

SOLUCIÓN DE ESTUDIOS DE CASO BAJO EL USO DE TECNOLOGÍA CISCO

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**UNIVERSIDAD NACIONAL ABIERTA Y A DISTANCIA
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CEAD PALMIRA
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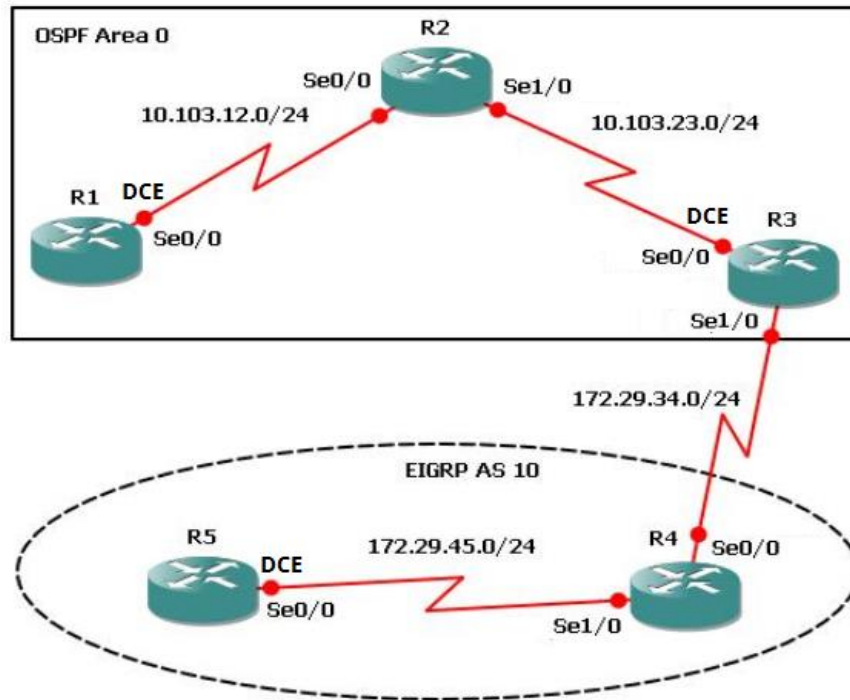
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INTRODUCCIÓN

El presente trabajo de la asignatura CCNP correspondiente a la actividad final Prueba de Habilidades, se puso en práctica todas las unidades manejadas en el transcurso de la materia. Las redes de la actualidad tienen un impacto significativo en nuestras vidas, ya que cambian nuestra forma de vivir, trabajar y divertirnos. Las redes de computadoras permiten a las personas comunicarse, colaborar e interactuar de maneras totalmente. Utilizamos la red de distintas formas, entre ellas las aplicaciones web, la telefonía IP, video conferencia, los juegos interactivos, el comercio electrónico, la educación y más.

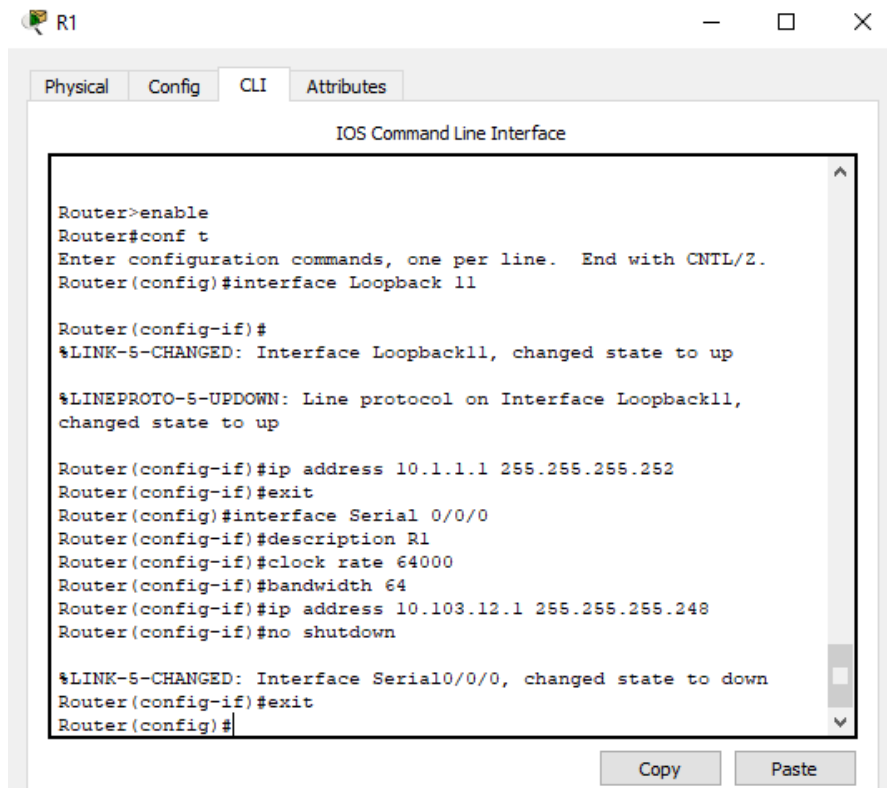
ESCENARIO 1



1. Aplique las configuraciones iniciales y los protocolos de enrutamiento para los routers R1, R2, R3, R4 y R5 según el diagrama. No asigne passwords en los routers. Configurar las interfaces con las direcciones que se muestran en la topología de red.

```
R1>enable
R1#configure terminal
R1(config)# hostname R1
R1(config)# interface Loopback 11
R1(config-if)# ip address 10.1.1.1 255.255.255.252
R1(config-if)# exit

R1(config)# interface Serial 0/0/0
R1(config-if)# description R1
R1(config-if)# clock rate 64000
R1(config-if)# bandwidth 64
R1(config-if)# ip address 10.103.12.1 255.255.255.248
R1(config-if)# no shutdown
R1(config-if)# exit
```



```
Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Loopback 11

Router(config-if)#
%LINK-5-CHANGED: Interface Loopback11, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback11,
changed state to up

Router(config-if)#ip address 10.1.1.1 255.255.255.252
Router(config-if)#exit
Router(config)#interface Serial 0/0/0
Router(config-if)#description R1
Router(config-if)#clock rate 64000
Router(config-if)#bandwidth 64
Router(config-if)#ip address 10.103.12.1 255.255.255.248
Router(config-if)#no shutdown

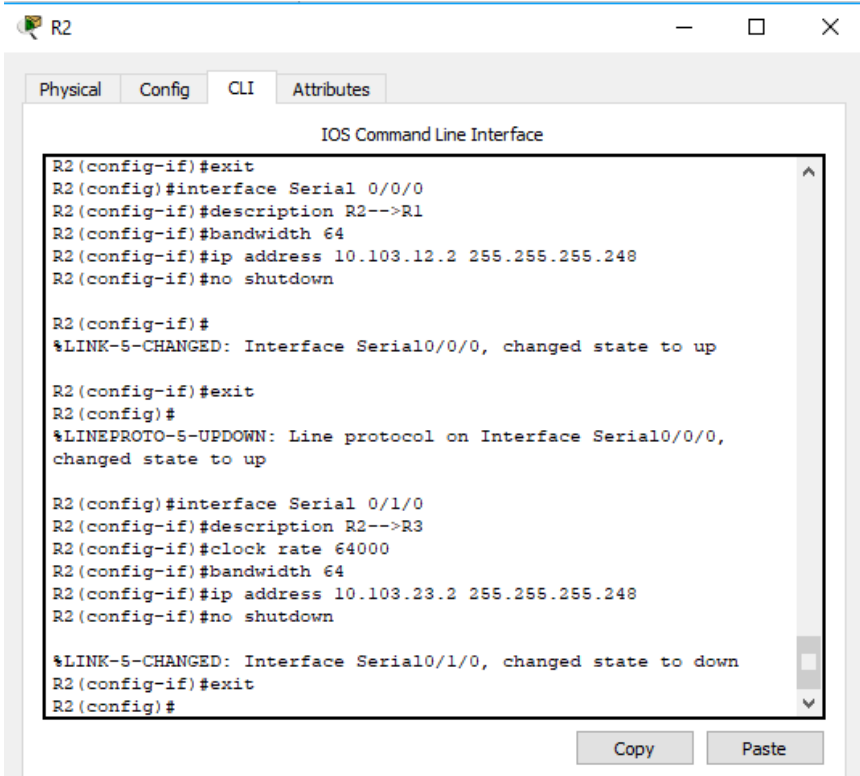
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
Router(config-if)#exit
Router(config)#
```

```
R2>enable
R2#configure terminal
R2(config)# hostname R2
```

```
R2(config)# interface Loopback 21
R2(config-if)# ip address 10.1.2.1 255.255.255.252
R2(config-if)# exit
```

```
R2(config)# interface Serial 0/0/0
R2(config-if)# description R2-->R1
R2(config-if)# bandwidth 64
R2(config-if)# ip address 10.103.12.2 255.255.255.248
R2(config-if)# no shutdown
R2(config-if)# exit
```

```
R2(config)# interface Serial 1/0/0
R2(config-if)# description R2-->R3
R2(config-if)# clock rate 64000
R2(config-if)# bandwidth 64
R2(config-if)# ip address 10.103.23.2 255.255.255.248
R2(config-if)# no shutdown
R2(config-if)# exit
```



```
R2
IOS Command Line Interface
R2(config-if)#exit
R2(config)#interface Serial 0/0/0
R2(config-if)#description R2-->R1
R2(config-if)#bandwidth 64
R2(config-if)#ip address 10.103.12.2 255.255.255.248
R2(config-if)#no shutdown

R2(config-if)#
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up

R2(config-if)#exit
R2(config)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0,
changed state to up

R2(config)#interface Serial 0/1/0
R2(config-if)#description R2-->R3
R2(config-if)#clock rate 64000
R2(config-if)#bandwidth 64
R2(config-if)#ip address 10.103.23.2 255.255.255.248
R2(config-if)#no shutdown

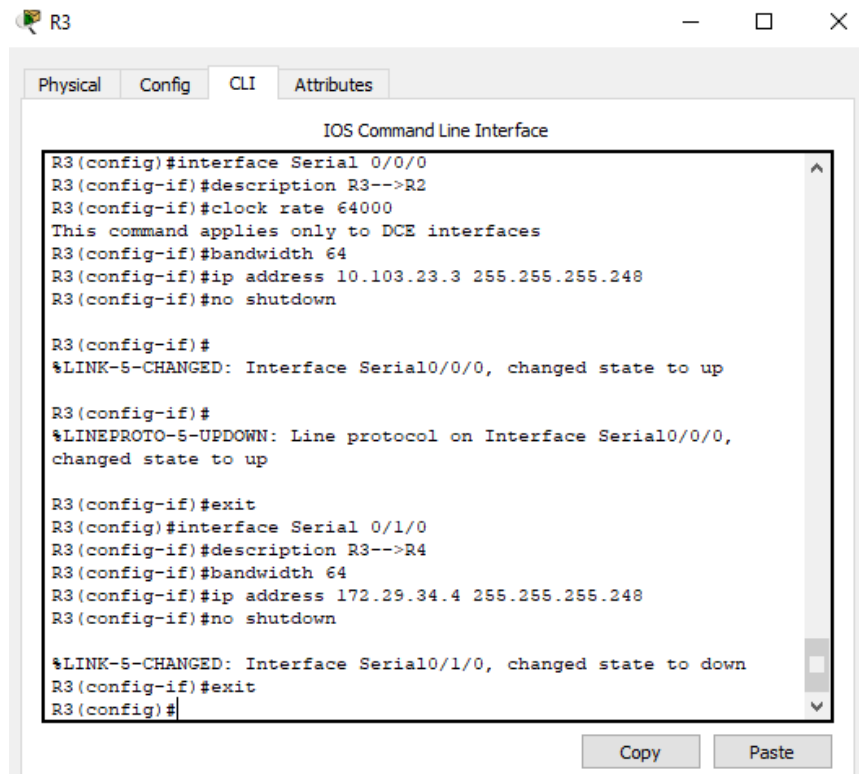
%LINK-5-CHANGED: Interface Serial0/1/0, changed state to down
R2(config-if)#exit
R2(config)#
```

```
R3>enable
R3#configure terminal
R3(config)# hostname R3
```

```
R3(config)# interface Loopback 31
R3(config-if)# ip address 10.1.3.1 255.255.255.252
R3(config-if)# exit
```

```
R3(config)# interface Serial 0/0/0
R3(config-if)# description R3-->R2
R3(config-if)# clock rate 64000
R3(config-if)# bandwidth 64
R3(config-if)# ip address 10.103.23.3 255.255.255.248
R3(config-if)# no shutdown
R3(config-if)# exit
```

```
R3(config)# interface Serial 1/0/0
R3(config-if)# description R3-->R4
R3(config-if)# bandwidth 64
R3(config-if)# ip address 172.29.34.4 255.255.255.248
R3(config-if)# no shutdown
R3(config-if)# exit
```



The screenshot shows a window titled "R3" with a standard Windows-style title bar (minimize, maximize, close). The window contains a tabbed interface with "CLI" selected. The main area displays the following text:

```
IOS Command Line Interface
R3(config)#interface Serial 0/0/0
R3(config-if)#description R3-->R2
R3(config-if)#clock rate 64000
This command applies only to DCE interfaces
R3(config-if)#bandwidth 64
R3(config-if)#ip address 10.103.23.3 255.255.255.248
R3(config-if)#no shutdown

R3(config-if)#
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up

R3(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0,
changed state to up

R3(config-if)#exit
R3(config)#interface Serial 0/1/0
R3(config-if)#description R3-->R4
R3(config-if)#bandwidth 64
R3(config-if)#ip address 172.29.34.4 255.255.255.248
R3(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/1/0, changed state to down
R3(config-if)#exit
R3(config)#
```

At the bottom of the window, there are "Copy" and "Paste" buttons.

