Atividade 6
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Etapa 1

Nesse exercício serão apresentadas etapas de configuração onde duas redes locais interligadas por roteadores usarão serviços de rede como HTTP, FTP, DNS e DHCP.

Em cada etapa serão definidas atividades que evoluem para uma configuração onde os serviços se tornam operacionais.

1) Etapa1-Planejamento das rotas e configuração das redes locais

a) Planejamento das redes identificando os ids das redes.
b) As redes locais estam caracterizadas por um switch conectado a uma interface de um roteador. Essa interface é chamada de default gateway e pertence a faixa de endereços IP da Rede Local do switch.
3) Cada enlace entre dois roteadores é caracterizado com um id de rede.
4) No enlace entre os dois roteadores serão usados dois ips para identificar cada lado do enlace. Os dois ips pertencem a faixa de ips da rede que está associada ao enlace.
5) No planejamento da rede deve constar as rotas de cada roteador onde é explicitado o salto a ser feito para alcançar determinada rede. Esse mapeamento das rotas será usado no roteamento estático.
6) As rotas estáticas de cada Roteador estam assim definidas:

R1

192.168.30.0/24 via 192.168.10.2

192.168.40.0/24 via 192.168.20.2

192.168.60.0/24 via 192.168.10.2

192.168.60.0/24 via 192.168.20.2

R2

192.168.20.0/24 via 192.168.10.1

192.168.40.0/24 via 192.168.30.2

192.168.50.0/24 via 192.168.10.1

192.168.60.0/24 via 192.168.30.2

R3

192.168.10.0/24 via 192.168.20.1

192.168.30.0/24 via 192.168.40.2

192.168.60.0/24 via 192.168.40.2

192.168.50.0/24 via 192.168.20.1

R4

192.168.10.0/24 via 192.168.30.1

192.168.20.0/24 via 192.168.40.1

192.168.50.0/24 via 192.168.30.1

192.168.50.0/24 via 192.168.40.1

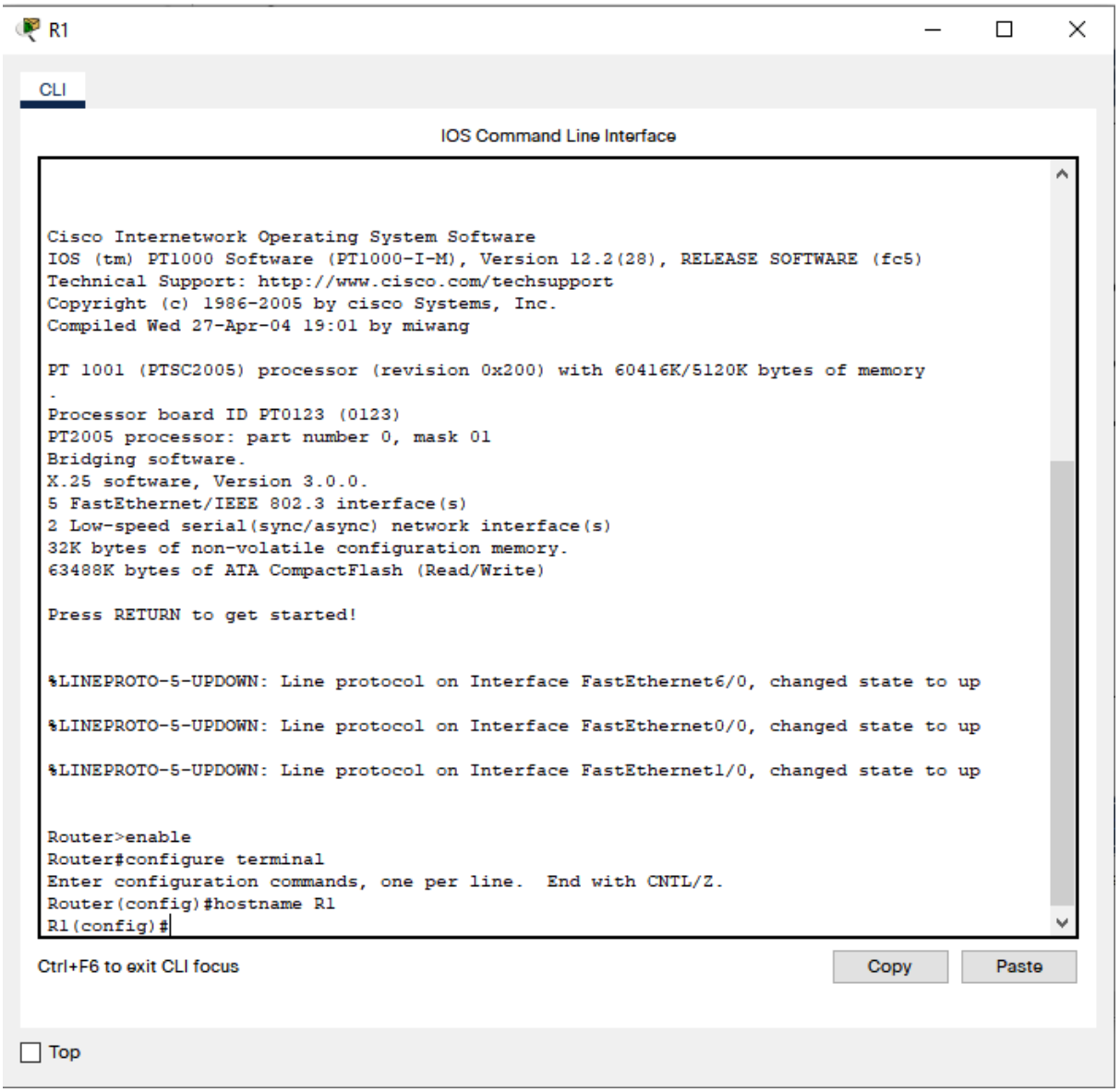
Etapa 2

Nessa etapa faremos a configuração das interfaces dos roteadores para viabilizar a conectividade entre os roteadores envolvidos entre as duas redes locais.

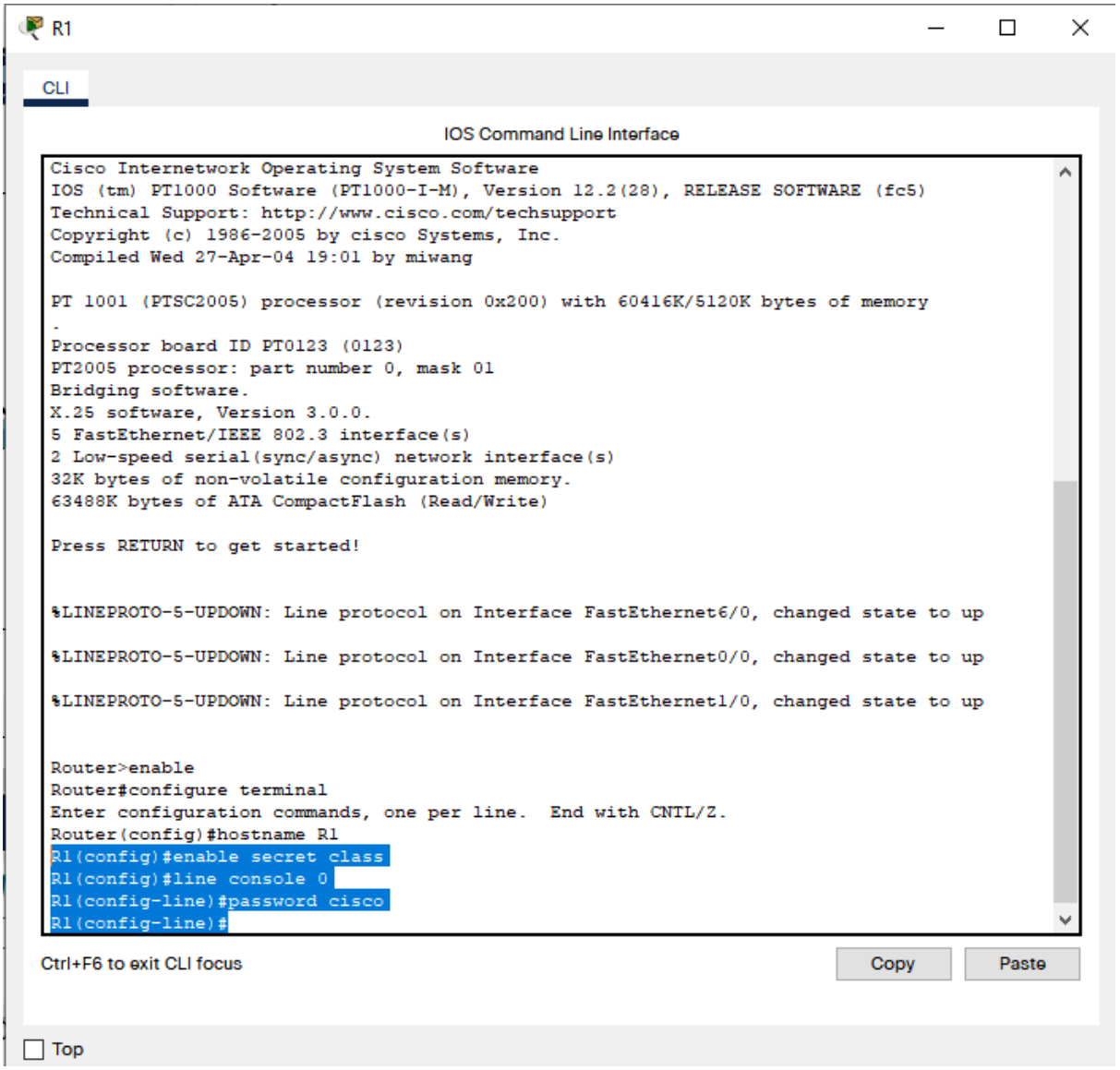
Consultar Módulo-10 Configuração Básica do Roteador.

1) Configuração das interfaces do Roteador R1

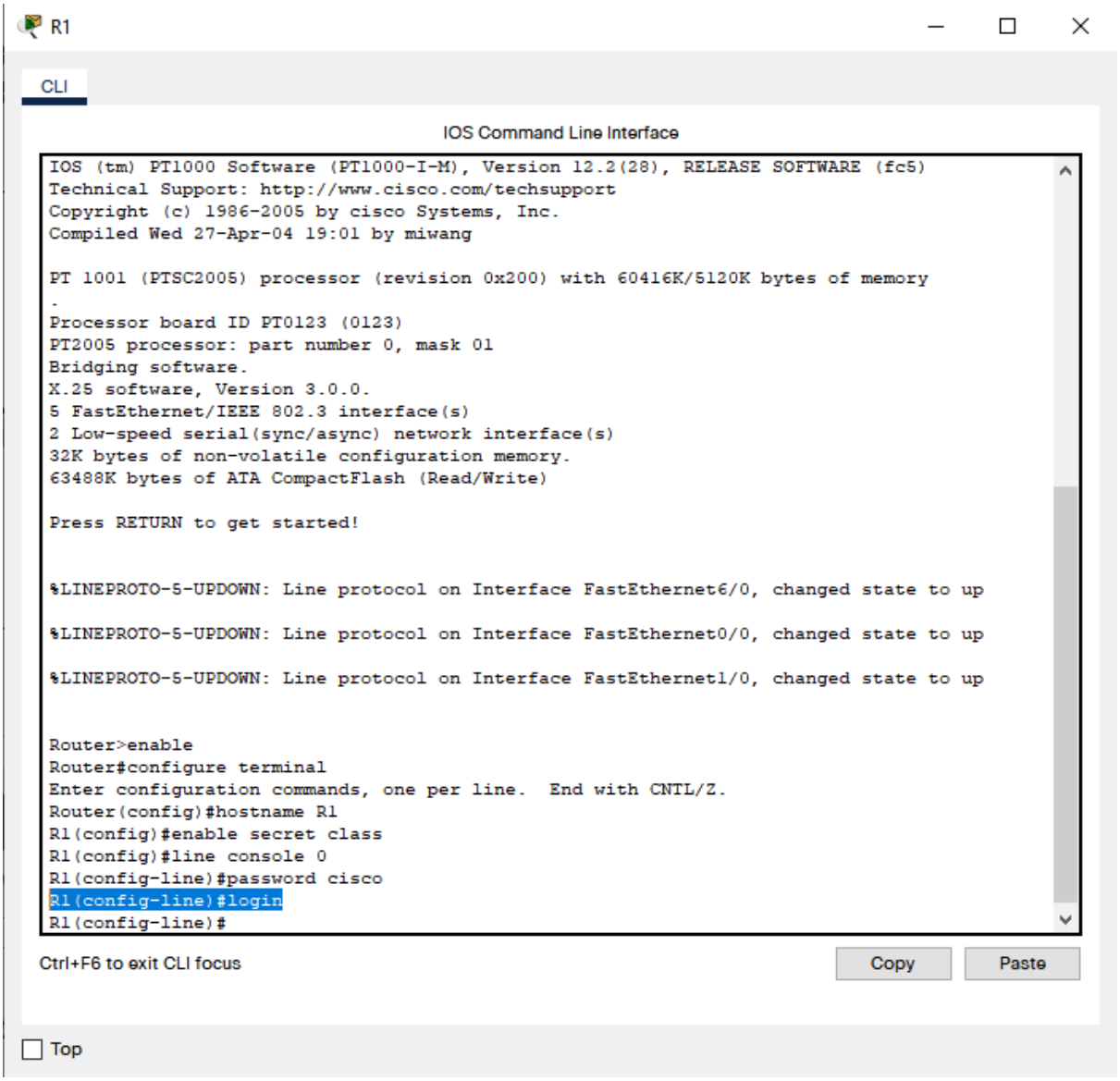
```
** Configuração Básica do Roteador **
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname R1
R1(config)#
```



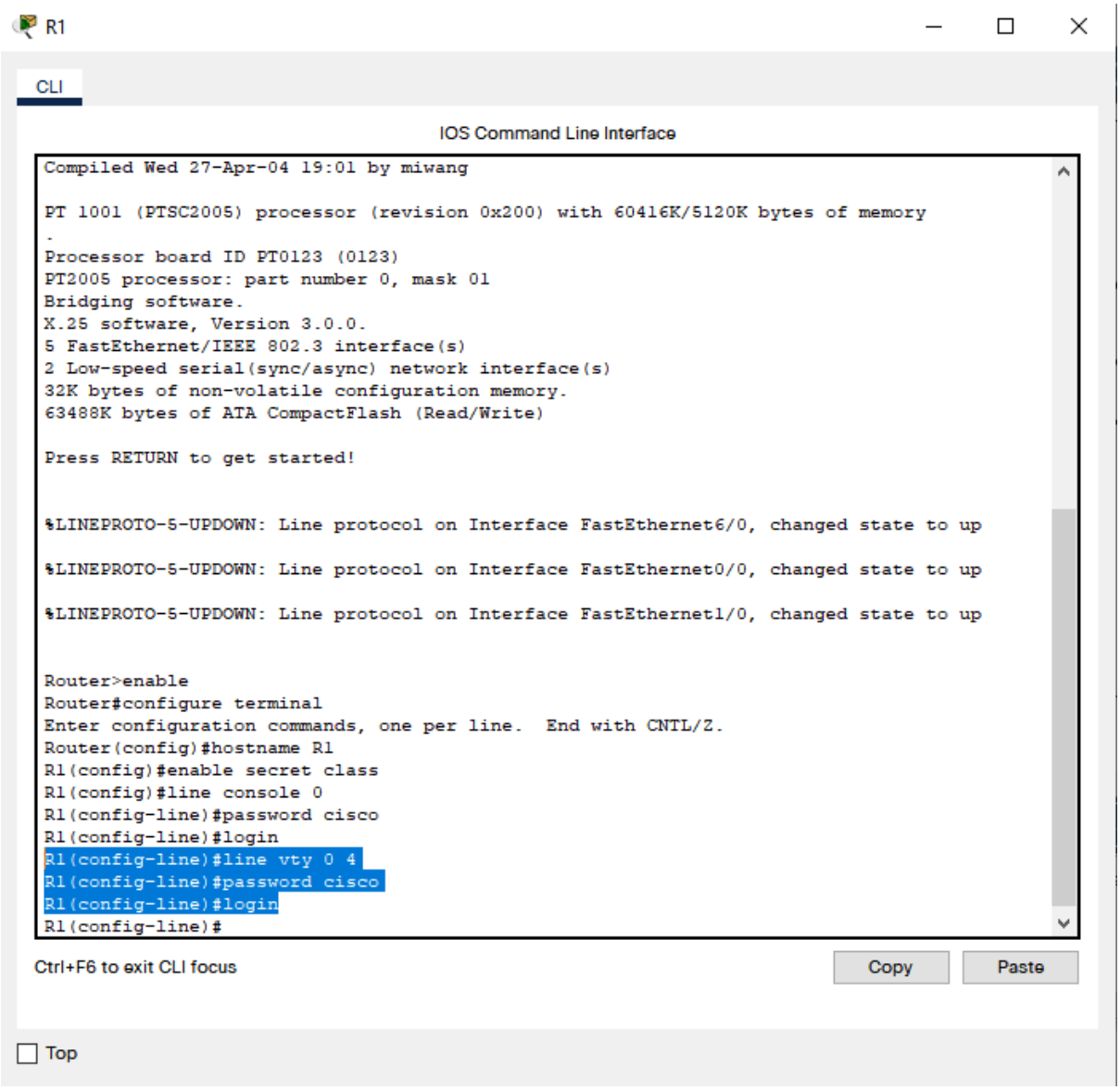
**** Habilita senha do modo privilegiado ****
R1(config)#enable secret class
R1(config)#line console 0
R1(config-line)#password cisco



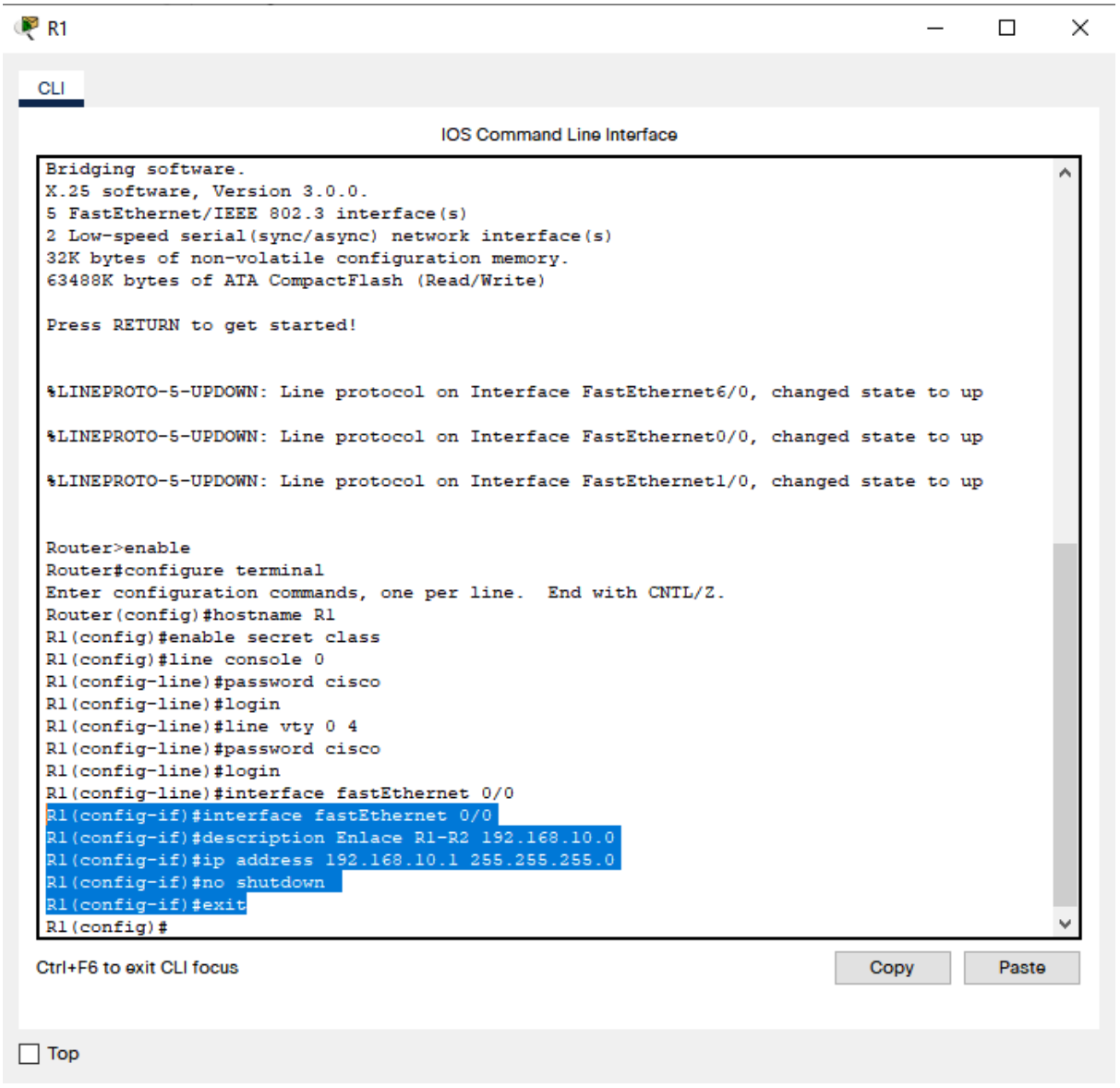
**** Permite tentativa de acesso remoto ****
R1(config-line)#login



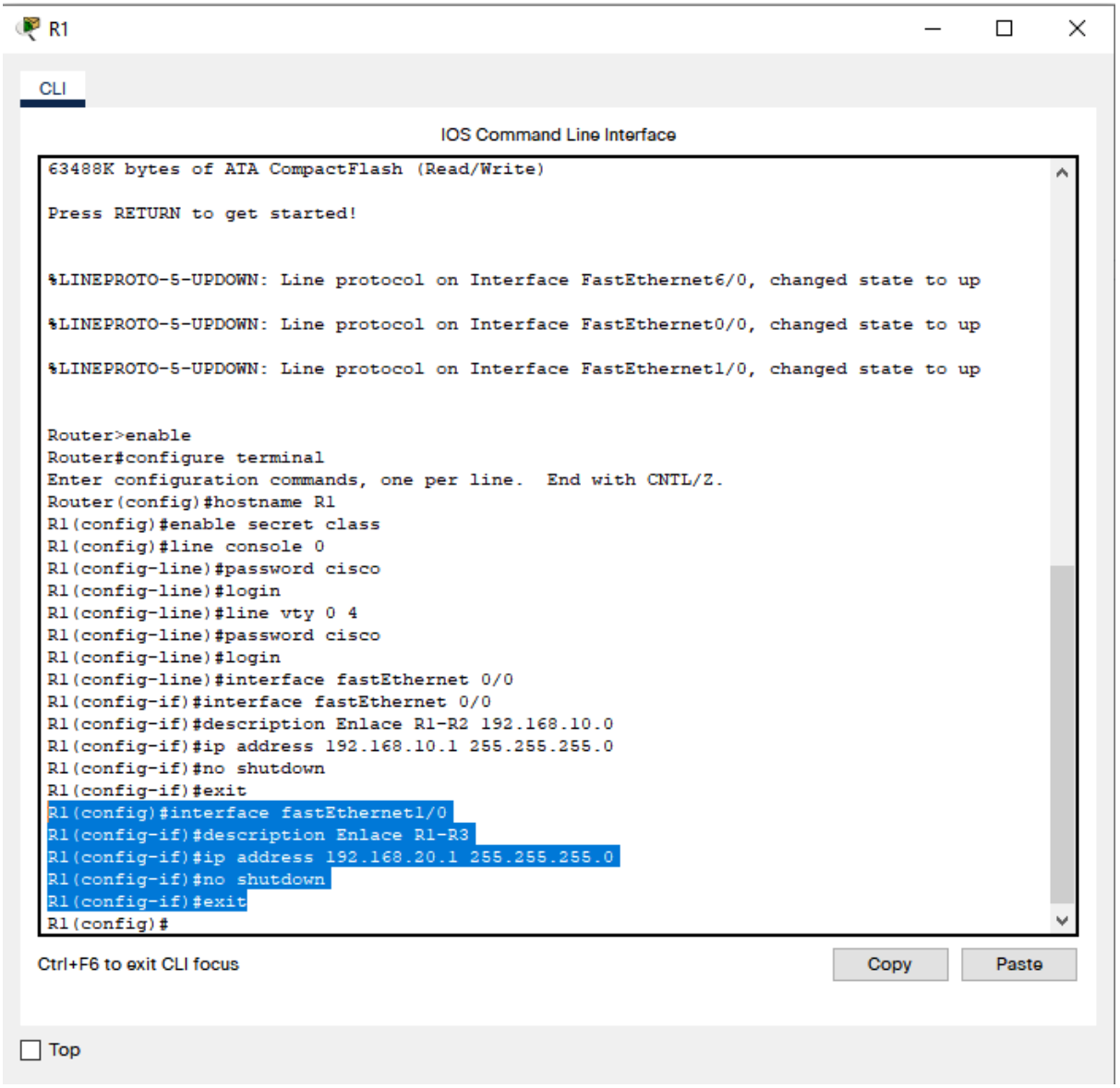
**** Configuração das linhas vty para acesso remoto**
**** ao roteador usando o protocolo Telnet (porta 23)**
R1(config-line)#line vty 0 4
R1(config-line)#password cisco
R1(config-line)#login



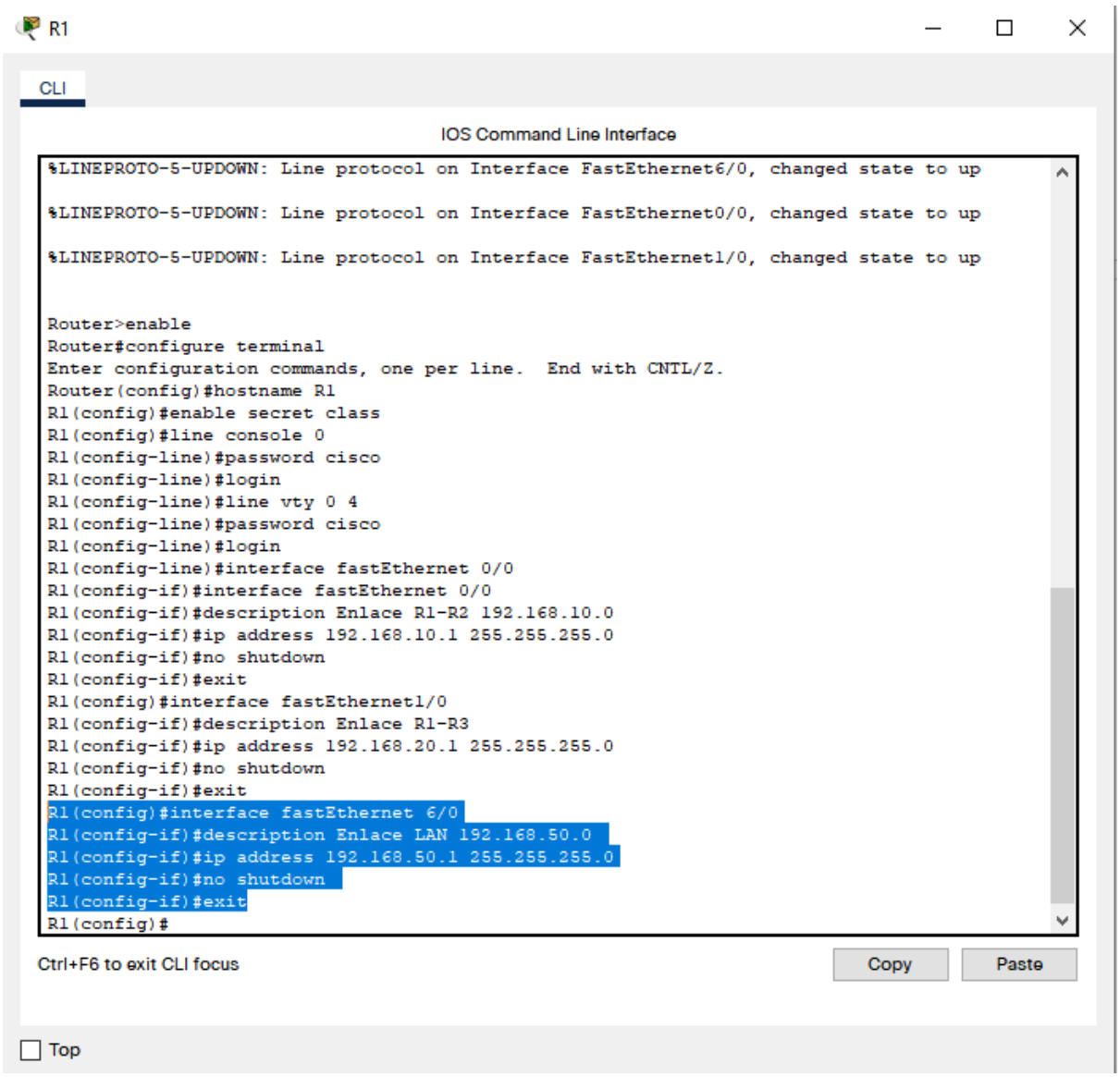
**** Configurar a interface FastEthernet0/0**
R1(config)#interface fastEthernet 0/0
R1(config-if)#description Enlace R1-R2 192.168.10.0
R1(config-if)#ip address 192.168.10.1 255.255.255.0
**** Ativa a interface f 0/0**
R1(config-if)#no shutdown
R1(config-if)#exit



**** Configurar a interface fastEthernet 1/0 ****
R1(config)#interface fastEthernet1/0
R1(config-if)#description Enlace R1-R3
R1(config-if)#ip address 192.168.20.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit

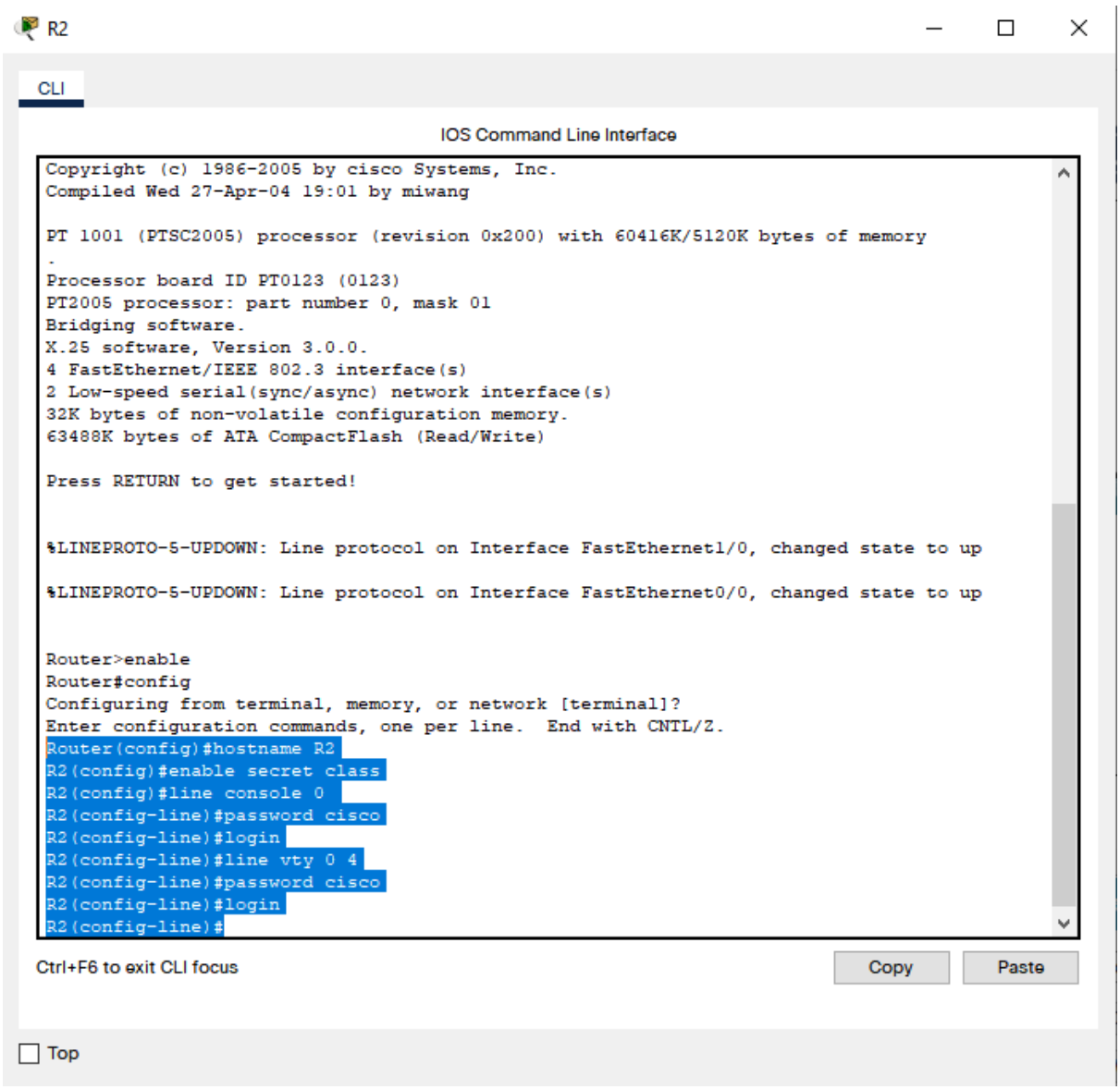


**** Configurar a interface fastEthernet6/0 ****
R1(config)#interface fastEthernet 6/0
R1(config-if)#description Enlace LAN 192.168.50.0
R1(config-if)#ip address 192.168.50.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit

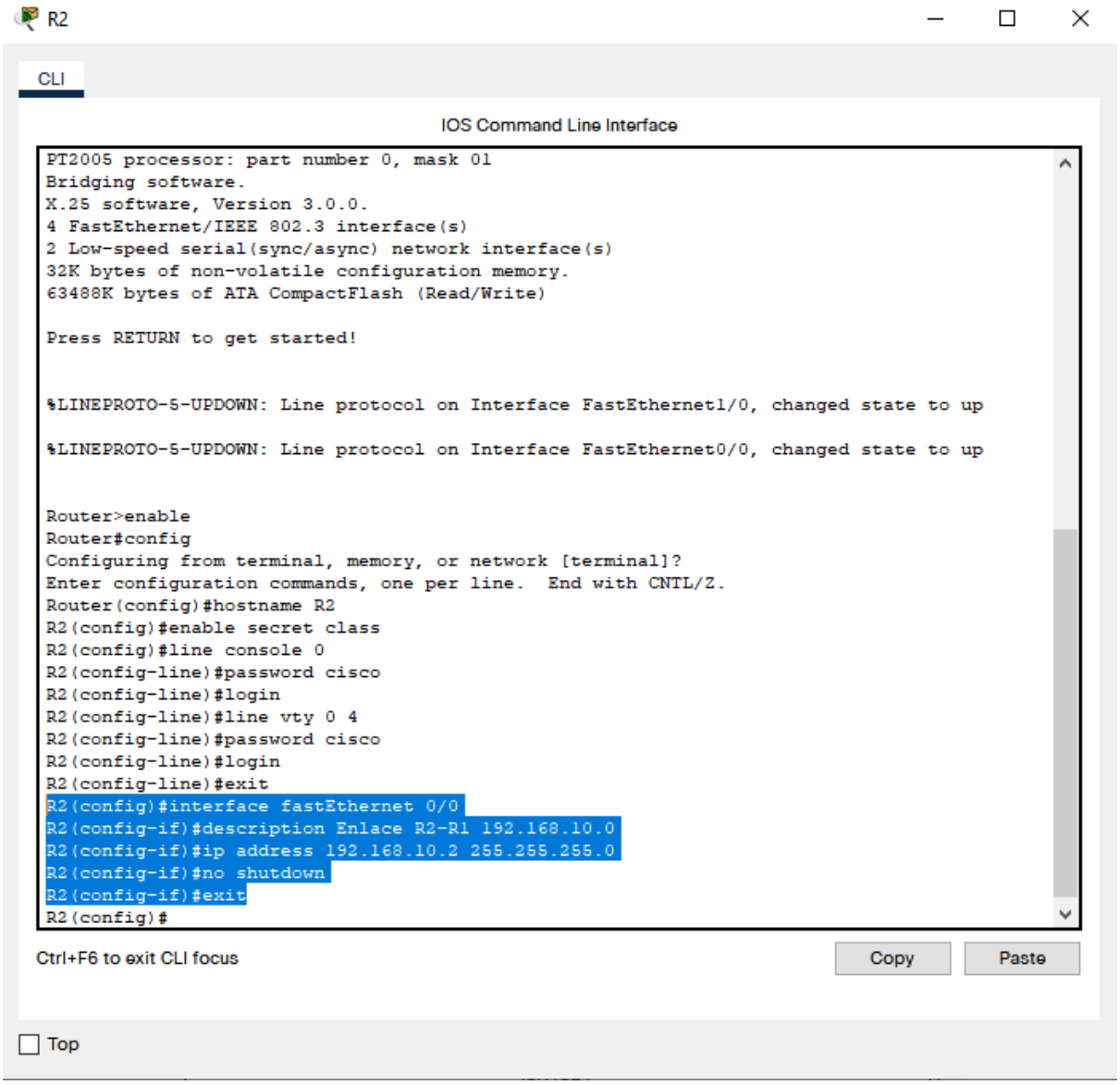


2) Configuração das interfaces do Roteador R2

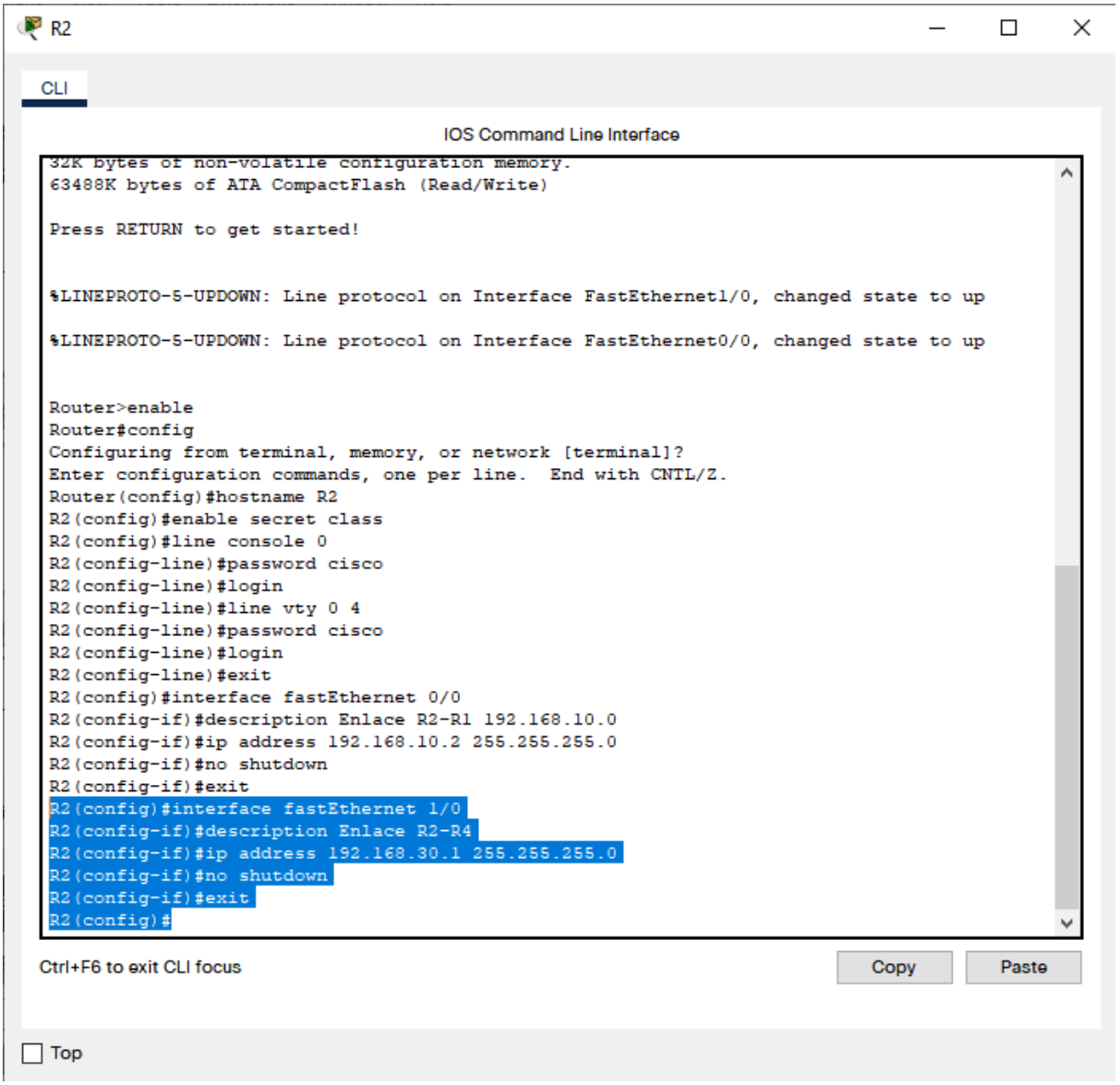
**** Configuração Básica do Roteador ****
Router(config-if)#hostname R2
R2(config)#enable secret class
R2(config)#line console 0
R2(config-line)#password cisco
R2(config-line)#login
R2(config-line)#line vty 0 4
R2(config-line)#password cisco
R2(config-line)#login



**** Configurar a interface fastEthernet 0/0 ****
R2(config)#interface fastEthernet 0/0
R2(config-if)#description Enlace R2-R1 192.168.10.0
R2(config-if)#ip address 192.168.10.2 255.255.255.0
R2(config-if)#no shutdown
R2(config-if)#exit

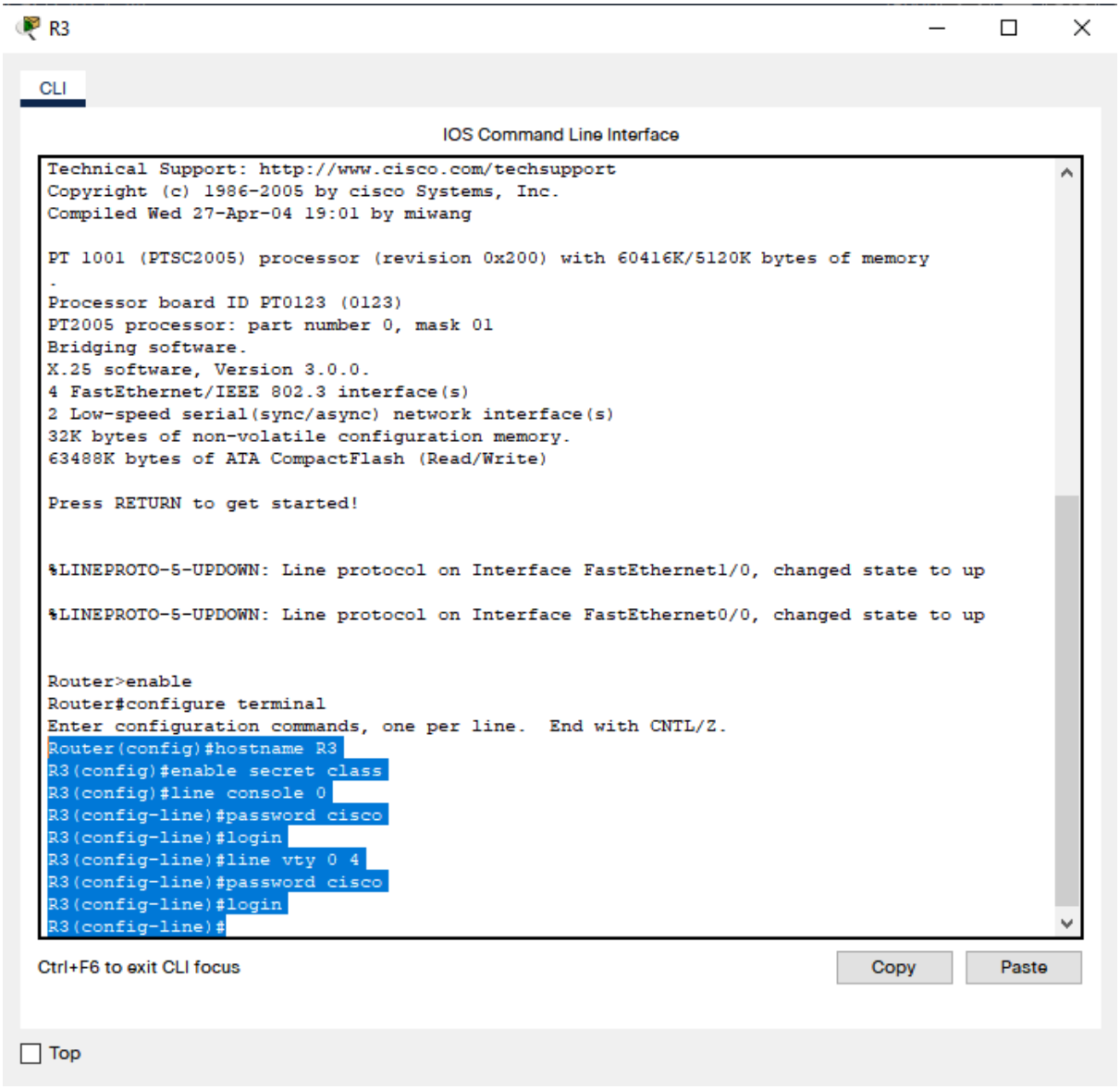


**** Configurar a interface fastEthernet 1/0 ****
R2(config)#interface fastEthernet 1/0
R2(config-if)#description Enlace R2-R4
R2(config-if)#ip address 192.168.30.1 255.255.255.0
R2(config-if)#no shutdown
R2(config-if)#exit

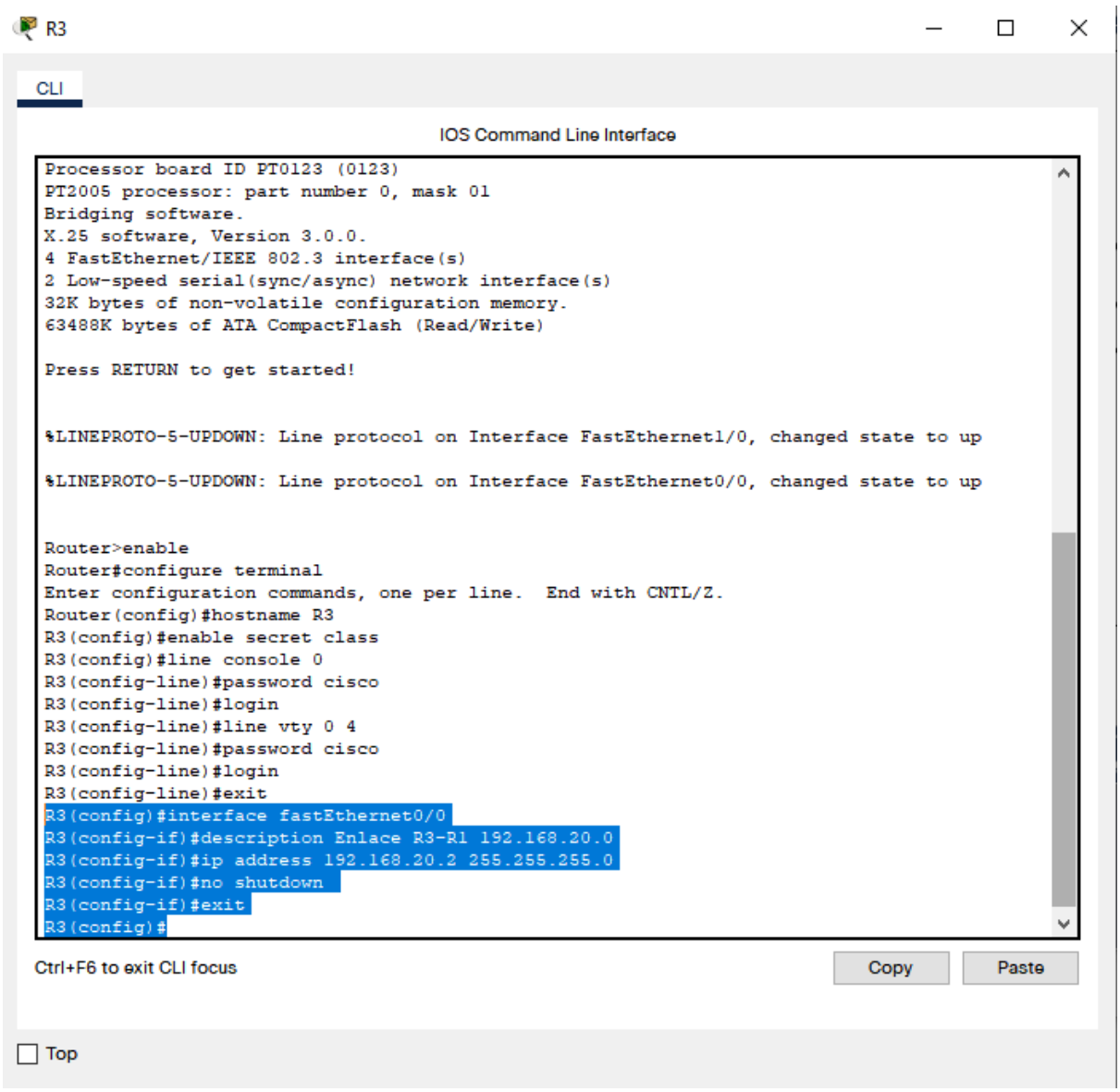


3) Configuração das interfaces do Roteador R3

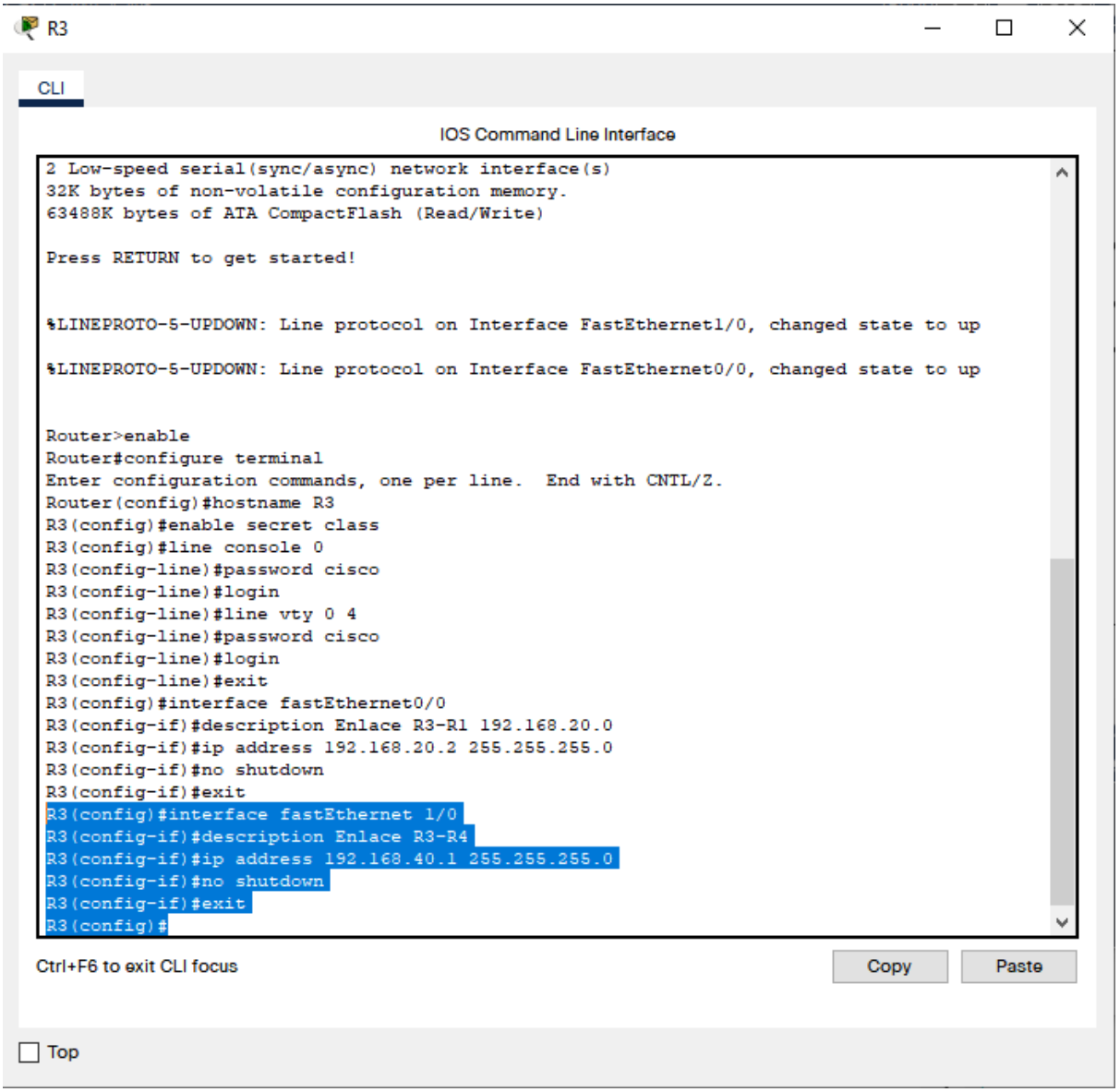
**** Configuração Básica do Roteador ****
Router(config-if)#hostname R3
R3(config)#enable secret class
R3(config)#line console 0
R3(config-line)#password cisco
R3(config-line)#login
R3(config-line)#line vty 0 4
R3(config-line)#password cisco
R3(config-line)#login



**** Configurar a interface fastEthernet0/0**
R3(config)#interface fastEthernet0/0
R3(config-if)#description Enlace R3-R1 192.168.20.0
R3(config-if)#ip address 192.168.20.2 255.255.255.0
**** Ativa a interface ****
R3(config-if)#no shutdown
R3(config-if)#exit

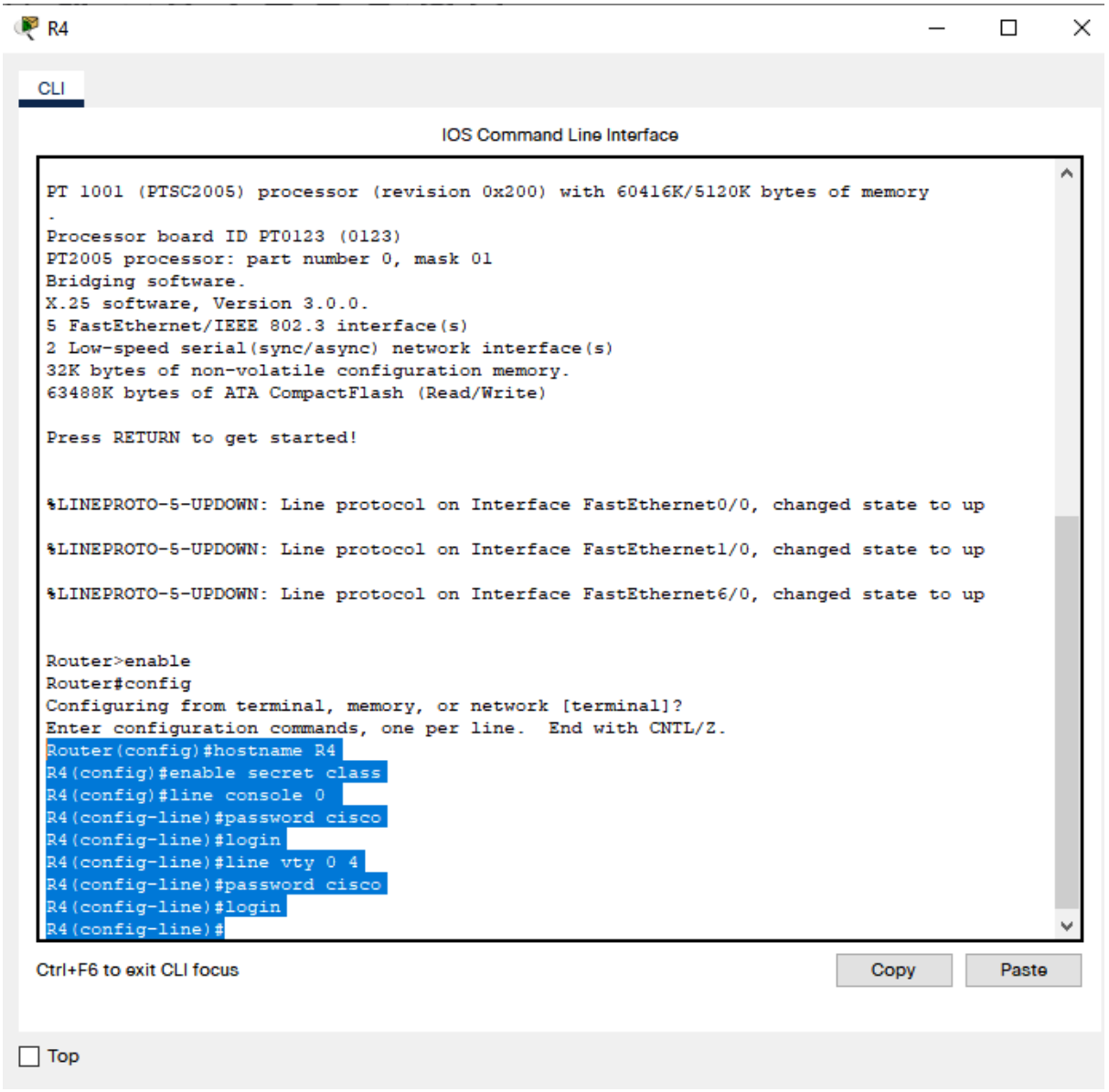


Configurar a interface fastEthernet 1/0
R3(config)#interface fastEthernet 1/0
R3(config-if)#description Enlace R3-R4
R3(config-if)#ip address 192.168.40.1 255.255.255.0
R3(config-if)#no shutdown
R3(config-if)#exit

