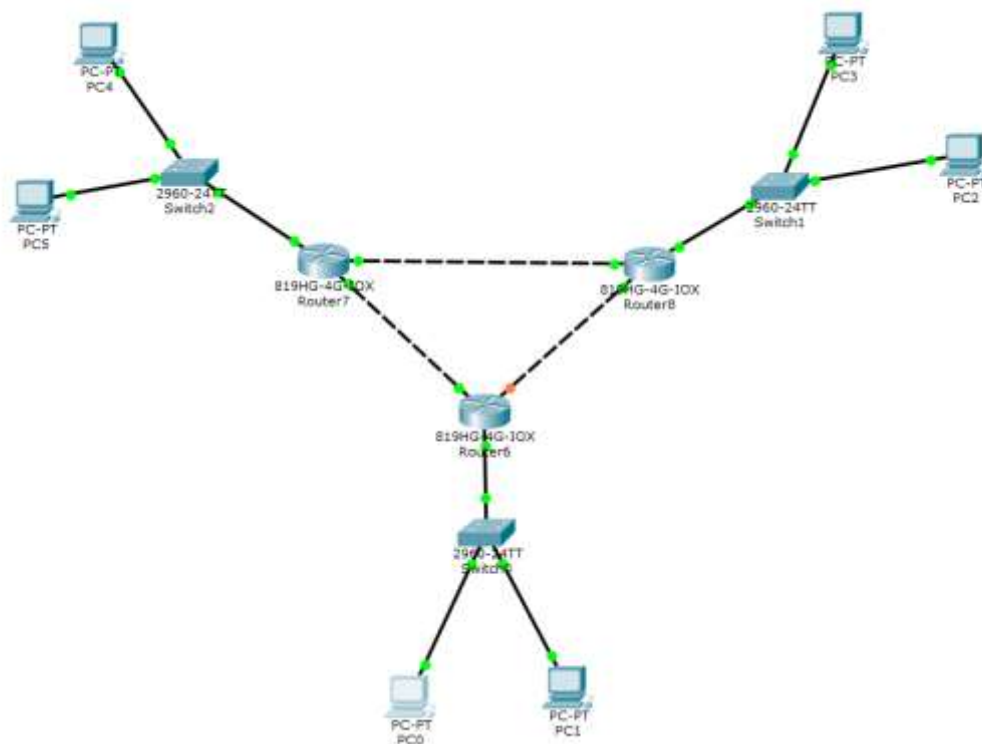


Enrutamiento estático en anillo

Configuramos la estructura del ejercicio insertando los dispositivos y conexiones para generar las redes.



Asignamos las direcciones ip a los dispositivos de todas las redes, mirando y fijándote en las direcciones que aparecen al lado siendo estas las direcciones de las redes, fijando el router como el primer dispositivo y luego los pc que se encuentren dentro de dicha red.

PC0

Physical Config Desktop Attributes Custom Interface

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address: 192.168.1.2

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

DNS Server:

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

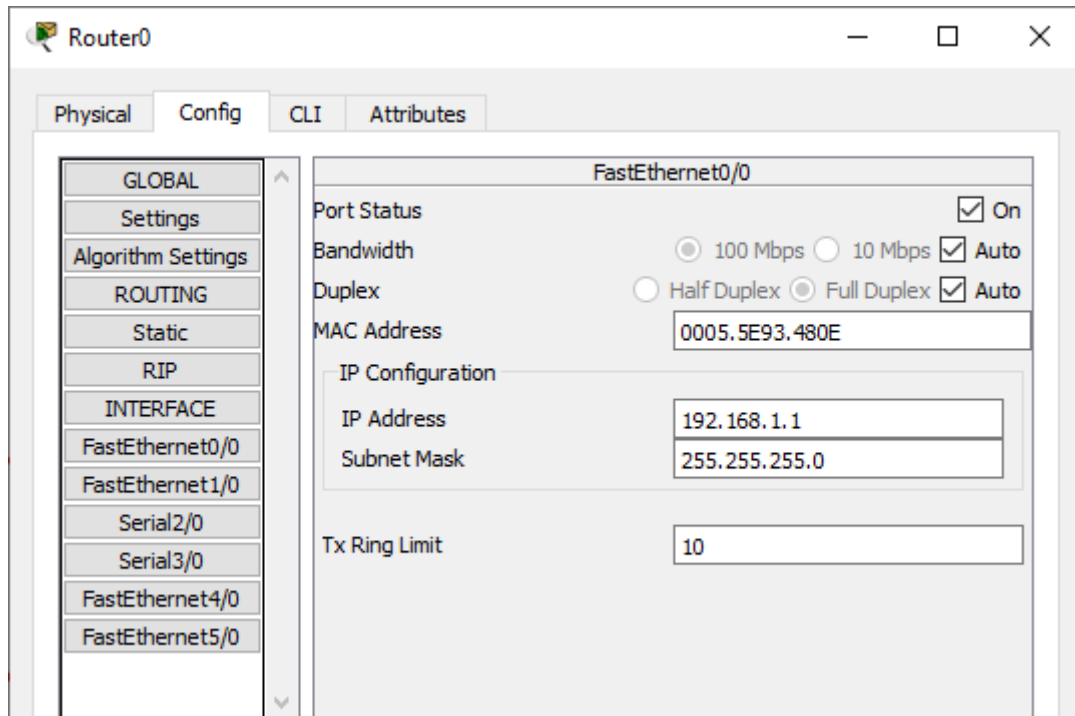
IPv6 Address: /

Link Local Address: FE80::2D0:BCFF:FE6E:A32B

IPv6 Gateway:

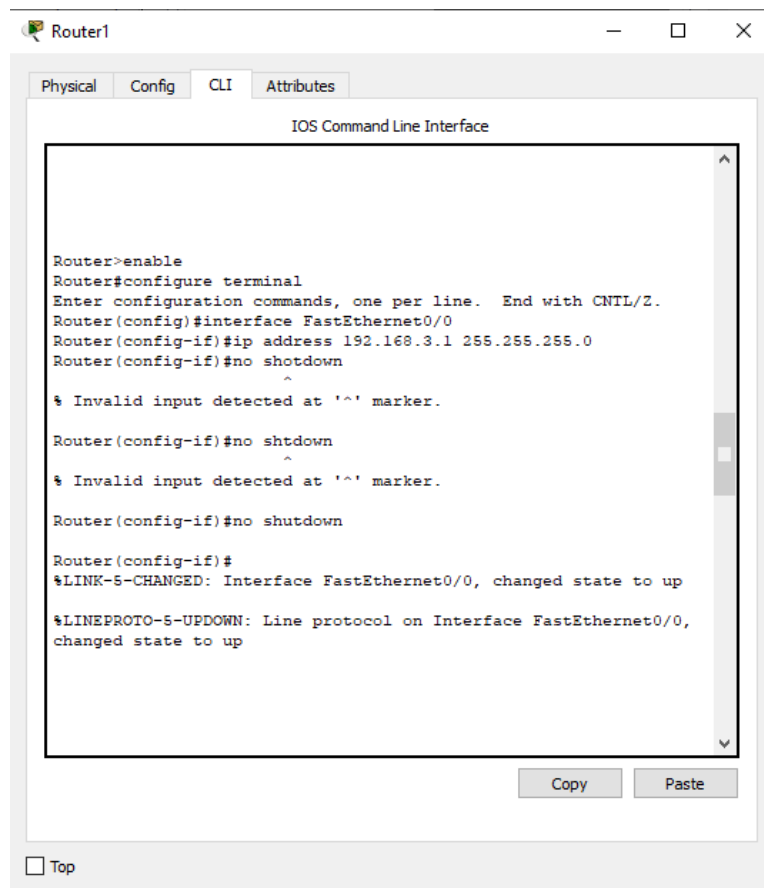
IPv6 DNS Server:

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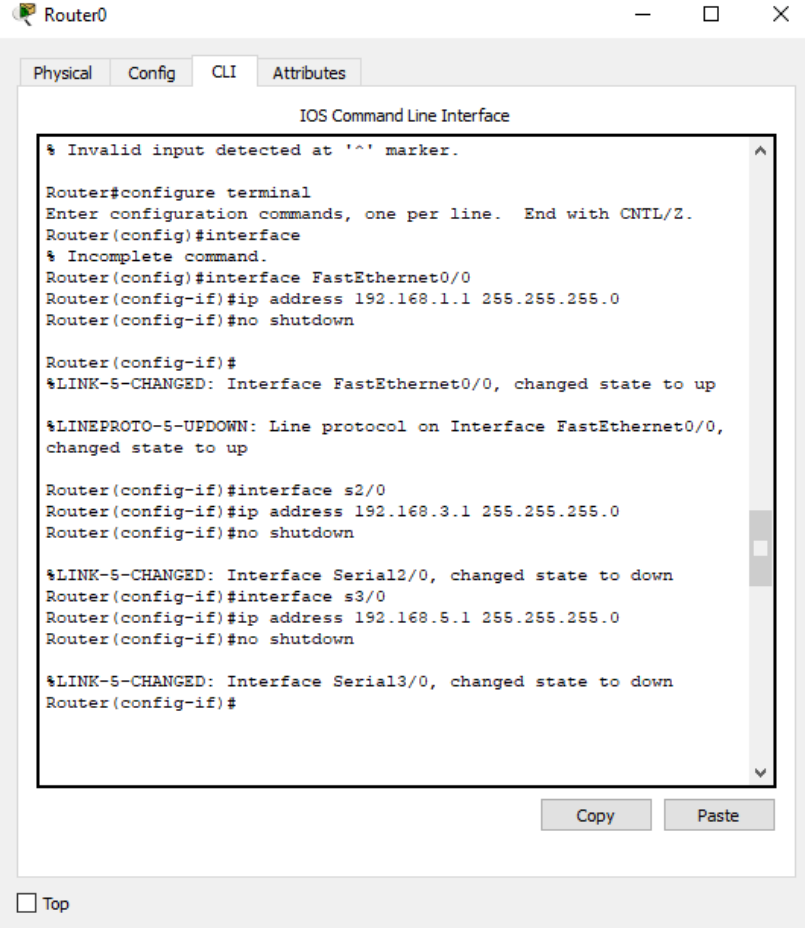
Y configurando así las ip en cada ordenador y router

Después tenemos que configurar la conexión de entre el switch y el router, para esto nos metemos al CLI y entramos en el modo administrador de la terminal, después accedemos a la interfaz de FastEthernet y agregar la dirección ip manualmente, y por último escribimos no shutdown para encender la conexión, este proceso lo repetimos en as 2 redes restantes.