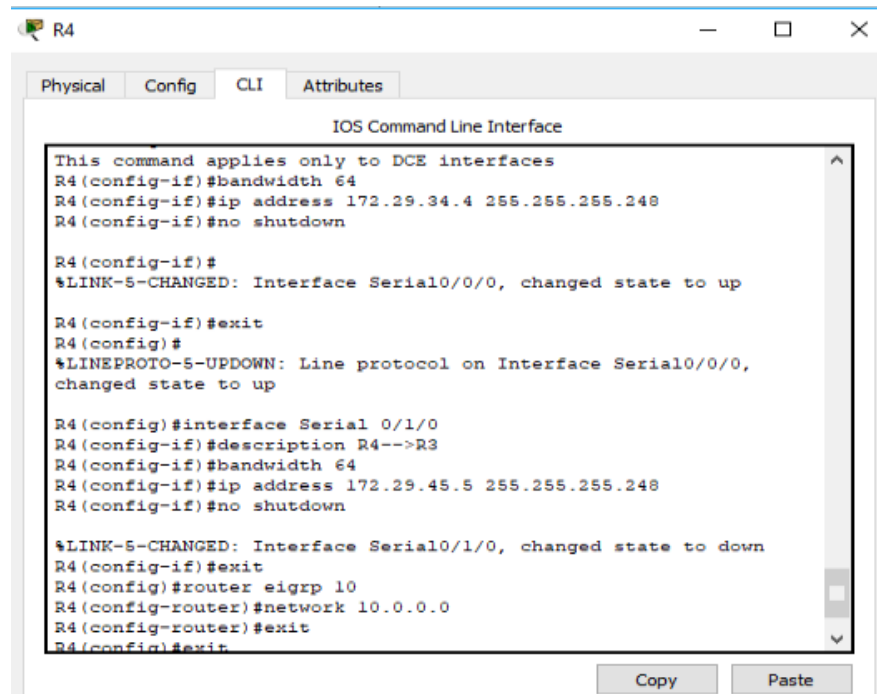

```
R4>enable
R4#configure terminal
R4(config)# hostname R4
```

```
R4(config)# interface Loopback 41
R4(config-if)# ip address 10.1.4.1 255.255.255.252
R4(config-if)# exit
```

```
R4(config)# interface Serial 0/0/0
R4(config-if)# description R4-->R3
R4(config-if)# clock rate 64000
R4(config-if)# bandwidth 64
R4(config-if)# ip address 172.29.34.4 255.255.255.248
R4(config-if)# no shutdown
R4(config-if)# exit
```

```
R4(config)# interface Serial 1/0/0
R4(config-if)# description R4-->R3
R4(config-if)# bandwidth 64
R4(config-if)# ip address 172.29.45.5 255.255.255.248
R4(config-if)# no shutdown
R4(config-if)# exit
```

```
R4(config)# router eigrp 10
R4(config-router)# network 10.0.0.0
```



```
R4
IOS Command Line Interface
This command applies only to DCE interfaces
R4(config-if)#bandwidth 64
R4(config-if)#ip address 172.29.34.4 255.255.255.248
R4(config-if)#no shutdown

R4(config-if)#
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up

R4(config-if)#exit
R4(config)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0,
changed state to up

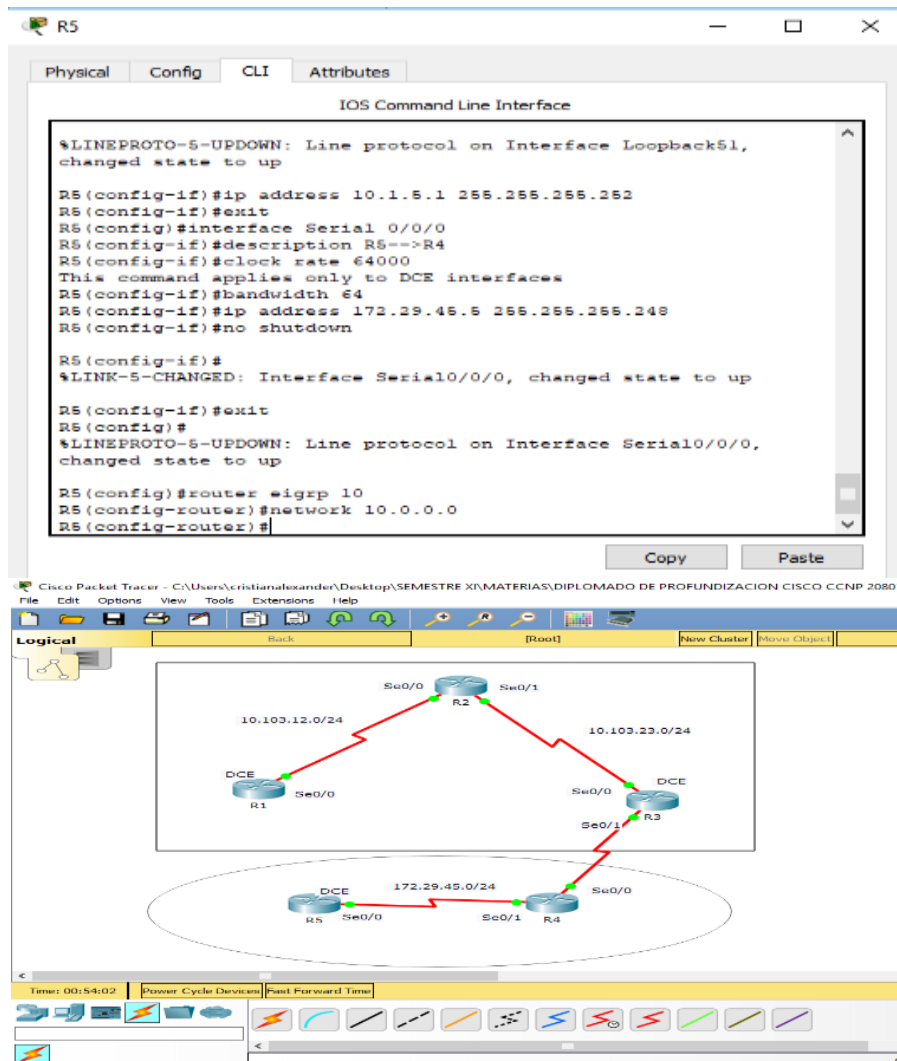
R4(config)#interface Serial 0/1/0
R4(config-if)#description R4-->R3
R4(config-if)#bandwidth 64
R4(config-if)#ip address 172.29.45.5 255.255.255.248
R4(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/1/0, changed state to down
R4(config-if)#exit
R4(config)#router eigrp 10
R4(config-router)#network 10.0.0.0
R4(config-router)#exit
R4(config)#exit
```

```

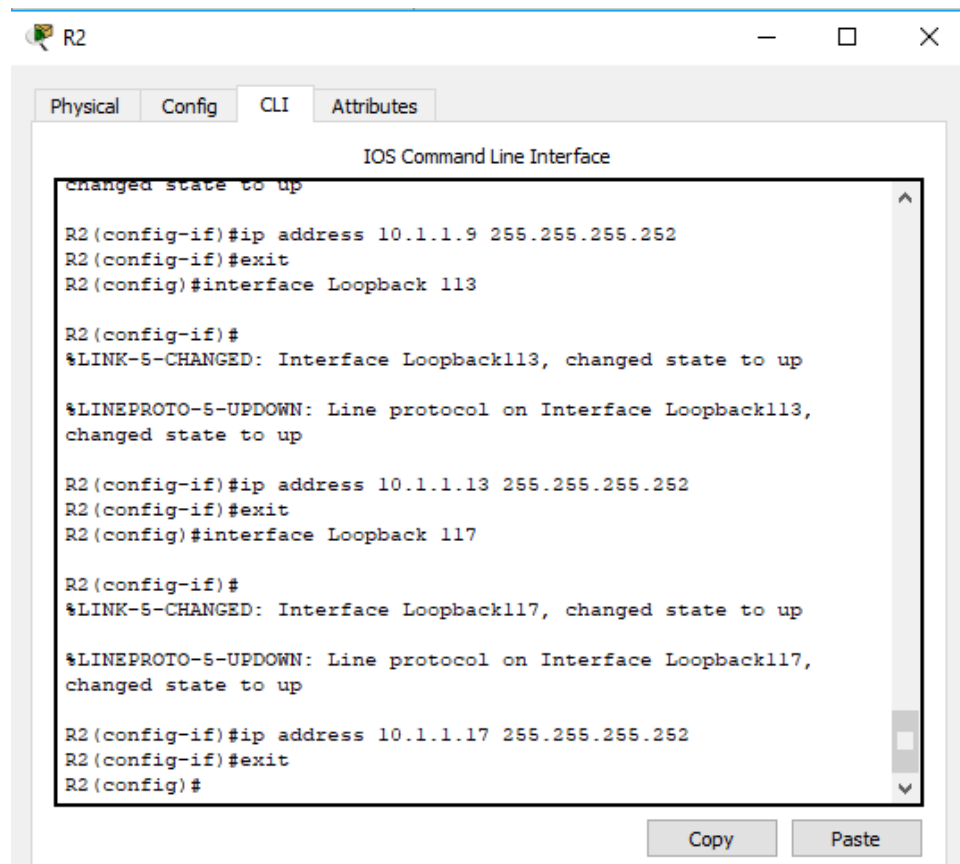
R5>enable
R5#configure terminal
R5(config)# hostname R5
R5(config)# interface Loopback 51
R5(config-if)# ip address 10.1.5.1 255.255.255.252
R5(config-if)# exit
R5(config)# interface Serial 0/0/0
R5(config-if)# description R5-->R4
R5(config-if)# clock rate 64000
R5(config-if)# bandwidth 64
R5(config-if)# ip address 172.29.45.5 255.255.255.248
R5(config-if)# no shutdown
R5(config-if)# exit
R5(config)# router eigrp 10
R5(config-router)# network 10.0.0.0

```



2. Cree cuatro nuevas interfaces de Loopback en R1 utilizando la asignación de direcciones 10.1.0.0/22 y configure esas interfaces para participar en el área 0 de OSPF.

```
R1(config)# interface Loopback 15
R1(config-if)# ip address 10.1.1.5 255.255.255.252
R1(config-if)# exit
R1(config)# interface Loopback 19
R1(config-if)# ip address 10.1.1.9 255.255.255.252
R1(config-if)# exit
R1(config)# interface Loopback 113
R1(config-if)# ip address 10.1.1.13 255.255.255.252
R1(config-if)# exit
R1(config)# interface Loopback 117
R1(config-if)# ip address 10.1.1.17 255.255.255.252
R1(config-if)# exit
```



```
R2
Physical Config CLI Attributes
IOS Command Line Interface
changed state to up
R2(config-if)#ip address 10.1.1.9 255.255.255.252
R2(config-if)#exit
R2(config)#interface Loopback 113

R2(config-if)#
%LINK-5-CHANGED: Interface Loopback113, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback113,
changed state to up

R2(config-if)#ip address 10.1.1.13 255.255.255.252
R2(config-if)#exit
R2(config)#interface Loopback 117

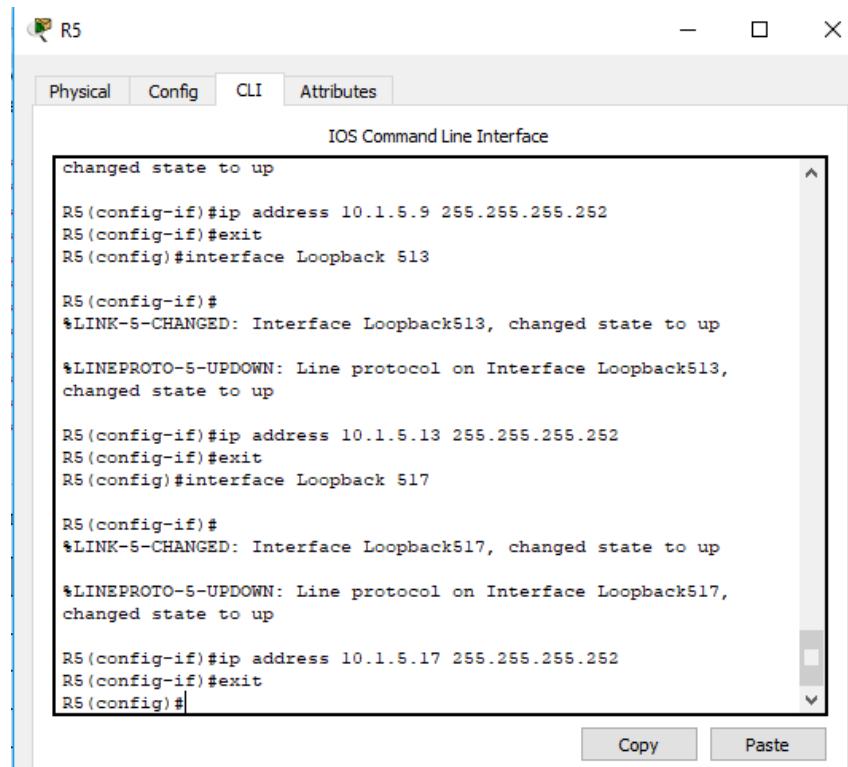
R2(config-if)#
%LINK-5-CHANGED: Interface Loopback117, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback117,
changed state to up

R2(config-if)#ip address 10.1.1.17 255.255.255.252
R2(config-if)#exit
R2(config)#
```

3. Cree cuatro nuevas interfaces de Loopback en R5 utilizando la asignación de direcciones 172.5.0.0/22 y configure esas interfaces para participar en el Sistema Autónomo EIGRP 10.

```
R5(config)# interface Loopback 55
R5(config-if)# ip address 10.1.5.5 255.255.255.252
R5(config-if)# exit
R5(config)# interface Loopback 59
R5(config-if)# ip address 10.1.5.9 255.255.255.252
R5(config-if)# exit
R5(config)# interface Loopback 513
R5(config-if)# ip address 10.1.5.13 255.255.255.252
R5(config-if)# exit
R5(config)# interface Loopback 517
R5(config-if)# ip address 10.1.5.17 255.255.255.252
R5(config-if)# exit
```



```
changed state to up
R5(config-if)#ip address 10.1.5.9 255.255.255.252
R5(config-if)#exit
R5(config)#interface Loopback 513
R5(config-if)#
%LINK-5-CHANGED: Interface Loopback513, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback513,
changed state to up
R5(config-if)#ip address 10.1.5.13 255.255.255.252
R5(config-if)#exit
R5(config)#interface Loopback 517
R5(config-if)#
%LINK-5-CHANGED: Interface Loopback517, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback517,
changed state to up
R5(config-if)#ip address 10.1.5.17 255.255.255.252
R5(config-if)#exit
R5(config)#
```

4. Analice la tabla de enrutamiento de R3 y verifique que R3 está aprendiendo las nuevas interfaces de Loopback mediante el comando show ip route.

Router	Interface	IP
R3	Loopback 31	Lo11: 10.1.3.1/30
R3	Loopback 35	Lo15: 10.1.3.5/30
R3	Loopback 39	Lo19: 10.1.3.9/30
R3	Loopback 313	Lo19: 10.1.3.13/30
R3	Loopback 317	Lo19: 10.1.3.17/30

```

R3# show ip route
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

10.0.0.0/8 is variably subnetted, 4 subnets, 3 masks
C    10.1.3.0/30 is directly connected, Loopback31
L    10.1.3.1/32 is directly connected, Loopback31
C    10.103.23.0/29 is directly connected, Serial0/0/0
L    10.103.23.3/32 is directly connected, Serial0/0/0
C    172.29.0.0/16 is variably subnetted, 2 subnets, 2 masks
C    172.29.34.0/29 is directly connected, Serial0/1/0
L    172.29.34.4/32 is directly connected, Serial0/1/0

R3#
  
```

```
R1(config)# router ospf 1
R1(config-router)# router-id 1.1.1.1
R1(config-router)# exit
R1(config)# interface serial 0/0/0
R1(config-if)# ip ospf 1 area 0
R1(config-if)# exit
```

```
R2(config)# router ospf 1
R2(config-router)# router-id 2.2.2.2
R2(config-router)# exit
R2(config)# interface serial 0/0/0
R2(config-if)# ip ospf 1 area 0
R2(config-if)# exit
R2(config)# interface serial 1/0/0
R2(config-if)# ip ospf 1 area 0
R2(config-if)# exit
```

```
R3(config)# router ospf 1
R3(config-router)# router-id 3.3.3.3
R3(config-router)# exit
R3(config)# interface serial 0/0/0
R3(config-if)# ip ospf 1 area 0
R3(config-if)# exit
R3(config)# interface serial 1/0/0
R3(config-if)# ip ospf 1 area 0
R3(config-if)# exit
```

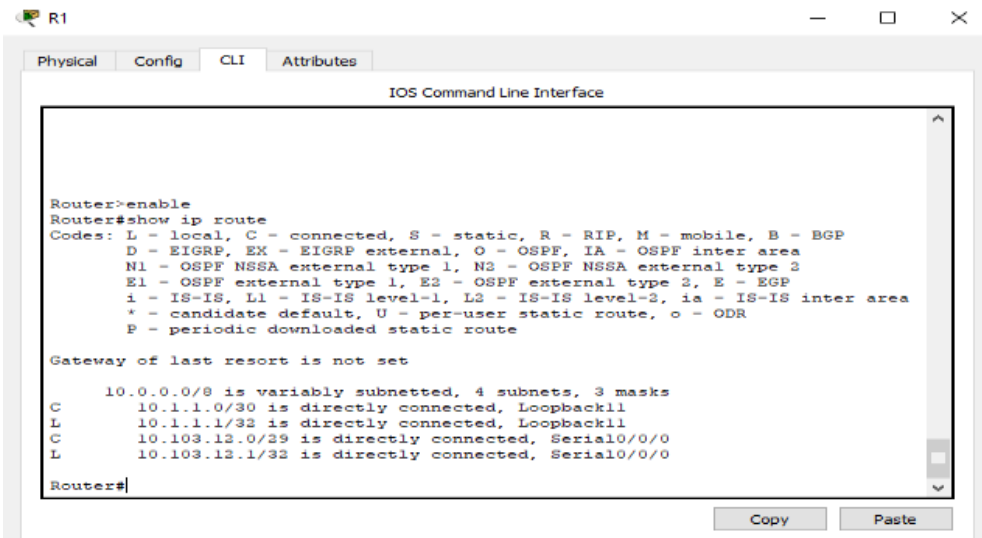
5. Configure R3 para redistribuir las rutas EIGRP en OSPF usando el costo de 50000 y luego redistribuya las rutas OSPF en EIGRP usando un ancho de banda T1 y 20,000 microsegundos de retardo.

```
R3(config)# router eigrp 1
```

```
R3(config-router)# redistribute ospf 1 metric 10000 100 255 1 1500
```

```
R3(config-router)# exit
```

Verifique en R1 y R5 que las rutas del sistema autónomo opuesto existen en su tabla de enrutamiento mediante el comando show ip route.



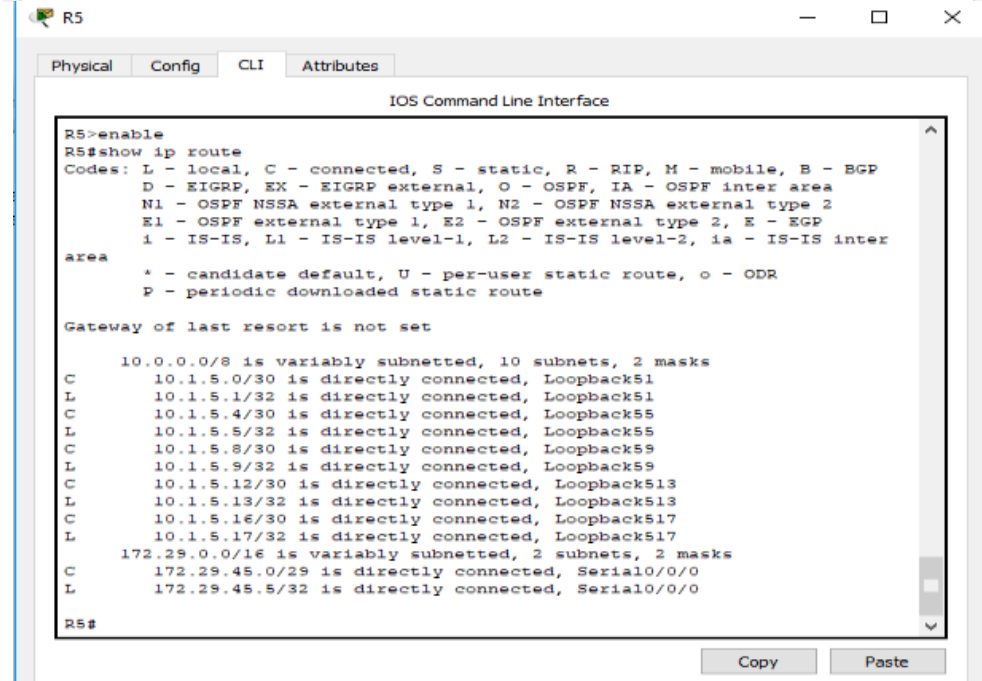
```
R1
Physical Config CLI Attributes
IOS Command Line Interface

Router>enable
Router#show ip route
Codes: L - local, C - connected, S - static, 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

 10.0.0.0/8 is variably subnetted, 4 subnets, 3 masks
C    10.1.1.0/30 is directly connected, Loopback11
L    10.1.1.1/32 is directly connected, Loopback11
C    10.103.13.0/29 is directly connected, Serial0/0/0
L    10.103.13.1/32 is directly connected, Serial0/0/0

Router#
```



```
R5
Physical Config CLI Attributes
IOS Command Line Interface

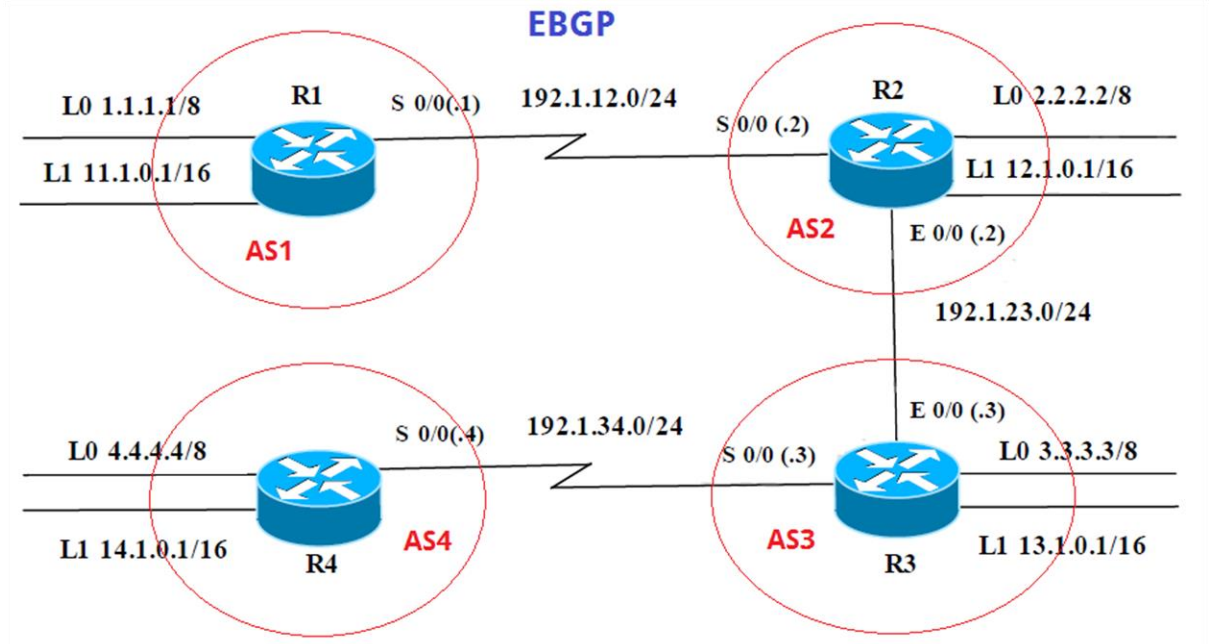
R5>enable
R5#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
I - IS-IS, L1 - 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

 10.0.0.0/8 is variably subnetted, 10 subnets, 2 masks
C    10.1.5.0/30 is directly connected, Loopback51
L    10.1.5.1/32 is directly connected, Loopback51
C    10.1.5.4/30 is directly connected, Loopback55
L    10.1.5.5/32 is directly connected, Loopback55
C    10.1.5.8/30 is directly connected, Loopback59
L    10.1.5.9/32 is directly connected, Loopback59
C    10.1.5.12/30 is directly connected, Loopback513
L    10.1.5.13/32 is directly connected, Loopback513
C    10.1.5.16/30 is directly connected, Loopback517
L    10.1.5.17/32 is directly connected, Loopback517
C    172.29.0.0/16 is variably subnetted, 2 subnets, 2 masks
C    172.29.45.0/29 is directly connected, Serial0/0/0
L    172.29.45.5/32 is directly connected, Serial0/0/0

R5#
```

