

Atividade 06

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Etapa 1

Nesse exercício serão apresentadas etapas de configuração onde duas redes locais interligadas por roteadores usam 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) Etapa 1 - Planejamento das rotas e configuração das redes locais

- a) Planejamento das redes identificando os ids das redes.
- b) As redes locais estão caracterizadas por um switch conectado a uma interface de um roteador. Essa interface é chamada de default gateway e pertence à 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 estão 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 ****

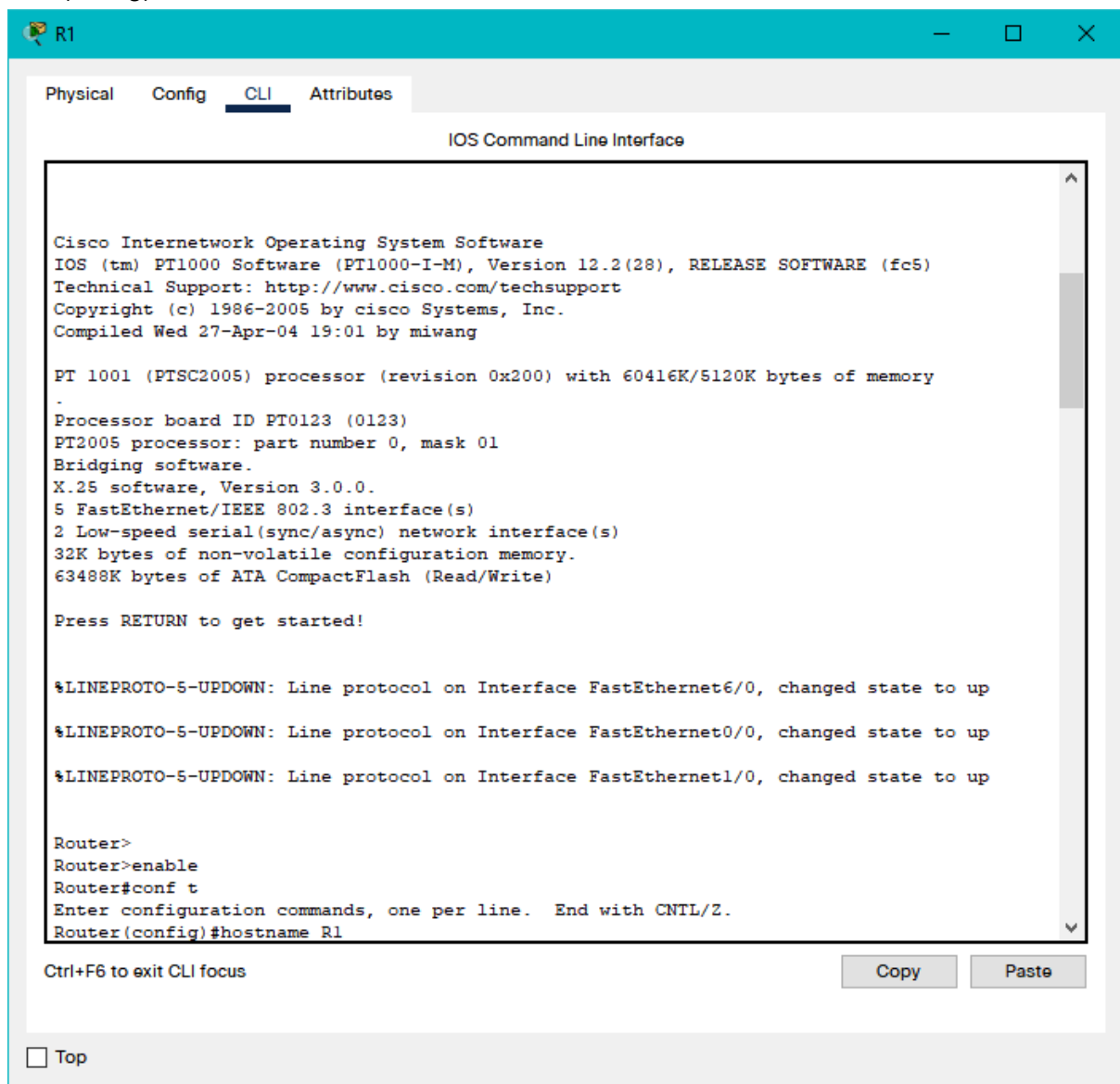
Router>enable

Router#configure terminal

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

Router(config)#hostname R1

R1(config)#



**** Habilita senha do modo privilegiado ****

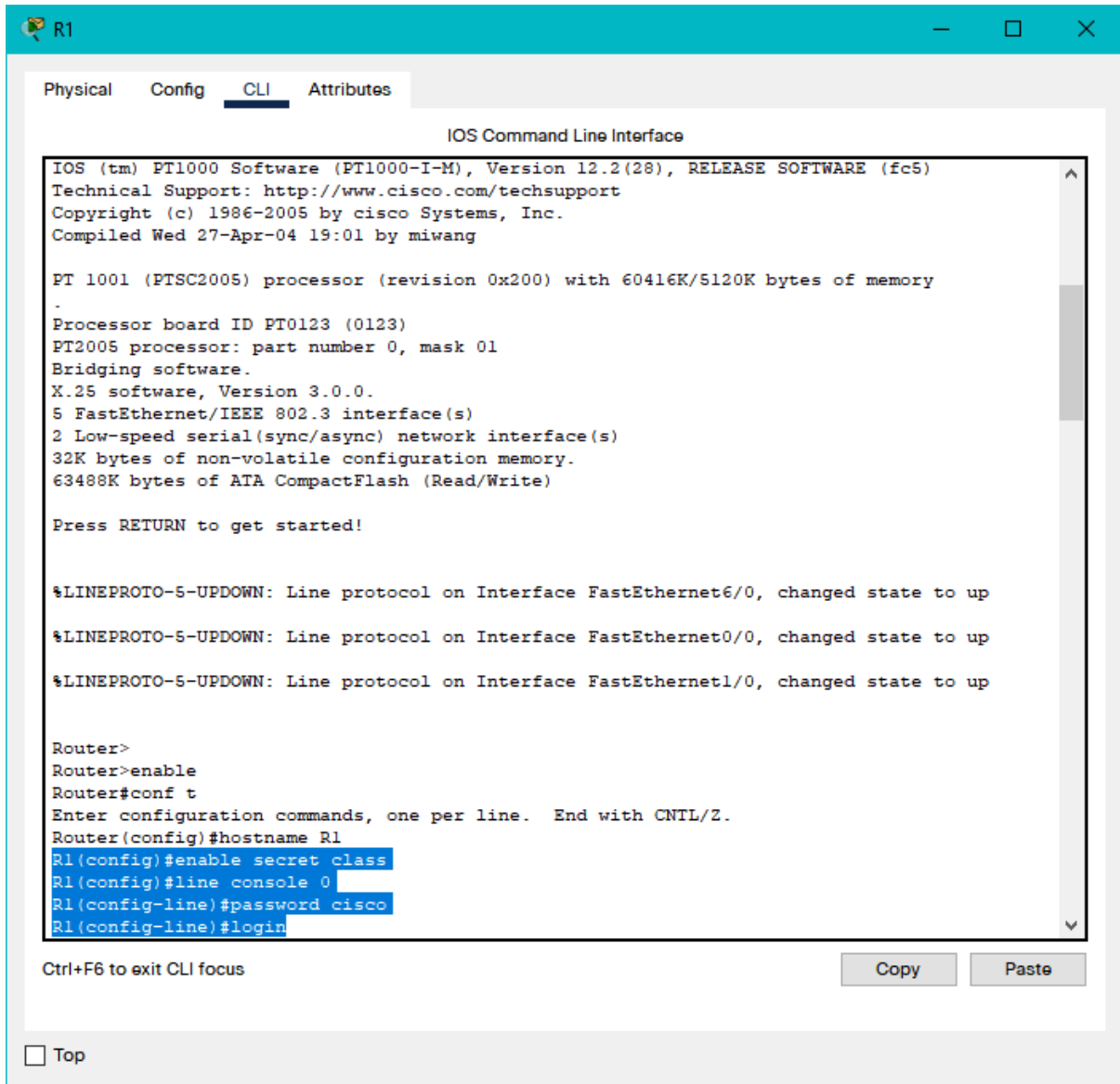
R1(config)#enable secret class

R1(config)#line console 0

R1(config-line)#password cisco

**** Permite tentativa de acesso remoto ****

R1(config-line)#login



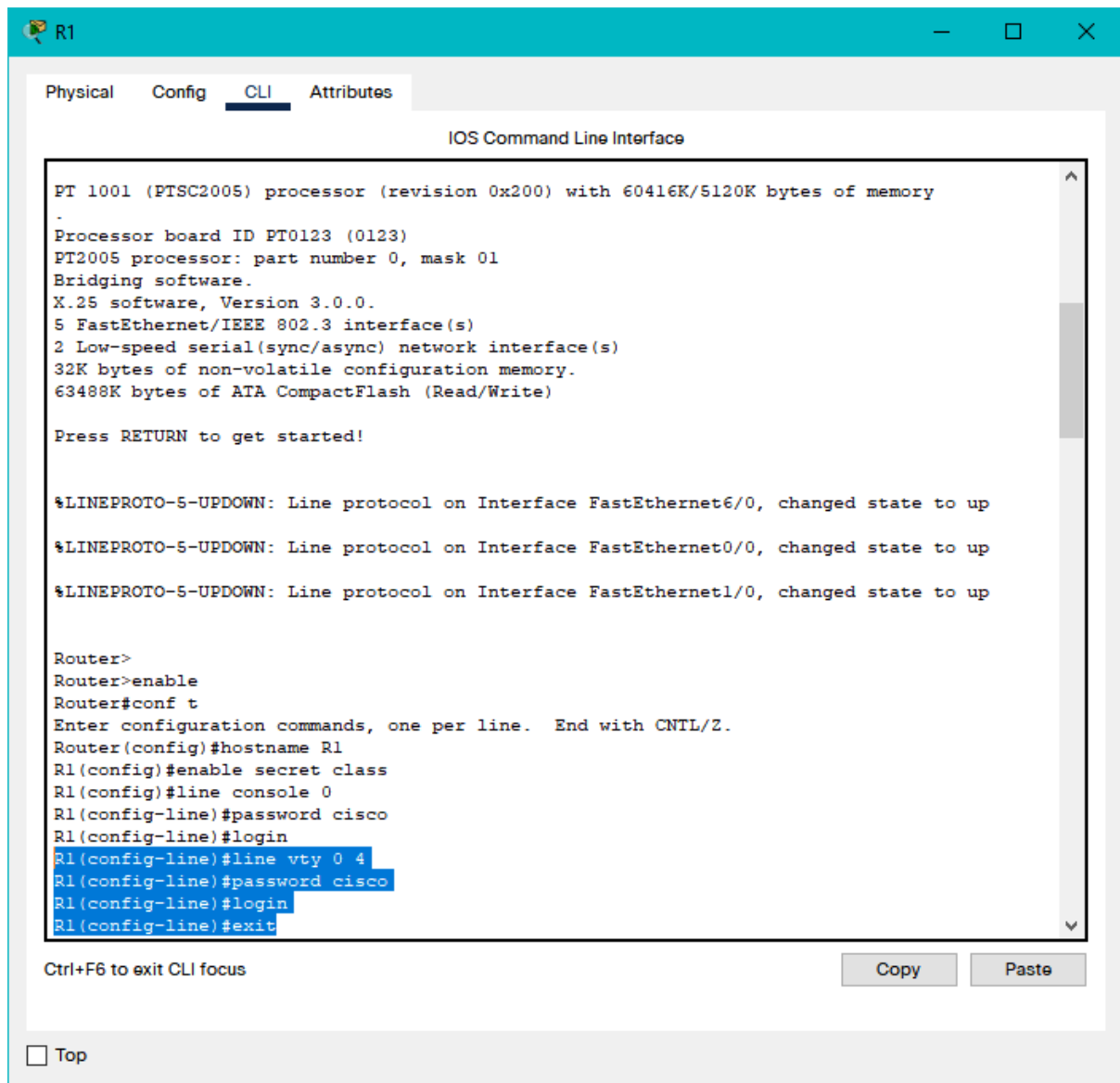
**** Configuração das linhas vty para acesso remoto**