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Paso seguido configuramos la conexión entre los routers, para esto nos metemos a la CLI de cada router para luego acceder al modo administrador de esta, añadimos el comando de configure terminal para acceder a la configuración, acto seguido escribimos interface sx/x (las x son los números que te aparecen cuando dejas el ratón encima de los puntos del cable) para acceder a su interfaz, luego escribimos la ip deseada, por último, añadimos el comando no shutdown para activar la conexión y repetimos lo mismo para hacer la conexión de los cables que van a un mismo router, esto lo repetiremos por cuantos routers haya, en este caso 2



```
Router0
Physical Config CLI Attributes
IOS Command Line Interface

% Invalid input detected at '^' marker.

Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface
% Incomplete command.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0,
changed state to up

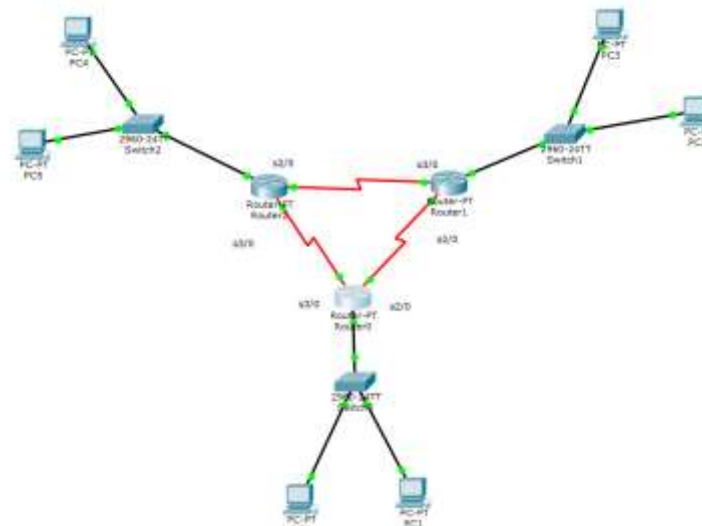
Router(config-if)#interface s2/0
Router(config-if)#ip address 192.168.3.1 255.255.255.0
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#interface s3/0
Router(config-if)#ip address 192.168.5.1 255.255.255.0
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down
Router(config-if)#

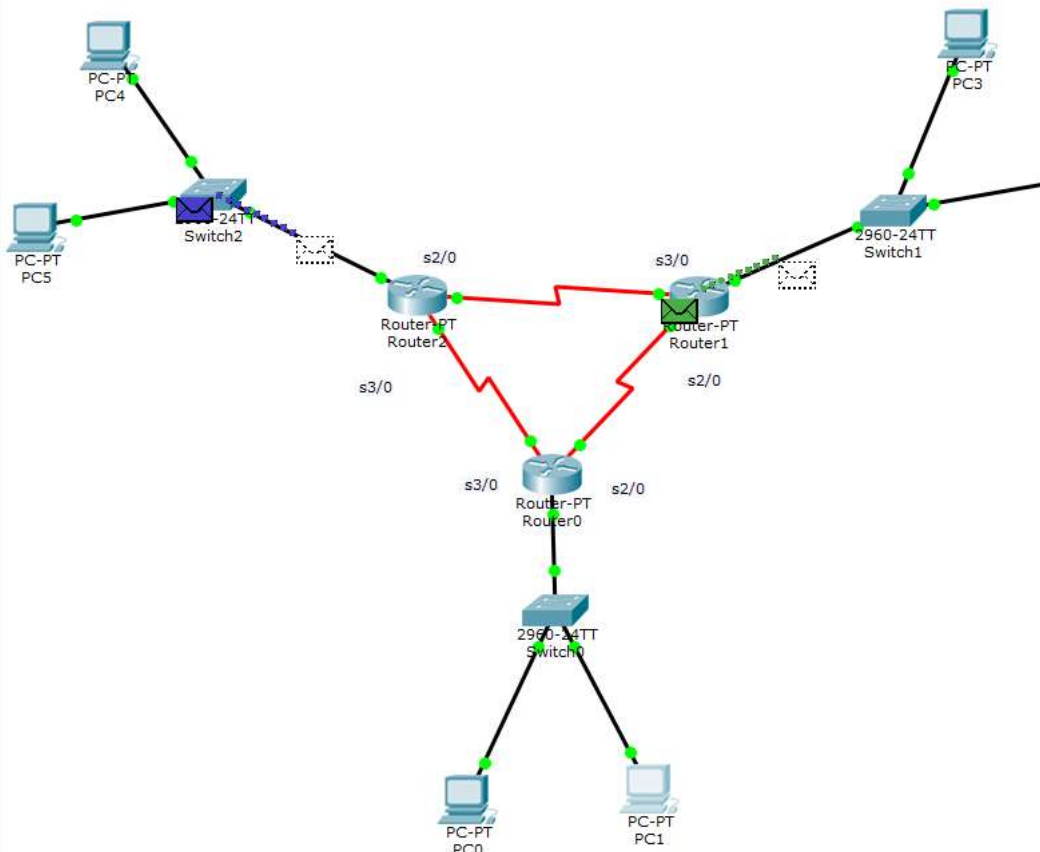
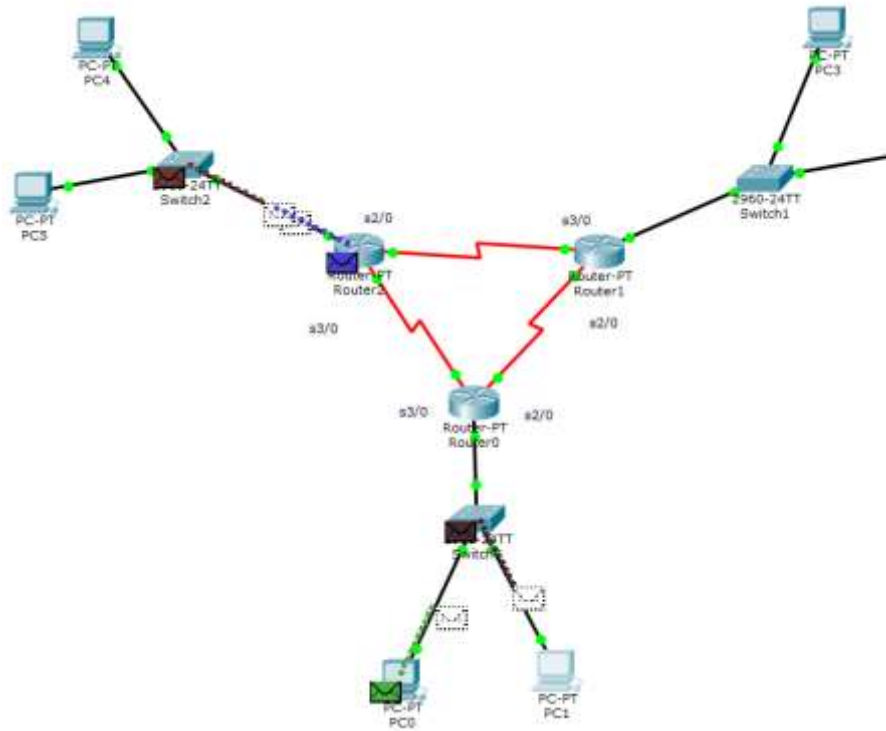
Copy Paste
```

