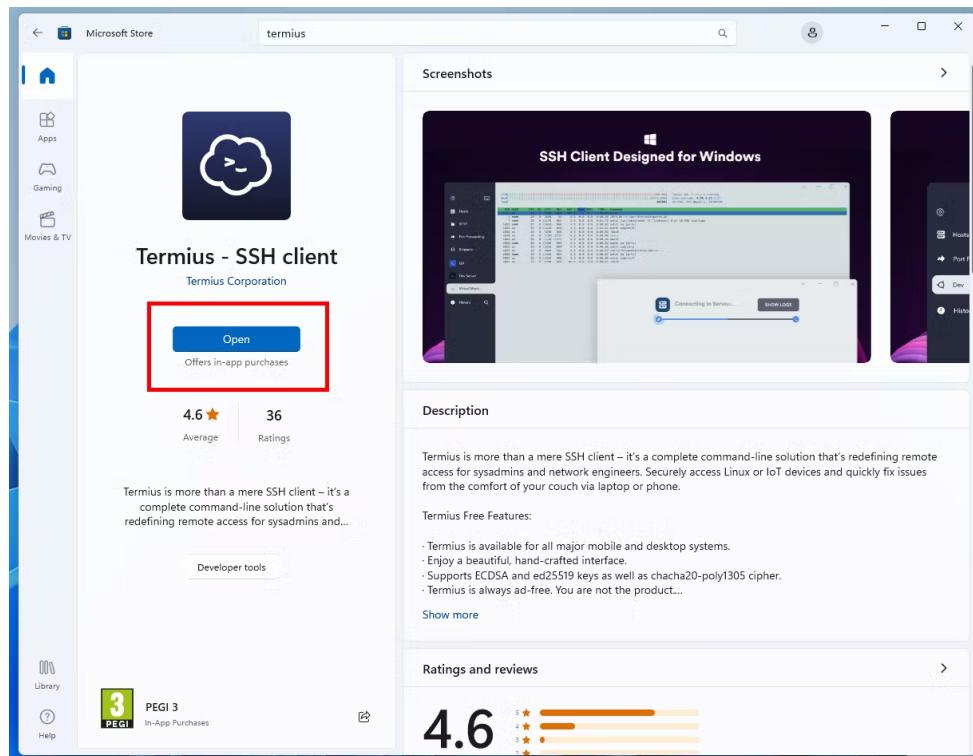
Step 3

Next we'll install Termius by clicking "Get"



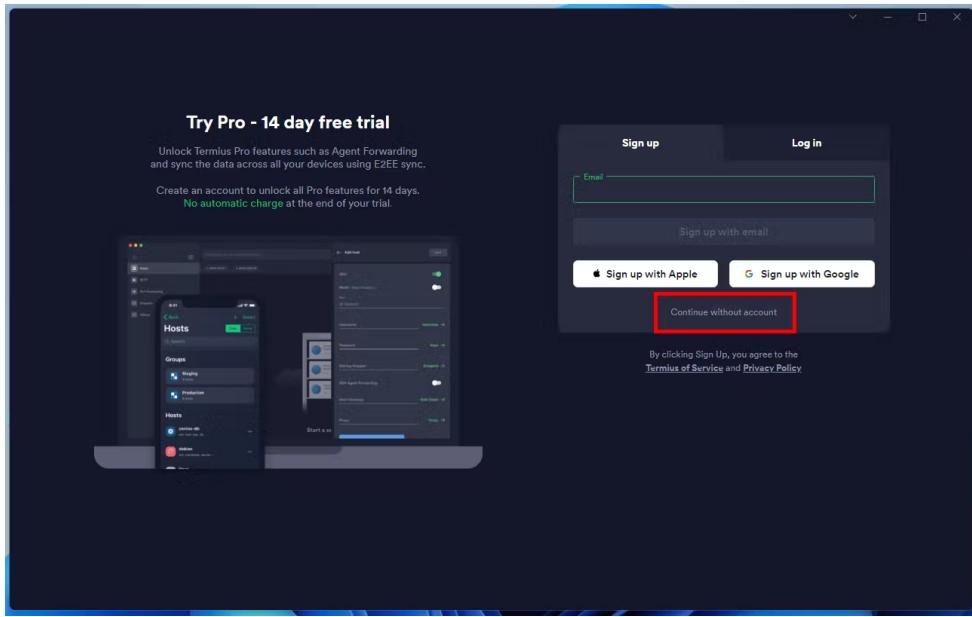
Step 4

Once it has downloaded and installed, open Termius by clicking "Open" which will have replaced "Get"