**** 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
```

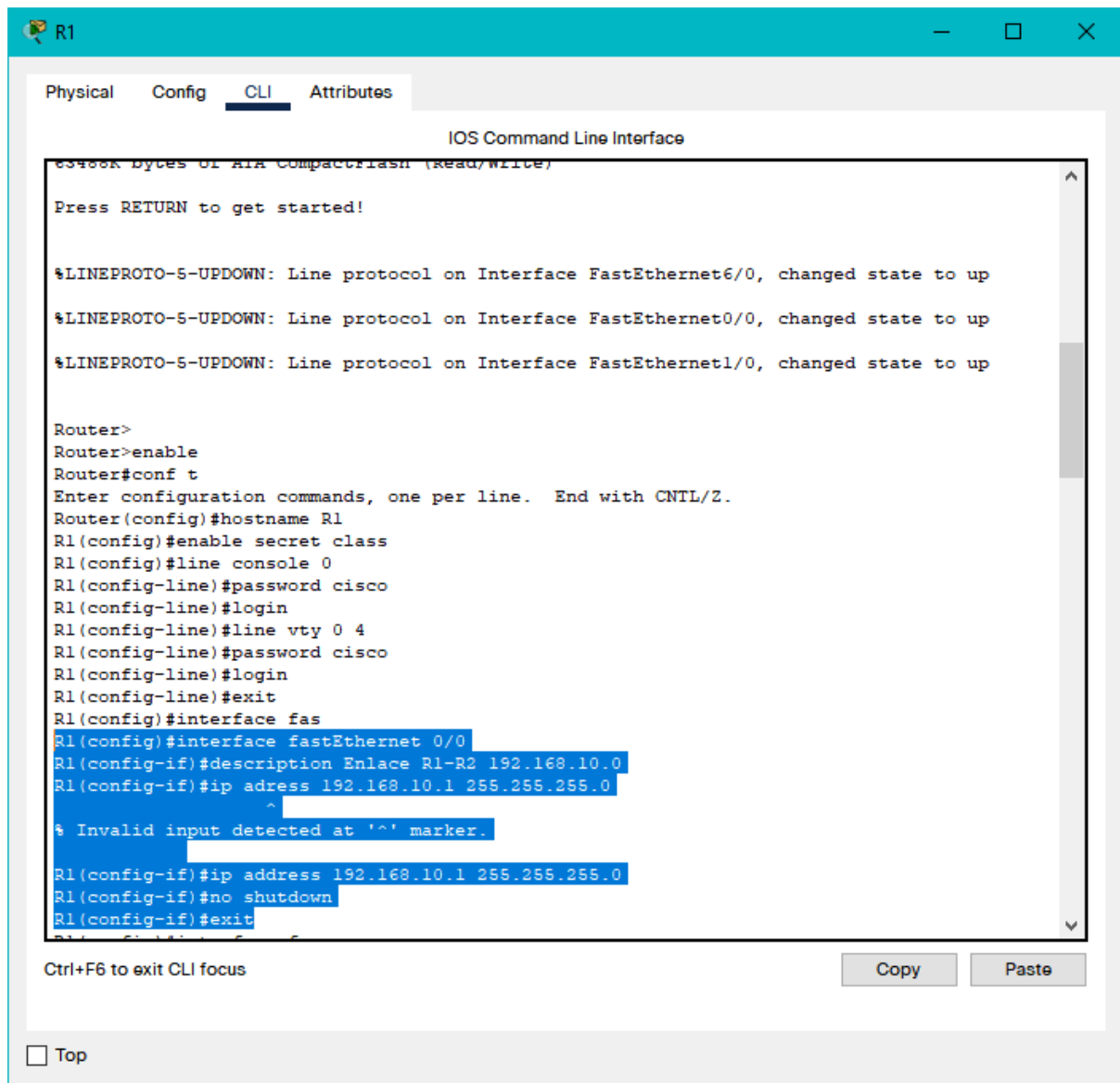
```
R1(config-if)#description Enlace R1-R2 192.168.10.0
```

