Configuración de acceso remoto SSH en servidor centOS

Por: John A. Pérez B. ~ 20186748

Este tutorial es un extracto del siguiente video:

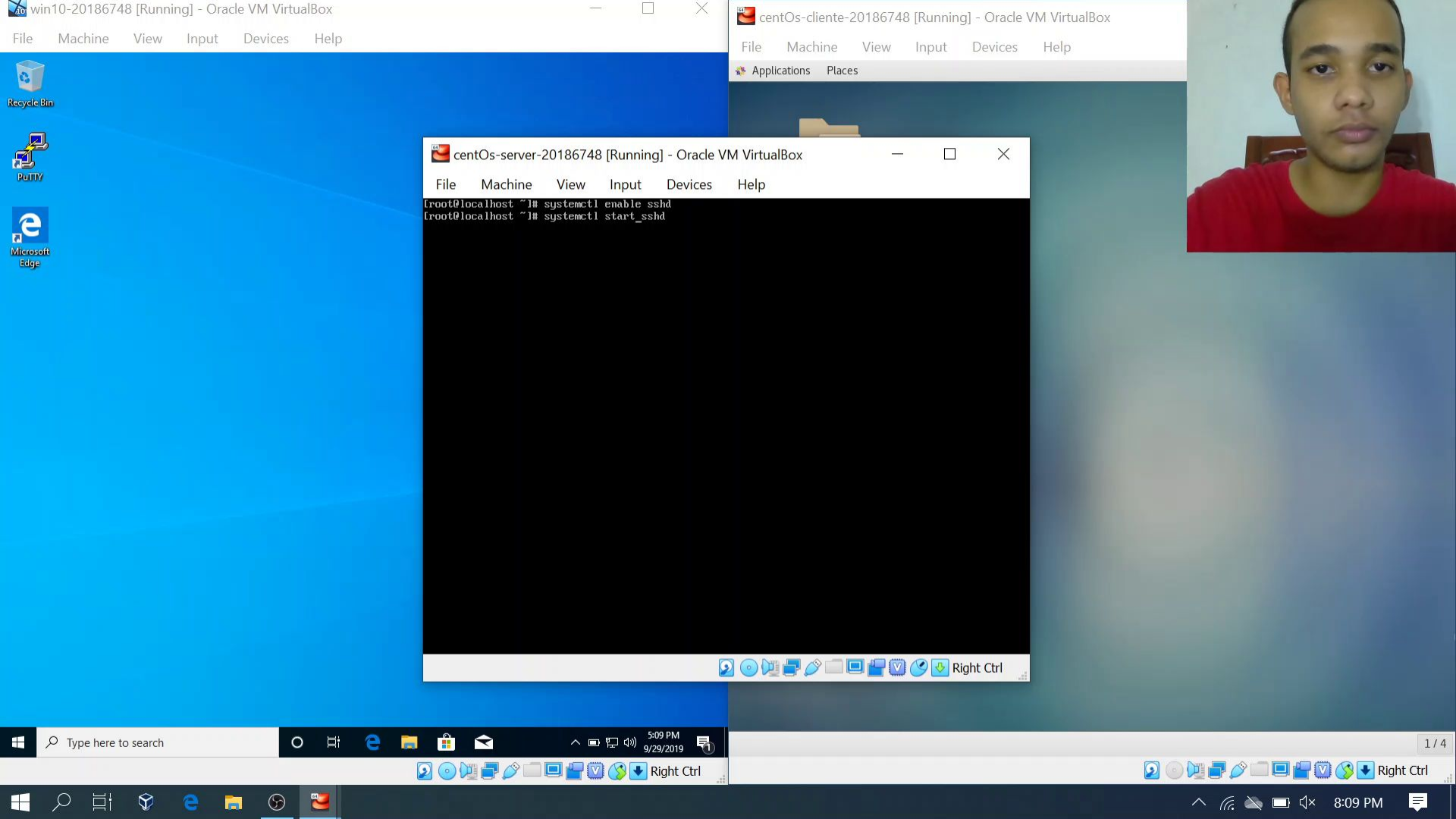
https://youtu.be/FAAjMb82b8k

Fase 1: Configuración del servidor

El SSH se ha convertido en un estándar en la comunicación remota, por lo que el paquete openssh se encuentra integrado incluso en la versión minimal de centOS, de tal forma que para configurar ssh en nuestro servidor no es necesario descargar ningún paquete adicional.

