

1-

a) Configuración netplan en el servidor:

```
GNU nano 7.2 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:
  ethernets:
    enp0s3:
      dhcp4: true
    enp0s8:
      dhcp4: false
      addresses: [192.168.1.100/24]
  version: 2
```

b) Configuración de IP de cliente y ping a la IP del servidor

```
rufes@rufescliente:~$ 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 08:00:27:7b:57:d4 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.10/24 brd 192.168.1.255 scope global noprefixroute enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::4f5a:c471:4e18:93e/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
rufes@rufescliente:~$ ping 192.168.1.100
PING 192.168.1.100 (192.168.1.100) 56(84) bytes of data.
64 bytes from 192.168.1.100: icmp_seq=1 ttl=64 time=0.889 ms
64 bytes from 192.168.1.100: icmp_seq=2 ttl=64 time=1.06 ms
64 bytes from 192.168.1.100: icmp_seq=3 ttl=64 time=1.01 ms
64 bytes from 192.168.1.100: icmp_seq=4 ttl=64 time=1.03 ms
^C
--- 192.168.1.100 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3002ms
rtt min/avg/max/mdev = 0.889/0.995/1.056/0.063 ms
```

2

a) Archivo de configuración sysctl.conf

```
GNU nano 7.2 sysctl.conf *
#
# /etc/sysctl.conf - Configuration file for setting system variables
# See /etc/sysctl.d/ for additional system variables.
# See sysctl.conf (5) for information.
#
#kernel.domainname = example.com
#
# Uncomment the following to stop low-level messages on console
#kernel.printk = 3 4 1 3
#
#####
# Functions previously found in netbase
#
# Uncomment the next two lines to enable Spoof protection (reverse-path filter)
# Turn on Source Address Verification in all interfaces to
# prevent some spoofing attacks
#net.ipv4.conf.default.rp_filter=1
#net.ipv4.conf.all.rp_filter=1
#
# Uncomment the next line to enable TCP/IP SYN cookies
# See http://lwn.net/Articles/277146/
# Note: This may impact IPv6 TCP sessions too
#net.ipv4.tcp_syncookies=1
#
# Uncomment the next line to enable packet forwarding for IPv4
net.ipv4.ip_forward=1
```

b) Habría que descomentar la línea “net.ipv6.conf.all.forwarding=1”

