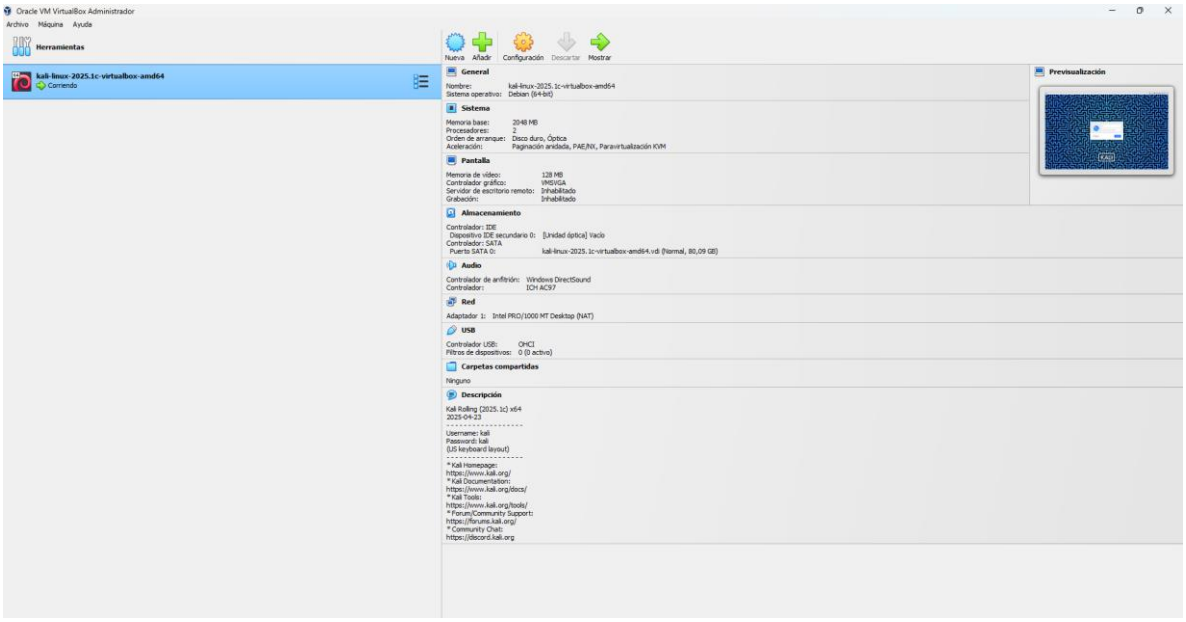
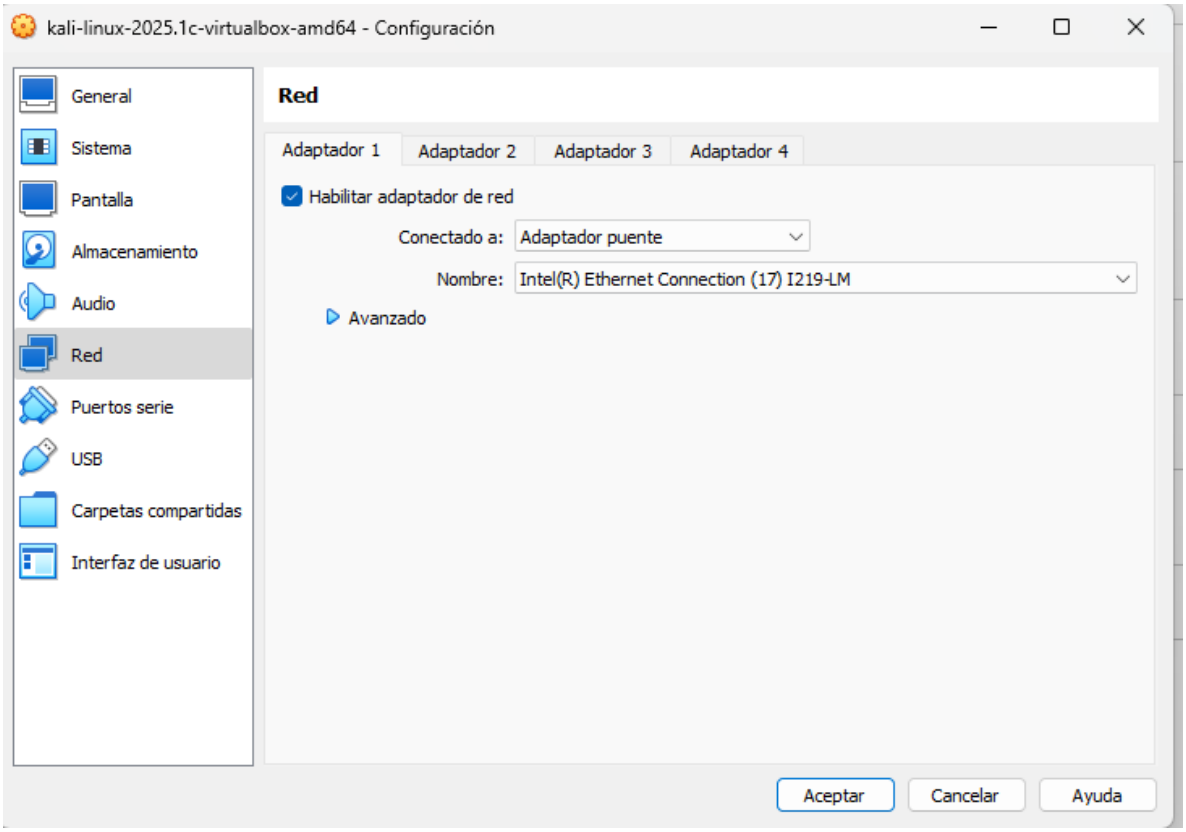
SAUL HERNANDEZ CASTILLA