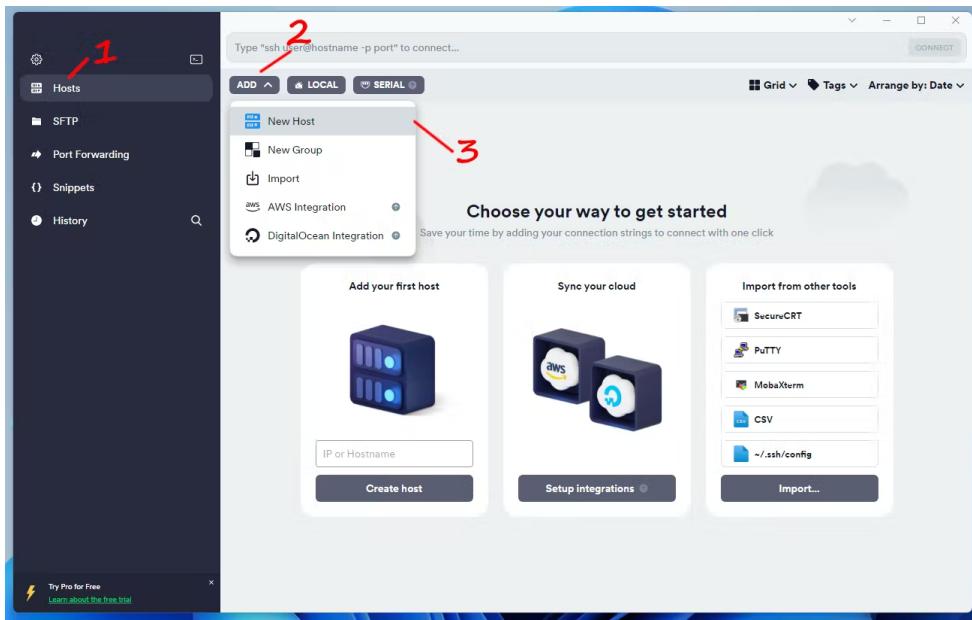
Step 5

We wont need an account for this so simply click "Continue without account".



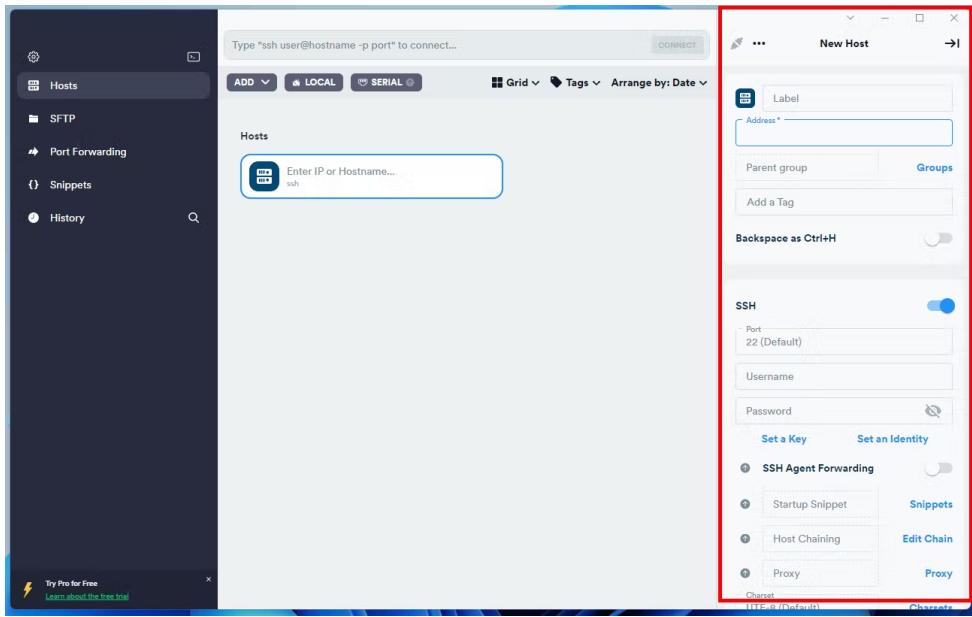
Step 6

Now we will add a new Host. First click the "Hosts" tab, then "ADD ^" and finally "New Host"



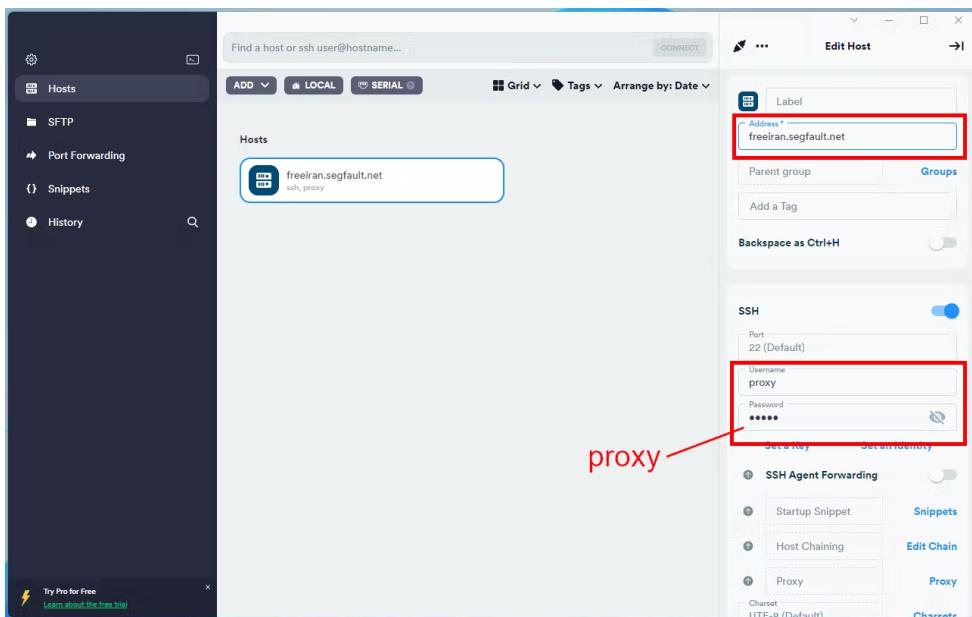
Step 7

On the right of the window you will now be able to enter the details of the server.