ESCENARIO 2



Información para configuración de los Routers

R1	Interfaz	Dirección IP	Máscara
	Loopback 0	1.1.1.1	255.0.0.0
	Loopback 1	11.1.0.1	255.255.0.0
	S 0/0	192.1.12.1	255.255.255.0

R2	Interfaz	Dirección IP	Máscara
	Loopback 0	2.2.2.2	255.0.0.0
	Loopback 1	12.1.0.1	255.255.0.0
	S 0/0	192.1.12.2	255.255.255.0
	E 0/0	192.1.23.2	255.255.255.0

R3	Interfaz	Dirección IP	Máscara
	Loopback 0	3.3.3.3	255.0.0.0
	Loopback 1	13.1.0.1	255.255.0.0
	E 0/0	192.1.23.3	255.255.255.0
	S 0/0	192.1.34.3	255.255.255.0

R4	Interfaz	Dirección IP	Máscara
	Loopback 0	4.4.4.4	255.0.0.0
	Loopback 1	14.1.0.1	255.255.0.0
	S 0/0	192.1.34.4	255.255.255.0

1. Configure una relación de vecino BGP entre R1 y R2. R1 debe estar en AS1 y R2 debe estar en AS2. Anuncie las direcciones de Loopback en BGP. Codifique los ID para los routers BGP como 11.11.11.11 para R1 y como 22.22.22.22 para R2. Presente el paso a con los comandos utilizados y la salida del comando show ip route.

```
R1>enable
R1#configure terminal
R1(config)# hostname R1
R1(config)# interface Loopback 0
R1(config-if)# ip address 1.1.1.1 255.0.0.0
R1(config-if)# exit
```

```
R1(config)# interface Loopback 1
R1(config-if)# ip address 11.1.0.1 255.255.0.0
R1(config-if)# exit
```

```
R1(config)# interface Serial 0/0/0
R1(config-if)# ip address 192.1.12.1 255.255.255.0
R1(config-if)# clock rate 128000
R1(config-if)# no shutdown
R1(config-if)# exit
```

```
R1(config)# router bgp 1
R1(config-router)# neighbor 192.1.12.2 remote-as 2
R1(config-router)# network 1.1.1.0 mask 255.0.0.0
```

```
changed state to up
R1(config-if)#ip address 1.1.1.1 255.0.0.0
R1(config-if)#exit
R1(config)#interface Loopback 1

R1(config-if)#
%LINK-S-CHANGED: Interface Loopback1, changed state to up

%LINEPROTO-S-UPDOWN: Line protocol on Interface Loopback1,
changed state to up

R1(config-if)#ip address 11.1.0.1 255.255.0.0
R1(config-if)#exit
R1(config)#interface Serial 0/0/0
R1(config-if)#ip address 192.1.12.1 255.255.255.0
R1(config-if)#clock rate 128000
R1(config-if)#no shutdown

%LINK-S-CHANGED: Interface Serial0/0/0, changed state to down
R1(config-if)#exit
R1(config)#router bgp 1
R1(config-router)#neighbor 192.1.12.2 remote-as 2
R1(config-router)#network 1.1.1.0 mask 255.0.0.0
R1(config-router)#
```

```
R2>enable
R2#configure terminal
R2(config)# hostname R2
R2(config)# interface Loopback 0
R2(config-if)# ip address 2.2.2.2 255.0.0.0
R2(config-if)# exit

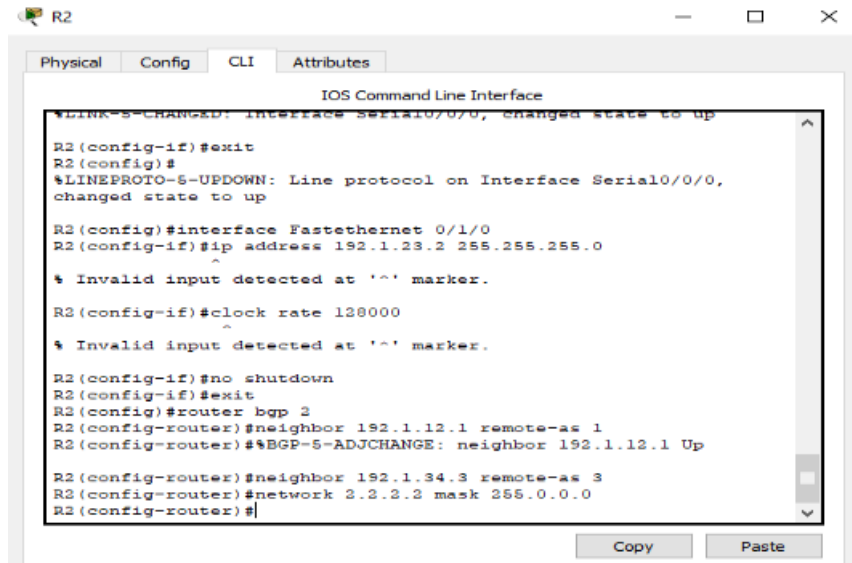
R2(config)# interface Loopback 1
R2(config-if)# ip address 12.1.0.1 255.255.0.0
R2(config-if)# exit

R2(config)# interface Serial 0/0/0
R2(config-if)# ip address 192.1.12.2 255.255.255.0
R2(config-if)# clock rate 128000
R2(config-if)# no shutdown
R2(config-if)# exit

R2(config)# interface Fastethernet 0/1/0
R2(config-if)# ip address 192.1.23.2 255.255.255.0
R2(config-if)# clock rate 128000
R2(config-if)# no shutdown
R2(config-if)# exit

R2(config)# router bgp 2
```

```
R2(config-router)# neighbor 192.1.12.1 remote-as 1
R2(config-router)# neighbor 192.1.34.3 remote-as 3
R2(config-router)# network 2.2.2.2 mask 255.0.0.0
```



```
R2
IOS Command Line Interface
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up
R2(config-if)#exit
R2(config)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0,
changed state to up
R2(config)#interface FastEthernet 0/1/0
R2(config-if)#ip address 192.1.23.2 255.255.255.0
^
% Invalid input detected at '^' marker.
R2(config-if)#clock rate 128000
^
% Invalid input detected at '^' marker.
R2(config-if)#no shutdown
R2(config-if)#exit
R2(config)#router bgp 2
R2(config-router)#neighbor 192.1.12.1 remote-as 1
R2(config-router)#%BGP-5-ADJCHANGE: neighbor 192.1.12.1 Up
R2(config-router)#neighbor 192.1.34.3 remote-as 3
R2(config-router)#network 2.2.2.2 mask 255.0.0.0
R2(config-router)#
```

```
R3>enable
R3#configure terminal
R3(config)# hostname R2
R3(config)# interface Loopback 0
R3(config-if)# ip address 2.2.2.2 255.0.0.0
R3(config-if)# exit
```

```
R3(config)# interface Loopback 1
R3(config-if)# ip address 13.1.0.1 255.255.0.0
R3(config-if)# exit
```

```
R3(config)# interface FastEthernet 0/1/0
R3(config-if)# ip address 192.1.34.3 255.255.255.0
R3(config-if)# clock rate 128000
R3(config-if)# no shutdown
R3(config-if)# exit
```

```
R3(config)# interface Serial 0/0/0
R3(config-if)# ip address 192.1.23.3 255.255.255.0
R3(config-if)# clock rate 128000
R3(config-if)# no shutdown
R3(config-if)# exit
```

```
R3
Physical Config CLI Attributes
IOS Command Line Interface
%LINEPROTO-5-UPDOWN: Line protocol on interface Loopback1,
changed state to up

R3(config-if)#ip address 13.1.0.1 255.255.0.0
R3(config-if)#exit
R3(config)#interface FastEthernet 0/1/0
R3(config-if)#ip address 192.1.34.3 255.255.255.0
^
% Invalid input detected at '^' marker.

R3(config-if)#clock rate 128000
^
% Invalid input detected at '^' marker.

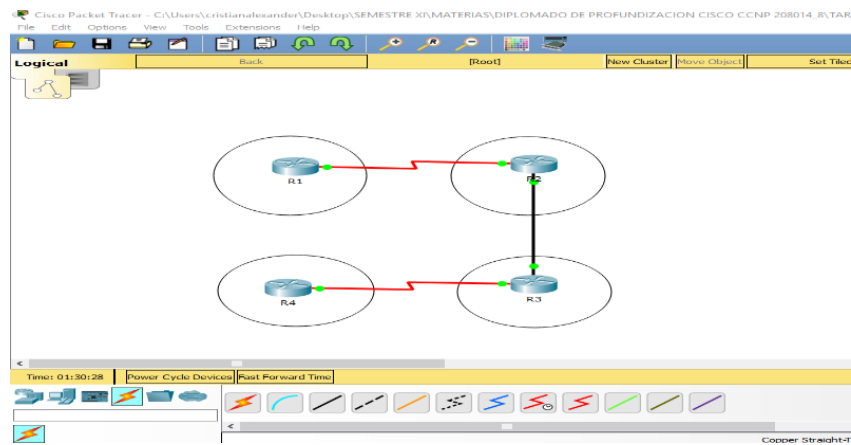
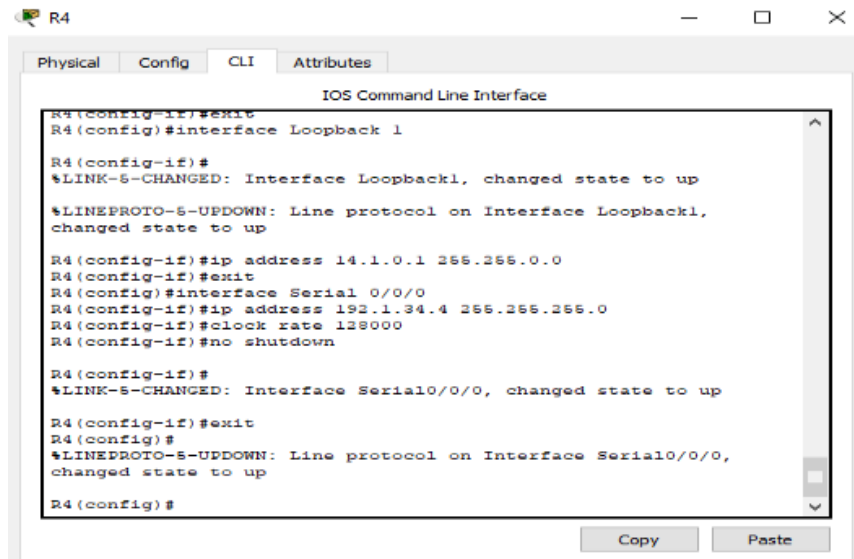
R3(config-if)#no shutdown
R3(config-if)#exit
R3(config)#interface Serial 0/0/0
R3(config-if)#ip address 192.1.23.3 255.255.255.0
R3(config-if)#clock rate 128000
This command applies only to DCE interfaces
R3(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
R3(config-if)#exit
R3(config)#
```

```
R4>enable
R4#configure terminal
R4(config)# hostname R4
R4(config)# interface Loopback 0
R4(config-if)# ip address 4.4.4.4 255.0.0.0
R4(config-if)# exit
```