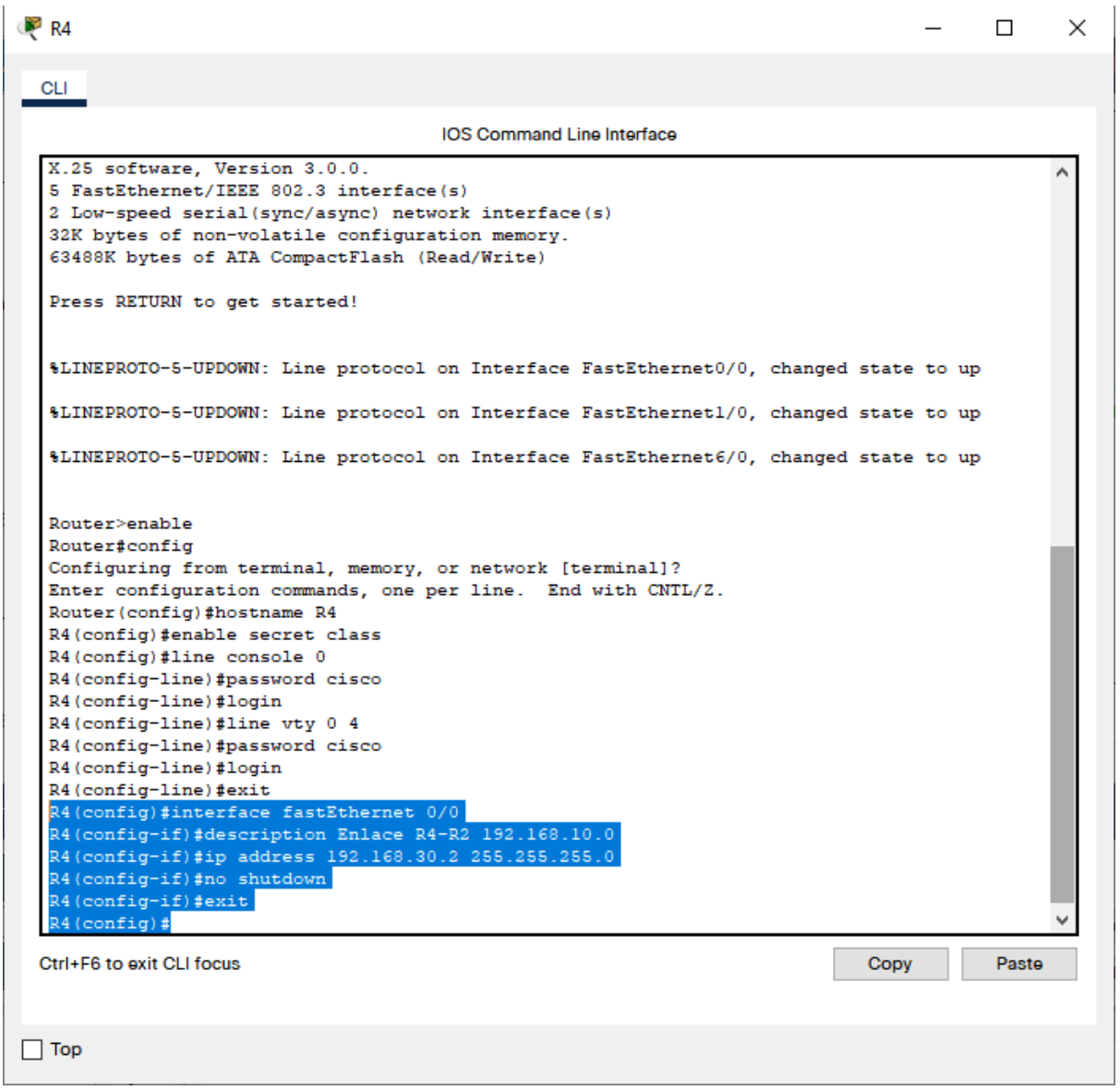


4) Configuração das interfaces do Roteador R4

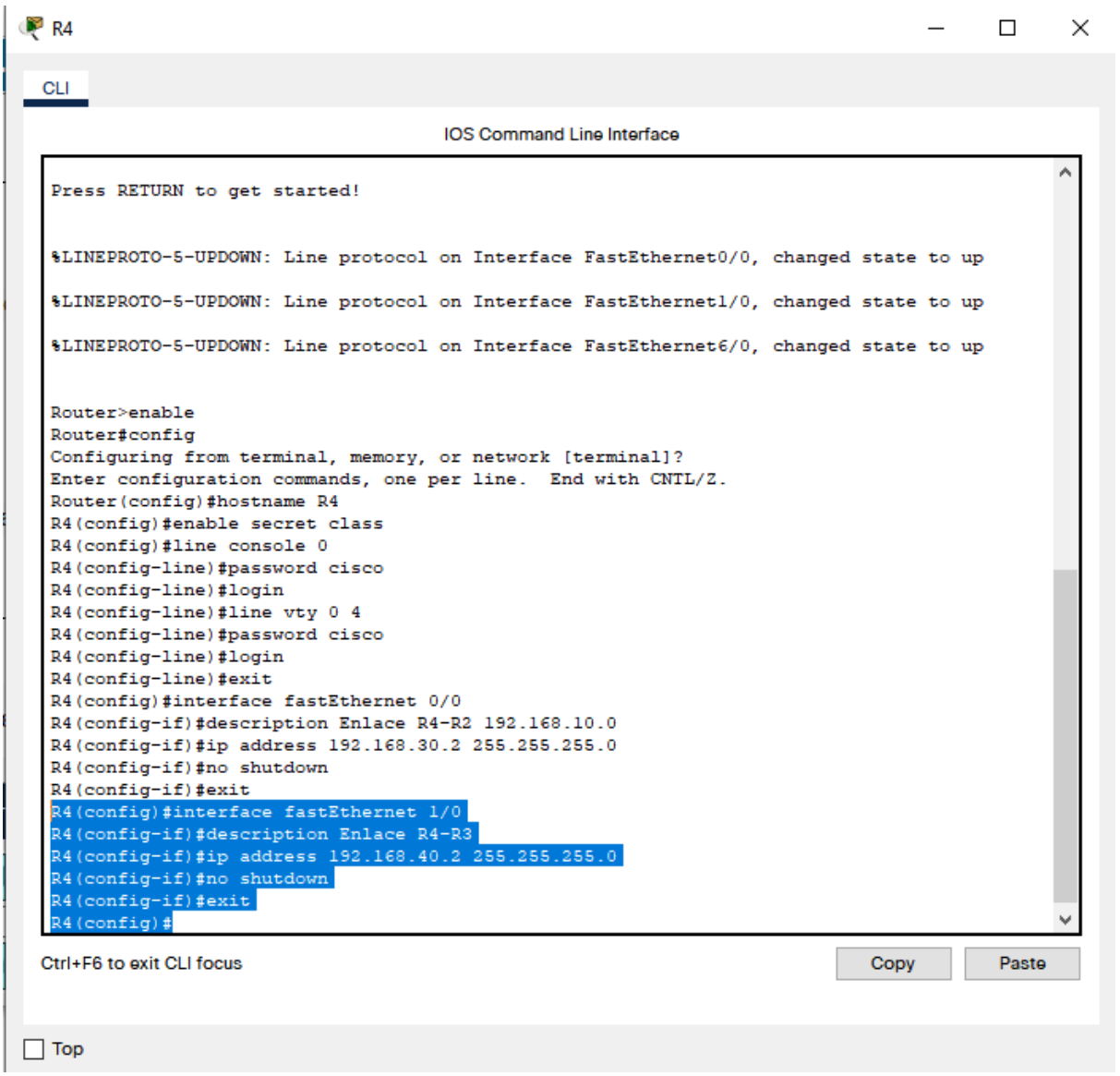
**** Configuração Básica do Roteador ****
Router(config-if)#hostname R4
R4(config)#enable secret class
R4(config)#line console 0
R4(config-line)#password cisco
R4(config-line)#login
R4(config-line)#line vty 0 4
R4(config-line)#password cisco
R4(config-line)#login



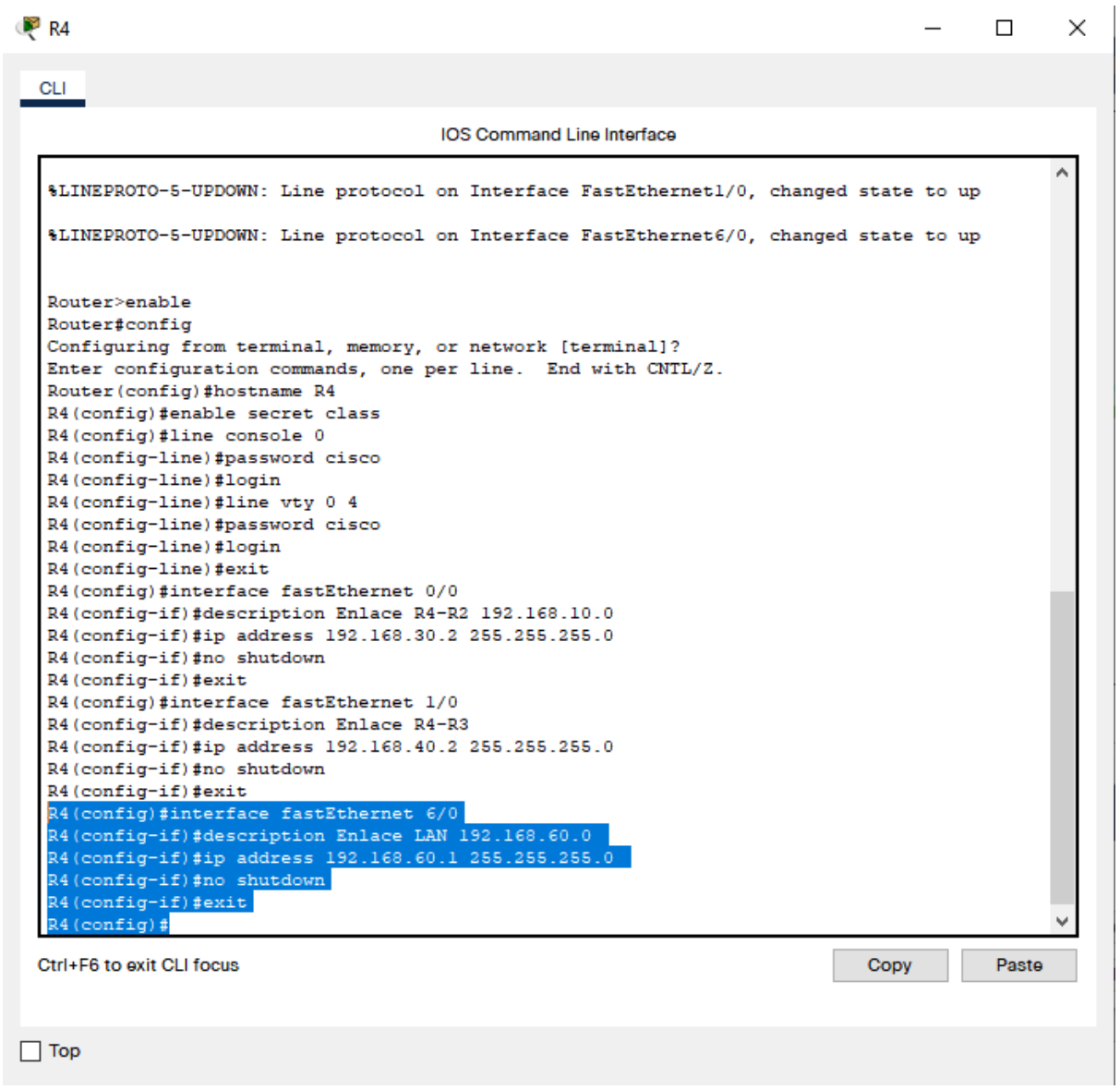
**** Configurar a interface fastEthernet 0/0**
R4(config)#interface fastEthernet 0/0
R4(config-if)#description Enlace R4-R2 192.168.10.0
R4(config-if)#ip address 192.168.30.2 255.255.255.0
**** Ativa a interface**
R4(config-if)#no shutdown
R4(config-if)#exit



**** Configurar a interface fastEthernet 1/0**
R4(config)#interface fastEthernet 1/0
R4(config-if)#description Enlace R4-R3
R4(config-if)#ip address 192.168.40.2 255.255.255.0
R4(config-if)#no shutdown
R4(config-if)#exit



**** Configurar a interface fastEthernet 6/0 ****
R4(config)#interface fastEthernet 6/0
R4(config-if)#description Enlace LAN 192.168.60.0
R4(config-if)#ip address 192.168.60.1 255.255.255.0
R4(config-if)#no shutdown
R4(config-if)#exit



Etapa 3

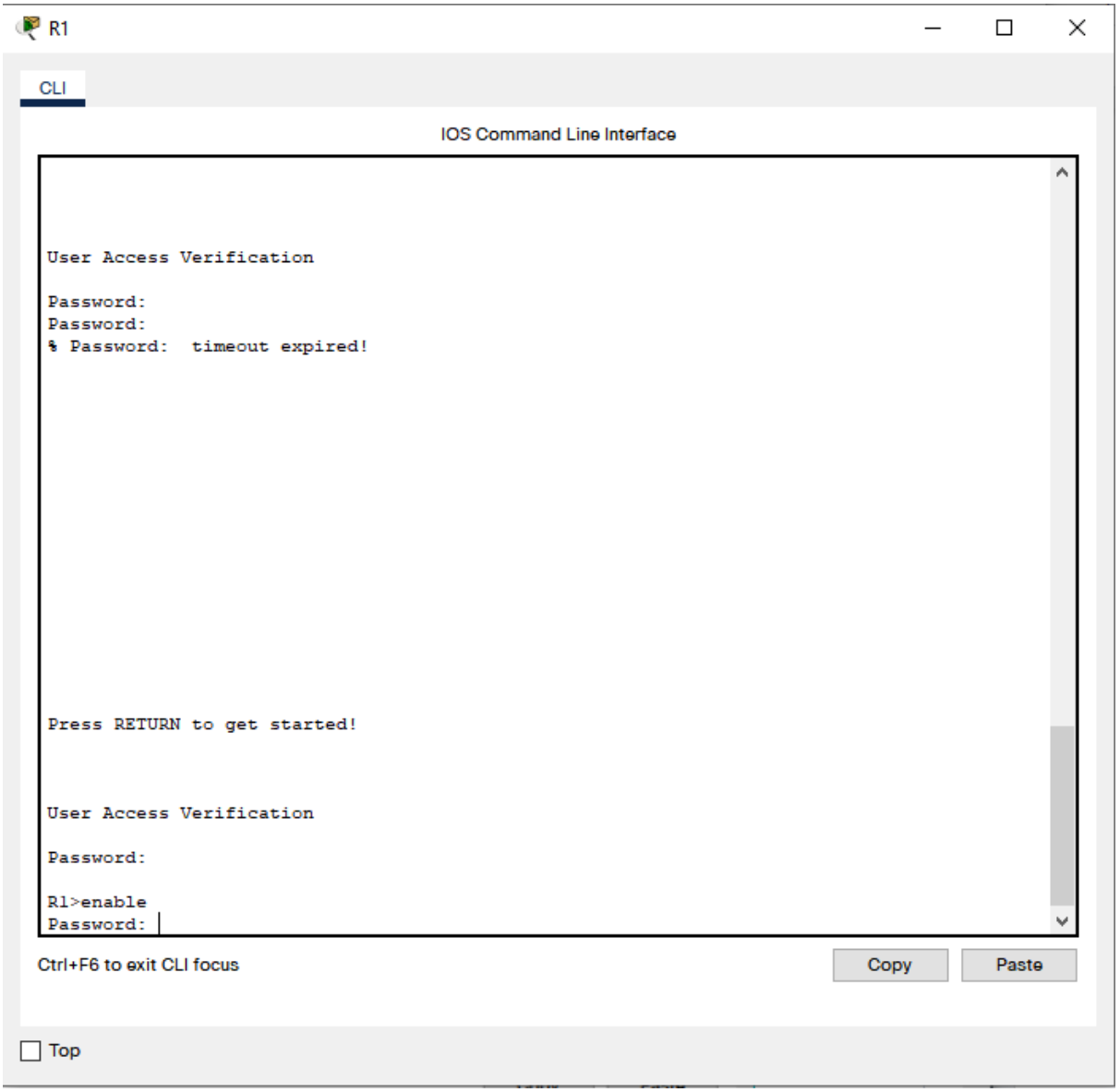
Nessa etapa faremos a configuração das rotas estáticas nos roteadores para viabilizar o encaminhamento de pacotes entre as duas redes locais.

Consultar Módulo-08 Camada de Rede

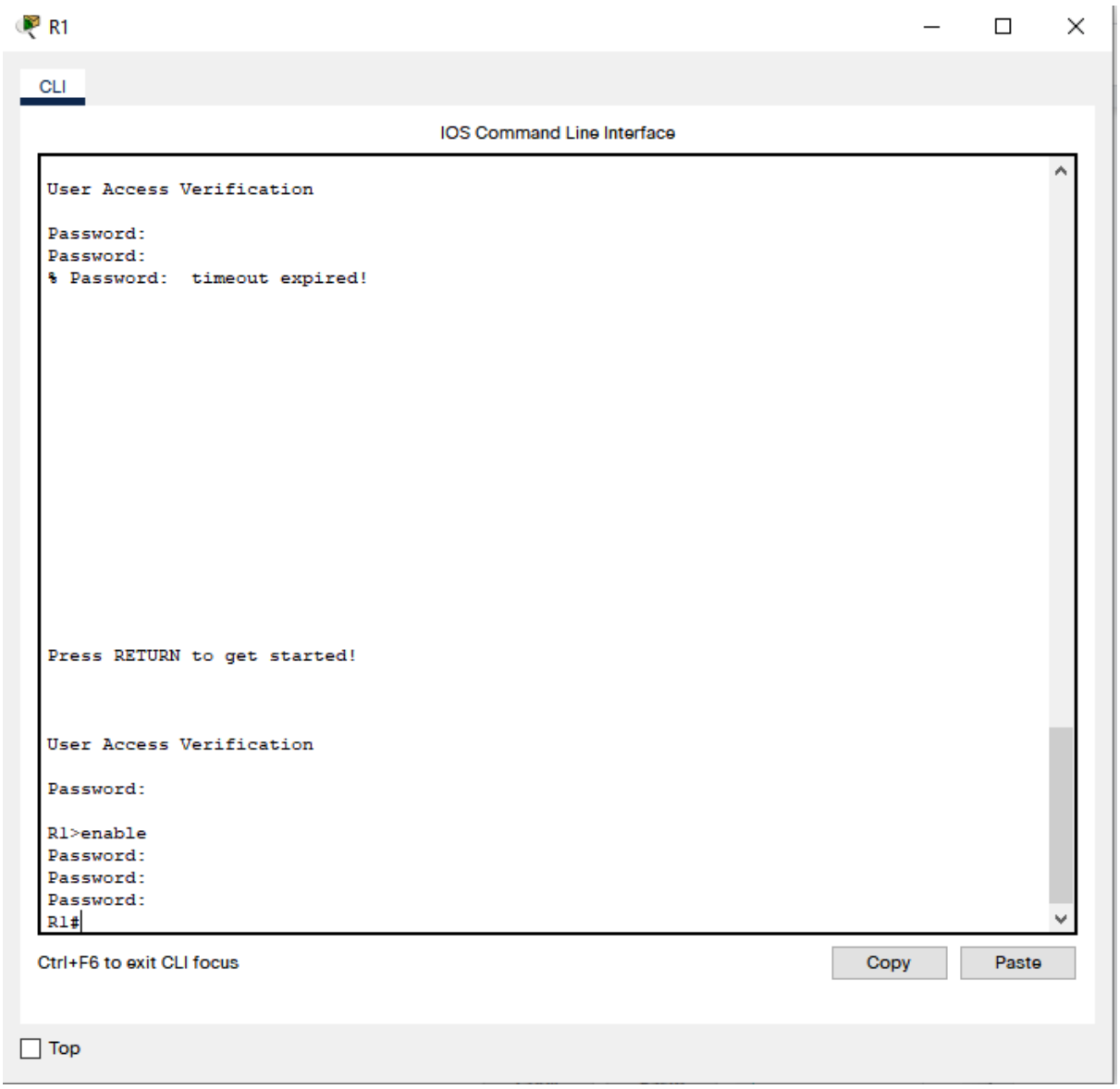
Usar as tabelas de rotas definidas na etapa-1

1) Configurar as rotas do Roteador R1

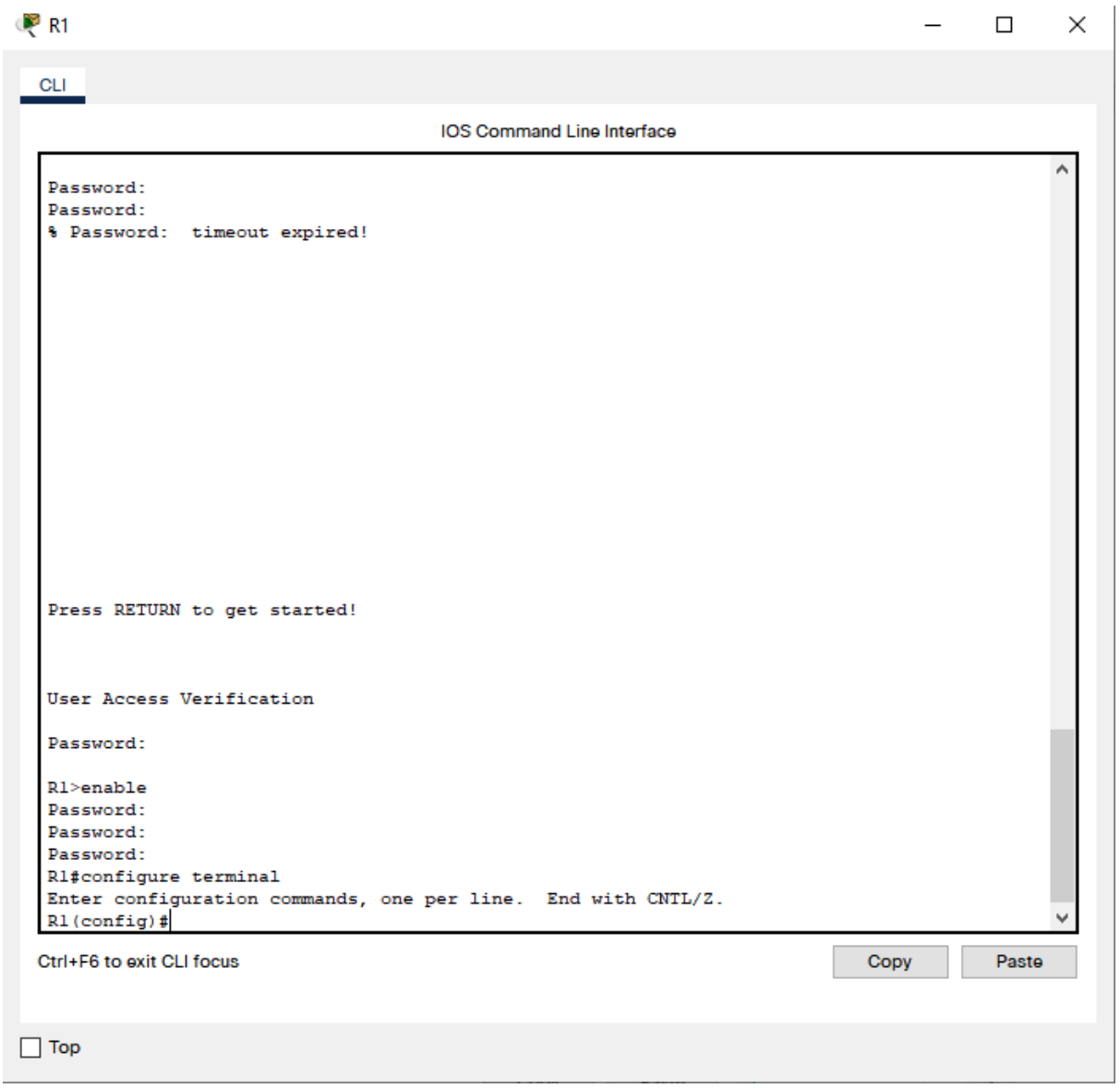
**** Acessar o roteador R1 digitando a senha cisco ****
R1>enable



**** Entrar no modo EXEC Privilegiado com a senha class ****
R1#

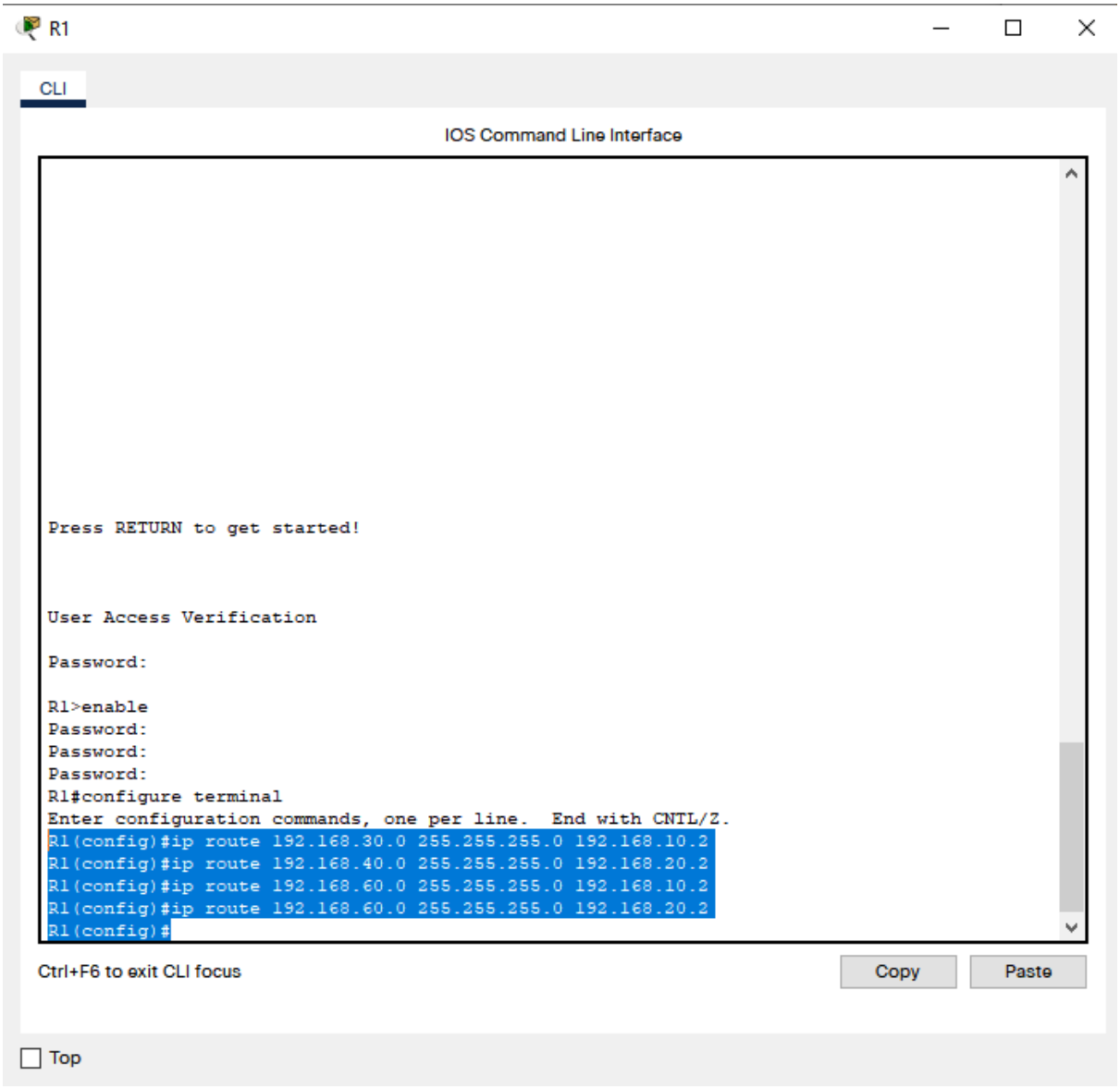


**** Entrar no modo de Configuração Global ****
R1#configure terminal
R1(config)#

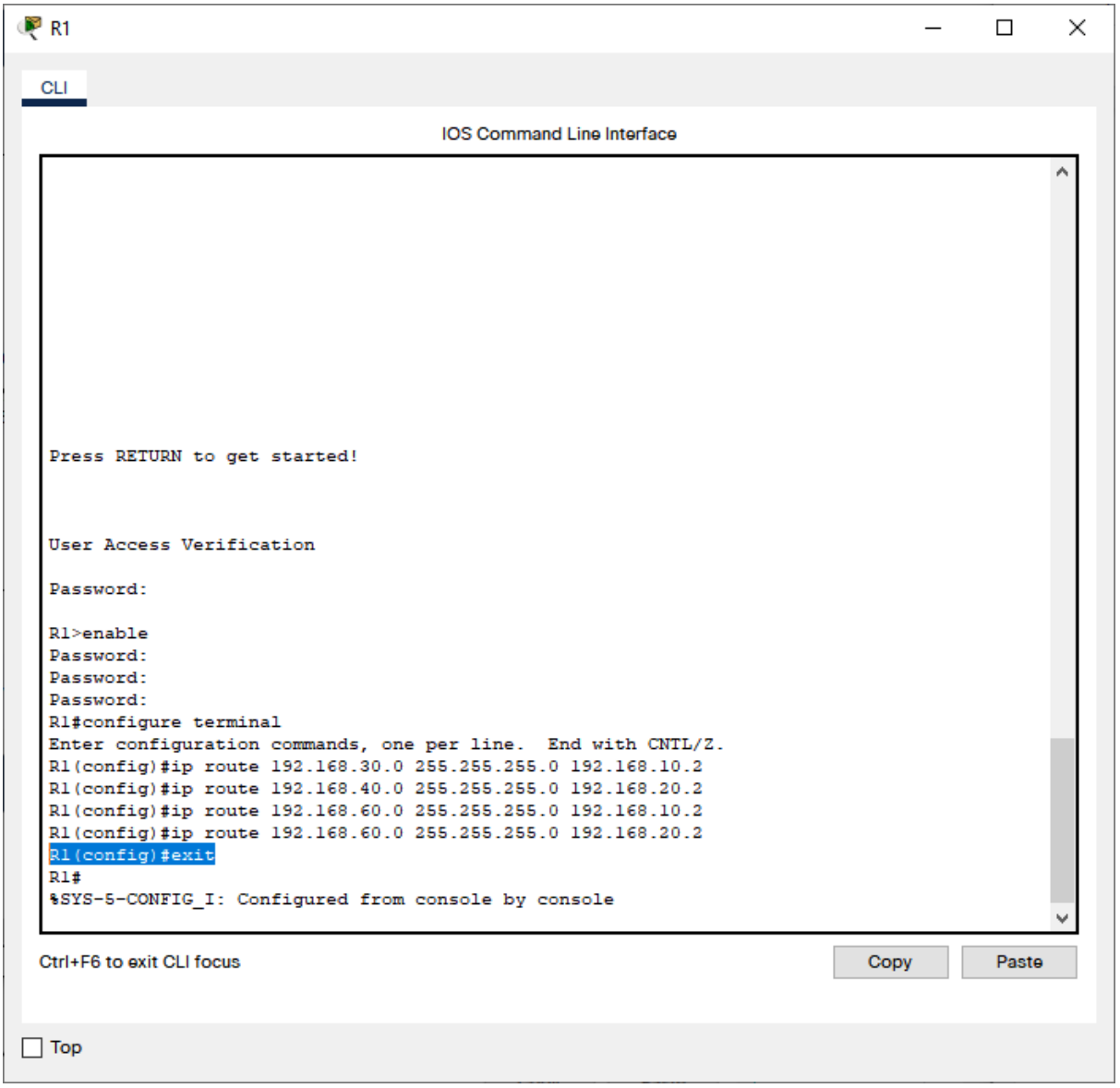


**** Configurar as rotas estáticas ****

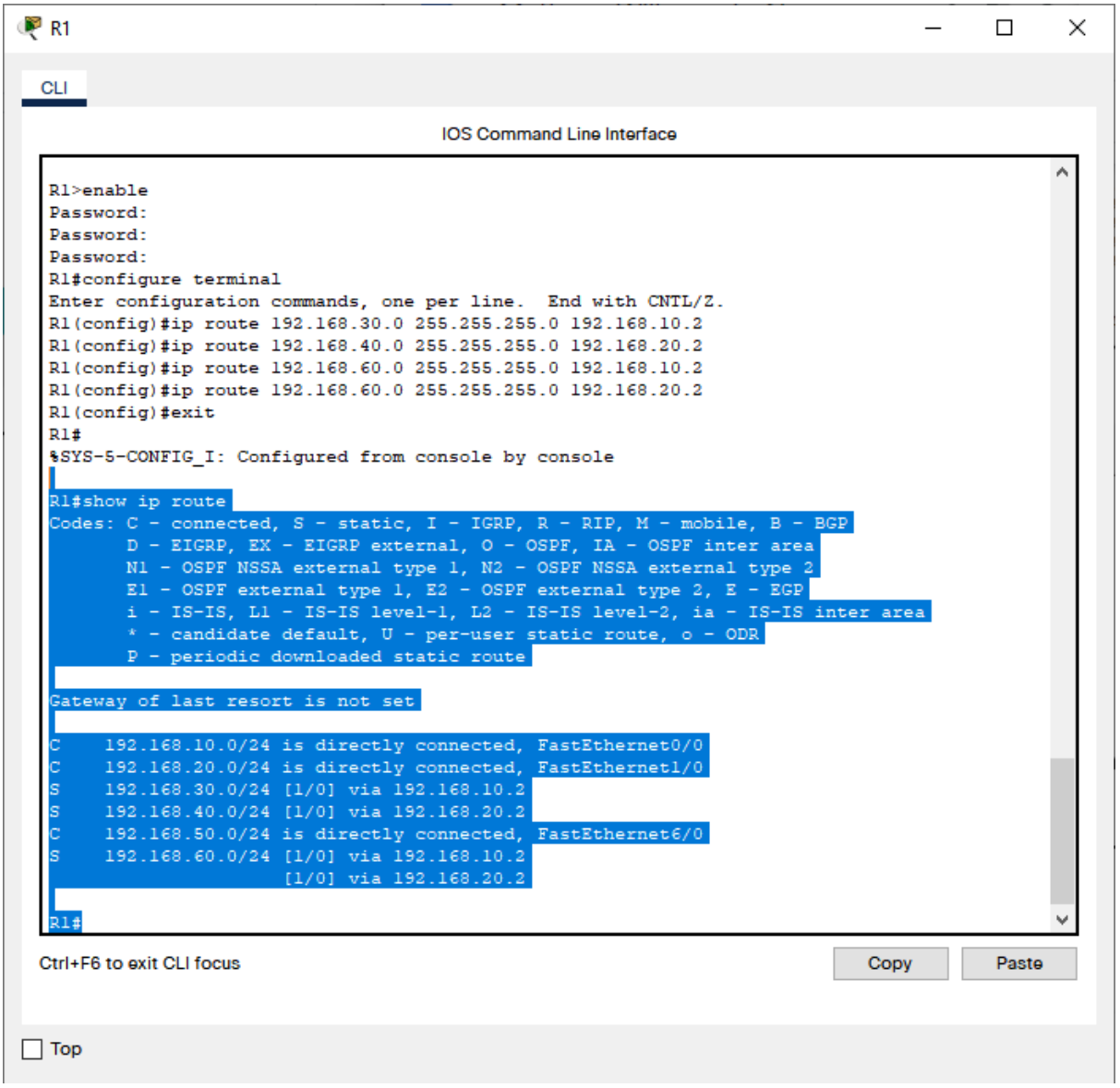
R1(config)#ip route 192.168.30.0 255.255.255.0 192.168.10.2
R1(config)#ip route 192.168.40.0 255.255.255.0 192.168.20.2
R1(config)#ip route 192.168.60.0 255.255.255.0 192.168.10.2
R1(config)#ip route 192.168.60.0 255.255.255.0 192.168.20.2