3

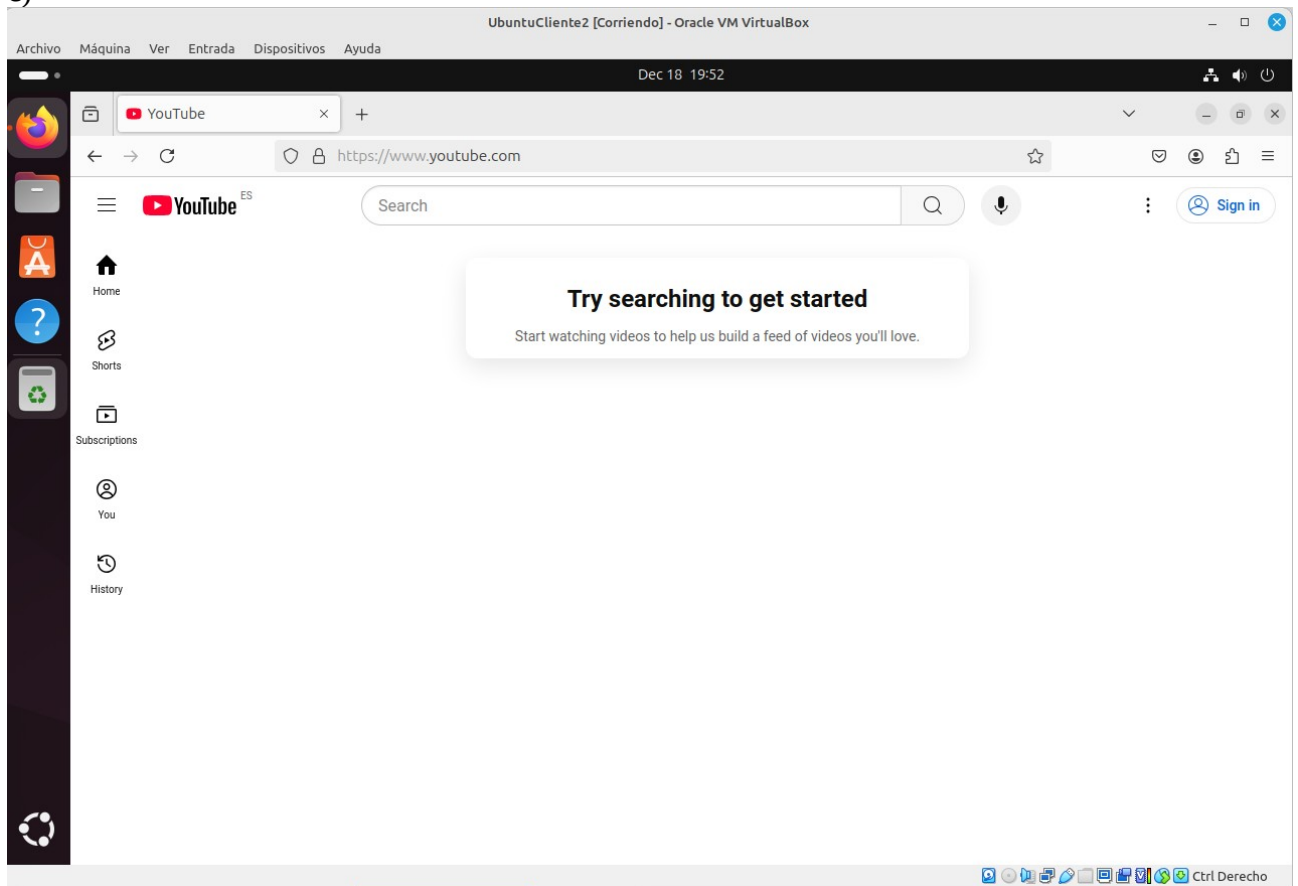
a)

```
rufes@rufesserver:/etc/rc5.d$ ls -la
total 8
drwxr-xr-x  2 root root 4096 Dec 13 17:37 .
drwxr-xr-x 108 root root 4096 Dec 13 17:25 ..
lrwxrwxrwx  1 root root   16 Aug 27 14:21 S01appport -> ../init.d/appport
lrwxrwxrwx  1 root root   26 Aug 27 14:21 S01console-setup.sh -> ../init.d/console-setup.sh
lrwxrwxrwx  1 root root   14 Aug 27 14:26 S01cron -> ../init.d/cron
lrwxrwxrwx  1 root root   14 Aug 27 14:21 S01dbus -> ../init.d/dbus
lrwxrwxrwx  1 root root   21 Dec 11 19:12 S01grub-common -> ../init.d/grub-common
lrwxrwxrwx  1 root root   23 Aug 27 14:26 S01open-vm-tools -> ../init.d/open-vm-tools
lrwxrwxrwx  1 root root   18 Aug 27 14:21 S01plymouth -> ../init.d/plymouth
lrwxrwxrwx  1 root root   15 Aug 27 14:26 S01rsync -> ../init.d/rsync
lrwxrwxrwx  1 root root   17 Aug 27 14:26 S01sysstat -> ../init.d/sysstat
lrwxrwxrwx  1 root root   29 Aug 27 14:21 S01unattended-upgrades -> ../init.d/unattended-upgrades
lrwxrwxrwx  1 root root   15 Aug 27 14:26 S01uuidd -> ../init.d/uuidd
lrwxrwxrwx  1 root root   23 Dec 13 17:37 S05activarnat -> ../init.d/activarnat.sh
```

b)

```
rufes@rufesserver:/etc/init.d$ cat activarnat.sh
#!/bin/bash
/sbin/iptables -P FORWARD ACCEPT
/sbin/iptables --table nat -A POSTROUTING -s 192.168.1.0/24 -o enp0s3 -j MASQUERADE
```

c)



d)

No carga el script al iniciar el pc, por lo que el cliente quedaría sin internet

4

a)

```
rufes@rufescliente: ~  
rufes@rufescliente:~$ ping 192.168.82.2  
PING 192.168.82.2 (192.168.82.2) 56(84) bytes of data.  
64 bytes from 192.168.82.2: icmp_seq=1 ttl=63 time=0.961 ms  
64 bytes from 192.168.82.2: icmp_seq=2 ttl=63 time=1.17 ms  
64 bytes from 192.168.82.2: icmp_seq=3 ttl=63 time=1.44 ms  
64 bytes from 192.168.82.2: icmp_seq=4 ttl=63 time=0.768 ms  
^C  
--- 192.168.82.2 ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3003ms  
rtt min/avg/max/mdev = 0.768/1.084/1.438/0.248 ms  
rufes@rufescliente:~$
```

b)

