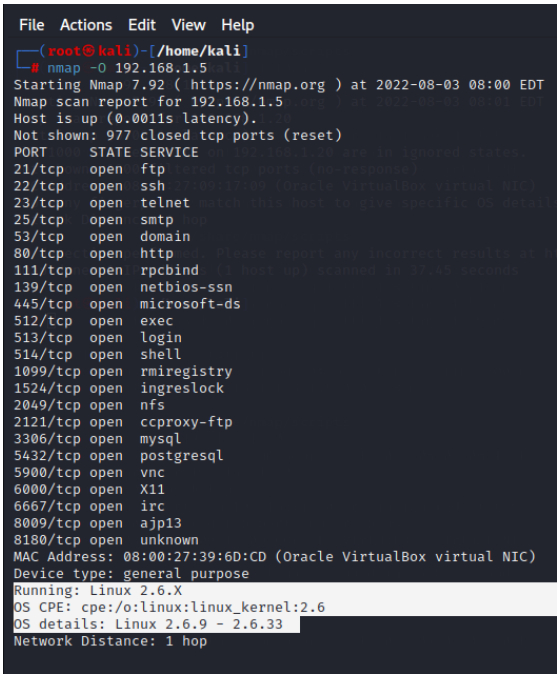
In questo report faccio un report riguardo i diversi tipi di scansione di Nmap

1-Metasploitable

i- OS fingerprint

Usando **nmap -O** ip: mi ha mostrato le porte aperte con i nomi di servizi sul target, ci mostra anche il sistema operativo del target nel nostro caso e **Linux_kernel: 2.6**



ii- SYN vs TCP scan:

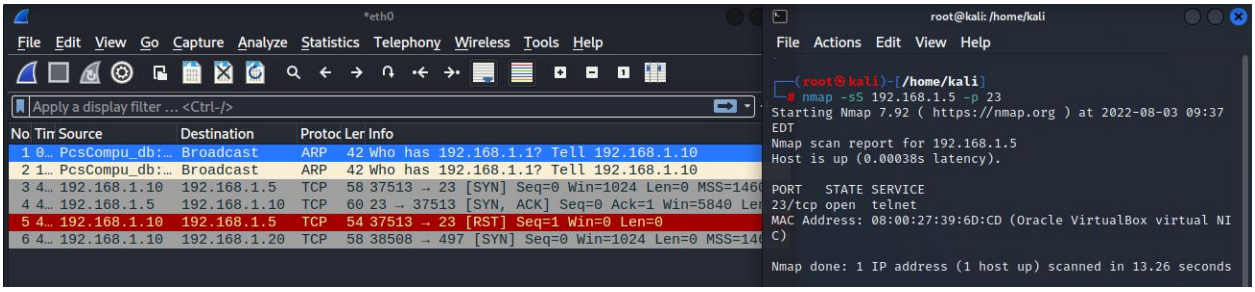
eseguendo **nmap -sS per** SYN scan e **nmap -sT** per TCP scan me ha risolto

```
┌──(root㉿kali)-[/home/kali]
└─# nmap -sS 192.168.1.5
Starting Nmap 7.92 ( https://nmap.org ) at 2022-08-03 08:27 EDT
Nmap scan report for 192.168.1.5
Host is up (0.0017s latency).
Not shown: 977 closed tcp ports (reset)
PORT     STATE SERVICE
21/tcp   open  ftp
22/tcp   open  ssh
23/tcp   open  telnet
25/tcp   open  smtp
53/tcp   open  domain
80/tcp   open  http
111/tcp  open  rpcbind
139/tcp  open  netbios-ssn
445/tcp  open  microsoft-ds
512/tcp  open  exec
513/tcp  open  login
514/tcp  open  shell
1099/tcp open  rmiregistry
1524/tcp open  ingreslock
2049/tcp open  nfs
2121/tcp open  ccproxy-ftp
3306/tcp open  mysql
5432/tcp open  postgresql
5900/tcp open  vnc
6000/tcp open  X11
6667/tcp open  irc
8009/tcp open  ajp13
8180/tcp open  unknown
MAC Address: 08:00:27:39:6D:CD (Oracle VirtualBox virtual NIC)

Nmap done: 1 IP address (1 host up) scanned in 13.51 seconds
```