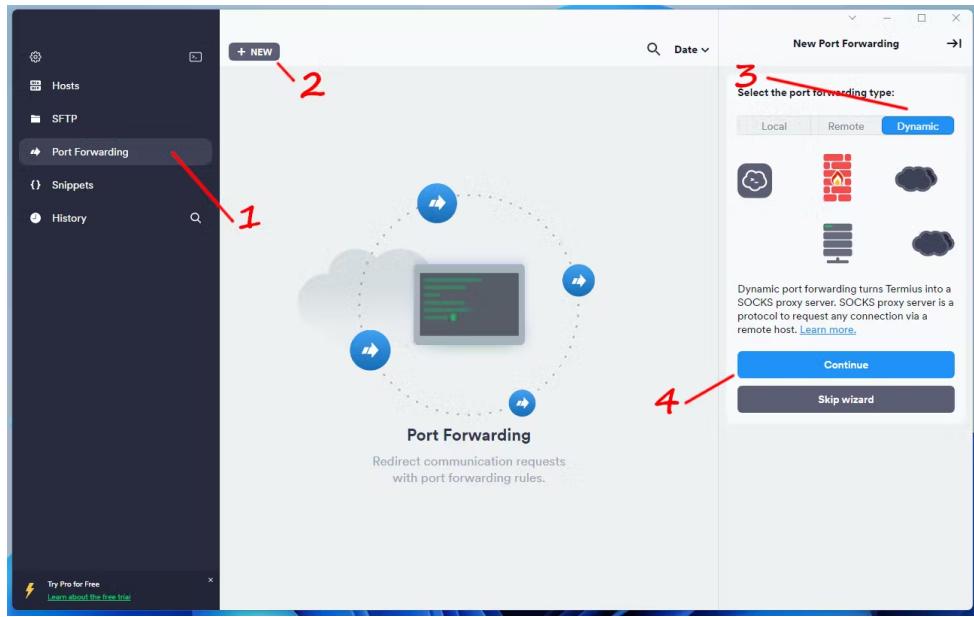
Step 8

The Address is "freeiran.segfault.net", Username "proxy" and Password is "proxy". The other settings can be left blank.



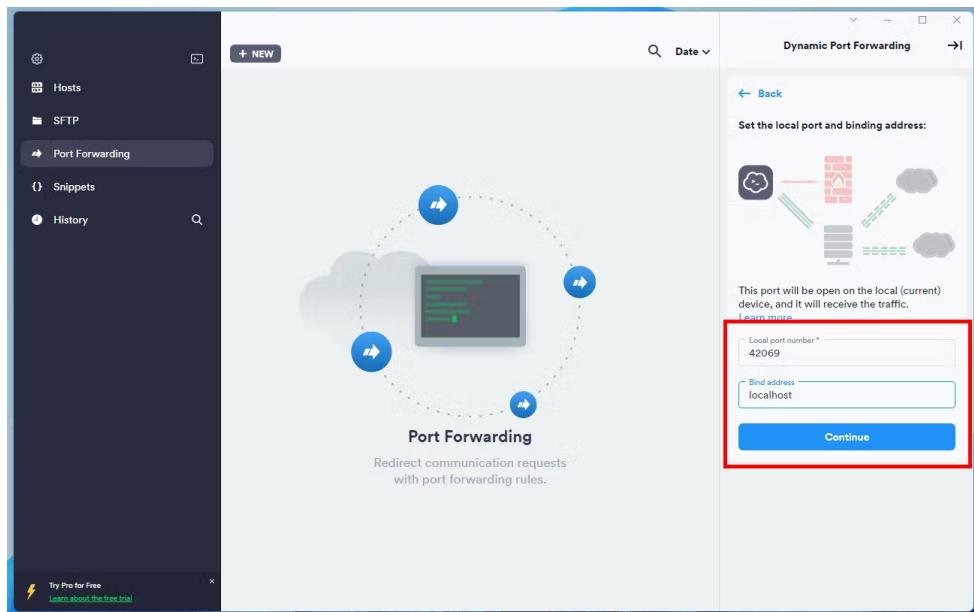
Step 9

We will now add a Dynamic rule in the Port Forwarding tab.



