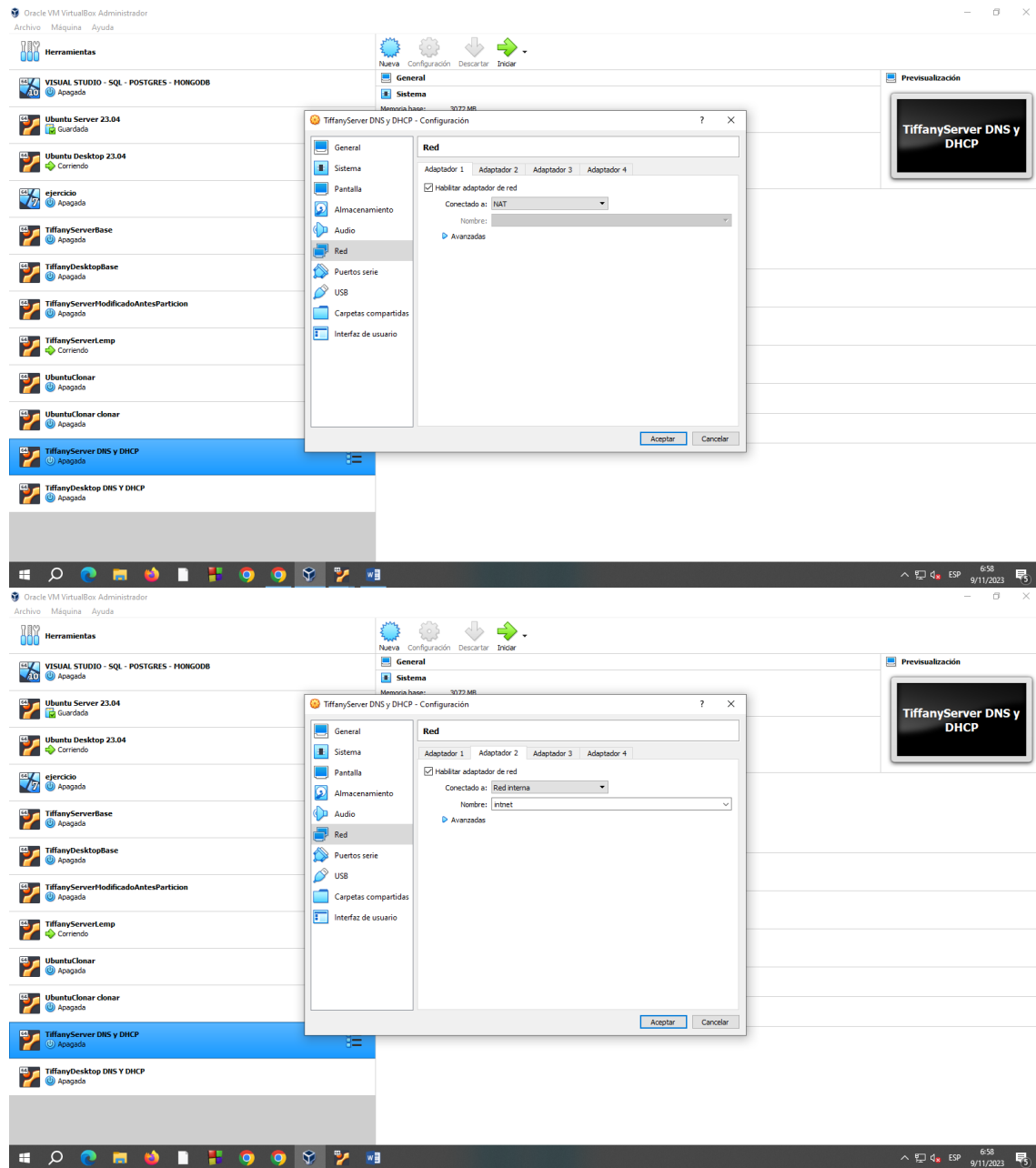


Nombre: Tiffany Jordán Uquillas

Taller: Router server

Configuración Red - Server



Nombre: Tiffany Jordán Uquillas

Configuración Red - Desktop

Oracle VM VirtualBox Administrador

Herramientas

Visual Studio - SQL - POSTGRES - MONGODB

Ubuntu Server 23.04

Ubuntu Desktop 23.04

ejercicio

TiffanyServerBase

TiffanyDesktopBase

TiffanyServerModificadoAntesParticion

TiffanyServerTemp

UbuntuClonar

UbuntuClonar clonar

TiffanyServer DNS y DHCP

TiffanyDesktop DNS Y DHCP

TiffanyDesktop DNS Y DHCP - Configuración

General

Sistema

Pantalla

Almacenamiento

Audio

Red

Puertos serie

USB

Carpetas compartidas

Interfaz de usuario

Red

Adaptador 1 Adaptador 2 Adaptador 3 Adaptador 4

☒ Habilitar adaptador de red

Conectado a: Red interna

Nombre: vnet

Avanzadas

Aceptar Cancelar

Previsualización

TiffanyDesktop DNS Y DHCP

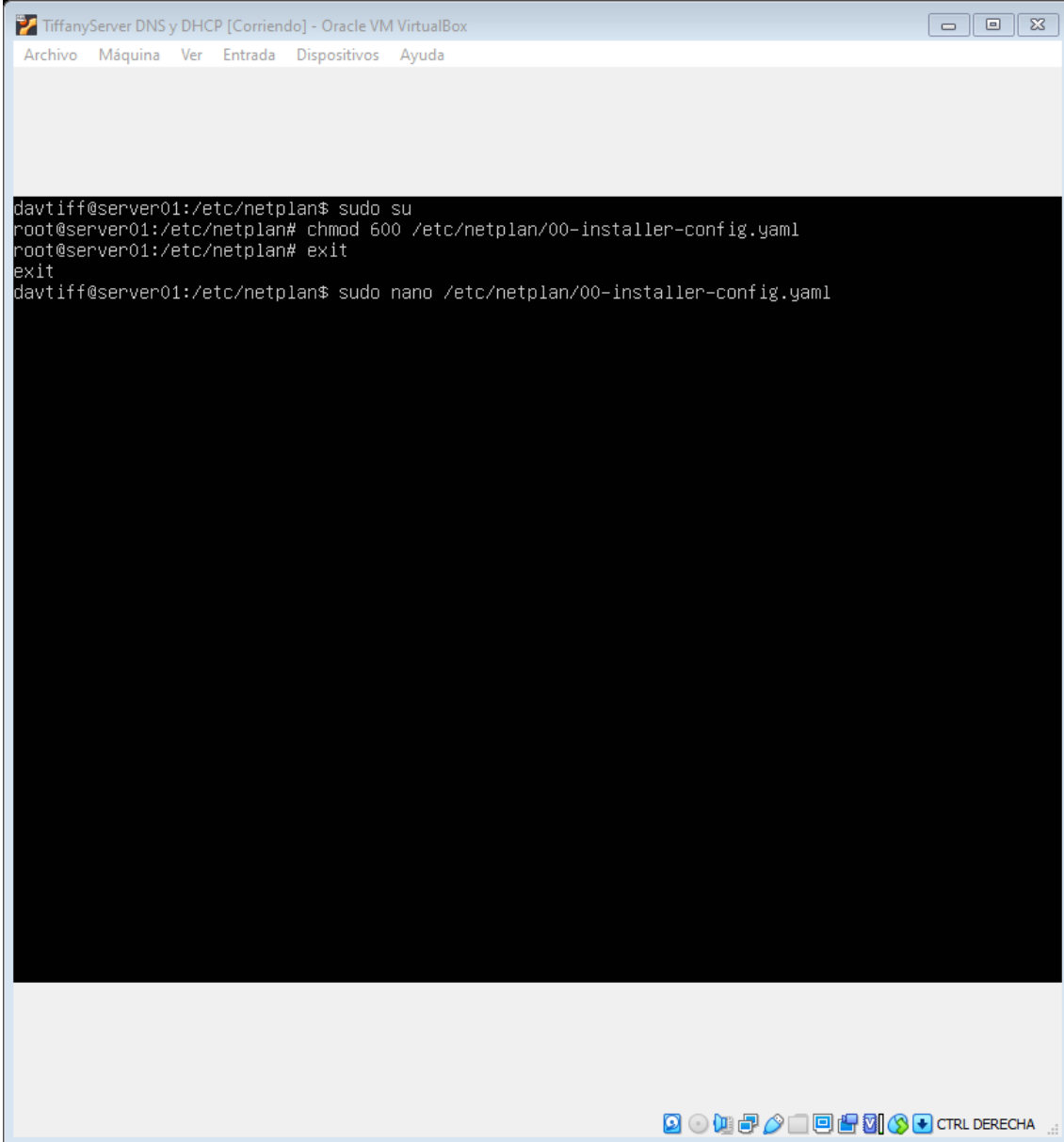
TiffanyServer DNS y DHCP [Corriendo] - Oracle VM VirtualBox

Archivo Máquina Ver Entrada Dispositivos Ayuda

```
davtiff@server01:/etc/netplan$ sudo apt update && sudo apt upgrade
Obj:1 http://ec.archive.ubuntu.com/ubuntu jammy InRelease
Obj:2 http://ec.archive.ubuntu.com/ubuntu jammy-updates InRelease
Obj:3 http://ec.archive.ubuntu.com/ubuntu jammy-backports InRelease
Obj:4 http://ec.archive.ubuntu.com/ubuntu jammy-security InRelease
Leyendo lista de paquetes... 27%
```