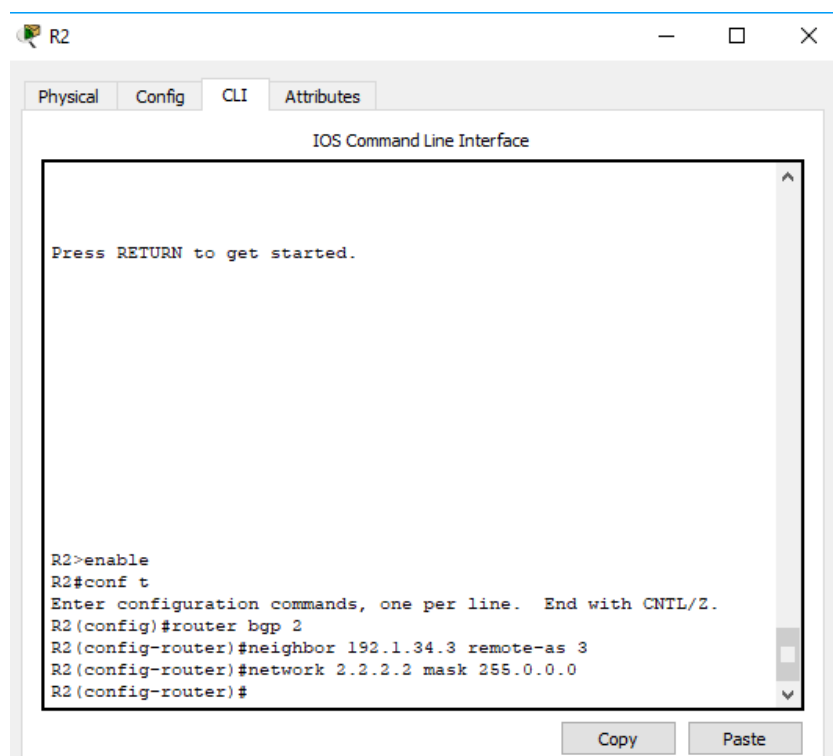
```
R4(config)# interface Loopback 1
R4(config-if)# ip address 14.1.0.1 255.255.0.0
R4(config-if)# exit
```

```
R4(config)# interface Serial 0/0/0
R4(config-if)# ip address 192.1.34.4 255.255.255.0
R4(config-if)# clock rate 128000
R4(config-if)# no shutdown
R4(config-if)# exit
```

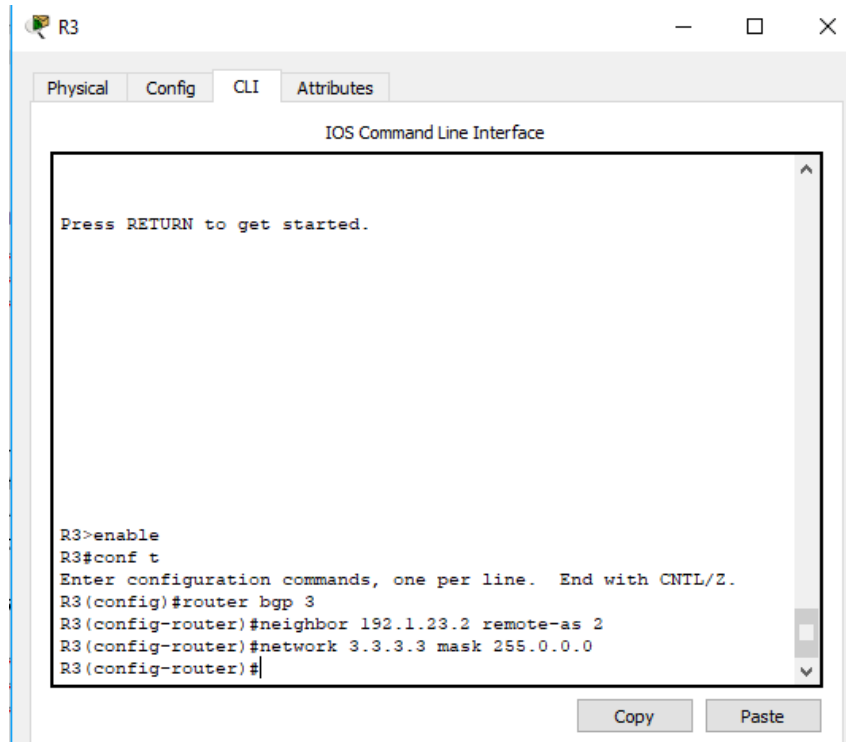


2. Configure una relación de vecino BGP entre R2 y R3. R2 ya debería estar configurado en AS2 y R3 debería estar en AS3. Anuncie las direcciones de Loopback de R3 en BGP. Codifique el ID del router R3 como 33.33.33.33. Presente el paso a con los comandos utilizados y la salida del comando show ip route.

```
R2(config)# router bgp 2
R2(config-router)# neighbor 192.1.34.3 remote-as 3
R2(config-router)# network 2.2.2.2 mask 255.0.0.0
```



```
R3(config)# router bgp 3
R3(config-router)# neighbor 192.1.23.2 remote-as 2
R3(config-router)# network 3.3.3.3 mask 255.0.0.0
```

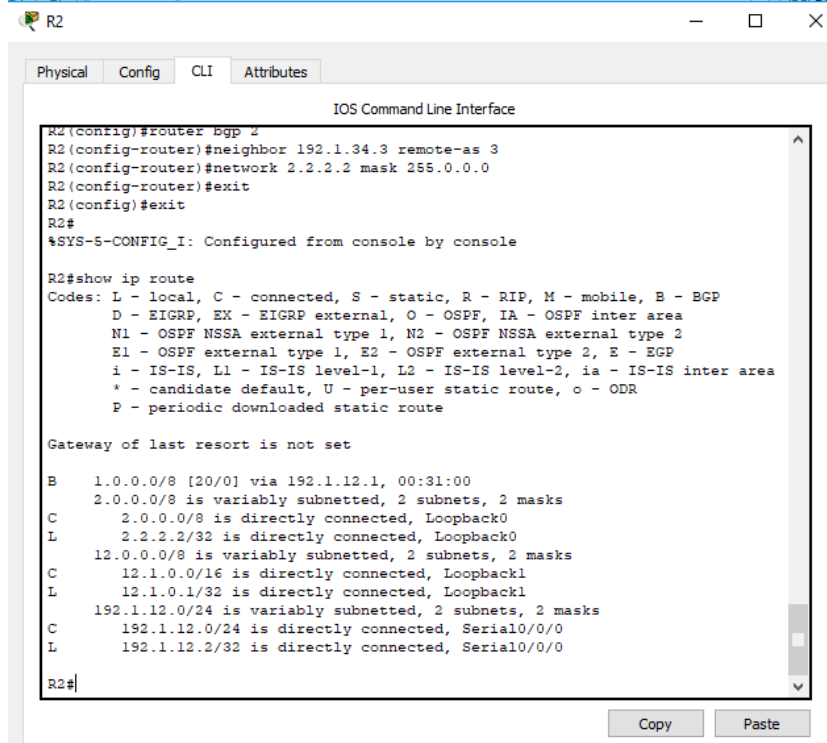


The screenshot shows the CLI of router R3. The window title is 'R3'. The tabs are 'Physical', 'Config', 'CLI', and 'Attributes'. The main area is titled 'IOS Command Line Interface'. The text inside the terminal window is as follows:

```
Press RETURN to get started.

R3>enable
R3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#router bgp 3
R3(config-router)#neighbor 192.1.23.2 remote-as 2
R3(config-router)#network 3.3.3.3 mask 255.0.0.0
R3(config-router)#
```

At the bottom right of the terminal window, there are 'Copy' and 'Paste' buttons.



The screenshot shows the CLI of router R2. The window title is 'R2'. The tabs are 'Physical', 'Config', 'CLI', and 'Attributes'. The main area is titled 'IOS Command Line Interface'. The text inside the terminal window is as follows:

```
R2(config)#router bgp 2
R2(config-router)#neighbor 192.1.34.3 remote-as 3
R2(config-router)#network 2.2.2.2 mask 255.0.0.0
R2(config-router)#exit
R2(config)#exit
R2#
%SYS-5-CONFIG_I: Configured from console by console

R2#show ip route
Codes: L - local, C - connected, S - static, 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

B    1.0.0.0/8 [20/0] via 192.1.12.1, 00:31:00
C    2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
     2.0.0.0/8 is directly connected, Loopback0
L    2.2.2.2/32 is directly connected, Loopback0
C    12.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
     12.1.0.0/16 is directly connected, Loopback1
L    12.1.0.1/32 is directly connected, Loopback1
C    192.1.12.0/24 is variably subnetted, 2 subnets, 2 masks
     192.1.12.0/24 is directly connected, Serial10/0/0
L    192.1.12.2/32 is directly connected, Serial10/0/0

R2#
```

At the bottom right of the terminal window, there are 'Copy' and 'Paste' buttons.


```
R3#show ip route
Codes: L - local, C - connected, S - static, 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

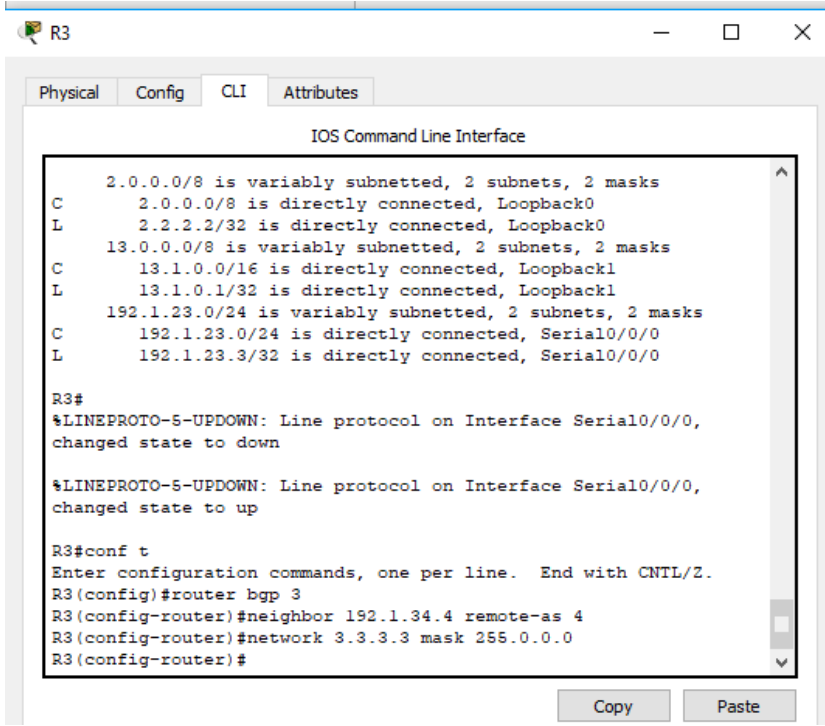
    2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       2.0.0.0/8 is directly connected, Loopback0
L       2.2.2.2/32 is directly connected, Loopback0
    13.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       13.1.0.0/16 is directly connected, Loopback1
L       13.1.0.1/32 is directly connected, Loopback1
    192.1.23.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.1.23.0/24 is directly connected, Serial0/0/0
L       192.1.23.3/32 is directly connected, Serial0/0/0

R3#
```