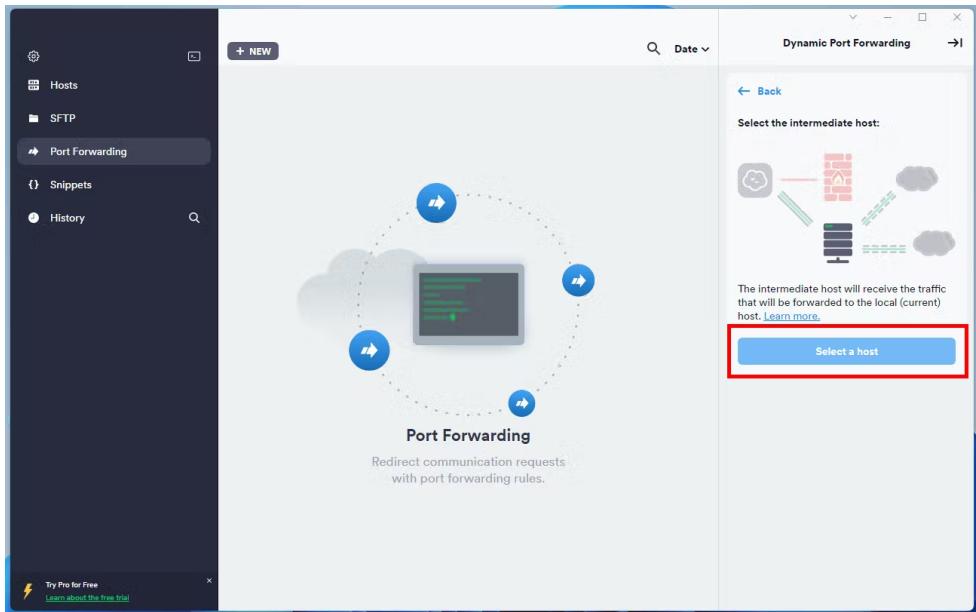
Step 10

We'll now tell Termius what kind of Dynamic rule we need, you can pick any port but must remember it here the port is "42069" and set the Binding Address to "localhost". Once you've done that click "Continue".



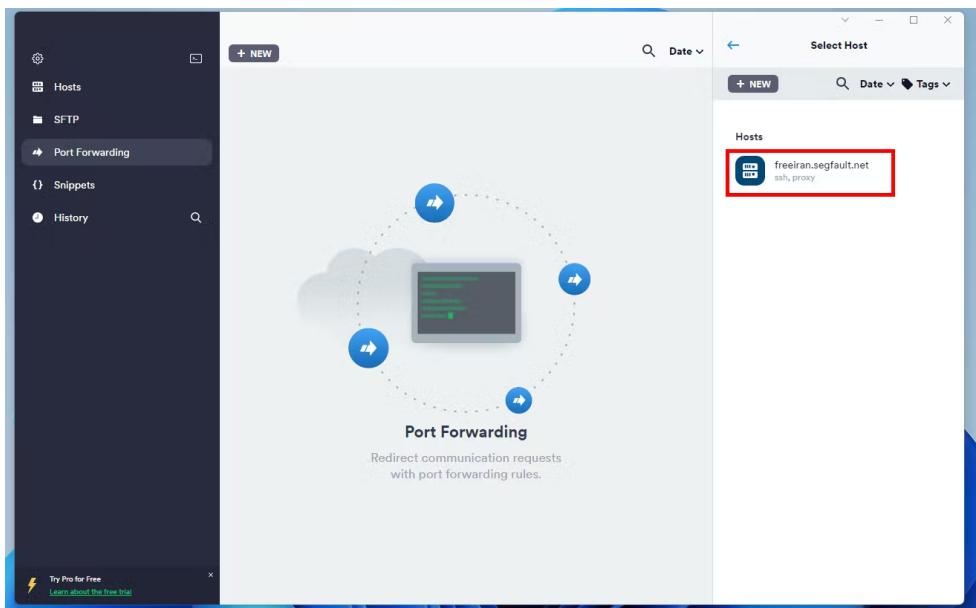
Step 11

Termius will ask you to pick a host for this Dynamic rule, click select host.