**** Voltar ao modo EXEC Privilegiado ****
R1(config)#exit
R1#

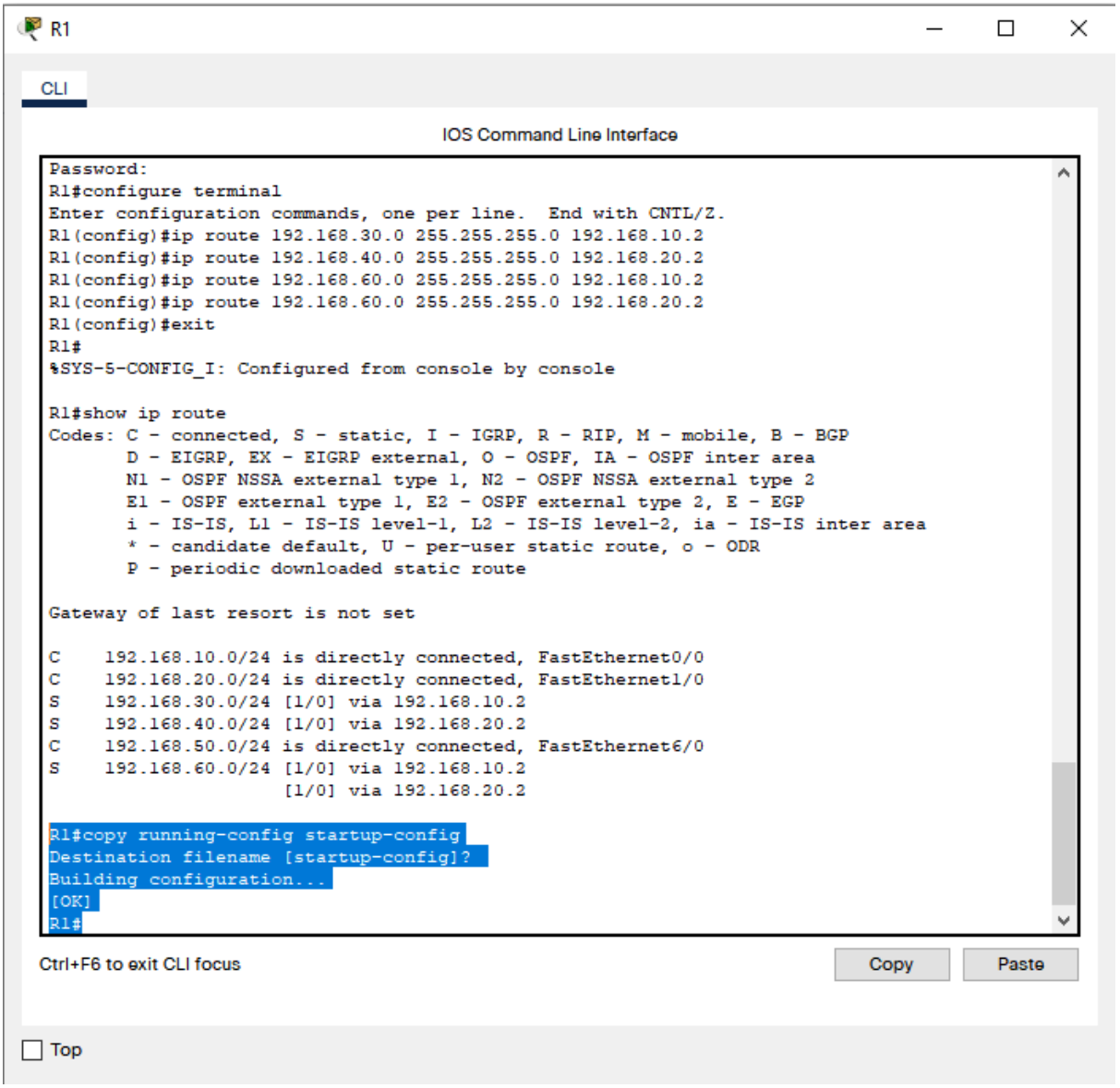


**** Mostrar a tabela de rotas ****
R1#show ip route



**** Salvar as configurações ****

R1#copy running-config startup-config

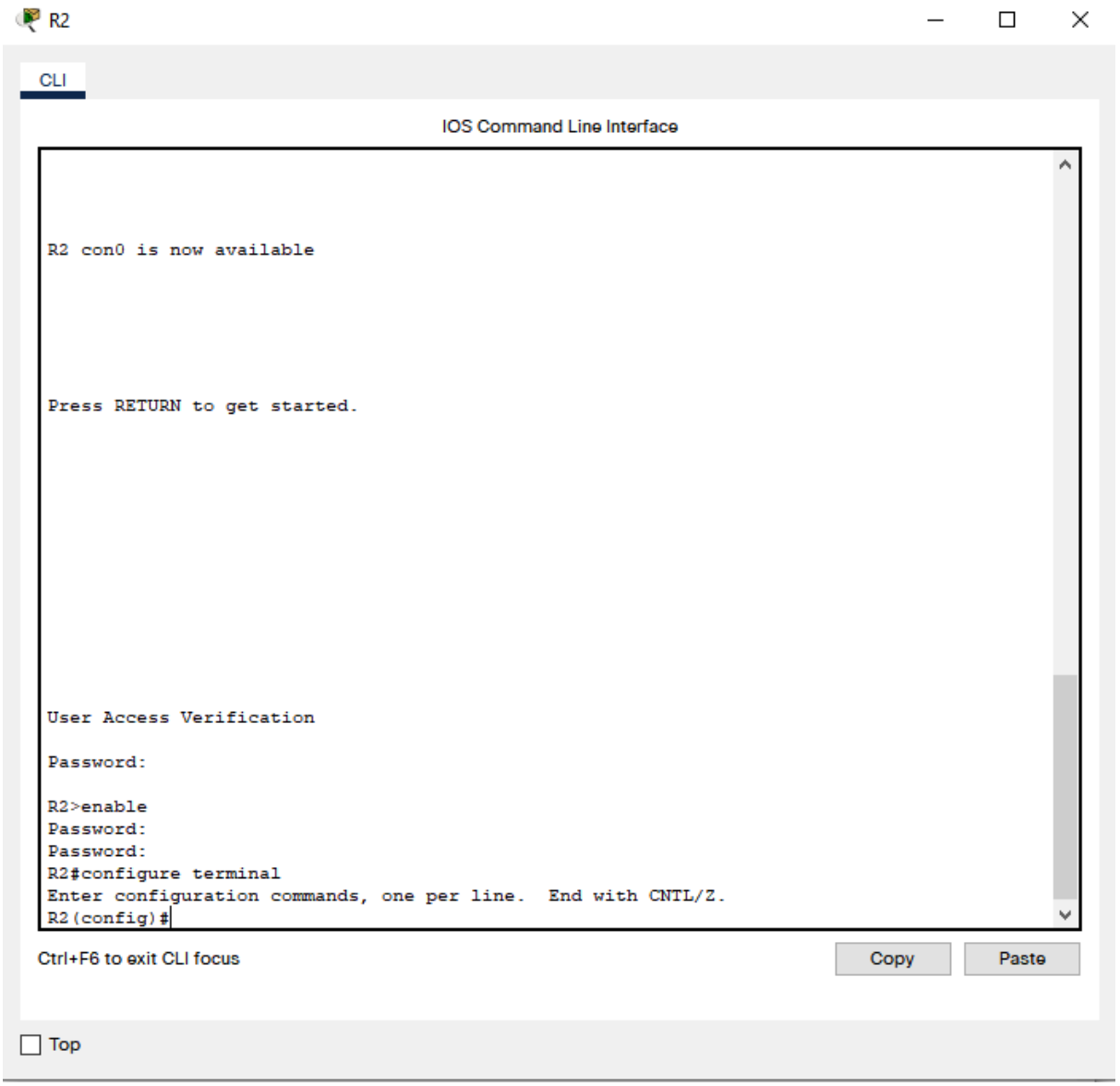


2) Configurar as rotas do Roteador R2

**** Acessar o roteador R2 digitando a senha cisco ****
R2>enable

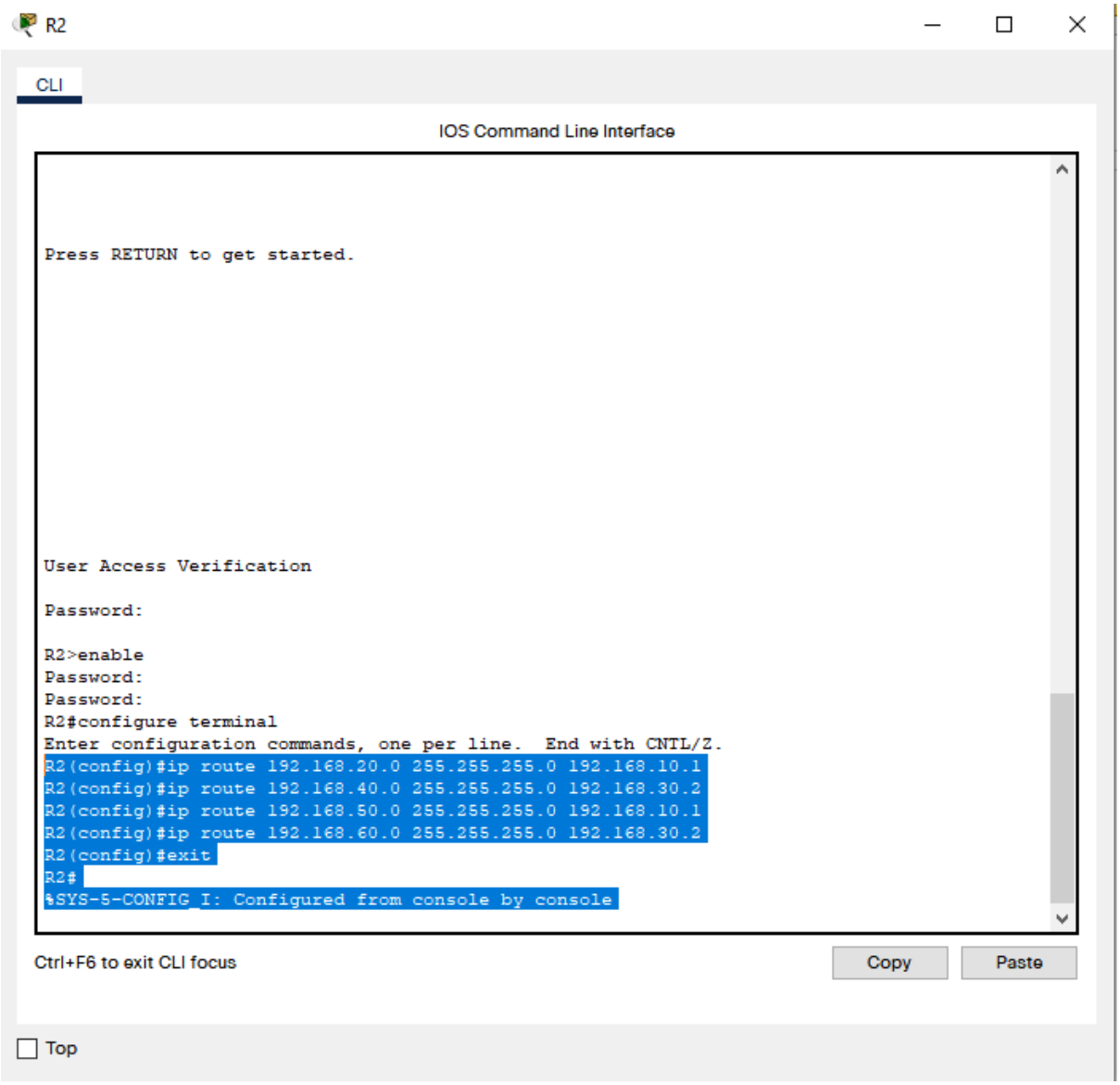
**** Entrar no modo EXEC Privilegiado com a senha class ****
R2#

**** Entrar no modo configure terminal ****
R2#configure terminal
R2(config)#

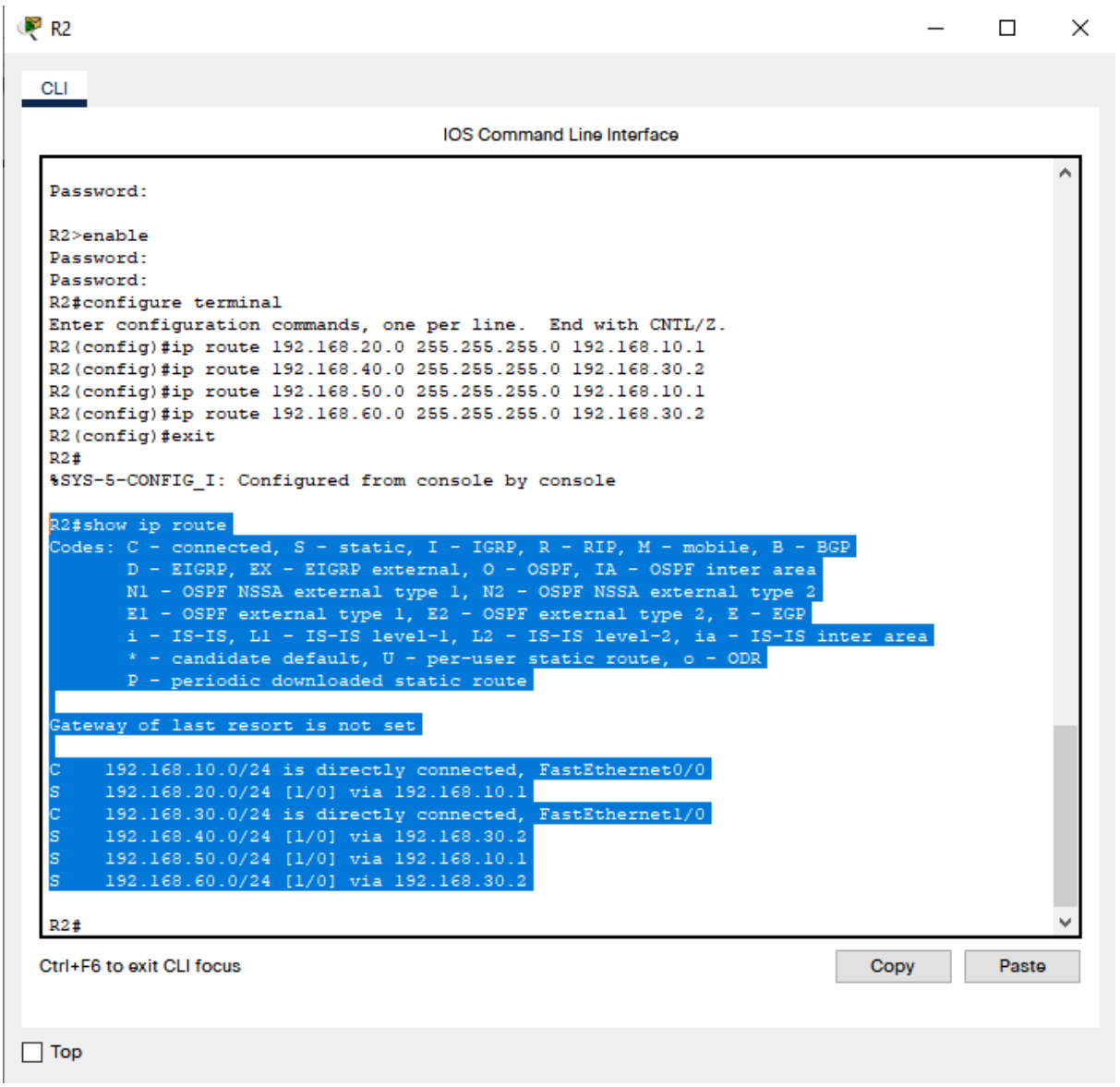


**** Configurar as rotas estáticas ****
R2(config)#ip route 192.168.20.0 255.255.255.0 192.168.10.1
R2(config)#ip route 192.168.40.0 255.255.255.0 192.168.30.2
R2(config)#ip route 192.168.50.0 255.255.255.0 192.168.10.1
R2(config)#ip route 192.168.60.0 255.255.255.0 192.168.30.2

**** Voltar ao modo EXEC Privilegiado ****
R2(config)#exit
R2#

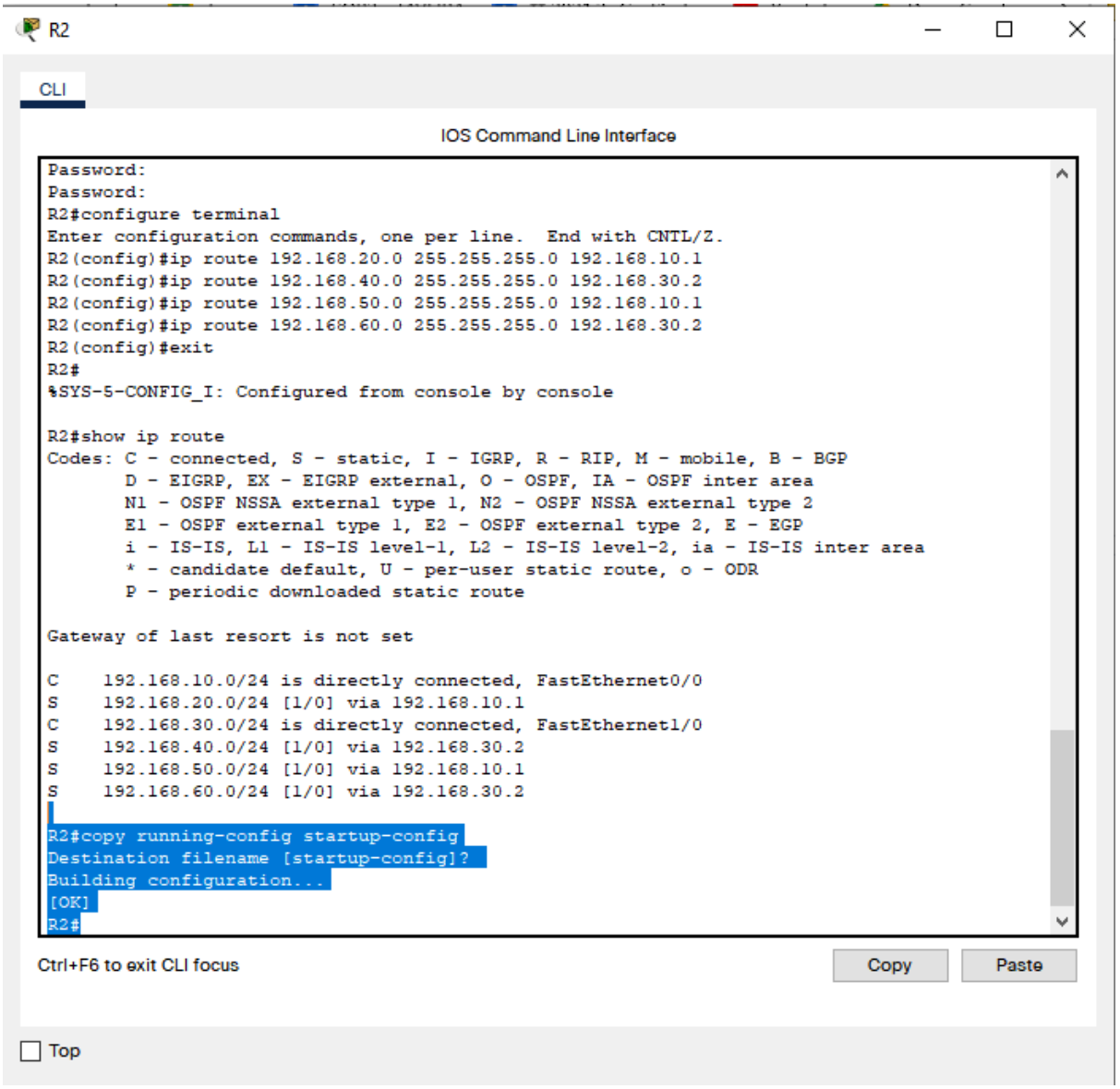


**** Mostrar a tabela de rotas ****
R2#show ip route



**** Salvar as configurações ****

R2#copy running-config startup-config

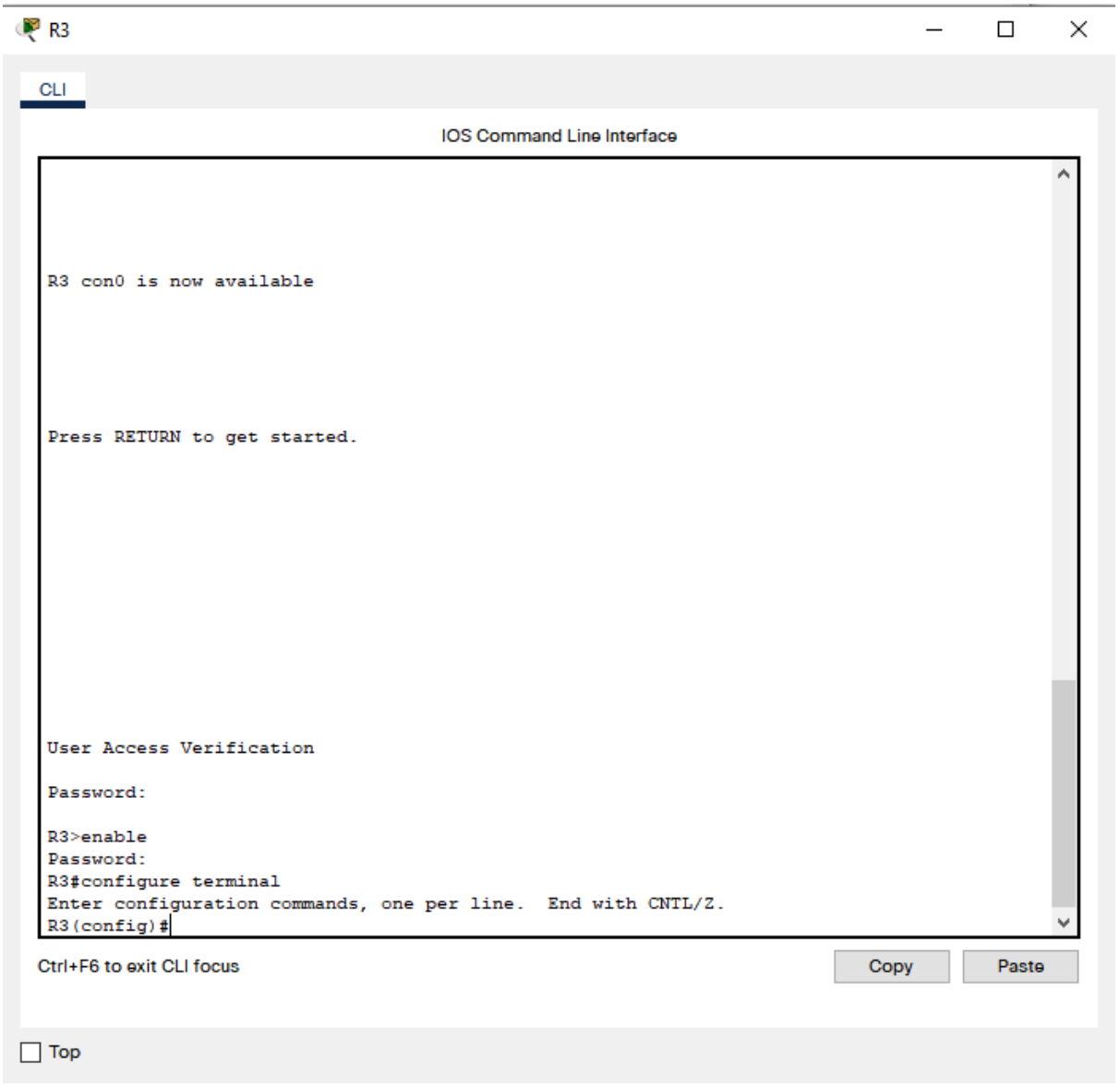


3) Configurar as rotas do Roteador R3

**** Acessar roteador R3 digitando a senha cisco ****
R3>enable

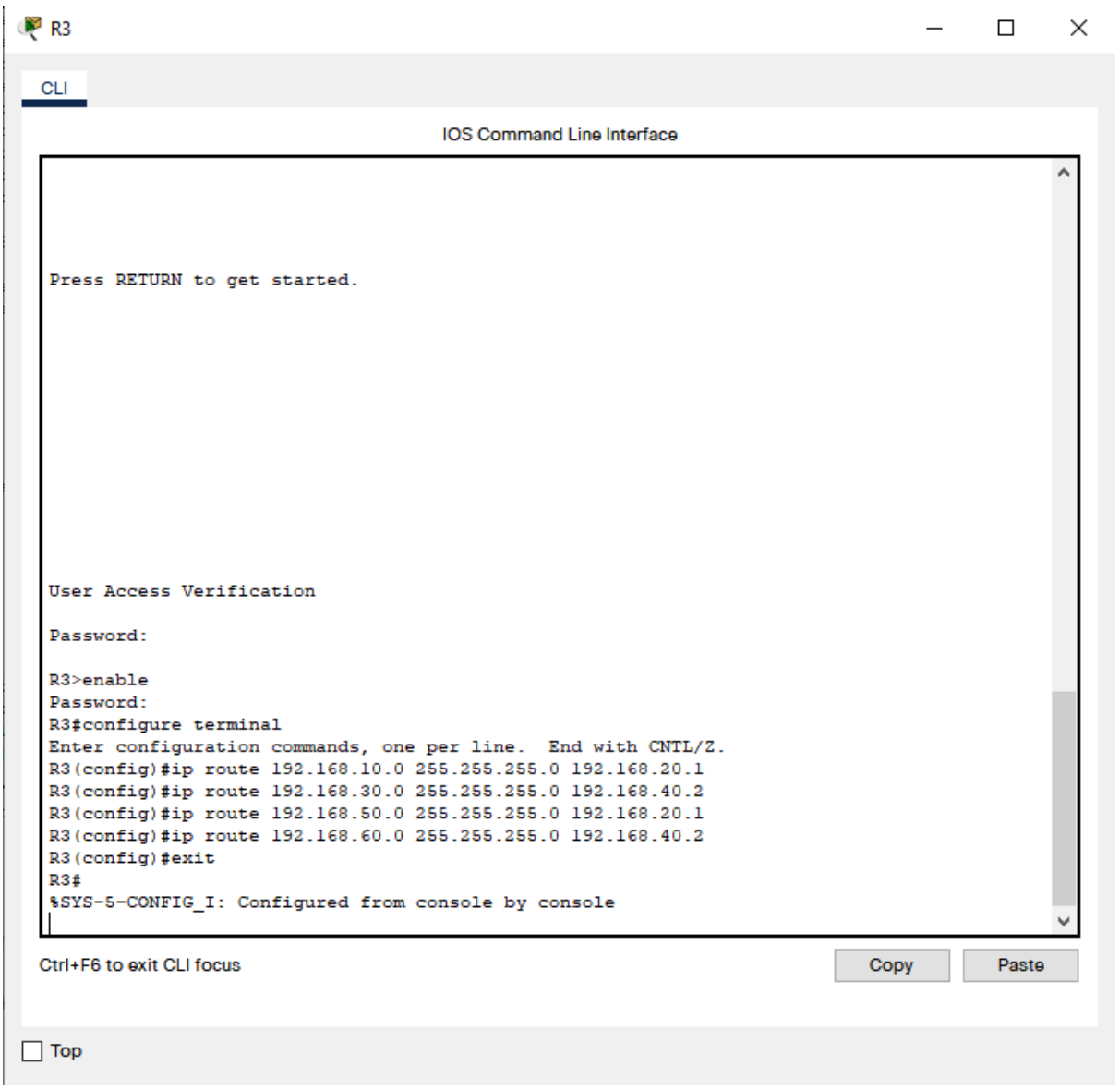
**** Entrar no modo EXEC Privilegiado com a senha class ****
R3#

