

## Security Operation: Azioni Preventive

### Traccia

- Cambiare IP delle due macchine come di seguito:  
Windows XP: 192.168.240.150  
Kali: 192.168.240.100
- Con Firewall disattivato effettuare una scansione con nmap con switch -sV e -o
- Ripetere la stessa scansione con Firewall attivo
- Trovare e motivare le differenze

### Cambio Indirizzi IP

Kali

```
source /etc/network/interfaces.d/*  
  
# The loopback network interface  
auto lo  
iface lo inet loopback  
  
auto eth0  
iface eth0 inet static  
address 192.168.240.100  
netmask 255.255.255.0  
network 192.168.240.0  
broadcast 192.168.240.255  
gateway 192.168.240.1
```

Windows XP

Use the following IP address:

IP address:	192 . 168 . 240 . 150
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192 . 168 . 240 . 1

### Scansione nmap con Firewall disattivato

```
(kali@kali) - [~/Desktop]  
$ nmap -sV 192.168.240.150 -o ./NoFirewallScan  
Starting Nmap 7.94 ( https://nmap.org ) at 2024-02-05 14:57 CET  
Nmap scan report for 192.168.240.150  
Host is up (0.00021s latency).  
Not shown: 997 closed tcp ports (conn-refused)  
PORT      STATE SERVICE        VERSION  
135/tcp   open  msrpc          Microsoft Windows RPC  
139/tcp   open  netbios-ssn    Microsoft Windows netbios-ssn  
445/tcp   open  microsoft-ds   Microsoft Windows XP microsoft-ds  
Service Info: OSs: Windows, Windows XP; CPE: cpe:/o:microsoft:windows, cpe:/o:microsoft:windows_xp  
  
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .  
Nmap done: 1 IP address (1 host up) scanned in 20.81 seconds
```

## Scansione nmap con Firewall attivo

```
(kali㉿kali)-[~/Desktop]
$ nmap -sV 192.168.240.150 -o ./FirewallScan
Starting Nmap 7.94 ( https://nmap.org ) at 2024-02-05 15:00 CET
Note: Host seems down. If it is really up, but blocking our ping probes, try -Pn
Nmap done: 1 IP address (0 hosts up) scanned in 3.11 seconds
```

## Differenze

La differenza principale è che il firewall blocca le richieste di ping non permettendo ad nmap di capire se l'host è up o down

Possiamo saltare il ping con nmap usando il parametro -Pn

```
(kali㉿kali)-[~/Desktop]
$ nmap -Pn -sV 192.168.240.150 -o ./FirewallScanPn
Starting Nmap 7.94 ( https://nmap.org ) at 2024-02-05 15:02 CET
Nmap scan report for 192.168.240.150
Host is up.
All 1000 scanned ports on 192.168.240.150 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 222.69 seconds
```

In questo caso lo scan avviene ma tutte le porte risultano filtrate perchè non c'è nessuna risposta per via del firewall