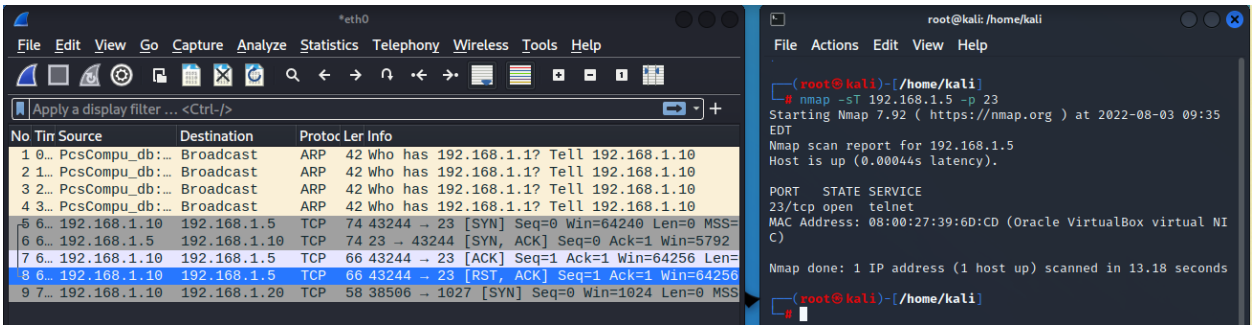
```
┌──(root㉿kali)-[/home/kali]
└─# nmap -sT 192.168.1.5
Starting Nmap 7.92 ( https://nmap.org ) at 2022-08-03 08:26 EDT
Nmap scan report for 192.168.1.5
Host is up (0.0026s latency).
Not shown: 977 closed tcp ports (conn-refused)
PORT     STATE SERVICE
21/tcp   open  ftp
22/tcp   open  ssh
23/tcp   open  telnet
25/tcp   open  smtp
53/tcp   open  domain
80/tcp   open  http
111/tcp  open  rpcbind
139/tcp  open  netbios-ssn
445/tcp  open  microsoft-ds
512/tcp  open  exec
513/tcp  open  login
514/tcp  open  shell
1099/tcp open  rmiregistry
1524/tcp open  ingreslock
2049/tcp open  nfs
2121/tcp open  ccproxy-ftp
3306/tcp open  mysql
5432/tcp open  postgresql
5900/tcp open  vnc
6000/tcp open  X11
6667/tcp open  irc
8009/tcp open  ajp13
8180/tcp open  unknown
MAC Address: 08:00:27:39:6D:CD (Oracle VirtualBox virtual NIC)

Nmap done: 1 IP address (1 host up) scanned in 13.35 seconds
```

Per poter vedere la differenza ho catturato i pacchetti da wireshark vedendo che SYN scan interrompe la connessione e non termina il **3WH**, mentre TCP scan lo fa
Come mostrato in figura

a- SYN scan: la connessione e terminata prima di completare il **3WH**



b- TCP Scan



iii- Version: usando **nmap -sV ip,** mi mostra tutte le porte aperte con versioni dei servizi

```
┌──(root㉿kali)-[/home/kali]
└─# nmap -sV 192.168.1.5
Starting Nmap 7.92 ( https://nmap.org ) at 2022-08-03 10:14 EDT
Nmap scan report for 192.168.1.5
Host is up (0.00049s latency).
Not shown: 977 closed tcp ports (reset)
PORT     STATE SERVICE     VERSION
21/tcp   open  ftp         vsftpd 2.3.4
22/tcp   open  ssh         OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
23/tcp   open  telnet      Linux telnetd
25/tcp   open  smtp        Postfix smtpd
53/tcp   open  domain      ISC BIND 9.4.2
80/tcp   open  http        Apache httpd 2.2.8 ((Ubuntu) DAV/2)
111/tcp  open  rpcbind     2 (RPC #100000)
139/tcp  open  netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
445/tcp  open  netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
512/tcp  open  exec        netkit-rsh rexecd
513/tcp  open  login?
514/tcp  open  shell       Netkit rshd
1099/tcp open  java-rmi    GNU Classpath grmiregistry
1524/tcp open  bindshell   Metasploitable root shell
2049/tcp open  nfs         2-4 (RPC #100003)
2121/tcp open  ftp         ProFTPD 1.3.1
3306/tcp open  mysql       MySQL 5.0.51a-3ubuntu5
5432/tcp open  postgresql  PostgreSQL DB 8.3.0 - 8.3.7
5900/tcp open  vnc         VNC (protocol 3.3)
6000/tcp open  X11         (access denied)
6667/tcp open  irc         UnrealIRCd
8009/tcp open  ajp13       Apache Jserv (Protocol v1.3)
8180/tcp open  http        Apache Tomcat/Coyote JSP engine 1.1
MAC Address: 08:00:27:39:6D:CD (Oracle VirtualBox virtual NIC)
Service Info: Hosts:  metasploitable.localdomain, irc.Metasploitable.LAN; OSs: Unix, Linu
x; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/subm
```

2- Win7

```
File  Actions  Edit  View  Help

┌──(root㉿kali)-[/home/kali]
└─# nmap -O 192.168.1.20
Starting Nmap 7.92 ( https://nmap.org ) at 2022-08-03 08:01 EDT
Nmap scan report for 192.168.1.20
Host is up (0.0011s latency).
All 1000 scanned ports on 192.168.1.20 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
MAC Address: 08:00:27:09:17:09 (Oracle VirtualBox virtual NIC)
Too many fingerprints match this host to give specific OS details
Network Distance: 1 hop

OS detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 37.45 seconds
```