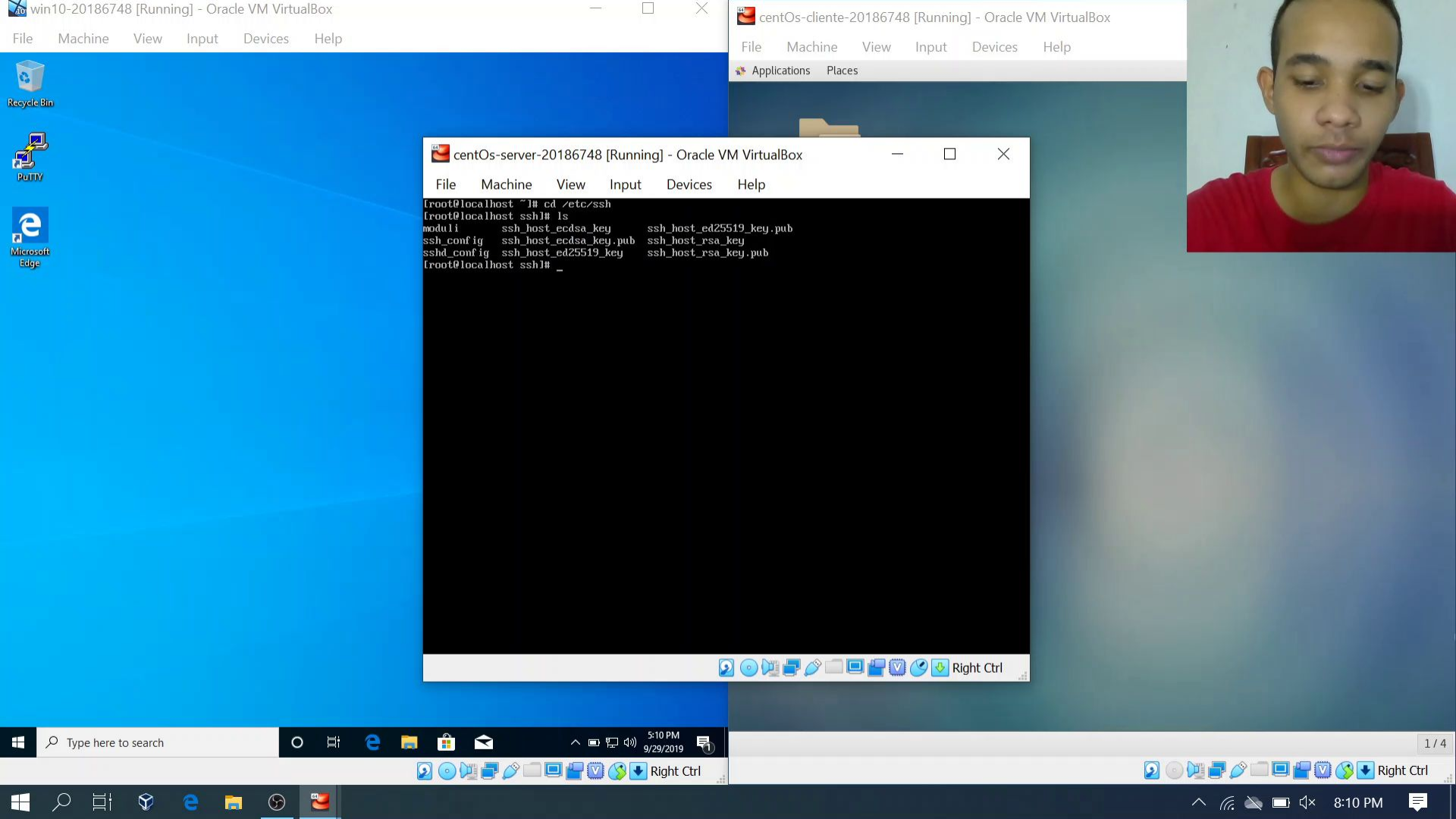
Paso 1

Como openssh viene previamente instalado solo habilitamos e iniciamos el servicios con **systemctl enable sshd** y **sistemctl start sshd**


win10-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Recycle Bin
PuTTY
Microsoft Edge
centOs-cliente-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places
centOs-server-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
[root@localhost ~]# systemctl enable sshd
[root@localhost ~]# systemctl start_sshd
Right Ctrl
Type here to search
5:09 PM
9/29/2019
Right Ctrl
1 / 4
Right Ctrl
8:09 PM

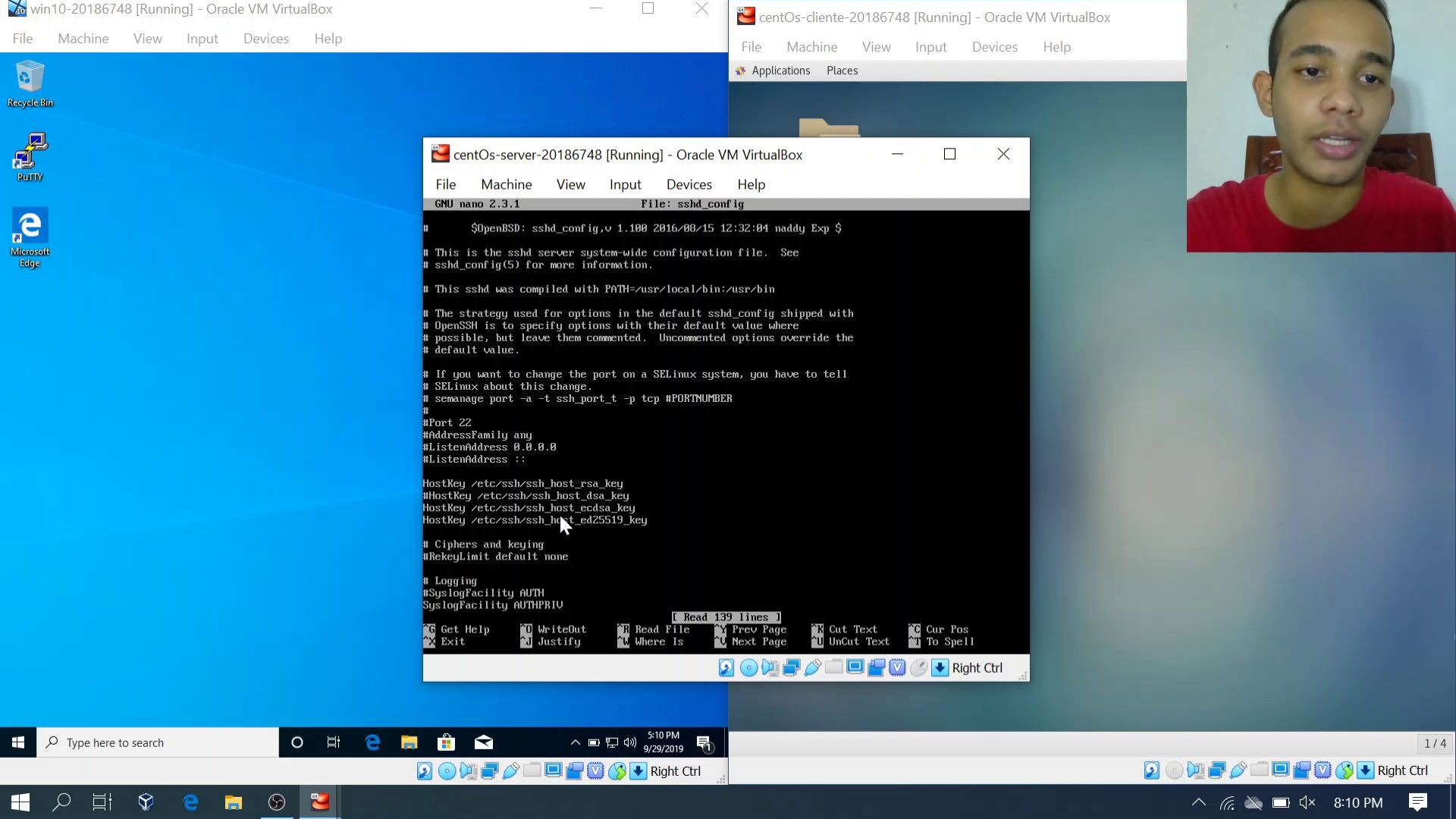
Paso 2

Para configurar el ssh nos vamos al directorio **/etc/ssh**


win10-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Recycle Bin
PuTTY
Microsoft Edge
centOs-cliente-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places
centOs-server-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
[root@localhost ~]# cd /etc/ssh
[root@localhost ssh]# ls
moduli ssh_host_ecdsa_key ssh_host_ed25519_key.pub
ssh_config ssh_host_ecdsa_key.pub ssh_host_rsa_key
sshd_config ssh_host_ed25519_key ssh_host_rsa_key.pub
[root@localhost ssh]#
Right Ctrl
Type here to search
5:10 PM
9/29/2019
Right Ctrl
1 / 4
Right Ctrl
8:10 PM