**** Entrar no modo Configuração Global ****
R3#configure terminal
R3(config)#

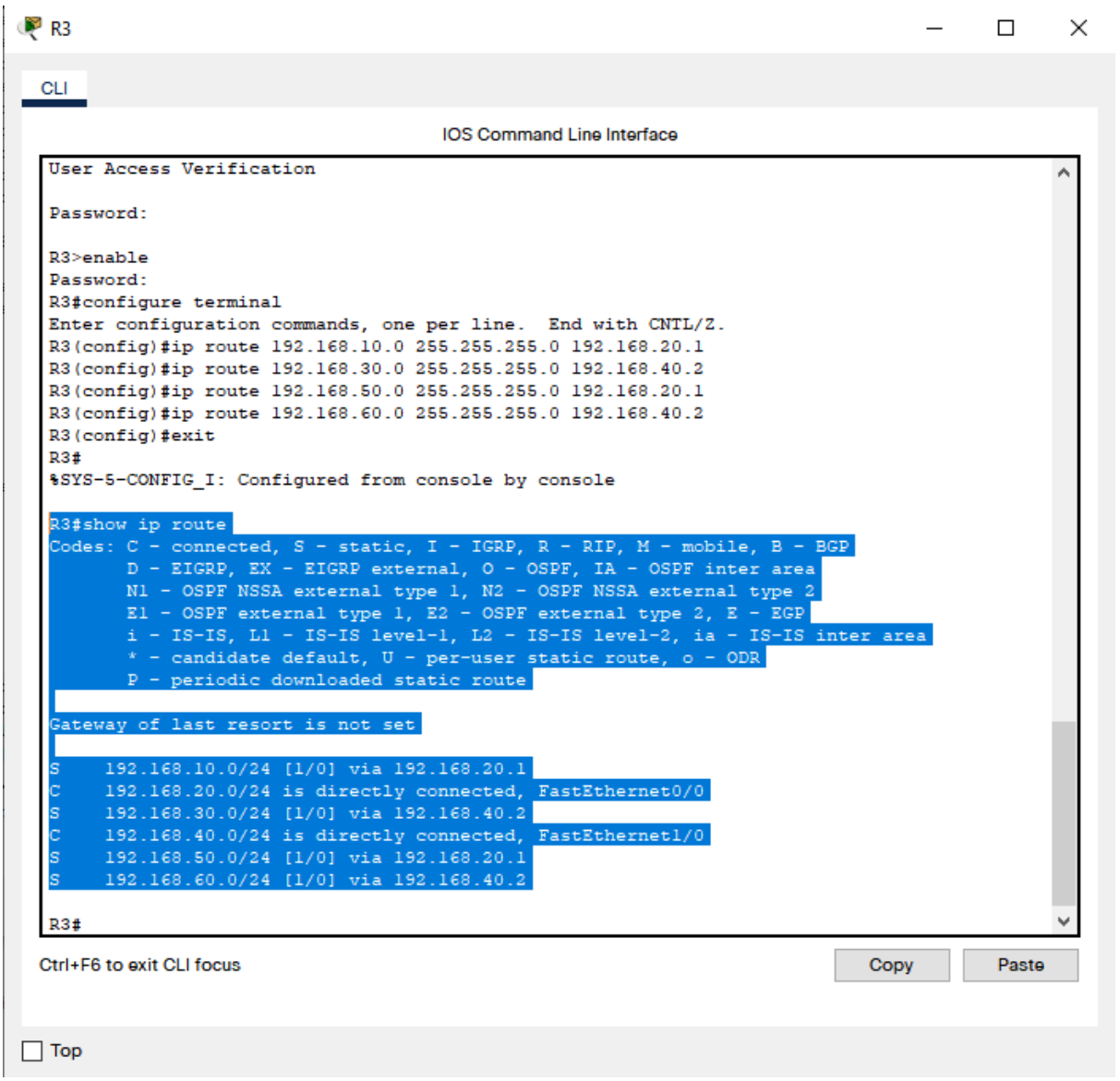


**** Configurar as rotas estáticas ****
R3(config)#ip route 192.168.10.0 255.255.255.0 192.168.20.1
R3(config)#ip route 192.168.30.0 255.255.255.0 192.168.40.2
R3(config)#ip route 192.168.50.0 255.255.255.0 192.168.20.1
R3(config)#ip route 192.168.60.0 255.255.255.0 192.168.40.2

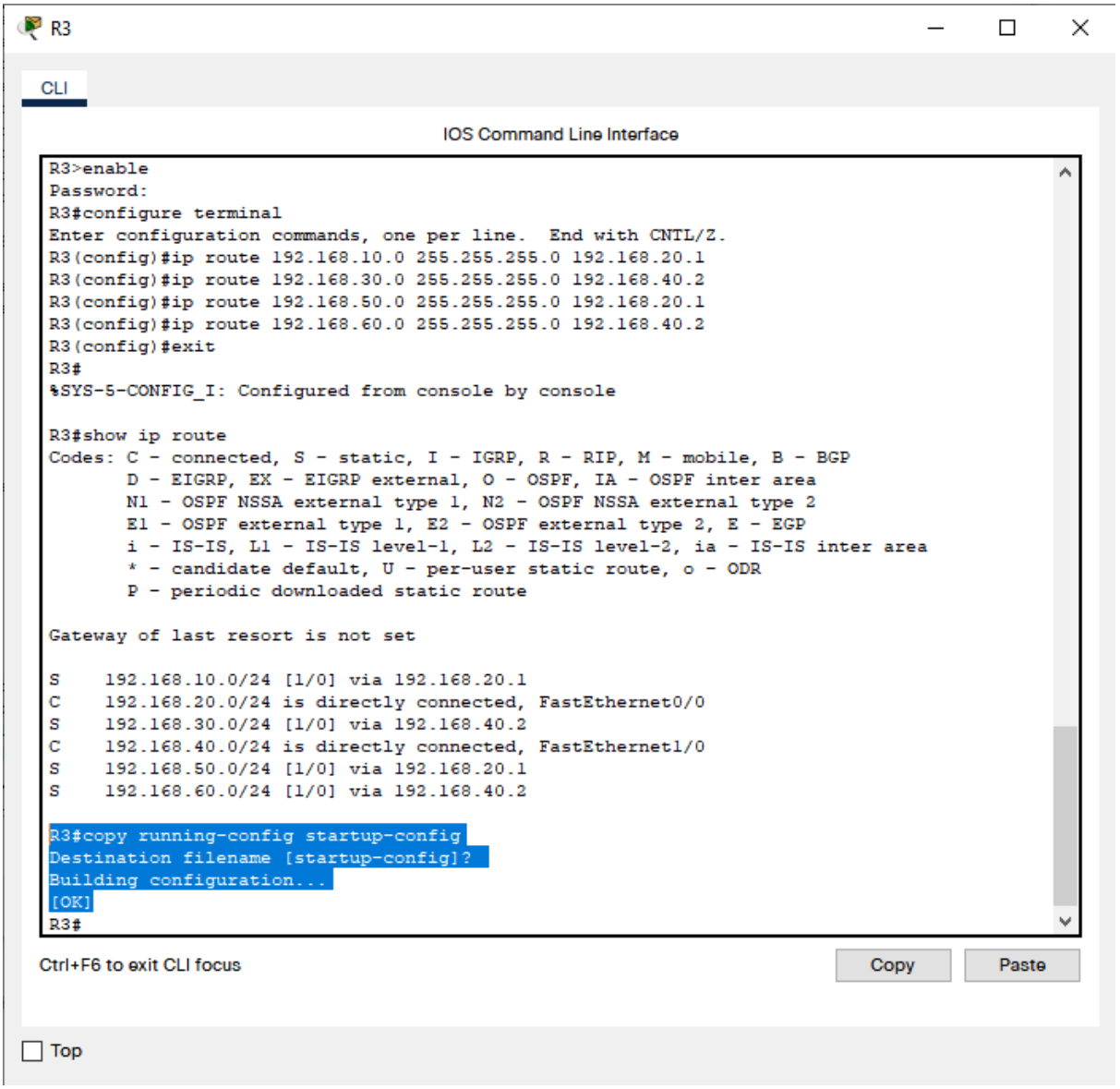
**** Voltar ao modo EXEC Privilegiado ****
R3(config)#exit
R31#



**** Mostrar a tabela de rotas ****
R3#show ip route



**** Salvar as configurações ****
R3#copy running-config startup-config

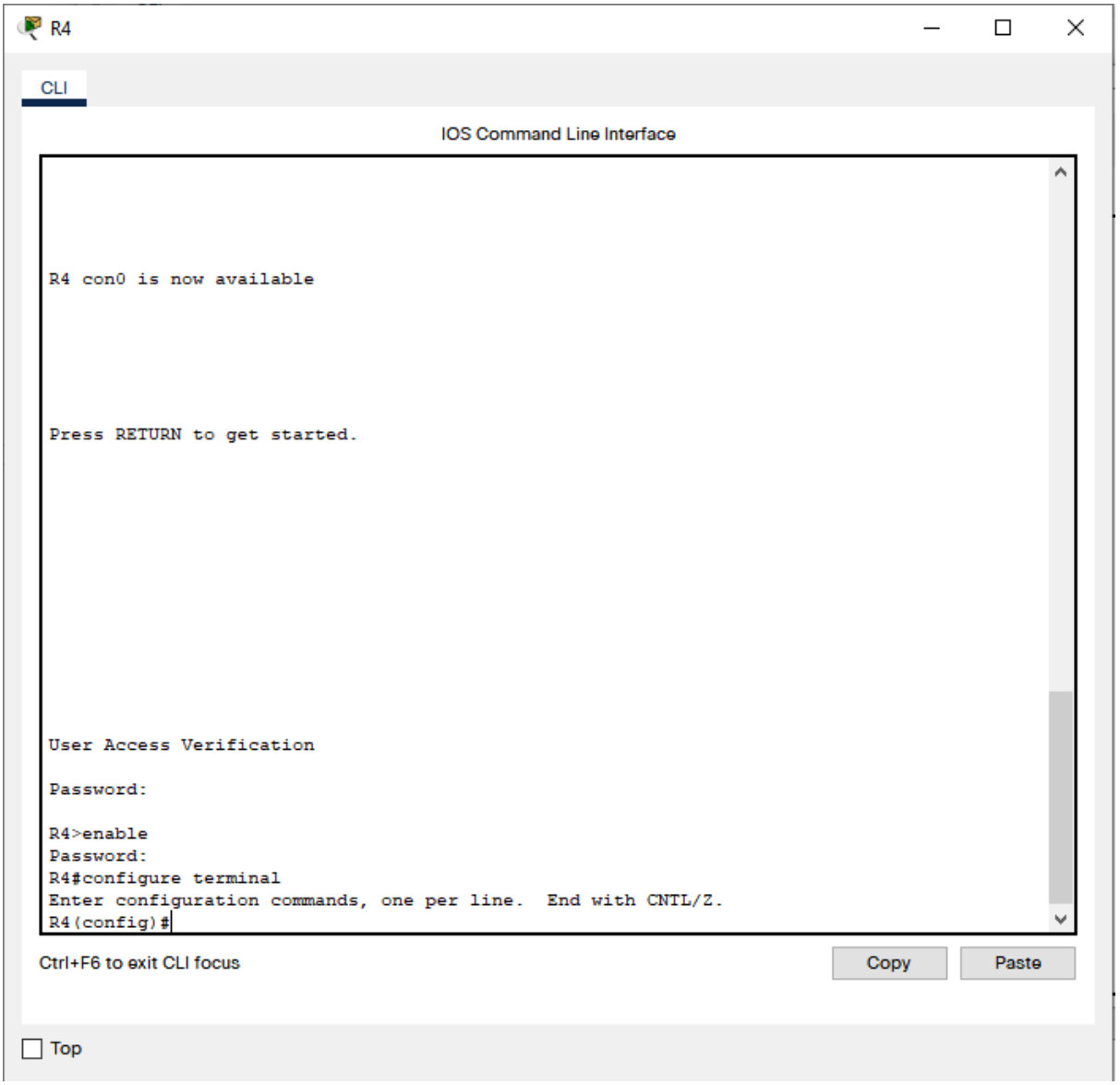


4) Configurar as rotas do Roteador R4

**** Acessar o roteador R4 digitando a senha cisco ****
R4>enable

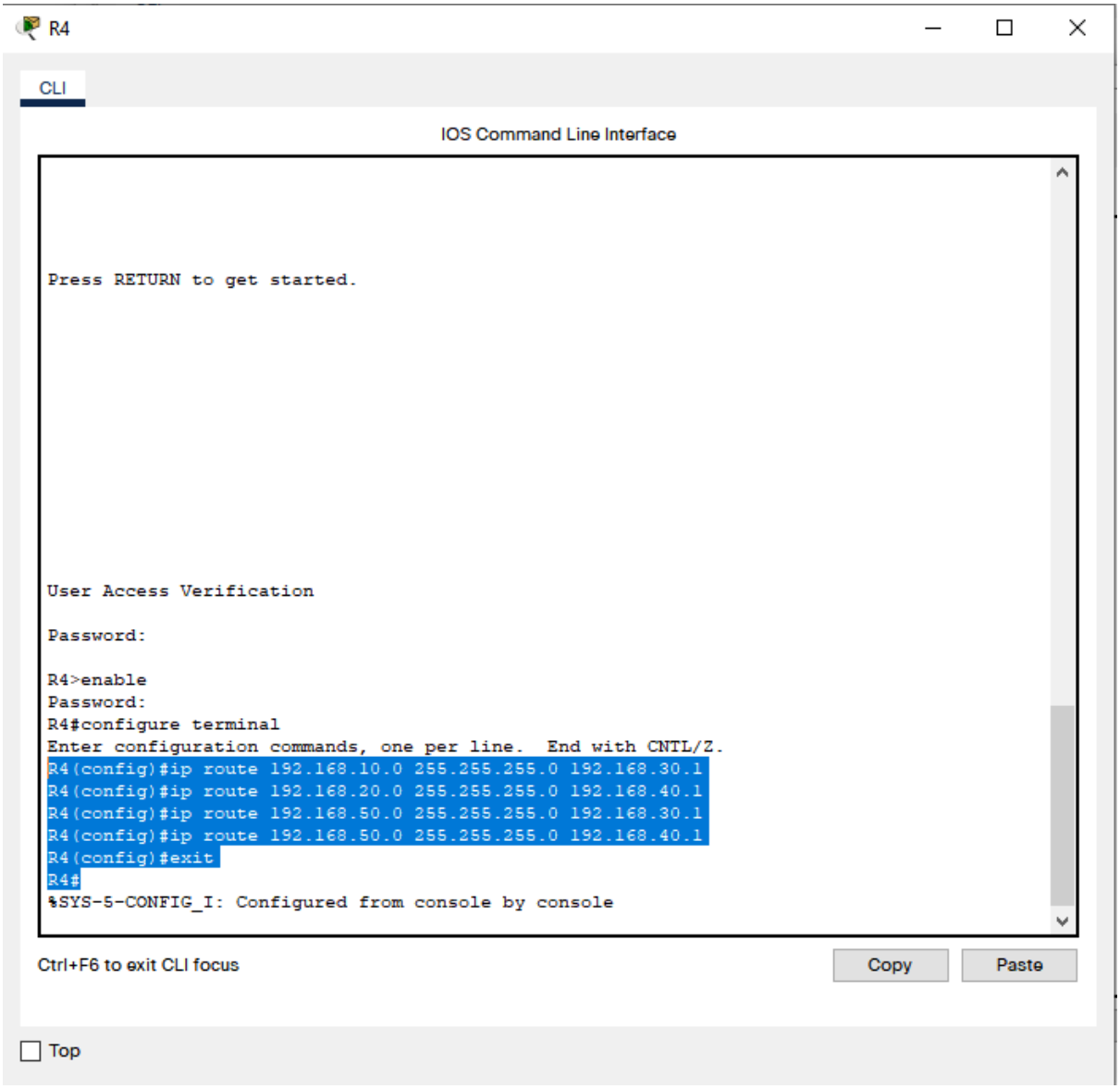
**** Entrar no modo EXEC Privilegiado com a senha class ****
R4#

**** Entrar no modo configure terminal ****
R4#configure terminal
R4(config)#

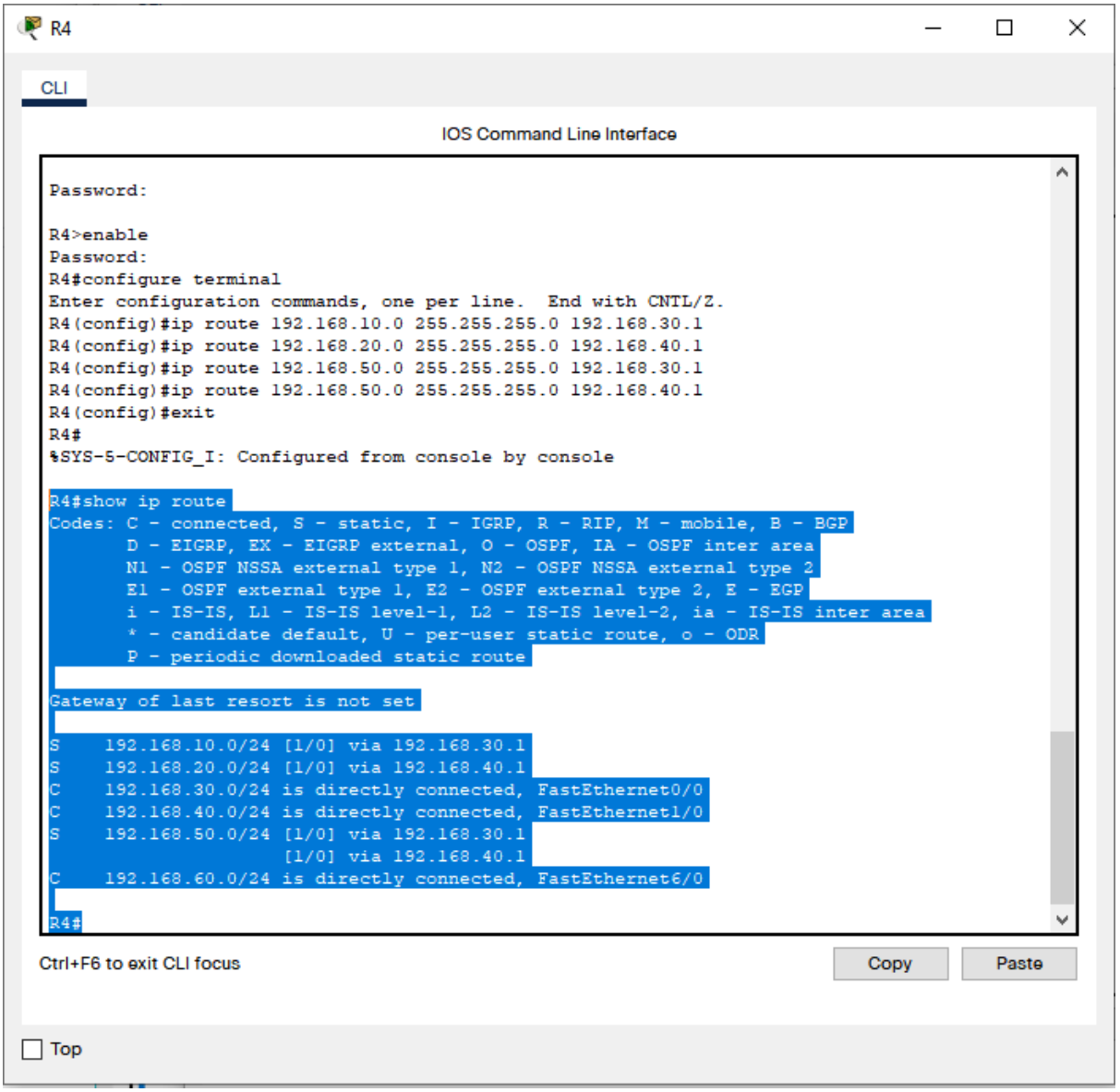


**** Configurar as rotas estáticas ****
R4(config)#ip route 192.168.10.0 255.255.255.0 192.168.30.1
R4(config)#ip route 192.168.20.0 255.255.255.0 192.168.40.1
R4(config)#ip route 192.168.50.0 255.255.255.0 192.168.30.1
R4(config)#ip route 192.168.50.0 255.255.255.0 192.168.40.1

**** Voltar ao modo EXEC Privilegiado ****
R4(config)#exit
R4#

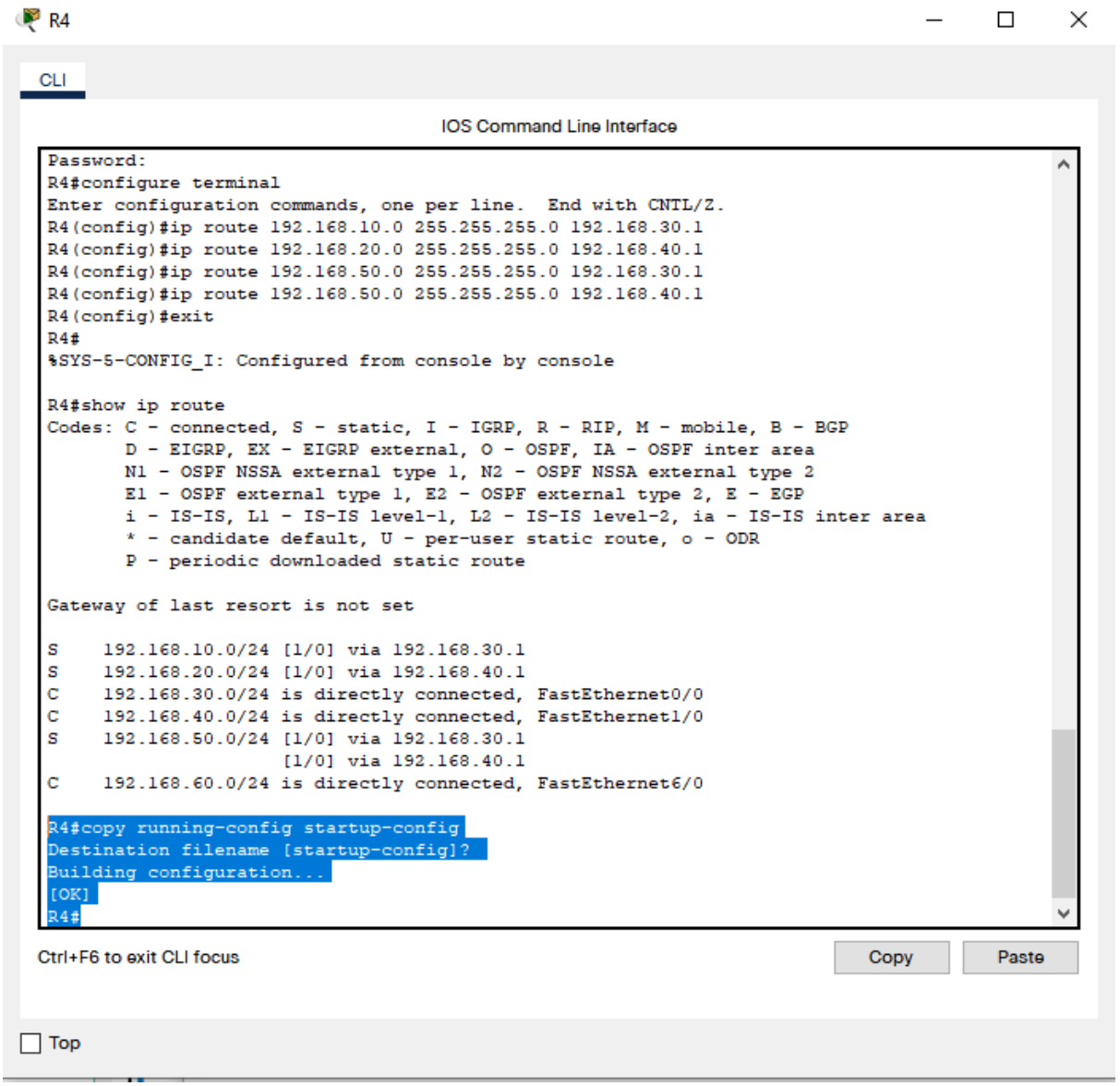


**** Mostrar a tabela de rotas ****
R4#show ip route



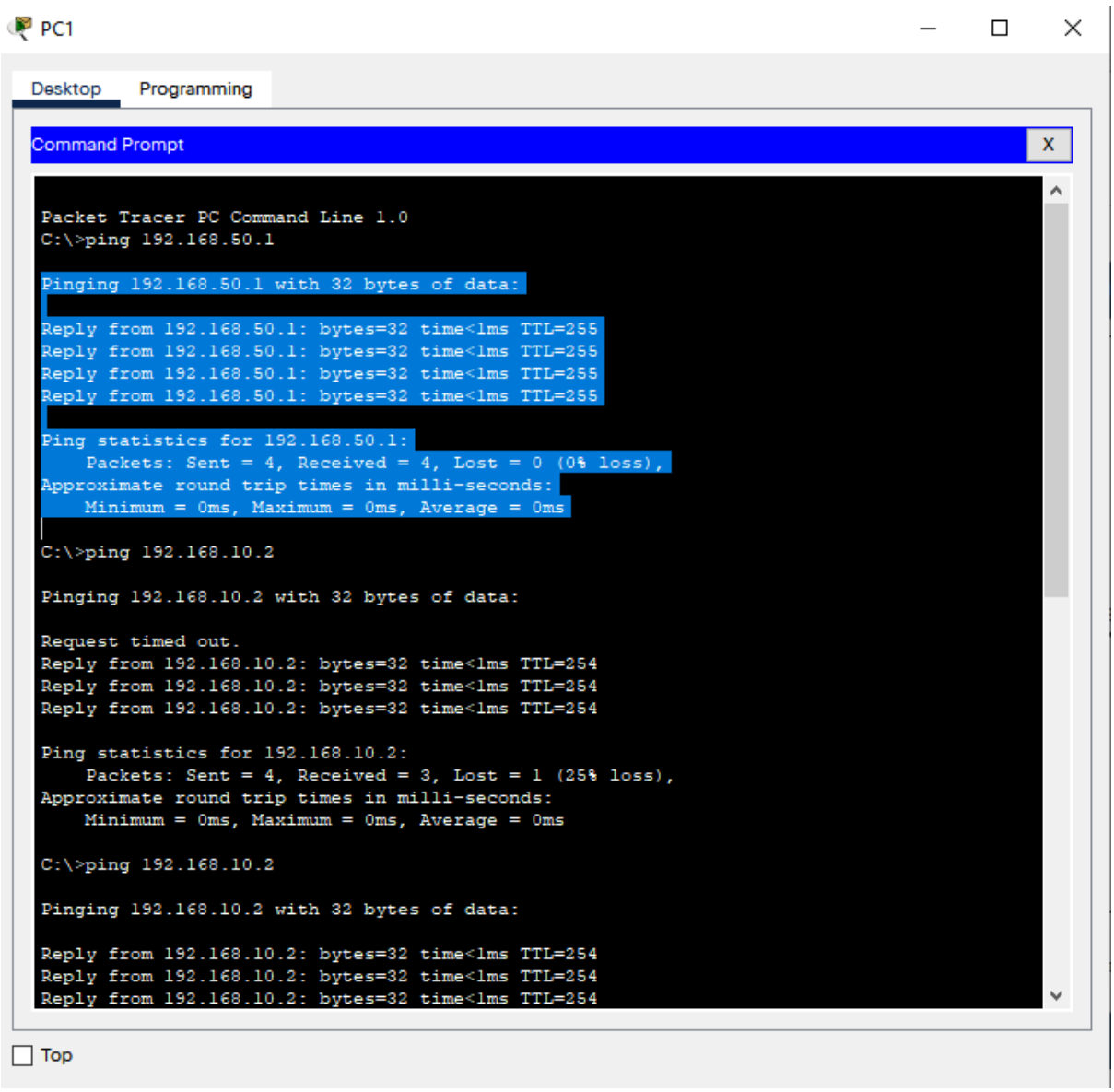
**** Salvar as configurações ****

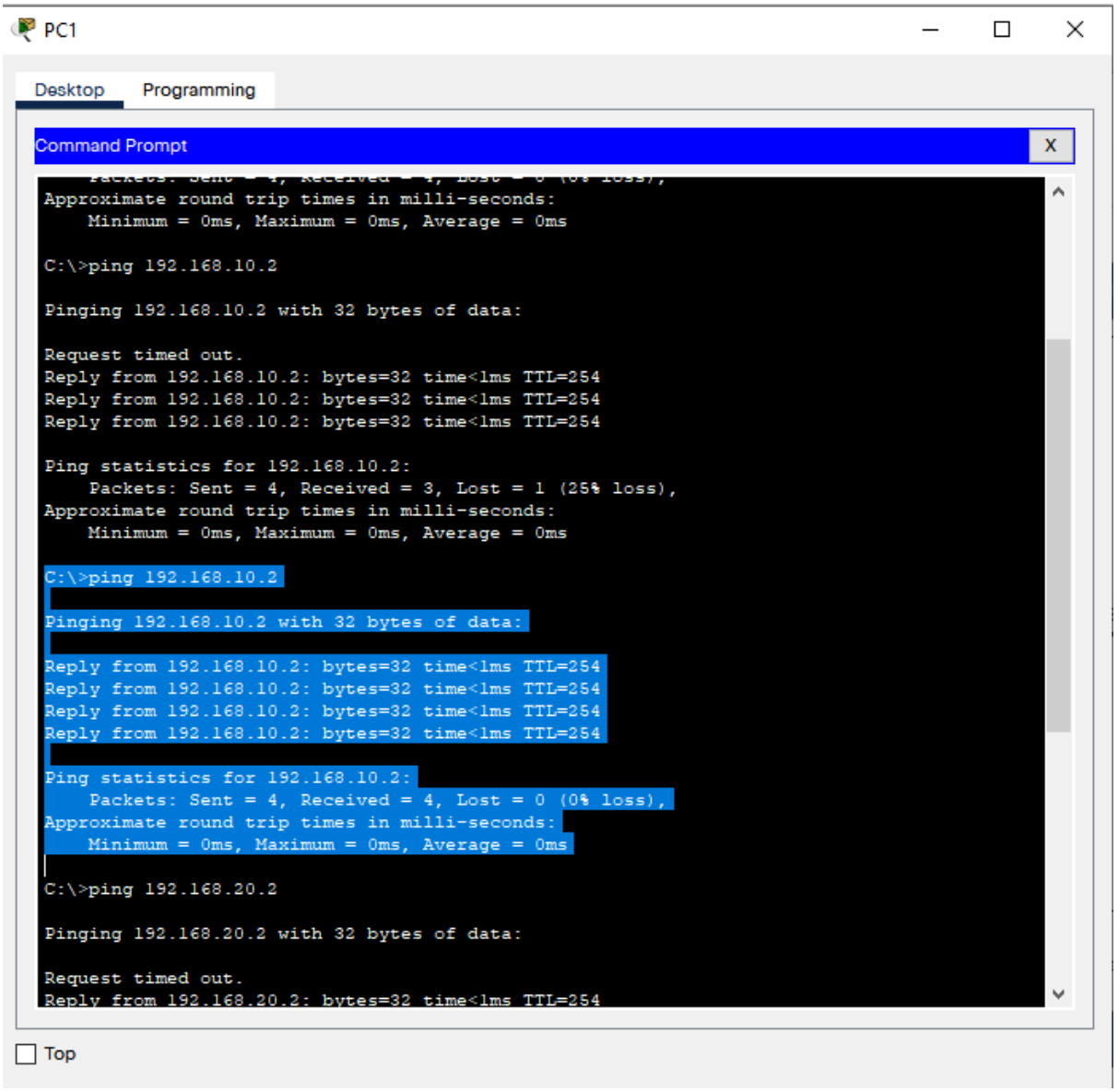
R4#copy running-config startup-config

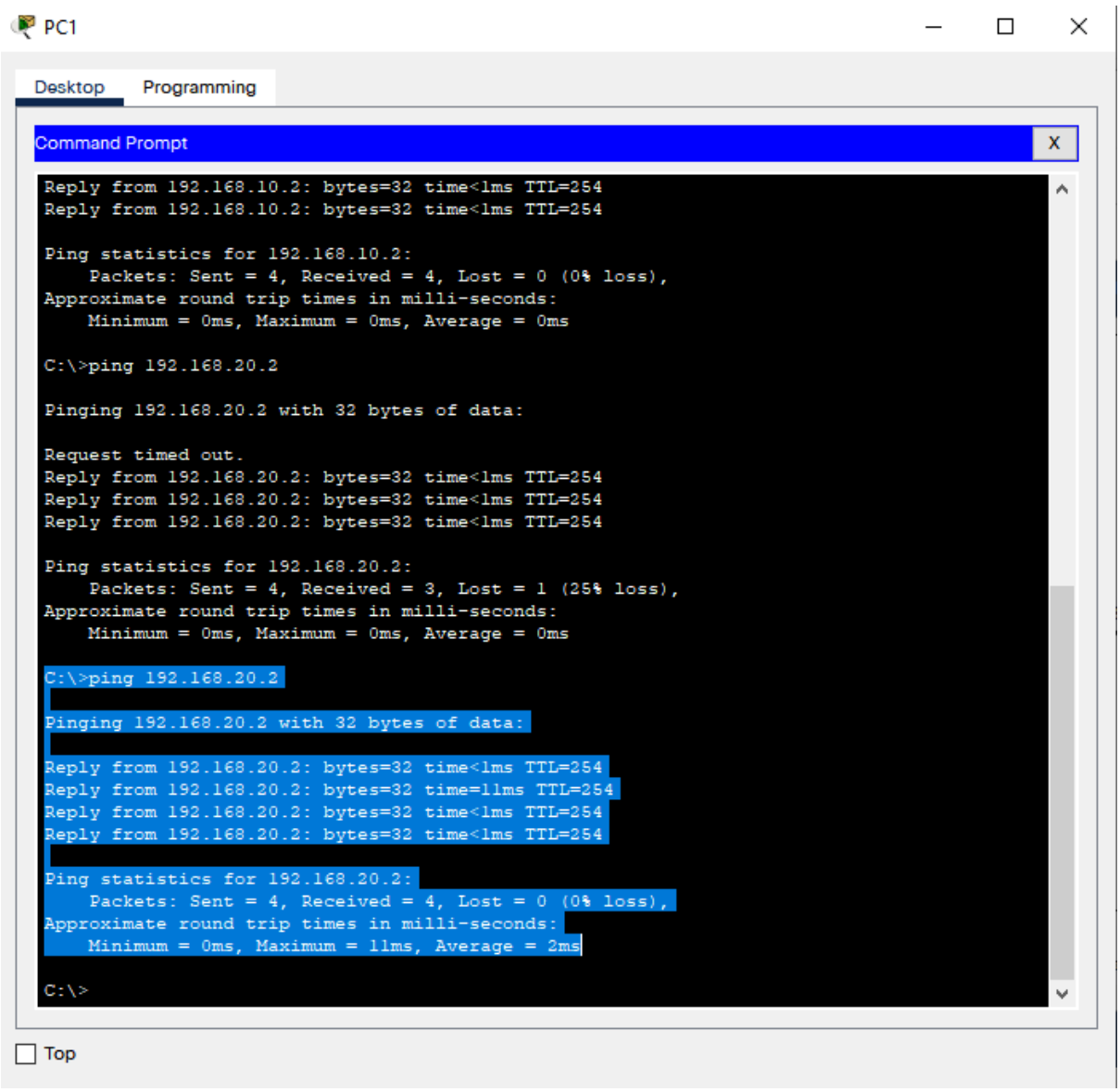


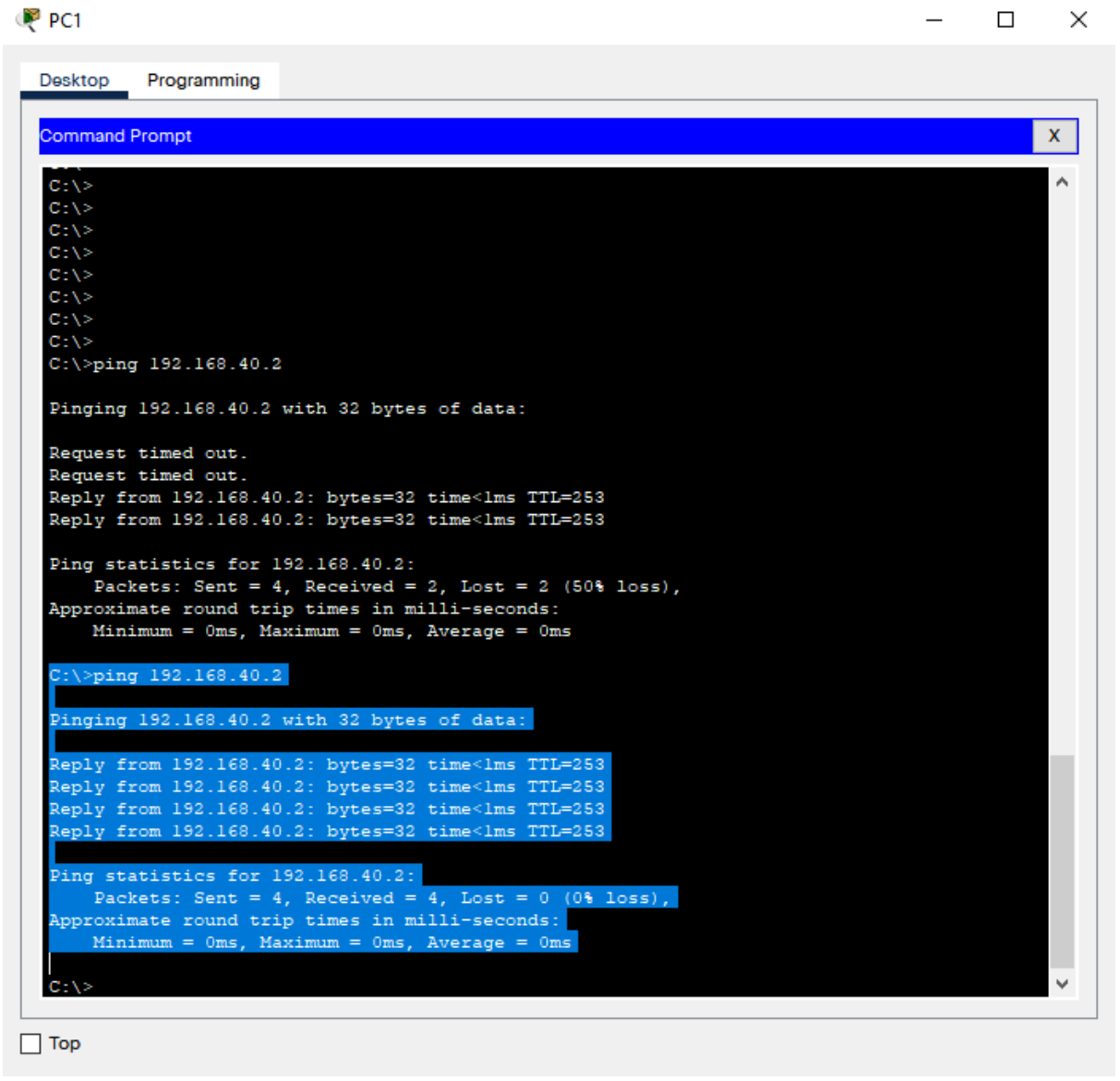
5) Testar a conectividade entre as duas redes locais

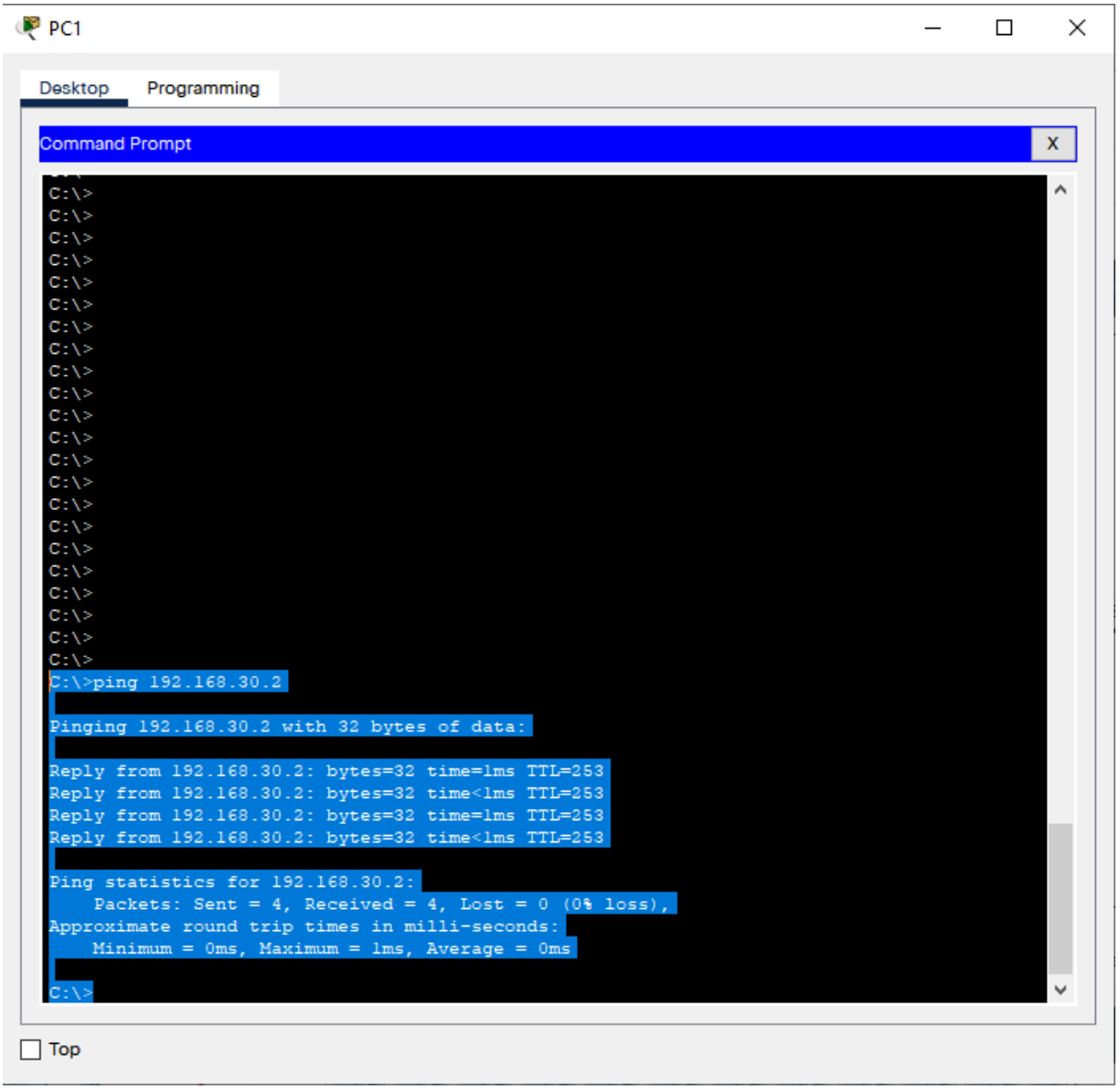
**** pingar do computador PC1 para os endereços IP listados abaixo ****
192.168.50.1
192.168.10.2
192.168.20.2
192.168.40.2
192.168.30.2
192.168.60.2
192.168.60.3
192.168.60.4
192.168.60.5

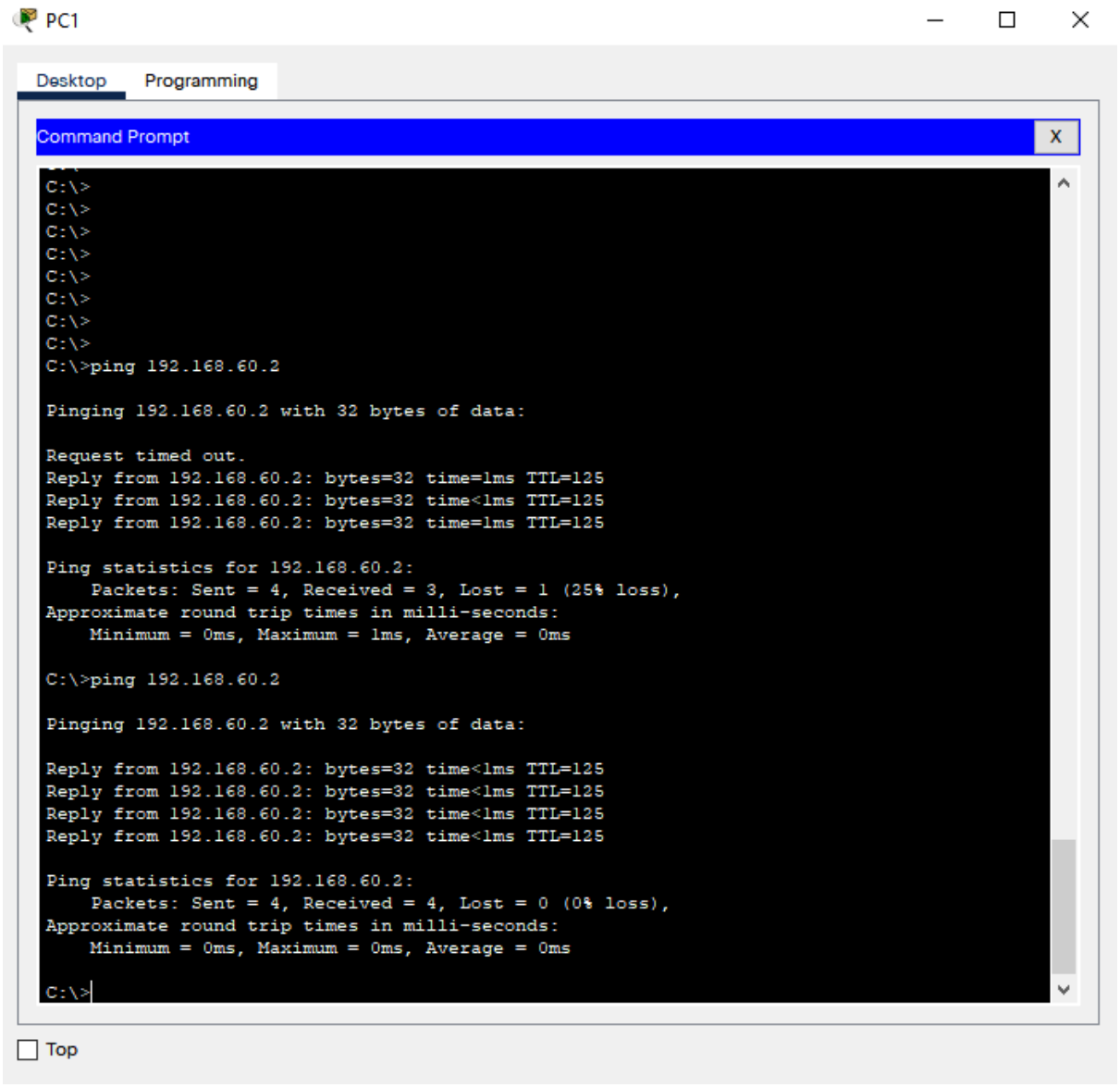

PC1
Desktop
Programming
Command Prompt
X
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.50.1
Pinging 192.168.50.1 with 32 bytes of data:
Reply from 192.168.50.1: bytes=32 time<1ms TTL=255
Reply from 192.168.50.1: bytes=32 time<1ms TTL=255
Reply from 192.168.50.1: bytes=32 time<1ms TTL=255
Reply from 192.168.50.1: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.50.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.10.2
Pinging 192.168.10.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Ping statistics for 192.168.10.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.10.2
Pinging 192.168.10.2 with 32 bytes of data:
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Top

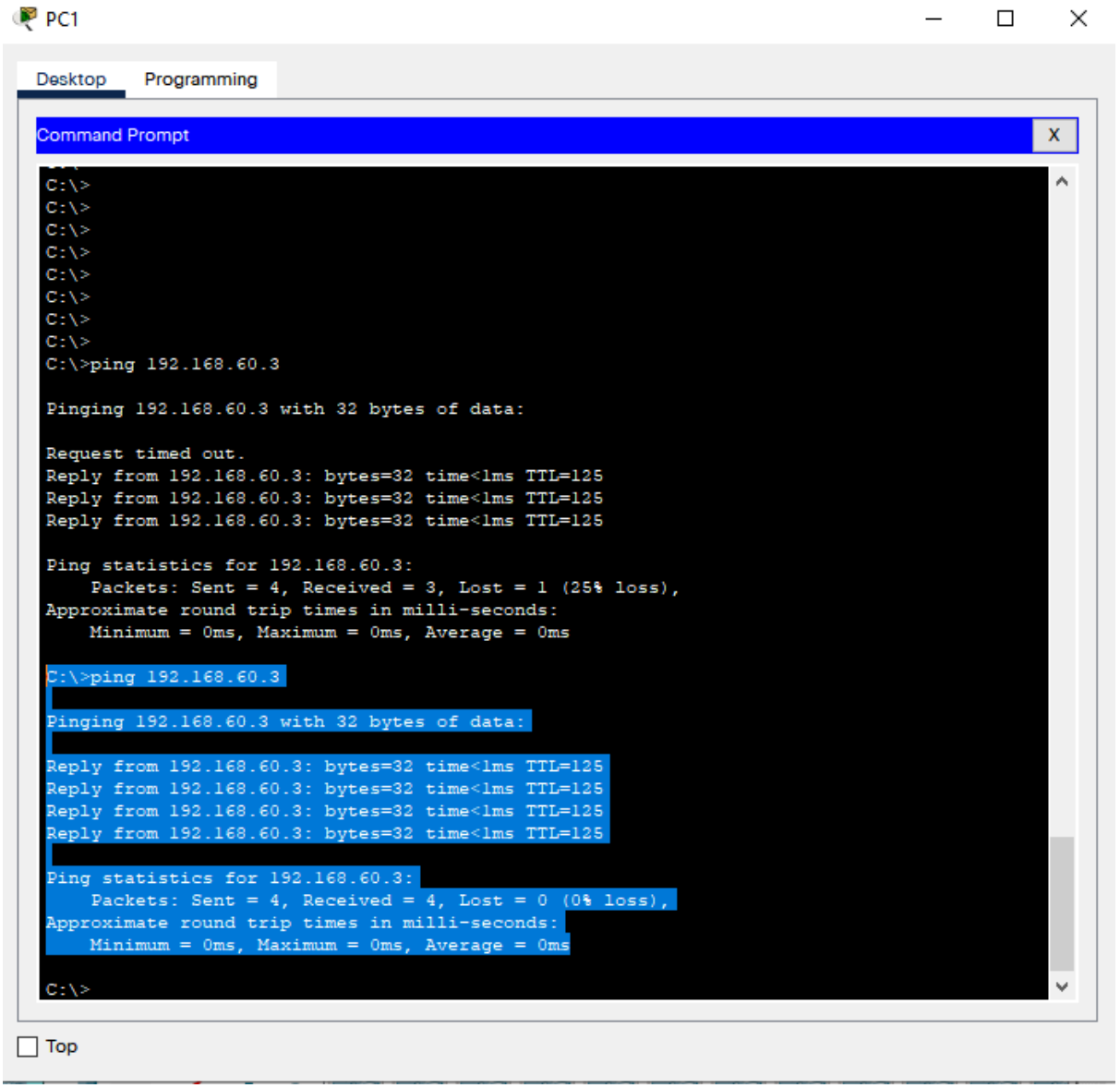

PC1
Desktop
Programming
Command Prompt
X
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.10.2
Pinging 192.168.10.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Ping statistics for 192.168.10.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.10.2
Pinging 192.168.10.2 with 32 bytes of data:
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Ping statistics for 192.168.10.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.20.2
Pinging 192.168.20.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.20.2: bytes=32 time<1ms TTL=254
Top

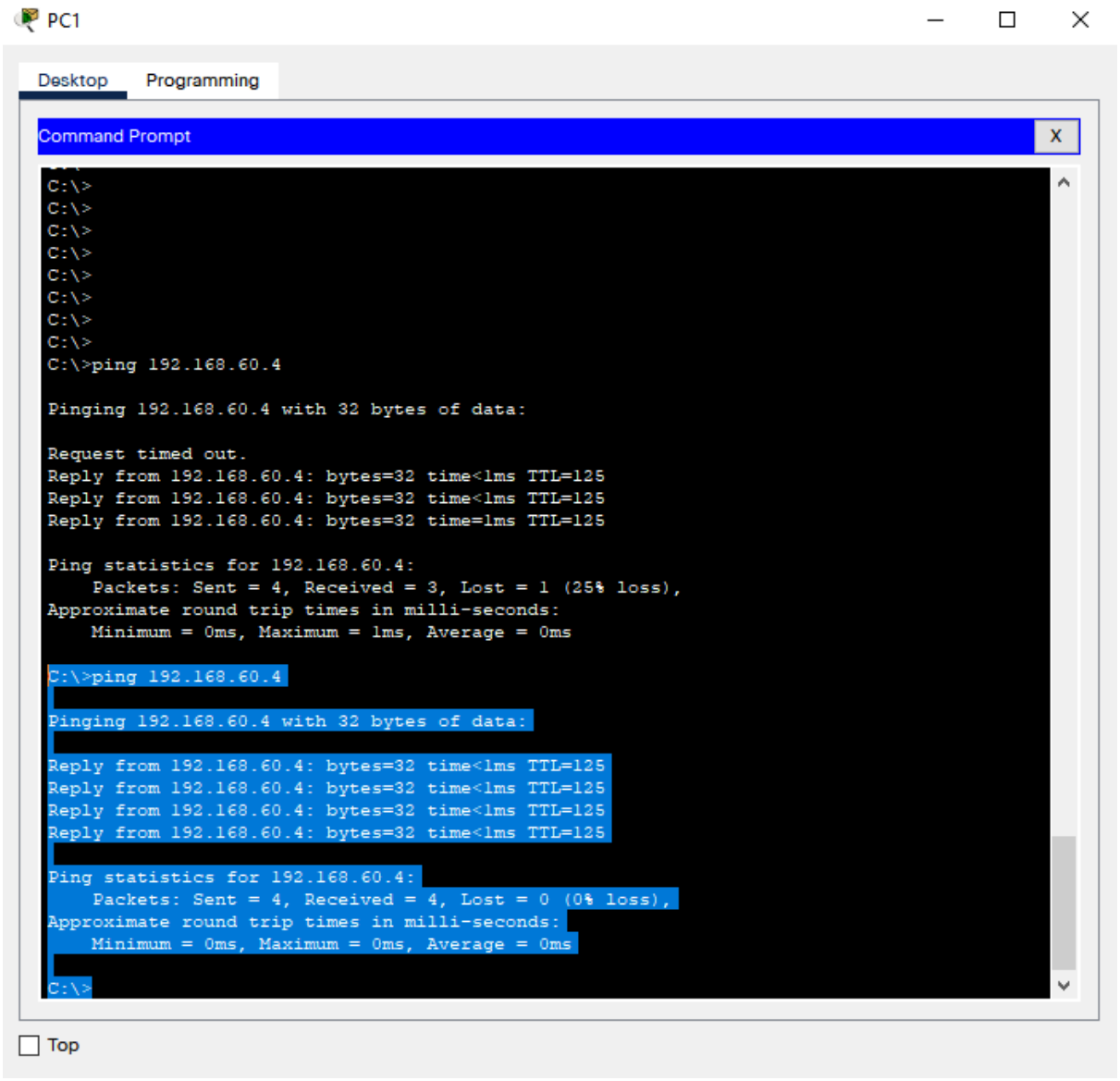

PC1
Desktop
Programming
Command Prompt
X
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Reply from 192.168.10.2: bytes=32 time<1ms TTL=254
Ping statistics for 192.168.10.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.20.2
Pinging 192.168.20.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.20.2: bytes=32 time<1ms TTL=254
Reply from 192.168.20.2: bytes=32 time<1ms TTL=254
Reply from 192.168.20.2: bytes=32 time<1ms TTL=254
Ping statistics for 192.168.20.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.20.2
Pinging 192.168.20.2 with 32 bytes of data:
Reply from 192.168.20.2: bytes=32 time<1ms TTL=254
Reply from 192.168.20.2: bytes=32 time=11ms TTL=254
Reply from 192.168.20.2: bytes=32 time<1ms TTL=254
Reply from 192.168.20.2: bytes=32 time<1ms TTL=254
Ping statistics for 192.168.20.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 11ms, Average = 2ms
C:\>
Top

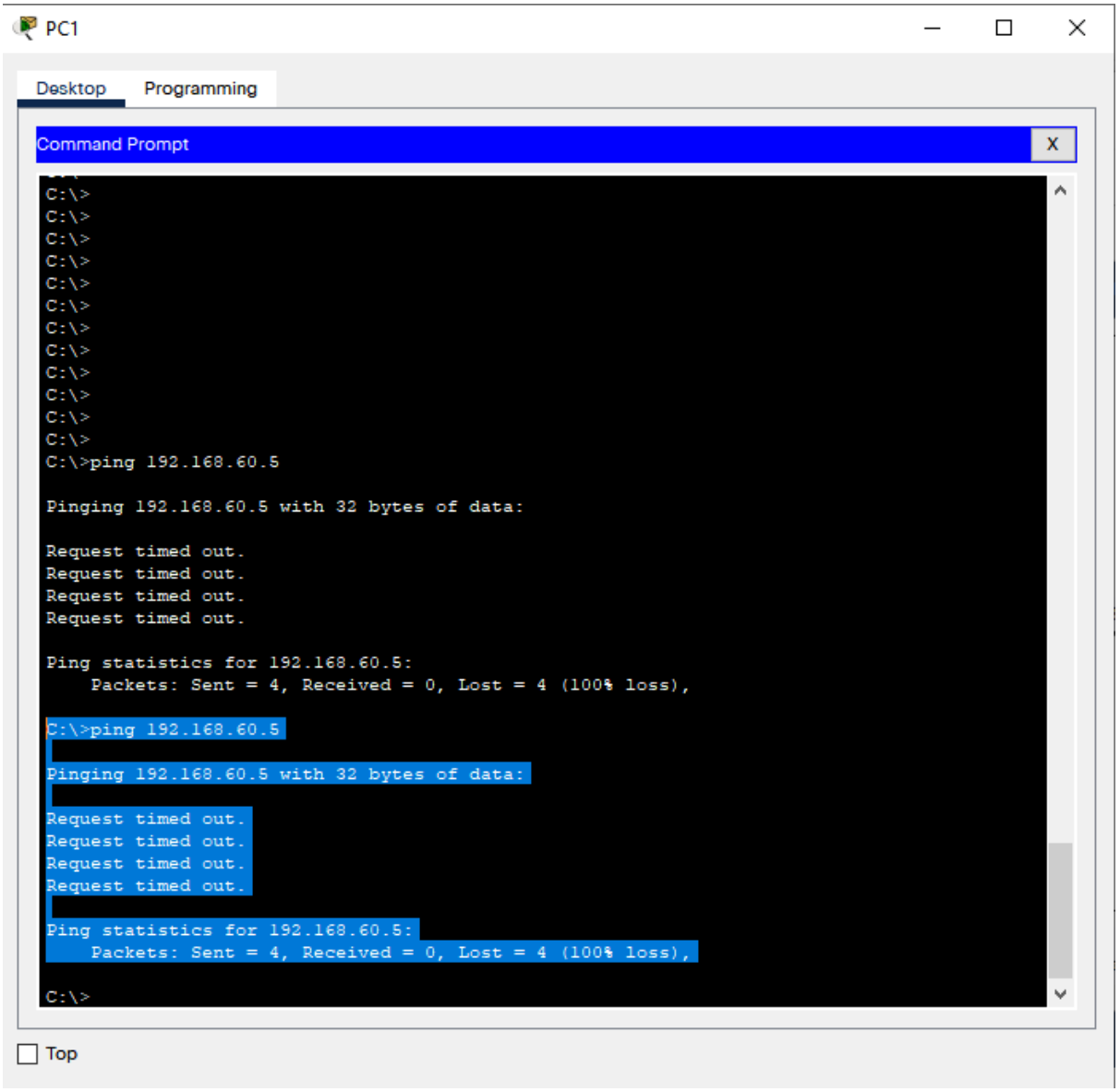

PC1
Desktop
Programming
Command Prompt
X
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ping 192.168.40.2
Pinging 192.168.40.2 with 32 bytes of data:
Request timed out.
Request timed out.
Reply from 192.168.40.2: bytes=32 time<1ms TTL=253
Reply from 192.168.40.2: bytes=32 time<1ms TTL=253
Ping statistics for 192.168.40.2:
Packets: Sent = 4, Received = 2, Lost = 2 (50% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.40.2
Pinging 192.168.40.2 with 32 bytes of data:
Reply from 192.168.40.2: bytes=32 time<1ms TTL=253
Reply from 192.168.40.2: bytes=32 time<1ms TTL=253
Reply from 192.168.40.2: bytes=32 time<1ms TTL=253
Reply from 192.168.40.2: bytes=32 time<1ms TTL=253
Ping statistics for 192.168.40.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
Top


PC1
Desktop
Programming
Command Prompt
X
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ping 192.168.30.2
Pinging 192.168.30.2 with 32 bytes of data:
Reply from 192.168.30.2: bytes=32 time=1ms TTL=253
Reply from 192.168.30.2: bytes=32 time<1ms TTL=253
Reply from 192.168.30.2: bytes=32 time=1ms TTL=253
Reply from 192.168.30.2: bytes=32 time<1ms TTL=253
Ping statistics for 192.168.30.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
Top

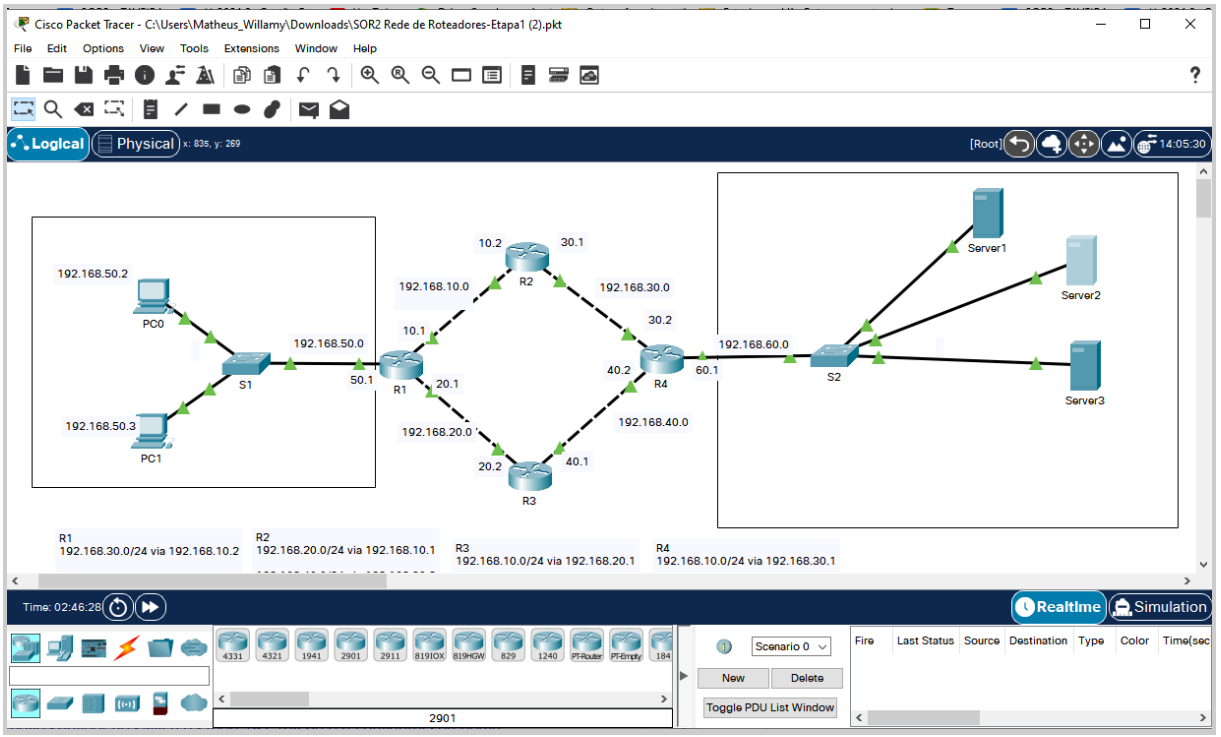

PC1
Desktop
Programming
Command Prompt
X
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ping 192.168.60.2
Pinging 192.168.60.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.60.2: bytes=32 time=1ms TTL=125
Reply from 192.168.60.2: bytes=32 time<1ms TTL=125
Reply from 192.168.60.2: bytes=32 time=1ms TTL=125
Ping statistics for 192.168.60.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>ping 192.168.60.2
Pinging 192.168.60.2 with 32 bytes of data:
Reply from 192.168.60.2: bytes=32 time<1ms TTL=125
Reply from 192.168.60.2: bytes=32 time<1ms TTL=125
Reply from 192.168.60.2: bytes=32 time<1ms TTL=125
Reply from 192.168.60.2: bytes=32 time<1ms TTL=125
Ping statistics for 192.168.60.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
Top


PC1
Desktop
Programming
Command Prompt
X
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ping 192.168.60.3
Pinging 192.168.60.3 with 32 bytes of data:
Request timed out.
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125
Ping statistics for 192.168.60.3:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.60.3
Pinging 192.168.60.3 with 32 bytes of data:
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125
Ping statistics for 192.168.60.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
Top

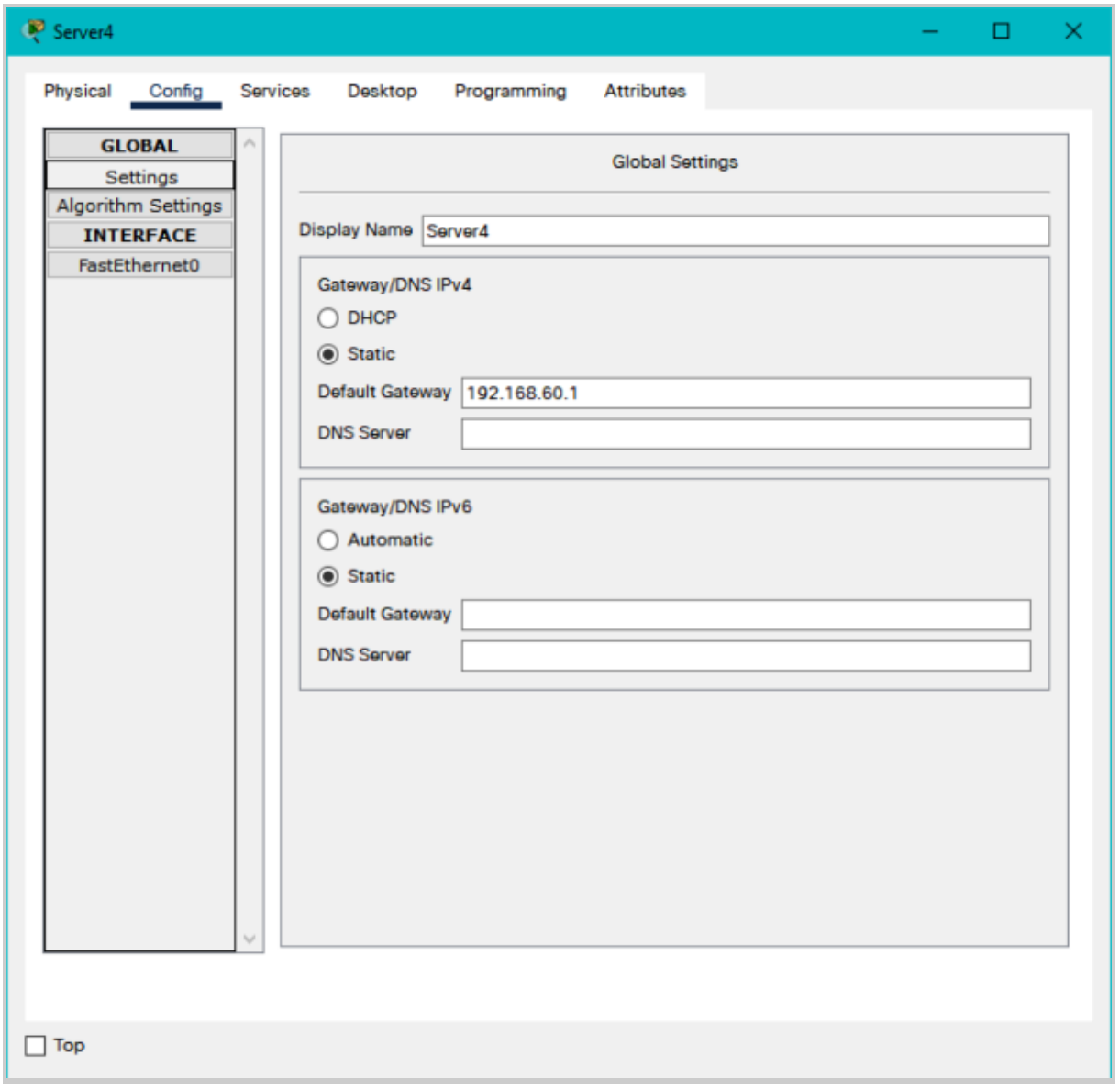

PC1
Desktop
Programming
Command Prompt
X
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ping 192.168.60.4
Pinging 192.168.60.4 with 32 bytes of data:
Request timed out.
Reply from 192.168.60.4: bytes=32 time<1ms TTL=125
Reply from 192.168.60.4: bytes=32 time<1ms TTL=125
Reply from 192.168.60.4: bytes=32 time=1ms TTL=125
Ping statistics for 192.168.60.4:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>ping 192.168.60.4
Pinging 192.168.60.4 with 32 bytes of data:
Reply from 192.168.60.4: bytes=32 time<1ms TTL=125
Reply from 192.168.60.4: bytes=32 time<1ms TTL=125
Reply from 192.168.60.4: bytes=32 time<1ms TTL=125
Reply from 192.168.60.4: bytes=32 time<1ms TTL=125
Ping statistics for 192.168.60.4:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
Top

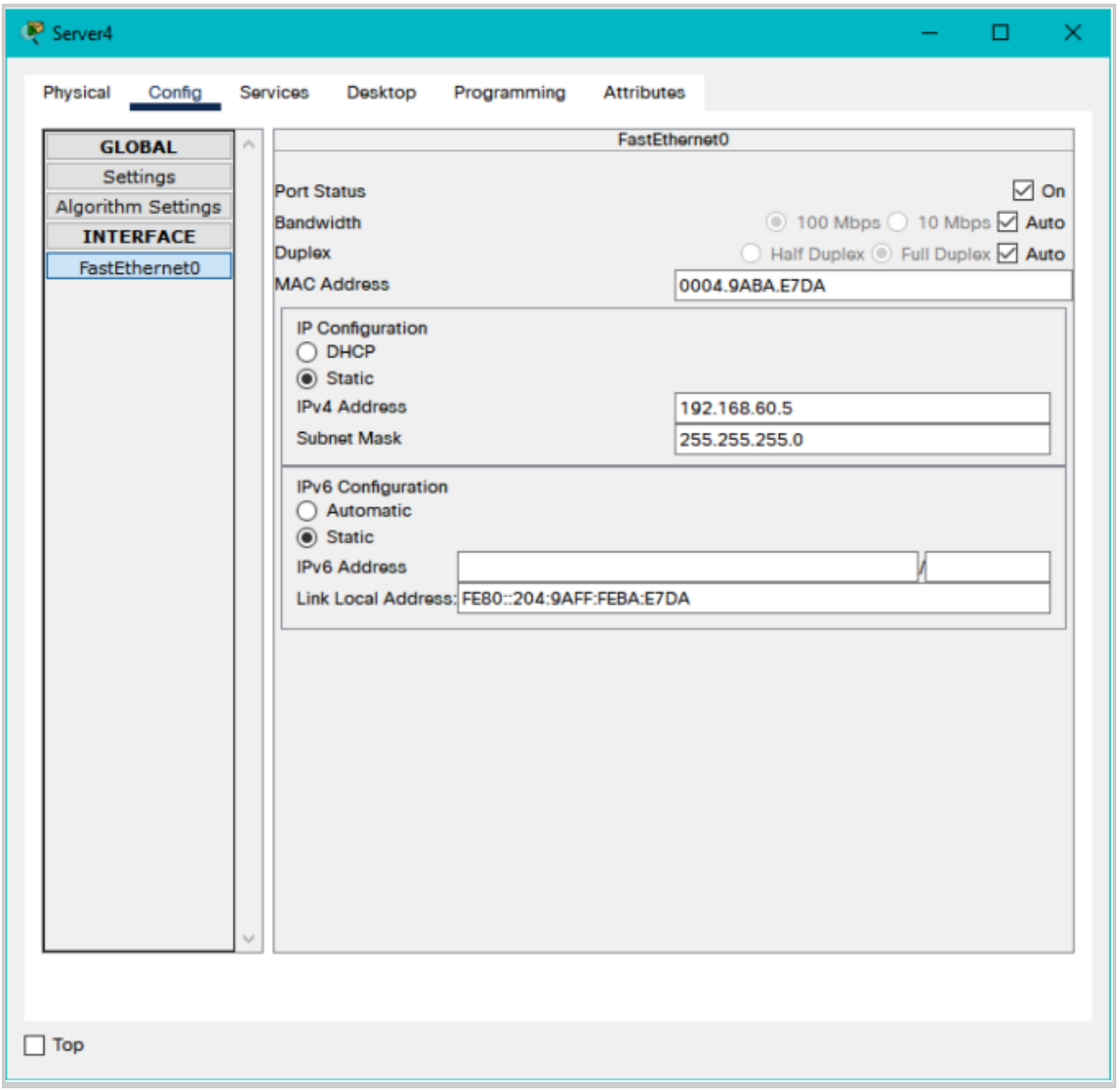


Deu Request time out, pois o servidor do ping 192.168.60.5 não existia no packet tracer

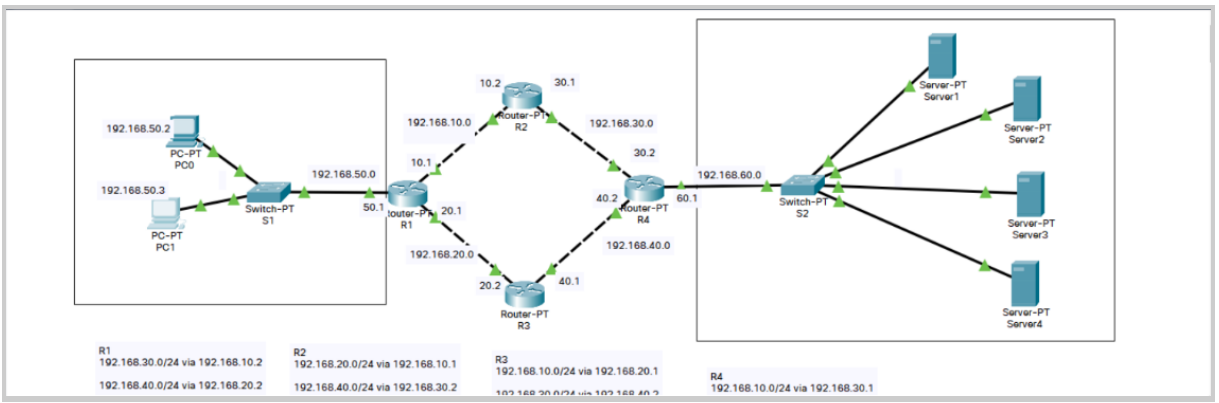


Para resolver o problema, foi conectado um novo servido no switch da rede 192.168.60.0 e configurei seu nome, default gateway, ipv4 e subnet mask.

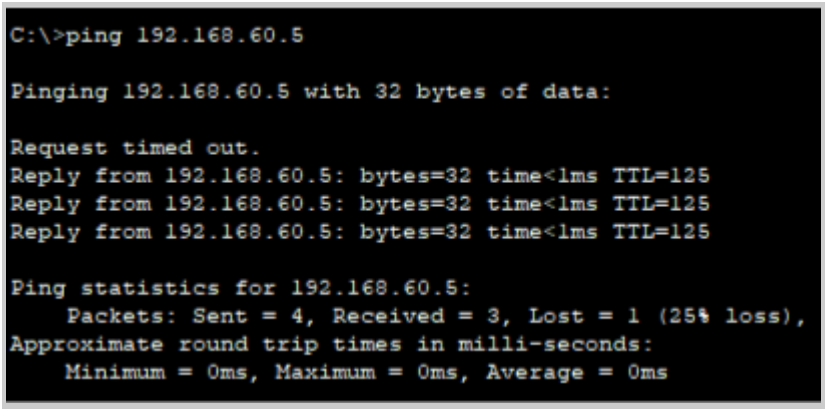

Server4
Physical
Config
Services
Desktop
Programming
Attributes
GLOBAL
Settings
Algorithm Settings
INTERFACE
FastEthernet0
Global Settings
Display Name
Server4
Gateway/DNS IPv4
DHCP
Static
Default Gateway
192.168.60.1
DNS Server
Gateway/DNS IPv6
Automatic
Static
Default Gateway
DNS Server
Top



Estando assim agora o packet tracer



ping 192.168.60.5

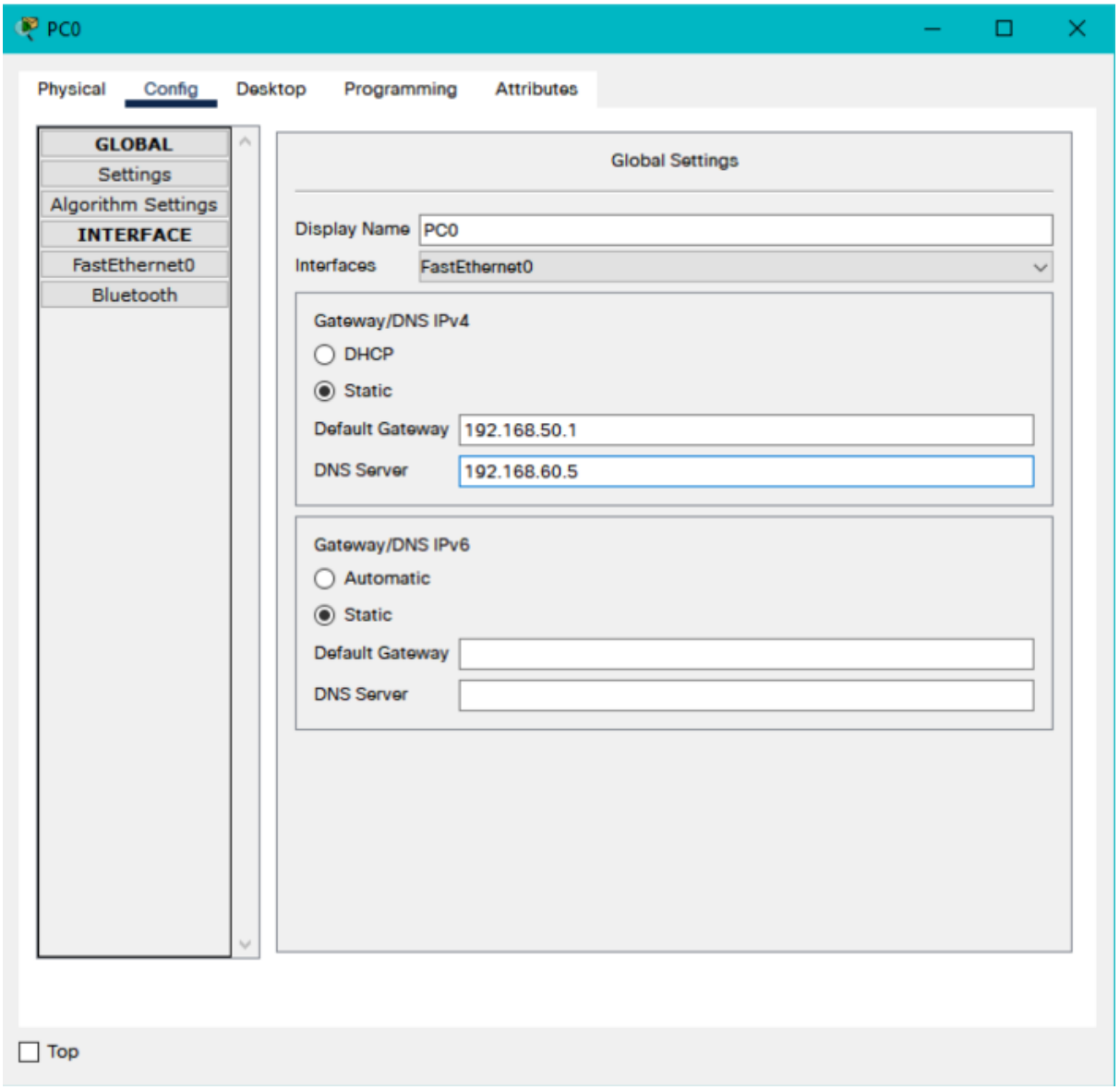


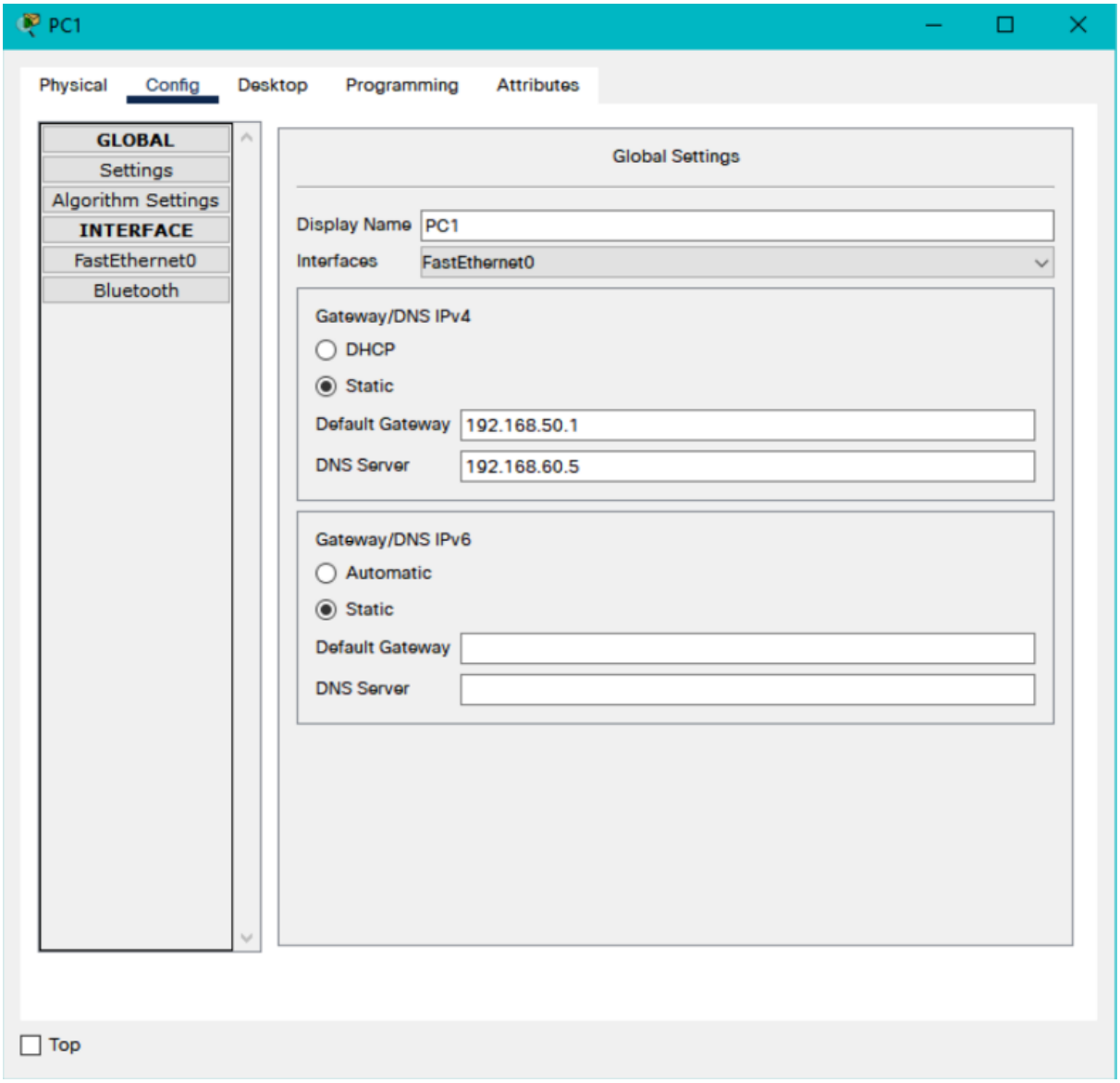
Etapa 4

Nessa etapa faremos a configuração dos serviços HTTP, DHCP, FTP e DNS.

1) Configurar e testar o serviço DNS

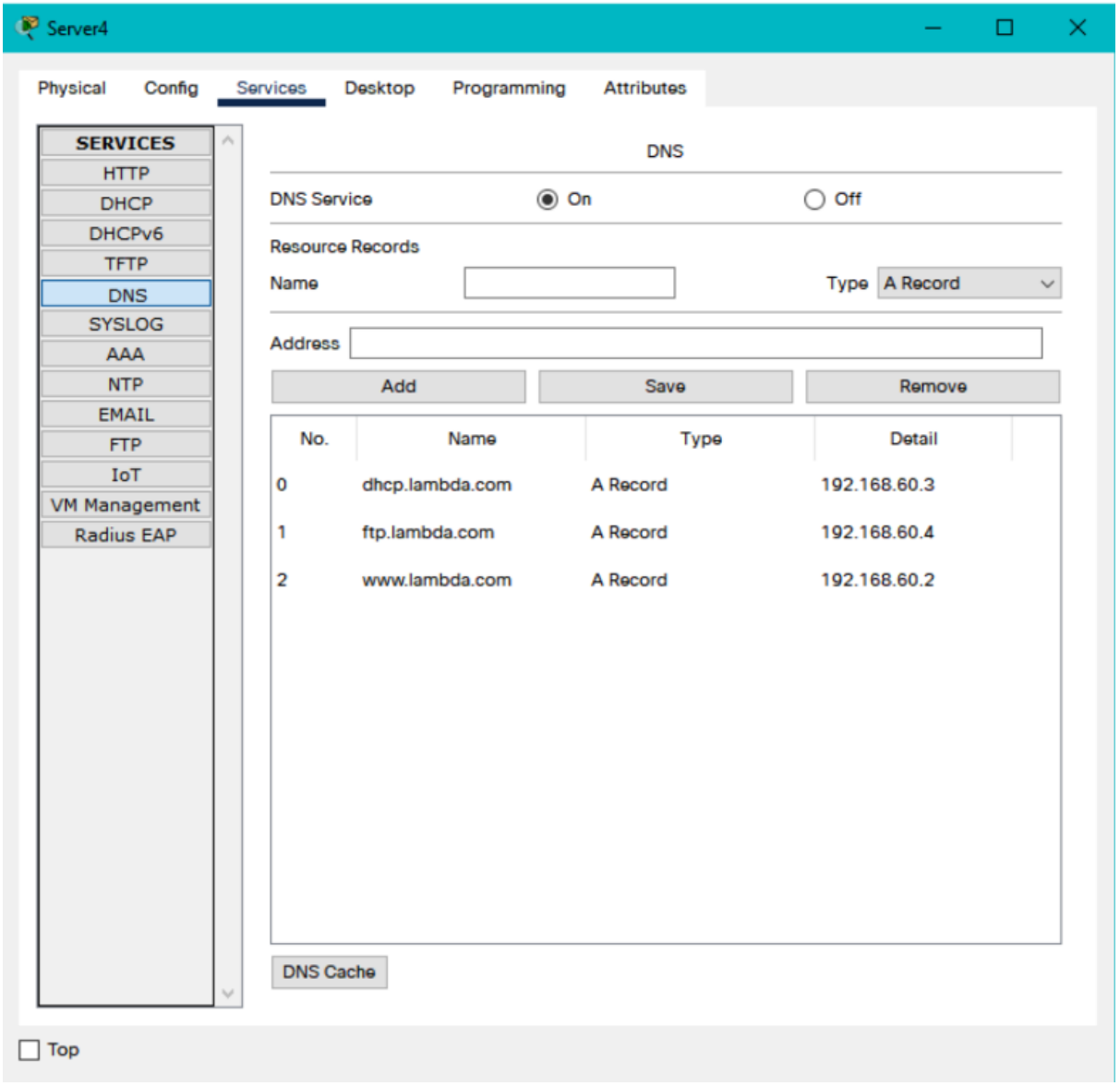
Configurar os PC´s da rede 192.168.50.0 para usar o endereço de DNS 192.168.60.5


PC0
Physical
Config
Desktop
Programming
Attributes
GLOBAL
Settings
Algorithm Settings
INTERFACE
FastEthernet0
Bluetooth
Global Settings
Display Name
PC0
Interfaces
FastEthernet0
Gateway/DNS IPv4
DHCP
Static
Default Gateway
192.168.50.1
DNS Server
192.168.60.5
Gateway/DNS IPv6
Automatic
Static
Default Gateway
DNS Server
Top



Configurar o serviço DNS no computador dns.lambda.com cujo endereço IP é 192.168.6.5

Seguir a configuração conforme a figura DNS-01.jpeg



Testar a partir do PC0 ou do PC1 a conectividade usando os seguintes comandos:
C:\>ping ftp.lambda.com
C:\>ping dhcp.lambda.com
C:\>ping www.lambda.com

```
C:\>ping ftp.lambda.com

Pinging 192.168.60.4 with 32 bytes of data:

Request timed out.
Reply from 192.168.60.4: bytes=32 time=6ms TTL=125
Reply from 192.168.60.4: bytes=32 time<1ms TTL=125
Reply from 192.168.60.4: bytes=32 time<1ms TTL=125

Ping statistics for 192.168.60.4:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 6ms, Average = 2ms
```

```
C:\>ping dhcp.lambda.com

Pinging 192.168.60.3 with 32 bytes of data:

Request timed out.
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125
Reply from 192.168.60.3: bytes=32 time<1ms TTL=125

Ping statistics for 192.168.60.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

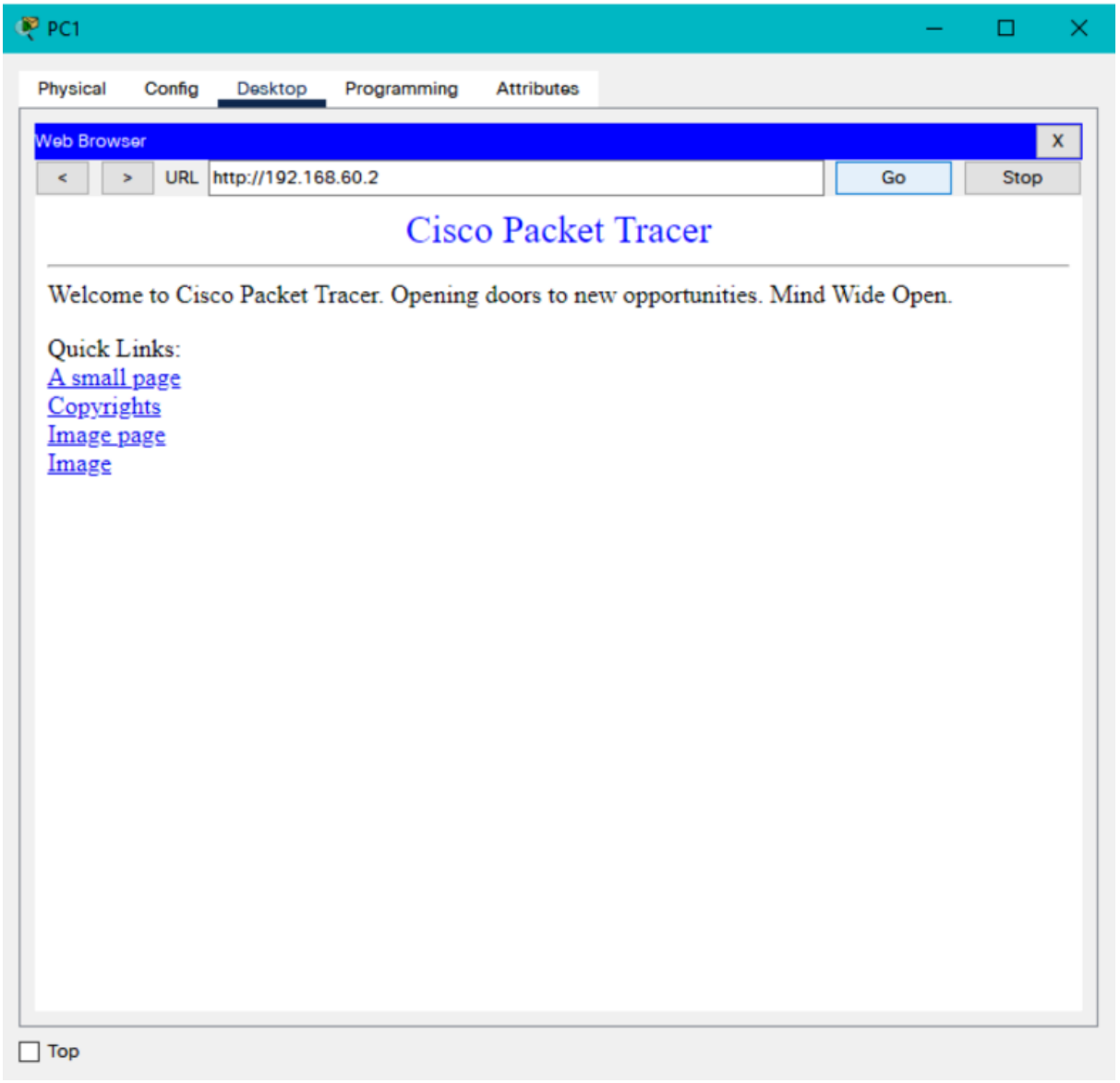
```
C:\>ping www.lambda.com

