

Prueba

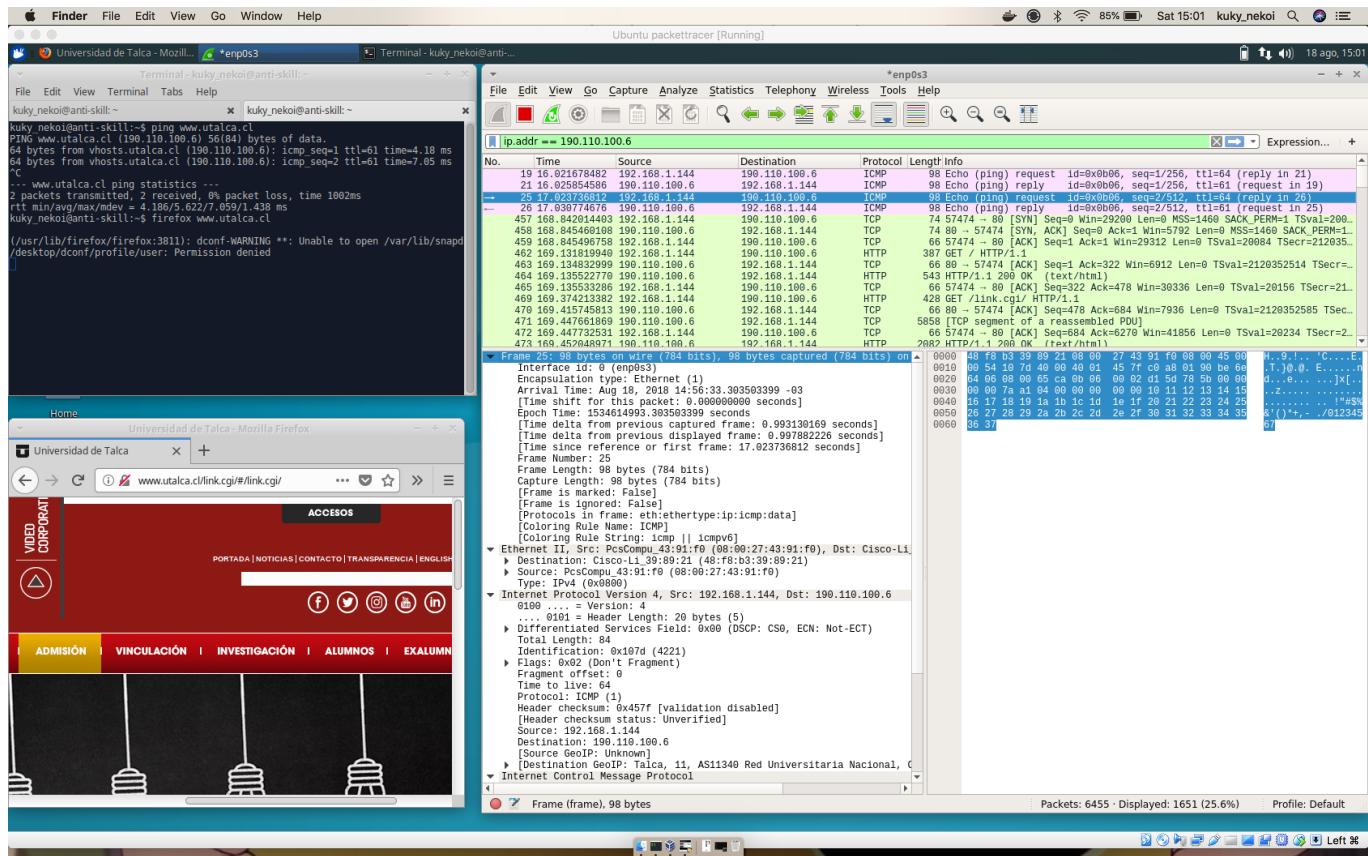
El resto de la prueba fue escrita, por lo que no está en este repositorio.

Pregunta 1

1.a.- Dirección IP de destino

190.110.100.6

1.b.- Compruebe que la dirección es correcta mediante un ping.