CTRL DERECHA

Nombre: Tiffany Jordán Uquillas

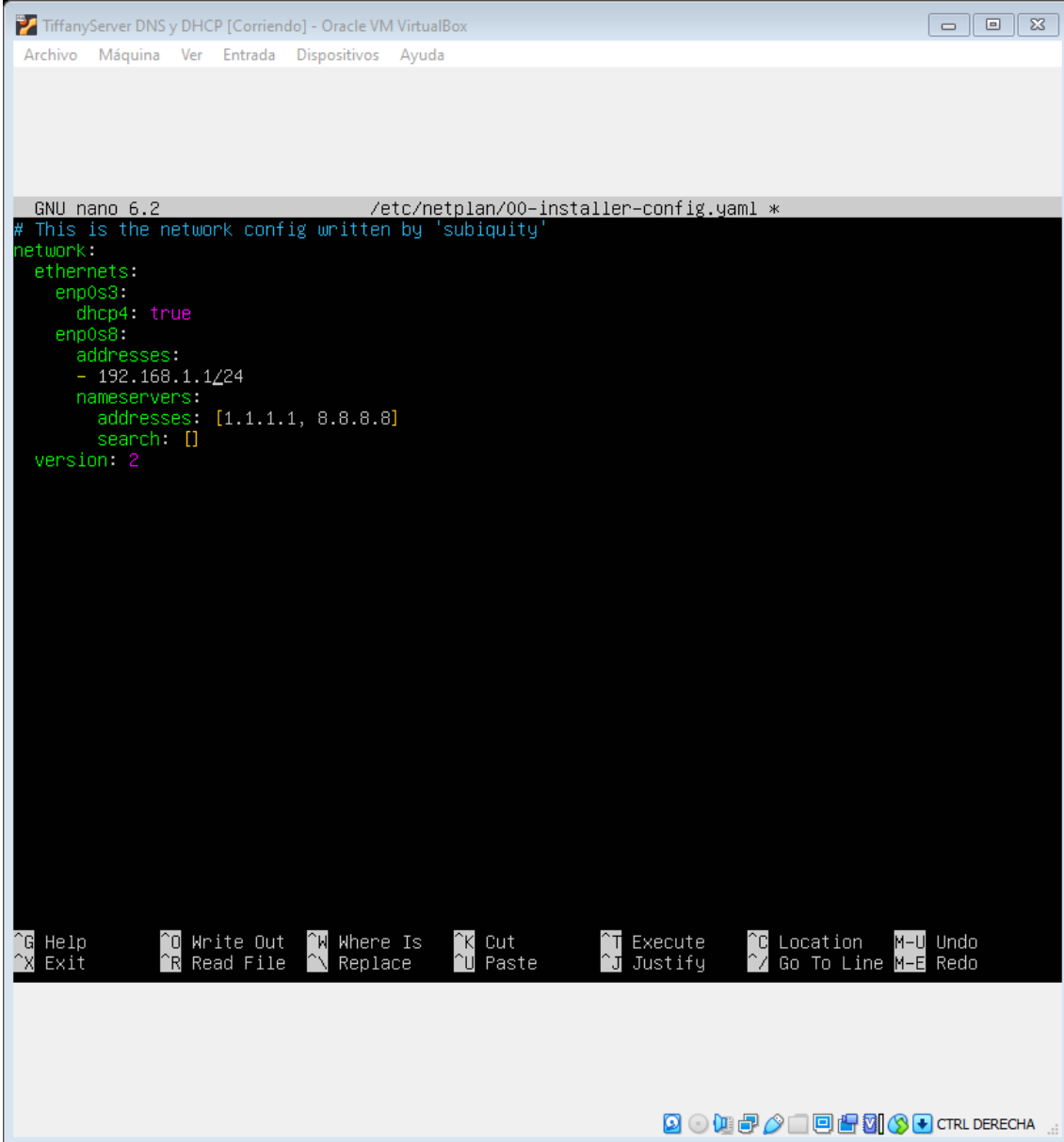


The screenshot shows a terminal window titled "TiffanyServer DNS y DHCP [Corriendo] - Oracle VM VirtualBox". The window has a menu bar with "Archivo", "Máquina", "Ver", "Entrada", "Dispositivos", and "Ayuda". The terminal output shows the following commands and prompts:

```
davtiff@server01:/etc/netplan$ sudo su
root@server01:/etc/netplan# chmod 600 /etc/netplan/00-installer-config.yaml
root@server01:/etc/netplan# exit
exit
davtiff@server01:/etc/netplan$ sudo nano /etc/netplan/00-installer-config.yaml
```

The terminal window has a toolbar at the bottom with icons for search, zoom, and other functions, along with the text "CTRL DERECHA".

Nombre: Tiffany Jordán Uquillas



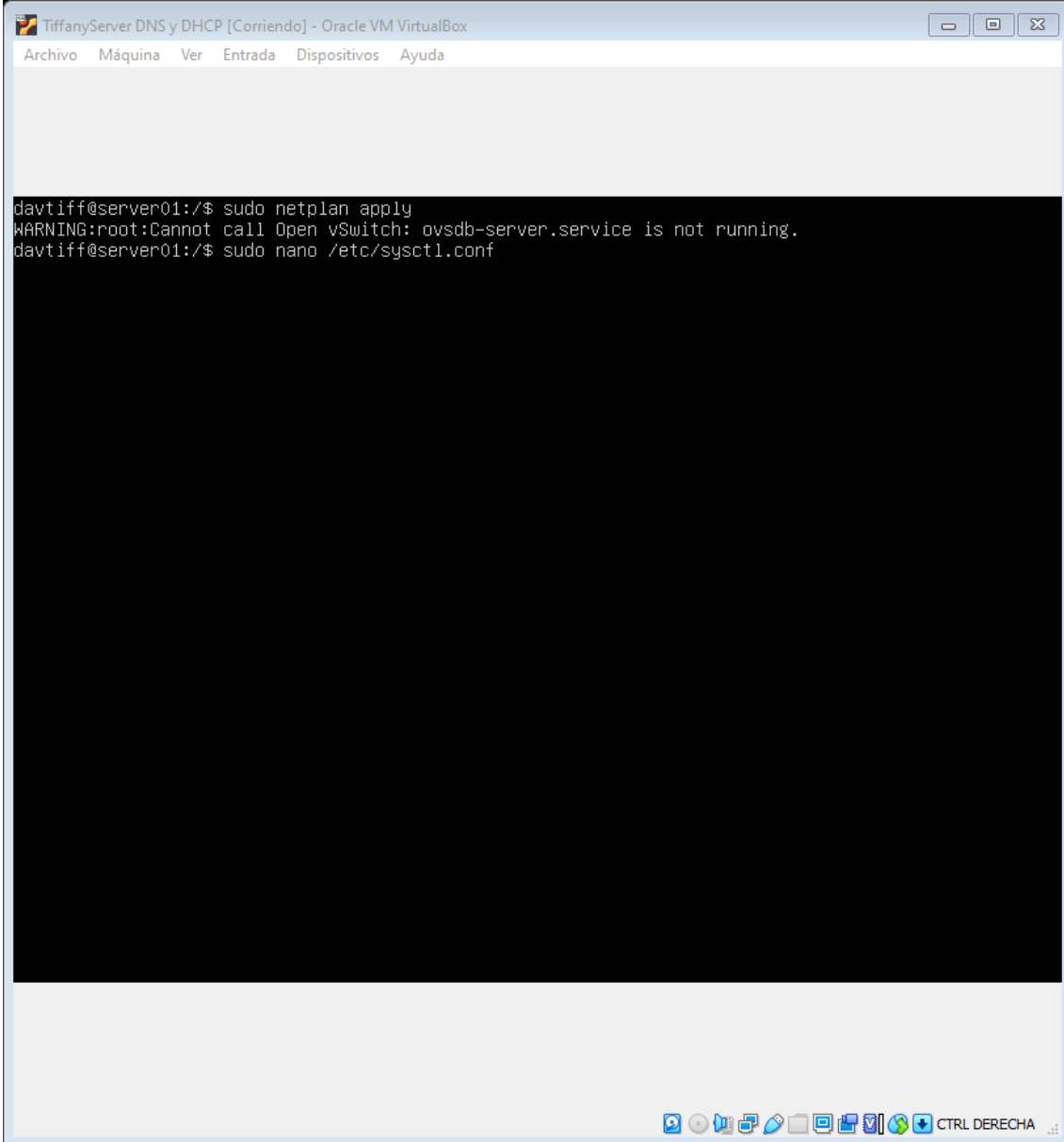
The screenshot shows a terminal window titled "TiffanyServer DNS y DHCP [Corriendo] - Oracle VM VirtualBox". The window has a menu bar with "Archivo", "Máquina", "Ver", "Entrada", "Dispositivos", and "Ayuda". The terminal content shows the GNU nano 6.2 editor editing the file `/etc/netplan/00-installer-config.yaml`. The configuration is for a network interface `enp0s8` with DHCP enabled and a static IP address of `192.168.1.1/24`. The nameservers are set to `[1.1.1.1, 8.8.8.8]` and the search domain is empty. The version is `2`. The terminal also displays a list of nano editor shortcuts at the bottom.

```
GNU nano 6.2 /etc/netplan/00-installer-config.yaml *
# This is the network config written by 'subiquity'
network:
  ethernets:
    enp0s3:
      dhcp4: true
    enp0s8:
      addresses:
        - 192.168.1.1/24
      nameservers:
        addresses: [1.1.1.1, 8.8.8.8]
        search: []
  version: 2
```

Help Exit Write Out Read File Where Is Replace Cut Paste Execute Justify Location Go To Line Undo Redo