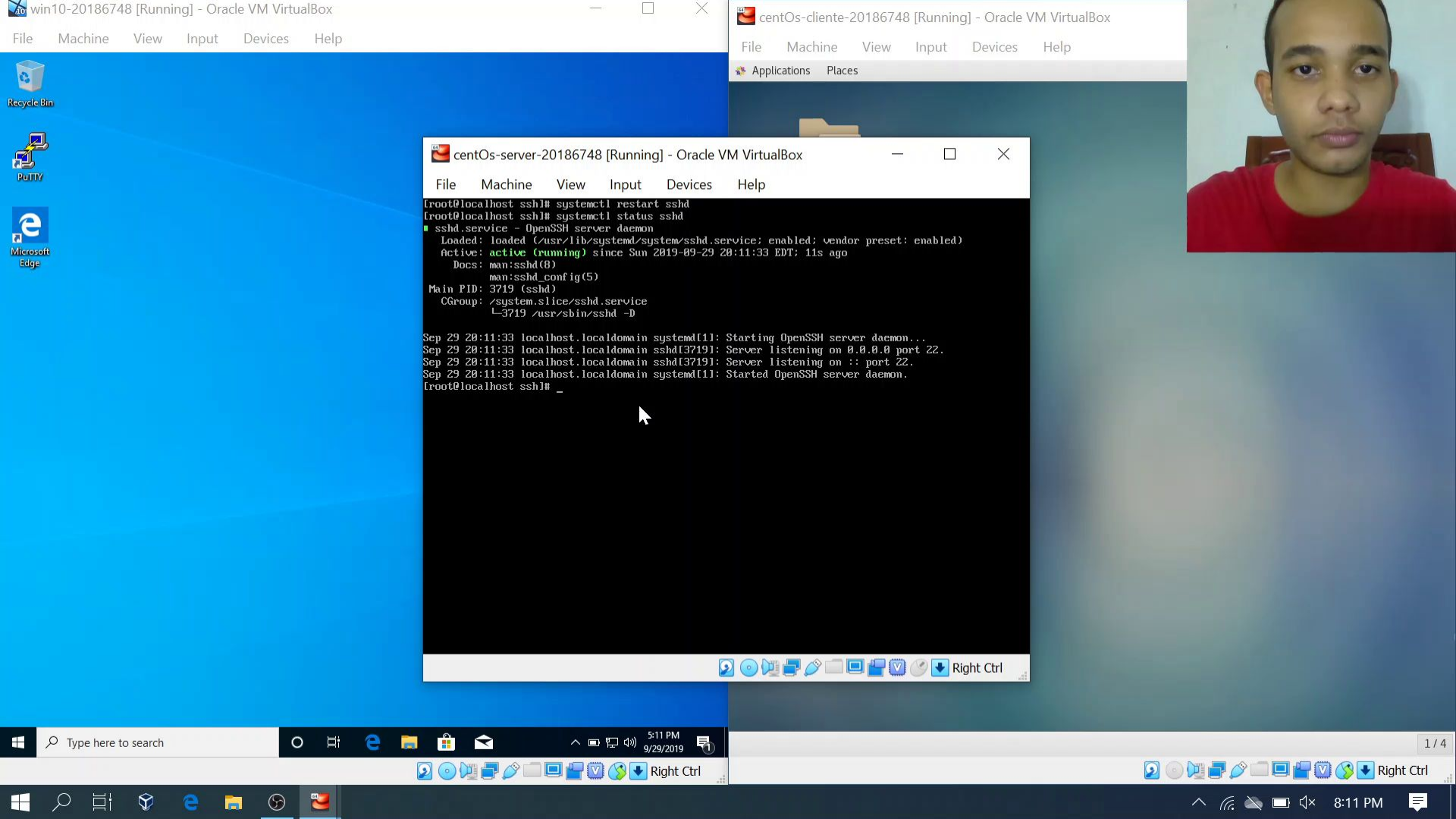
Paso 3

En el archivo de configuración podemos definir la cantidad máximas de sesiones, si el root se puede conectar por ssh, el puerto que utilizaremos, entre otras opciones.


win10-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
centOs-cliente-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places
Recycle Bin
PuTTY
Microsoft Edge
centOs-server-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
GNU nano 2.3.1 File: sshd_config
$OpenBSD: sshd_config,v 1.100 2016/08/15 12:32:04 naddy Exp $
This is the sshd server system-wide configuration file. See
sshd_config(5) for more information.
This sshd was compiled with PATH=/usr/local/bin:/usr/bin
The strategy used for options in the default sshd_config shipped with
OpenSSH is to specify options with their default value where
possible, but leave them commented. Uncommented options override the
default value.
If you want to change the port on a SELinux system, you have to tell
SELinux about this change.
semanage port -a -t ssh_port_t -p tcp #PORTNUMBER
#
#Port 22
#AddressFamily any
#ListenAddress 0.0.0.0
#ListenAddress ::
HostKey /etc/ssh/ssh_host_rsa_key
#HostKey /etc/ssh/ssh_host_dsa_key
HostKey /etc/ssh/ssh_host_ecdsa_key
HostKey /etc/ssh/ssh_host_ed25519_key
Ciphers and keying
#RekeyLimit default none
Logging
#SyslogFacility AUTH
SyslogFacility AUTHPRIV
[Read 139 lines]
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
Right Ctrl
Type here to search
5:10 PM
9/29/2019
Right Ctrl
1 / 4
Right Ctrl
8:10 PM

