

Fichero netplan del Servidor (comando cat)

```

MDMVazquez-Server1 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
mdmvazquez@mdmvazquez-server:~$ cat /etc/netplan/50-cloud-init.yaml
network:
  ethernets:
    enp0s3:
      dhcp4: false
      addresses: [172.16.224.1/20]
      gateway4: 172.16.224.254
      nameservers:
        addresses: [1.1.1.1 , 1.0.0.1]
    enp0s8:
      dhcp4: true
  version: 2
mdmvazquez@mdmvazquez-server:~$ _

```

Comandos, y resultados, para apagar y encender la interfaz de red interna del servidor.

```

MDMVazquez-Server1 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
mdmvazquez@mdmvazquez-server:~$ sudo ip link set enp0s3 down
[sudo] password for mdmvazquez:
mdmvazquez@mdmvazquez-server:~$ sudo ip link set enp0s3 up
mdmvazquez@mdmvazquez-server:~$ _

```

Comandos y resultados para ver todos los parámetros de red del servidor (red interna)

```

MDMVazquez-Server1 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
mdmvazquez@mdmvazquez-server:~$ ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group c
    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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state
0
    link/ether 08:00:27:71:e9:b0 brd ff:ff:ff:ff:ff:ff
    inet 172.16.224.1/20 brd 172.16.239.255 scope global enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe71:e9b0/64 scope link
        valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state
0
    link/ether 08:00:27:23:bf:67 brd ff:ff:ff:ff:ff:ff
    inet 172.16.140.219/24 brd 172.16.140.255 scope global dynamic enp0s8
        valid_lft 7342sec preferred_lft 7342sec
    inet6 fe80::a00:27ff:fe23:bf67/64 scope link
        valid_lft forever preferred_lft forever
mdmvazquez@mdmvazquez-server:~$

```

Ficheros de configuración del DHCP que has tenido que modificar. Indica lo que se ha añadido

```
MDMVazquez-Server1 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

GNU nano 2.9.8 /etc/dhcp/dhcpd.conf

subnet 172.16.224.0 netmask 255.255.240.0 {
    range 172.16.224.150 172.16.224.200;
    option domain-name-servers 64.6.64.6 , 64.6.65.6;
    option subnet-mask 255.255.240.0;
    option routers 172.16.239.253;
    option broadcast-address 172.16.239.255;
    min-lease-time 3600;
    default-lease-time 7200;
    max-lease-time 18000;

    host mdmvazquez {
        hardware ethernet 08:00:27:3c:db:17;
        fixed-address 172.16.224.100;
        option domain-name-servers 8.8.8.8 , 8.8.4.4;
        default-lease-time 86400;
        max-lease-time 172800;
    }
}
#host fantasia1 {
```

```
MDMVazquez-Server1 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

mdmvazquez@mdmvazquez-server:~$ cat /etc/default/isc-dhcp-server
# Defaults for isc-dhcp-server (sourced by /etc/init.d/isc-dhcp-server)

# Path to dhcpd's config file (default: /etc/dhcp/dhcpd.conf).
#DHCPDv4_CONF=/etc/dhcp/dhcpd.conf
#DHCPDv6_CONF=/etc/dhcp/dhcpd6.conf

# Path to dhcpd's PID file (default: /var/run/dhcpd.pid).
#DHCPDv4_PID=/var/run/dhcpd.pid
#DHCPDv6_PID=/var/run/dhcpd6.pid

# Additional options to start dhcpd with.
# Don't use options -cf or -pf here; use DHCPD_CONF/ DHCPD_PID instead
#OPTIONS=""

# On what interfaces should the DHCP server (dhcpd) serve DHCP requests?
# Separate multiple interfaces with spaces, e.g. "eth0 eth1".
INTERFACESv4="enp0s3"
INTERFACESv6=""
mdmvazquez@mdmvazquez-server:~$
```