CTRL DERECHA

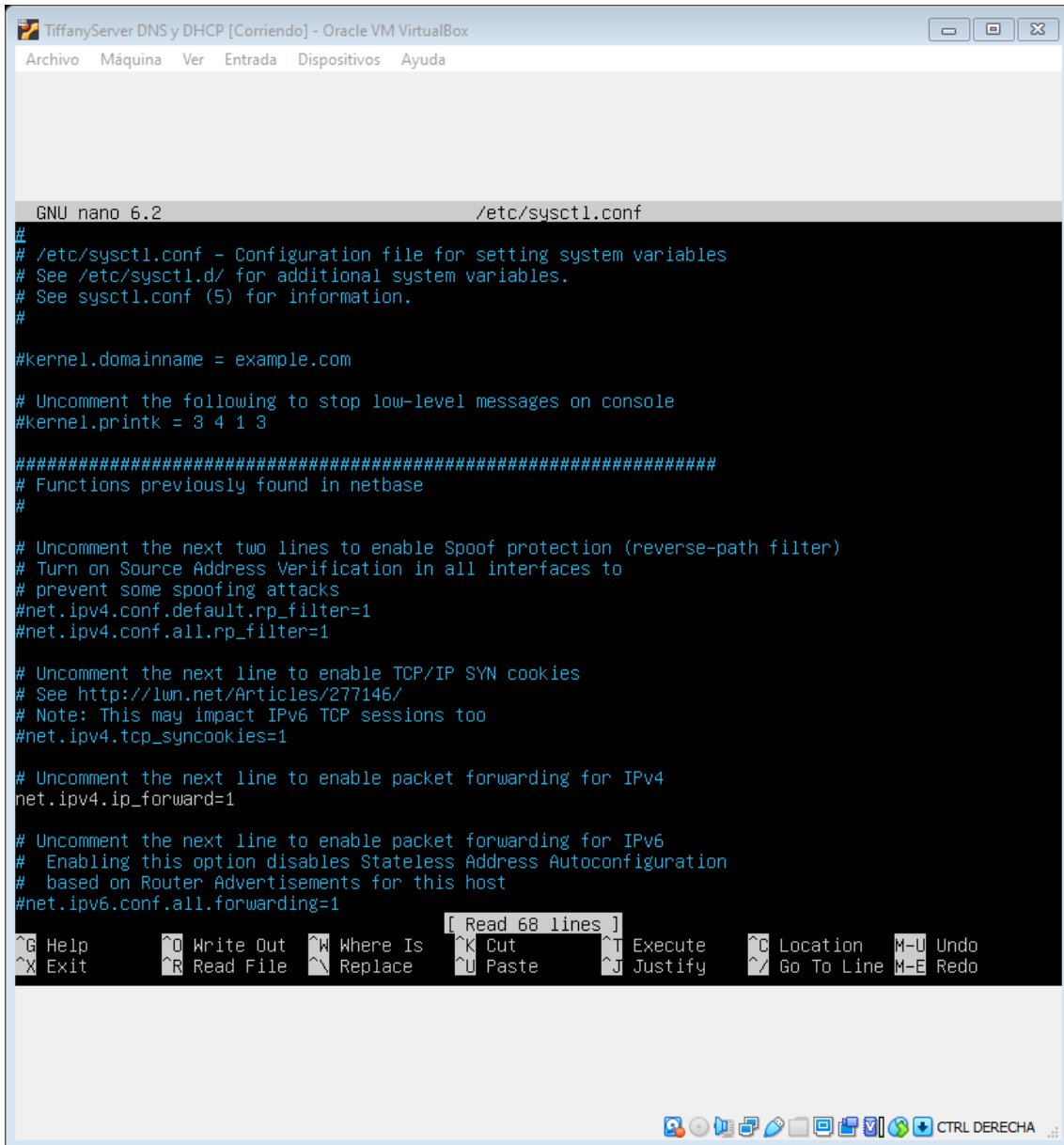
Nombre: Tiffany Jordán Uquillas



The screenshot shows a terminal window titled "TiffanyServer DNS y DHCP [Corriendo] - Oracle VM VirtualBox". The window has a menu bar with "Archivo", "Máquina", "Ver", "Entrada", "Dispositivos", and "Ayuda". The terminal content shows a user named "davtiff" at "server01" running the command "sudo netplan apply". This results in a warning: "WARNING:root:Cannot call Open vSwitch: ovsdb-server.service is not running." The user then runs "sudo nano /etc/sysctl.conf". The terminal background is black with white text. At the bottom of the window is a toolbar with various icons and the text "CTRL DERECHA".

```
davtiff@server01:/$ sudo netplan apply
WARNING:root:Cannot call Open vSwitch: ovsdb-server.service is not running.
davtiff@server01:/$ sudo nano /etc/sysctl.conf
```