```
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 ****

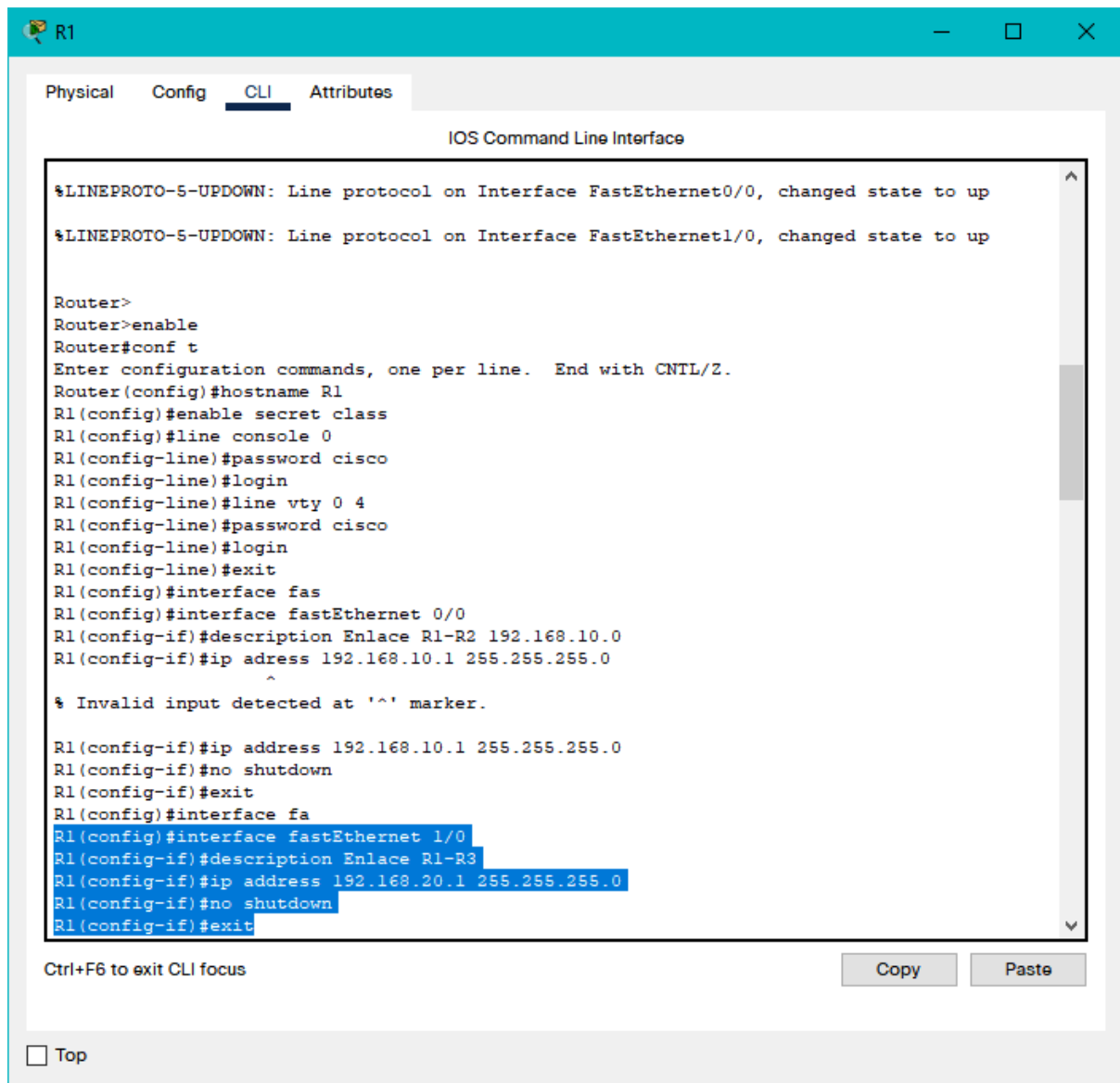
R1(config)#interface fastEthernet1/0

R1(config-if)#description Enlace R1-R3

R1(config-if)#ip address 192.168.20.1 255.255.255.0

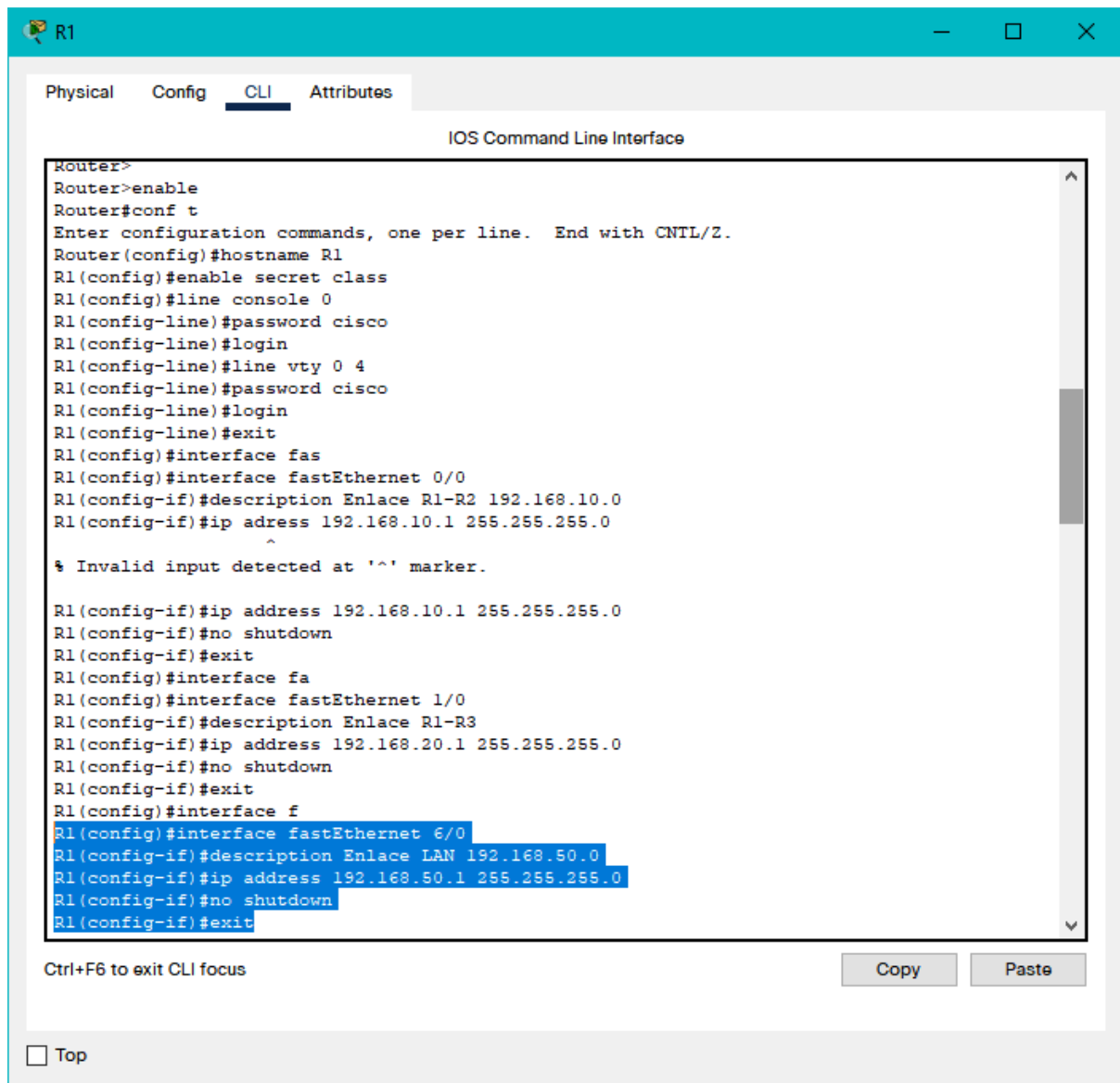
R1(config-if)#no shutdown