Copy Paste

3. Configure una relación de vecino BGP entre R3 y R4. R3 ya debería estar configurado en AS3 y R4 debería estar en AS4. Anuncie las direcciones de Loopback de R4 en BGP. Codifique el ID del router R4 como 44.44.44.44. Establezca las relaciones de vecino con base en las direcciones de Loopback 0. Cree rutas estáticas para alcanzar la Loopback 0 del otro router. No anuncie la Loopback 0 en BGP. Anuncie la red Loopback de R4 en BGP. Presente el paso a con los comandos utilizados y la salida del comando show ip route.

```
R3(config)# router bgp 3
R3(config-router)# neighbor 192.1.34.4 remote-as 4
R3(config-router)# network 3.3.3.3 mask 255.0.0.0
```



```
IOS Command Line Interface

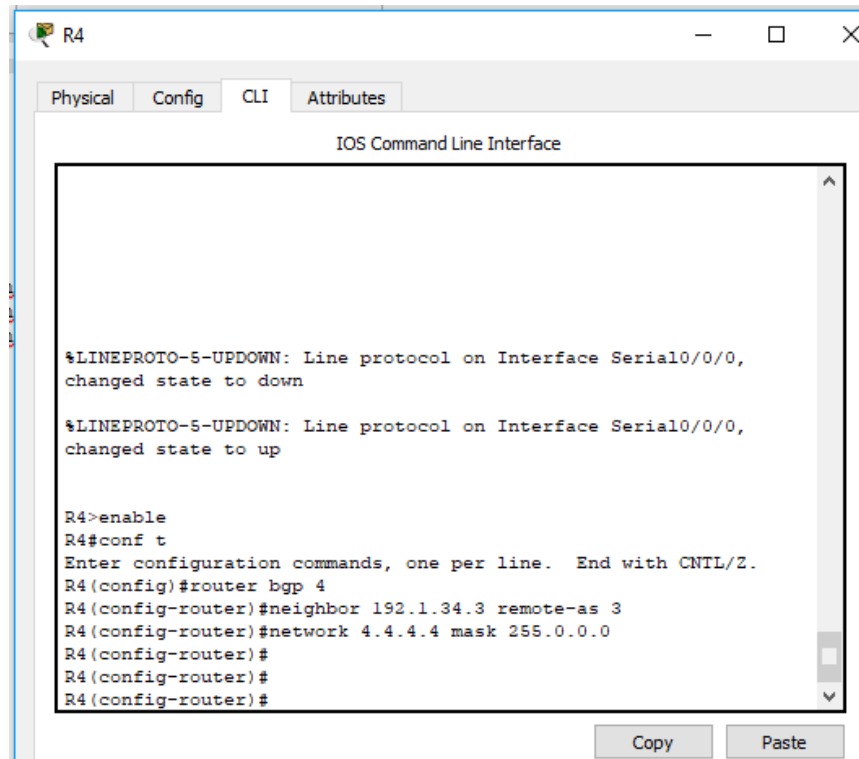
 2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C   2.0.0.0/8 is directly connected, Loopback0
L   2.2.2.2/32 is directly connected, Loopback0
 13.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C   13.1.0.0/16 is directly connected, Loopback1
L   13.1.0.1/32 is directly connected, Loopback1
 192.1.23.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.1.23.0/24 is directly connected, Serial10/0/0
L   192.1.23.3/32 is directly connected, Serial10/0/0

R3#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial10/0/0,
changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial10/0/0,
changed state to up

R3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#router bgp 3
R3(config-router)#neighbor 192.1.34.4 remote-as 4
R3(config-router)#network 3.3.3.3 mask 255.0.0.0
R3(config-router)#
```

```
R4(config)# router bgp 4
R4(config-router)# neighbor 192.1.34.3 remote-as 3
R4(config-router)# network 4.4.4.4 mask 255.0.0.0
```



R3

Physical Config CLI Attributes

IOS Command Line Interface

```
***SIS-S-CONFIG_1: Configured from console by console***

R3#show ip route
Codes: L - local, C - connected, S - static, 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

      2.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       2.0.0.0/8 is directly connected, Loopback0
L       2.2.2.2/32 is directly connected, Loopback0
      13.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       13.1.0.0/16 is directly connected, Loopback1
L       13.1.0.1/32 is directly connected, Loopback1
      192.1.23.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.1.23.0/24 is directly connected, Serial0/0/0
L       192.1.23.3/32 is directly connected, Serial0/0/0

R3#
```

Copy Paste

R4

Physical Config CLI Attributes

IOS Command Line Interface

```
***SIS-S-CONFIG_1: Configured from console by console***

R4#show ip route
Codes: L - local, C - connected, S - static, 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

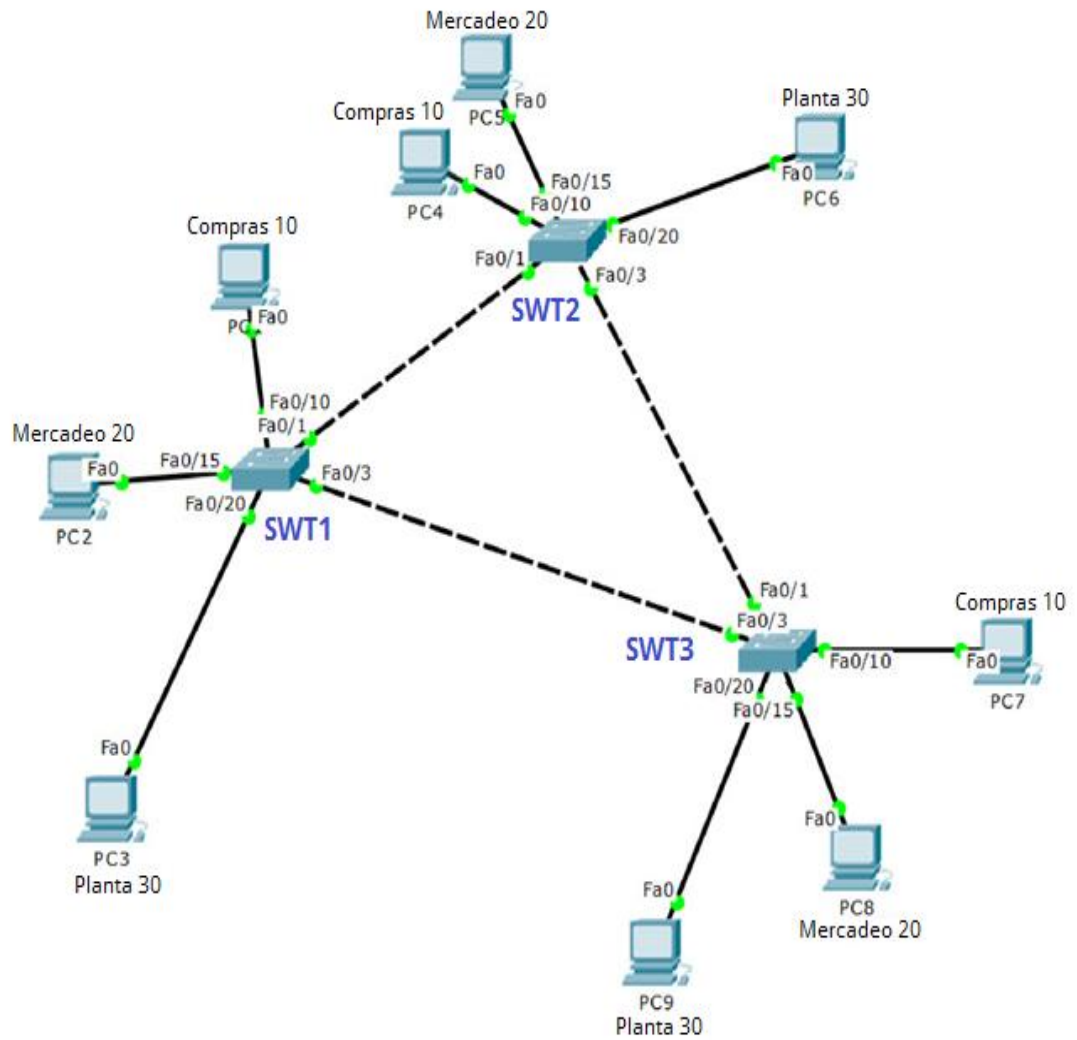
Gateway of last resort is not set

      4.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       4.0.0.0/8 is directly connected, Loopback0
L       4.4.4.4/32 is directly connected, Loopback0
      14.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       14.1.0.0/16 is directly connected, Loopback1
L       14.1.0.1/32 is directly connected, Loopback1
      192.1.34.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.1.34.0/24 is directly connected, Serial0/0/0
L       192.1.34.4/32 is directly connected, Serial0/0/0

R4#
```

Copy Paste

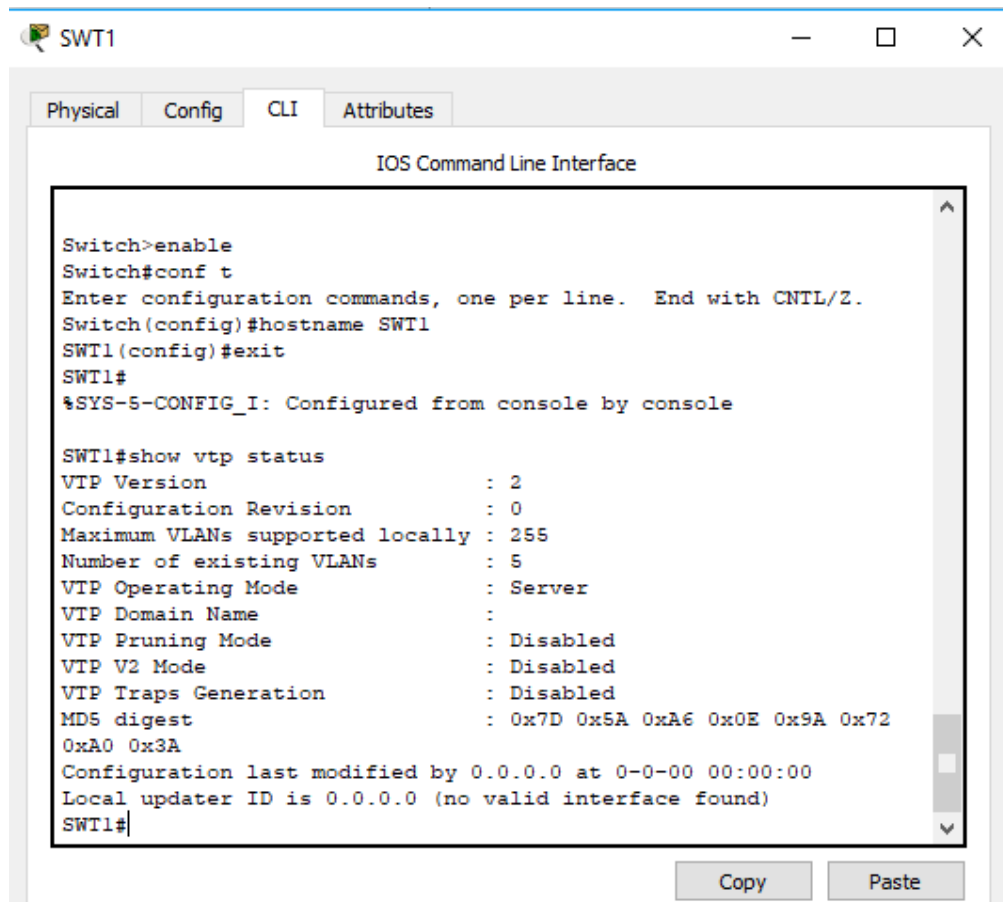
ESCENARIO 3



1. Configurar VTP

1. Todos los switches se configurarán para usar VTP para las actualizaciones de VLAN. El switch SWT2 se configurará como el servidor. Los switches SWT1 y SWT3 se configurarán como clientes. Los switches estarán en el dominio VPT llamado CCNP y usando la contraseña cisco.

SWT1# show vtp status



The screenshot shows a terminal window titled "SWT1" with tabs for "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is active, displaying the "IOS Command Line Interface". The terminal output shows the following commands and their results:

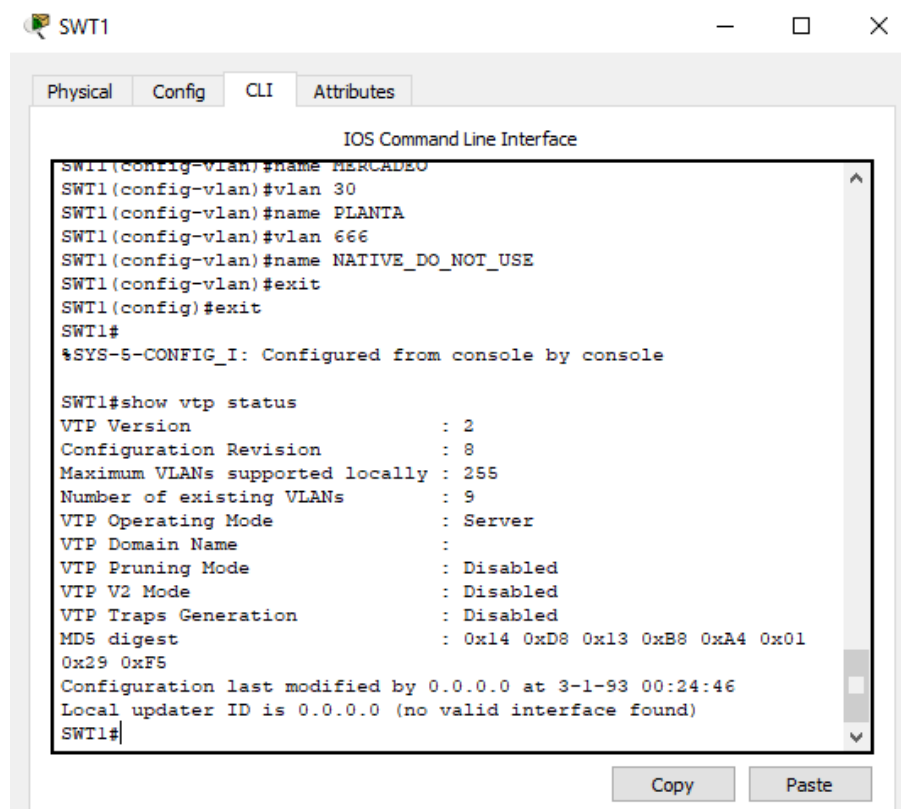
```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SWT1
SWT1(config)#exit
SWT1#
%SYS-5-CONFIG_I: Configured from console by console

SWT1#show vtp status
VTP Version                : 2
Configuration Revision     : 0
Maximum VLANs supported locally : 255
Number of existing VLANs   : 5
VTP Operating Mode         : Server
VTP Domain Name            :
VTP Pruning Mode           : Disabled
VTP V2 Mode                 : Disabled
VTP Traps Generation       : Disabled
MDS digest                  : 0x7D 0x5A 0xA6 0x0E 0x9A 0x72
0xA0 0x3A
Configuration last modified by 0.0.0.0 at 0-0-00 00:00:00
Local updater ID is 0.0.0.0 (no valid interface found)
SWT1#
```

At the bottom of the terminal window, there are "Copy" and "Paste" buttons.

```
SWT1(config)# vlan 10
SWT1(config-vlan)# name COMPRAS
SWT1(config-vlan)# vlan 20
SWT1(config-vlan)# name MERCADEO
SWT1(config-vlan)# vlan 30
SWT1(config-vlan)# name PLANTA
SWT1 (config-vlan)# vlan 666
SWT1 (config-vlan)# name NATIVE_DO_NOT_USE
SWT1(config-vlan)# exit
```

SWT1#show vtp status | include Configuration Revision



The screenshot shows a terminal window titled "SWT1" with tabs for "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is active, displaying the "IOS Command Line Interface". The terminal output shows the configuration of VLANs and the execution of the "show vtp status" command. The status output includes VTP Version 2, Configuration Revision 8, and various VTP modes and settings.

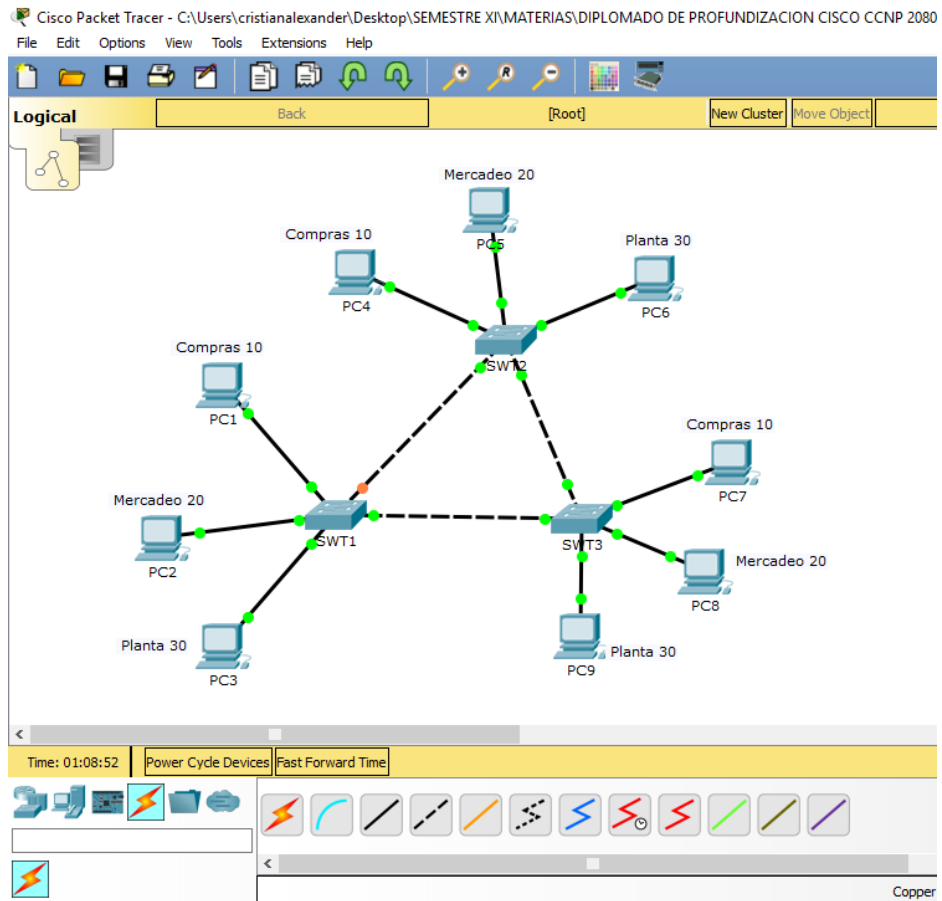
```
SWT1(config-vlan)#name MERCADEO
SWT1(config-vlan)#vlan 30
SWT1(config-vlan)#name PLANTA
SWT1(config-vlan)#vlan 666
SWT1(config-vlan)#name NATIVE_DO_NOT_USE
SWT1(config-vlan)#exit
SWT1(config)#exit
SWT1#
%SYS-5-CONFIG_I: Configured from console by console

SWT1#show vtp status
VTP Version           : 2
Configuration Revision : 8
Maximum VLANs supported locally : 255
Number of existing VLANs : 9
VTP Operating Mode    : Server
VTP Domain Name      :
VTP Pruning Mode     : Disabled
VTP V2 Mode          : Disabled
VTP Traps Generation : Disabled
MD5 digest            : 0x14 0xD8 0x13 0xB8 0xA4 0x01
0x29 0xFS
Configuration last modified by 0.0.0.0 at 3-1-93 00:24:46
Local updater ID is 0.0.0.0 (no valid interface found)
SWT1#
```

```
SWT1(config)# interface range f0/7-12
SWT1(config-if-range)# switchport trunk encapsulation dot1q
SWT1(config-if-range)# switchport trunk native vlan 666
SWT1(config-if-range)# switchport mode trunk
SWT1(config-if-range)# switchport nonegotiate
SWT1(config-if-range)# no shutdown
SWT1(config-if-range)#
```

```
SWT1(config-if-range)# switchport trunk allowed vlan ?
SWT1(config-if-range)# switchport trunk allowed vlan except 1,999
```

```
SWT1
Physical Config CLI Attributes
IOS Command Line Interface
SWT1(config-if-range)#switchport nonegotiate
SWT1(config-if-range)#no shutdown
SWT1(config-if-range)#switchport trunk allowed vlan ?
WORD VLAN IDs of the allowed VLANs when this port is in
trunking mode
add add VLANs to the current list
all all VLANs
except all VLANs except the following
none no VLANs
remove remove VLANs from the current list
SWT1(config-if-range)#switchport trunk allowed vlan
% Incomplete command.
SWT1(config-if-range)#switchport trunk allowed vlan ?
WORD VLAN IDs of the allowed VLANs when this port is in
trunking mode
add add VLANs to the current list
all all VLANs
except all VLANs except the following
none no VLANs
remove remove VLANs from the current list
SWT1(config-if-range)#switchport trunk allowed vlan
% Incomplete command.
SWT1(config-if-range)#switchport trunk allowed vlan except 1,999
^
Copy Paste
```

2. Verifique las configuraciones mediante el comando show vtp status.

SWT1# **show vtp status**

SWT2# **show vtp status**

SWT3# **show vtp status**

B. Configurar DTP (Dynamic Trunking Protocol)

1. Configure un enlace troncal ("trunk") dinámico entre SWT1 y SWT2. Debido a que el modo por defecto es dynamic auto, solo un lado del enlace debe configurarse como dynamic desirable.

```
SWT1(config)# interface range fastEthernet 0/10-24  
SWT1(config-if-range)# switchport trunk encapsulation dot1q  
SWT1(config-if-range)# switchport mode trunk  
SWT1(config-if-range)# channel-group 1 mode active  
SWT1(config-if-range)# no shut
```

```
SWT2(config)# interface range fastEthernet 0/15-24  
SWT2(config-if-range)# switchport trunk encapsulation dot1q  
SWT2(config-if-range)# switchport mode trunk  
SWT2(config-if-range)# channel-group 1 mode active  
SWT2(config-if-range)# no shut
```

2. Verifique el enlace "trunk" entre SWT1 y SWT2 usando el comando show interfaces trunk.

```
SWT1 > enable  
SWT1 # show interfaces trunk  
SWT2 > enable  
SWT2 # show interfaces trunk
```

Observaciones: durante la verificación adecuada en la creación de la troncal, se ve que en ningún momento se configuró el dispositivo de forma correcta, debido a instrucciones pendientes como IP.

3. Entre SWT1 y SWT3 configure un enlace "trunk" estático utilizando el comando `switchport mode trunk` en la interfaz F0/3 de SWT1

```
SWT1(config)# interface fastEthernet 0/3
SWT1(config-if)# switchport mode access
SWT1(config-if)# switchport access vlan 10
SWT1(config-if)# no shut
```

```
SWT3(config)# interface fastEthernet 0/3
SWT3(config-if)# switchport mode access
SWT3(config-if)# switchport access vlan 30
SWT3(config-if)# no shut
```

4. Verifique el enlace "trunk" el comando `show interfaces trunk` en SWT1.

```
SWT1 > enable
SWT1 # show interfaces trunk
```

5. Configure un enlace "trunk" permanente entre SWT2 y SWT3.

```
SWT1(config)# interface fastEthernet 0/10
SWT1(config-if)# switchport mode access
SWT1(config-if)# switchport access vlan 10
SWT1(config-if)# no shut
```

```
SWT3(config)# interface fastEthernet 0/20
SWT3(config-if)# switchport mode access
SWT3(config-if)# switchport access vlan 30
SWT3(config-if)# no shut
```

```
SWT1(config)# int ran f0/10-24
SWT1(config-if-range)# channel-group 1 mode active
SWT1(config-if-range)# description EtherChannel to SWT3
SWT1(config-if-range)# no shut
SWT1(config-if-range)# exit
```

