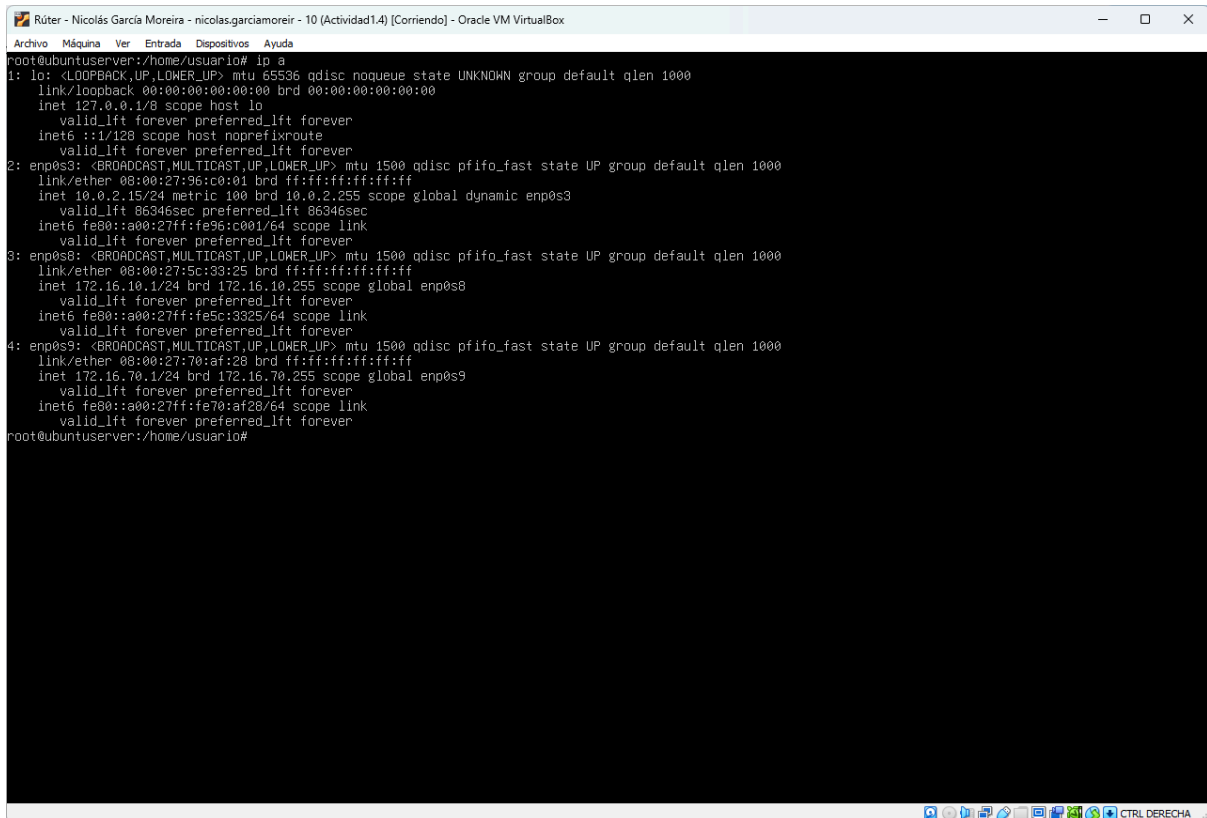


Actividad 4.2: Configuración del enrutamiento para intnet3.

1. En Rúter, configura la conexión de red del nuevo adaptador de red mediante IP 172.16.(Nº de lista+60).1, sin puerta de enlace y sin DNS.
2. En Rúter, añade la regla a iptables que permita enrutar de intnet3 hacia Internet y hazla persistente.
3. En Rúter, captura (pista: consulta los comandos en la guía de la actividad 1.2):
 - a. IPs de las conexiones de red.



```
Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.4) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntu:~# 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: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:96:c0:01 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 metric 100 brd 10.0.2.255 scope global dynamic enp0s3
        valid_lft 86346sec preferred_lft 86346sec
    inet6 fe80::a00:27ff:fe96:c001/64 scope link
        valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:5c:33:25 brd ff:ff:ff:ff:ff:ff
    inet 172.16.10.1/24 brd 172.16.10.255 scope global enp0s8
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe5c:3325/64 scope link
        valid_lft forever preferred_lft forever
4: enp0s9: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:70:af:28 brd ff:ff:ff:ff:ff:ff
    inet 172.16.70.1/24 brd 172.16.70.255 scope global enp0s9
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe70:af28/64 scope link
        valid_lft forever preferred_lft forever
root@ubuntu:~#
```

