

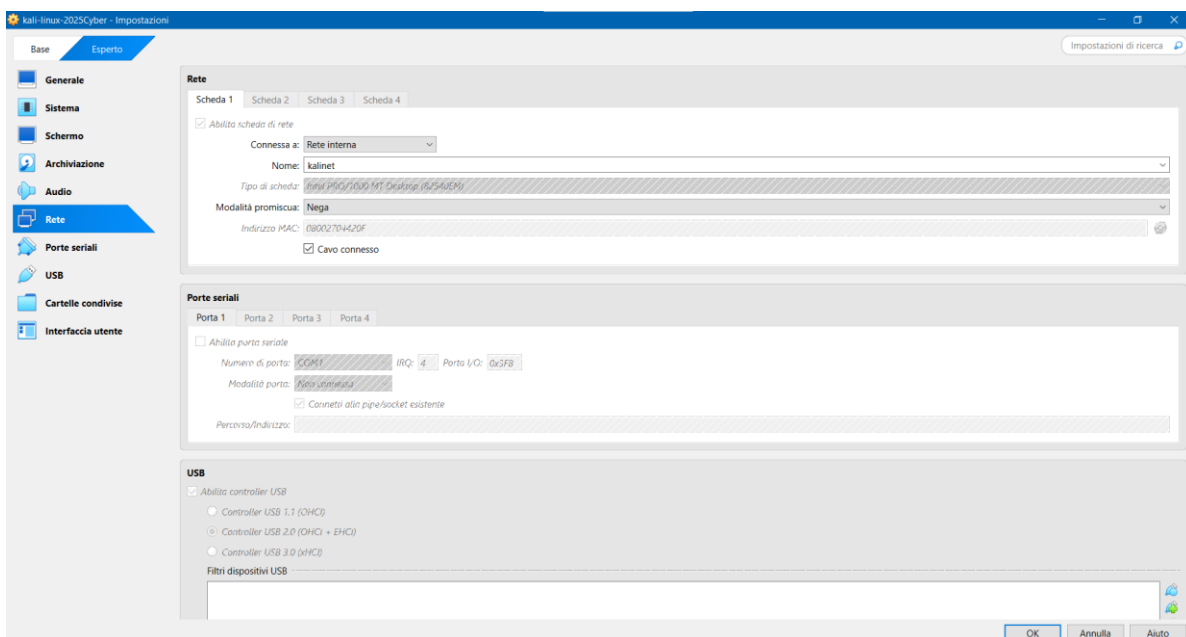
Esercizio settimanale.

Configurare un laboratorio.

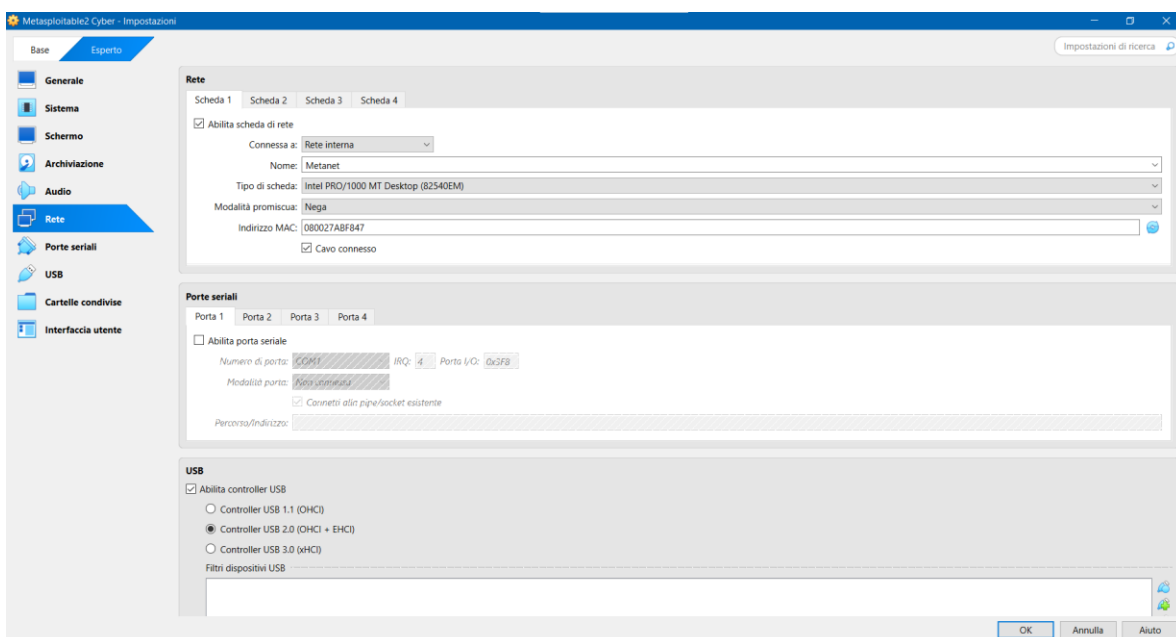
Passaggio 1: Settaggio del laboratorio

Apro VirtualBox.