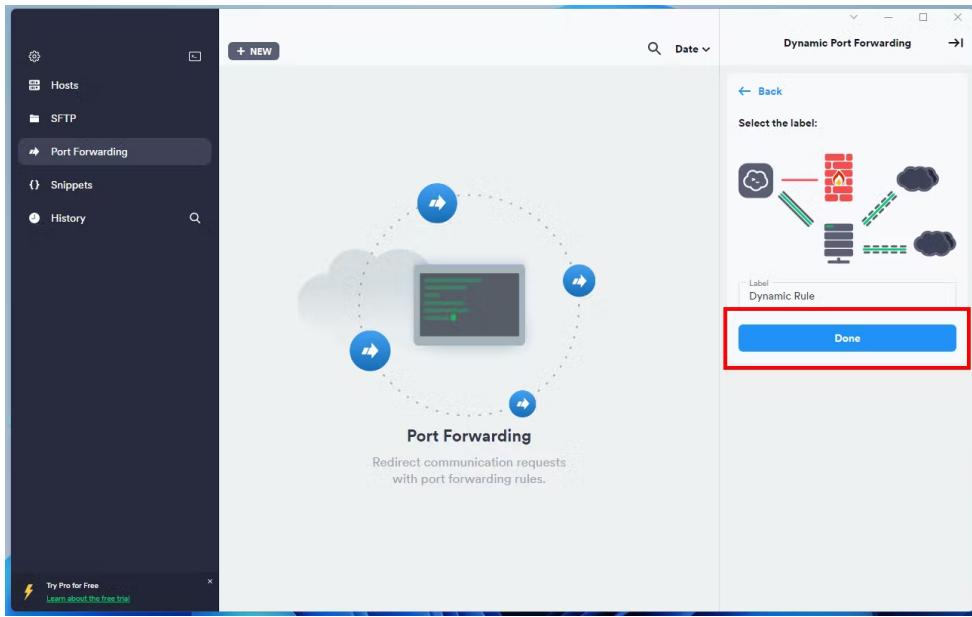
Step 12

You probably only have one setup so pick it here it's called
"freeiran.segfault.net"



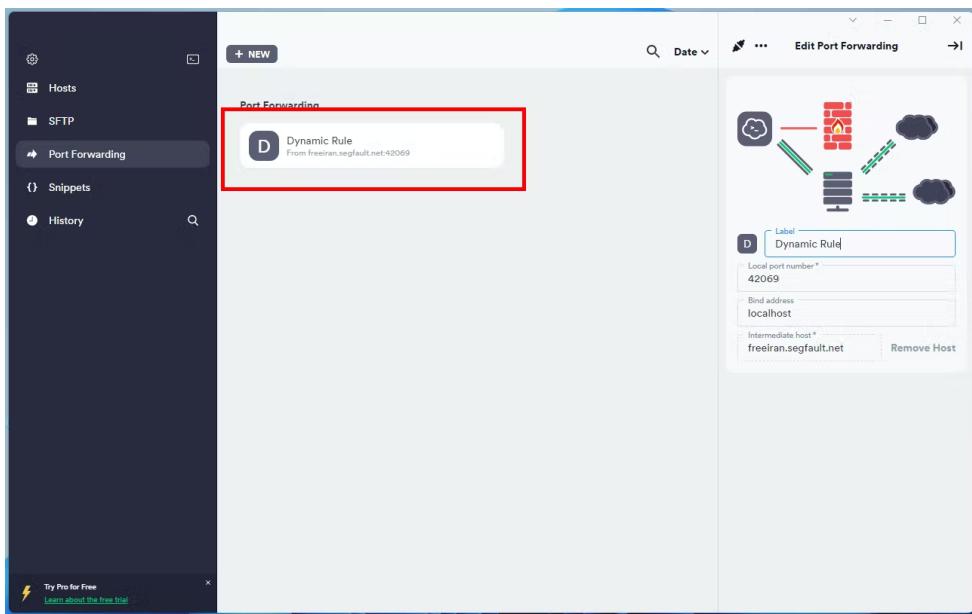
Step 13

It will ask you to name the new rule, you can leave this as the default and click "Done"

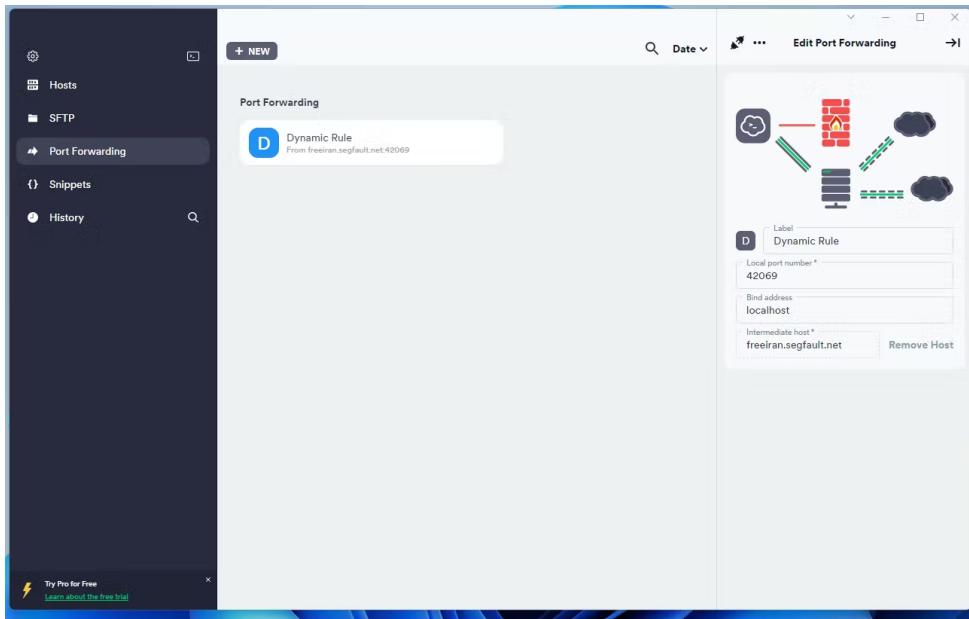


Step 14

Now we can activate the rule and start the proxy.