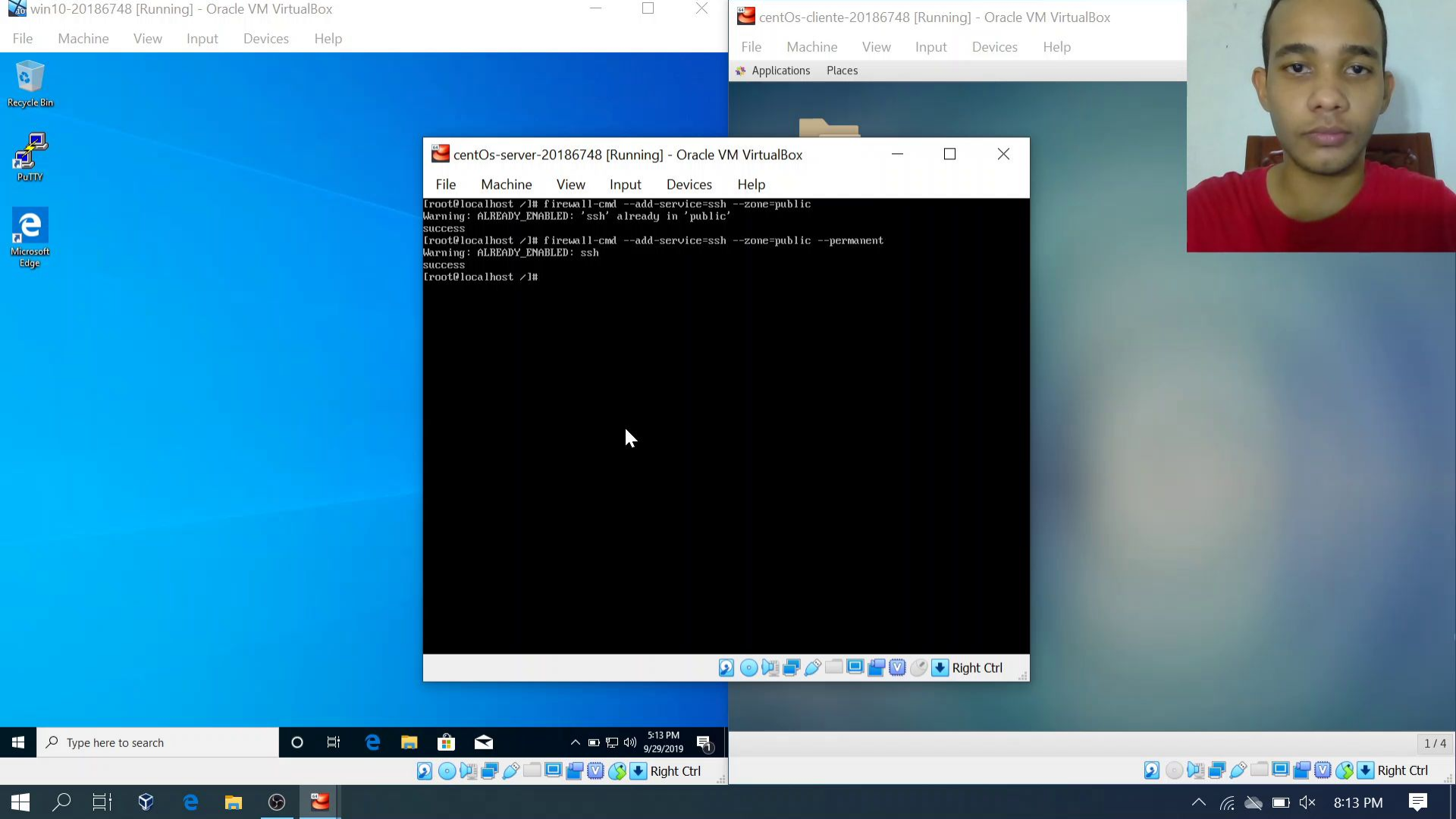
Paso 4

Procedemos a reiniciar el servicio con **systemctl restart ssh** y luego utilizamos el comando **systemctl status ssh**, para ver el estado del servicio.


win10-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Recycle Bin
PuTTY
Microsoft Edge
centOs-cliente-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places
centOs-server-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
[root@localhost ssh]# systemctl restart sshd
[root@localhost ssh]# systemctl status sshd
sshd.service - OpenSSH server daemon
Loaded: loaded (/usr/lib/systemd/system/sshd.service; enabled; vendor preset: enabled)
Active: active (running) since Sun 2019-09-29 20:11:33 EDT; 11s ago
Docs: man:sshd(8)
man:sshd_config(5)
Main PID: 3719 (sshd)
CGroup: /system.slice/sshd.service
└3719 /usr/sbin/sshd -D
Sep 29 20:11:33 localhost.localdomain systemd[1]: Starting OpenSSH server daemon...
Sep 29 20:11:33 localhost.localdomain sshd[3719]: Server listening on 0.0.0.0 port 22.
Sep 29 20:11:33 localhost.localdomain sshd[3719]: Server listening on :: port 22.
Sep 29 20:11:33 localhost.localdomain systemd[1]: Started OpenSSH server daemon.
[root@localhost ssh]# _
Right Ctrl
Type here to search
5:11 PM
9/29/2019
Right Ctrl
1 / 4
Right Ctrl
8:11 PM

Paso 5

Con el comando **firewall-cmd --add-service=ssh --zone=public** y **firewall-cmd --add-service=ssh --zone=public --permanent**, configuramos el firewall para permitir el acceso a traves de ssh.


win10-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Recycle Bin
PuTTY
Microsoft Edge
centOs-cliente-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places
centOs-server-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
[root@localhost /]# firewall-cmd --add-service=ssh --zone=public
Warning: ALREADY_ENABLED: 'ssh' already in 'public'
success
[root@localhost /]# firewall-cmd --add-service=ssh --zone=public --permanent
Warning: ALREADY_ENABLED: ssh
success
[root@localhost /]#
Right Ctrl
Type here to search
5:13 PM
9/29/2019
Right Ctrl
1 / 4
Right Ctrl
8:13 PM

Paso 6

Una vez realizada la configuración podemos probar el ssh desde nuestro servidor para luego pasar a los clientes.

win10-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

centOs-cliente-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

centOs-server-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

```
[root@localhost /]# ifconfig enp0s3
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.2.4  netmask 255.255.255.0  broadcast 10.0.2.255
        inet6 fe80::595a:5fde:9bff:2723  prefixlen 64  scopeid 0x20<link>
        ether 08:00:27:b4:60:86  txqueuelen 1000  (Ethernet)
        RX packets 239  bytes 35218 (34.3 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 259  bytes 19332 (18.8 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[root@localhost /]# ssh root@10.0.2.4
root@10.0.2.4's password:
Last login: Sun Sep 29 20:03:16 2019
[root@localhost ~]# _
```

Right Ctrl

Right Ctrl

Right Ctrl

8:13 PM

Fase 2: Accediendo a través de nuestro cliente (CentOS)

A través de la terminal

Como mencionamos ssh se encuentra instalado por defecto en centos. por lo que para acceder desde la termina simplemente colocamos **#ssh [usuario]@[ip del servidor]** y luego iniciamos la sesión con la contraseña del usuario que colocamos.

centOs-cliente-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Applications Places Terminal

root@localhost:~

File Edit View Search Terminal Help

```
[root@localhost ~]# ssh root@10.0.2.4
root@10.0.2.4's password:
Last login: Sun Sep 29 20:13:58 2019 from 10.0.2.4
[root@localhost ~]#
```

root@localhost:~

1 / 4

Right Ctrl

8:15 PM

Una vez establecida la conexión podemos interactuar con el servidor remotamente. en este caso generamos un archivo de prueba.