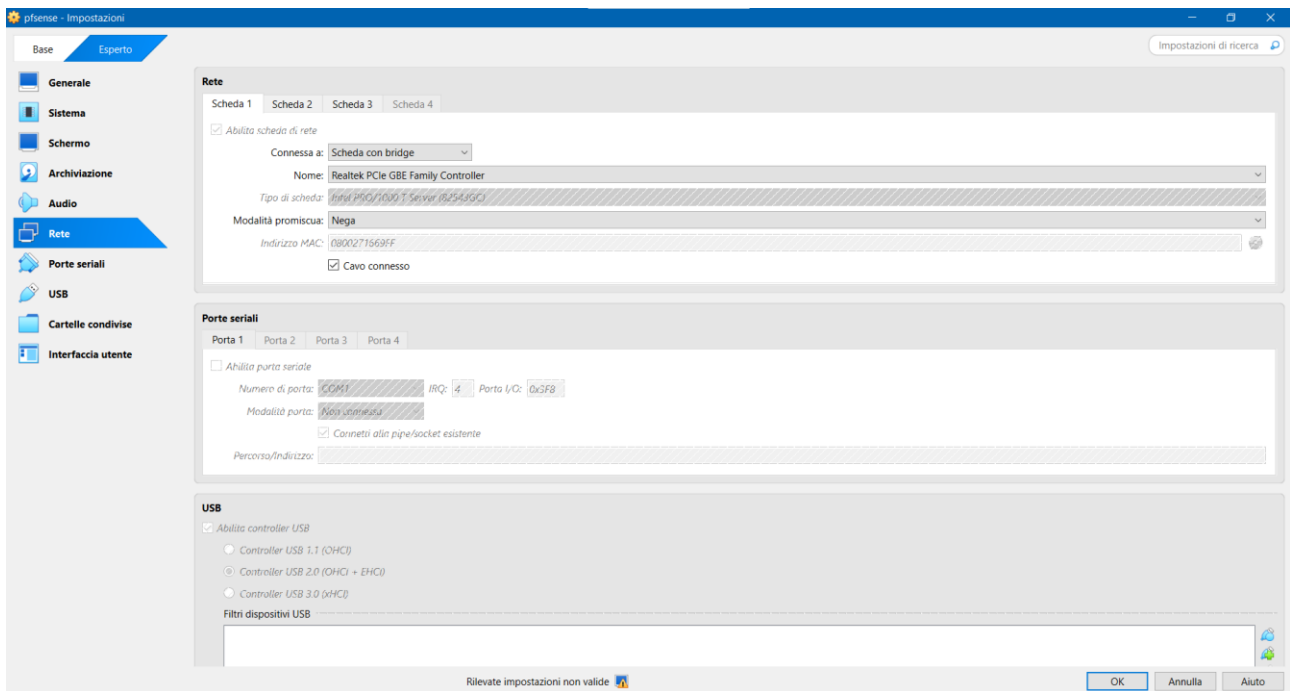
- Configuro la scheda di rete 1 della Kali_cyber in Internal Network e la rinomino kalinet