Pinging 192.168.60.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.60.2: bytes=32 time=8ms TTL=125
Reply from 192.168.60.2: bytes=32 time<1ms TTL=125
Reply from 192.168.60.2: bytes=32 time<1ms TTL=125

Ping statistics for 192.168.60.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 8ms, Average = 2ms
```

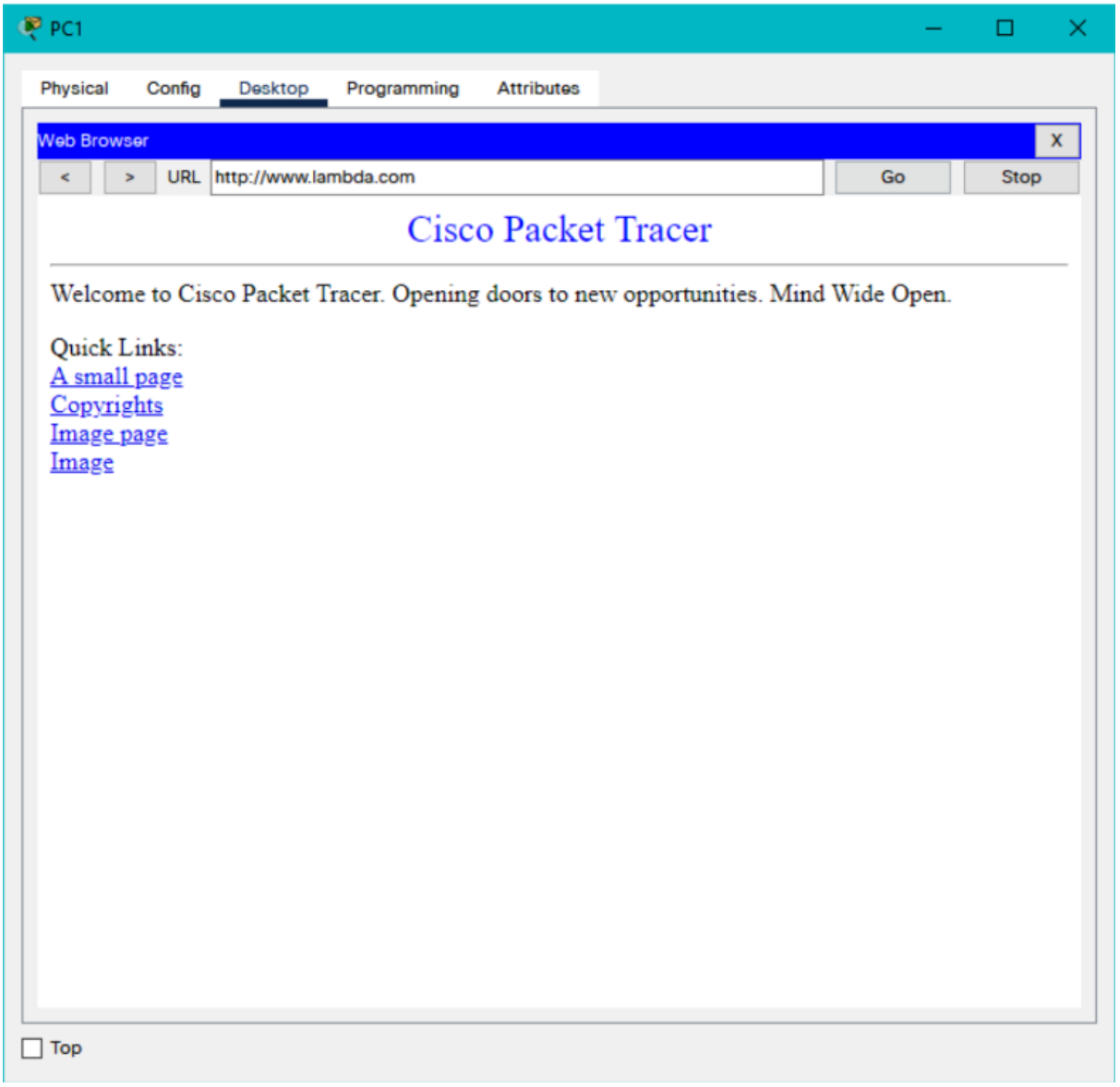
Observação: No inicio a resposta é lenta por conta do processo de resolução de nomes.

2) Configurar e testar o serviço HTTP

A configuração do serviço HTTP consiste em ativa-lo conforme a figura

Testes HTTP
do PC1 chamar do WebBrowser a URL 192.168.60.2
do PC1 chamar do WebBrowser a URL http://www.lambda.com

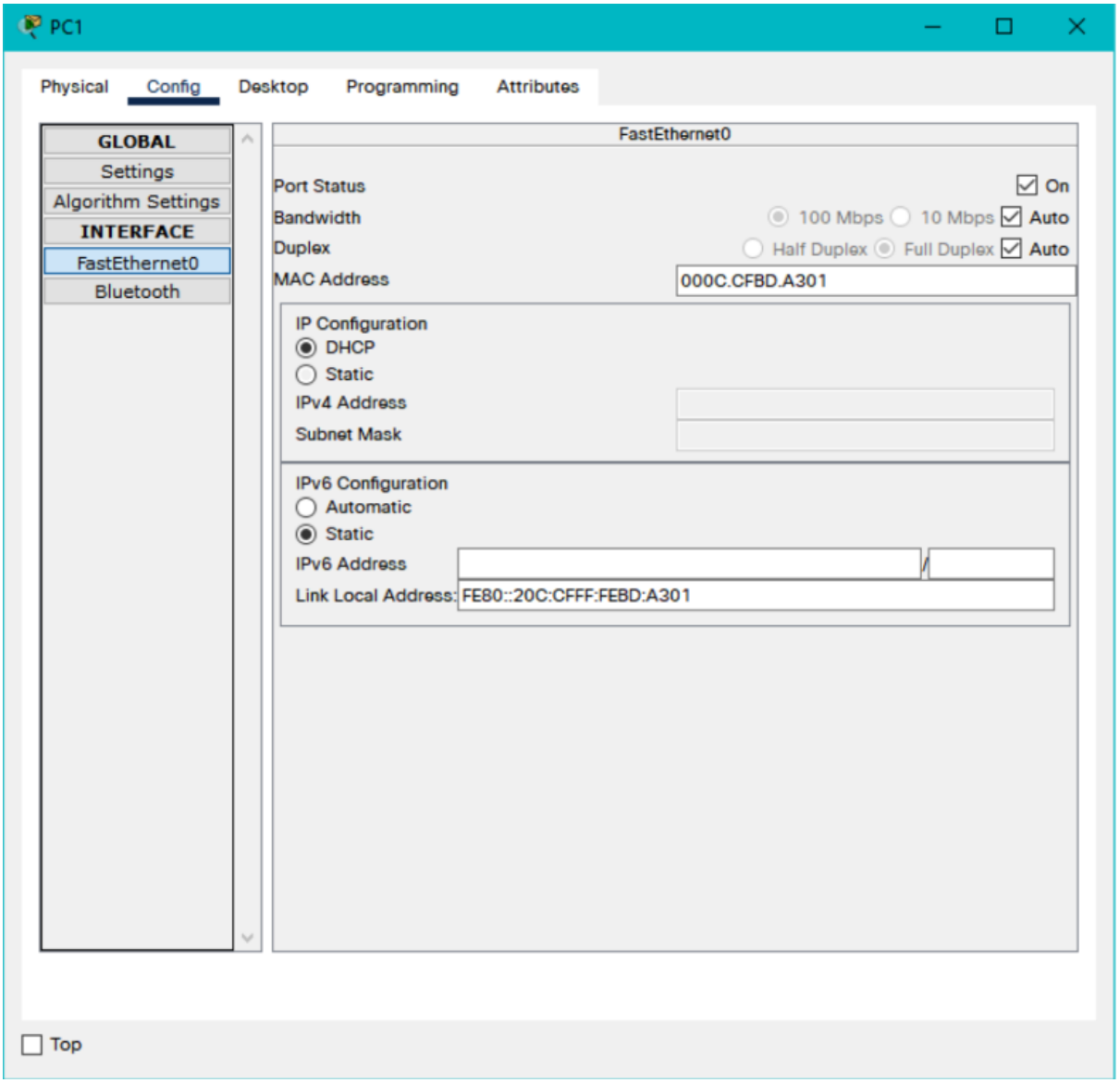

PC1
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
http://192.168.60.2
Go
Stop
Cisco Packet Tracer
Welcome to Cisco Packet Tracer. Opening doors to new opportunities. Mind Wide Open.
Quick Links:
A small page
Copyrights
Image page
Image
Top



3) Configurar e testar o serviço DHCP

Configurar um computador da rede 192.168.50.0 com DHCP (Ip Dinamico)

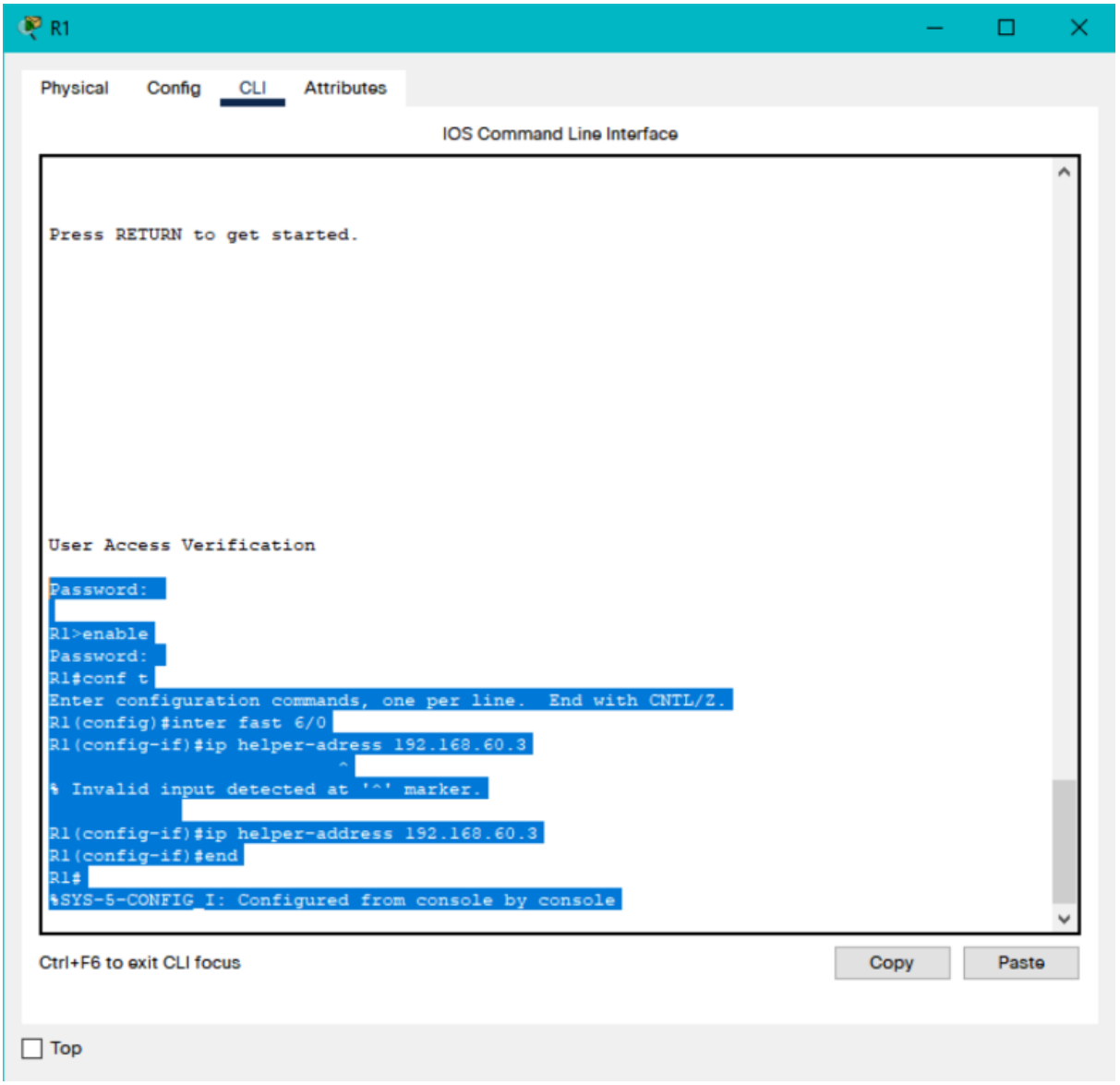
Observar se o endereço IP é configurado.



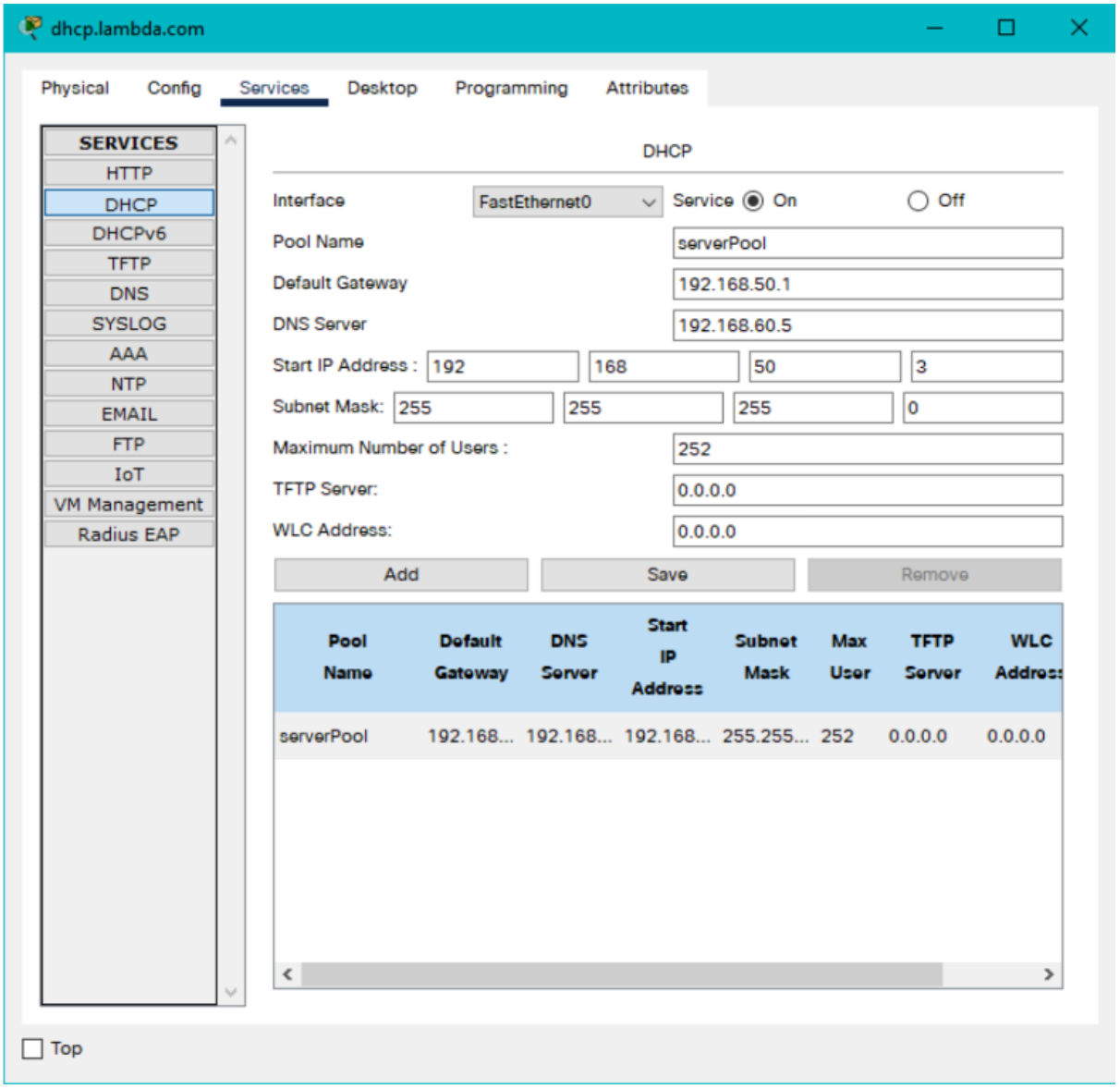
Para receber endereços DHCP na rede 192.168.50.0 é necessário configurar a interface do roteador a qual está configurado o default gateway. Assim os broadcast de requisição de endereço DHCP serão passados adiante.

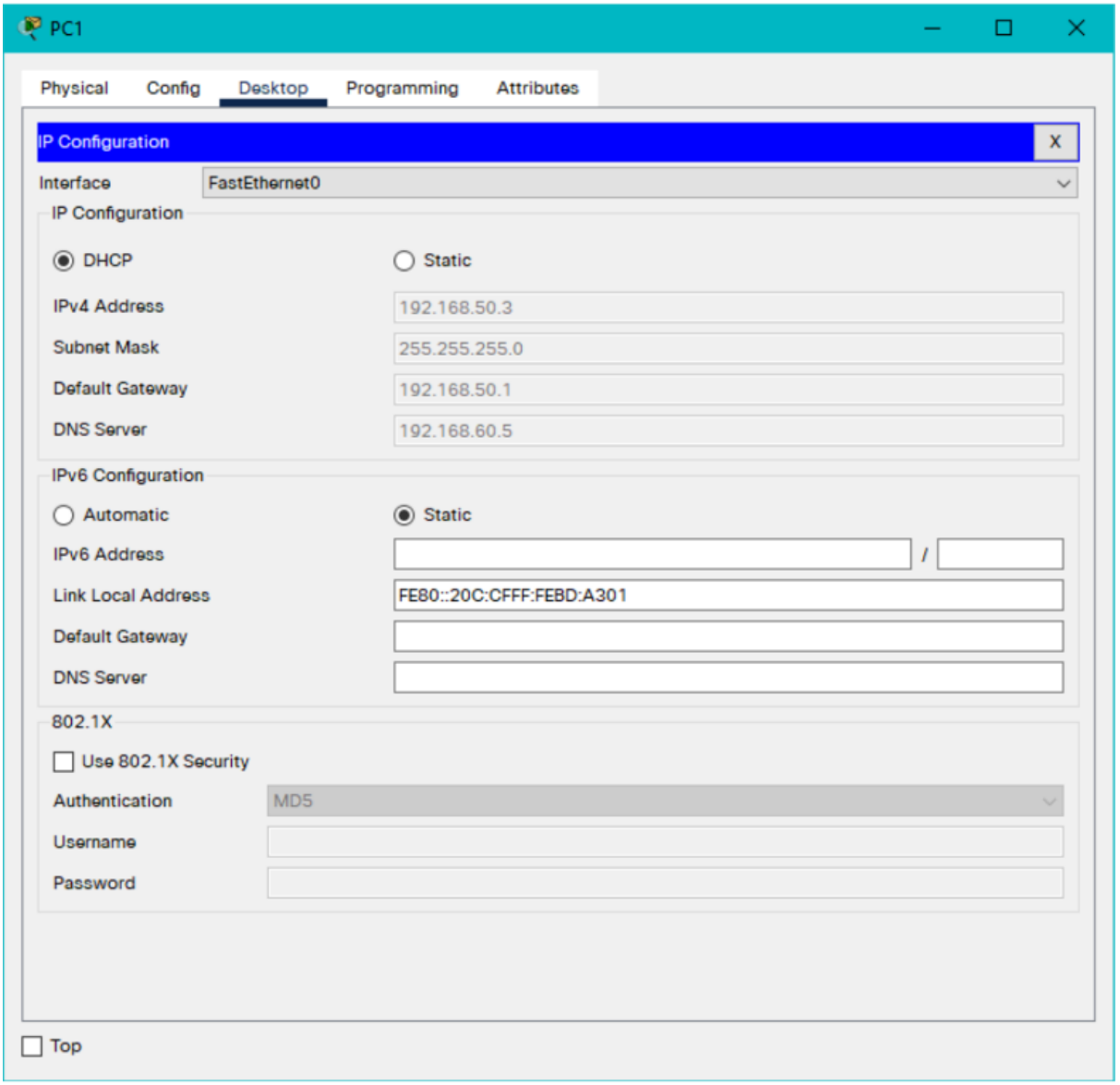
Configurar a interface Fastethernet 6/0 do roteador R1 para encaminhar broadcast de requisição DHCP até o DHCP Server 192.168.60.3

```
R1#configure terminal
Enter configuration commands, one per line.  End with CRTL/Z.
R1(config)#interface fastethernet 6/0
R1(config-if)#ip helper-address 192.168.60.3
R1(config-if)#end
R1#
```

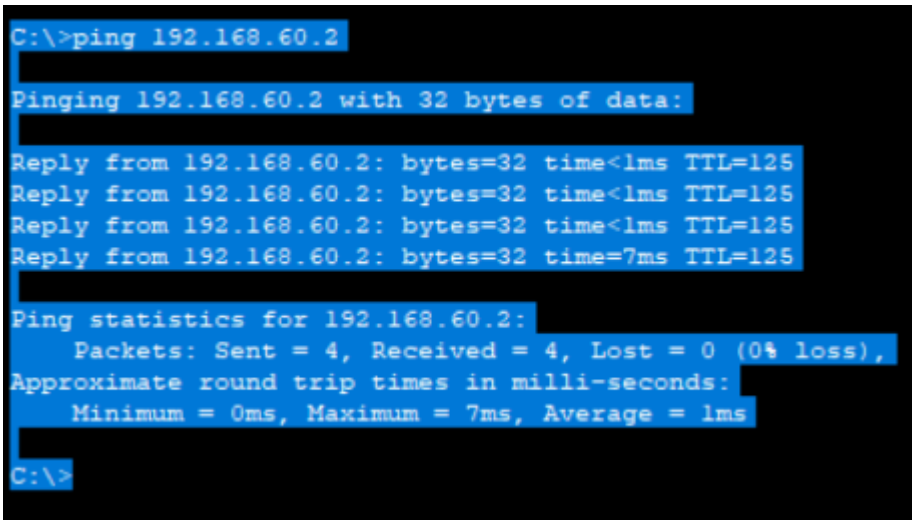


Observar se o endereço IPv4 foi configurado no computador.

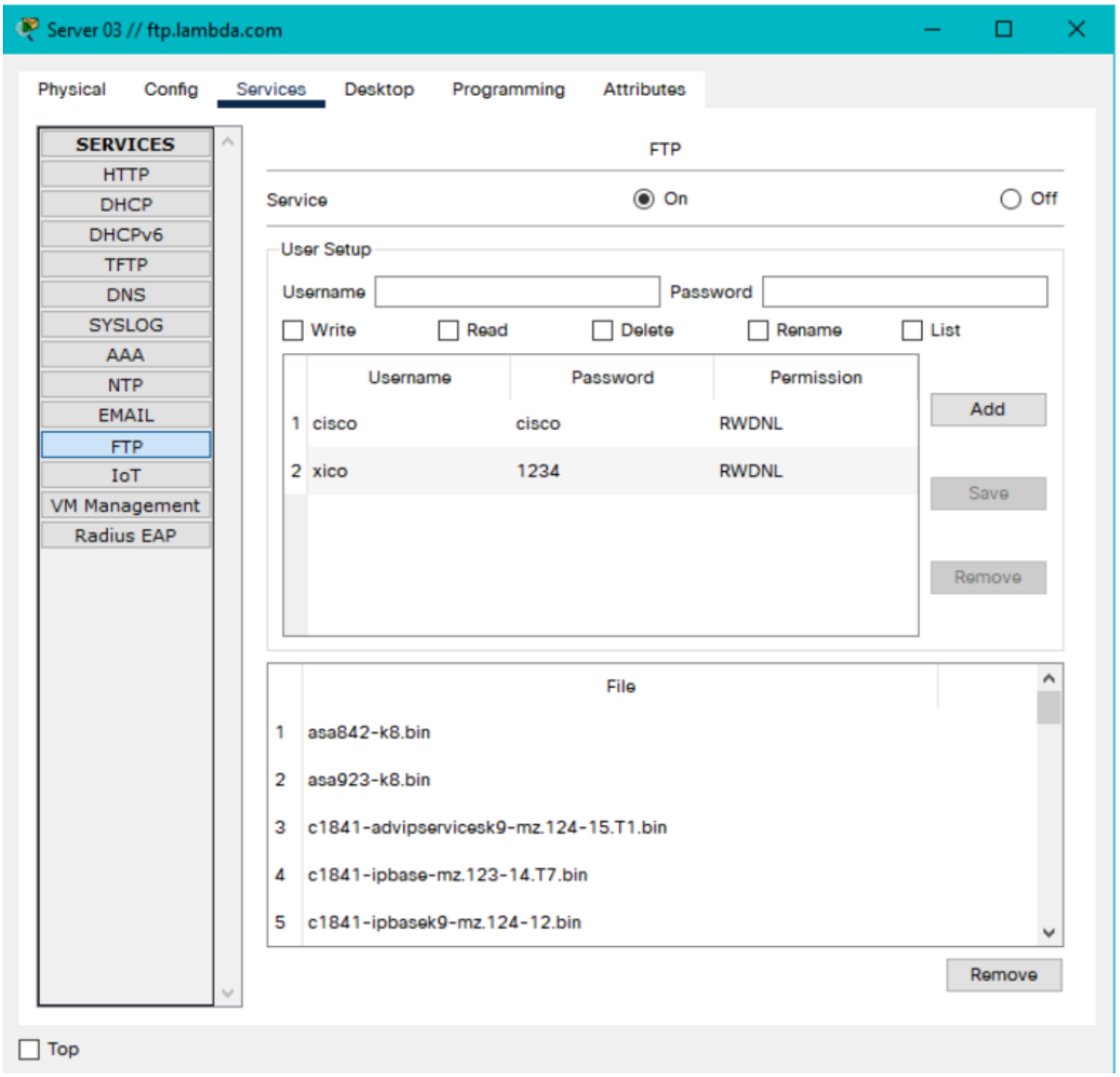

dhcp.lambda.com
Physical
Config
Services
Desktop
Programming
Attributes
SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
IoT
VM Management
Radius EAP
DHCP
Interface
FastEthernet0
Service
On
Off
Pool Name
serverPool
Default Gateway
192.168.50.1
DNS Server
192.168.60.5
Start IP Address :
192
168
50
3
Subnet Mask:
255
255
255
0
Maximum Number of Users :
252
TFTP Server:
0.0.0.0
WLC Address:
0.0.0.0
Add
Save
Remove
Pool Name
Default Gateway
DNS Server
Start IP Address
Subnet Mask
Max User
TFTP Server
WLC Address
serverPool
192.168...
192.168...
192.168...
255.255...
252
0.0.0.0
0.0.0.0
Top



Testar a conectividade usando o ping para o IP 192.168.60.2



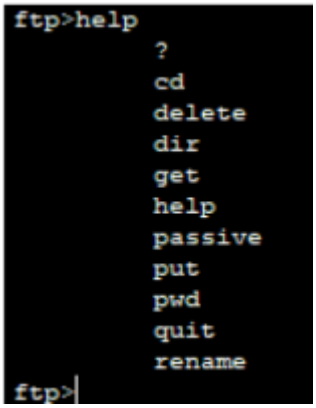
4) Configurar e testar o serviço FTP



C:\>ftp ftp.lambda.com
Trying to connect...ftp.lambda.com
Connected to ftp.lambda.com
220- Welcome to PT Ftp server
Username:xico
331- Username ok, need password
Password: 1234
230- Logged in
(passive mode On)
ftp>dir
ftp>help

```
C:\>ftp ftp.lambda.com
Trying to connect...ftp.lambda.com
Connected to ftp.lambda.com
220- Welcome to PT Ftp server
Username:xico
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>
```

```
ftp>dir

Listing /ftp directory from ftp.lambda.com:
0    : asa842-k8.bin                                    5571584
1    : asa923-k8.bin                                    30468096
2    : c1841-advipservicesk9-mz.124-15.T1.bin           33591768
3    : c1841-ipbase-mz.123-14.T7.bin                    13832032
4    : c1841-ipbasek9-mz.124-12.bin                     16599160
5    : c1900-universalk9-mz.SPA.155-3.M4a.bin           33591768
6    : c2600-advipservicesk9-mz.124-15.T1.bin           33591768
7    : c2600-i-mz.122-28.bin                            5571584
8    : c2600-ipbasek9-mz.124-8.bin                      13169700
9    : c2800nm-advipservicesk9-mz.124-15.T1.bin         50938004
10   : c2800nm-advipservicesk9-mz.151-4.M4.bin          33591768
11   : c2800nm-ipbase-mz.123-14.T7.bin                  5571584
12   : c2800nm-ipbasek9-mz.124-8.bin                    15522644
13   : c2900-universalk9-mz.SPA.155-3.M4a.bin           33591768
14   : c2950-i6q412-mz.121-22.EA4.bin                   3058048
15   : c2950-i6q412-mz.121-22.EA8.bin                   3117390
16   : c2960-lanbase-mz.122-25.FX.bin                   4414921
17   : c2960-lanbase-mz.122-25.SEE1.bin                 4670455
18   : c2960-lanbasek9-mz.150-2.SE4.bin                 4670455
19   : c3560-advipservicesk9-mz.122-37.SE1.bin          8662192
20   : c3560-advipservicesk9-mz.122-46.SE.bin           10713279
21   : c800-universalk9-mz.SPA.152-4.M4.bin             33591768
22   : c800-universalk9-mz.SPA.154-3.M6a.bin            83029236
23   : cat3k_caa-universalk9.16.03.02.SPA.bin           505532849
24   : cgr1000-universalk9-mz.SPA.154-2.CG              159487552
25   : cgr1000-universalk9-mz.SPA.156-3.CG              184530138
26   : ir800-universalk9-bundle.SPA.156-3.M.bin         160968869
27   : ir800-universalk9-mz.SPA.155-3.M                 61750062
28   : ir800-universalk9-mz.SPA.156-3.M                 63753767
29   : ir800_yocto-1.7.2.tar                            2877440
30   : ir800_yocto-1.7.2_python-2.7.3.tar               6912000
31   : pt1000-i-mz.122-28.bin                           5571584
32   : pt3000-i6q412-mz.121-22.EA4.bin                  3117390
ftp>
```


ftp>help
?
cd
delete
dir
get
help
passive
put
pwd
quit
rename
ftp>