R1(config-if)#exit



**** Configurar a interface fastEthernet6/0 ****

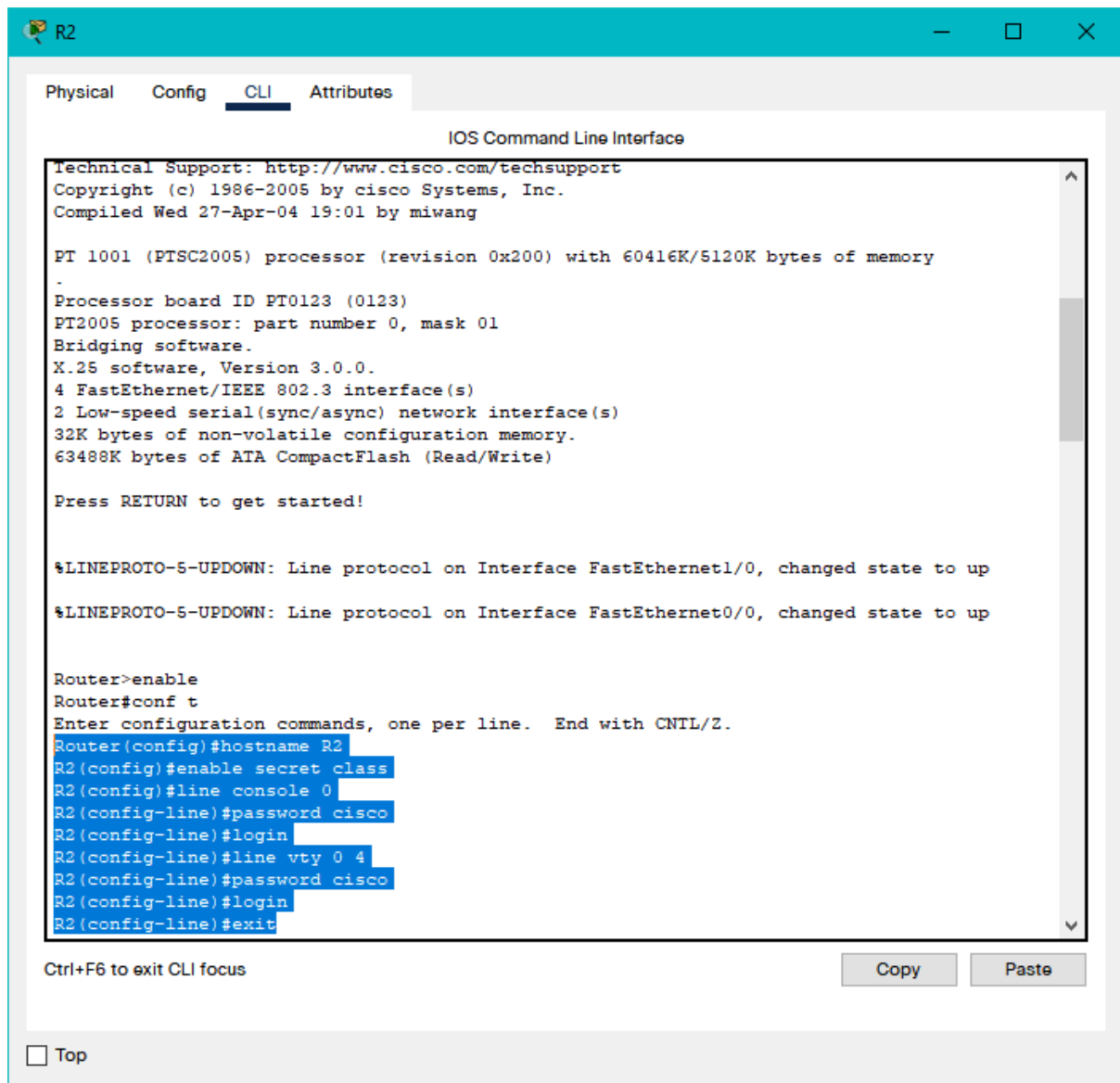
```
R1(config)#interface fastEthernet 6/0
R1(config-if)#description Enlace LAN 192.168.50.0
R1(config-if)#ip address 192.168.50.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
```



2) Configuração das interfaces do Roteador R2

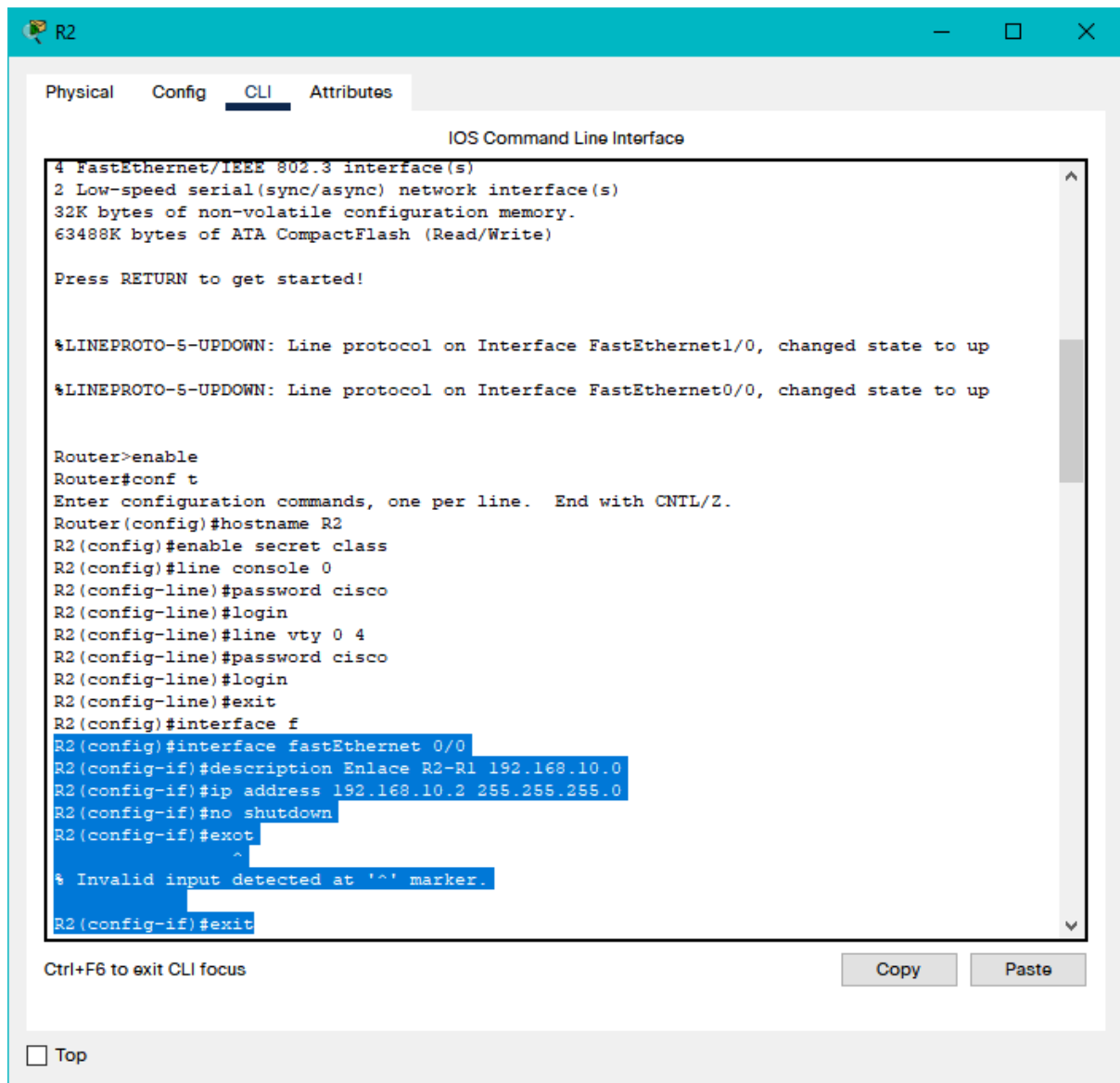
**** Configuração Básica do Roteador ****

```
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
```

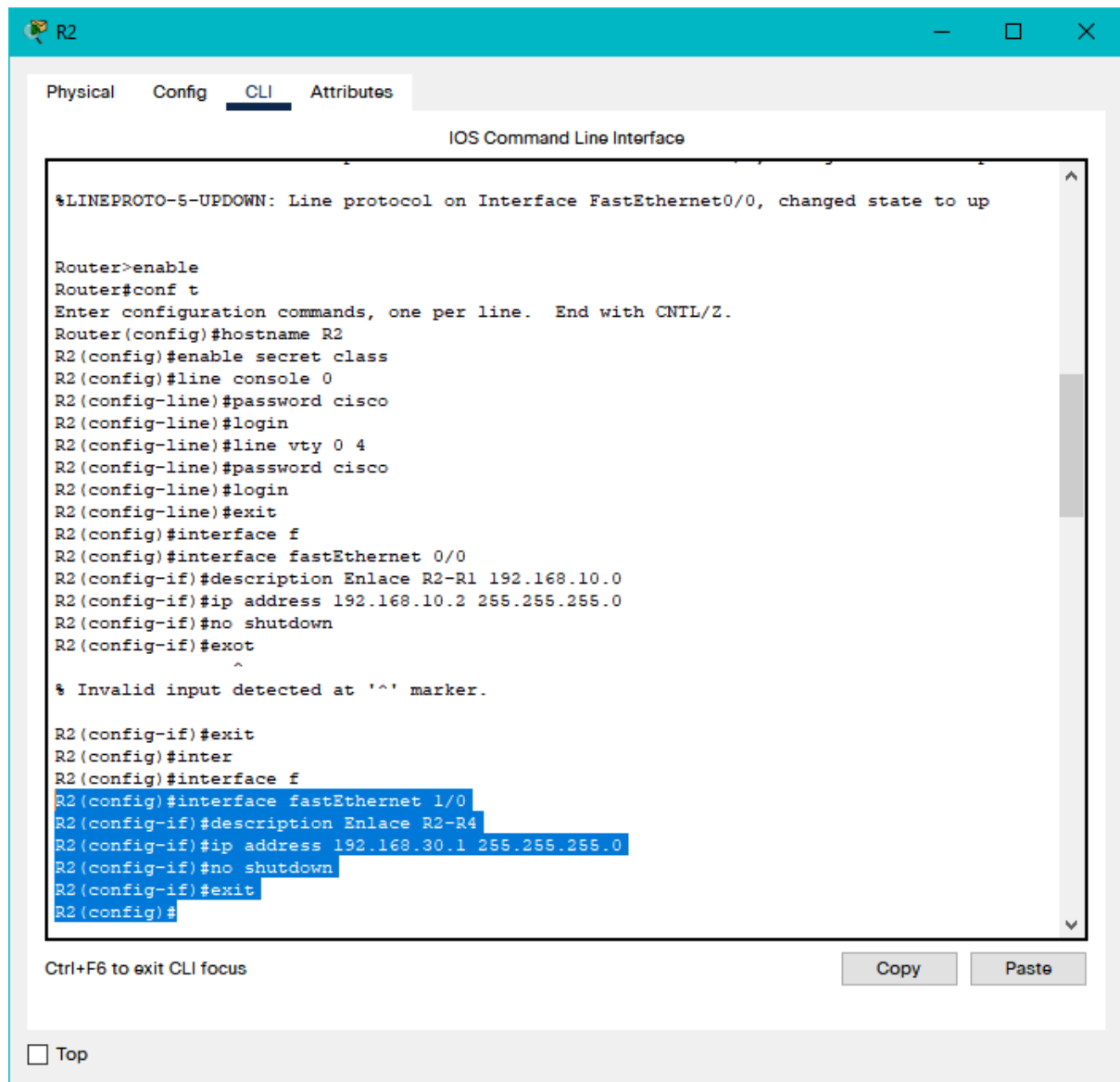
**** Configurar a interface fastEthernet 0/0 ****

```
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 ****

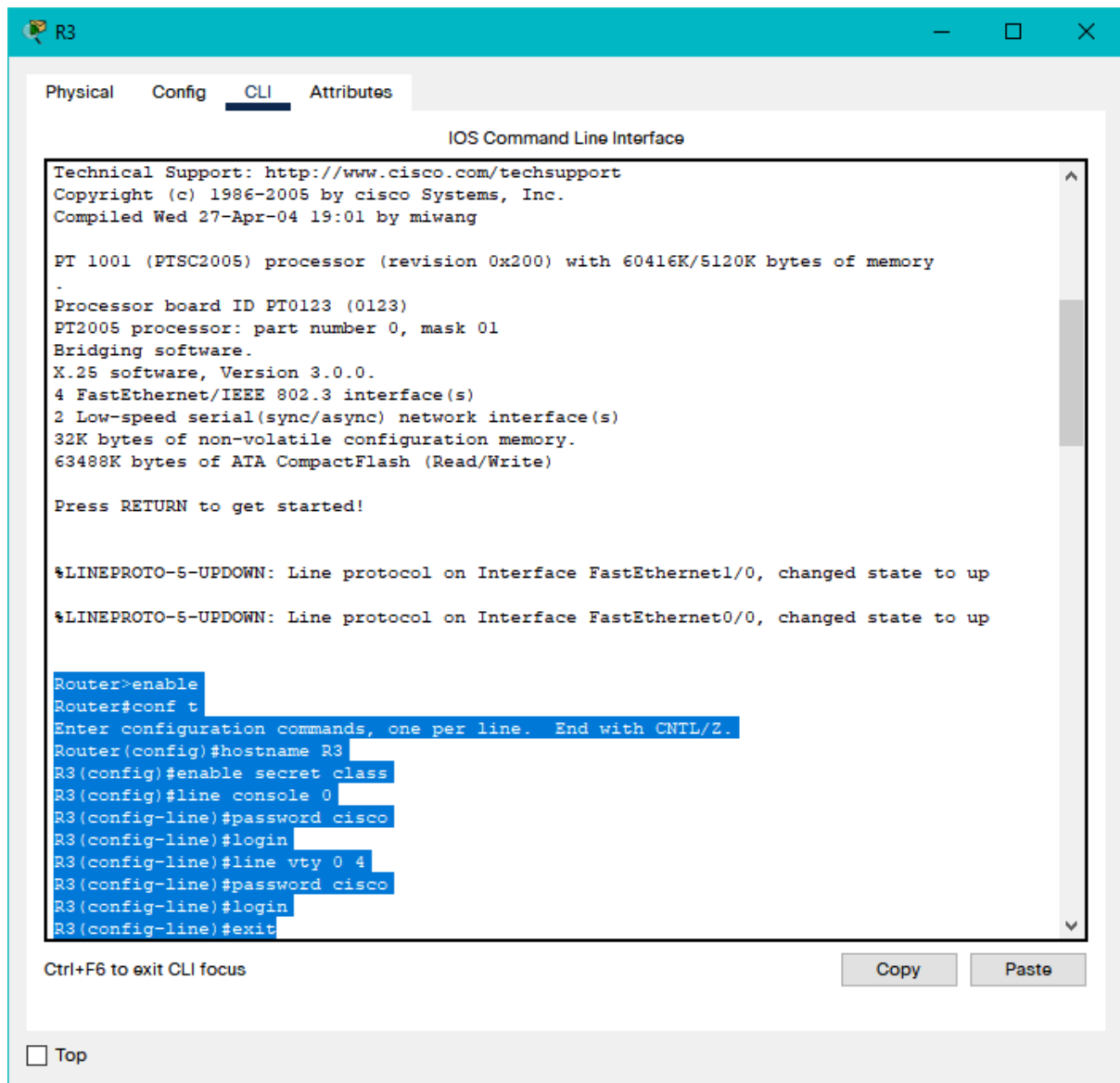
```
R2(config)#interface fastEthernet 1/0
R2(config-if)#description Enlace R2-R4
R2(config-if)#ip address 192.168.30.1 255.255.255.0
R2(config-if)#no shutdown
R2(config-if)#exit
```



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
```