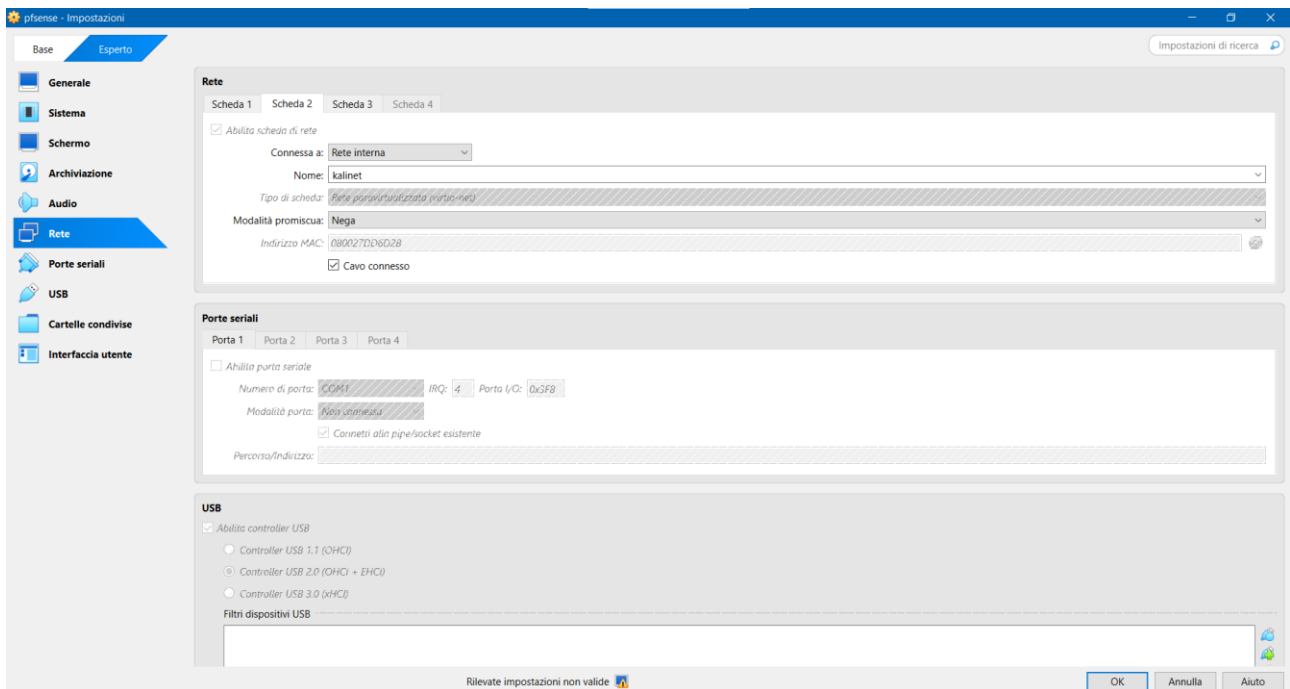
- Configuro la scheda di rete 1 della Metasploitable2 in Internal Network e la rinomino Metanet



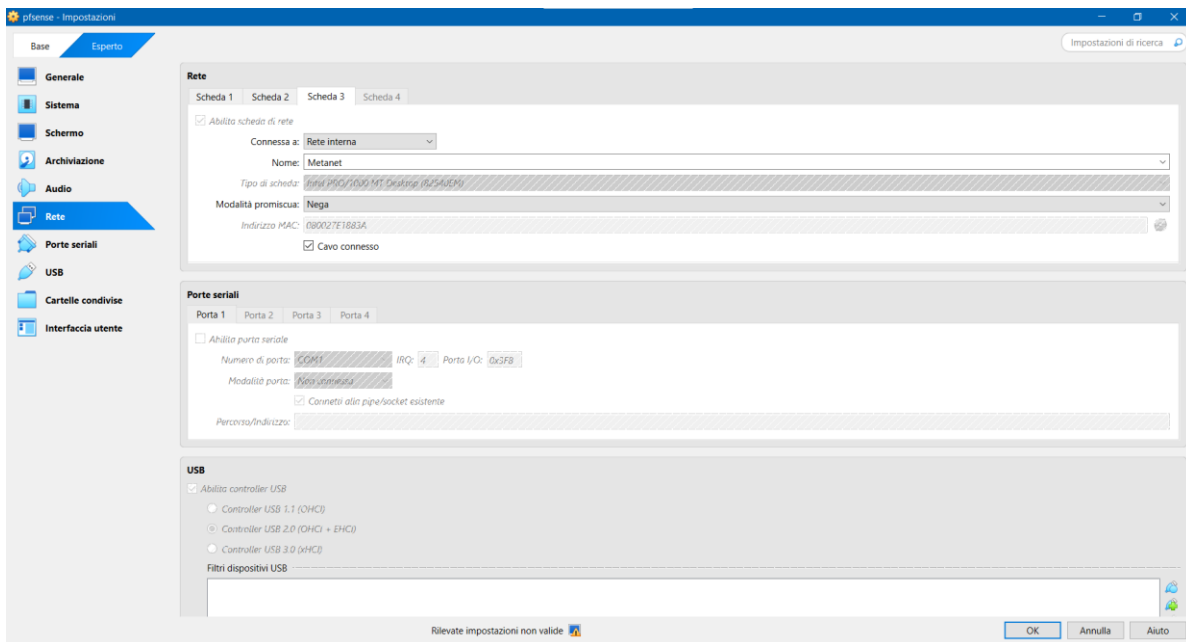
- Configuro la scheda di rete numero 1 della Pfsense in Bridget Adapter.