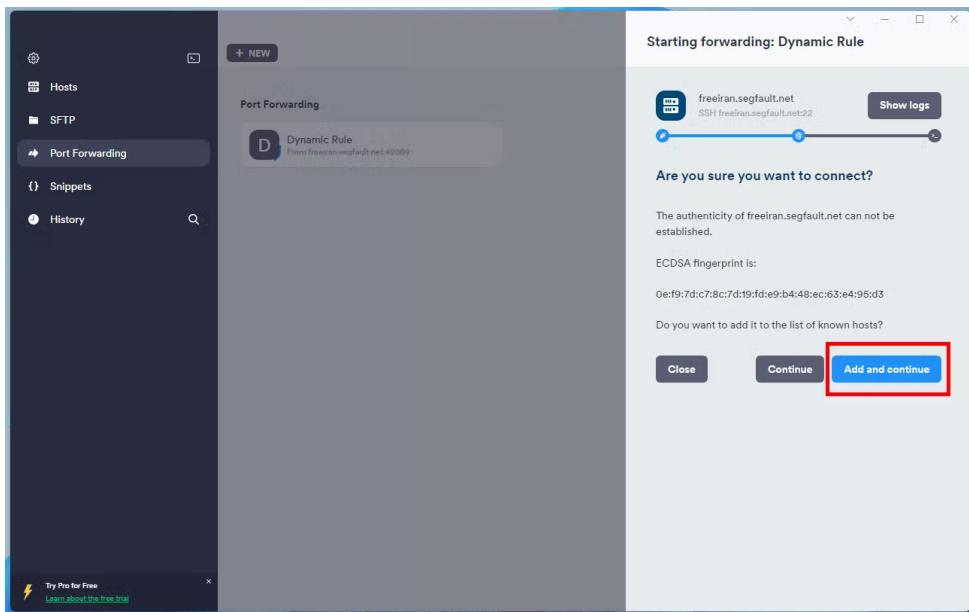


Once active it will turn blue.



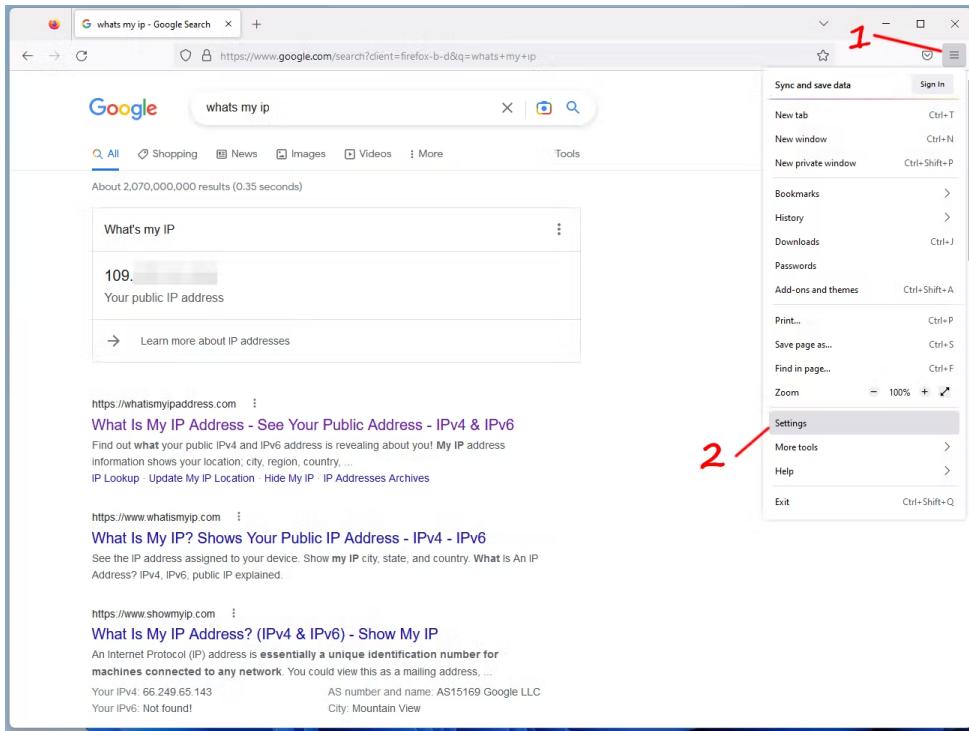
Step 14b

You might be asked to confirm the "fingerprint" this will happen at least the first time. If you are click "Accept and continue".