Nombre: Tiffany Jordán Uquillas



The screenshot shows a window titled "TiffanyServer DNS y DHCP [Corriendo] - Oracle VM VirtualBox". Inside, the nano 6.2 text editor is open, editing the file /etc/sysctl.conf. The file content includes comments and configuration for kernel.domainname, kernel.printk, net.ipv4.conf.default.rp_filter, net.ipv4.conf.all.rp_filter, net.ipv4.tcp_syncookies, net.ipv4.ip_forward, and net.ipv6.conf.all.forwarding. A status bar at the bottom of the editor shows "[Read 68 lines]" and various keyboard shortcuts. The bottom of the window features a taskbar with icons for a terminal, file manager, and other applications, along with the text "CTRL DERECHA".

```
GNU nano 6.2 /etc/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

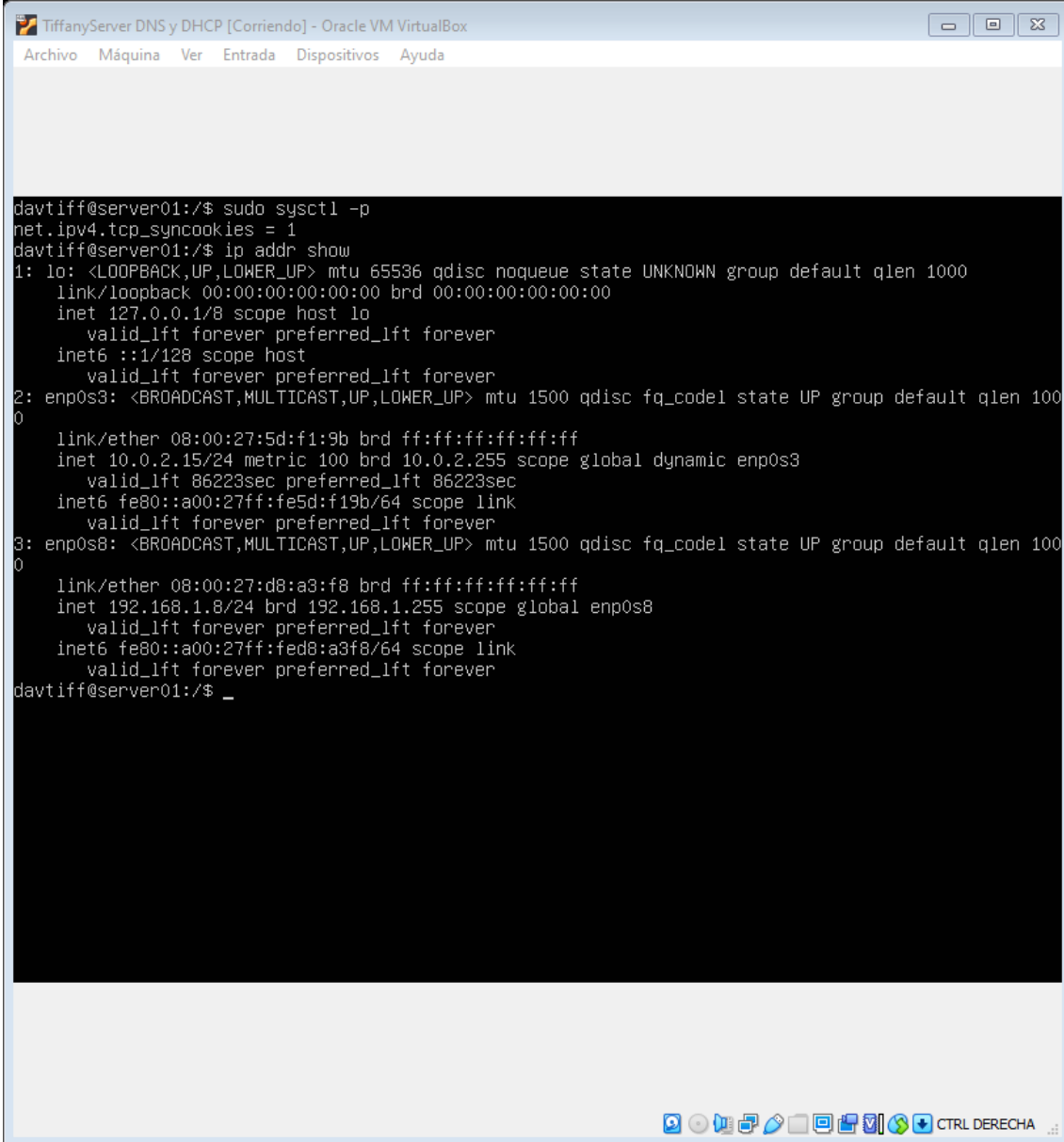
# Uncomment the next line to enable TCP/IP SYN cookies
# See http://lwn.net/Articles/277146/
# Note: This may impact IPv6 TCP sessions too
#net.ipv4.tcp_syncookies=1

# Uncomment the next line to enable packet forwarding for IPv4
net.ipv4.ip_forward=1

# Uncomment the next line to enable packet forwarding for IPv6
# Enabling this option disables Stateless Address Autoconfiguration
# based on Router Advertisements for this host
#net.ipv6.conf.all.forwarding=1

[ Read 68 lines ]
^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location   M-U Undo
^X Exit      ^R Read File  ^_ Replace    ^U Paste      ^J Justify    ^_ Go To Line  M-E Redo
```