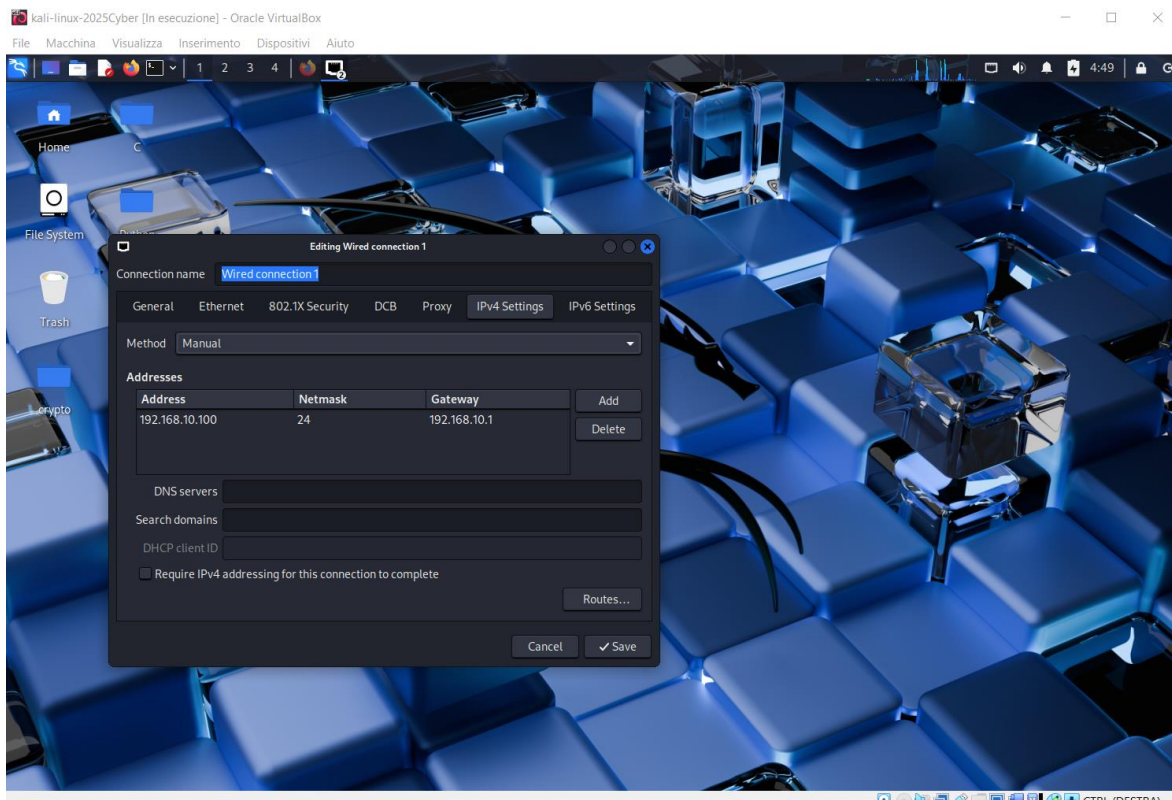
- Configuro la scheda di rete numero 2 della pfSense in Rete Interna e la rinomino kalinet



- Configuro la scheda di rete numero 3 della pfSense in Rete interna e la rinomino Metanet



- Apro pfSense e configuro l'IP Lan della Kali 192.168.10.1
- Attivo il DHCP che assegna automaticamente l'IP ai dispositivi e setto il range:
- 198.168.10.100 – 192.168.10.150
- Salvo le configurazioni.
- Avvio Kali e manualmente setto l'indirizzo IP.