Configuración inicial de la maquina virtual:



Cambiando adaptador por defecto a adaptador por puente:



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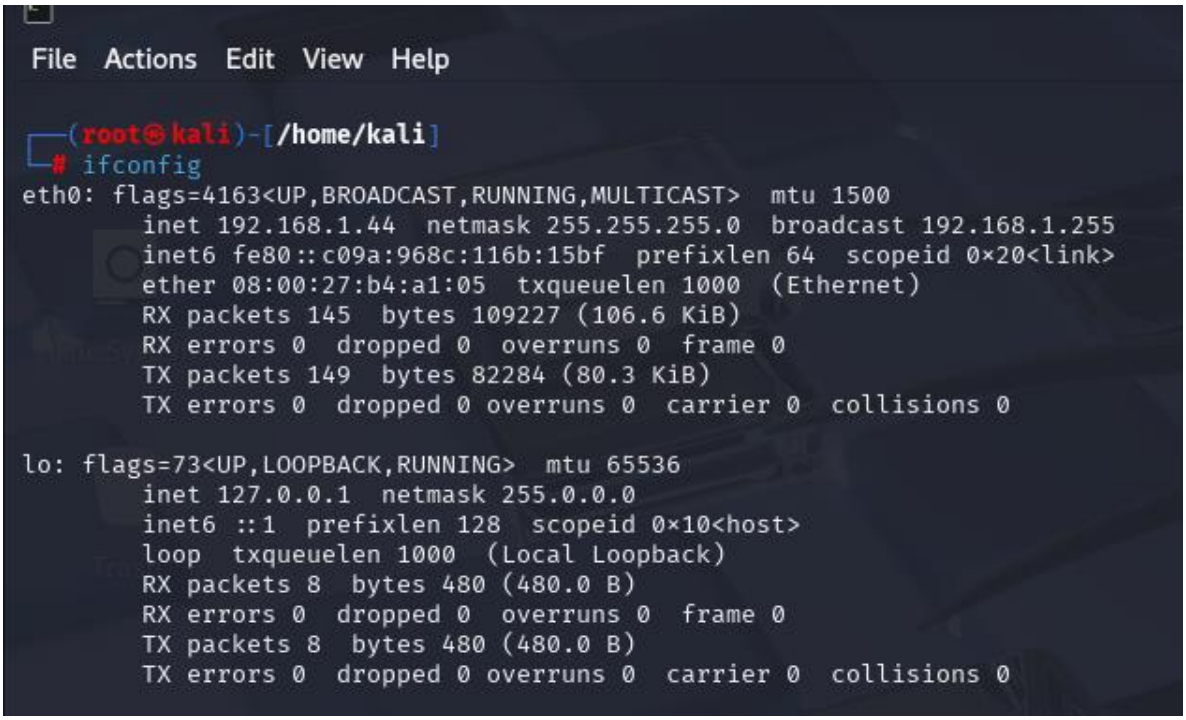
Maquina Inicializada:

Entramos a la terminal con root y observamos la ip de Kali y de Windows:



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Ip config de Windows:

```
C:\Users\Usuario>ipconfig

Configuración IP de Windows


Adaptador de Ethernet Ethernet 2:

   Sufijo DNS específico para la conexión. . :
   Vínculo: dirección IPv6 local. . . : fe80::6a7:1c1d:89c6:fb28%14
   Dirección IPv4. . . . . . . . . . . . . . : 192.168.1.35
   Máscara de subred . . . . . . . . . . . . : 255.255.255.0
   Puerta de enlace predeterminada . . . . . : 192.168.1.1
```

```
┌──(root㉿kali)-[/home/kali]
└─# netstat -tuln
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
```

Proceso de instalación de UFW

```
┌──(root㉿kali)-[/home/kali]
└─# apt update
Get:1 http://kali.download/kali kali-rolling InRelease [41.5 kB]
Get:2 http://kali.download/kali kali-rolling/main amd64 Packages [21.0 MB]
Get:3 http://kali.download/kali kali-rolling/main amd64 Contents (deb) [52.0 MB]
Get:4 http://kali.download/kali kali-rolling/contrib amd64 Packages [121 kB]
Get:5 http://kali.download/kali kali-rolling/contrib amd64 Contents (deb) [327 kB]
Get:6 http://kali.download/kali kali-rolling/non-free amd64 Packages [204 kB]
Get:7 http://kali.download/kali kali-rolling/non-free amd64 Contents (deb) [914 kB]
Get:8 http://kali.download/kali kali-rolling/non-free-firmware amd64 Packages [10.6 kB]
Get:9 http://kali.download/kali kali-rolling/non-free-firmware amd64 Contents (deb) [24.3 kB]
Fetched 74.6 MB in 11s (6,861 kB/s)
1213 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

```
┌──(root㉿kali)-[/home/kali]
└─# apt install ufw -y
Installing:
  ufw

Suggested packages:
  rsyslog

Summary:
  Upgrading: 0, Installing: 1, Removing: 0, Not Upgrading: 1213
  Download size: 169 kB
  Space needed: 880 kB / 63.9 GB available

Get:1 http://mirror.0×em.ma/kali kali-rolling/main amd64 ufw all 0.36.2-9 [169 kB]
Fetched 169 kB in 1s (119 kB/s)
Preconfiguring packages ...
Selecting previously unselected package ufw.
(Reading database ... 408445 files and directories currently installed.)
Preparing to unpack .../archives/ufw_0.36.2-9_all.deb ...
Unpacking ufw (0.36.2-9) ...
Setting up ufw (0.36.2-9) ...
Creating config file /etc/ufw/before.rules with new version
Creating config file /etc/ufw/before6.rules with new version
Creating config file /etc/ufw/after.rules with new version
Creating config file /etc/ufw/after6.rules with new version
update-rc.d: We have no instructions for the ufw init script.
update-rc.d: It looks like a non-network service, we enable it.
Created symlink '/etc/systemd/system/multi-user.target.wants/ufw.service' → '/usr/lib/systemd/system/ufw.service'.
Processing triggers for kali-menu (2025.1.1) ...
Processing triggers for man-db (2.13.0-1) ...
```

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Habilitamos Uncomplicated Firewall (UFW)