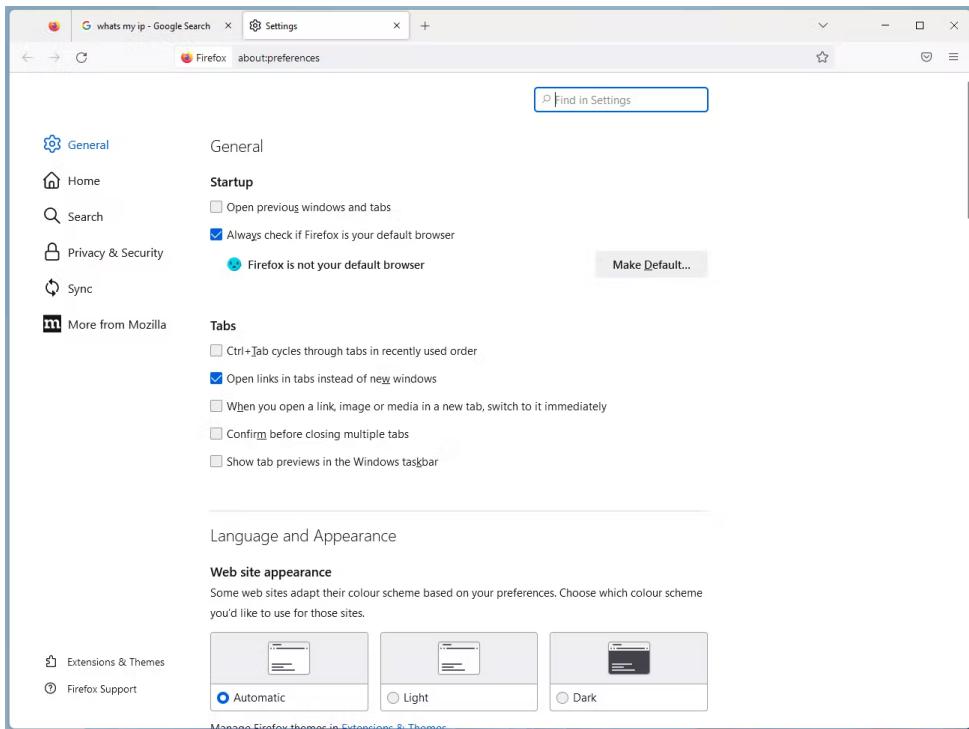
Step 15

Now we need to tell Firefox to use that rule. Open Firefox's settings page

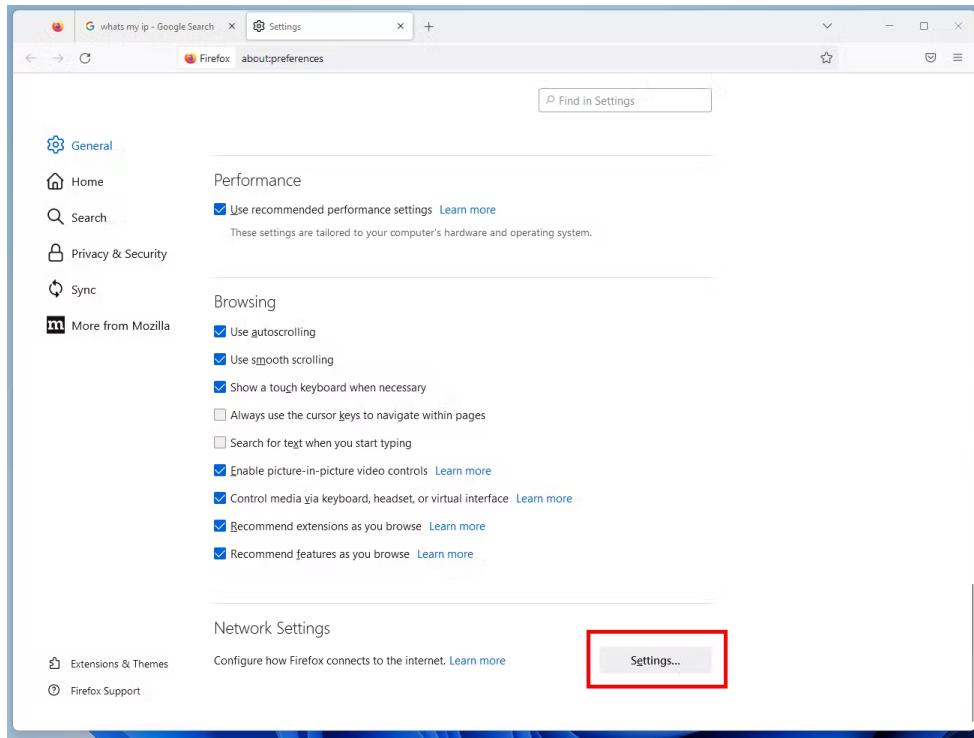


Step 16

We want the Network settings section right at the bottom so scroll down.