1.c.- Dirección IP de la fuente

192.168.1.144

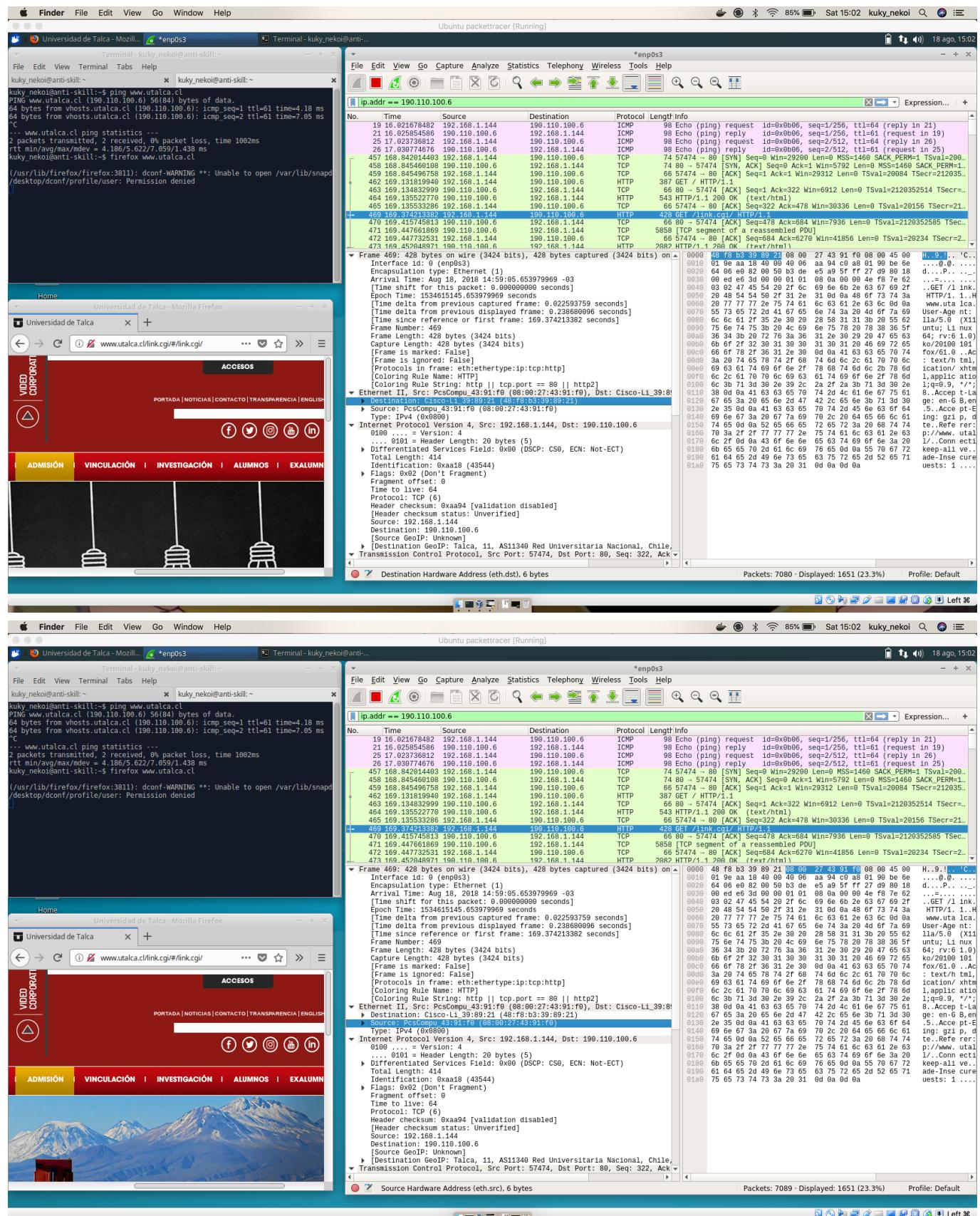
1.d.- ¿Cuál es el host de destino?

www.veralca.cl

1.e.- ¿Qué versión del explorador muestra el paquete? ¿Coincide?

Mozilla 5. Si coincide aproximadamente, de todas maneras es la que manifiesta el cliente.

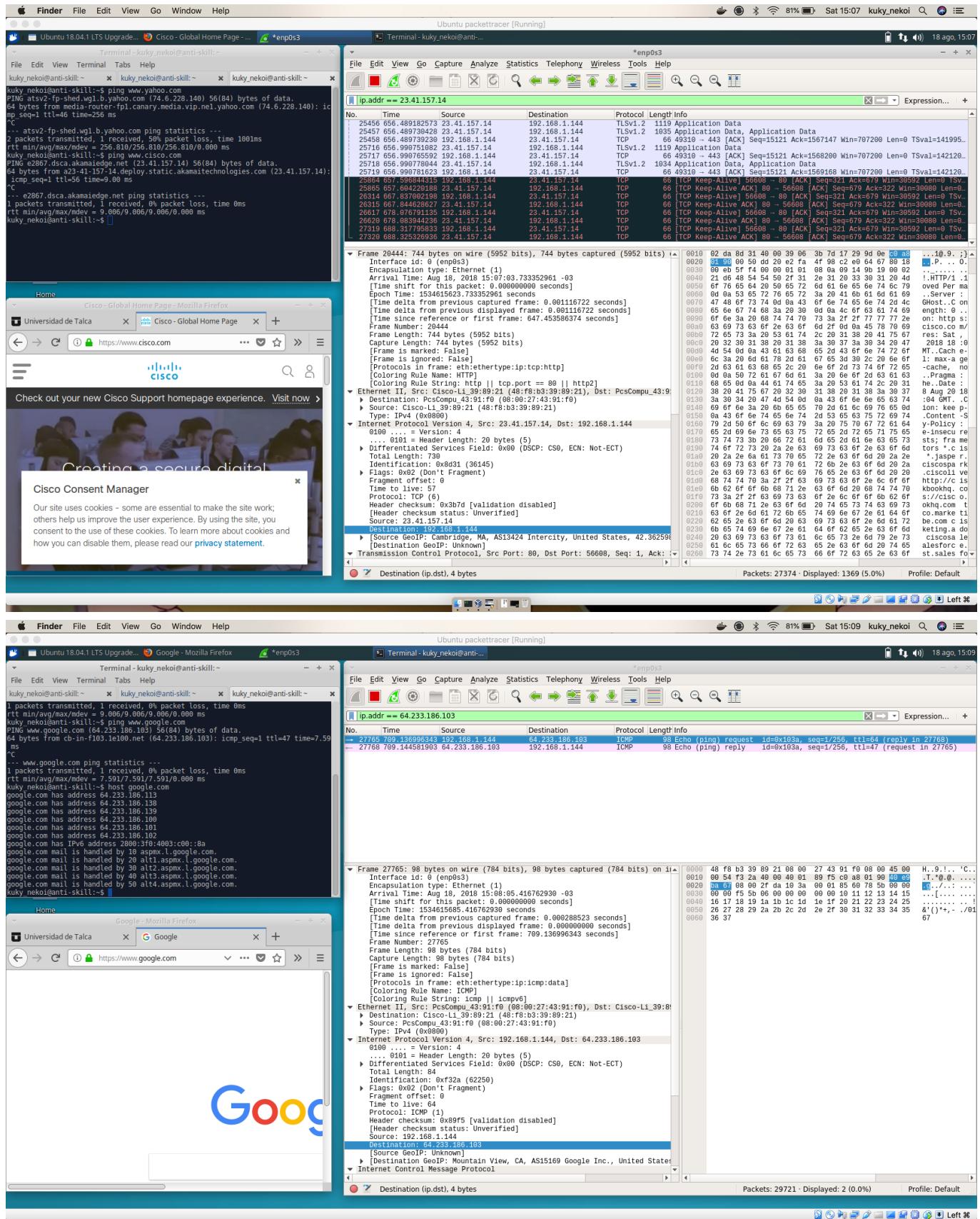
1.f.- Identifique la porcion hexa del destino, fuente y mac.