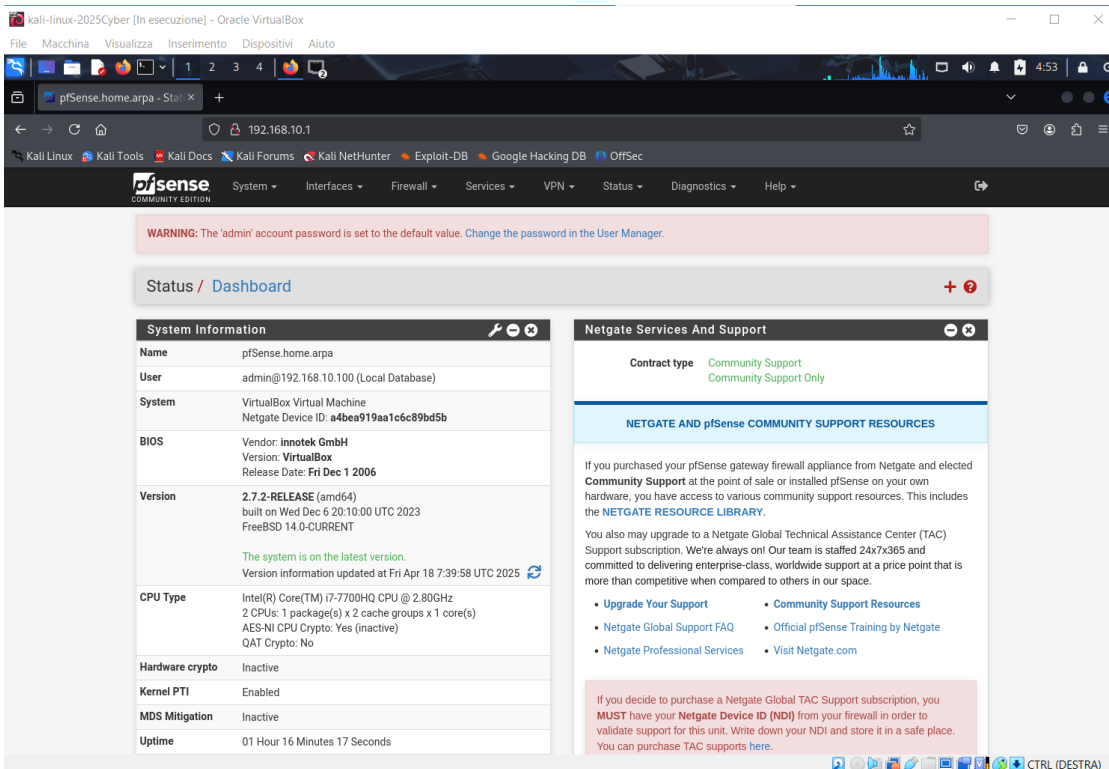
- Controllo tramite comando da terminale “ip a” se le configurazioni sono state settate correttamente.

```

kali@kali:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:0a:42:0f brd ff:ff:ff:ff:ff:ff
    inet 192.168.10.100/24 brd 192.168.10.255 scope global noprefixroute eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::cd23:4faa:dd23:69a8/64 scope link noprefixroute
        valid_lft forever preferred_lft forever

```

- Apro il Browser e controllo se posso collegarmi a pfSense e inserisco le credenziali:



Ora torno su pfSense e configuro l'indirizzo IP di Metasploitable2

- Assegno come IP di OPT1 192.168.20.1/24
- Attivo il servizio DHCP configurando il range:
- 192.168.20.20 – 192.168.20.100

Otengo come risultato **tre schede di rete** configurate in questo modo.

```
The IPv4 OPT1 address has been set to 192.168.20.1/24
You can now access the webConfigurator by opening the following URL in your web
browser:
    http://192.168.20.1/

Press <ENTER> to continue.
VirtualBox Virtual Machine - Netgate Device ID: a4bea919aa1c6c89bd5b

*** Welcome to pfSense 2.7.2-RELEASE (amd64) on pfSense ***

WAN (wan)      -> em0      -> v4/DHCP4: 192.168.1.224/24
LAN (lan)      -> vtnet0   -> v4: 192.168.10.1/24
OPT1 (opt1)    -> em1      -> v4: 192.168.20.1/24

0) Logout (SSH only)          9) pfTop
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: █
```

- Avvio Metasploitable2 e verifico se l'indirizzo IP è stato configurato bene:

```
Metasploitable2 Cyber [In esecuzione] - Oracle VirtualBox
File Macchina Visualizza Inserimento Dispositivi Aiuto

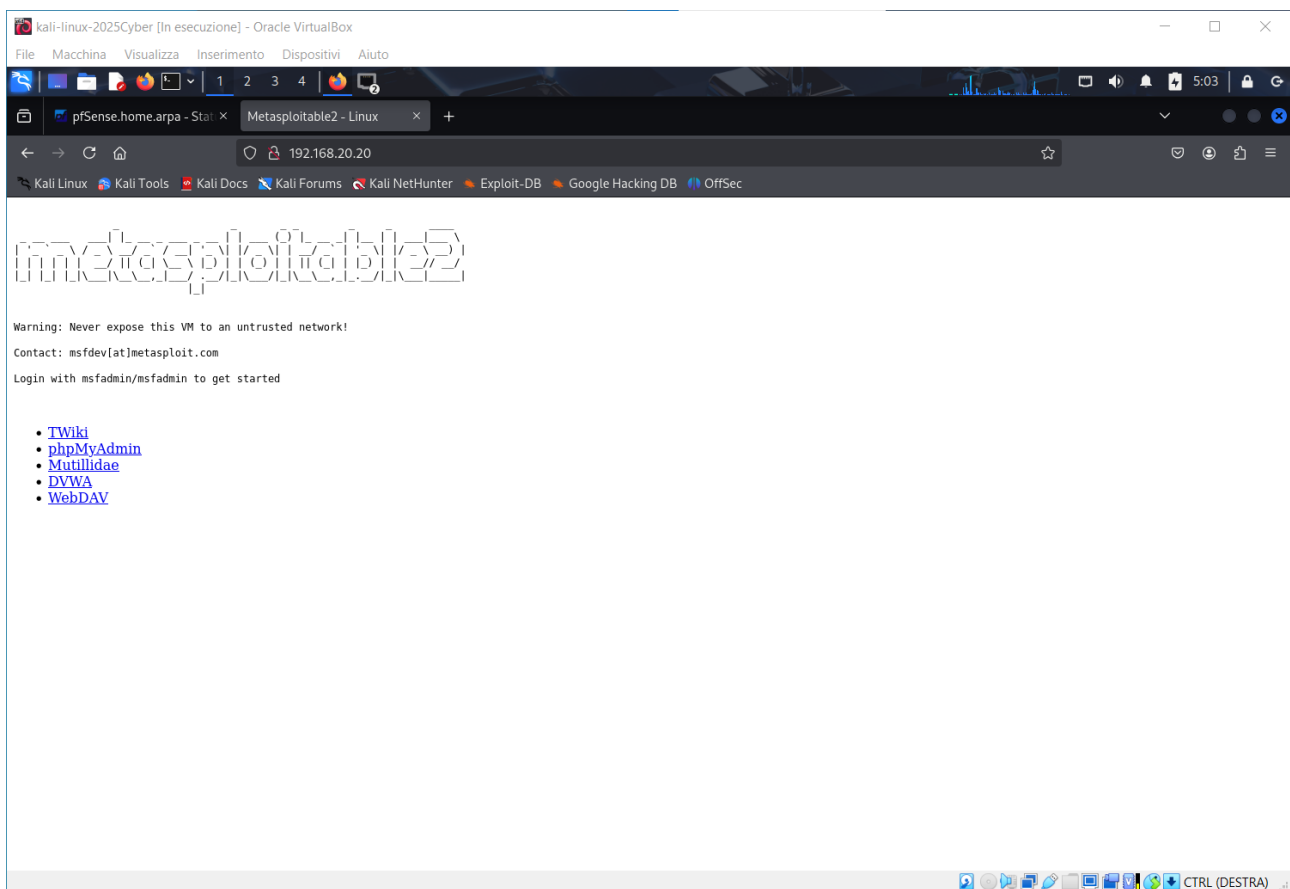
Last login: Mon Mar 31 09:42:30 EDT 2025 on tty1
Linux metasploitable 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To access official Ubuntu documentation, please visit:
http://help.ubuntu.com/
No mail.
msfadmin@metasploitable:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 16436 qdisc noqueue
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        inet6 ::1/128 scope host
            valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast qlen 1000
    link/ether 08:00:27:ab:f8:47 brd ff:ff:ff:ff:ff:ff
    inet 192.168.20.20/24 brd 192.168.20.255 scope global eth0
    inet6 fe80::a00:27ff:feab:f847/64 scope link
        valid_lft forever preferred_lft forever
msfadmin@metasploitable:~$
```

- Ora torno su Kali e provo a collegarmi **alla pagina servita** della Metasploitable2.



- Effettivamente posso accedere.

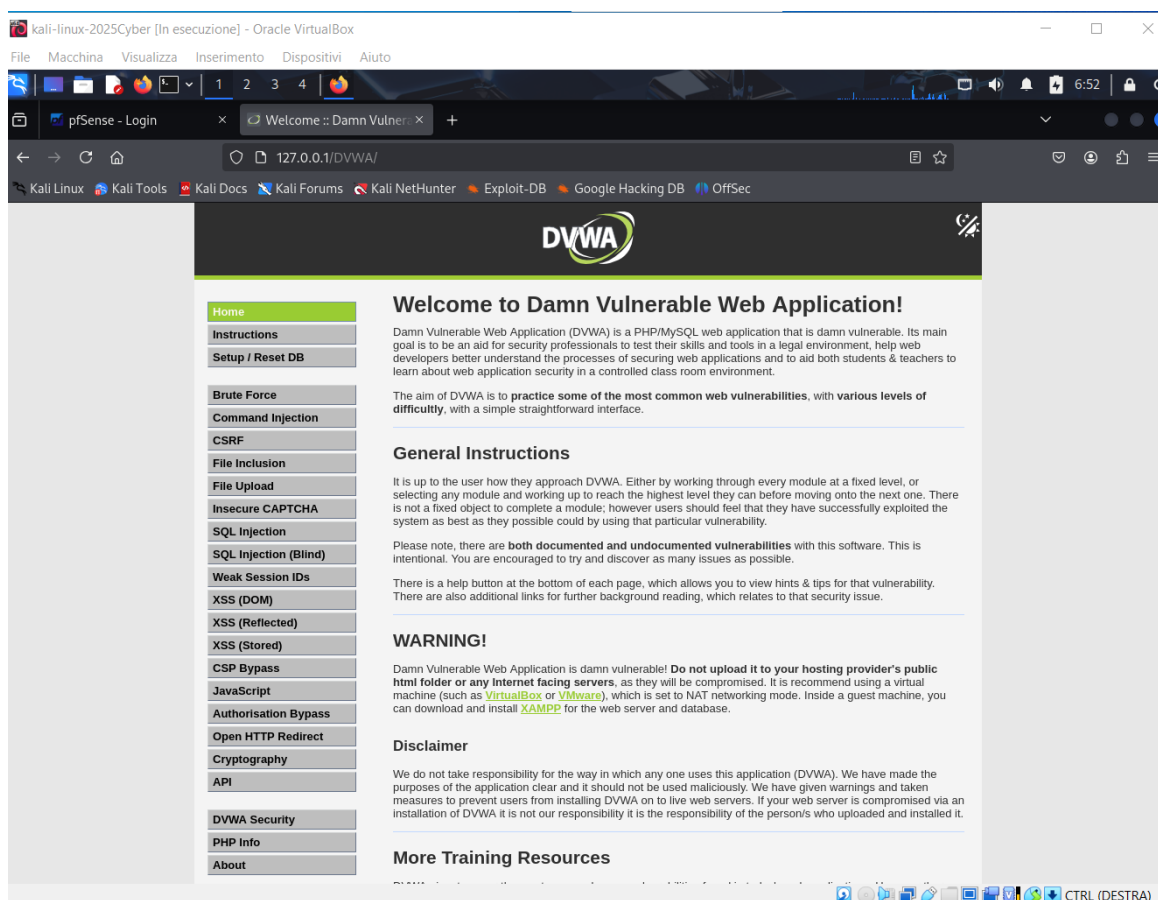
Fine settaggio.

Si procede con la fase 2.

Fase 2. Creazione regola Firewall.

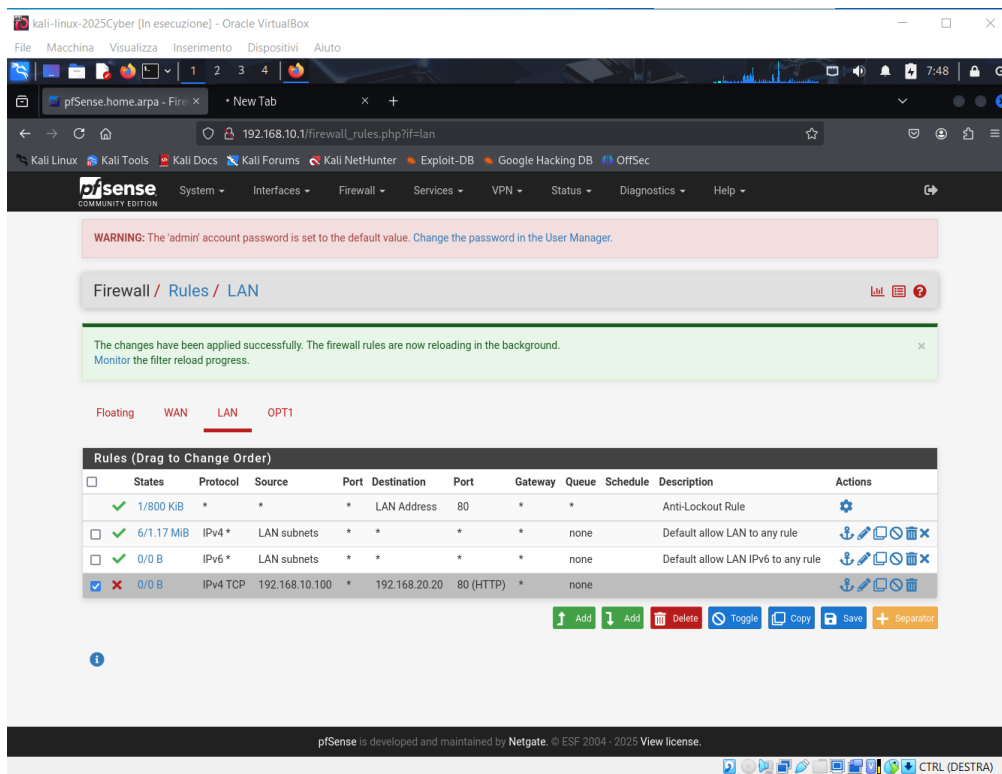
L'obiettivo di questa fase è creare una regola firewall che blocchi l'accesso alla DVWA (su metasploitable) dalla macchina Kali Linux e ne impedisca di conseguenza lo scan.

