```
MAC Address: 08:00:27:0E:BC:5E (Oracle VirtualBox virtual NIC)
Device type: general purpose
Running: Linux 2.6.X
OS CPE: cpe:/o:linux:linux_kernel:2.6
OS details: Linux 2.6.9 - 2.6.33
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 16.33 seconds
```

```
MAC Address: 08:00:27:17:85:3B (Oracle VirtualBox virtual NIC)

Device type: general purpose

Running: Microsoft Windows 7|2008|8.1

OS CPE: cpe://o:microsoft:windows_7::- cpe:/o:microsoft:windows_7::spl cpe:/o:microsoft:windows_server_2008::spl cpe:/o:microsoft:windows_server_2008:r2 cpe:/o:microsoft:windows_8.1

OS details: Microsoft Windows 7 SP0 - SP1, Windows Server 2008 SP1, Windows Server 2008 R2, Windows 8, or Windows 8.1 Update 1

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 17.15 seconds
```

Con il comando nmap –O ho capito il sistema operativo tramite l ip. La prima macchina, come si puo vedere dalle caratteristiche trovate, e meta, mentre la seconda e windows.

```
-(kali®kali)-[/usr/share/nmap/scripts]
-$ sudo nmap -sT -oN report1.txt 192.168.50.101
Starting Nmap 7.93 ( https://nmap.org ) at 2023-02-22 08:58 EST
Nmap scan report for 192.168.50.101
Host is up (0.0013s latency).
Not shown: 977 closed tcp ports (conn-refused)
PORT
         STATE SERVICE
21/tcp
         open ftp
         open ssh
22/tcp
        open telnet
23/tcp
       open smtp
25/tcp
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: 08:00:27:0E:BC:5E (Oracle VirtualBox virtual NIC)
Nmap done: 1 IP address (1 host up) scanned in 13.44 seconds
```

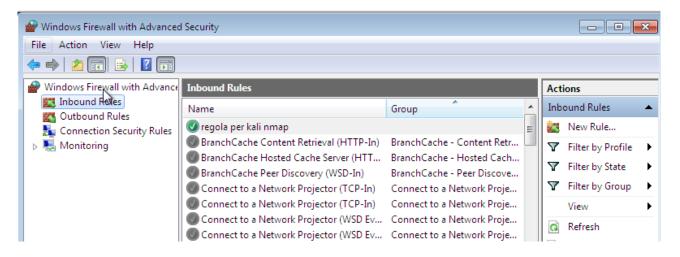
```
-(kali®kali)-[/usr/share/nmap/scripts]
 -$ <u>sudo</u> nmap -sS -oN report1.txt 192.168.50.101
Starting Nmap 7.93 ( https://nmap.org ) at 2023-02-22 08:58 EST
Nmap scan report for 192.168.50.101
Host is up (0.00030s latency).
Not shown: 977 closed tcp ports (reset)
PORT
        STATE SERVICE
21/tcp
        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: 08:00:27:0E:BC:5E (Oracle VirtualBox virtual NIC)
Nmap done: 1 IP address (1 host up) scanned in 13.35 seconds
```

Queste sono le porta aperte di meta, nel primo caso ho usato il tipo di scansione piu ivasiva (full tcp) dove viene chiuso il 3 way hand shake mentre con il secondo (syn)controlliamo solo se alla prima richiesta syn, otteniamo una risposta (il che significa che la porta e aperta) ma non chiudiamo la 3 way hand shake rimandando il valore indietro alla porta.

La differenza difatti e che come risposta alla comunicazione invasiva nmap ci da come risultato connn refused, perche chiudiamo la connessione e giustamente viene rifiutata, mentre nel caso della comunicazione meno invasiva come risposta nmap ci da 'reset', non avenmdo chiuso la comunicazione.

```
-(kali⊕kali)-[~]
$ <u>sudo</u> nmap -sS 192.168.50.102
Starting Nmap 7.93 ( https://nmap.org ) at 2023-02-23 02:51 EST
Nmap scan report for 192.168.50.102
Host is up (0.00038s latency).
Not shown: 991 closed tcp ports (reset)
         STATE SERVICE
PORT
135/tcp
         open msrpc
139/tcp
         open netbios-ssn
445/tcp
         open microsoft-ds
49152/tcp open unknown
49153/tcp open unknown
49154/tcp open unknown
49155/tcp open unknown
49156/tcp open unknown
49157/tcp open unknown
MAC Address: 08:00:27:17:B5:3B (Oracle VirtualBox virtual NIC)
Nmap done: 1 IP address (1 host up) scanned in 14.49 seconds
```

Queste sono le porte aperte su windows, che ovviamente sono di meno essendo protetta da un firewall, non come la macchina metasploitable realizzata pposta vulnerabile.



```
$\frac{\text{kat1}}{\text{sudo}} \text{nmap} -sS 192.168.50.102}

Starting Nmap 7.93 (https://nmap.org) at 2023-02-23 02:56 EST
Nmap scan report for 192.168.50.102
Host is up (0.00074s latency).
Not shown: 991 closed tcp ports (reset)
PORT
           STATE SERVICE
          open msrpc
135/tcp
         open netbios-ssn
139/tcp
445/tcp open microsoft-ds
49152/tcp open unknown
49153/tcp open unknown
49154/tcp open unknown
49155/tcp open unknown
49156/tcp open unknown
49157/tcp open unknown
MAC Address: 08:00:27:17:B5:3B (Oracle VirtualBox virtual NIC)
Nmap done: 1 IP address (1 host up) scanned in 14.49 seconds
```

Ho provato ad impostare una regola firewall su windows che lasciasse entrare comunicazioni tcp su tutte le porte, ma il risultato e uguale perche e presente un altro firewall.