Configurar routers con RIP y OSPF

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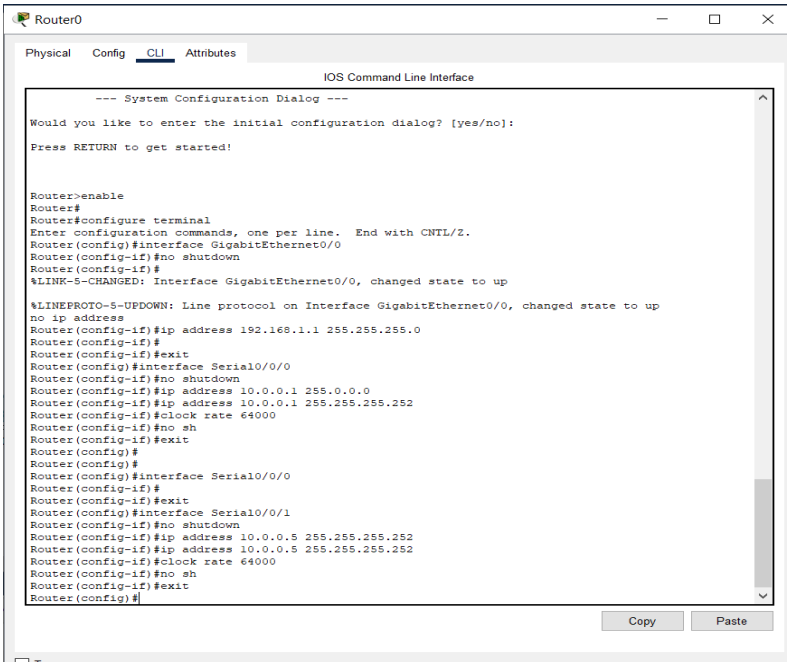
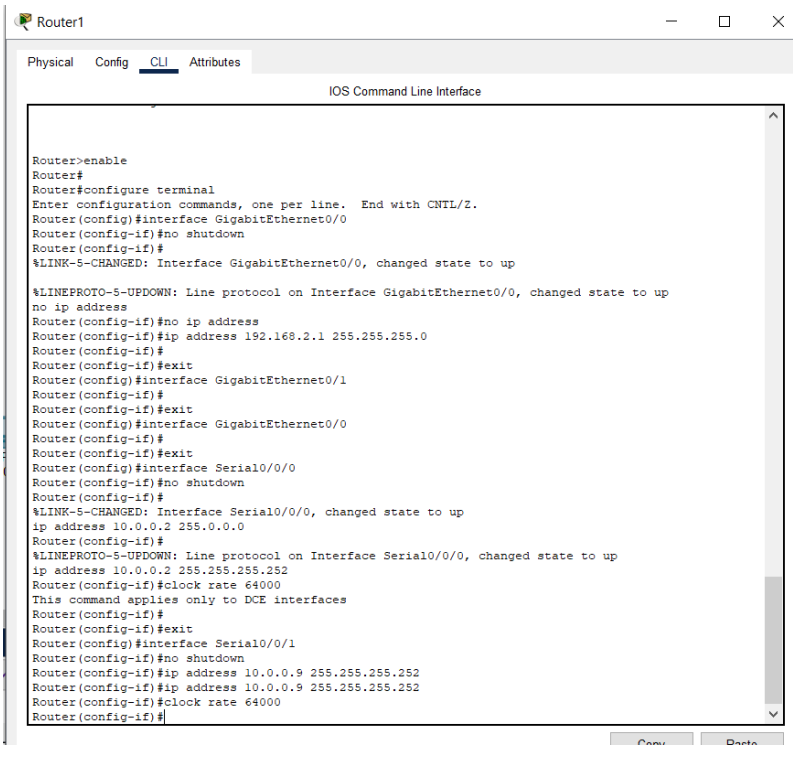
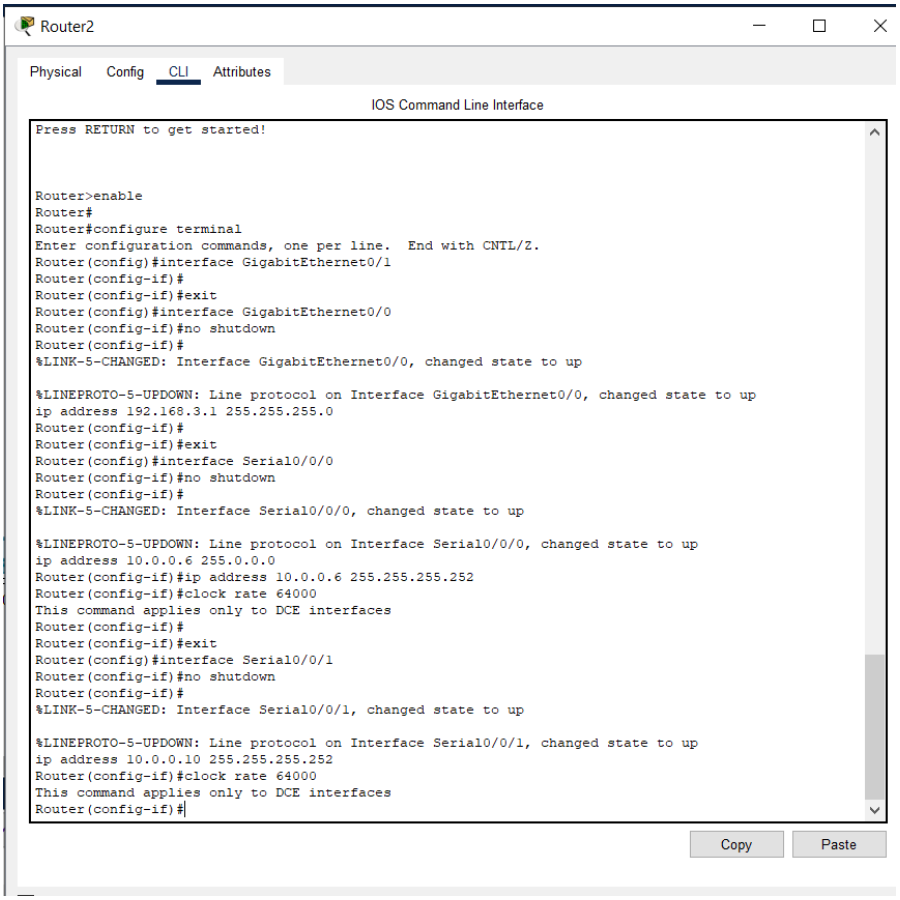
1-ASIR