- attivo nel terminale di Kali due servizi: mysql e apache2
comandi usati: `sudo service mysql start`
`sudo service apache2 start`
- apro il browser e controllo se posso accedere alla DVWA.

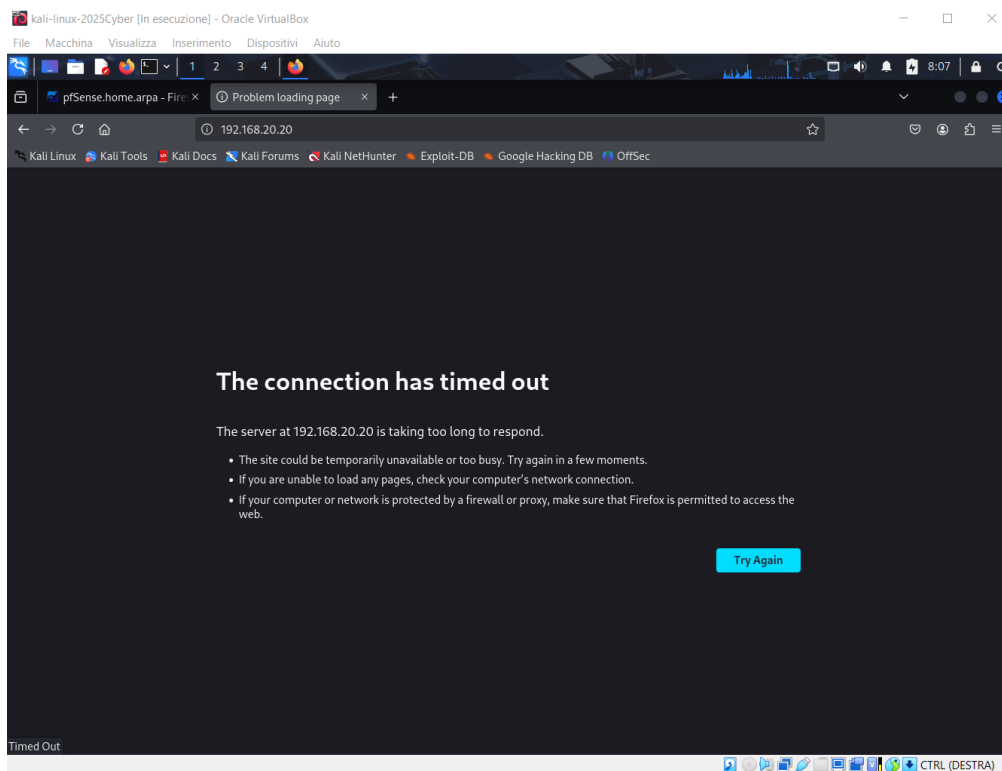


- posso effettivamente accedere.

Ora accedo da Kali su pfSense e creo la regola che impedisce a Kali di accedere alla pagina servita dalla Metasploitable2.



- cambio ordine delle regole mettendo per prima quella particolare e poi quelle generali.
- se provo a cercare nel browser l'indirizzo della pagina servita dalla Metasploitable2 non esce nessun risultato.



La regola firewall è correttamente settata.

Riassunto del Pannello delle Firewall rules:

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192.168.10.1/firewall_rules.php?f=wan

Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec

pfSense COMMUNITY EDITION System Interfaces Firewall Services VPN Status Diagnostics Help

WARNING: The 'admin' account password is set to the default value. Change the password in the User Manager.

Firewall / Rules / WAN

Floating WAN LAN OPT1

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
<input checked="" type="checkbox"/>	0/15 KiB	*	Reserved Not assigned by IANA	*	*	*	*	*	*	Block bogus networks	
<input type="checkbox"/>	0/0 B	IPv4 TCP	*	*	*	*	*	none			

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192.168.10.1/firewall_rules.php?f=lan

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pfSense COMMUNITY EDITION System Interfaces Firewall Services VPN Status Diagnostics Help

WARNING: The 'admin' account password is set to the default value. Change the password in the User Manager.

Firewall / Rules / LAN

Floating WAN LAN OPT1

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
<input checked="" type="checkbox"/>	1/1.11 MiB	*	*	*	LAN Address	80	*	*	*	Anti-Logout Rule	
<input checked="" type="checkbox"/>	0/300 B	IPv4 TCP	192.168.10.100	*	192.168.20.20	80 (HTTP)	*	*	none		
<input checked="" type="checkbox"/>	0/1.25 MiB	IPv4 *	LAN subnets	*	*	*	*	none		Default allow LAN to any rule	
<input checked="" type="checkbox"/>	0/0 B	IPv6 *	LAN subnets	*	*	*	*	none		Default allow LAN IPv6 to any rule	

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