## Obiettivo: utilizzo di nmap

Nell'esercizio di oggi abbiamo utilizzato nmap per fare: os fingerprint di metasploitable e windows

syn scanc tcp connect e version detection du metasploitable

```
(kali@ kali)-[~]

$ sudo nmap -sS 192.168.49.101

Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-21 06:24 EST
Nmap scan report for 192.168.49.101
Host is up (0.00066s latency).
Not shown: 977 closed tcp ports (reset)
PORT
         STATE
                      SERVICE
21/tcp open
                      ftp
22/tcp
23/tcp
          open
          open
                      telnet
25/tcp
          open
                      smtp
53/tcp
                      domain
         open
80/tcp filte
111/tcp open
          filtered http
                      rpcbind
139/tcp open
                      netbios-ssn
                      microsoft-ds
445/tcp open
512/tcp open
513/tcp open
514/tcp open
                      exec
                      login
                      shell
1099/tcp open
                      rmiregistry
1524/tcp open
2049/tcp open
                      ingreslock
                      nfs
2121/tcp open
                      ccproxy-ftp
3306/tcp open
                      mysql
5432/tcp open
5900/tcp open
                      postgresql
6000/tcp open
                      X11
6667/tcp open
                      irc
8009/tcp open
                      ajp13
8180/tcp open
                      unknown
Nmap done: 1 IP address (1 host up) scanned in 1.35 seconds
```

```
–(kali⊕kali)-[~]
 —$ <u>sudo</u> nmap -sT 192.168.49.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-21 06:24 EST
Nmap scan report for 192.168.49.101
Host is up (0.00080s latency).
Not shown: 977 closed tcp ports (conn-refused)
         STATE
PORT
                   SERVICE
21/tcp
                    ftp
         open
22/tcp
         open
                   ssh
23/tcp
         open
                    telnet
25/tcp
         open
                   smtp
                   domain
53/tcp
         open
80/tcp filtered http
111/tcp open
139/tcp open
                   rpcbind
                   netbios-ssn
445/tcp open
                   microsoft-ds
512/tcp open
                   exec
513/tcp open
514/tcp open
                   login
                   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
8009/tcp open
                   ajp13
8180/tcp open
                   unknown
Nmap done: 1 IP address (1 host up) scanned in 1.29 seconds
```

```
—(kali⊕kali)-[~]
s nmap -sV 192.168.49.101
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-21 06:19 EST
Nmap scan report for 192.168.49.101
Host is up (0.00056s latency).
Not shown: 977 closed tcp ports (conn-refused)
PORT
         STATE
                   SERVICE
                                 VERSION
21/tcp
                                 vsftpd 2.3.4
                   ftp
         open
22/tcp
                                 OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
        open
                   ssh
23/tcp
         open
                   telnet
                                 Linux telnetd
         open
                                 Postfix smtpd
25/tcp
                   smtn
53/tcp
         open
                   domain
                                 ISC BIND 9.4.2
80/tcp
        filtered http
111/tcp open
                   rpcbind
                                2 (RPC #100000)
                   netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP) netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
139/tcp open
445/tcp open
512/tcp open
                                 netkit-rsh rexecd
                   exec
513/tcp open
                   login?
514/tcp open
                   shell
                                 Netkit rshd
                   java-rmi
1099/tcp open
                                GNU Classpath grmiregistry
1524/tcp open
                   bindshell
                                 Metasploitable root shell
2049/tcp open
                   nfs
                                 2-4 (RPC #100003)
2121/tcp open
                   ccproxy-ftp?
3306/tcp open
                                 MySQL 5.0.51a-3ubuntu5
                   mysql
5432/tcp open
                   postgresql
                                 PostgreSQL DB 8.3.0 - 8.3.7
5900/tcp open
                                 VNC (protocol 3.3)
6000/tcp open
                                 (access denied)
                   X11
6667/tcp open
                   irc
                                 UnrealIRCd
8009/tcp open
                   ajp13
                                 Apache Jserv (Protocol v1.3)
                                 Apache Tomcat/Coyote JSP engine 1.1
8180/tcp open
                   http
Service Info: Hosts: metasploitable.localdomain, irc.Metasploitable.LAN; OSs: Unix, Linux; CPE
cpe:/o:linux:linux_kernel
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ . Nmap done: 1 IP address (1 host up) scanned in 173.56 seconds
```

```
<u>sudo</u> nmap -Pn -0 192.168.50.102 -- source-port 80
 Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-21 06:29 EST
Nmap scan report for 192.168.50.102
Host is up (0.00029s latency).
All 1000 scanned ports on 192.168.50.102 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
MAC Address: 08:00:27:21:86:4A (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 23.97 seconds
111/tcp open
139/tcp open
445/tcp open
512/tcp open
                  rpcbind
                  netbios-ssn
                  microsoft-ds
                  exec
513/tcp open
                 login
514/tcp open
                 shell
1099/tcp open
                  rmiregistry
                 ingreslock
1524/tcp open
2049/tcp open
                 nfs
2121/tcp open
                 ccproxy-ftp
3306/tcp open
                  mysql
5432/tcp open
                   postgresql
5900/tcp open
6000/tcp open
                  X11
6667/tcp open
8009/tcp open
                  irc
                   ajp13
8180/tcp open
                  unknown
Device type: general purpose
Running: Linux 2.6.X
OS CPE: cpe:/o:linux:linux_kernel:2.6
OS details: Linux 2.6.15 - 2.6.26 (likely embedded), Linux 2.6.20 - 2.6.24 (Ubuntu 7.04 - 8.04)
Network Distance: 2 hops
OS detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 2.77 seconds
```

non abbiamo trovato differenze tra le scansioni tcp e syn.

I risultati della scansione del sistema operativo di Windows non porta risultati perchè bloccata dal firewall, si può provare rallentando l'invio dei pacchetti o utilizzare(con il comando -T) o usare un proxy di windows per tentare di risolvere il problema.

Bloccando il firewall di windows otteniamo invece:

```
$ <u>sudo</u> nmap -0 192.168.50.102
[sudo] password for kali:
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-21 09:04 EST
Nmap scan report for 192.168.50.102
Host is up (0.00032s latency).
Not shown: 991 closed tcp ports (reset)
                         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: 08:00:27:21:86:4A (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::sp1 cpe:/o:microsoft:windows_ server_2008::sp1 cpe:/o:microsoft:windows_server_2008:r2 cpe:/o:microsoft:windows_8 cpe:/o:microsoft:windows_9 cpe
osoft:windows_8.1
OS details: Microsoft Windows 7 SPO - SP1, Windows Server 2008 SP1, Windows Server 2008 R2, Win
dows 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 6.86 seconds
```