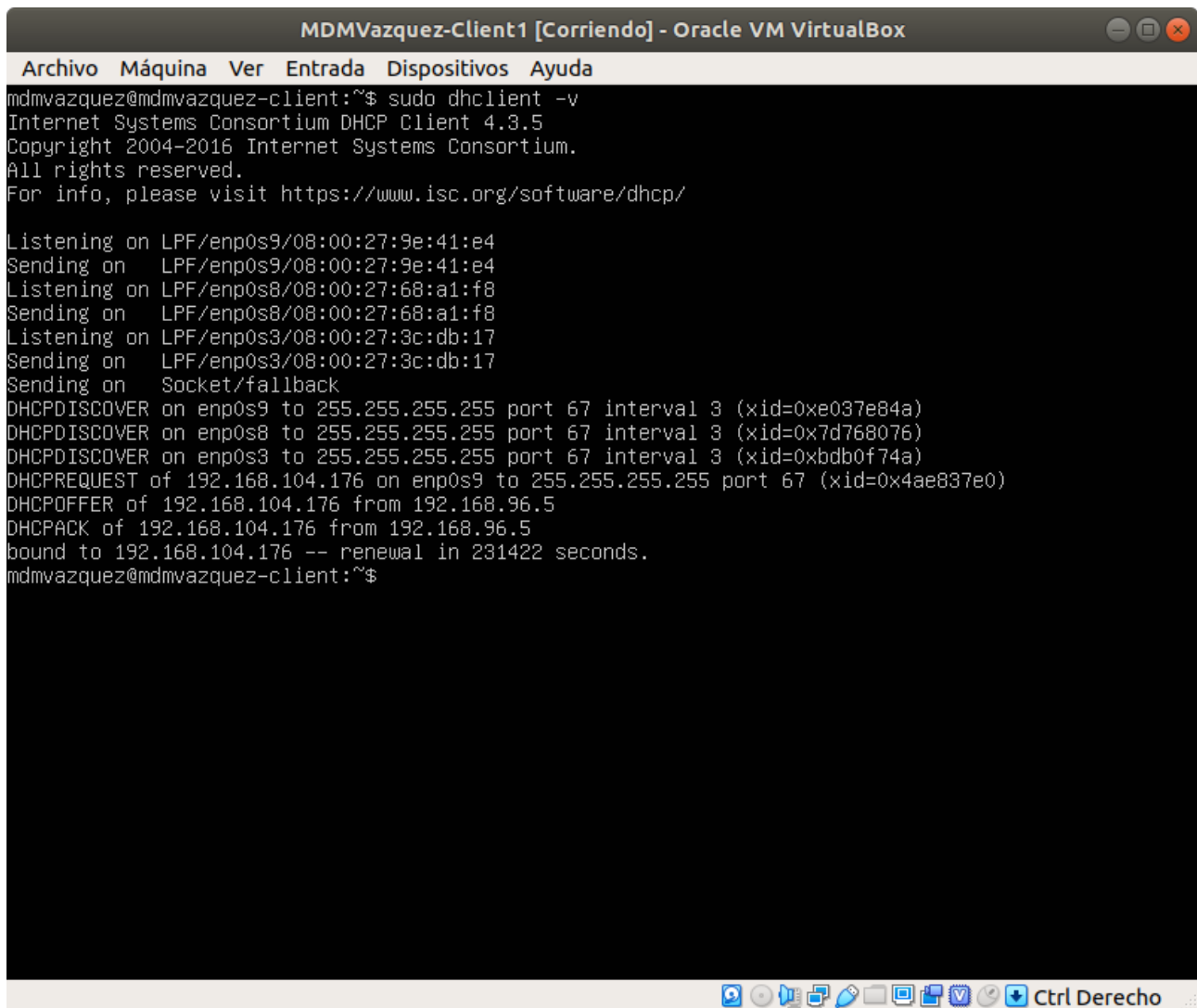
Fichero netplan del Cliente (comando cat)

```
MDMVazquez-Client1 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
mdmvazquez@mdmvazquez-client:~$ cat /etc/netplan/50-cloud-init.yaml
network:
  version: 2
  ethernets:
    enp0s3:
      dhcp4: true
    enp0s8:
      dhcp4: true
    enp0s9:
      dhcp4: true
mdmvazquez@mdmvazquez-client:~$ _
```

