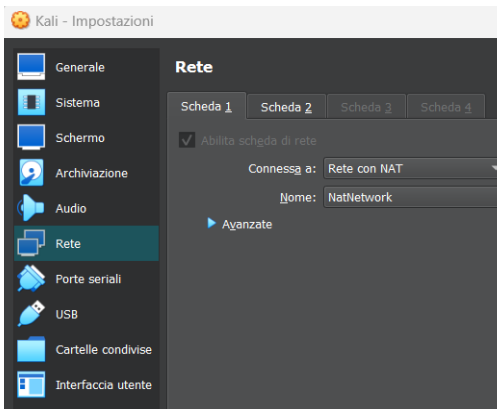
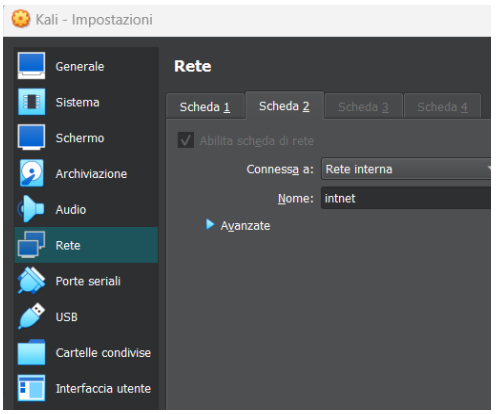
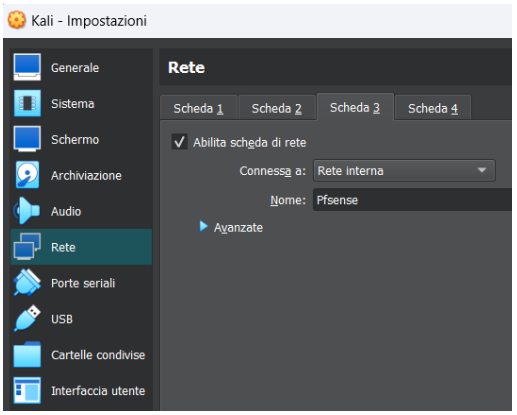
Creazione policy Pfsense

I) Modifico le impostazioni di rete nelle impostazioni di VirtualBox per le seguenti macchine:

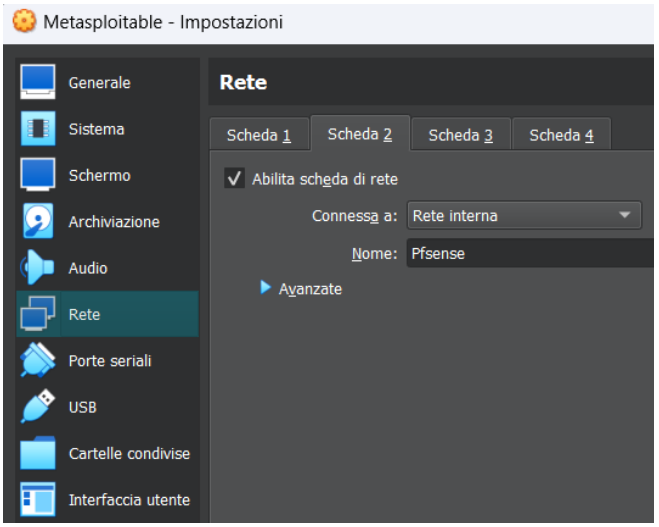
Kali Linux:
Scheda 1) Rete con NAT - per navigare su web
Scheda 2) Rete interna (intnet) - per la connettività con Metasploitable
Scheda 3) Rete interna (Pfsense) - per la connettività con Pfsense