Ejercicio de Configuración de un Router con RIP en Cisco Packet Tracer

Configurar Interfaces en los Routers: Repite estos pasos para cada router, ajustando las direcciones IP según corresponda.







Configurar RIP en los Routers:

1. **Verificar la Configuración:**

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Physical Config CLI Attributes

IOS Command Line Interface

```
Router(config)#
%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

%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to up

Router(config)#router rip
Router(config-router)#version 2
Router(config-router)#network 192.168.1.0
Router(config-router)#network 10.0.0.0
Router(config-router)#exit
Router(config)#do write
Building configuration...
[OK]
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

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, 2 masks
C       10.0.0.0/30 is directly connected, Serial0/0/0
L       10.0.0.1/32 is directly connected, Serial0/0/0
C       10.0.0.4/30 is directly connected, Serial0/0/1
L       10.0.0.5/32 is directly connected, Serial0/0/1
     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/24 is directly connected, GigabitEthernet0/0
L       192.168.1.1/32 is directly connected, GigabitEthernet0/0

Router#
```

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Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
Router(config-if)#ip address 10.0.0.9 255.255.255.252
Router(config-if)#clock rate 64000
Router(config-if)#
%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to up

Router(config-if)#router rip
Router(config-router)#version 2
Router(config-router)#network 192.168.2.0
Router(config-router)#network 10.0.0.0
Router(config-router)#exit
Router(config)#do write
Building configuration...
[OK]
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

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, 5 subnets, 2 masks
C       10.0.0.0/30 is directly connected, Serial0/0/0
L       10.0.0.2/32 is directly connected, Serial0/0/0
R       10.0.0.4/30 [120/1] via 10.0.0.1, 00:00:22, Serial0/0/0
C       10.0.0.8/30 is directly connected, Serial0/0/1
L       10.0.0.9/32 is directly connected, Serial0/0/1
R    192.168.1.0/24 [120/1] via 10.0.0.1, 00:00:22, Serial0/0/0
     192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, GigabitEthernet0/0
L       192.168.2.1/32 is directly connected, GigabitEthernet0/0

Router#
```

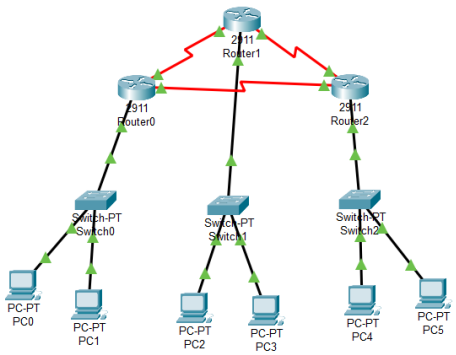
Router2

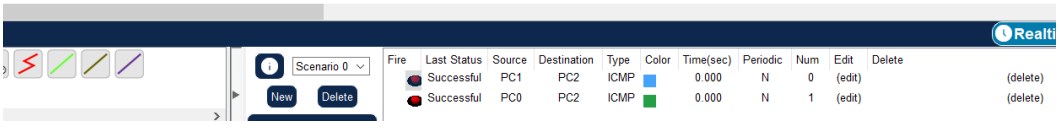
Physical Config CLI Attributes

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to up
ip address 10.0.0.10 255.255.255.252
Router(config-if)#clock rate 64000
This command applies only to DCE interfaces
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#version 2
Router(config-router)#network 192.168.3.0
Router(config-router)#network 10.0.0.0
Router(config-router)#exit
Router(config)#do wr
Building configuration...
[OK]
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
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, 5 subnets, 2 masks
R       10.0.0.0/30 [120/1] via 10.0.0.9, 00:00:10, Serial0/0/1
                    [120/1] via 10.0.0.5, 00:00:10, Serial0/0/0
C       10.0.0.4/30 is directly connected, Serial0/0/0
L       10.0.0.6/32 is directly connected, Serial0/0/0
C       10.0.0.8/30 is directly connected, Serial0/0/1
L       10.0.0.10/32 is directly connected, Serial0/0/1
R    192.168.1.0/24 [120/1] via 10.0.0.5, 00:00:10, Serial0/0/0
R    192.168.2.0/24 [120/1] via 10.0.0.9, 00:00:10, Serial0/0/1
     192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.3.0/24 is directly connected, GigabitEthernet0/0
L       192.168.3.1/32 is directly connected, GigabitEthernet0/0
 --More--
```