centOs-cliente-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Applications Places Terminal

root@localhost:/home/test/ssh-tst

File Edit View Search Terminal Help

```
[root@localhost ssh-tst]# ls
[root@localhost ssh-tst]# echo 20186748 >> lnx-client
[root@localhost ssh-tst]# ls
lnx-client
[root@localhost ssh-tst]#
```

centOs-server-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

```
[root@localhost /]# cd /home/test/ssh-tst
[root@localhost ssh-tst]# ls
lnx-client
[root@localhost ssh-tst]# cat lnx-client
20186748
[root@localhost ssh-tst]#
```

Right Ctrl

root@localhost:/home/test/ssh-tst

1 / 4

Right Ctrl

8:16 PM

De forma gráfica (putty)

Paso 1

Putty no se encuentra enlistado de forma nativa en la lista de paquetes de centos, por lo que debemos agregarlos manualmente con rpm forge para poder instalarlo. para esto descargamos este paquete y lo agregamos manualmente con el comando #**rpm -Uvh rpmforge-release*rmp**

centOs-cliente-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Applications Places Terminal

Home Downloads

Recent
Home
Documents
Downloads
Music
Pictures
Videos
Trash
Other Locations

rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm

root@localhost:~/Downloads

File Edit View Search Terminal Help

```
[root@localhost Downloads]# rpm -Uvh rpmforge-release-0.5.3-1.el7.rf.x86_64.rpm
```

Downloads root@localhost:~/Downloads 1 / 4

Right Ctrl

8:18 PM

Paso 2

Procedemos a instalar putty con el comando **#yum install -y putty**

centOs-cliente-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Applications Places Terminal

root@localhost:~/Downloads

File Edit View Search Terminal Help

```
[root@localhost Downloads]# rpm -Uvh rpmforge-release*rpm
Preparing...                          ################################# [100%]
        package rpmforge-release-0.5.3-1.el7.rf.x86_64 is already installed
[root@localhost Downloads]# yum install -y putty
```

Downloads root@localhost:~/Downloads 1 / 4

Right Ctrl

8:19 PM

Paso 3

Una vez instalado podemos simplemente iniciar el programa para iniciar la conexion.

centOs-cliente-20186748 [Running] - Oracle VM VirtualBox

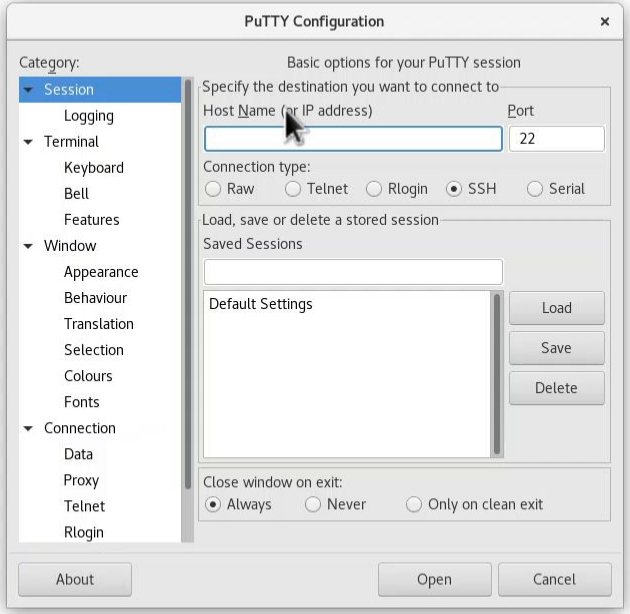
File Machine View Input Devices Help

Applications Places PuTTY Configuration

root@localhost:~/Downloads

File Edit View Search Terminal Help

```
[root@localhost Downloads]# putty
```



Downloads root@localhost:~/Downloads PuTTY Configuration 1 / 4

Right Ctrl

8:19 PM

Paso 4

Para iniciar la conexion, nos aseguramos de que este marcada la opción ssh y colocamos la direccion de nuestro servidor.

centOs-cliente-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Applications Places PuTTY Configuration

root@localhost:~/Downloads

File Edit View Search Terminal Help

```
[root@localhost Downloads]# putty
```

PuTTY Configuration

Category:

- Session
  - Logging
- Terminal
  - Keyboard
  - Bell
  - Features
- Window
  - Appearance
  - Behaviour
  - Translation
  - Selection
  - Colours
  - Fonts
- Connection
  - Data
  - Proxy
  - Telnet
  - Rlogin

Basic options for your PuTTY session

Specify the destination you want to connect to

Host Name (or IP address) Port

10.0.2.4 22

Connection type:

Raw Telnet Rlogin SSH Serial

Load, save or delete a stored session

Saved Sessions

Default Settings

Load Save Delete

Close window on exit:

Always Never Only on clean exit

About Open Cancel

Downloads root@localhost:~/Downloads PuTTY Configuration 1 / 4

Right Ctrl

8:20 PM

Paso 5

Luego iniciamos sesion en el sistema con nuestro usuario su contraseña.

centOs-cliente-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Applications Places putty

root@localhost:~

```
login as: root
root@10.0.2.4's password:
Last login: Sun Sep 29 20:15:29 2019 from 10.0.2.5
[root@localhost ~]#
```

Downloads | root@localhost:~/Downloads | root@localhost:~ | 1 / 4

Right Ctrl

8:20 PM

Paso 6

Luego de esto nos encontramos conectados remotamente con el servidor por lo que podemos realizar configuraciones y manejar los recursos del mismo.

centOs-cliente-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Applications Places putty

root@localhost:/home/test/ssh-tst

```
[root@localhost ssh-tst]# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.2.4  netmask 255.255.255.0  broadcast 10.0.2.255
        inet6 fe80::595a:5fde:9bff:2723  prefixlen 64  scopeid 0x20<link>
        ether 08:00:27:b4:60:86  txqueuelen 1000  (Ethernet)
        RX packets 1125  bytes 122985 (120.1 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 805  bytes 89545 (87.4 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 2049  bytes 174890 (170.7 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 2049  bytes 174890 (170.7 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[root@localhost ssh-tst]#
```

Downloads | root@localhost:~/Downloads | root@localhost:/home/test/ssh-tst | 1 / 4