```
┌──(root㉿kali)-[/home/kali]
└─# ufw enable
Firewall is active and enabled on system startup
```

Revisamos el status del Firewall:

```
┌──(root㉿kali)-[/home/kali]
└─# ufw status
Status: active
```

Comando iptables -L:

```
┌──(root㉿kali)-[/home/kali]
└─# iptables -L
Chain INPUT (policy DROP)
target     prot opt source               destination
ufw-before-logging-input  all  --  anywhere             anywhere
ufw-before-input  all  --  anywhere             anywhere
ufw-after-input  all  --  anywhere             anywhere
ufw-after-logging-input  all  --  anywhere             anywhere
ufw-reject-input  all  --  anywhere             anywhere
ufw-track-input  all  --  anywhere             anywhere

Chain FORWARD (policy DROP)
target     prot opt source               destination
ufw-before-logging-forward  all  --  anywhere             anywhere
ufw-before-forward  all  --  anywhere             anywhere
ufw-after-forward  all  --  anywhere             anywhere
ufw-after-logging-forward  all  --  anywhere             anywhere
ufw-reject-forward  all  --  anywhere             anywhere
ufw-track-forward  all  --  anywhere             anywhere

Chain OUTPUT (policy ACCEPT)
target     prot opt source               destination
ufw-before-logging-output  all  --  anywhere             anywhere
ufw-before-output  all  --  anywhere             anywhere
ufw-after-output  all  --  anywhere             anywhere
ufw-after-logging-output  all  --  anywhere             anywhere
ufw-reject-output  all  --  anywhere             anywhere
ufw-track-output  all  --  anywhere             anywhere

Chain ufw-after-forward (1 references)
target     prot opt source               destination

Chain ufw-after-input (1 references)
target     prot opt source               destination
ufw-skip-to-policy-input  udp  --  anywhere             anywhere             udp dpt:netbios-ns
ufw-skip-to-policy-input  udp  --  anywhere             anywhere             udp dpt:netbios-dgm
ufw-skip-to-policy-input  tcp  --  anywhere             anywhere             tcp dpt:netbios-ssn
ufw-skip-to-policy-input  tcp  --  anywhere             anywhere             tcp dpt:microsoft-ds
ufw-skip-to-policy-input  udp  --  anywhere             anywhere             udp dpt:bootps
ufw-skip-to-policy-input  udp  --  anywhere             anywhere             udp dpt:bootpc
ufw-skip-to-policy-input  all  --  anywhere             anywhere             ADDRTYPE match dst-type BROADCAST
```

Configuramos políticas para entradas y salidas en UFW:

UFW Entradas:

```
┌──(root㉿kali)-[/home/kali]
└─# ufw default deny incoming
Default incoming policy changed to 'deny'
(be sure to update your rules accordingly)
```

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```
┌──(root㉿kali)-[/home/kali]
└─# ufw default allow outgoing
Default outgoing policy changed to 'allow'
(be sure to update your rules accordingly)
```

UFW Salidas:

```
┌──(root㉿kali)-[/home/kali]
└─# ufw allow ssh
Rule added
Rule added (v6)

┌──(root㉿kali)-[/home/kali]
└─# ufw allow http
Rule added
Rule added (v6)

┌──(root㉿kali)-[/home/kali]
└─# ufw allow https
Rule added
Rule added (v6)
```