Verificar Conectividad:



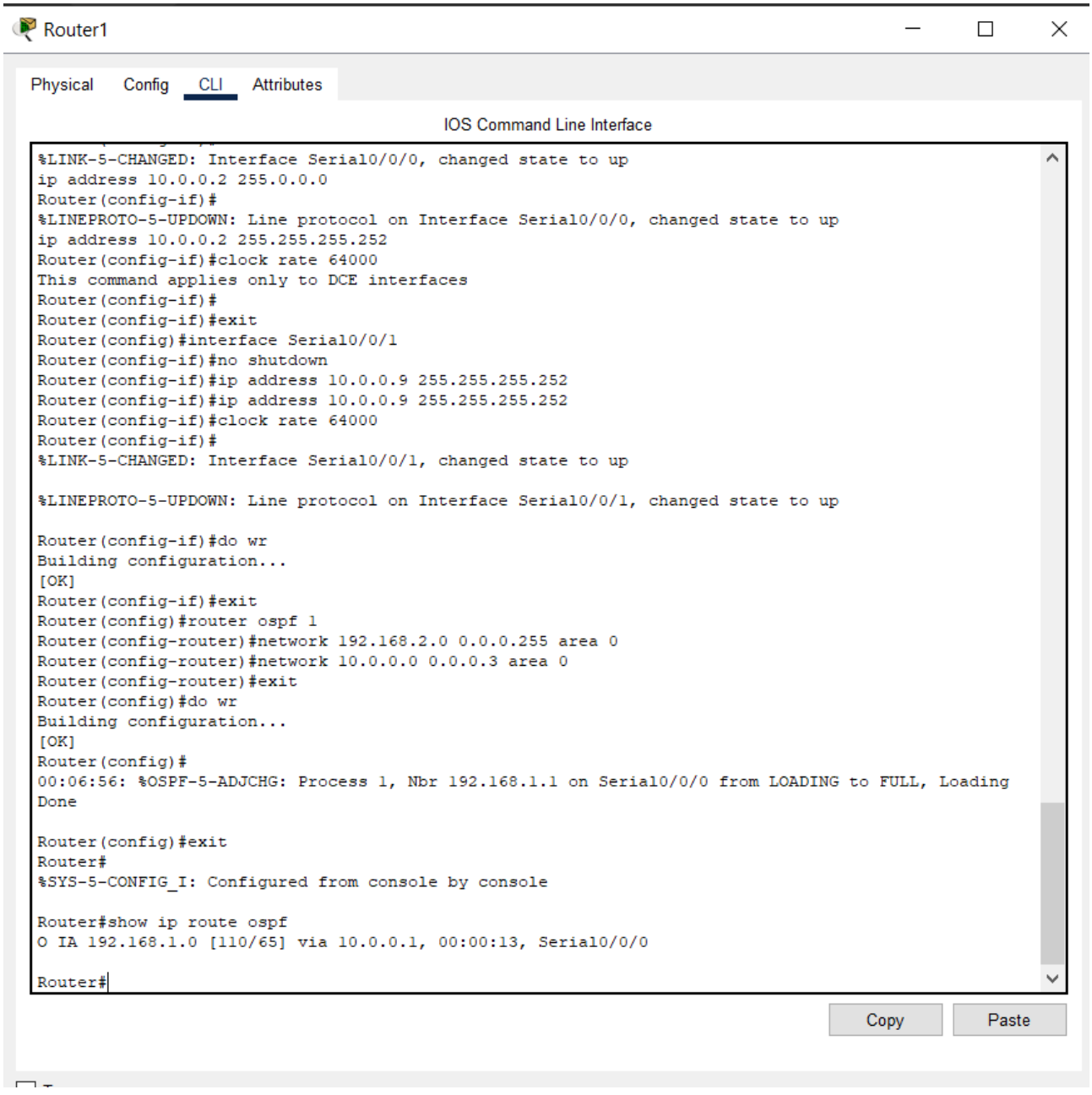


Pasos para Configurar OSPF

Configurar Interfaces en los Routers: Repite estos pasos para cada router, ajustando las direcciones IP según corresponda (igual que en el ejercicio anterior).

1. **Configurar OSPF en los Routers:**

2. Verificar la Configuración:



Verificar Conectividad: