

EXP2 REDES

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1 Trabajo previo

Comandos

1. Mostrar listado de direcciones MAC conectadas al switch:
 - (a) IPv6: show ipv6 neighbors
 - (b) IPv4: show mac-address-table
2. Habilitar ruteo de IPv6:
 - (a) IPv6: ipv6 unicast-routing
3. Acceder a la interfaz X del router:
 - (a) IPv6:
Router(config)# interface X
 - (b) IPv4:
Router(config)# interface X
4. Asignar dirección IP y máscara a la interfaz X:
 - (a) IPv6:
Router(config-if)#ipv6 address IP eui-64
 - (b) IPv4:
Router(config-if)#ip address IP máscara
5. Configurar enrutamiento estático del router
 - (a) IPv6:
Device(config)# ipv6 route [IP red destino][...]
 - (b) IPv4:
Router(config)# ip route [IP red destino] [Mask red destino] [IP interfaz siguiente router | interfaz de salida]
6. Configurar enrutamiento dinámico con RIP del router:
 - (a) IPv6:
Router(config-if)# ipv6 rip RIP enable
 - (b) IPv4:
Router(config)# router rip
Router(config-router)# network RIP
7. eliminar dirección IP asignada a la interfaz X del router:
 - (a) IPv6:
Router(config-if)# no ipv6 address IP eui-64

(b) IPv4:

Router(config-if)# no ip address IP máscara

Tabla comparativa

Tabla comparativa Routers Cisco			
Modelo	CISCO2901-V/K9	CISCO2901/K9	CISCO2921/K9
Conexión WAN	Ethernet (RJ-45)	Ethernet (RJ-45)	Ethernet (RJ-45)
Ethernet LAN (RJ-45) cantidad de puertos	2	2	3
Cantidad de puertos USB	2	2	2
Consumo energético	40 W	40 W	320 W
Protocolos soportados	Pv4, IPv6, OSPF, EIGRP, BGP, ...	IPv4, IPv6, OSPF, EIGRP, BGP, ...	Pv4, IPv6, OSPF, EIGRP, BGP, ...
Protocolo de routing	BGP, EIGRP, IGRP, IS-IS, MPLS	BGP, EIGRP, IGRP, IS-IS, MPLS	BGP, EIGRP, IGRP, IS-IS, MPLS, OSPF
Ethernet LAN, velocidad de transferencia de datos	10,100,1000 Mbit/s	10,100,1000 Mbit/s	10,100,1000 Mbit/s
Memoria interna	512 MB	512 MB	512 MB

Tabla comparativa Routers Huawei			
Modelo	AR2201-48FE	AR2204-27GE	AR2204-27GE-P
Velocidad WAN	200 Mbit/s	200 Mbit/s	200 Mbit/s
Cantidad de puertos WAN	2	3	3
Cantidad de puertos USB	1	2	1
Cantidad de puertos LAN	48	24	24
Consumo energético	60 W	60 W	60 W
Ruteo Unicast IPv4	Routing policy, static route, RIP, OSPF, IS-IS, y BGP	Routing policy, static route, RIP, OSPF, IS-IS, y BGP	Routing policy, static route, RIP, OSPF, IS-IS, y BGP
Ruteo Unicast IPv6	Routing policy, static route, RIPng, OSPFv3, IS-ISv6, y BGP4+	Routing policy, static route, RIPng, OSPFv3, IS-ISv6, y BGP4+	Routing policy, static route, RIPng, OSPFv3, IS-ISv6, y BGP4+
Memoria interna	512 MB	512 MB	512 MB

Tabla comparativa Routers HPE			
Modelo	MSR958	MSR1003 8S E	PS110 MSR3024
Cantidad de puertos WAN	2	2	2
Cantidad de puertos USB	1	0	0
Cantidad de puertos LAN	8	8	8
Consumo energético	85 W	30 W	30 W

Interfaces

1. Ejemplo Huawei:

```
< Huawei >: system-view
[Huawei] interface g0/0
[Huawei-GigabitEthernet0/0] ip address direccionIP MASK
[Huawei-GigabitEthernet0/0] undo shutdown
```

2. Ejemplo Cisco:

```
Router()#configure terminal
Router(config)# interface X
Router(config-if)#ipv6 address IP eui-64
Router(config-if)# no shutdown
```

3. Ejemplo HPE:

```
ProCurve> enable
```

```
ProCurve# config
```

```
ProCurve(config)# interface ethernet 0/1
```

```
ProCurve(config-eth 0/1)# ip address IP MASK
```

```
ProCurve(config-eth 0/1)# no shutdown
```

Imparcialmente hablando, los tres sistemas son prácticamente iguales. Habría que leer mas documentación de cada uno para poder decir cual posee mas posibilidades de configuración, pero a simple vista son muy similares.

2 Experiencia

- Enrutamiento estatico

1. Conectividad mediante Switch

Realizando los pasos descritos en la experiencia se obtuvo lo siguiente:

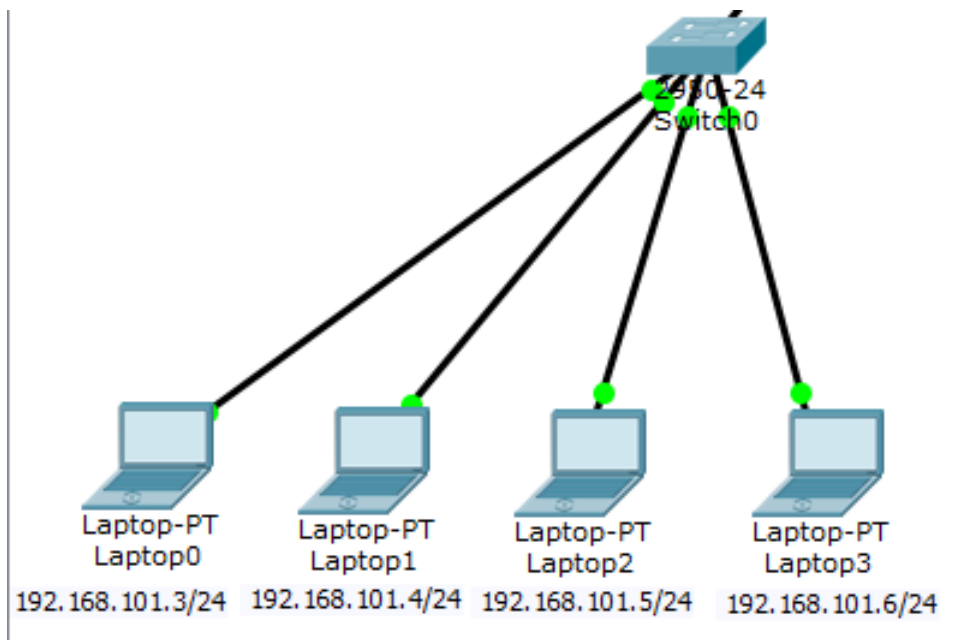


Figure 1: Conectividad mediante switch

Con el comando ping se paso a llenar la tabla de direcciones

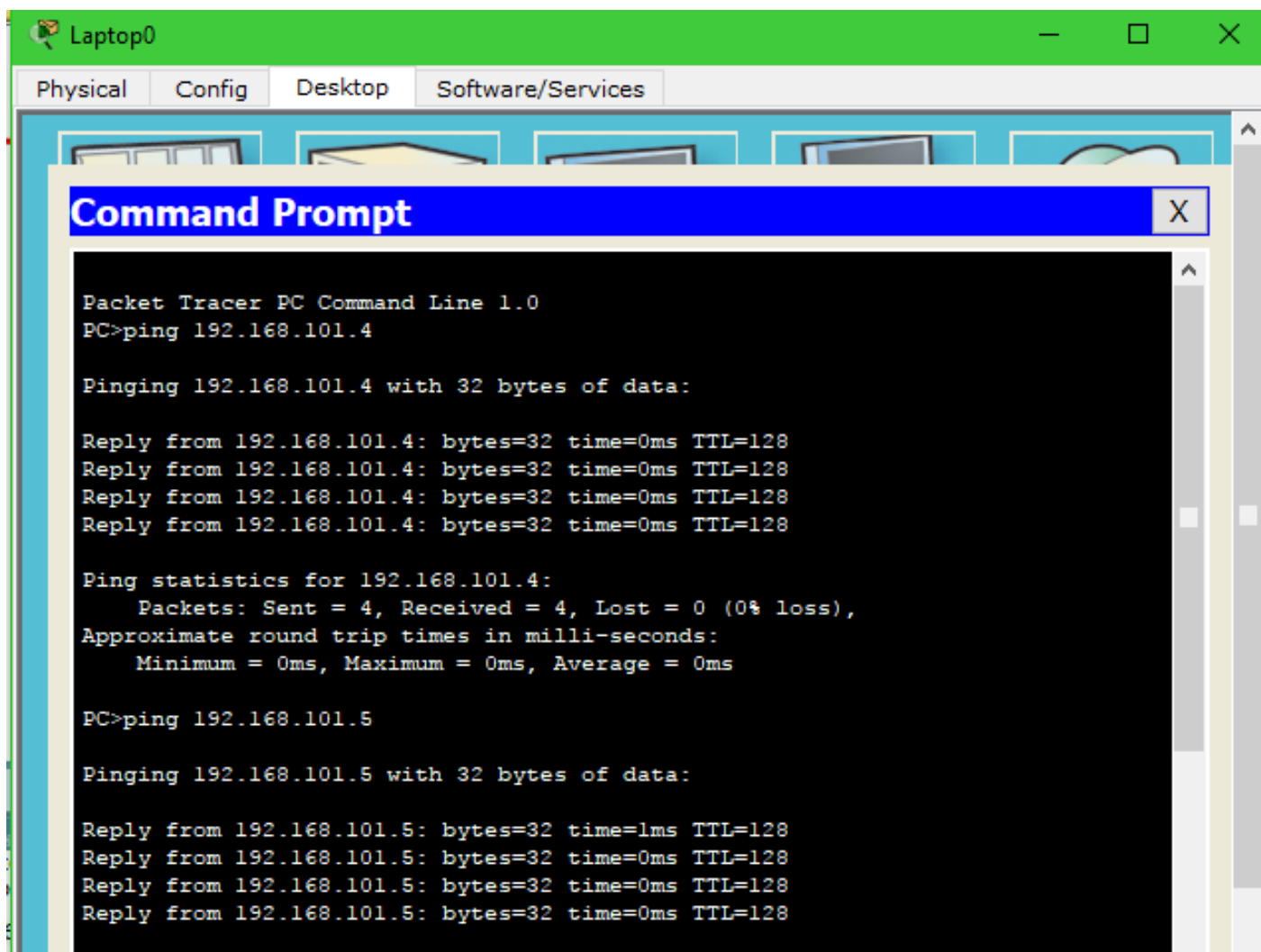
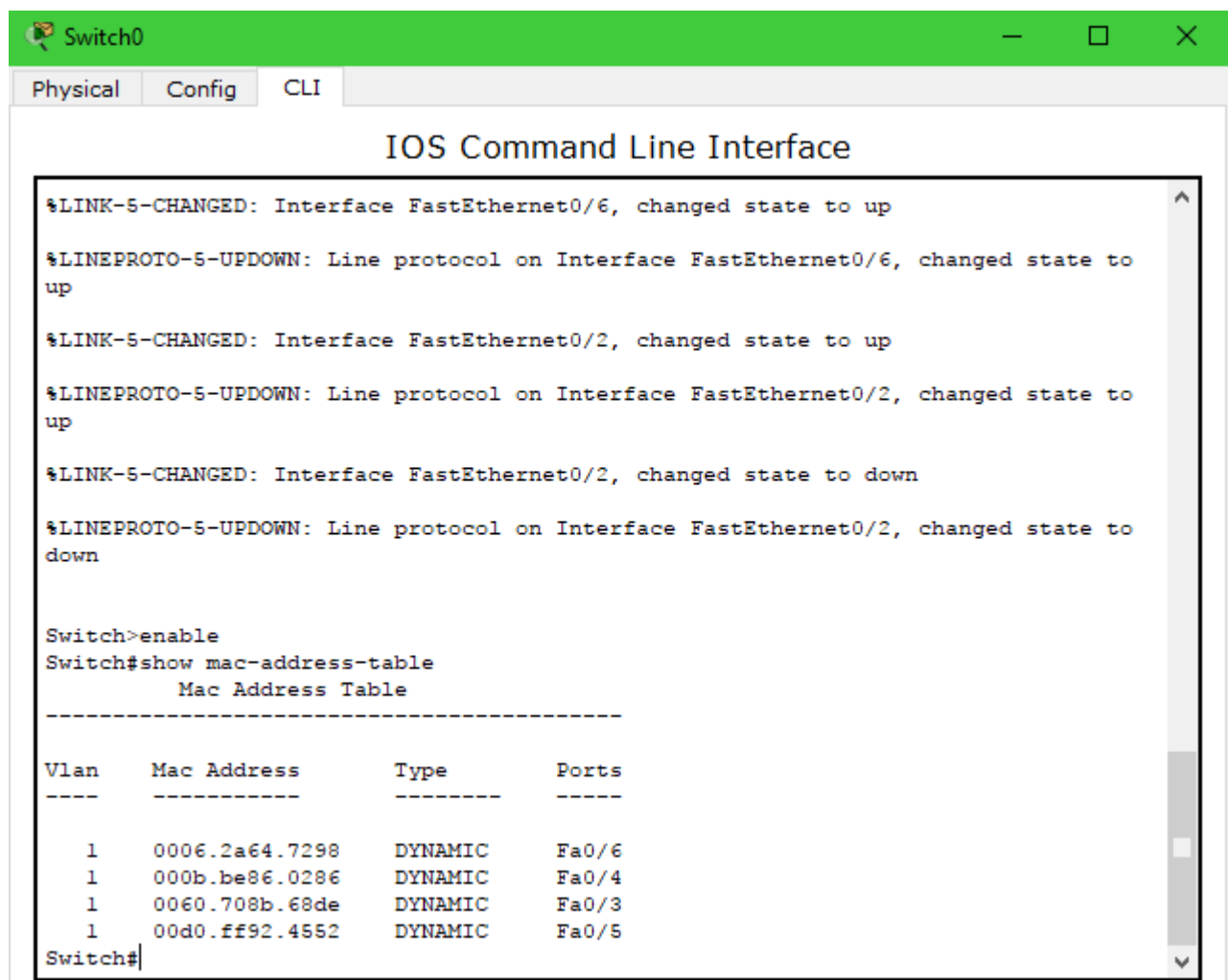


Figure 2: La imagen muestra que desde el Laptop0 se hizo ping a los demas Laptop



The screenshot shows the CLI of a switch named Switch0. The title bar is green with the text 'Switch0'. Below the title bar are three tabs: 'Physical', 'Config', and 'CLI'. The 'CLI' tab is selected. The main window is titled 'IOS Command Line Interface'. It displays a series of system messages indicating that interfaces FastEthernet0/6 and FastEthernet0/2 have changed state to up and then down. After the messages, the user enters the command 'enable' and then 'show mac-address-table'. The output shows a table with four columns: Vlan, Mac Address, Type, and Ports. The table lists four entries for Vlan 1, each with a different Mac Address and corresponding Port (Fa0/6, Fa0/4, Fa0/3, and Fa0/5). The Type for all entries is 'DYNAMIC'. The prompt 'Switch#' is visible at the bottom.

```
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to down

Switch>enable
Switch#show mac-address-table
      Mac Address Table
-----
Vlan    Mac Address      Type        Ports
----    -
1       0006.2a64.7298   DYNAMIC     Fa0/6
1       000b.be86.0286   DYNAMIC     Fa0/4
1       0060.708b.68de   DYNAMIC     Fa0/3
1       00d0.ff92.4552   DYNAMIC     Fa0/5
Switch#
```

Figure 3: Se puede apreciar que se lleno la tabla de las direcciones del switch0

Pregunta 1: Es posible gracias al uso de sniffers. Una de las ventajas es que permite la creacion de redes locales, las cuales permiten compartir archivos entre otras cosas, ofrecen mejor seguridad que los hubs, etc.