1.g Haga una nueva captura con los sitios www.yahoo.com www.cisco.com y www.google.com y diga si existen diferencias.

Las diferencias son principalmente las direcciones, ya que la mayoría de la comunicación se lleva a cabo entre el equipo y el enrutador, por tanto detalles del hardware son omitidos durante la transmisión. Adicionalmente no se captura el tráfico de las ip de [yahoo.com](http://www.yahoo.com) ni [google.com](http://www.google.com) ya que estas sirven el tráfico a través de balanceadores con diferentes IPs las que son asignadas durante el proceso de descubrimiento del dns. Por

esto, ping revela una IP pero hosts otra y el trafico se hace por una de estas.



3: Genere un script con tres tareas en un crontab

Crontab definition

```
0 8 * * 1-5 /home/kuky_nekoi/shutdown_staging.sh > /var/log/rpi_aws.log
0 20 * * 1-5 /home/kuky_nekoi/poweron_staging.sh > /var/log/rpi_aws.log
```

Shellscript

Both scripts are intened to run on a RPi, in order to shutdown and disconnect bastion servers when people is around office hours

shutdown_staging.sh

```
#!/bin/bash
echo "#####
echo "Execution time: $(date)"
# stop staging environment
public_ip=$(dig +short myip.opendns.com @resolver1.opendns.com)
echo $public_ip > /tmp/public_address #this should be replaced with another directory

# revoke access to bastion
aws eb stop -f
aws ec2 revoke-security-group-ingress --group-name bastion-development --protocol tcp --port 22 --cidr ${myip}/24
```

poweron_staging.sh

```
echo "#####
echo "Execution time: $(date)"
#!/bin/bash
# automatic updation of some packages
apt-get update
apt-get upgrade -y

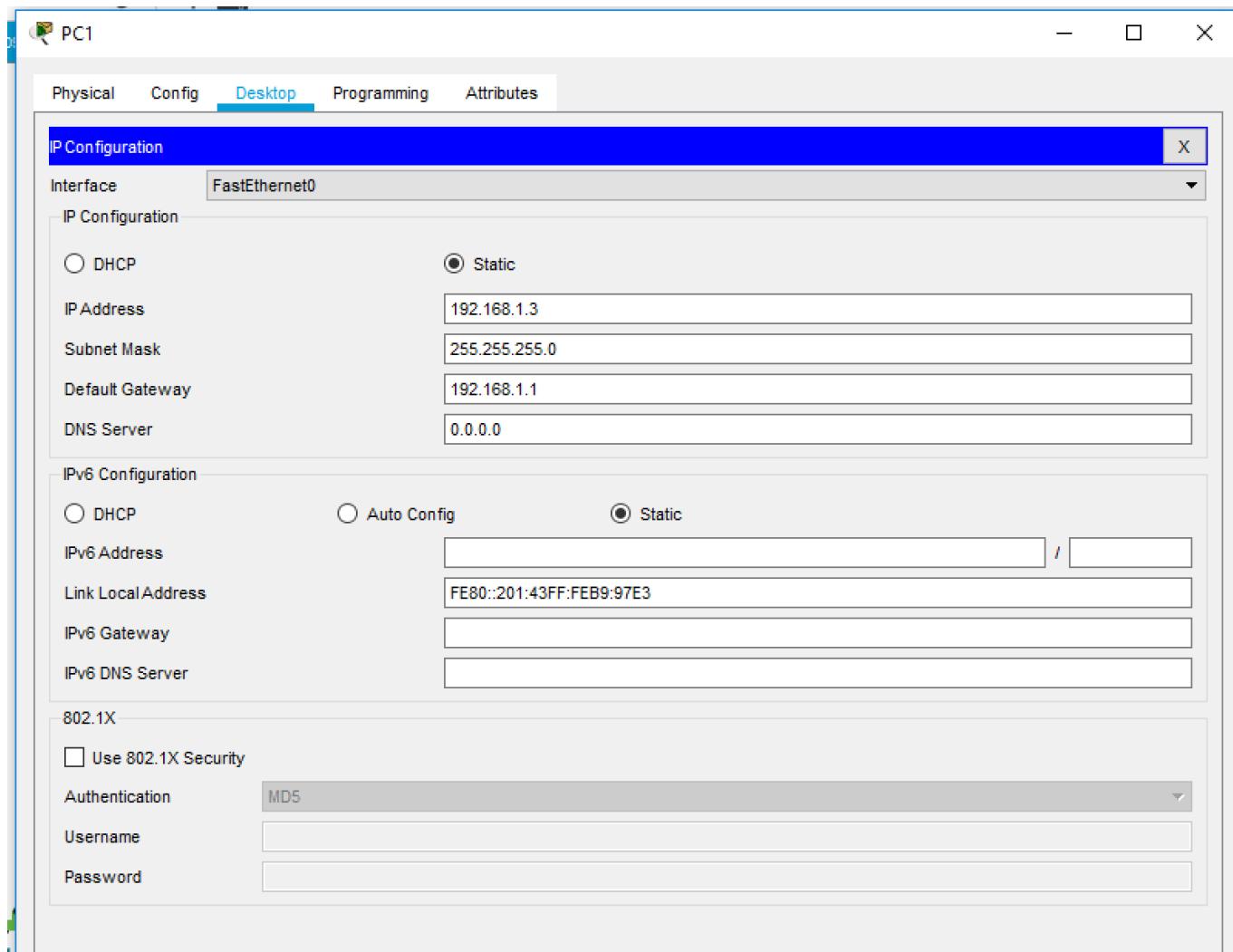
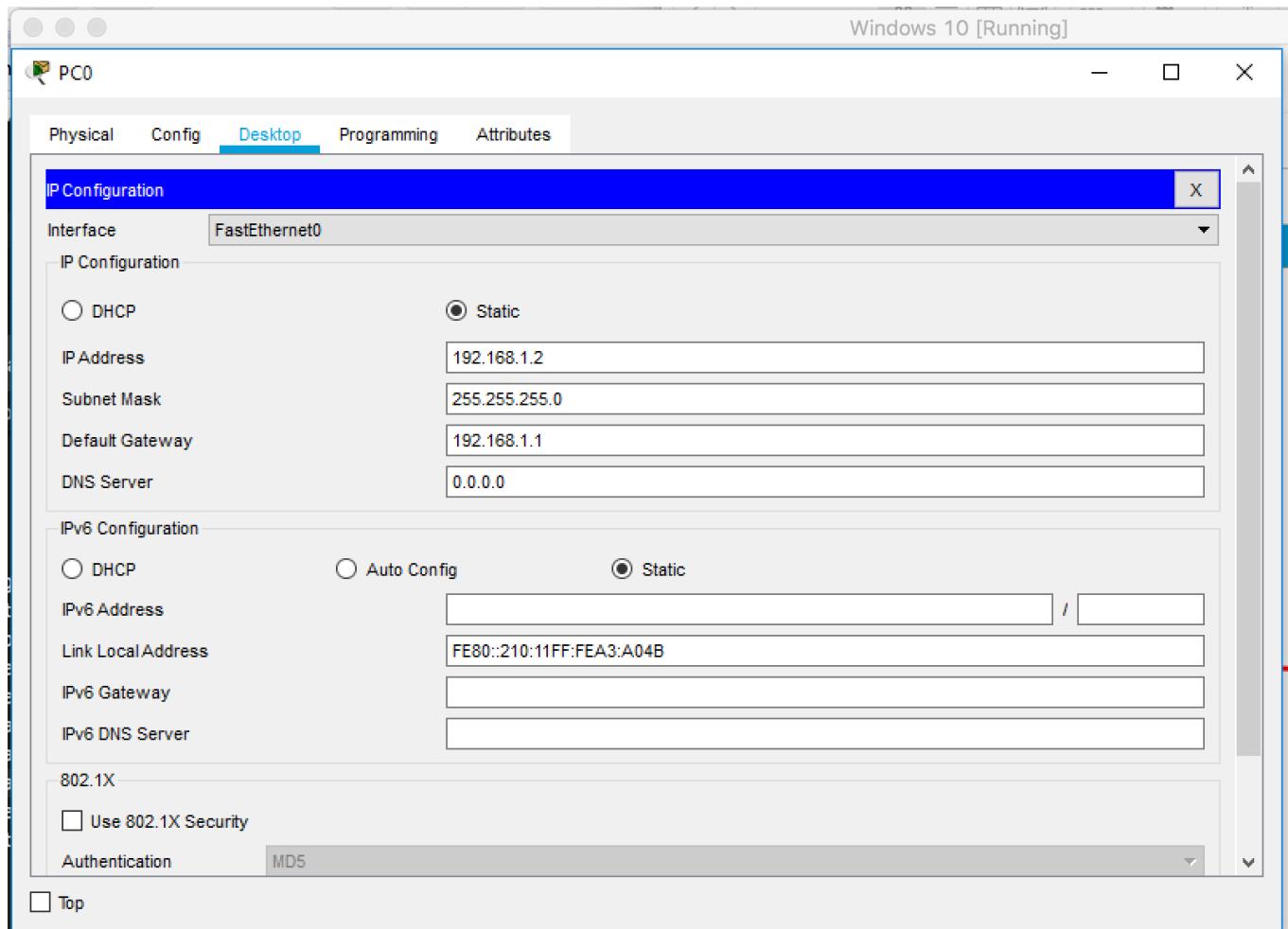
# stop staging environment
public_ip=$(cat /tmp/public_address)

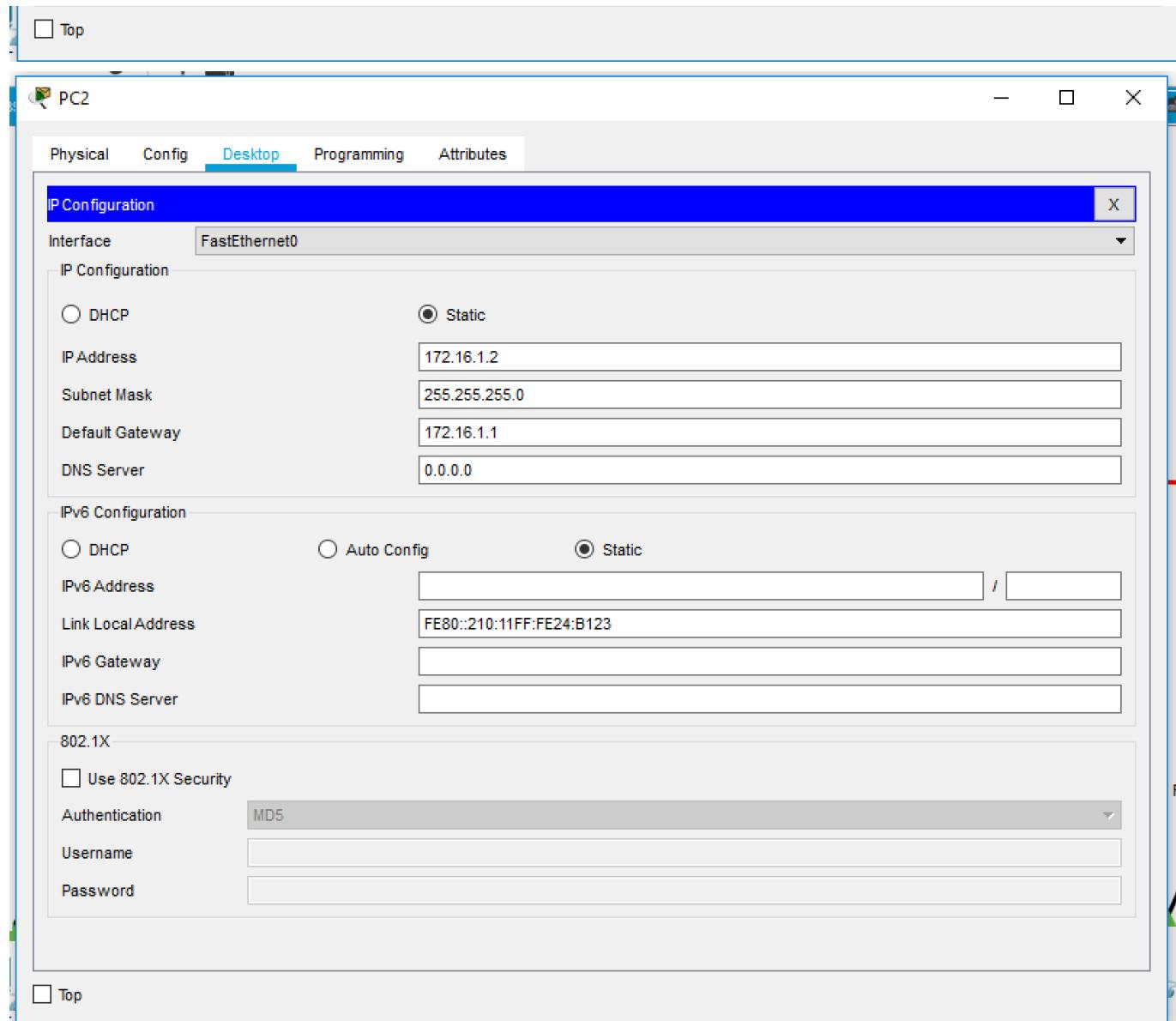
# revoke access to bastion
aws eb stop -f
aws ec2 authorize-security-group-ingress --group-name bastion-development --protocol tcp --port 22 --cidr ${myip}/24
```

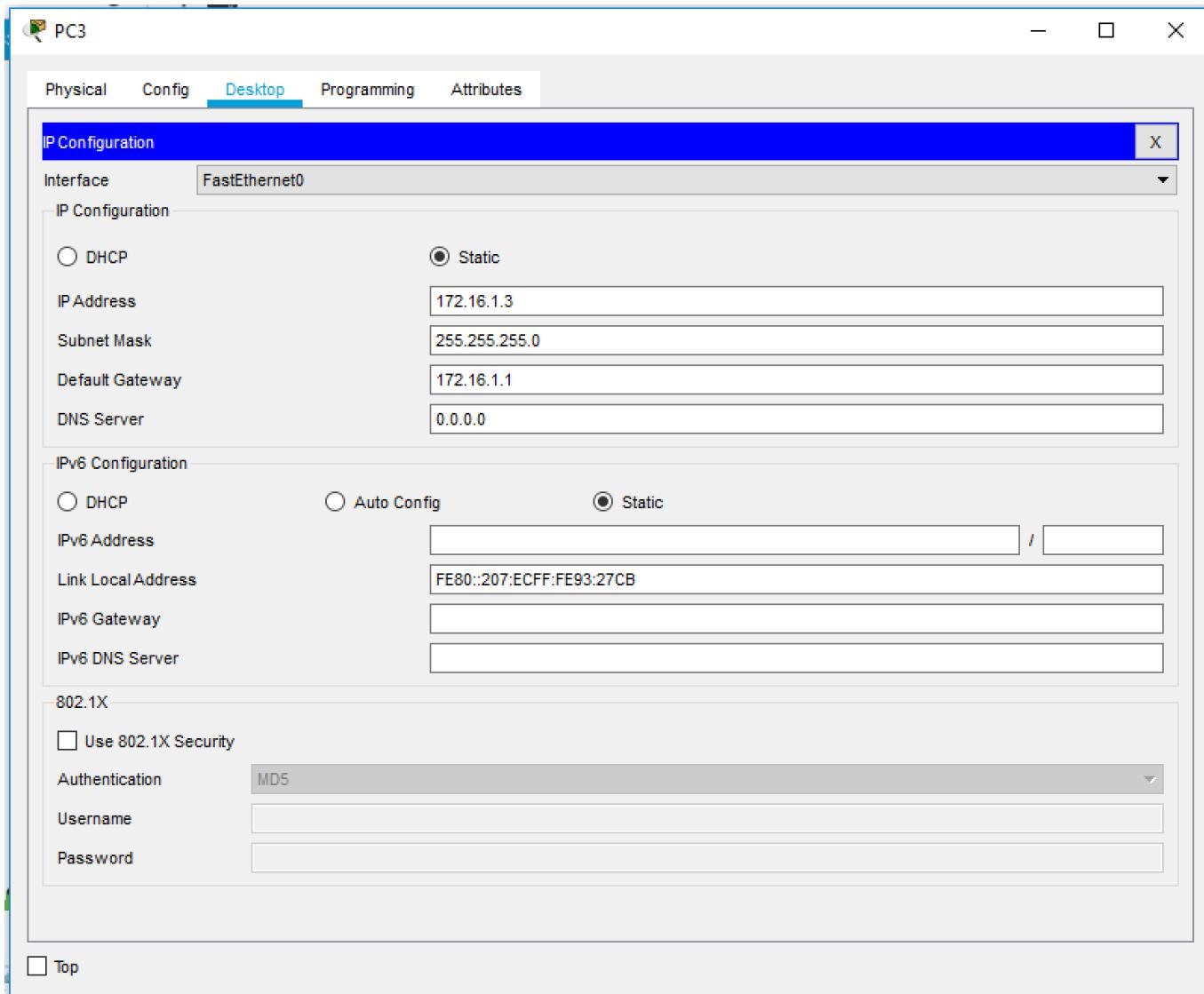
4 packet tracer

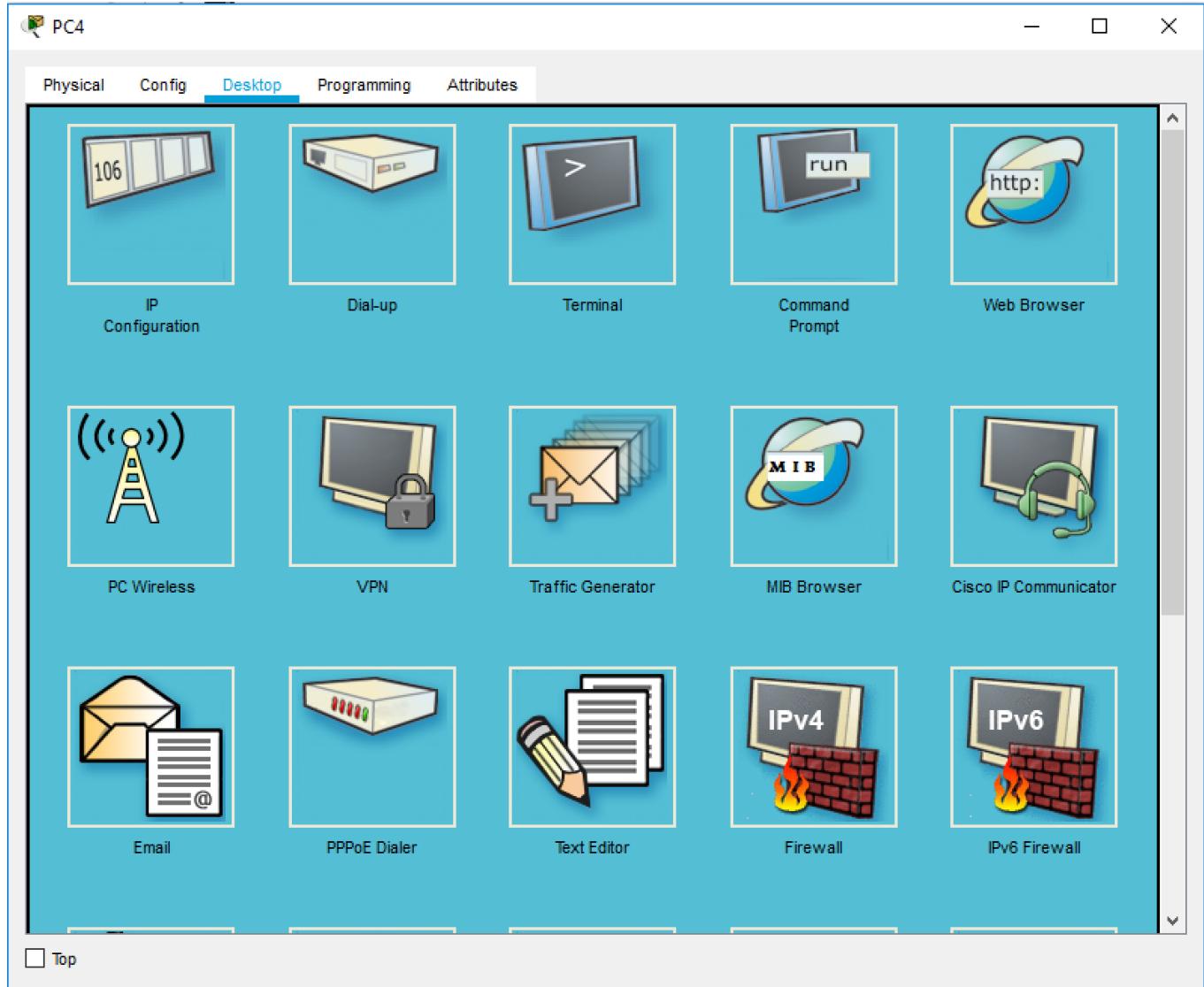
El [archivo .pkt](#) contiene la información de la red solicitada. No fue segurizado ningun router puesto que el problema era de enrutamiento + argumentos.

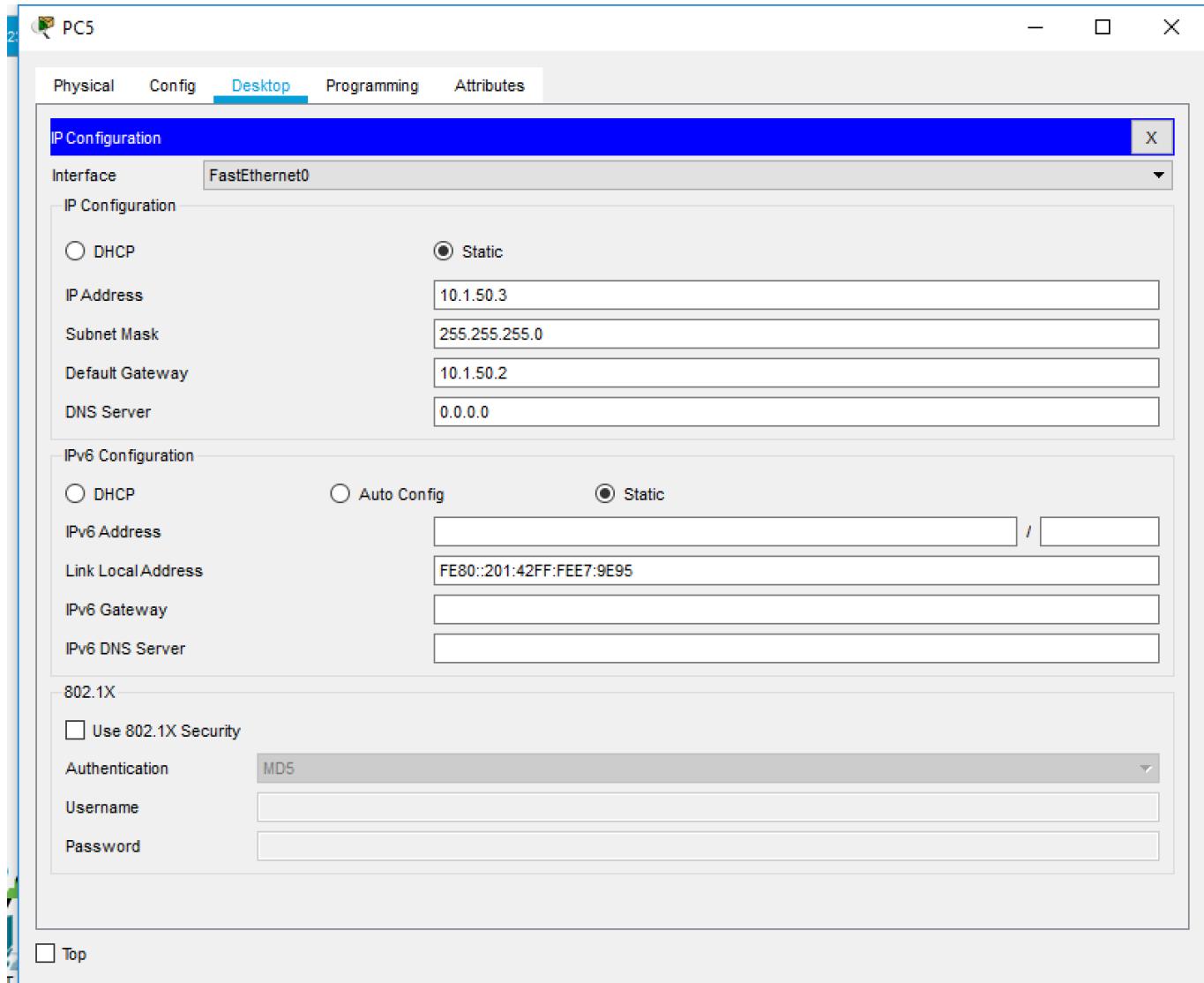
Capturas

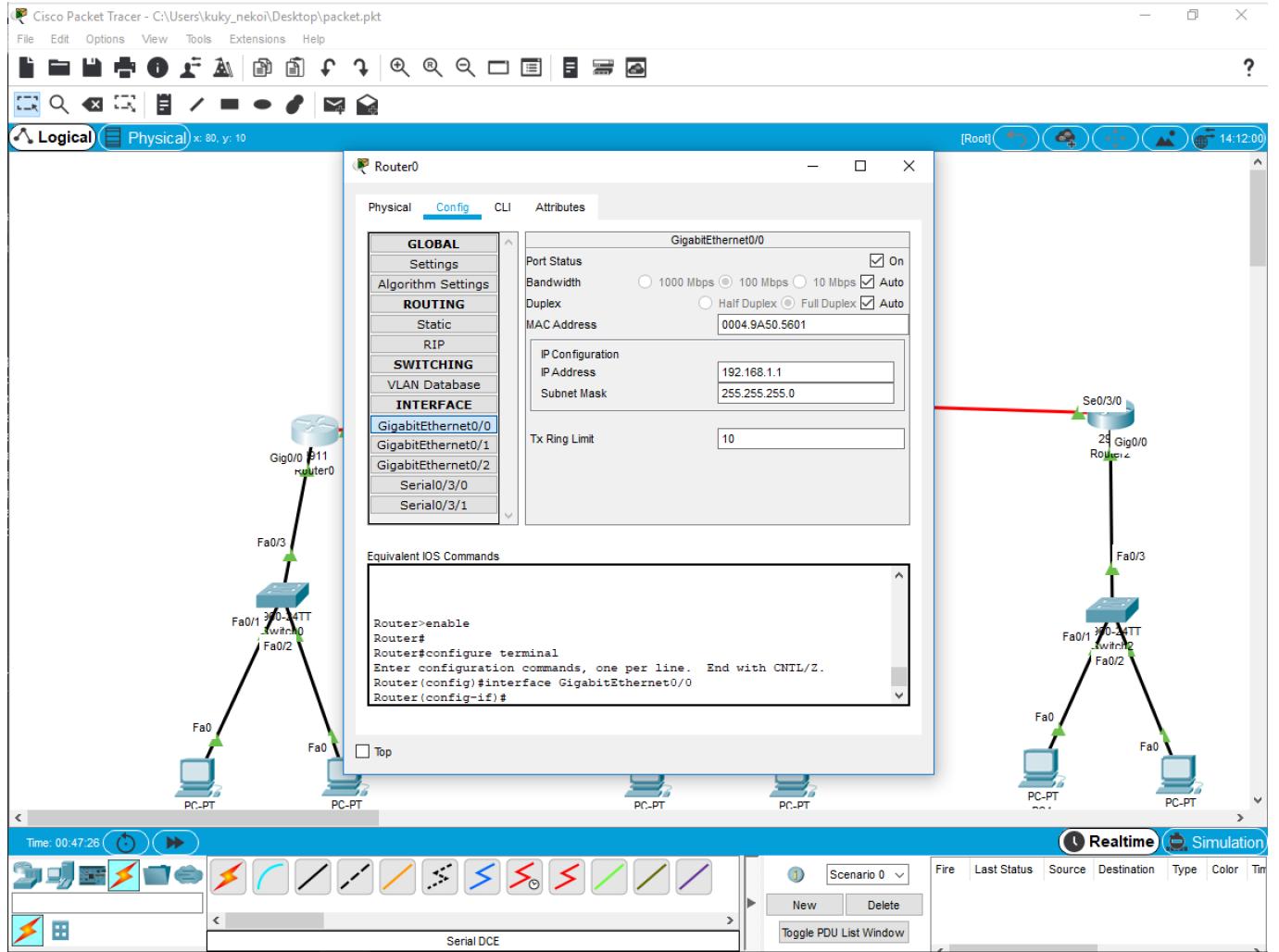












Router0

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

Serial0/3/0

Serial0/3/1

GigabitEthernet0/0

Port Status On

Bandwidth 1000 Mbps 100 Mbps 10 Mbps Auto

Duplex Half Duplex Full Duplex Auto

MAC Address 0004.9A50.5601

IP Configuration

IP Address 192.168.1.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#

```

Top

Router0

Physical Config CLI Attributes

GLOBAL

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VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

Serial0/3/0

Serial0/3/1

Serial0/3/0

Port Status On

Duplex Full Duplex

Clock Rate 2000000

IP Configuration

IP Address 200.33.146.1

Subnet Mask 255.255.255.252

Tx Ring Limit 10

Equivalent IOS Commands

```
Router(config)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial0/3/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial0/3/0
Router(config-if)#

```

Top

Router1

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

Serial0/3/0

Serial0/3/1

Serial0/3/0

Port Status On

Duplex Full Duplex

Clock Rate 2000000

IP Configuration

IP Address 200.33.146.2

Subnet Mask 255.255.255.252

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial0/3/0
Router(config-if) #
```

Top

Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial0/3/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#[

 Top

Router2

Physical Config CLI Attributes

GLOBAL

Settings
Algorithm Settings

ROUTING

Static
RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0
GigabitEthernet0/1
GigabitEthernet0/2
Serial0/3/0
Serial0/3/1

Port Status On

Duplex Full Duplex

Clock Rate 2000000

IP Configuration

IP Address 200.33.147.2
Subnet Mask 255.255.255.252

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial0/3/0
Router(config-if) #
```

Top

Router2

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

Serial0/3/0

Serial0/3/1

GigabitEthernet0/0