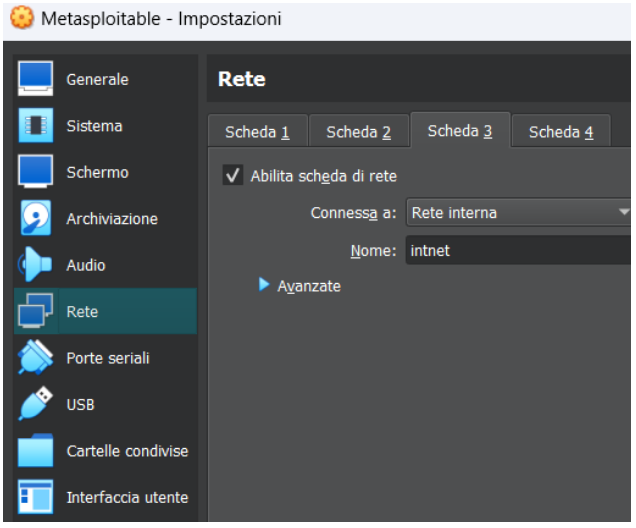




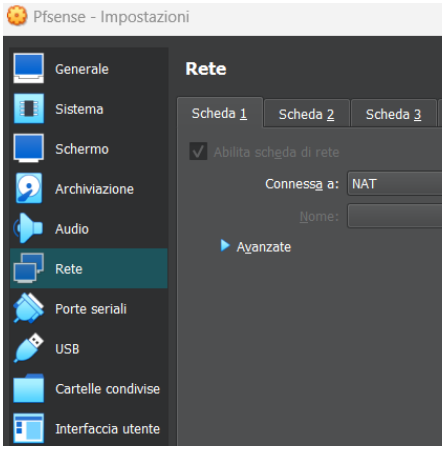


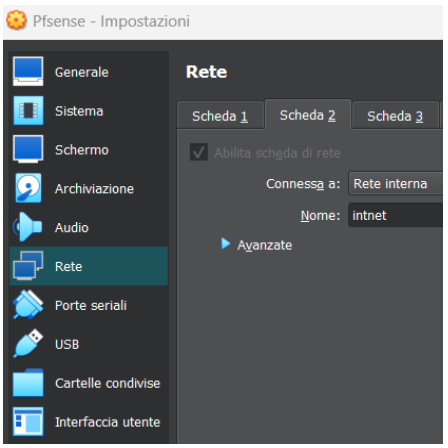
Metasploitable:
Scheda 1) Rete interna (intnet) - per la connettività con Kali Linux
Scheda 2) Rete interna (Pfsense) - per la connettività con Pfsense

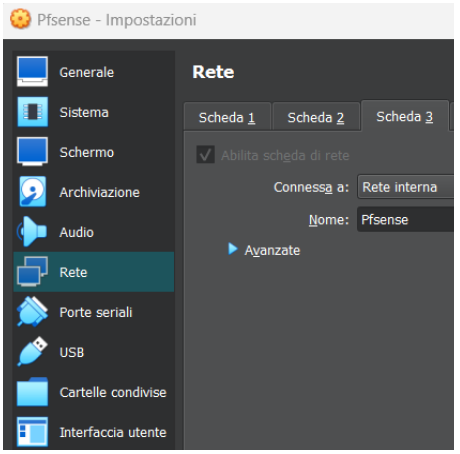




Pfsense:
Scheda 1) Rete con NAT
Scheda 2) Rete interna(intnet) - per la connettività con Kali Linux
Scheda 3) Rete interna (Pfsense) - per la connettività con Metasploitable