Pregunta 2: Fisicamente no se puede, hay que usar VLAN, luego no es posible pues en el caso de VLAN se encarga de separar las redes.

Pregunta 3: Con el uso de VLAN

2. Conectividad mediante router

Realizando los mismos pasos anteriores, se agregó otro switch con 4 laptops, luego se agrego el router.

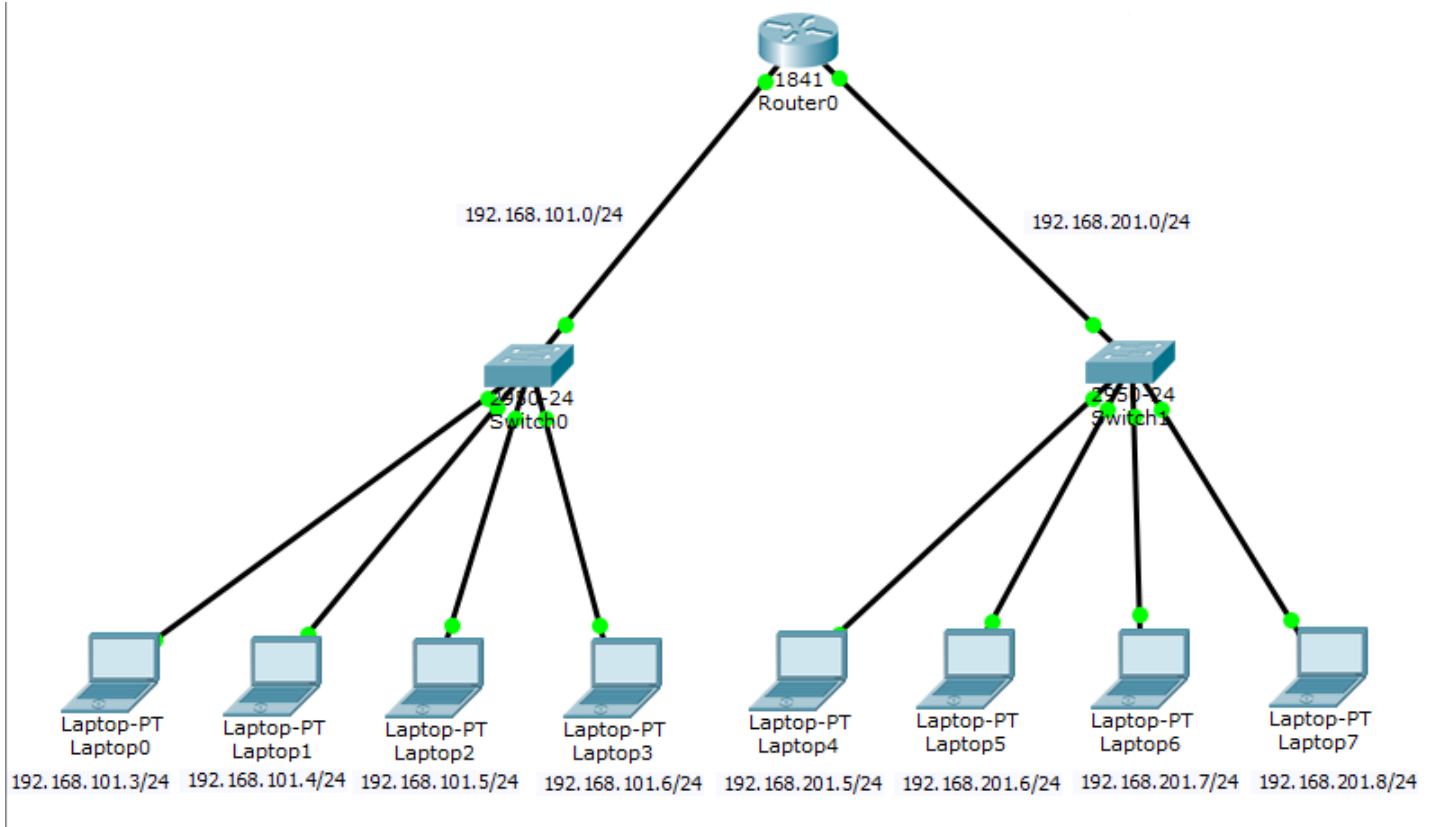


Figure 4: Se puede apreciar como quedo la nueva estructura agregando el router con otro switch y las 4 laptops

Para configurar las interfaces se usaron los siguientes comandos.

Primero se selecciono la interfaz a configurar con:

interface fastethernet0/X

Donde la X es el numero correspondiente. Luego se le asigno la ip y la mascara con:

ip address IP MASK

Donde la IP y MASK corresponden al gateway y mascara correspondiente de la red en especifico.

Finalmente finalizamos con:

no shutdown

Con este encendemos la interfaz.

Con todo lo anterior realizado se obtuvo lo siguiente.

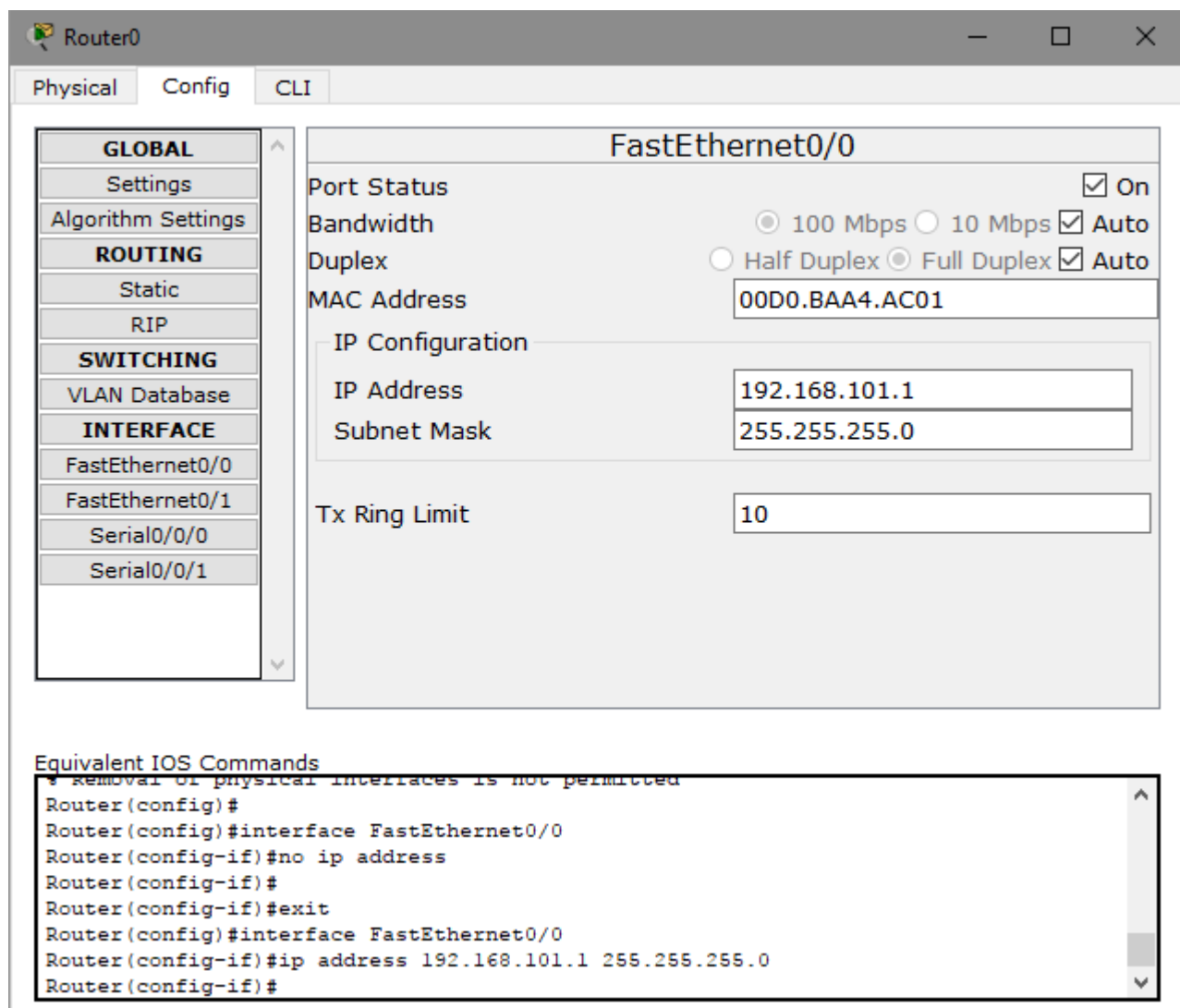


Figure 5: Aqui podemos ver como quedo configurado la interface fastethernet0

Ademas agregando la configuracion la nueva red y el gateway a los laptops, se obtuvo lo siguiente:

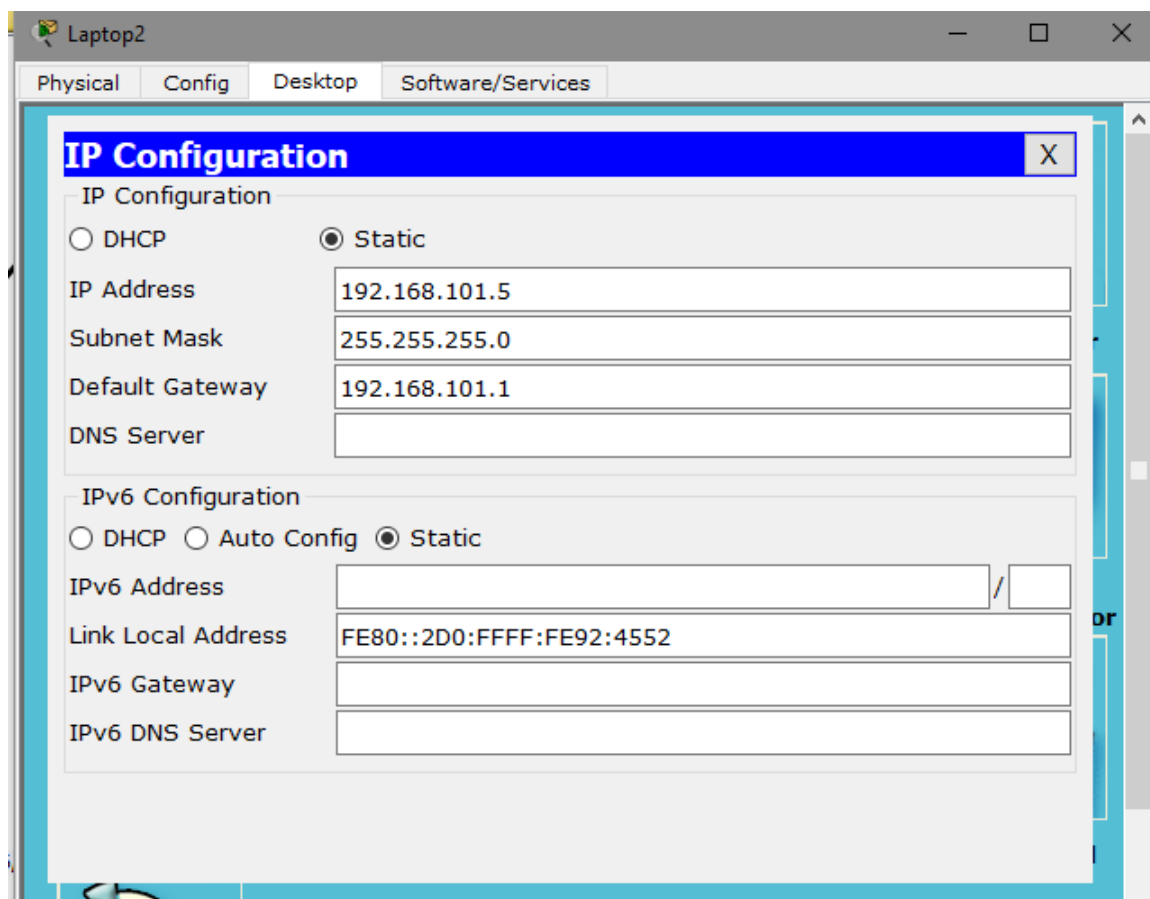


Figure 6: Aqui podemos ver como quedo configurado el laptop2 correspondiente a la red 192.168.101.0

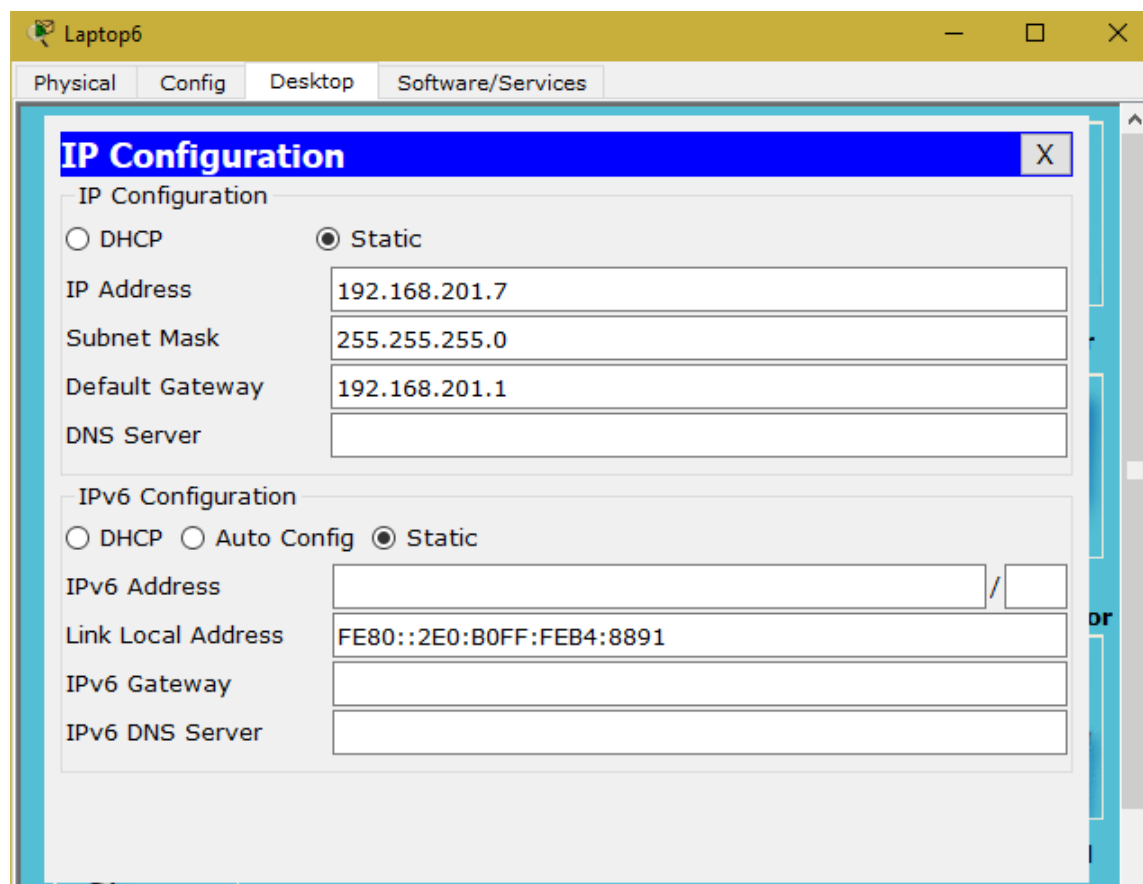


Figure 7: Aquí podemos ver como quedo configurado el laptop6 correspondiente a la red 192.168.201.0