Iptables Entrada:

```
┌──(root㉿kali)-[/home/kali]
└─# iptables -P INPUT DROP

┌──(root㉿kali)-[/home/kali]
└─# iptables -P OUTPUT ACCEP
iptables: Bad policy name. Run `dmesg' for more information.

┌──(root㉿kali)-[/home/kali]
└─# iptables -P OUTPUT ACCEPT
```

Iptables Salidas

```
┌──(root㉿kali)-[/home/kali]
└─# iptables -A INPUT -p tcp --dport 22 -j ACCEPT

┌──(root㉿kali)-[/home/kali]
└─# iptables -A INPUT -p tcp --dport 80 -j ACCEPT

┌──(root㉿kali)-[/home/kali]
└─# iptables -A INPUT -p tcp --dport 443 -j ACCEPT
```

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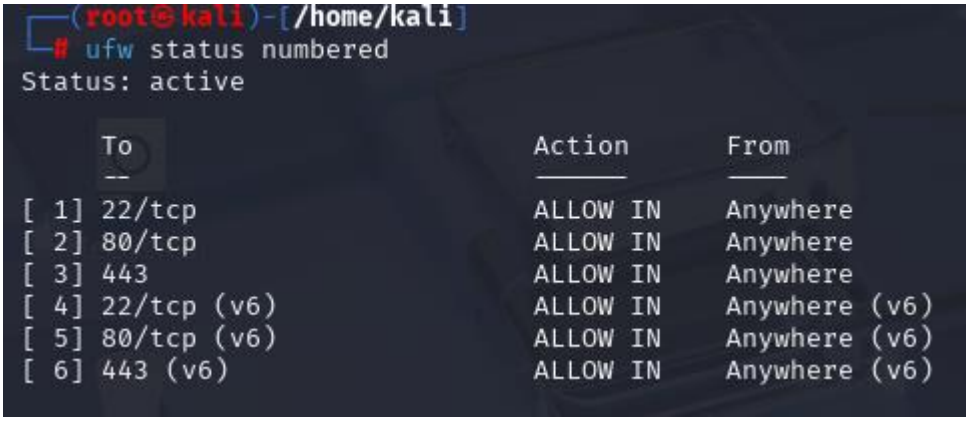
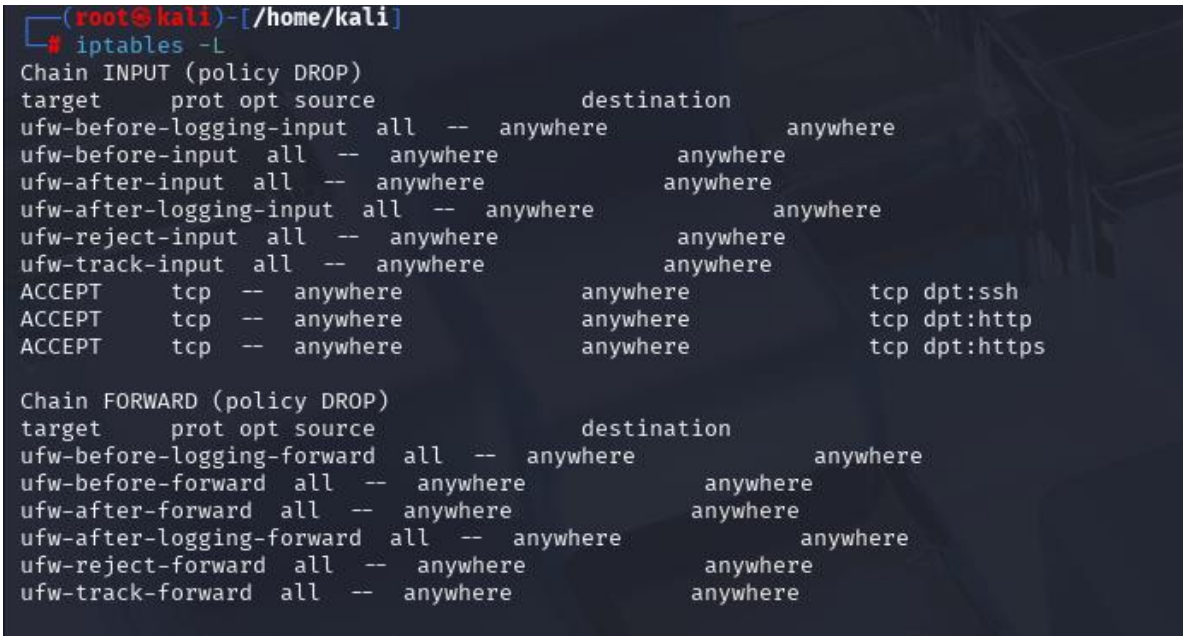
Configuramos los permisos, revisamos en los firewalls los resultados de los comando ejecutados:

UWF:



Iptables:



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Luego, bloqueamos trafico desde una dirección especifica:

Permisos en UFW:

```
┌──(root㉿kali)-[/home/kali]
└─# ufw allow from 192.168.1.100
Skipping adding existing rule

┌──(root㉿kali)-[/home/kali]
└─# ufw logging on
Logging enabled
```

```
┌──(root㉿kali)-[/home/kali]
└─# tail -f /var/log/ufw.log
```

Bloqueo en UFW:

```
┌──(root㉿kali)-[/home/kali]
└─# ufw deny from 192.168.1.101
Rule added

┌──(root㉿kali)-[/home/kali]
└─# ufw deny from any to any port 8080
Rule added
Rule added (v6)
```

Estatus UFW:

```
┌──(root㉿kali)-[/home/kali]
└─# ufw status numbered
Status: active

     To                         Action      From
     --                         ------      ----
[ 1] 22/tcp                     ALLOW IN    Anywhere
[ 2] 80/tcp                     ALLOW IN    Anywhere
[ 3] 443                        ALLOW IN    Anywhere
[ 4] Anywhere                   ALLOW IN    192.168.1.100
[ 5] Anywhere                   DENY IN     192.168.1.101
[ 6] 8080                       DENY IN     Anywhere
[ 7] 22/tcp (v6)                ALLOW IN    Anywhere (v6)
[ 8] 80/tcp (v6)                ALLOW IN    Anywhere (v6)
[ 9] 443 (v6)                   ALLOW IN    Anywhere (v6)
[10] 8080 (v6)                  DENY IN     Anywhere (v6)
```

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Permisos en Iptables:

```
┌──(root㉿kali)-[/home/kali]
└─# iptables -A INPUT -s 192.168.1.60 -j ACCEPT

┌──(root㉿kali)-[/home/kali]
└─# iptables -A INPUT -p tcp --dport 8080 -j DROP
```

Estatus Iptables:

```
Chain ufw-user-input (1 references)
target     prot opt source               destination
ACCEPT     tcp  --  anywhere             anywhere             tcp dpt:ssh
ACCEPT     tcp  --  anywhere             anywhere             tcp dpt:http
ACCEPT     tcp  --  anywhere             anywhere             tcp dpt:https
ACCEPT     udp  --  anywhere             anywhere             udp dpt:https
ACCEPT     all  --  192.168.1.100        anywhere
DROP       all  --  192.168.1.101        anywhere
DROP       tcp  --  anywhere             anywhere             tcp dpt:http-al
t
DROP       udp  --  anywhere             anywhere             udp dpt:8080

Chain ufw-user-limit (0 references)
target     prot opt source               destination
LOG        all  --  anywhere             anywhere             limit: avg 3/mi
n burst 5 LOG level warn prefix "[UFW LIMIT BLOCK] "
REJECT     all  --  anywhere             anywhere             reject-with icm
p-port-unreachable

Chain ufw-user-limit-accept (0 references)
target     prot opt source               destination
ACCEPT     all  --  anywhere             anywhere

Chain ufw-user-logging-forward (0 references)
target     prot opt source               destination
```