Cuando terminemos todo esto deberían aparecer todas las conexiones en verde



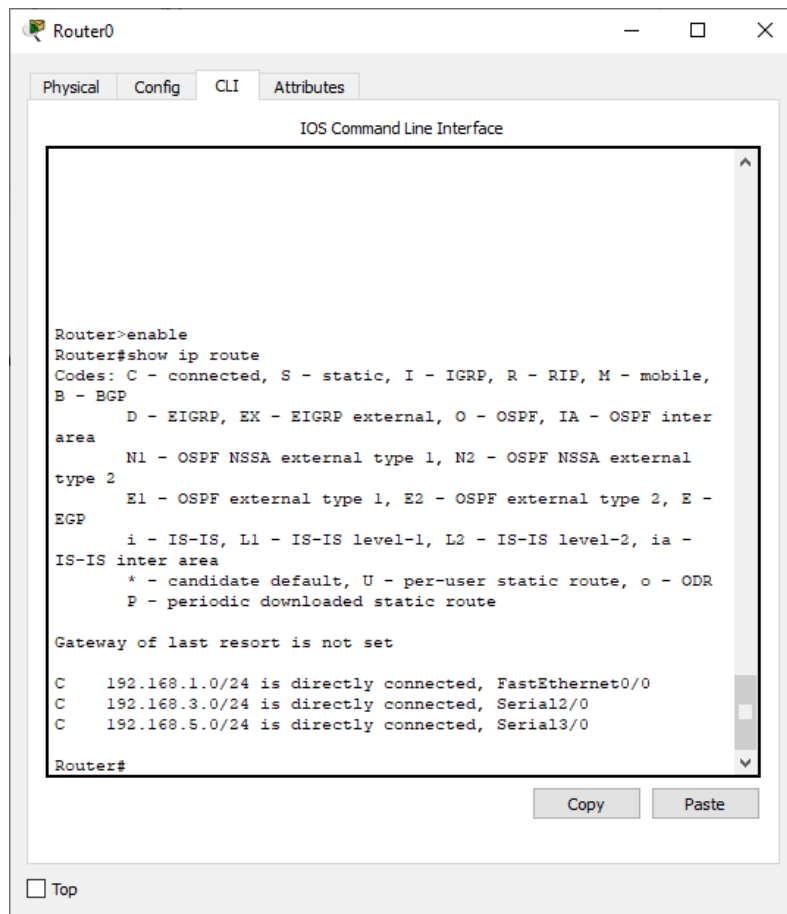
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Una vez configurada toda la estructura enviamos ping de un ordenador a otro de la misma red, desde el ping de un ordenador de la red 192.168.1.0 a uno de la red 192.168.3.0, lo mismo, pero de un ordenador de la red 192.168.1.0 a otro de la red 192.168.5.0.



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Ahora mostraremos las tablas de enrutamiento de los 3 routers que se encuentran en la red.



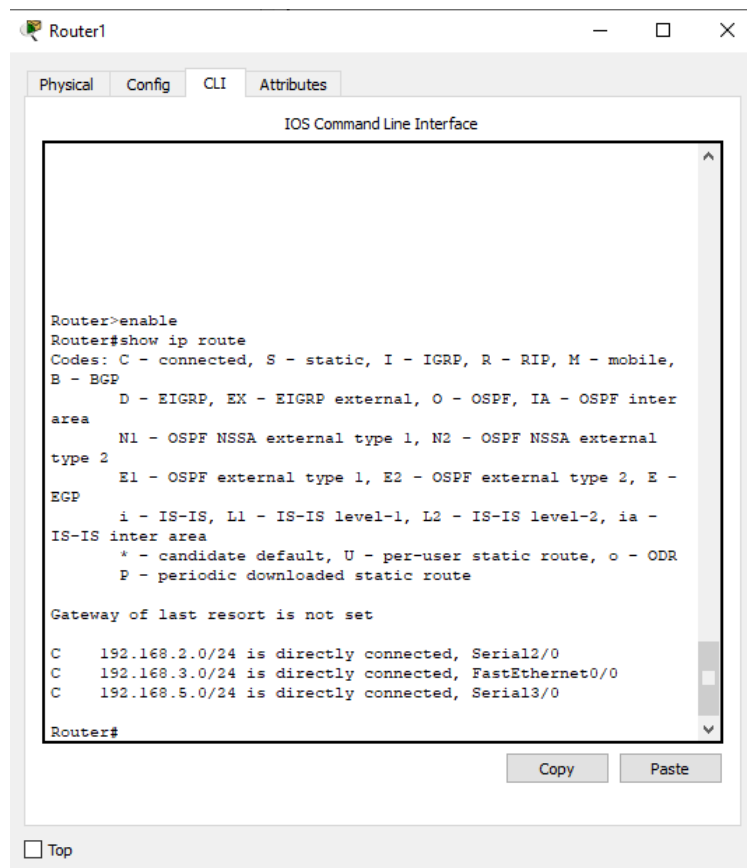
The screenshot shows a window titled 'Router0' with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The command 'Router>enable' has been entered, followed by 'Router#show ip route'. The output shows the routing table for Router0, listing three directly connected routes: 192.168.1.0/24 on FastEthernet0/0, 192.168.3.0/24 on Serial2/0, and 192.168.5.0/24 on Serial3/0. The window also includes a 'Top' button and 'Copy' and 'Paste' buttons.

```
Router0
Physical Config CLI Attributes
IOS Command Line Interface

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
C    192.168.3.0/24 is directly connected, Serial2/0
C    192.168.5.0/24 is directly connected, Serial3/0
Router#
```



The screenshot shows a window titled 'Router1' with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The command 'Router>enable' has been entered, followed by 'Router#show ip route'. The output shows the routing table for Router1, listing three directly connected routes: 192.168.2.0/24 on Serial2/0, 192.168.3.0/24 on FastEthernet0/0, and 192.168.5.0/24 on Serial3/0. The window also includes a 'Top' button and 'Copy' and 'Paste' buttons.

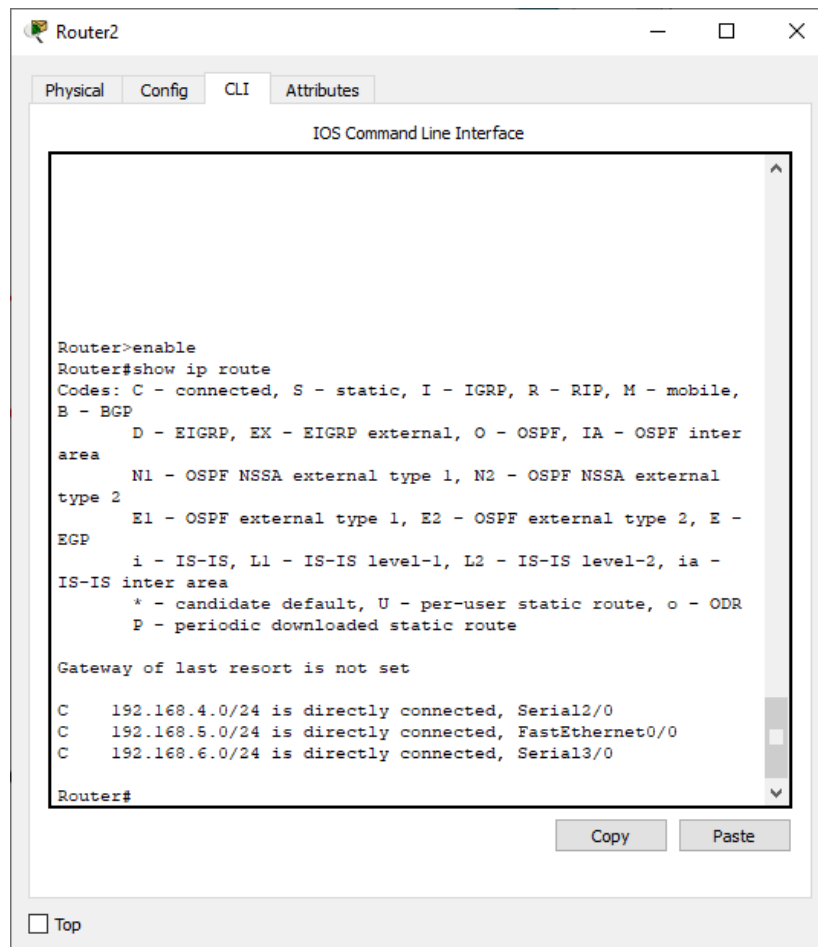
```
Router1
Physical Config CLI Attributes
IOS Command Line Interface

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    192.168.2.0/24 is directly connected, Serial2/0
C    192.168.3.0/24 is directly connected, FastEthernet0/0
C    192.168.5.0/24 is directly connected, Serial3/0
Router#
```

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The screenshot shows a window titled 'Router2' with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The text shows the user entering 'enable' and then 'show ip route'. The output lists the codes for different route types: 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), and P (periodic downloaded static route). It also states 'Gateway of last resort is not set' and lists three connected routes: 192.168.4.0/24 on Serial2/0, 192.168.5.0/24 on FastEthernet0/0, and 192.168.6.0/24 on Serial3/0. The prompt returns to 'Router#'. There are 'Copy' and 'Paste' buttons at the bottom right of the CLI window.

```
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

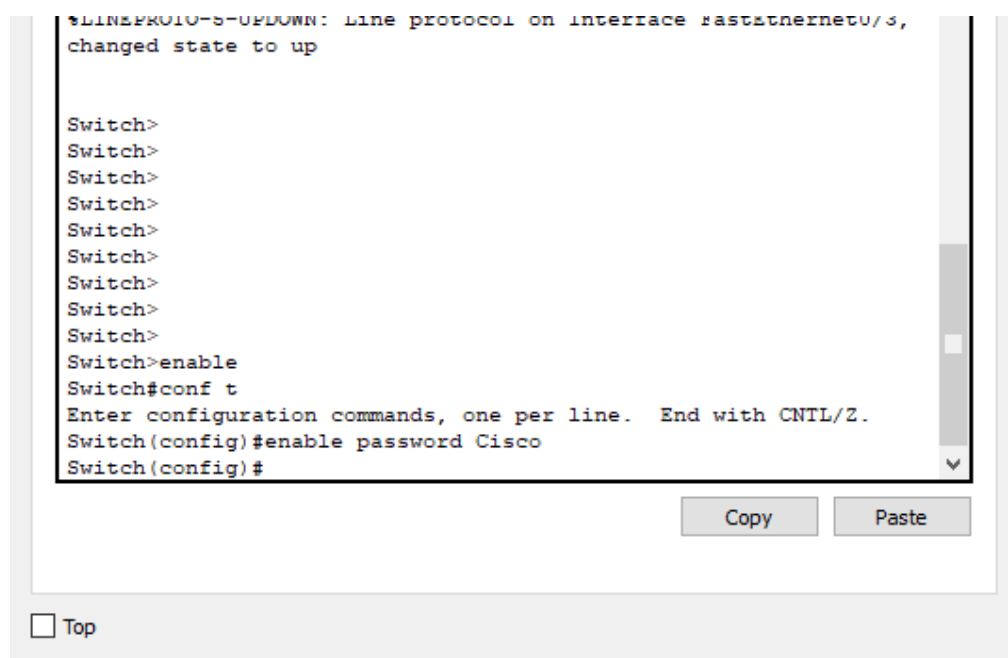
Gateway of last resort is not set

C     192.168.4.0/24 is directly connected, Serial2/0
C     192.168.5.0/24 is directly connected, FastEthernet0/0
C     192.168.6.0/24 is directly connected, Serial3/0

Router#
```

Y por último las capturas de pantalla de los nombre y contraseñas que se han cambiado en los switches de las distintas redes

Switch 0



The screenshot shows a window titled 'Switch 0' with a CLI tab. The text shows the user entering 'enable' and then 'conf t'. The output shows the prompt changing to 'Switch(config)#'. The user then enters 'enable password Cisco'. The prompt returns to 'Switch(config)#'. There are 'Copy' and 'Paste' buttons at the bottom right of the CLI window.

```
*LINEPROTO-5-UPDOWN: Line protocol on interface FastEthernet0/3,
changed state to up

Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>enable
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#enable password Cisco
Switch(config)#
```

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Switch 1

```
changed state to down

%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3,
changed state to up

Switch>enable
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#enable password cisco
Switch(config)#
```

☐ Top

Switch 2

```
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3,
changed state to up

Switch>enable
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#enable password cisco
Switch(config)#
```

☐ Top