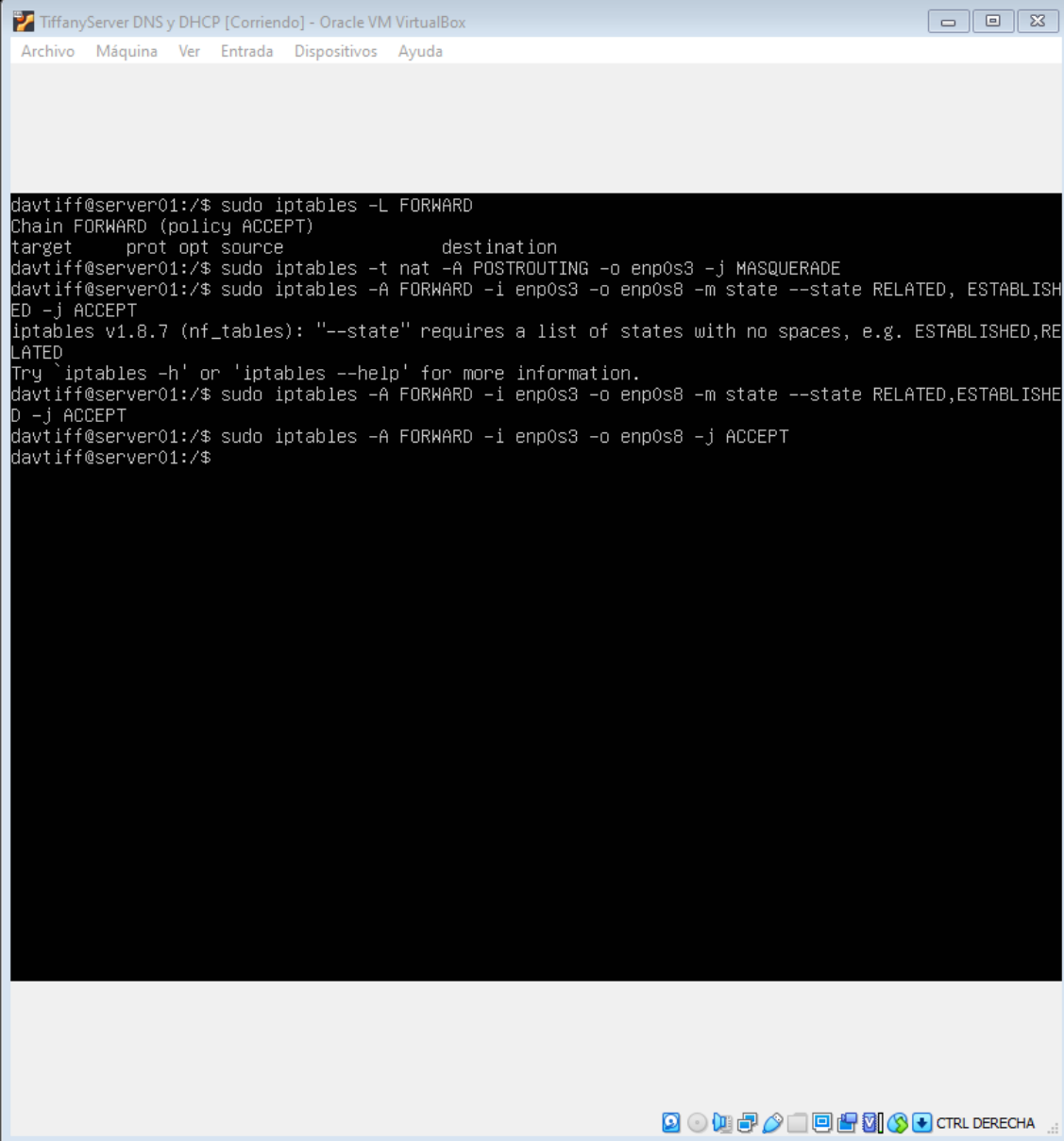
Nombre: Tiffany Jordán Uquillas



The screenshot shows a terminal window titled "TiffanyServer DNS y DHCP [Corriendo] - Oracle VM VirtualBox". The window has a menu bar with "Archivo", "Máquina", "Ver", "Entrada", "Dispositivos", and "Ayuda". The terminal content shows a user named "davtiff" at a prompt "davtiff@server01:/\$" running the command "sudo sysctl -p", which sets "net.ipv4.tcp_syncookies = 1". Then, the user runs "ip addr show", displaying details for three network interfaces: "lo" (loopback), "enp0s3" (ethernet), and "enp0s8" (ethernet). The output for each interface includes link/ether details, IP addresses (inet), and IPv6 addresses (inet6). The terminal window has a standard Linux-style window title bar with minimize, maximize, and close buttons. At the bottom, there is a taskbar with various icons and the text "CTRL DERECHA".

```
davtiff@server01:/$ sudo sysctl -p
net.ipv4.tcp_syncookies = 1
davtiff@server01:/$ ip addr show
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 08:00:27:5d:f1:9b 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 86223sec preferred_lft 86223sec
    inet6 fe80::a00:27ff:fe5d:f19b/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:d8:a3:f8 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.8/24 brd 192.168.1.255 scope global enp0s8
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fed8:a3f8/64 scope link
        valid_lft forever preferred_lft forever
davtiff@server01:/$ _
```