II) Verifico la connettività tra Pfsense(192.168.1.1) e Kali (192.168.1.100) eseguendo un ping tra le due macchine:

```
┌──(kali㉿kali)-[~]
└─$ ping 192.168.1.1
PING 192.168.1.1 (192.168.1.1) 56(84) bytes of data.
64 bytes from 192.168.1.1: icmp_seq=1 ttl=64 time=2.35 ms
64 bytes from 192.168.1.1: icmp_seq=2 ttl=64 time=1.50 ms
64 bytes from 192.168.1.1: icmp_seq=3 ttl=64 time=9.86 ms
64 bytes from 192.168.1.1: icmp_seq=4 ttl=64 time=6.50 ms
64 bytes from 192.168.1.1: icmp_seq=5 ttl=64 time=6.59 ms
64 bytes from 192.168.1.1: icmp_seq=6 ttl=64 time=2.35 ms
64 bytes from 192.168.1.1: icmp_seq=7 ttl=64 time=2.11 ms
64 bytes from 192.168.1.1: icmp_seq=8 ttl=64 time=2.41 ms
64 bytes from 192.168.1.1: icmp_seq=9 ttl=64 time=2.83 ms
64 bytes from 192.168.1.1: icmp_seq=10 ttl=64 time=5.76 ms
64 bytes from 192.168.1.1: icmp_seq=11 ttl=64 time=9.62 ms
^C
── 192.168.1.1 ping statistics ──
11 packets transmitted, 11 received, 0% packet loss, time 10809ms
rtt min/avg/max/mdev = 1.495/4.716/9.861/2.947 ms
```

```
Enter a host name or IP address: 192.168.1.100

PING 192.168.1.100 (192.168.1.100): 56 data bytes
64 bytes from 192.168.1.100: icmp_seq=0 ttl=64 time=1.249 ms
64 bytes from 192.168.1.100: icmp_seq=1 ttl=64 time=9.208 ms
64 bytes from 192.168.1.100: icmp_seq=2 ttl=64 time=4.997 ms

--- 192.168.1.100 ping statistics ---
3 packets transmitted, 3 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 1.249/5.151/9.208/3.251 ms
```

III) Verifico la connettività tra Pfsense (192.168.1.1) e Metasploitable (192.168.50.100)

Pfsense [In esecuzione] - Oracle VM VirtualBox

File Macchina Visualizza Inserimento Dispositivi Aiuto

```
 1) Assign Interfaces               10) Filter Logs
 2) Set interface(s) IP address     11) Restart webConfigurator
 3) Reset webConfigurator password  12) PHP shell + pfSense tools
 4) Reset to factory defaults       13) Update from console
 5) Reboot system                   14) Enable Secure Shell (sshd)
 6) Halt system                     15) Restore recent configuration
 7) Ping host                       16) Restart PHP-FPM
 8) Shell

Enter an option: 7


Enter a host name or IP address: 192.168.50.100

PING 192.168.50.100 (192.168.50.100): 56 data bytes
64 bytes from 192.168.50.100: icmp_seq=0 ttl=64 time=2.685 ms
64 bytes from 192.168.50.100: icmp_seq=1 ttl=64 time=2.013 ms
64 bytes from 192.168.50.100: icmp_seq=2 ttl=64 time=5.844 ms

--- 192.168.50.100 ping statistics ---
3 packets transmitted, 3 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 2.013/3.514/5.844/1.670 ms

Press ENTER to continue.
```

Metasploitable [In esecuzione] - Oracle VM VirtualBox

File Macchina Visualizza Inserimento Dispositivi Aiuto

```
#gateway 192.168.50.1

                                [ Read 18 lines ]

root@metasploitable:~# ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:bc:3b:1b
          inet addr:192.168.50.100  Bcast:192.168.50.255  Mask:255.255.255.0
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)
          Base address:0xd020 Memory:f0200000-f0220000

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:178 errors:0 dropped:0 overruns:0 frame:0
          TX packets:178 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:60825 (59.3 KB)  TX bytes:60825 (59.3 KB)

root@metasploitable:~#
```

```
*** Welcome to pfSense 2.7.0-RELEASE (amd64) on pfSense ***

WAN (wan)       -> em0        -> v4/DHCP4: 10.0.2.15/24
LAN (lan)       -> em1        -> v4: 192.168.1.1/24
LAN2 (opt1)     -> em2        -> v4: 192.168.50.1/24
```

IV) Verifico la connettività tra Kali (192.168.1.100) e Metasploitable (192.168.50.100) eseguendo un ping tra le due macchine anche verso la DVWA:

kali@kali: ~

File Azioni Modifica Visualizza Aiuto

```
┌──(kali㉿kali)-[~]
└─$ ping 192.168.50.100
PING 192.168.50.100 (192.168.50.100) 56(84) bytes of data.
64 bytes from 192.168.50.100: icmp_seq=1 ttl=64 time=0.023 ms
64 bytes from 192.168.50.100: icmp_seq=2 ttl=64 time=0.029 ms
64 bytes from 192.168.50.100: icmp_seq=3 ttl=64 time=0.050 ms
64 bytes from 192.168.50.100: icmp_seq=4 ttl=64 time=0.072 ms
^C
── 192.168.50.100 ping statistics ──
4 packets transmitted, 4 received, 0% packet loss, time 3393ms
rtt min/avg/max/mdev = 0.023/0.043/0.072/0.019 ms
```