Port Status On

Bandwidth 1000 Mbps 100 Mbps 10 Mbps Auto

Duplex Half Duplex Full Duplex Auto

MAC Address 0090.21A0.5201

IP Configuration

IP Address 10.1.50.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial0/3/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#

```

Top

Router1

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

Serial0/3/0

Serial0/3/1

Port Status On

Duplex Full Duplex

Clock Rate 2000000

IP Configuration

IP Address 200.33.147.1

Subnet Mask 255.255.255.252

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial0/3/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial0/3/1
Router(config-if)#

```

Top

Configuracion ospf

```
! router 0
enable
configure terminal
router ospf 10
  log-adjacency-changes
  network 200.33.146.0 0.0.0.3 area 10
  network 192.168.1.0 0.0.0.255 area 10
  passive-interface gigabitEthernet0/0
  passive-interface gigabitEthernet0/1
  passive-interface gigabitEthernet0/2
      redis static subnet
```

```
exit
exit
wr
exit

! router 1
enable
configure terminal
  router ospf 10
    log-adjacency-changes
    network 200.33.146.0 0.0.0.3 area 10
    network 200.33.147.0 0.0.0.3 area 10
    network 172.16.1.0 0.0.0.255 area 10
    passive-interface gigabitEthernet0/0
    passive-interface gigabitEthernet0/1
    passive-interface gigabitEthernet0/2
      redis static subnet
exit
exit
wr
exit

! router 2
enable
configure terminal
  router ospf 10
    log-adjacency-changes
    network 200.33.147.0 0.0.0.3 area 10
    network 10.1.50.0 0.0.0.255 area 10
    passive-interface gigabitEthernet0/0
    passive-interface gigabitEthernet0/1
    passive-interface gigabitEthernet0/2
      redis static subnet
exit
exit
wr
exit
```

Argumento OSPF

- OSPF es un protocolo que no es privativo, por tanto podemos seguir extendiendo la red con otros productos que no sean CISCO.
- Las definiciones de area y que sea classless permite definir las máscaras solicitadas.
- Es fácil de utilizar.