Comandos, y resultados, para liberar y pedir los parámetros de red de todas las interfaces. Deben verse los mensajes DHCP del diálogo entre cliente y servidor.

```
MDMVazquez-Client1 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
mdmvazquez@mdmvazquez-client:~$ sudo dhclient -v -r
Killed old client process
Internet Systems Consortium DHCP Client 4.3.5
Copyright 2004-2016 Internet Systems Consortium.
All rights reserved.
For info, please visit https://www.isc.org/software/dhcp/

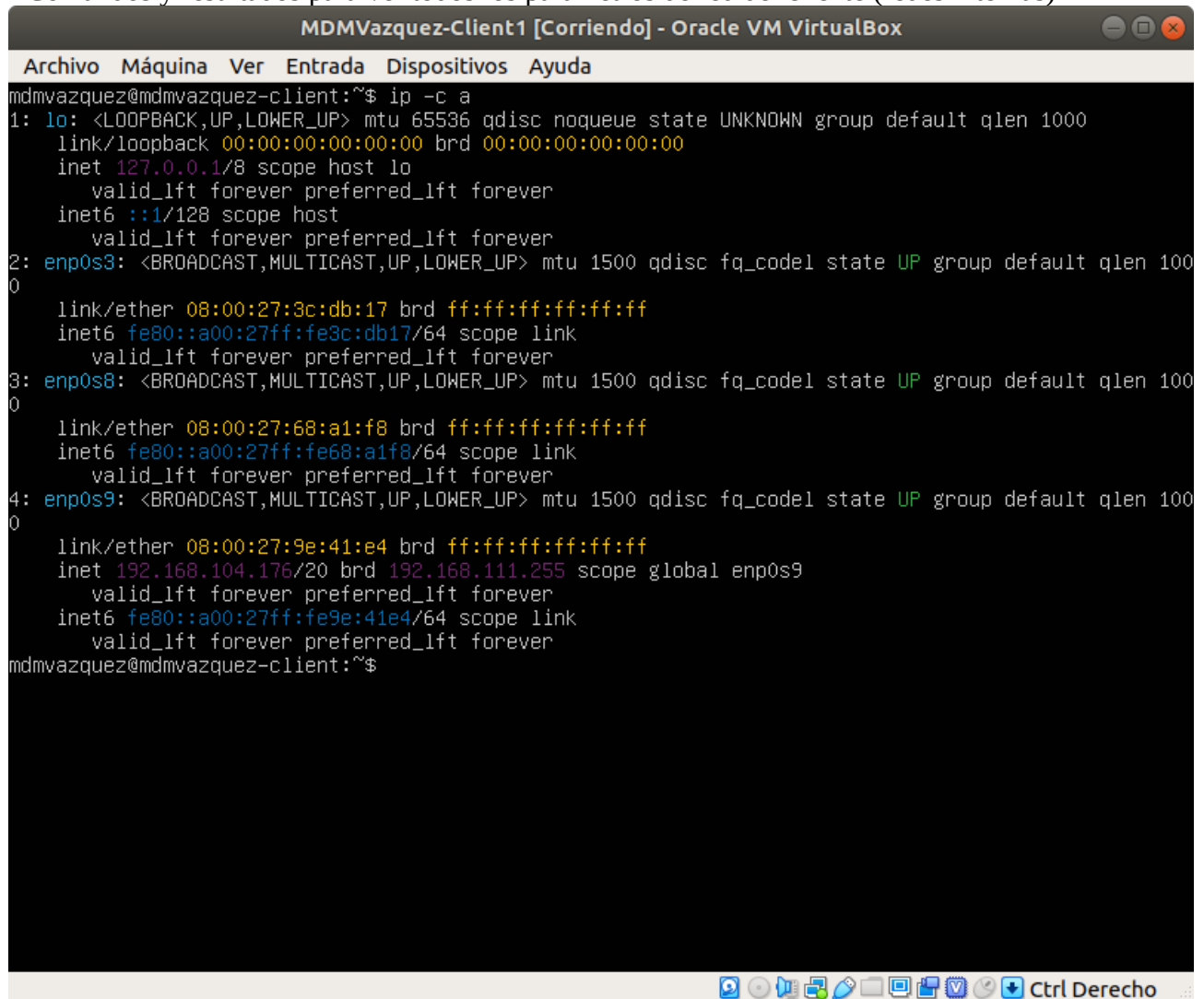
Listening on LPF/enp0s9/08:00:27:9e:41:e4
Sending on   LPF/enp0s9/08:00:27:9e:41:e4
Listening on LPF/enp0s8/08:00:27:68:a1:f8
Sending on   LPF/enp0s8/08:00:27:68:a1:f8
Listening on LPF/enp0s3/08:00:27:3c:db:17
Sending on   LPF/enp0s3/08:00:27:3c:db:17
Sending on   Socket/fallback
DHCPRELEASE on enp0s9 to 192.168.96.5 port 67 (xid=0x2a157d45)
DHCPRELEASE on enp0s8 to 172.16.224.1 port 67 (xid=0x57b7c4d2)
send_packet: Network is unreachable
send_packet: please consult README file regarding broadcast address.
dhclient.c:2864: Failed to send 300 byte long packet over fallback interface.
DHCPRELEASE on enp0s3 to 172.16.224.1 port 67 (xid=0x27f4a1f)
send_packet: Network is unreachable
send_packet: please consult README file regarding broadcast address.
dhclient.c:2864: Failed to send 300 byte long packet over fallback interface.
mdmvazquez@mdmvazquez-client:~$
```



```
MDMVazquez-Client1 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
mdmvazquez@mdmvazquez-client:~$ sudo dhclient -v
Internet Systems Consortium DHCP Client 4.3.5
Copyright 2004-2016 Internet Systems Consortium.
All rights reserved.
For info, please visit https://www.isc.org/software/dhcp/

Listening on LPF/enp0s9/08:00:27:9e:41:e4