- b. Puerta de enlace.

```
Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.4) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntu-server:/home/usuario# ip r
default via 10.0.2.2 dev enp0s3 proto dhcp src 10.0.2.15 metric 100
10.0.2.0/24 dev enp0s3 proto kernel scope link src 10.0.2.15 metric 100
10.0.2.2 dev enp0s3 proto dhcp scope link src 10.0.2.15 metric 100
10.42.68.253 via 10.0.2.2 dev enp0s3 proto dhcp src 10.0.2.15 metric 100
10.42.68.254 via 10.0.2.2 dev enp0s3 proto dhcp src 10.0.2.15 metric 100
172.16.10.0/24 dev enp0s8 proto kernel scope link src 172.16.10.1
172.16.70.0/24 dev enp0s9 proto kernel scope link src 172.16.70.1
root@ubuntu-server:/home/usuario#
```

c. DNS para el nuevo adaptador (no tiene).

```
Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.4) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntu-server:/home/usuario# resolvectl status
Global
  Protocols: -LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported
  resolv.conf mode: stub

Link 2 (enp0s3)
  Current Scopes: DNS
  Protocols: +DefaultRoute -LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported
  Current DNS Server: 10.42.68.254
  DNS Servers: 10.42.68.254 10.42.68.253

Link 3 (enp0s8)
  Current Scopes: none
  Protocols: -DefaultRoute -LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported

Link 4 (enp0s9)
  Current Scopes: none
  Protocols: -DefaultRoute -LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported
root@ubuntu-server:/home/usuario#
```

d. Archivo de configuración de red.

```
Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.4) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntuuserver:/home/usuario# cat /etc/netplan/50-cloud-init.yaml
# This file is generated from information provided by the datasource. Changes
# to it will not persist across an instance reboot. To disable cloud-init's
# network configuration capabilities, write a file
# /etc/cloud/cloud.cfg.d/99-disable-network-config.cfg with the following:
# network: {config: disabled}
network:
  version: 2
  renderer: networkd
  ethernet:
    enp0s3:
      dhcp4: true
    enp0s8:
      dhcp4: no
      addresses: [172.16.10.1/24]
    enp0s9:
      dhcp4: no
      addresses: [172.16.70.1/24]
root@ubuntuuserver:/home/usuario#
```

- e. Comando que permite listar las reglas NAT de iptables (pista: *iptables -t nat -L*).

```
Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.4) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntuuserver:/home/usuario# iptables -t nat -L
Chain PREROUTING (policy ACCEPT)
target prot opt source destination
Chain INPUT (policy ACCEPT)
target prot opt source destination
Chain OUTPUT (policy ACCEPT)
target prot opt source destination
Chain POSTROUTING (policy ACCEPT)
target prot opt source destination
MASQUERADE all -- 172.16.10.0/24 anywhere
MASQUERADE all -- 172.16.70.0/24 anywhere
root@ubuntuuserver:/home/usuario#
```

- f. Contenido del archivo *rules.v4*

Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.4) [Corriendo] - Oracle VM VirtualBox

Archivo Máquina Ver Entrada Dispositivos Ayuda

GNU nano 7.2 /etc/iptables/rules.v4

```
# Generated by iptables-save v1.8.10 (nf_tables) on Mon Oct 7 11:58:18 2024
*filter
:INPUT ACCEPT [0:0]
:FORWARD ACCEPT [0:0]
:OUTPUT ACCEPT [0:0]
-A FORWARD -j ACCEPT
COMMIT
# Completed on Mon Oct 7 11:58:18 2024
# Generated by iptables-save v1.8.10 (nf_tables) on Mon Oct 7 11:58:18 2024
*nat
:PREROUTING ACCEPT [0:0]
:INPUT ACCEPT [0:0]
:OUTPUT ACCEPT [0:0]
:POSTROUTING ACCEPT [0:0]
-A POSTROUTING -s 172.16.10.0/24 -o enp0s3 -j MASQUERADE
-A POSTROUTING -s 172.16.70.0/24 -o enp0s3 -j MASQUERADE
COMMIT
# Completed on Mon Oct 7 11:58:18 2024
```

[Read 18 lines]

Help Write Out Where Is Cut Execute Location M-U Undo M-A Set Mark M-] To Bracket M-O Previous
Exit Read File Replace Paste Justify Go To Line M-R Redo M-B Copy M-^ Where Was M-K Next

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