192.168.50.100

Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB

```
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| |_ _____ ___| |_ ___ _ __ | (_) |_ __ _| |__ | | ___|___ \
| __|_  / _ \ __/ __| '_ \| | | __/ _` | '_ \| |/ _ \ __) |
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                    |_|

Warning: Never expose this VM to an untrusted network!

Contact: msfdev[at]metasploit.com

Login with msfadmin/msfadmin to get started
```
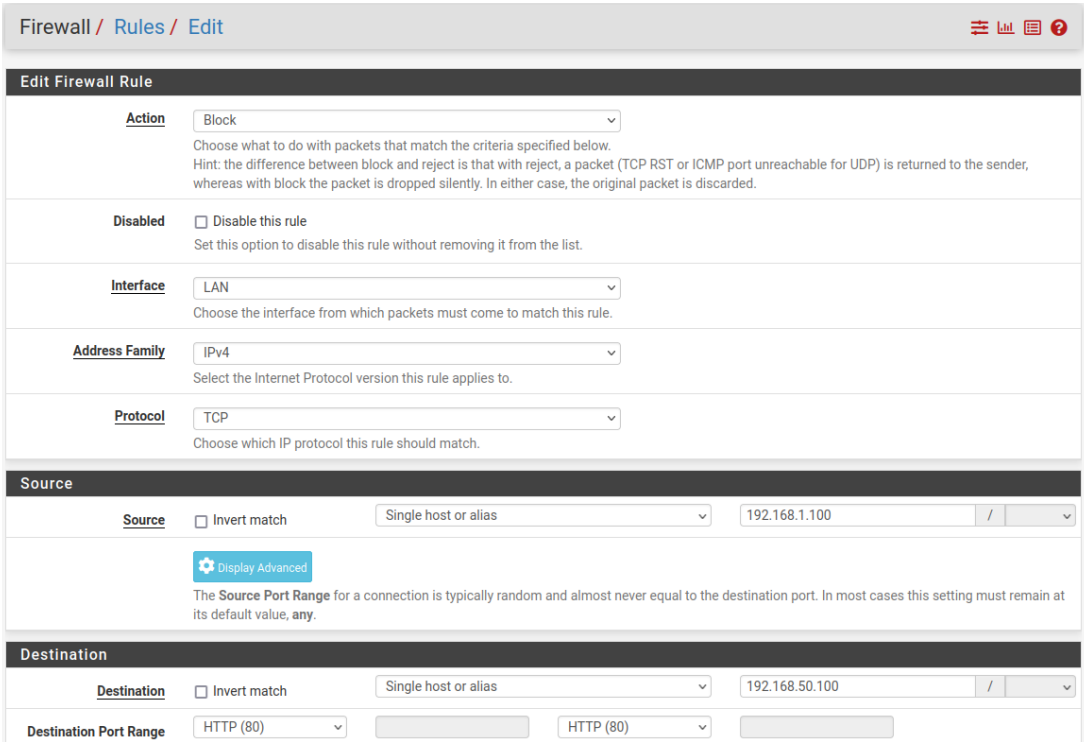
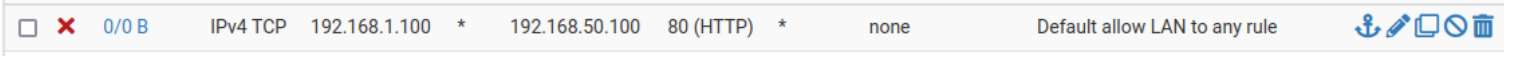

- TWiki
- phpMyAdmin
- Mutillidae
- DVWA
- WebDAV

V) Creo la regola su Pfsense in modo tale da bloccare il traffico sulla porta 80 da Kali (192.168.1.100) a Metasploitable (192.168.50.100) rendendo la DVWA inaccessibile a Kali





VI) Dai log di Firewall verifico che la regola, stia effettivamente bloccano il traffico da Kali verso la DVWA