Nombre: Tiffany Jordán Uquillas

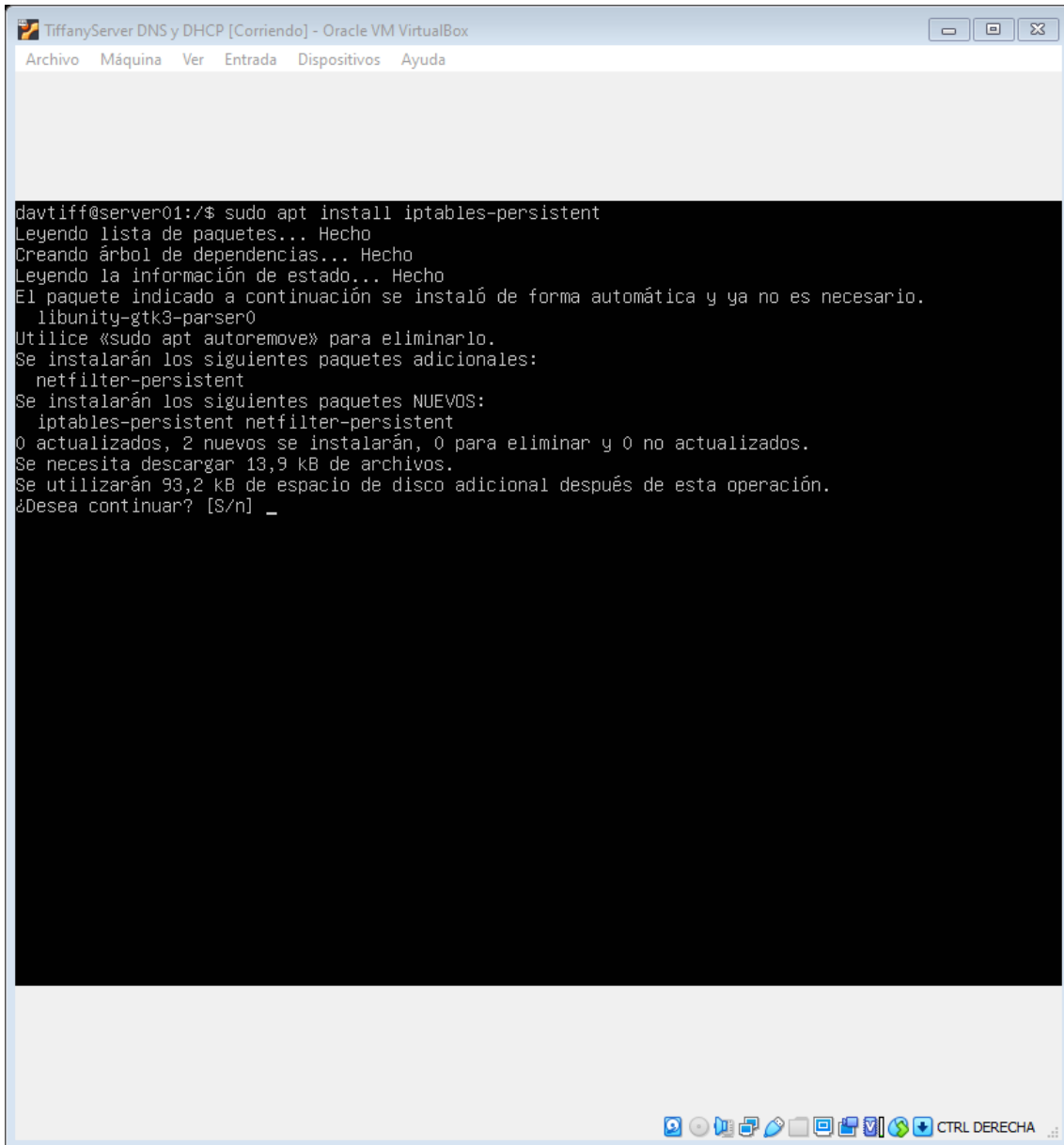


The screenshot shows a terminal window titled "TiffanyServer DNS y DHCP [Corriendo] - Oracle VM VirtualBox". The window has a menu bar with "Archivo", "Máquina", "Ver", "Entrada", "Dispositivos", and "Ayuda". The terminal content is as follows:

```
davtiff@server01:/$ sudo iptables -L FORWARD
Chain FORWARD (policy ACCEPT)
target     prot opt source               destination
davtiff@server01:/$ sudo iptables -t nat -A POSTROUTING -o enp0s3 -j MASQUERADE
davtiff@server01:/$ sudo iptables -A FORWARD -i enp0s3 -o enp0s8 -m state --state RELATED, ESTABLISHED -j ACCEPT
iptables v1.8.7 (nf_tables): "--state" requires a list of states with no spaces, e.g. ESTABLISHED,RELATED
Try `iptables -h' or 'iptables --help' for more information.
davtiff@server01:/$ sudo iptables -A FORWARD -i enp0s3 -o enp0s8 -m state --state RELATED,ESTABLISHED -j ACCEPT
davtiff@server01:/$ sudo iptables -A FORWARD -i enp0s3 -o enp0s8 -j ACCEPT
davtiff@server01:/$
```

The terminal window has a taskbar at the bottom with various icons and the text "CTRL DERECHA".

Nombre: Tiffany Jordán Uquillas

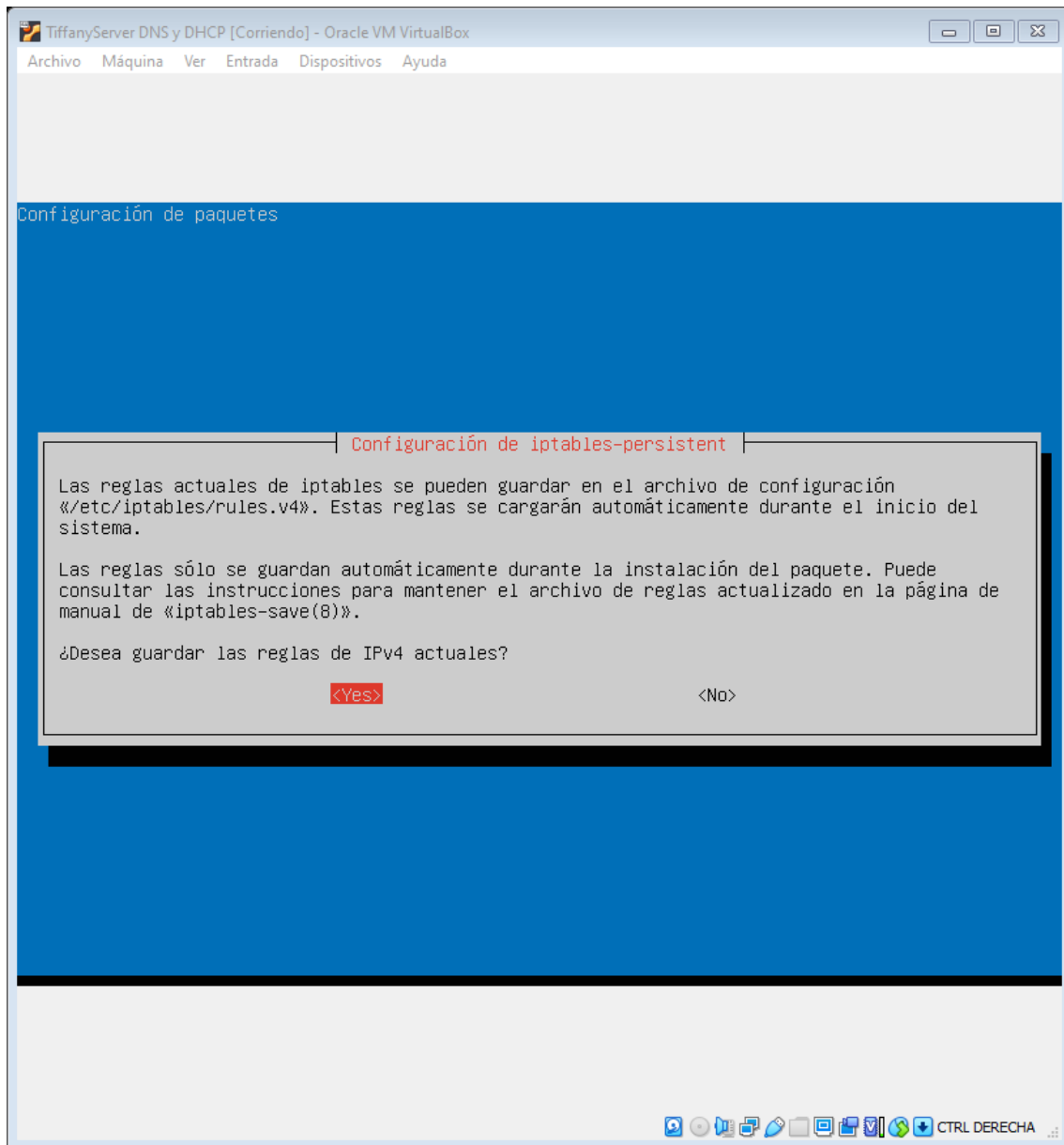


The screenshot shows a terminal window titled "TiffanyServer DNS y DHCP [Corriendo] - Oracle VM VirtualBox". The terminal output shows the command `sudo apt install iptables-persistent` being executed. The output indicates that the package was installed successfully and that it is no longer necessary. It also shows the installation of additional packages: `netfilter-persistent`. The terminal output is as follows:

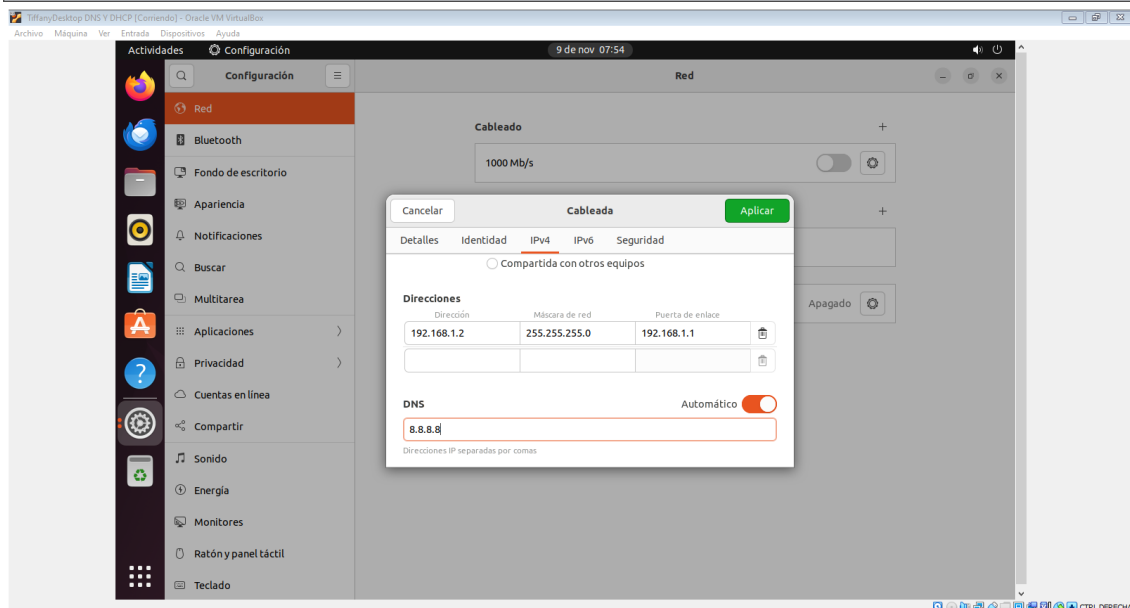
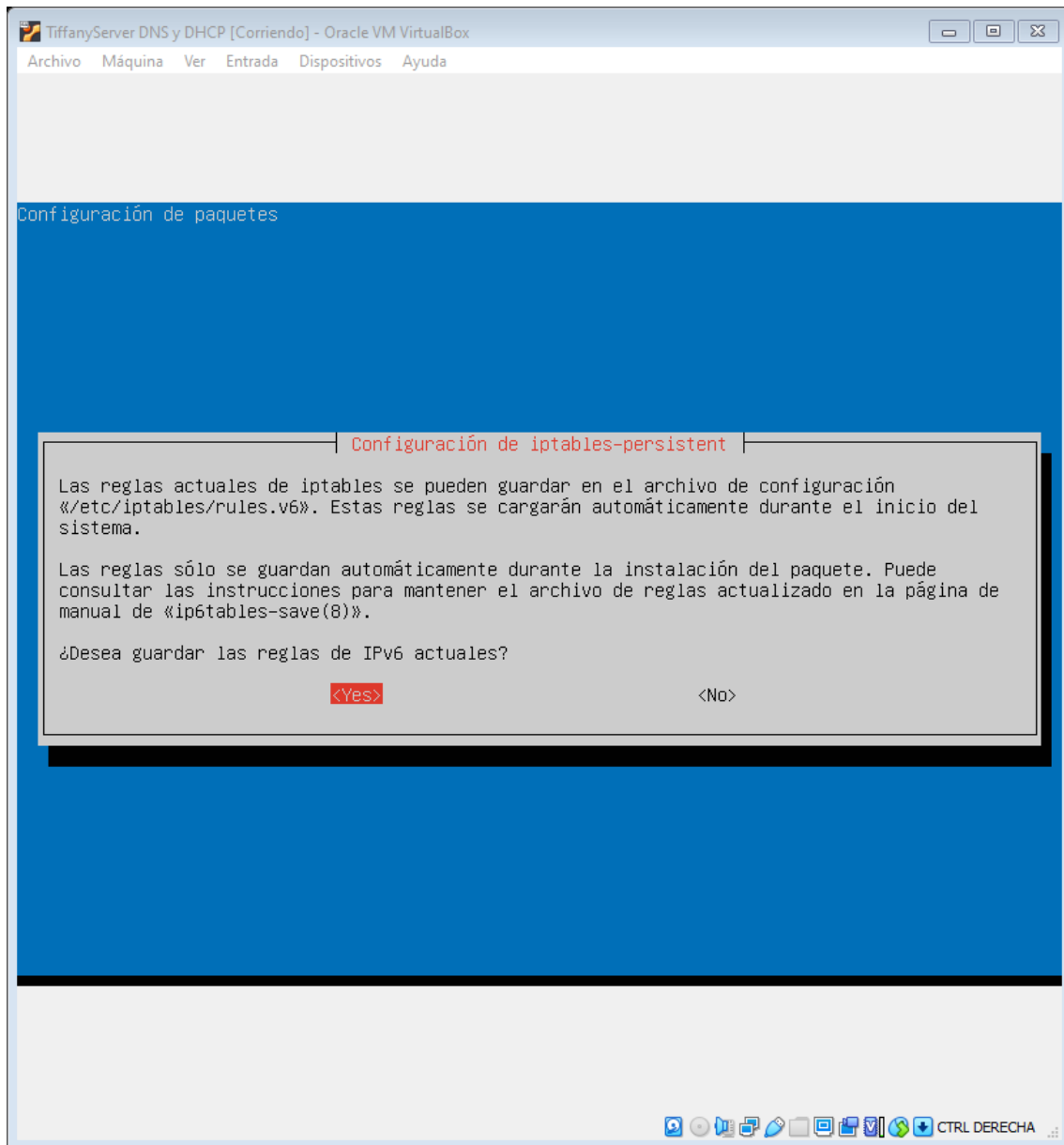
```
davtiff@server01:/$ sudo apt install iptables-persistent
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
Leyendo la información de estado... Hecho
El paquete indicado a continuación se instaló de forma automática y ya no es necesario.
  libunity-gtk3-parser0
Utilice «sudo apt autoremove» para eliminarlo.
Se instalarán los siguientes paquetes adicionales:
  netfilter-persistent
Se instalarán los siguientes paquetes NUEVOS:
  iptables-persistent netfilter-persistent
0 actualizados, 2 nuevos se instalarán, 0 para eliminar y 0 no actualizados.
Se necesita descargar 13,9 kB de archivos.
Se utilizarán 93,2 kB de espacio de disco adicional después de esta operación.
¿Desea continuar? [S/n] _
```

The terminal window has a menu bar with "Archivo", "Máquina", "Ver", "Entrada", "Dispositivos", and "Ayuda". The bottom status bar shows various icons and the text "CTRL DERECHA".

Nombre: Tiffany Jordán Uquillas



Nombre: Tiffany Jordán Uquillas



Nombre: Tiffany Jordán Uquillas

Nota: Siempre que se haga algún cambio en la red en el desktop hay que apagarlo y encenderlo de nuevo para que se reflejen sus cambios.

- Enp0s3 se utiliza en el server para acceder a internet.
- Enp0s8 para proveer internet como router.