Donde podemos comprobar que hay conexion

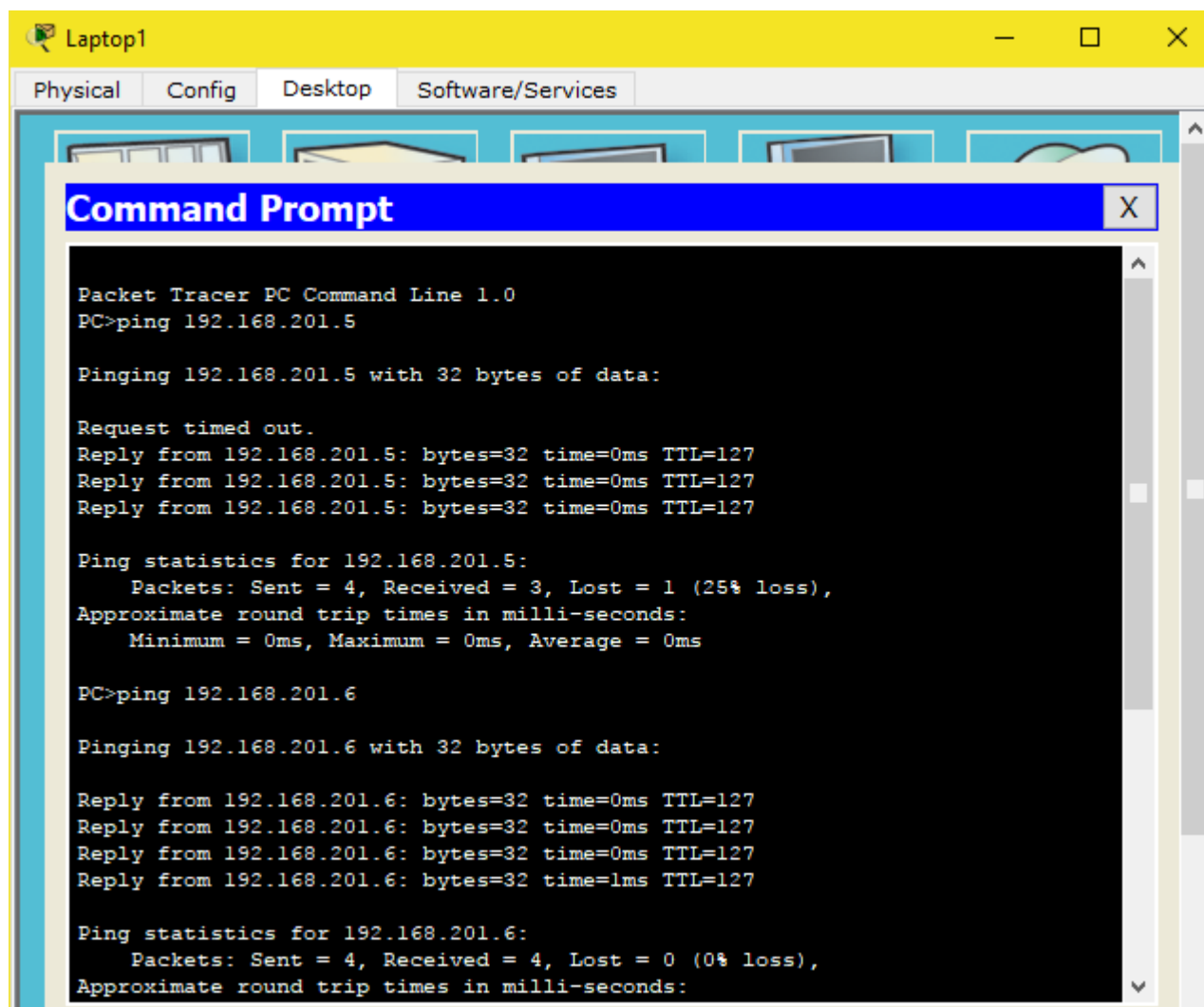


Figure 8: Aquí podemos ver que luego de hacer las configuraciones, tenemos conexión a la otra red

A continuación se responderán las preguntas:

Pregunta 4: No habrá conexión, por lo cual el mensaje nunca llegaría a esos hosts

Pregunta 5: Es *no interface fastethernet0/X* donde X es el número correspondiente de la interfaz

3. Configuración de ruteo estático

Ahora se pasará a agregar otro router, además se agregará otro switch con otros 4 laptops. La forma de configurarlos es similar solo que cambia la red. Después los routers se unen con el cable Serial DTE, pero antes se deben agregar los módulos a los routers para reconocer este cable, para posteriormente realizar las configuraciones en los routers para crear la red entre estos. Realizando lo anterior se obtuvo lo siguiente:

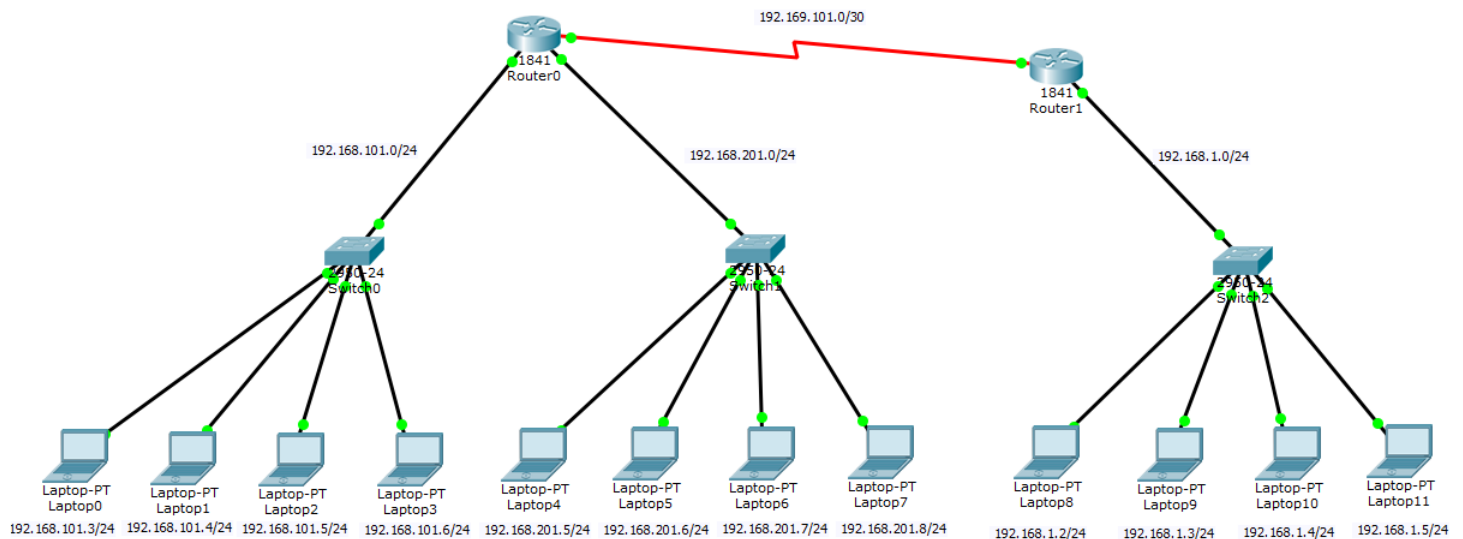


Figure 9: Aqui podemos ver como quedo la nueva configuracion agregando lo anterior

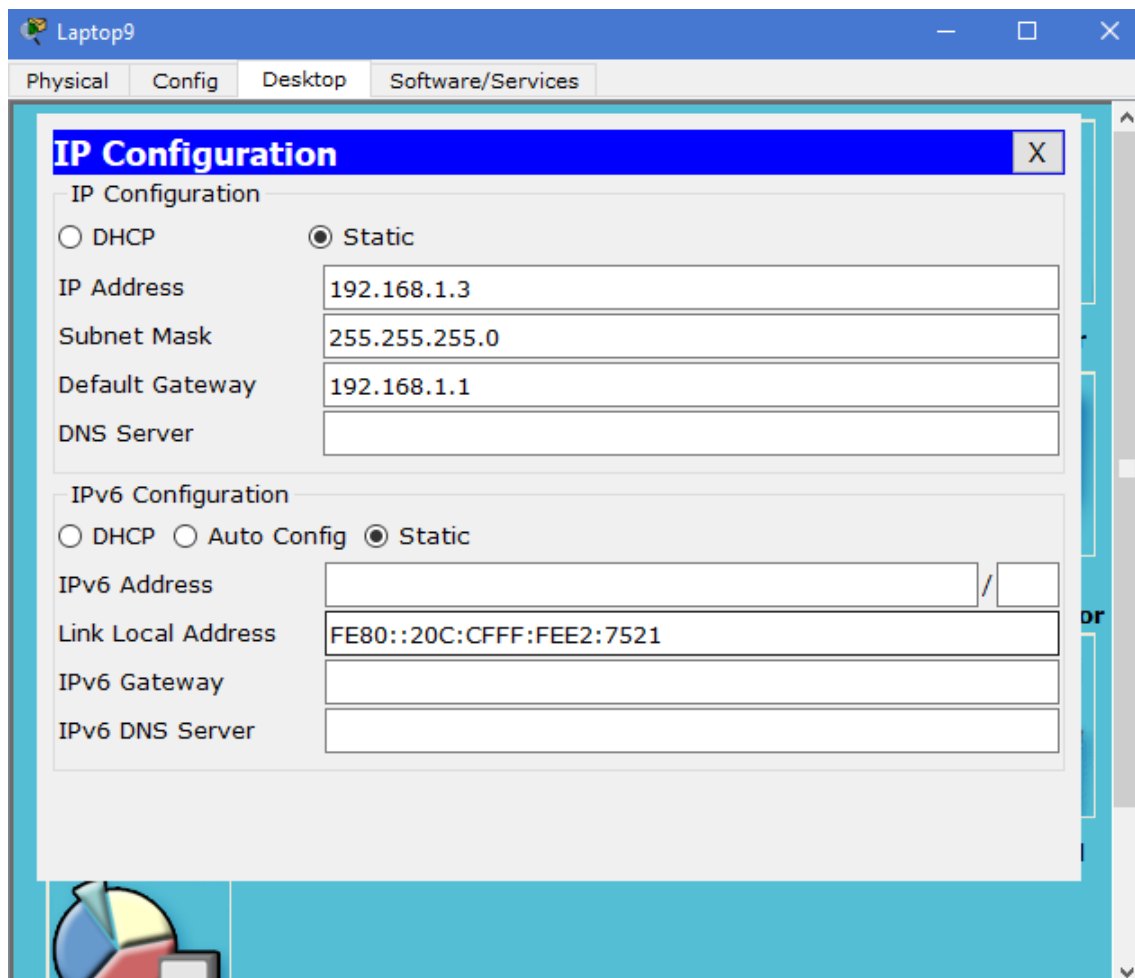
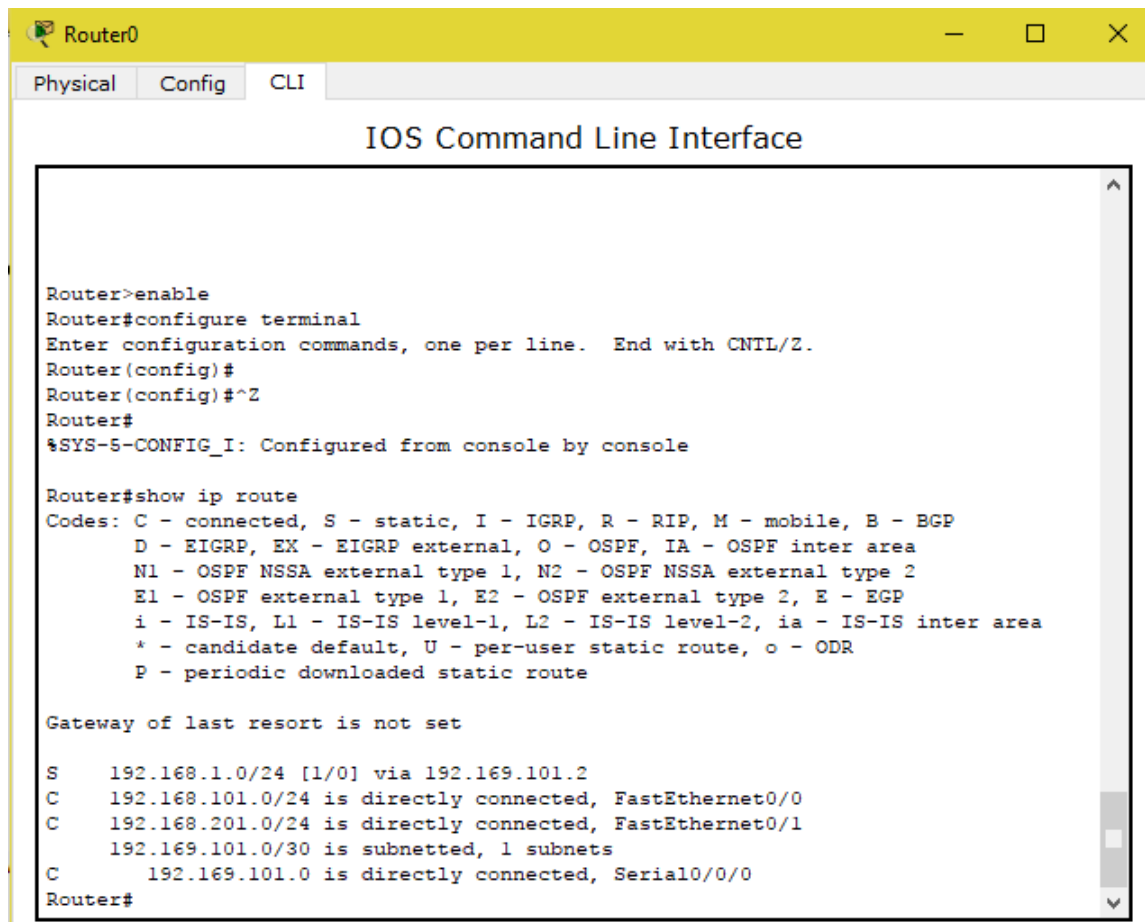


Figure 10: Se puede apreciar la configuracion del laptop9 correspondiente de la red 192.168.1.0

Pregunta 6: Si hay conectividad entre los router ya que se conectaron y configuraron los cables, pero si tiramos un ping no hay conexion, pues falta indicar el camino para llegar a la otra red.

Ahora se agregaran las rutas en router0, con el comando:
ip route [ip destino][mascara red destino][ip de salida]



```
Router0
Physical Config CLI
IOS Command Line Interface

Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console

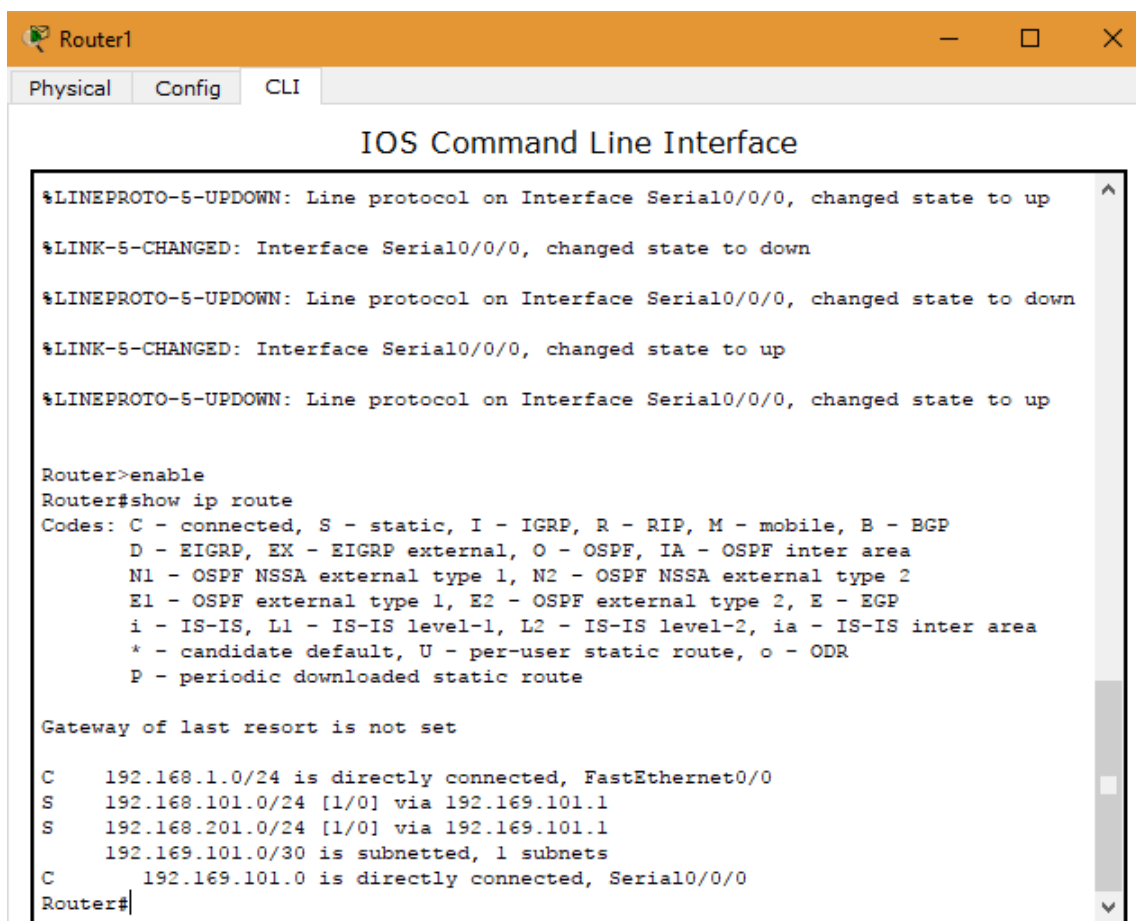
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

S    192.168.1.0/24 [1/0] via 192.169.101.2
C    192.168.101.0/24 is directly connected, FastEthernet0/0
C    192.168.201.0/24 is directly connected, FastEthernet0/1
     192.169.101.0/30 is subnetted, 1 subnets
C       192.169.101.0 is directly connected, Serial0/0/0
Router#
```

Figure 11: Aqui podemos ver las rutas ya agregadas en el router0

Pregunta 7: Aun no es efectivo, porque falta enrutar estaticamente el router1.



The screenshot shows a window titled "Router1" with three tabs: "Physical", "Config", and "CLI". The "CLI" tab is active, displaying the "IOS Command Line Interface". The terminal output shows several status messages for Interface Serial0/0/0, followed by the command "Router>enable" and "Router#show ip route". The output of the command lists the routing table, including codes for various protocols and a list of routes.

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to down
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up

Router>enable
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

C    192.168.1.0/24 is directly connected, FastEthernet0/0
S    192.168.101.0/24 [1/0] via 192.169.101.1
S    192.168.201.0/24 [1/0] via 192.169.101.1
     192.169.101.0/30 is subnetted, 1 subnets
C      192.169.101.0 is directly connected, Serial0/0/0
Router#
```

Figure 12: Aquí podemos ver las rutas ya agregadas en el router1

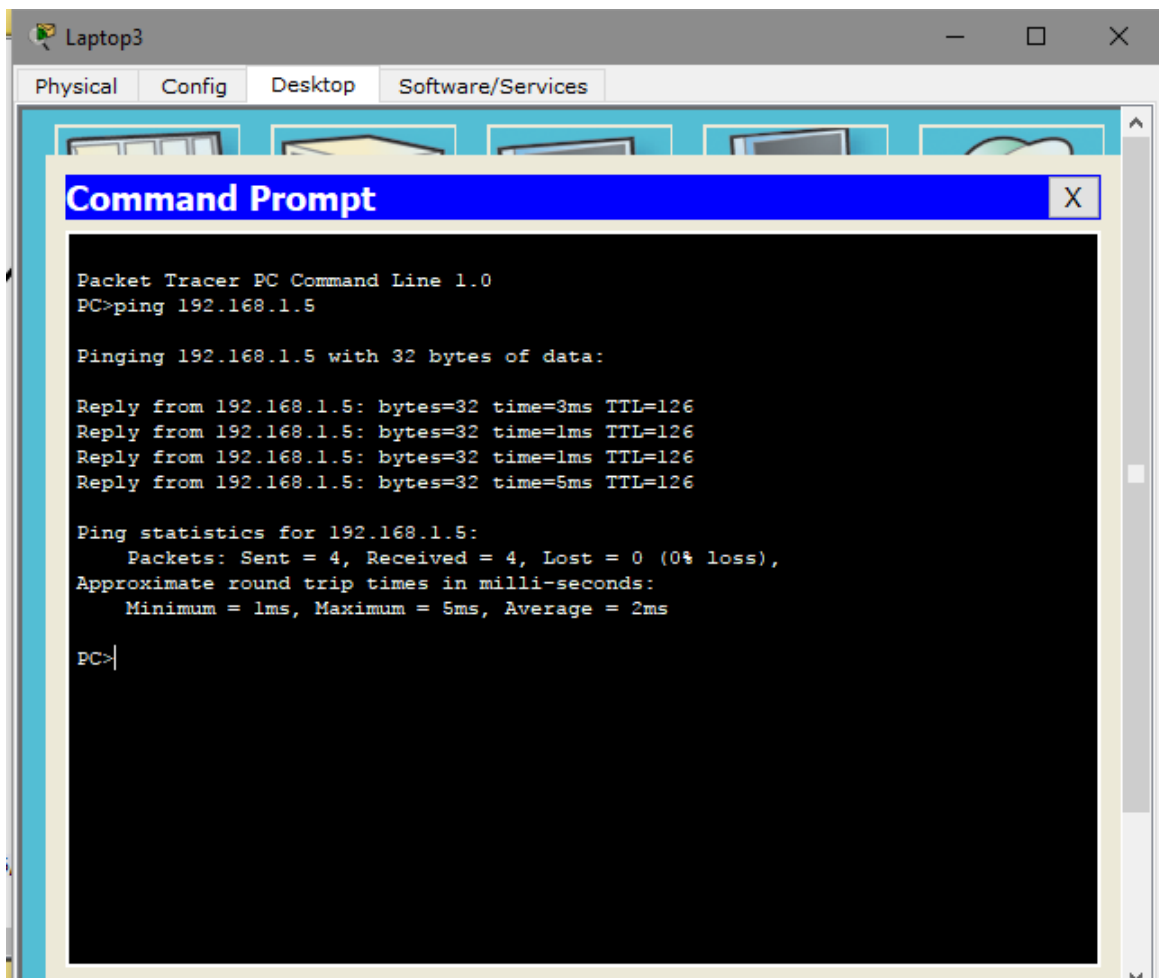


Figure 13: Aqui podemos ver existe conexion ya con la configuracion establecida

Una vez terminada esta parte, se obtuvo lo siguiente:

1. Configuracion de los routers

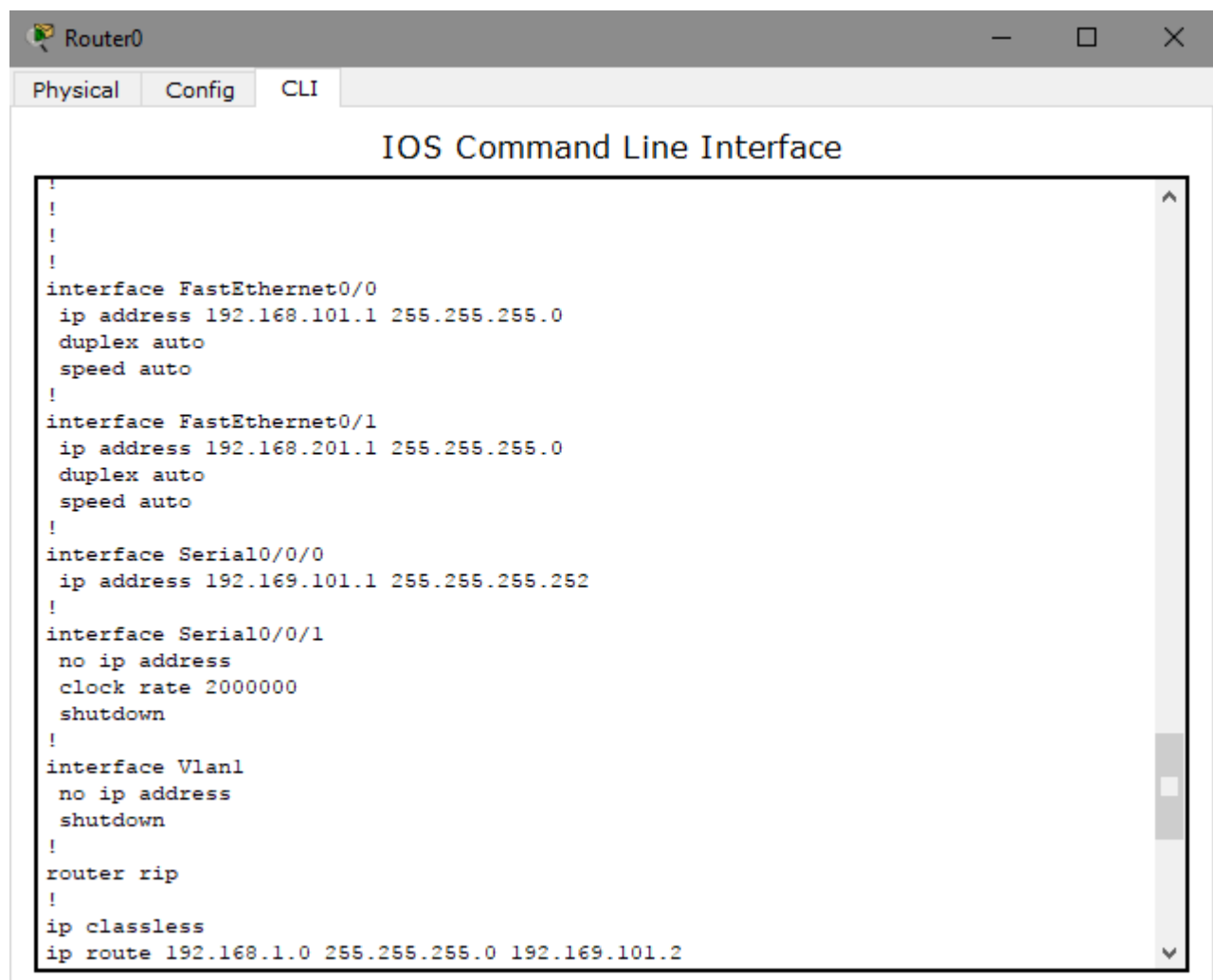
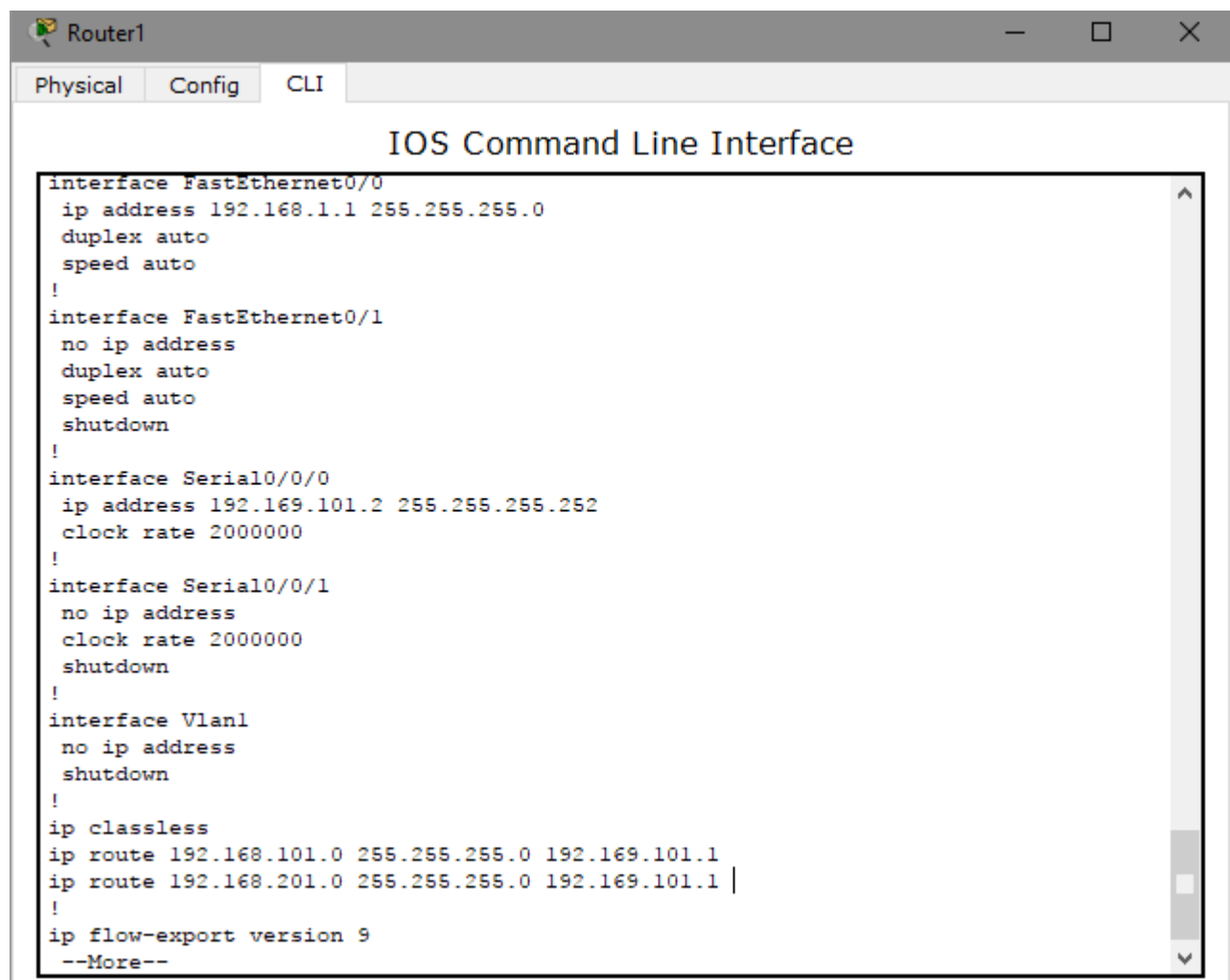


Figure 14: Configuraciones del router0



The screenshot shows a window titled "Router1" with three tabs: "Physical", "Config", and "CLI". The "CLI" tab is active, displaying the "IOS Command Line Interface". The configuration text is as follows:

```
interface FastEthernet0/0
ip address 192.168.1.1 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
shutdown
!
interface Serial10/0/0
ip address 192.169.101.2 255.255.255.252
clock rate 2000000
!
interface Serial10/0/1
no ip address
clock rate 2000000
shutdown
!
interface Vlan1
no ip address
shutdown
!
ip classless
ip route 192.168.101.0 255.255.255.0 192.169.101.1
ip route 192.168.201.0 255.255.255.0 192.169.101.1 |
!
ip flow-export version 9
--More--
```

Figure 15: Configuraciones del router1

2. Configuración de los switches

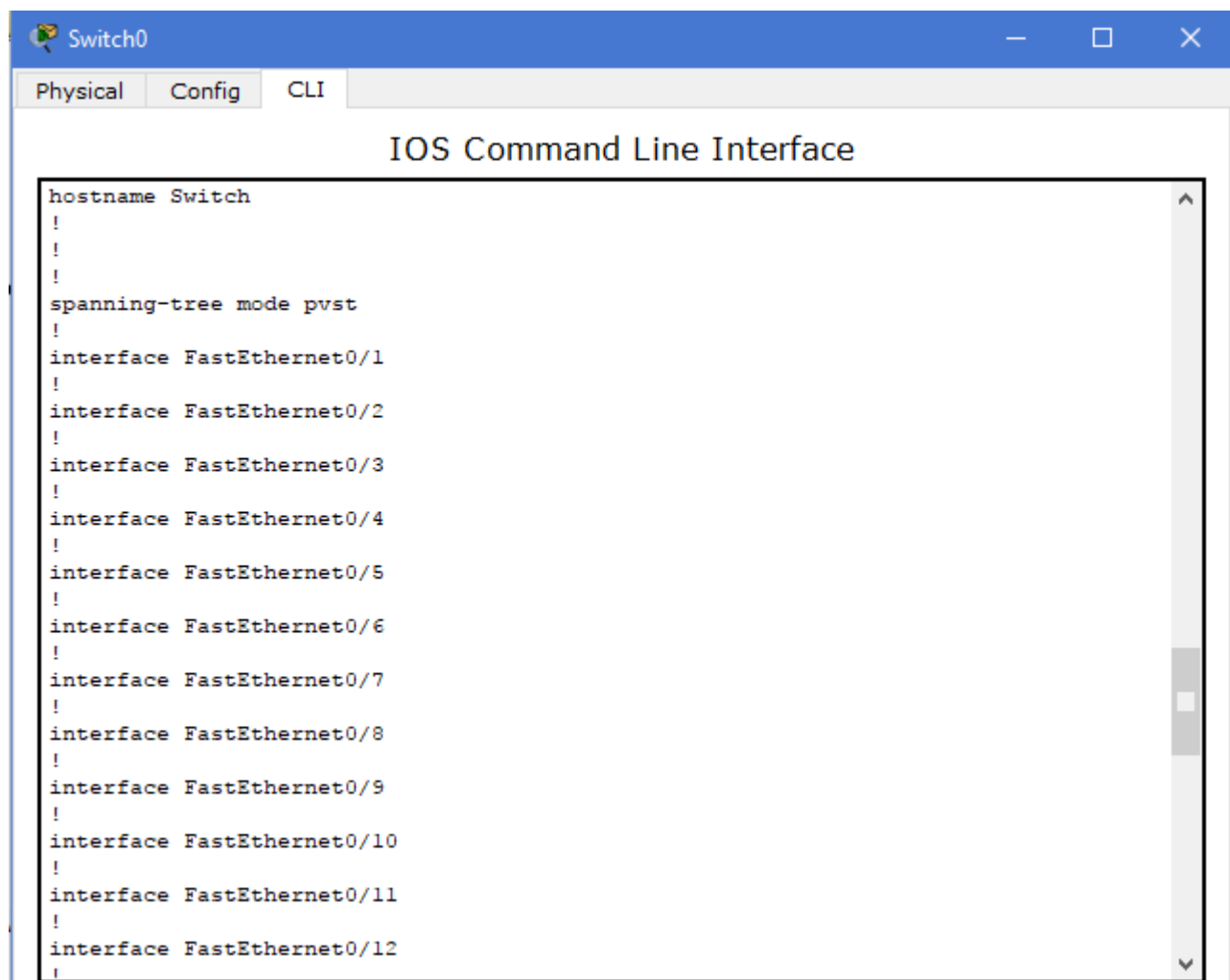


Figure 16: Configuraciones del switch0, no mostraba mucho, solo las interfaces

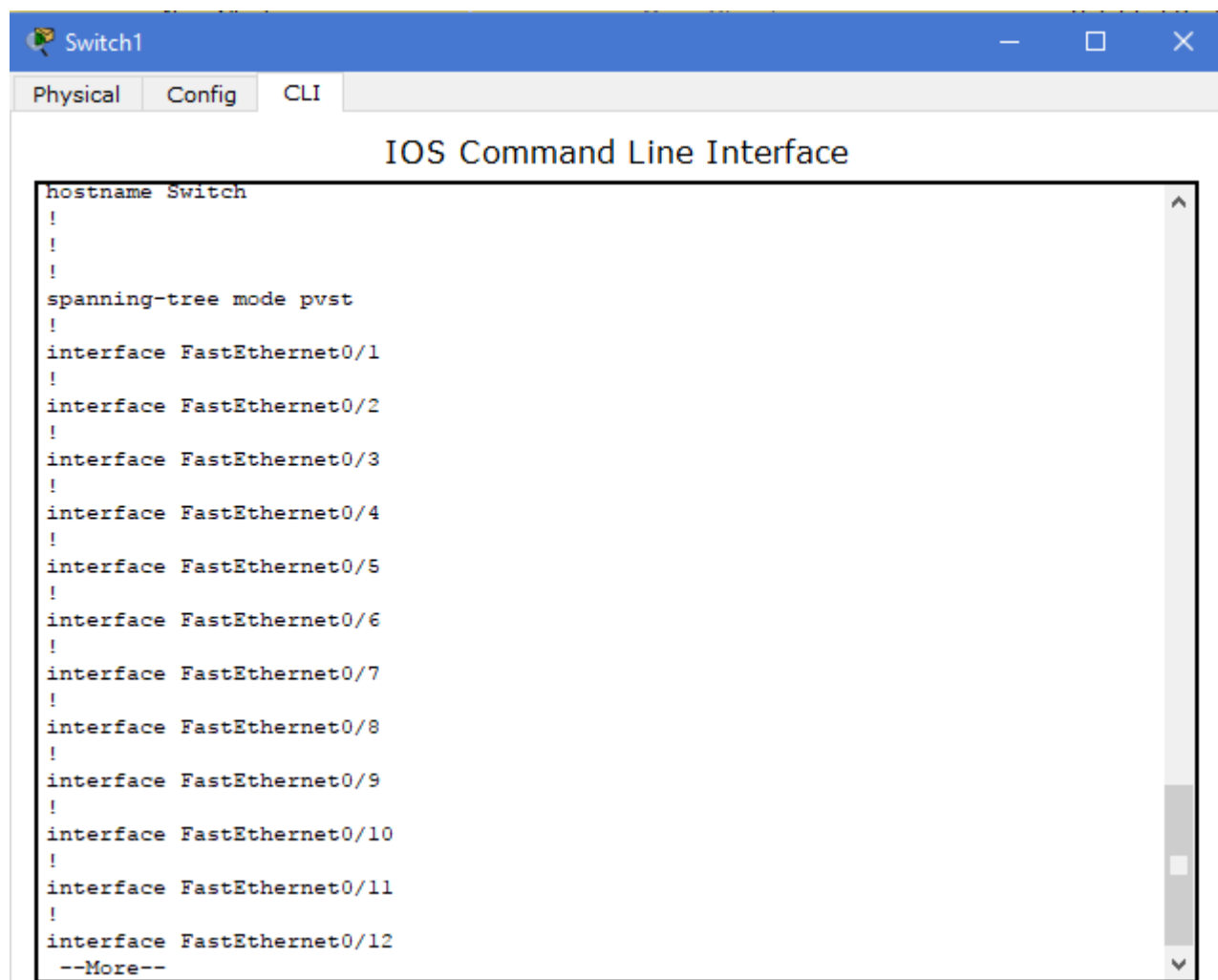


Figure 17: Configuraciones del switch1, no mostraba mucho, solo las interfaces

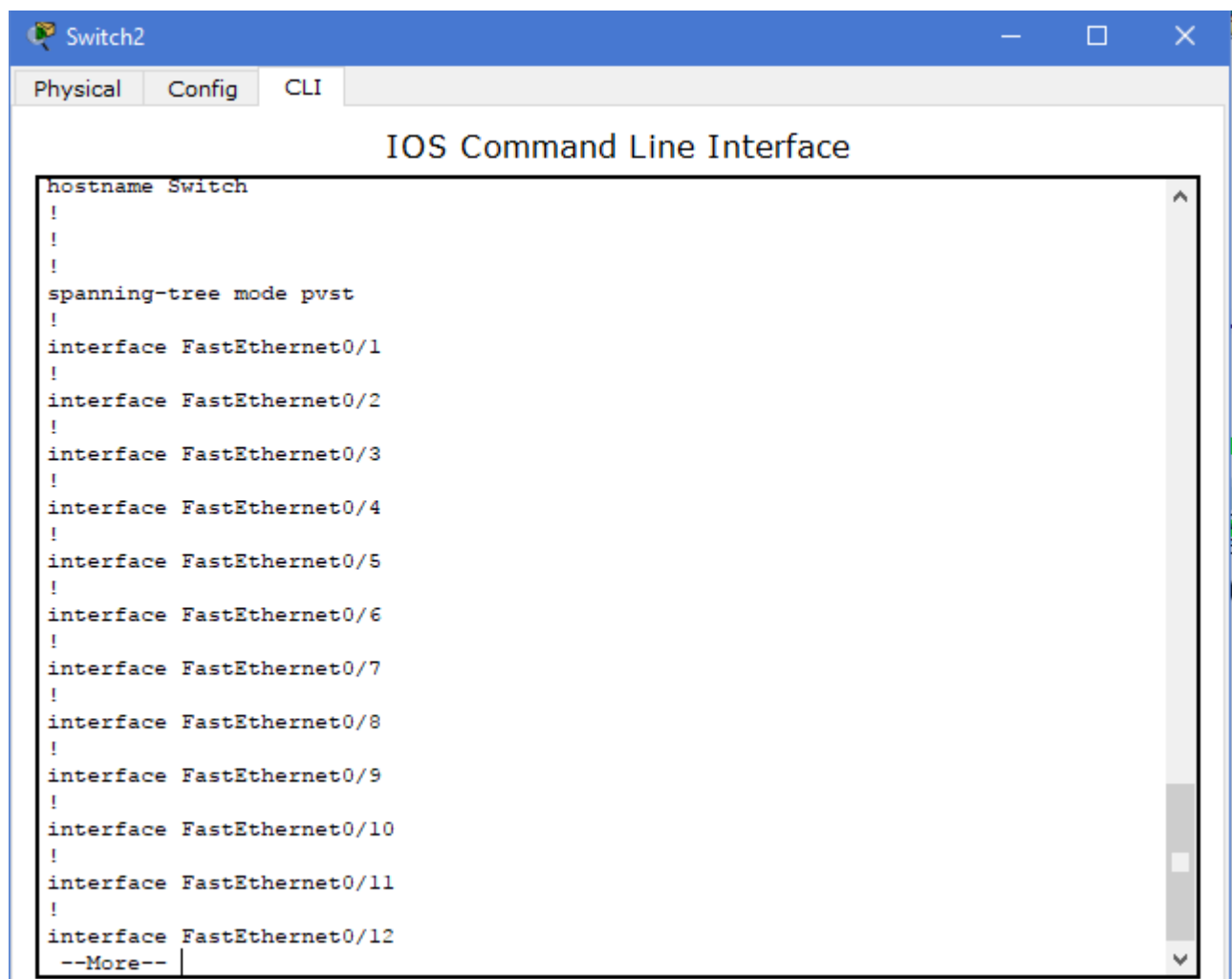


Figure 18: Configuraciones del switch2, no mostraba mucho, solo las interfaces

3. Tracert

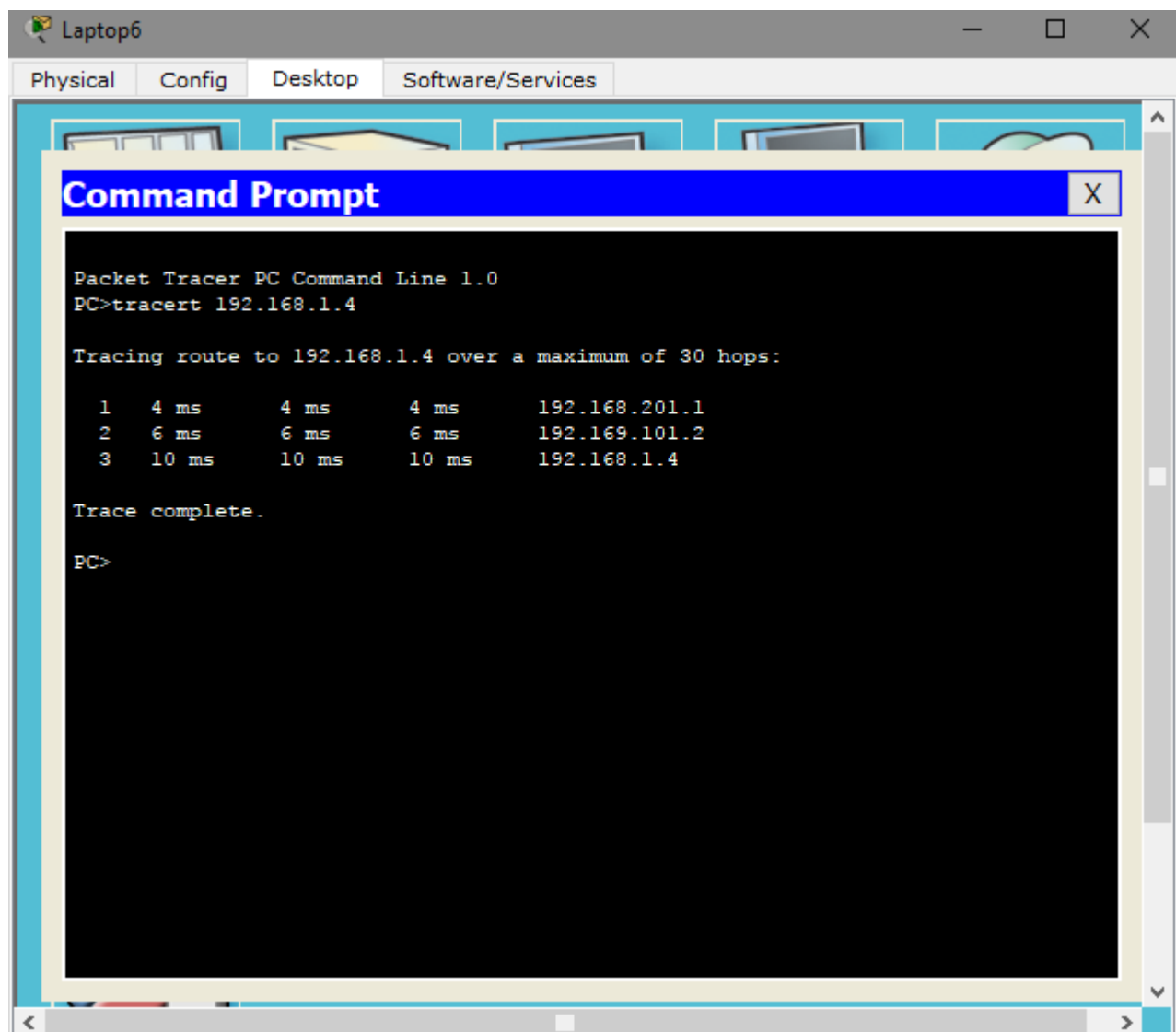
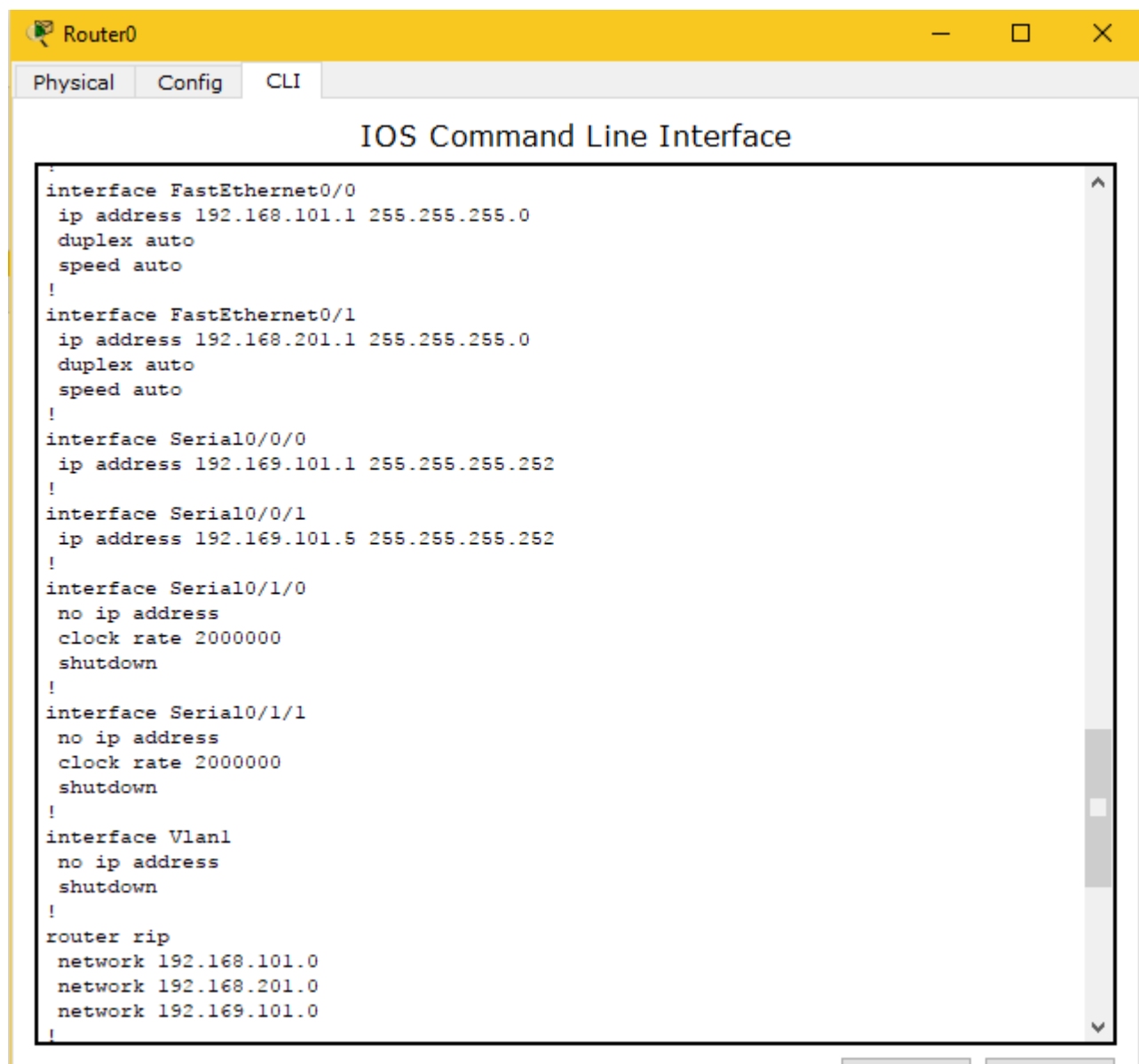


Figure 19: En esta imagen podemos apreciar, gracias al comando tracert, el camino que sigue el paquete para llegar a su destino

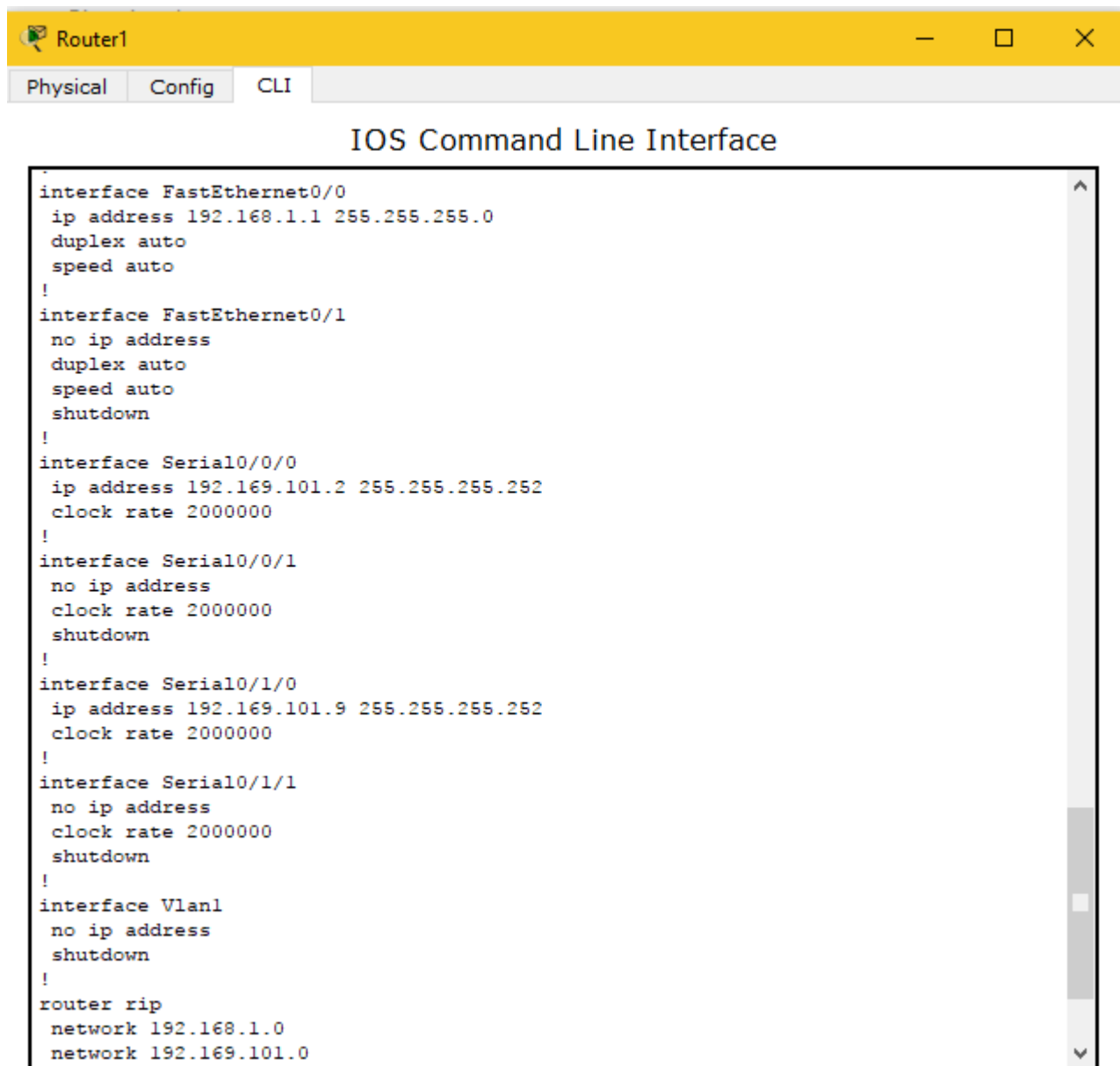
- Enrutamiento dinámico Se agregó lo pedido, a continuación se presentará la configuración de cada router:



The screenshot shows a window titled "Router0" with three tabs: "Physical", "Config", and "CLI". The "CLI" tab is active, displaying the "IOS Command Line Interface". The configuration text is as follows:

```
!
interface FastEthernet0/0
ip address 192.168.101.1 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet0/1
ip address 192.168.201.1 255.255.255.0
duplex auto
speed auto
!
interface Serial0/0/0
ip address 192.169.101.1 255.255.255.252
!
interface Serial0/0/1
ip address 192.169.101.5 255.255.255.252
!
interface Serial0/1/0
no ip address
clock rate 2000000
shutdown
!
interface Serial0/1/1
no ip address
clock rate 2000000
shutdown
!
interface Vlan1
no ip address
shutdown
!
router rip
network 192.168.101.0
network 192.168.201.0
network 192.169.101.0
!
```

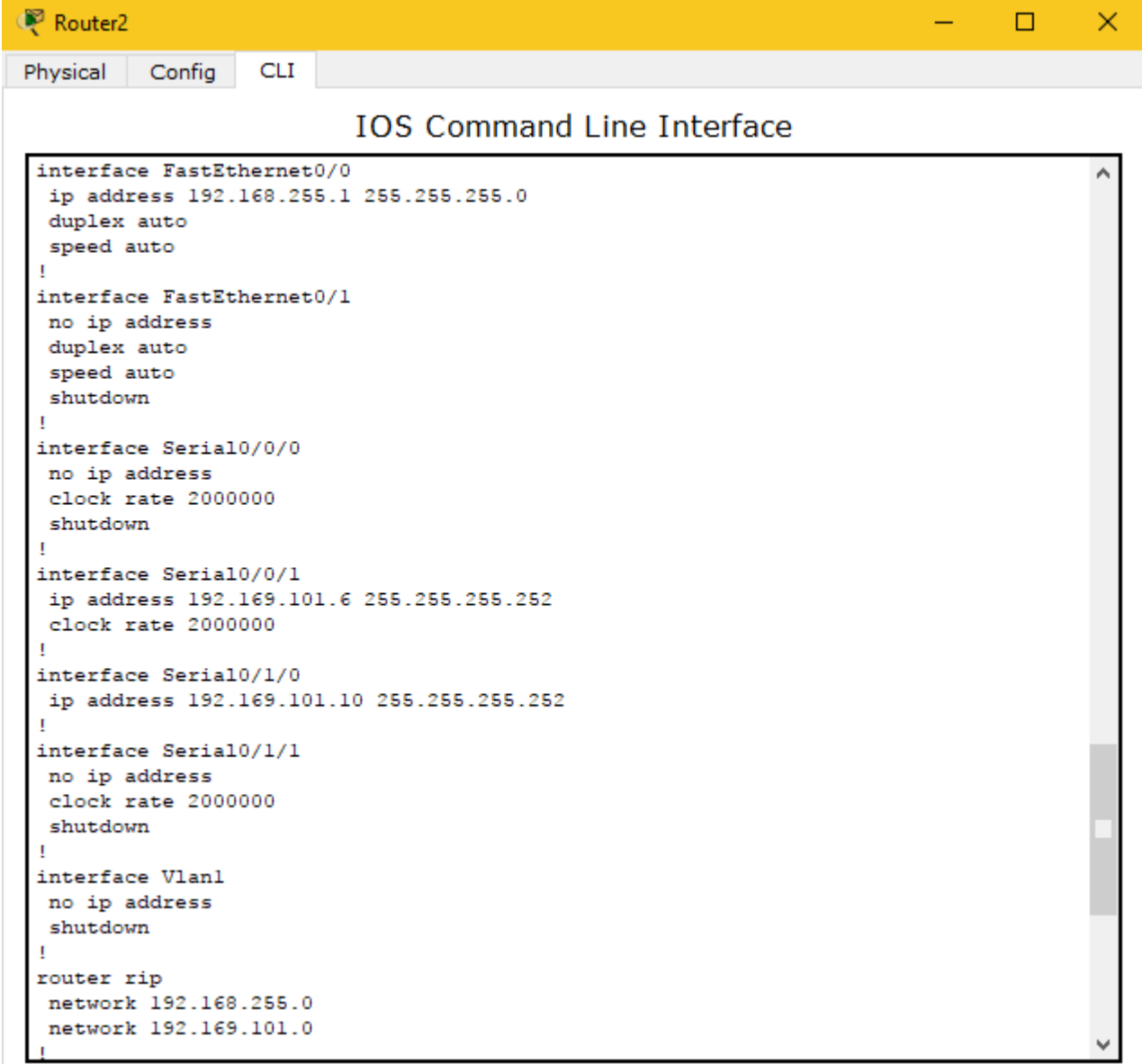
Figure 20: Se presenta la configuracion del router0



The screenshot shows a window titled "Router1" with three tabs: "Physical", "Config", and "CLI". The "CLI" tab is active, displaying the "IOS Command Line Interface". The configuration text is as follows:

```
interface FastEthernet0/0
ip address 192.168.1.1 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
shutdown
!
interface Serial0/0/0
ip address 192.169.101.2 255.255.255.252
clock rate 2000000
!
interface Serial0/0/1
no ip address
clock rate 2000000
shutdown
!
interface Serial0/1/0
ip address 192.169.101.9 255.255.255.252
clock rate 2000000
!
interface Serial0/1/1
no ip address
clock rate 2000000
shutdown
!
interface Vlan1
no ip address
shutdown
!
router rip
network 192.168.1.0
network 192.169.101.0
```

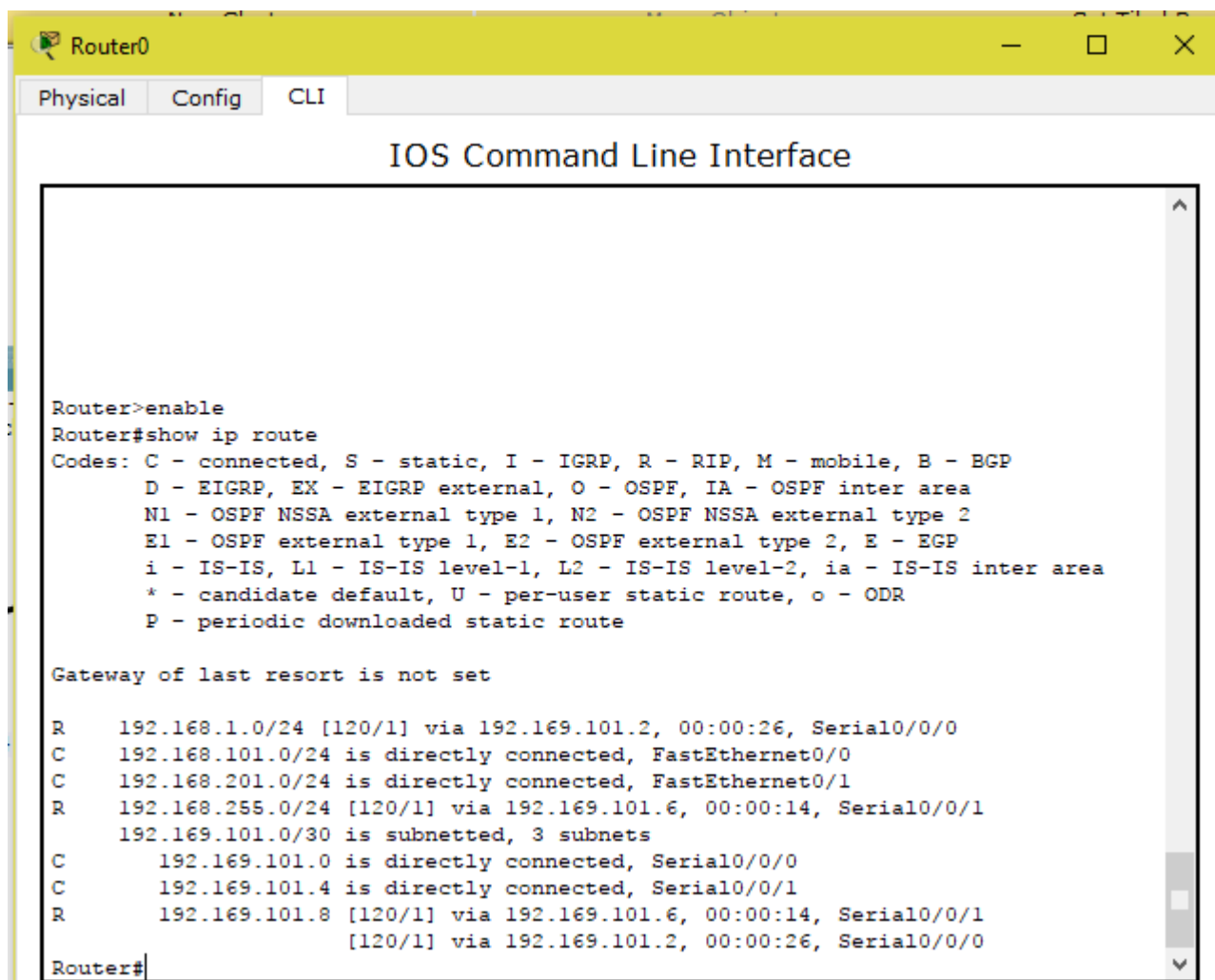
Figure 21: Se presenta la configuracion del router1



The screenshot shows a window titled "Router2" with three tabs: "Physical", "Config", and "CLI". The "CLI" tab is active, displaying the "IOS Command Line Interface". The configuration text is as follows:

```
interface FastEthernet0/0
ip address 192.168.255.1 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
shutdown
!
interface Serial0/0/0
no ip address
clock rate 2000000
shutdown
!
interface Serial0/0/1
ip address 192.169.101.6 255.255.255.252
clock rate 2000000
!
interface Serial0/1/0
ip address 192.169.101.10 255.255.255.252
!
interface Serial0/1/1
no ip address
clock rate 2000000
shutdown
!
interface Vlan1
no ip address
shutdown
!
router rip
network 192.168.255.0
network 192.169.101.0
!
```

Figure 22: Se presenta la configuracion del router2



The screenshot shows a window titled "Router0" with tabs for "Physical", "Config", and "CLI". The "CLI" tab is active, displaying the "IOS Command Line Interface". The user has entered the command "show ip route" after enabling the router. The output shows the routing table with various entries and their associated codes. A legend explains the codes: C for connected, S for static, I for IGRP, R for RIP, M for mobile, B for BGP, D for EIGRP, EX for EIGRP external, O for OSPF, IA for OSPF inter area, N1 and N2 for OSPF NSSA external types, E1 and E2 for OSPF external types, E for EGP, i for IS-IS, L1 and L2 for IS-IS levels, ia for IS-IS inter area, * for candidate default, U for per-user static route, o for ODR, and P for periodic downloaded static route. The output also indicates that the gateway of last resort is not set. The routing table entries include 192.168.1.0/24 via 192.169.101.2, 192.168.101.0/24 directly connected, 192.168.201.0/24 directly connected, 192.168.255.0/24 via 192.169.101.6, 192.169.101.0/30 subnetted into 3 subnets, 192.169.101.0 directly connected, 192.169.101.4 directly connected, 192.169.101.8 via 192.169.101.6, and 192.169.101.2 via 192.169.101.2.

```
Router>enable
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

R    192.168.1.0/24 [120/1] via 192.169.101.2, 00:00:26, Serial0/0/0
C    192.168.101.0/24 is directly connected, FastEthernet0/0
C    192.168.201.0/24 is directly connected, FastEthernet0/1
R    192.168.255.0/24 [120/1] via 192.169.101.6, 00:00:14, Serial0/0/1
     192.169.101.0/30 is subnetted, 3 subnets
C      192.169.101.0 is directly connected, Serial0/0/0
C      192.169.101.4 is directly connected, Serial0/0/1
R      192.169.101.8 [120/1] via 192.169.101.6, 00:00:14, Serial0/0/1
                        [120/1] via 192.169.101.2, 00:00:26, Serial0/0/0
Router#
```

Figure 23: Se presenta lo mostrado por el comando show ip route en router0

The screenshot shows a terminal window titled "Router0" with tabs for "Physical", "Config", and "CLI". The main title is "IOS Command Line Interface".

At the top, there is a table with 6 columns: Device ID, Local Interface, Holdtime, Capability, Platform, and Port ID. The table contains 4 rows of data:

Device ID	Local Interface	Holdtime	Capability	Platform	Port ID
Switch	Fas 0/1	158	S	2950	Fas 0/2
Switch	Fas 0/0	158	S	2950	Fas 0/2
Router	Ser 0/0/1	163	R	C1841	Ser 0/0/1
Router	Ser 0/0/0	165	R	C1841	Ser 0/0/0

Below the table, the command "Router#show ip route" is entered. The output shows a list of routes and their status:

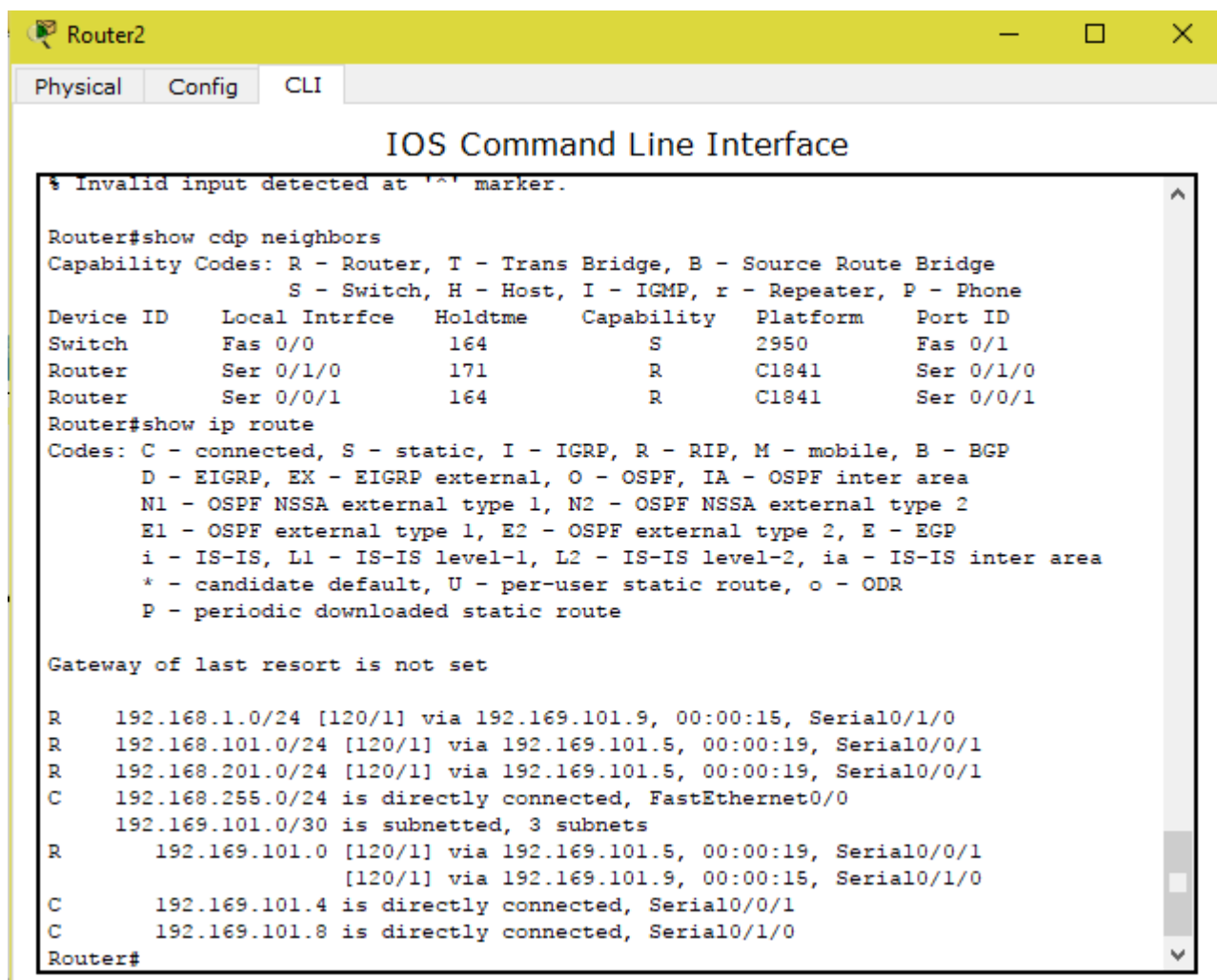
```

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

R    192.168.1.0/24 [120/1] via 192.169.101.2, 00:00:24, Serial0/0/0
C    192.168.101.0/24 is directly connected, FastEthernet0/0
C    192.168.201.0/24 is directly connected, FastEthernet0/1
R    192.168.255.0/24 [120/1] via 192.169.101.6, 00:00:20, Serial0/0/1
     192.169.101.0/30 is subnetted, 3 subnets
C       192.169.101.0 is directly connected, Serial0/0/0
C       192.169.101.4 is directly connected, Serial0/0/1
R       192.169.101.8 [120/1] via 192.169.101.6, 00:00:20, Serial0/0/1
           [120/1] via 192.169.101.2, 00:00:24, Serial0/0/0
Router#
  
```

Figure 24: Se presenta lo mostrado por el comando show ip route en router1



The screenshot shows a window titled "Router2" with tabs for "Physical", "Config", and "CLI". The "CLI" tab is active, displaying the "IOS Command Line Interface". The prompt is "Router#". The command "show cdp neighbors" has been entered, showing a table of CDP neighbors. The command "show ip route" has been entered, showing the IP routing table. The output of "show ip route" includes a list of codes, a message about the gateway of last resort, and a list of routes.

```
* Invalid input detected at '^' marker.