Right Ctrl

8:22 PM

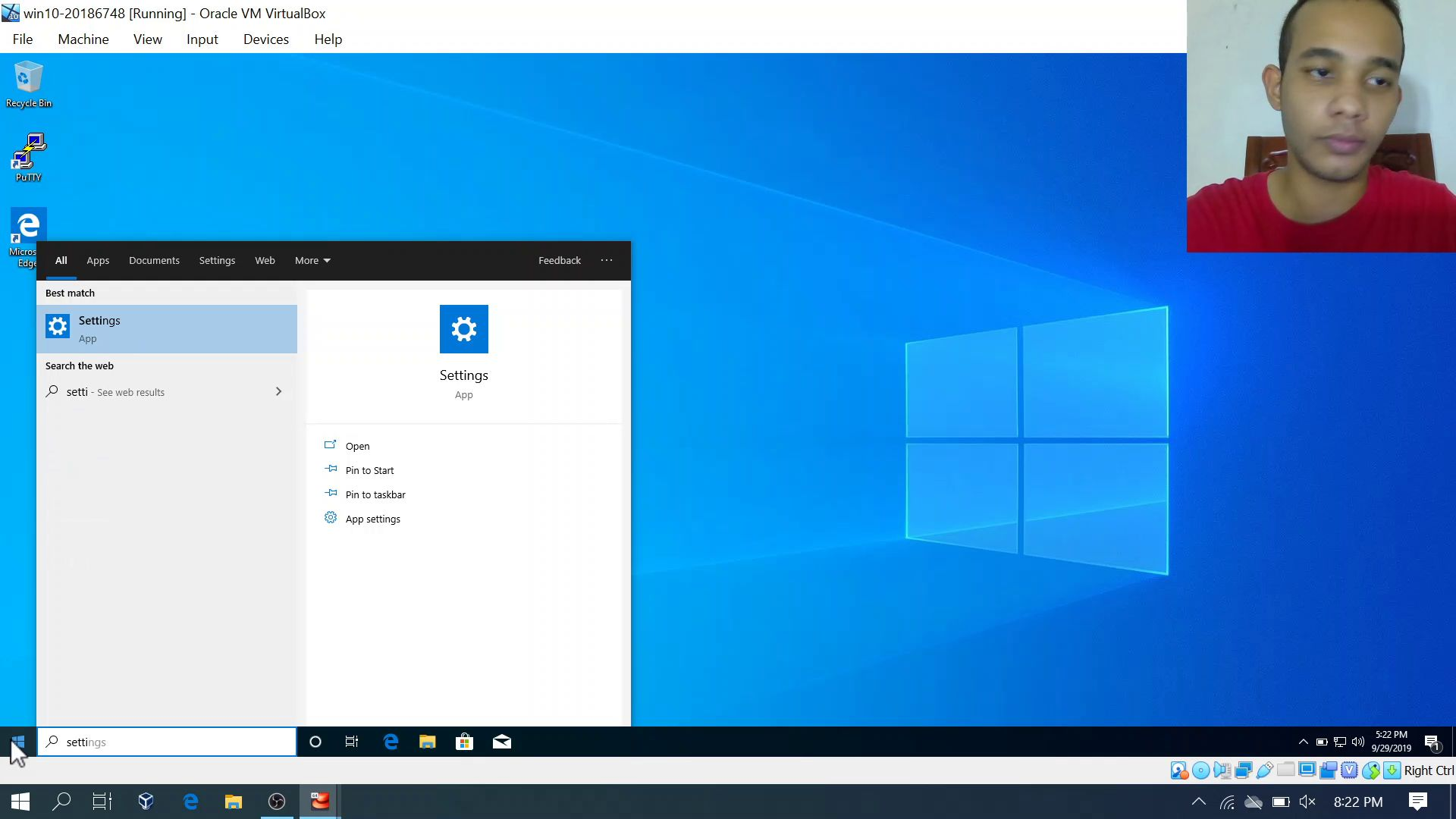
Fase 3: Accediendo a través de nuestro cliente (Windows)

Paso 1

Para establecer una conexion remote ssh con windows devemos de agregar la caracteristica opcional openssh. Primero nos vamos a configuraciones.

win10-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help



Paso 2

En opciones y caracteristias, damos clic en caracteirsticas opcionales.

win10-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Settings

Home

Find a setting

Apps

Apps & features

Default apps

Offline maps

Apps for websites

Video playback

Startup

Apps & features

Apps & features

Optional features

App execution aliases

Search, sort, and filter by drive. If you would like to uninstall or move an app, select it from the list.

Search this list

Sort by: Name Filter by: All drives

Camera Microsoft Corporation	Loading... 9/29/2019
Mail and Calendar Microsoft Corporation	Loading... 9/29/2019
Microsoft Edge Microsoft Corporation	Loading... 9/29/2019
Microsoft OneDrive	138 MB 9/29/2019
Oracle VM VirtualBox Guest Additions 6.0.12	9/28/2019
PuTTY release 0.73	3.44 MB 9/29/2019

Troubleshoot Microsoft Store apps

Uninstall apps

Change startup apps

Get help

Make Windows better

Give us feedback

Type here to search

5:23 PM
9/29/2019

Right Ctrl

8:23 PM

Paso 3

Nos aseguramos de que la caracteristica opcional **openSSH client** se encuente instalada

win10-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Settings

Optional features

Math Recognizer 8.67 MB

Microsoft Quick Assist 674 KB

OpenSSH Client 4.16 MB

OpenSSH-based secure shell (SSH) client, for secure key management and access to remote machines.

Uninstall

Portuguese (Brazil) handwriting 8.37 MB

Portuguese (Brazil) optical character recognition 253 KB

Portuguese (Brazil) speech recognition 5.94 MB

Portuguese (Brazil) text-to-speech 40.6 MB

Portuguese (Brazil) typing 23.0 MB

Portuguese (European) handwriting 5.64 MB

Portuguese (European) optical character recognition 253 KB

Portuguese (European) typing 23.3 MB

Type here to search

5:23 PM
9/29/2019

Right Ctrl

8:23 PM

A través de la terminal

Paso 1

En la cmd colocamos el comando **#ssh [usuario]@[ip del servidor]**, para conectarnos al servidor por ssh.

win10-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Command Prompt - ssh root@10.0.2.4

```
Microsoft Windows [Version 10.0.18362.295]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\win10-20186748>ssh root@10.0.2.4
```

Type here to search

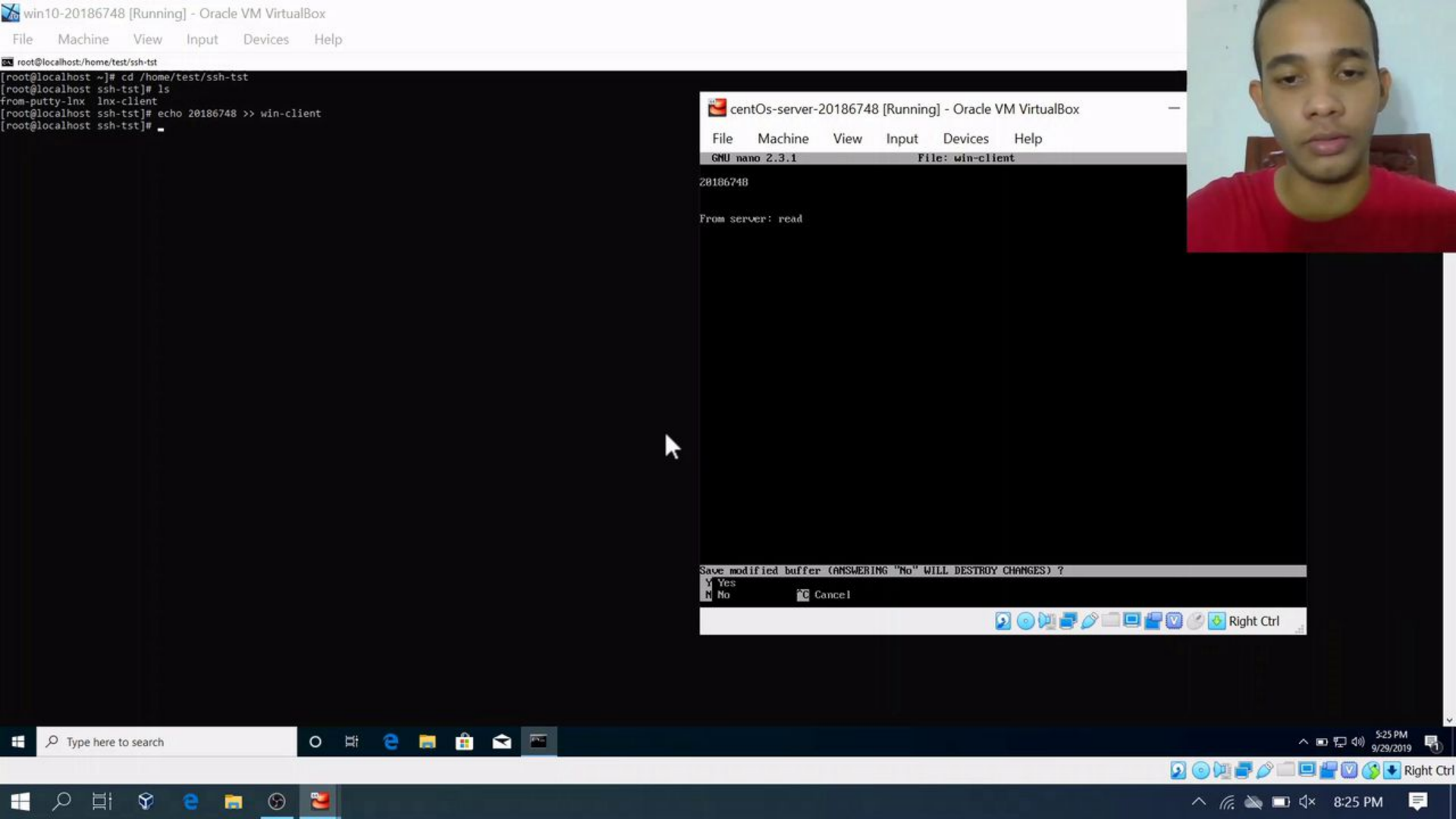
5:24 PM
9/29/2019

Right Ctrl

8:24 PM

Paso 2

Una vez en el servidor podemos probar la conexion. en este caso crearemos un archivo en el cliente y luego lo editamos en el servidor.

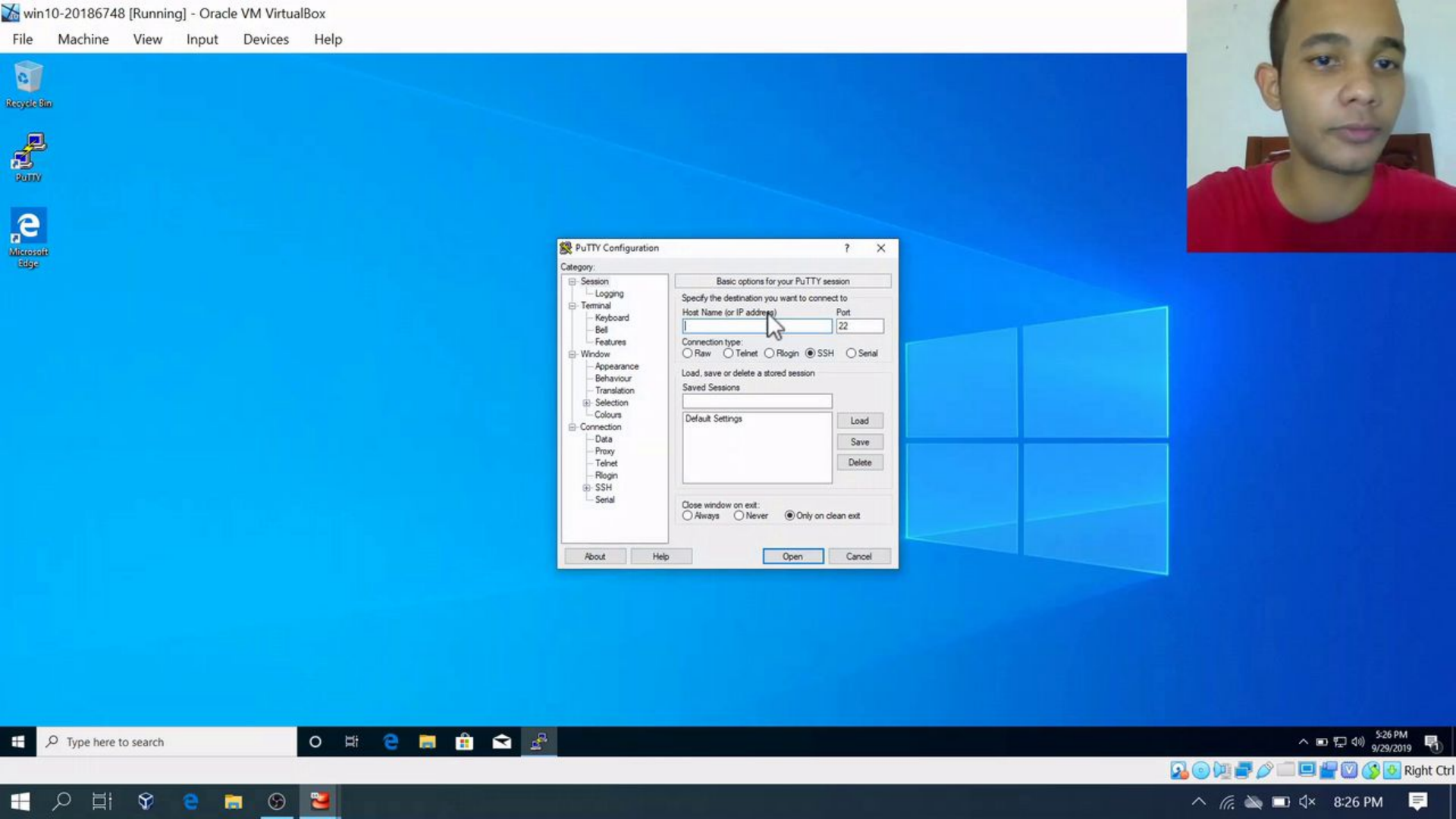

win10-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
root@localhost:/home/test/ssh-tst
[root@localhost ~]# cd /home/test/ssh-tst
[root@localhost ssh-tst]# ls
from-putty-lnx lnx-client
[root@localhost ssh-tst]# echo 20186748 >> win-client
[root@localhost ssh-tst]#
centOs-server-20186748 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
GNU nano 2.3.1 File: win-client
20186748
From server: read
Save modified buffer (ANSWERING "No" WILL DESTROY CHANGES) ?
Y Yes
N No ^C Cancel
Right Ctrl
Type here to search
5:25 PM
9/29/2019
Right Ctrl
8:25 PM

De forma gráfica (putty)

Para acceder a travez de putty no es necesario instalar ningun tipo de paquetes como en Linux, simplemente lo descargamos desde la pagina oficial. Luego lo abrimos dando doble clic.

win10-20186748 [Running] - Oracle VM VirtualBox

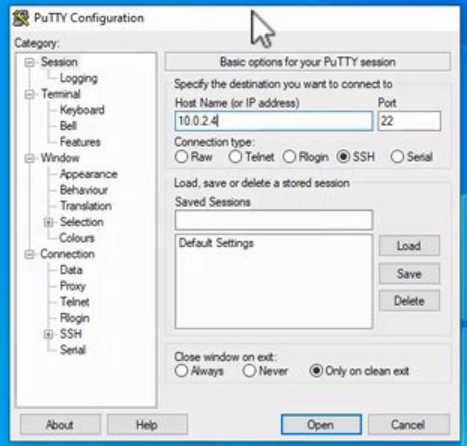
File Machine View Input Devices Help



Para acceder al servidor, colocamos la direccion del servidor.

win10-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help



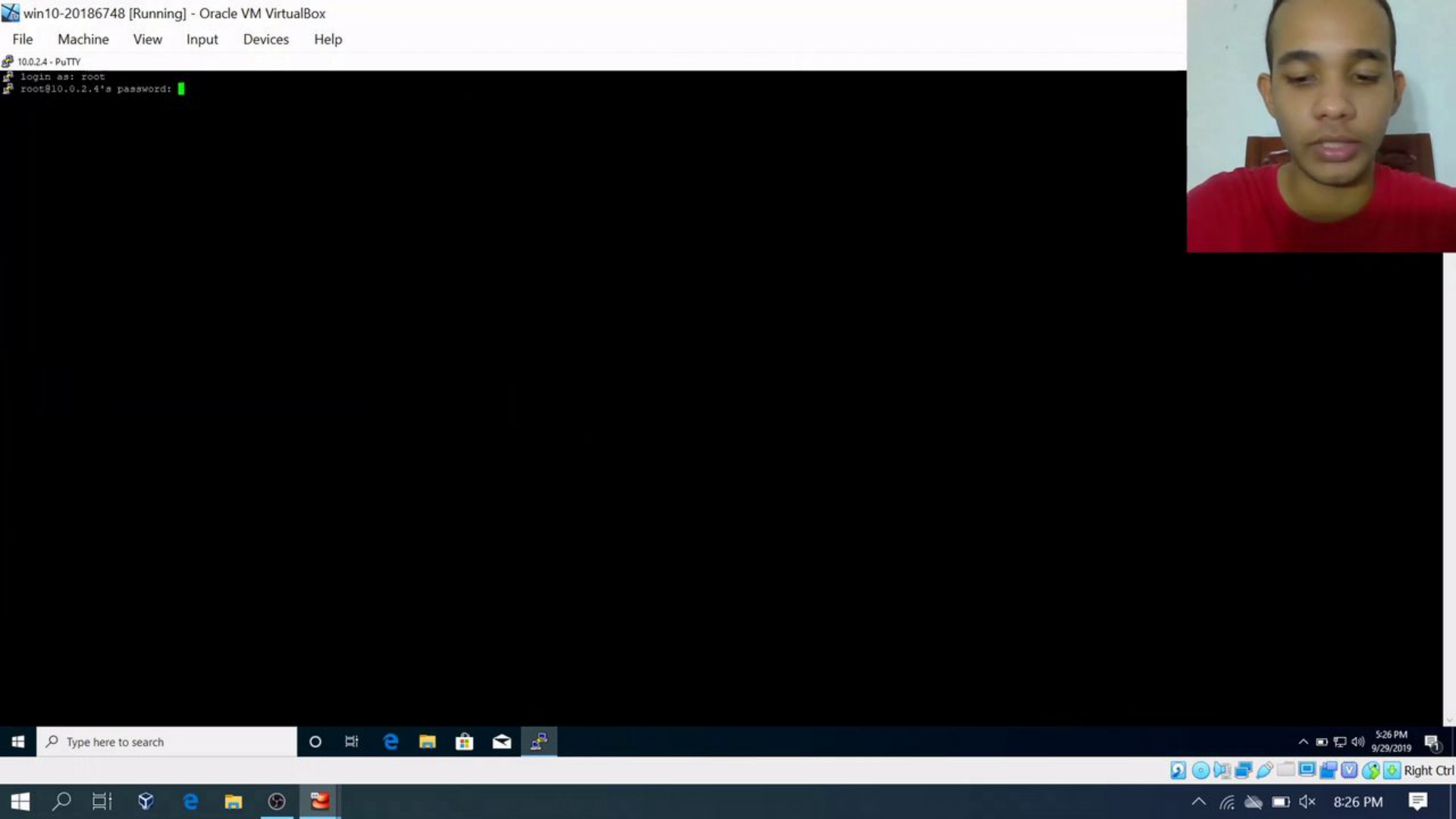
Type here to search

5:26 PM
9/29/2019

Right Ctrl

8:26 PM

Para acceder a nuestro servidor simplemente colocamos las credenciales de nuestro usuario.


win10-20186748 [Running] - Oracle VM VirtualBox
File
Machine
View
Input
Devices
Help
10.0.2.4 - PuTTY
login as: root
root@10.0.2.4's password:
Type here to search
5:26 PM
9/29/2019
Right Ctrl
8:26 PM

Para probar podemos visualizar los archivos que creamos antes.

win10-20186748 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

root@localhost:/home/test/ssh-tst

```
[root@localhost ssh-tst]# ls
from-putty-lnx  lnx-client  win-client
[root@localhost ssh-tst]#
```

Type here to search

5:26 PM
9/29/2019

Right Ctrl

8:26 PM