C. Agregar VLANs y asignar puertos.

1. En STW1 agregue la VLAN 10. En STW2 agregue las VLANS Compras (10), Mercadeo (20), Planta (30) y Admon (99)

```
SWT1# configure terminal
```

```
SWT1(config)# vlan 10
```

```
SWT1(config-vlan)# name COMPRAS
```

```
SWT1(config-vlan)# vlan 20
```

```
SWT1(config-vlan)# name MERCADEO
```

```
SWT1(config-vlan)# vlan 30
```

```
SWT1(config-vlan)# name PLANTA
```

```
SWT1(config-vlan)# vlan 99
```

```
SWT1(config-vlan)# name ADMON
```

```
SWT1(config-vlan)# vlan 666
```

```
SWT1(config-vlan)# name NATIVE_DO_NOT_USE
```

```
SWT1(config-vlan)# exit
```

```
SWT2# configure terminal
```

```
SWT2(config)# vlan 10
```

```
SWT2(config-vlan)# name COMPRAS
```

```
SWT2(config-vlan)# vlan 20
```

```
SWT2(config-vlan)# name MERCADEO
```

```
SWT2(config-vlan)# vlan 30
```

```
SWT2(config-vlan)# name PLANTA
```

```
SWT2(config-vlan)# vlan 99
```

```
SWT2(config-vlan)# name ADMON
```

```
SWT2(config-vlan)# vlan 666
```

```
SWT2(config-vlan)# name NATIVE_DO_NOT_USE
```

```
SWT2(config-vlan)# exit
```

```
SWT3# configure terminal
```

```
SWT3(config)# vlan 10
```

```
SWT3(config-vlan)# name COMPRAS
```

```
SWT3(config-vlan)# vlan 20
```

```
SWT3(config-vlan)# name MERCADEO
```

```

SWT3(config-vlan)# vlan 30
SWT3(config-vlan)# name PLANTA
SWT3(config-vlan)# vlan 99
SWT3(config-vlan)# name ADMON
SWT3(config-vlan)# vlan 666
SWT3(config-vlan)# name NATIVE_DO_NOT_USE
SWT3(config-vlan)# exit

```

2. Verifique que las VLANs han sido agregadas correctamente.

```

SWT1#show vtp status | include Configuration Revision
SWT2#show vtp status | include Configuration Revision

```

```

SWT1# show interface trunk
SWT2# show interface trunk
SWT3# show interface trunk

```

3. Asocie los puertos a las VLAN y configure las direcciones IP de acuerdo con la siguiente tabla.

Interfaz	VLAN	Direcciones IP de los PCs
F0/10	VLAN 10	190.108.10.X / 24
F0/15	VLAN 20	190.108.20.X /24
F0/20	VLAN 30	190.108.30.X /24

X = número de cada PC particular

4. Configure el puerto F0/10 en modo de acceso para SWT1, SWT2 y SWT3 y asígnelo a la VLAN 10.

```
SWT1# configure terminal
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
SWT1(config)# interface fastethernet 0/10
```

```
SWT1(config-if)# switchport mode private-vlan host
```

```
SWT1(config-if)# switchport private-vlan host-association 10 30
```

```
SWT1(config-if)# exit
```

```
SWT1(config)# interface vlan 10
```

```
SWT1(config-if)# ip address 190.108.10.1 255.255.255.0
```

```
SWT1(config-if)# no shutdown
```

```
SWT1(config-if)# exit
```

```
SWT2# configure terminal
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
SWT2(config)# interface vlan 10
```

```
SWT2(config-if)# ip address 190.108.10.2 255.255.255.0
```

```
SWT2(config-if)# no shutdown
```

```
SWT2(config-if)# exit
```

```
SWT3# configure terminal
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
SWT3(config)# interface vlan 10
```

```
SWT3(config-if)# ip address 190.108.10.3 255.255.255.0
```

```
SWT3(config-if)# no shutdown
```

```
SWT3(config-if)# exit
```

5. Repita el procedimiento para los puertos F0/15 y F0/20 en SWT1, SWT2 y SWT3. Asigne las VLANs y las direcciones IP de los PCs de acuerdo con la tabla de arriba.

```
SWT1# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
SWT1(config)# interface vlan 20
SWT1(config-if)# ip address 190.108.20.1 255.255.255.0
SWT1(config-if)# no shutdown
SWT1(config-if)# exit
```

```
SWT2# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
SWT2(config)# interface vlan 20
SWT2(config-if)# ip address 190.108.20.2 255.255.255.0
SWT2(config-if)# no shutdown
SWT2(config-if)# exit
```

```
SWT3# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
SWT3(config)# interface vlan 20
SWT3(config-if)# ip address 190.108.20.3 255.255.255.0
```

```
SWT1# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
SWT1(config)# interface vlan 30
SWT1(config-if)# ip address 190.108.30.1 255.255.255.0
SWT1(config-if)# no shutdown
SWT1(config-if)# exit
```

```
SWT2# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
SWT2(config)# interface vlan 30
SWT2(config-if)# ip address 190.108.30.2 255.255.255.0
SWT2(config-if)# no shutdown
SWT2(config-if)# exit
```

```

SWT3# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
SWT3(config)# interface vlan 30
SWT3(config-if)# ip address 190.108.30.3 255.255.255.0

```

D. Configurar las direcciones IP en los Switches.

A. En cada uno de los Switches asigne una dirección IP al SVI (Switch Virtual Interface) para VLAN 99 de acuerdo con la siguiente tabla de direccionamiento y active la interfaz.

Equipo	Interfaz	Dirección IP	Máscara
SWT1	VLAN 99	190.108.99.1	255.255.255.0
SWT2	VLAN 99	190.108.99.2	255.255.255.0
SWT3	VLAN 99	190.108.99.3	255.255.255.0

```

SWT1# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
SWT1(config)# interface vlan 99
SWT1(config-if)# ip address 190.108.99.1 255.255.255.0
SWT1(config-if)# no shutdown
SWT1(config-if)# exit

```

```

SWT2# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
SWT2(config)# interface vlan 99
SWT2(config-if)# ip address 190.108.99.2 255.255.255.0
SWT2(config-if)# no shutdown
SWT2(config-if)# exit

```

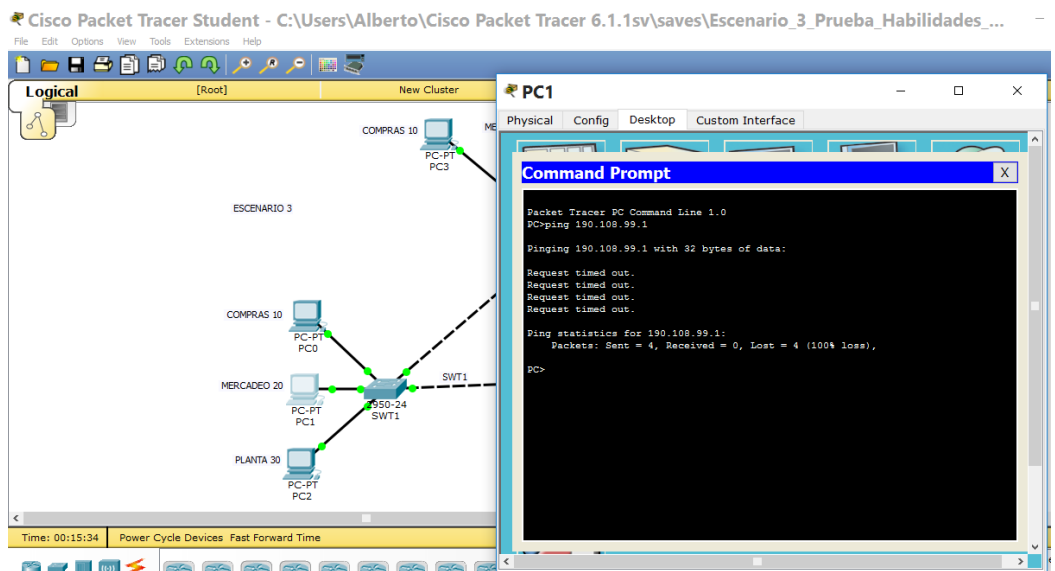
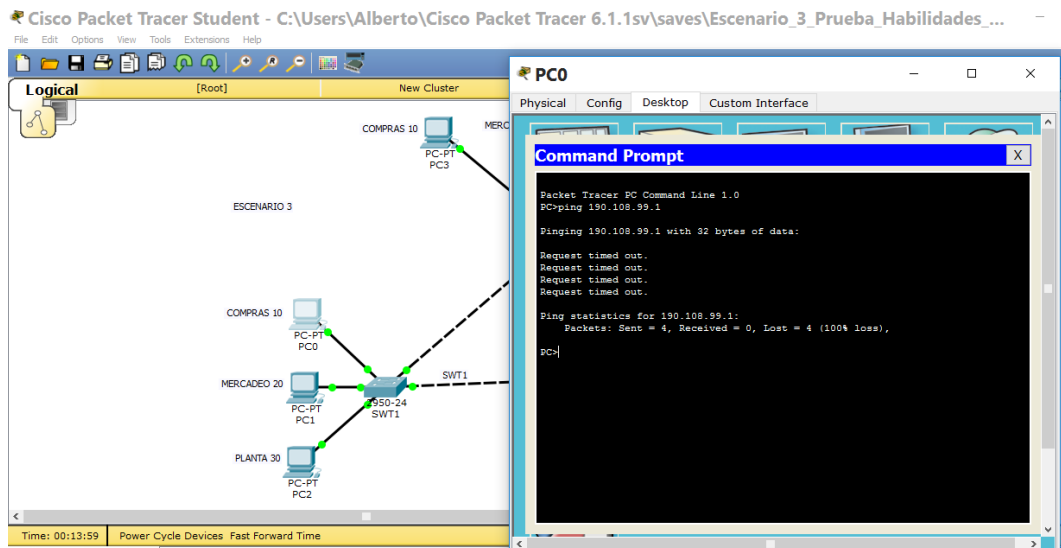
```

SWT3# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
SWT3(config)# interface vlan 99
SWT3(config-if)# ip address 190.108.99.3 255.255.255.0
SWT3(config-if)# no shutdown
SWT3(config-if)# exit

```


E. Verificar la conectividad Extremo a Extremo

1. Ejecute un Ping desde cada PC a los demás. Explique por qué el ping tuvo o no tuvo éxito.



Cisco Packet Tracer Student - C:\Users\Alberto\Cisco Packet Tracer 6.1.1sv\saves\Escenario_3 Prueba_Habilidades_...

The screenshot displays the Cisco Packet Tracer interface. On the left, a network diagram titled 'ESCAPERIO 3' shows a central switch labeled 'SWT1' with a '950-24' label. Three PCs are connected to the switch: 'COMPRAS 10' (PC-PT PC0), 'MERCADERO 20' (PC-PT PC1), and 'PLANTA 30' (PC-PT PC2). A fourth PC, 'COMPRAS 10' (PC-PT PC3), is connected to the switch via a dashed line. The Command Prompt window on the right shows the following output:

```

Packet Tracer PC Command Line 1.0
PC>ping 190.108.99.1

Pinging 190.108.99.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 190.108.99.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

PC>

```

Time: 00:17:38 Power Cycle Devices Fast Forward Time

Cisco Packet Tracer Student - C:\Users\Alberto\Cisco Packet Tracer 6.1.1sv\saves\Escenario_3 Prueba_Habilidades_...

This screenshot shows the same network diagram as the previous one. The Command Prompt window now shows two ping attempts:

```

Packet Tracer PC Command Line 1.0
PC>ping 190.108.99.1

Pinging 190.108.99.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 190.108.99.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

PC>ping 190.108.99.2

Pinging 190.108.99.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 190.108.99.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

PC>

```

Time: 00:21:41 Power Cycle Devices Fast Forward Time

Observaciones: la falta de conectividad entre los pc's se debe a la falta de programación adecuada entre los equipos cisco, destinada a la habilitación de los puertos.

2. Ejecute un Ping desde cada Switch a los demás. Explique por qué el ping tuvo o no tuvo éxito.

The screenshot shows the Cisco Packet Tracer Student interface. The main window displays a network diagram with a central switch labeled 'SW1' and several PCs connected to it. The PCs are labeled 'COMPRAS 10 PC0', 'MERCADERO 20 PC1', 'PLANTA 30 PC2', and 'COMPRAS 10 PC3'. The switch is labeled 'SW1' and 'S50-24'. The interface is titled 'Logical' and 'New Cluster'. The bottom status bar shows 'Time: 00:52:34' and 'Power Cycle Devices: Fast Forward Time'. On the right side, there is a window titled 'SW1' with tabs for 'Physical', 'Config', and 'CLI'. The 'CLI' tab is active, showing the following text:

```
SW1>ping 190.108.99.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 190.108.99.2, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)

SW1>ping 190.108.99.3
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 190.108.99.3, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)

SW1>-
Translating "-"...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer address
SW1>
```

Observaciones: la falta de conectividad se debe a la falta de programación adecuada entre los equipos cisco.

3. Ejecute un Ping desde cada Switch a cada PC. Explique por qué el ping tuvo o no tuvo éxito

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