Router#show cdp neighbors
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
                  S - Switch, H - Host, I - IGMP, r - Repeater, P - Phone
Device ID        Local Intrfce   Holdtme    Capability   Platform    Port ID
Switch           Fas 0/0           164        S            2950        Fas 0/1
Router           Ser 0/1/0         171        R            C1841       Ser 0/1/0
Router           Ser 0/0/1         164        R            C1841       Ser 0/0/1
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

R    192.168.1.0/24 [120/1] via 192.169.101.9, 00:00:15, Serial0/1/0
R    192.168.101.0/24 [120/1] via 192.169.101.5, 00:00:19, Serial0/0/1
R    192.168.201.0/24 [120/1] via 192.169.101.5, 00:00:19, Serial0/0/1
C    192.168.255.0/24 is directly connected, FastEthernet0/0
     192.169.101.0/30 is subnetted, 3 subnets
R       192.169.101.0 [120/1] via 192.169.101.5, 00:00:19, Serial0/0/1
        [120/1] via 192.169.101.9, 00:00:15, Serial0/1/0
C       192.169.101.4 is directly connected, Serial0/0/1
C       192.169.101.8 is directly connected, Serial0/1/0
Router#
```

Figure 25: Se presenta lo mostrado por el comando show ip route en router2

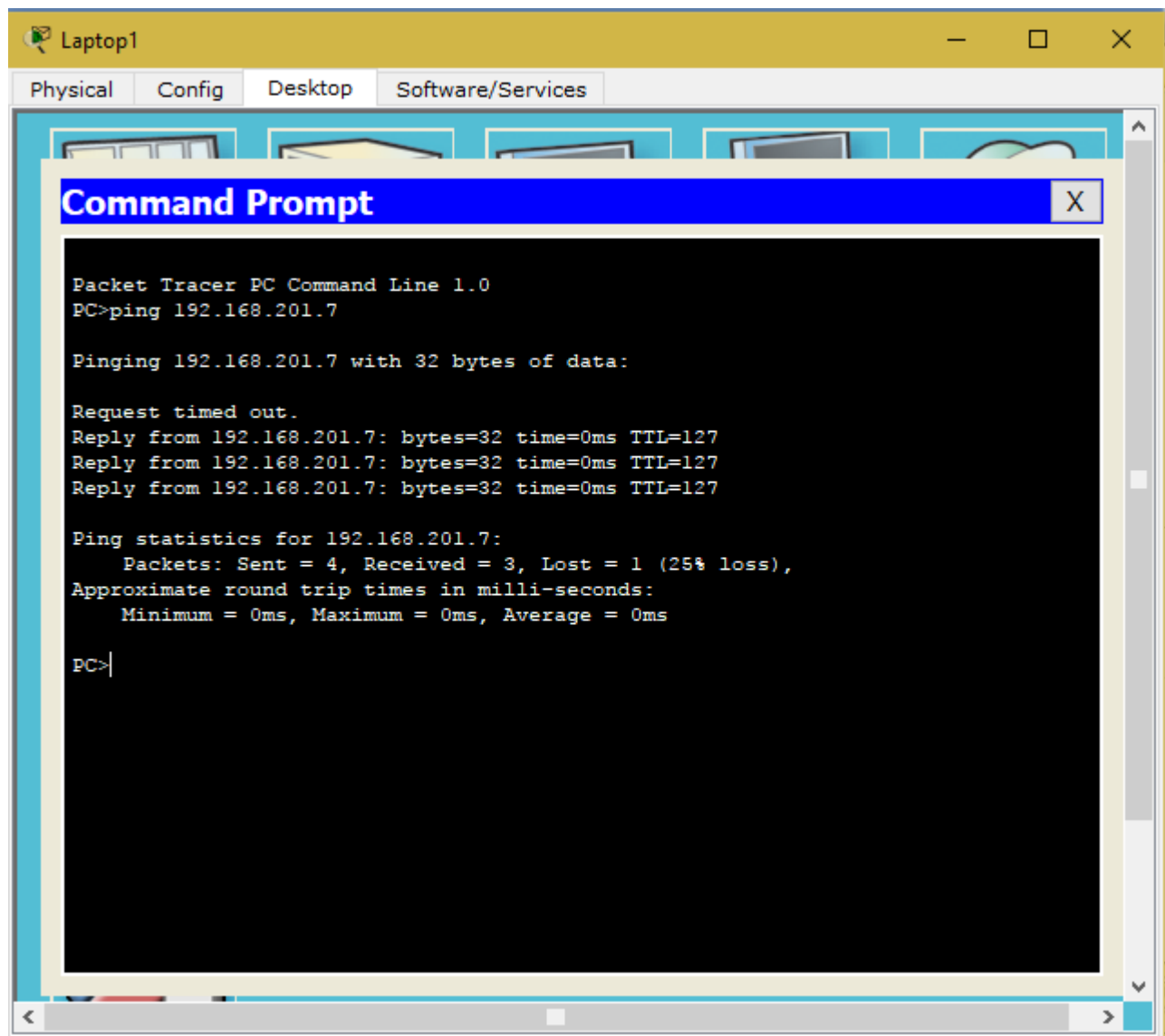


Figure 26: Aqui se realiza un ping desde 192.168.101.4 a 192.168.201.7

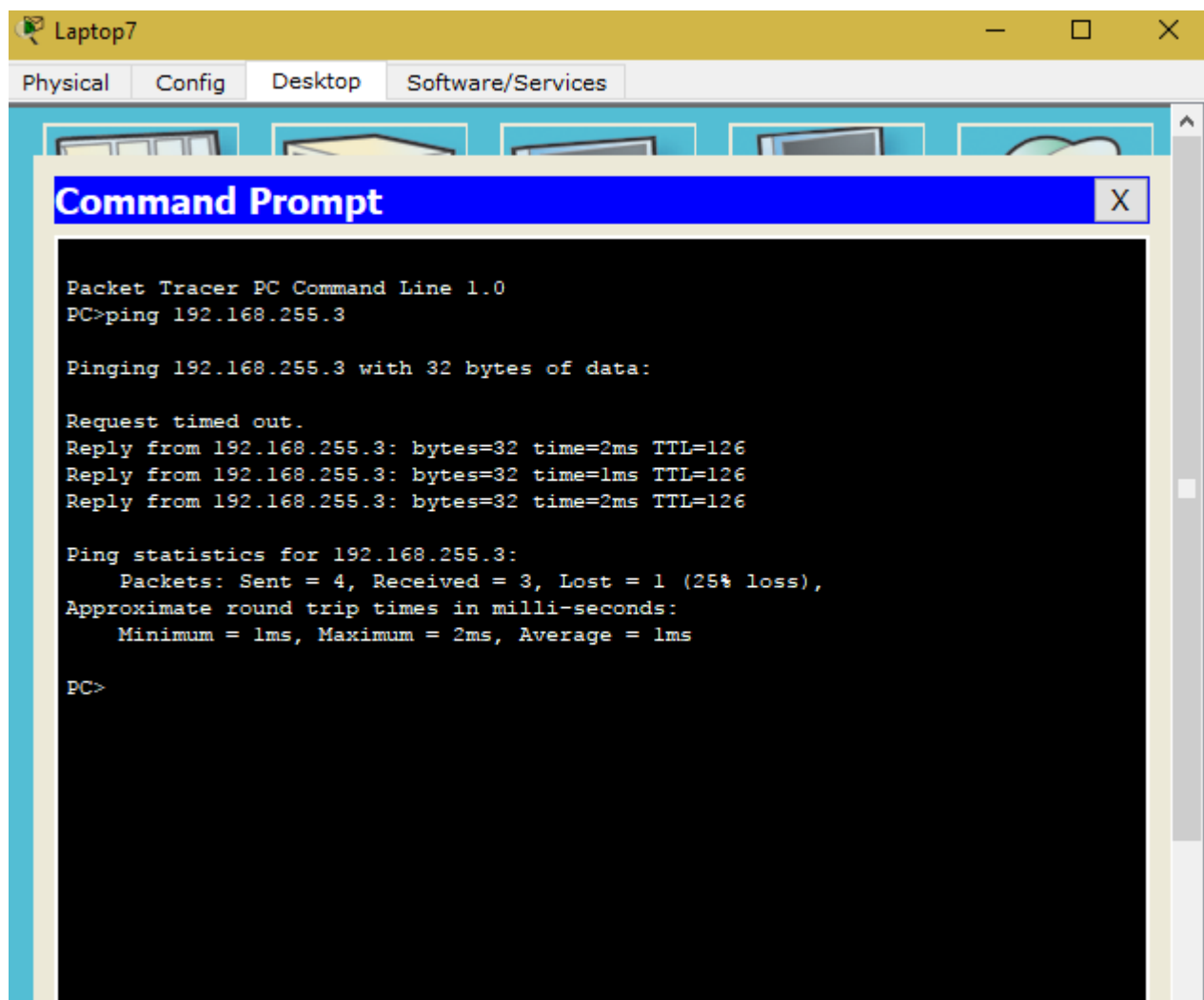


Figure 27: Aqui se realiza un ping desde 192.168.201.8 a 192.168.255.3

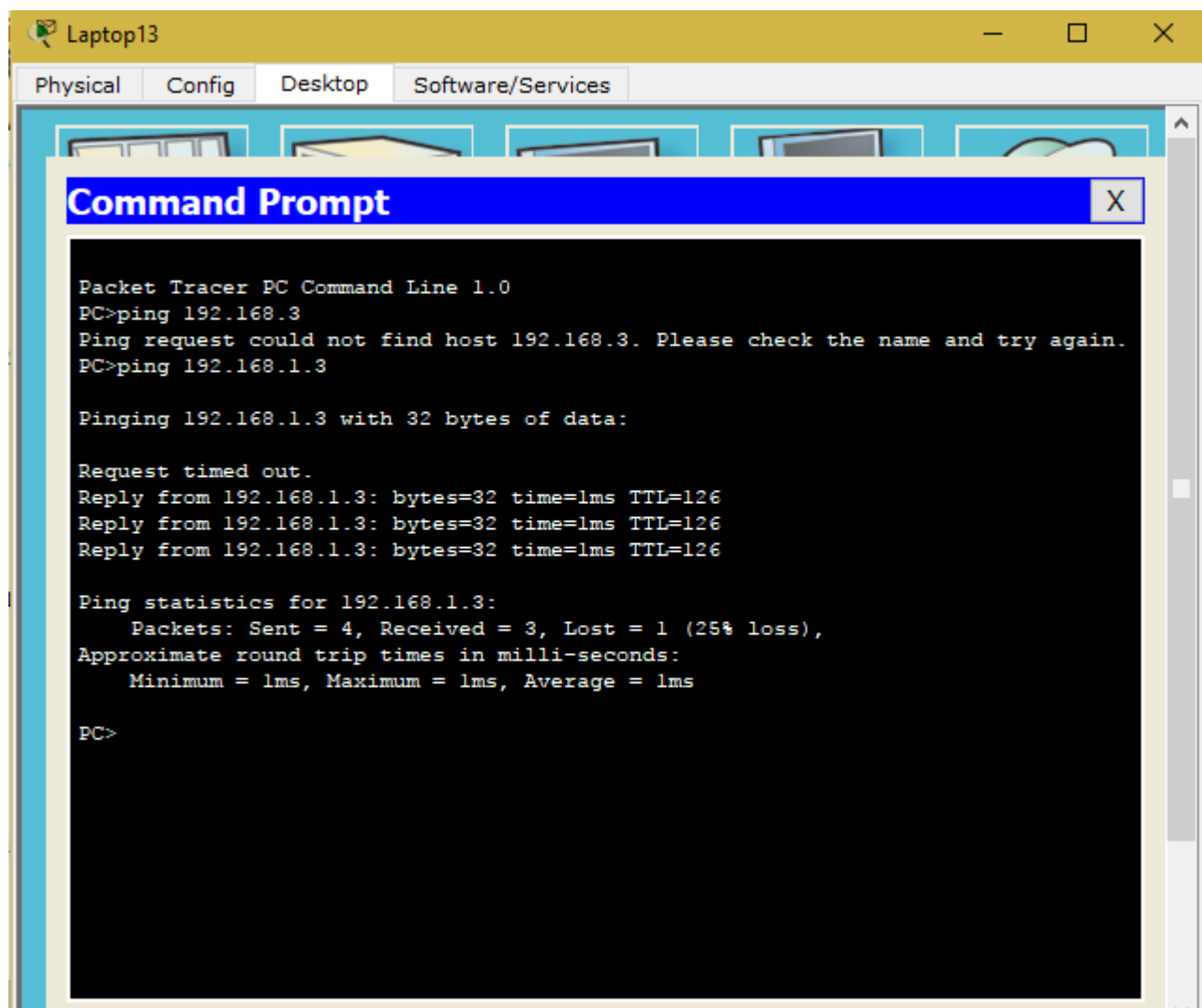


Figure 28: Aqui se realiza un ping desde 192.168.255.2 a 192.168.1.3

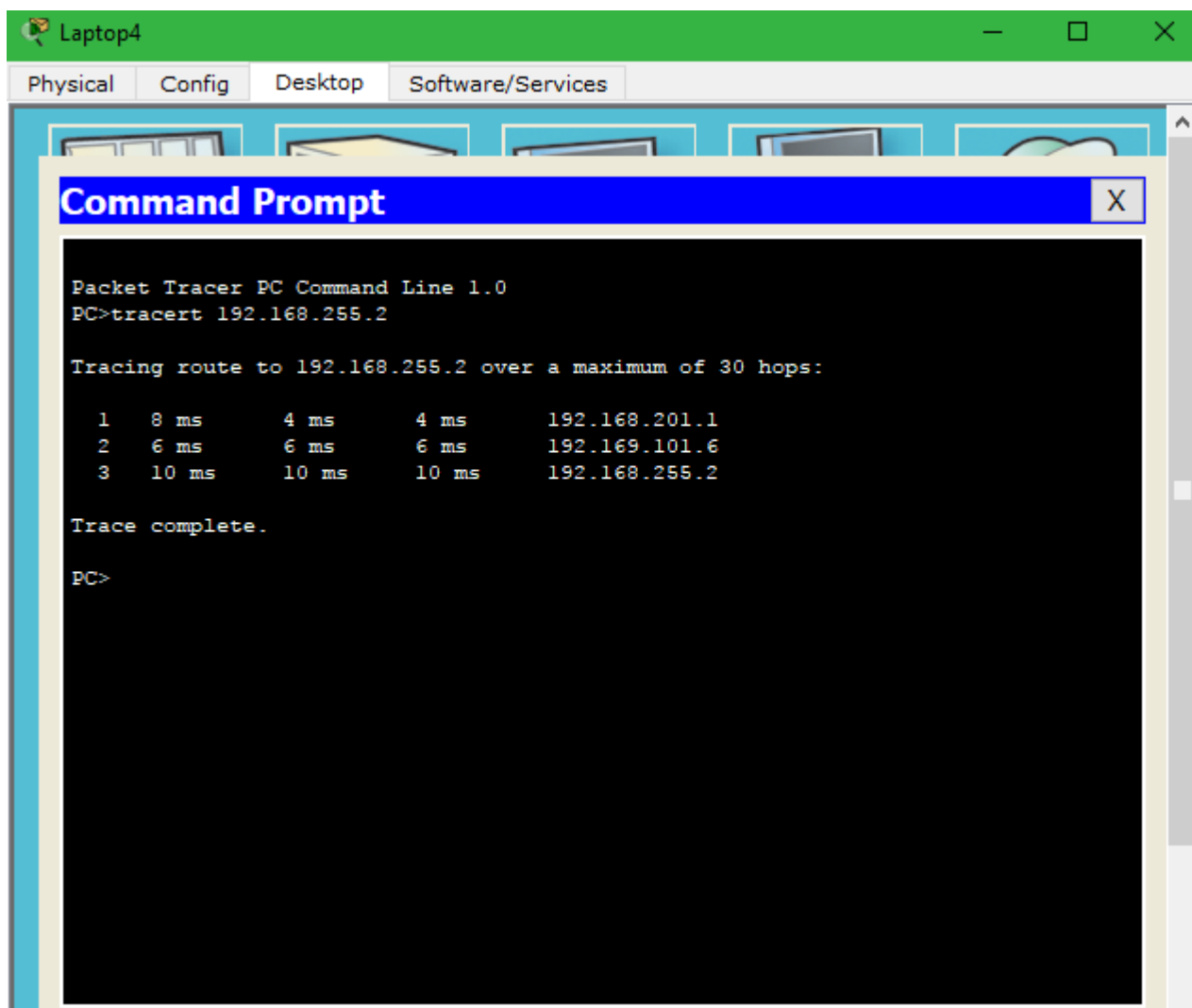


Figure 29: Usando el comando tracert podemos ver como viaja el paquete.

Luego:

Pregunta 8: En caso de que la red sea pequeña, RIP es mejor que OSPF. Además, RIP es mucho más fácil de implementar que OSPF. RIP es mejor que enrutamiento estático cuando la complejidad de las redes es muy alta, cuando se tengan múltiples conexiones a un ISP.