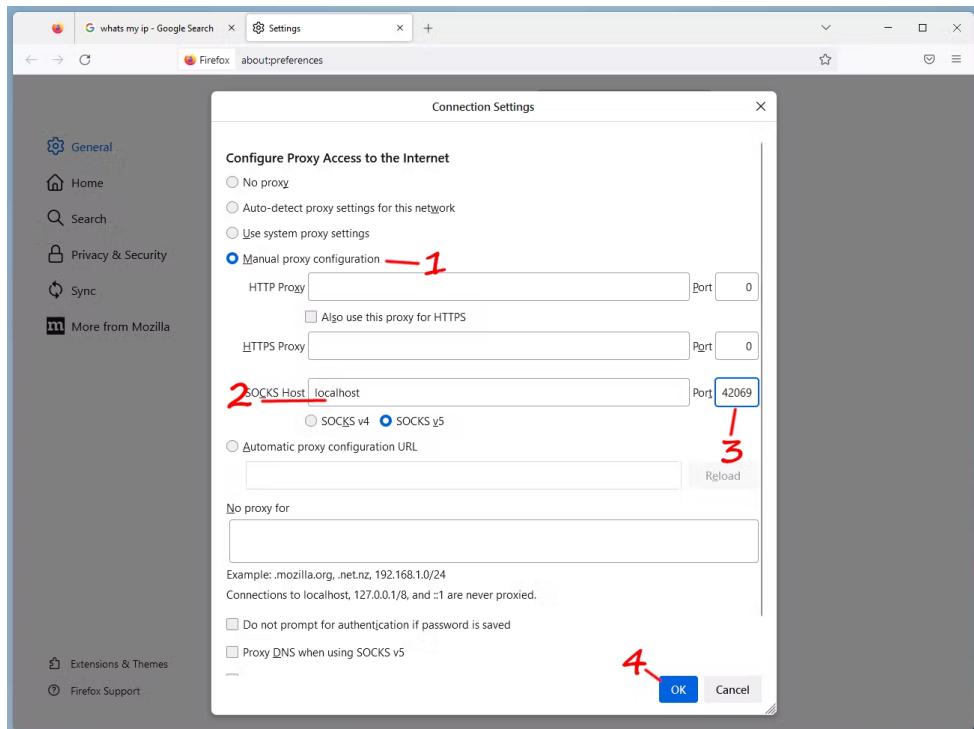


Click Settings



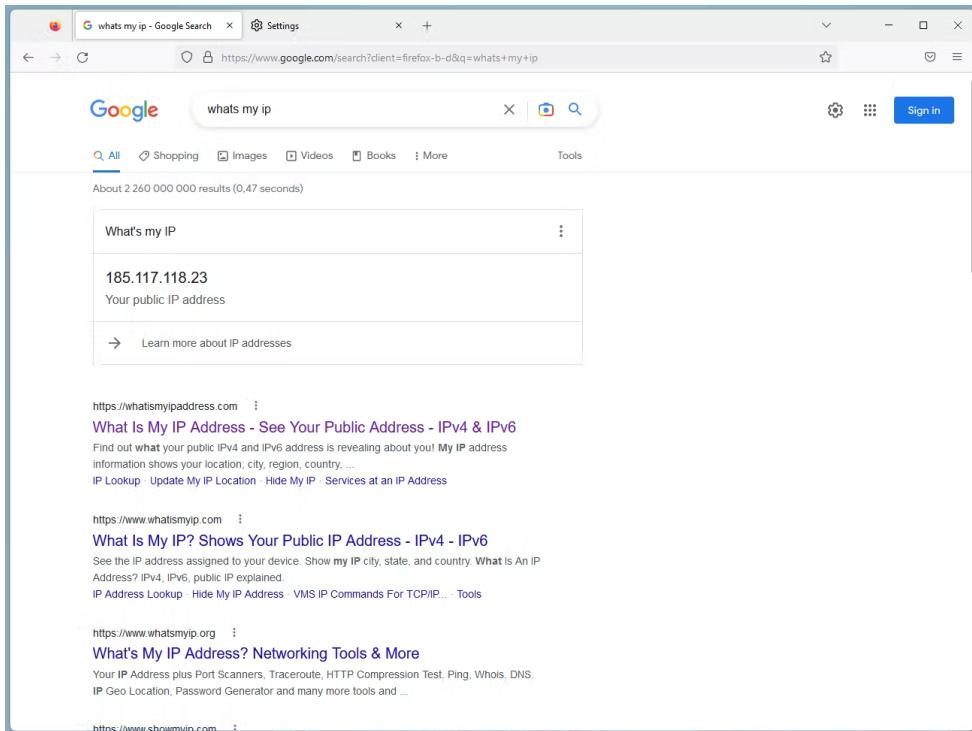
Step 17

Finally we can input the settings for the proxy into Firefox. Click "Manual proxy configuration", set the Hostname to "localhost" and port to what you used it earlier "42069".



Step 18

Finally check your IP has changed.



Wrapping it up

Great so you've set it all up, the hard work is done and next time you need the proxy (say after a reboot). You can open Termius, go to the Port Forwarding tab and reactivate the rule (Step 14). Then you can skip to opening Firefox.

Firefox will retain your proxy settings between re-starts, this means if you don't activate the Dynamic tunnel in Termius you wont be able to access the internet. However, you should always check to make sure your IP isn't the same as it is in your filtered browser.

You can stop using the proxy by going back into the Network settings in Firefox and set it to "Use system proxy settings".

It would be ideal that at least Firefox is only used to access the internet via the proxy, if not the whole windows account. Please remember unless you set the proxy in other programmes they will not use the proxy (for instance if you use another browser).

Enabling and disabling the proxy puts you at risk of forgetting to enable it.

Other web browsers

This article assumes that you want to use Firefox but if you are willing to use another browser, we've covered some others:

[Microsoft Edge](#)

[Google Chrome](#)

A Final Reminder

Remember techniques like this are only part of the process of accessing the internet unrestricted and staying safe and hidden online. You can read some tips from the [Electronic Frontier Foundation](#), [Tor](#) and many , others.

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