Sending on   LPF/enp0s9/08:00:27:9e:41:e4
Listening on LPF/enp0s8/08:00:27:68:a1:f8
Sending on   LPF/enp0s8/08:00:27:68:a1:f8
Listening on LPF/enp0s3/08:00:27:3c:db:17
Sending on   LPF/enp0s3/08:00:27:3c:db:17
Sending on   Socket/fallback
DHCPDISCOVER on enp0s9 to 255.255.255.255 port 67 interval 3 (xid=0xe037e84a)
DHCPDISCOVER on enp0s8 to 255.255.255.255 port 67 interval 3 (xid=0x7d768076)
DHCPDISCOVER on enp0s3 to 255.255.255.255 port 67 interval 3 (xid=0xbdb0f74a)
DHCPOFFER of 192.168.104.176 on enp0s9 to 255.255.255.255 port 67 (xid=0x4ae837e0)
DHCPREQUEST of 192.168.104.176 from 192.168.96.5
DHCPACK of 192.168.104.176 from 192.168.96.5
bound to 192.168.104.176 -- renewal in 231422 seconds.
mdmvazquez@mdmvazquez-client:~$
```

- Comandos y resultados para ver todos los parámetros de red del cliente (redes internas)



```
MDMVazquez-Client1 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
mdmvazquez@mdmvazquez-client:~$ ip -c 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
       valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
   link/ether 08:00:27:3c:db:17 brd ff:ff:ff:ff:ff:ff
   inet6 fe80::a00:27ff:fe3c:db17/64 scope link
       valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
   link/ether 08:00:27:68:a1:f8 brd ff:ff:ff:ff:ff:ff
   inet6 fe80::a00:27ff:fe68:a1f8/64 scope link
       valid_lft forever preferred_lft forever
4: enp0s9: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
   link/ether 08:00:27:9e:41:e4 brd ff:ff:ff:ff:ff:ff
   inet 192.168.104.176/20 brd 192.168.111.255 scope global enp0s9
       valid_lft forever preferred_lft forever
   inet6 fe80::a00:27ff:fe9e:41e4/64 scope link
       valid_lft forever preferred_lft forever
mdmvazquez@mdmvazquez-client:~$
```