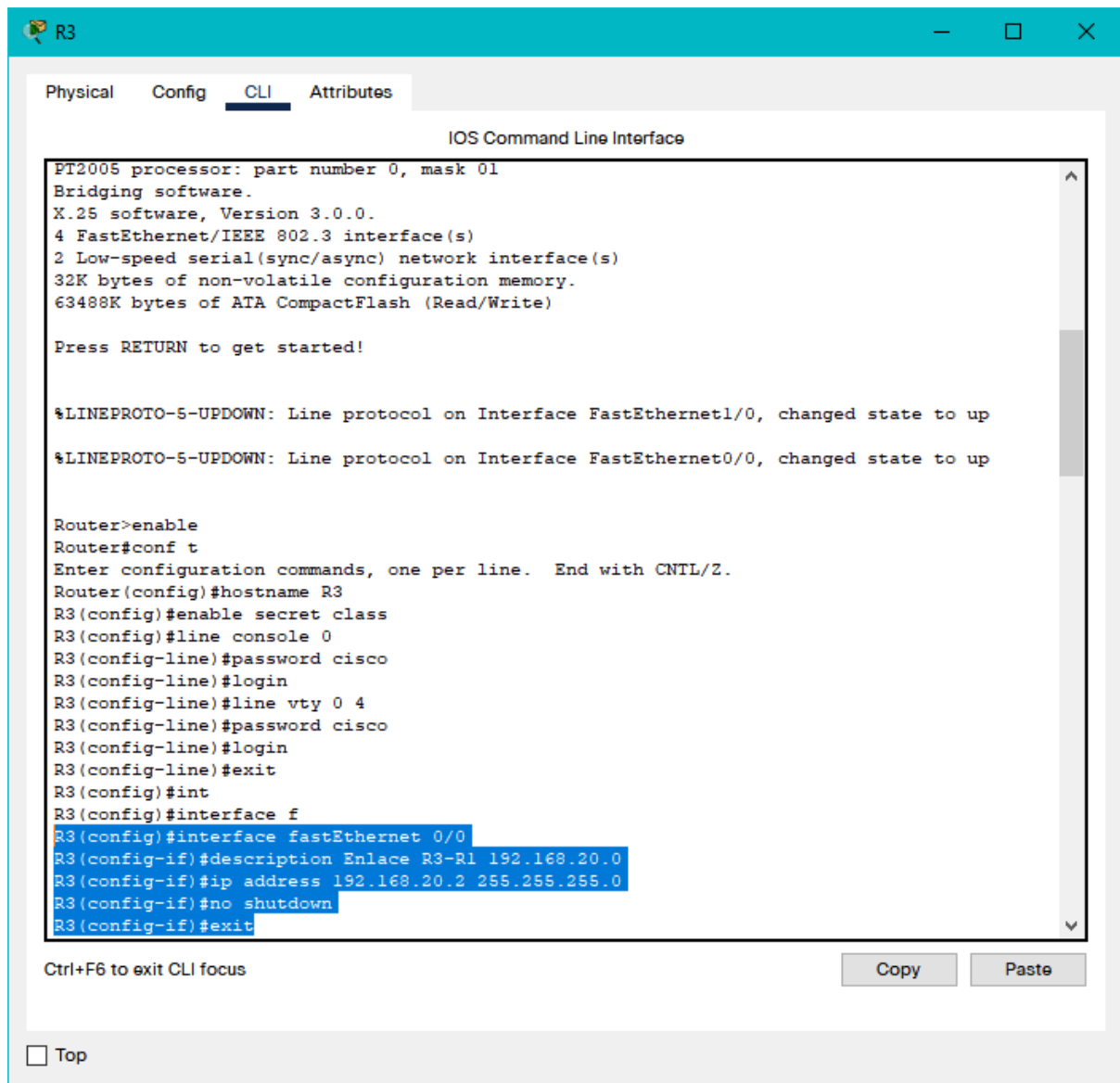
```
R3(config-if)#description Enlace R3-R1 192.168.20.0
```

```
R3(config-if)#ip address 192.168.20.2 255.255.255.0
```

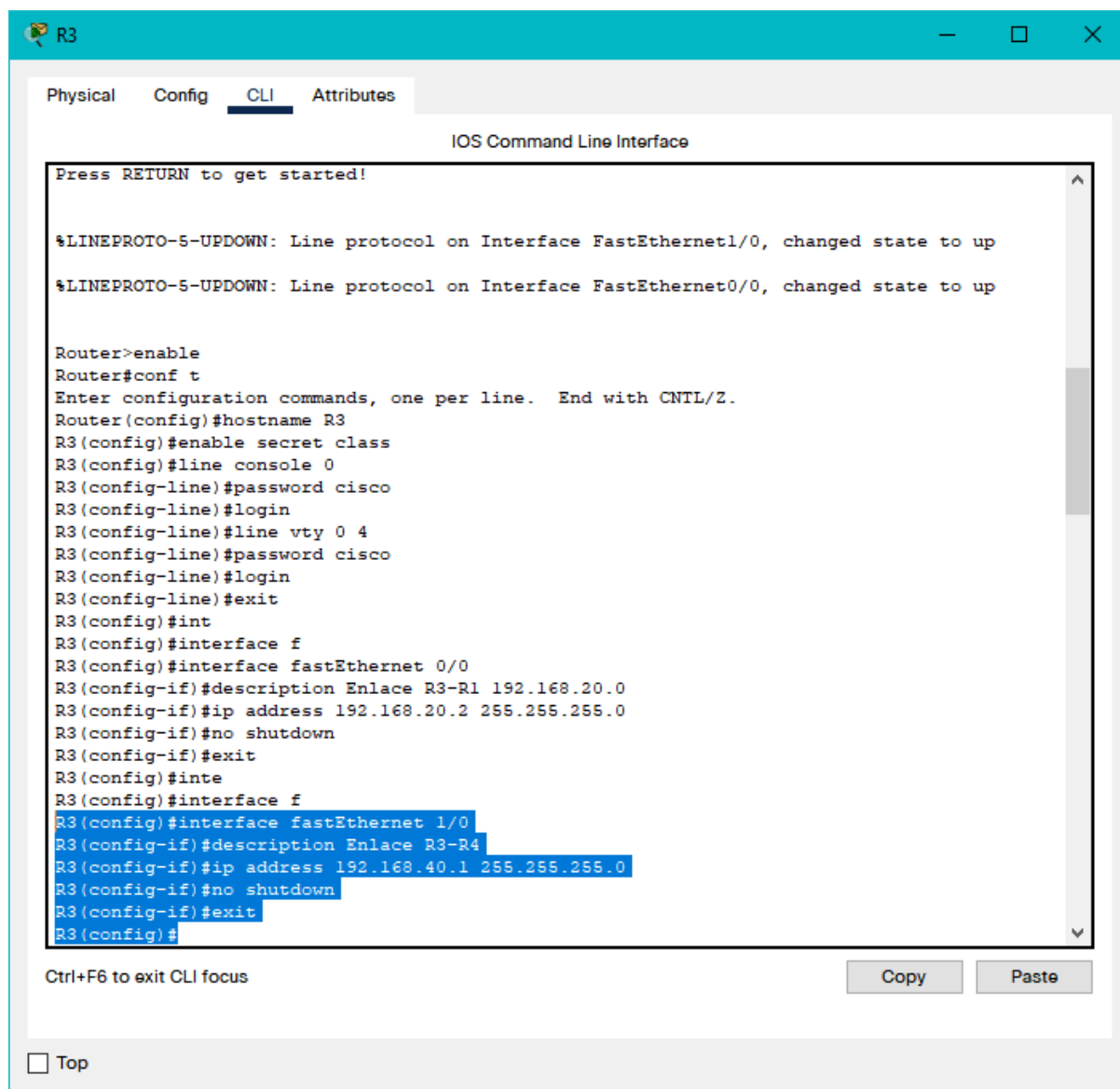
** Ativa a interface **

```
R3(config-if)#no shutdown
```

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



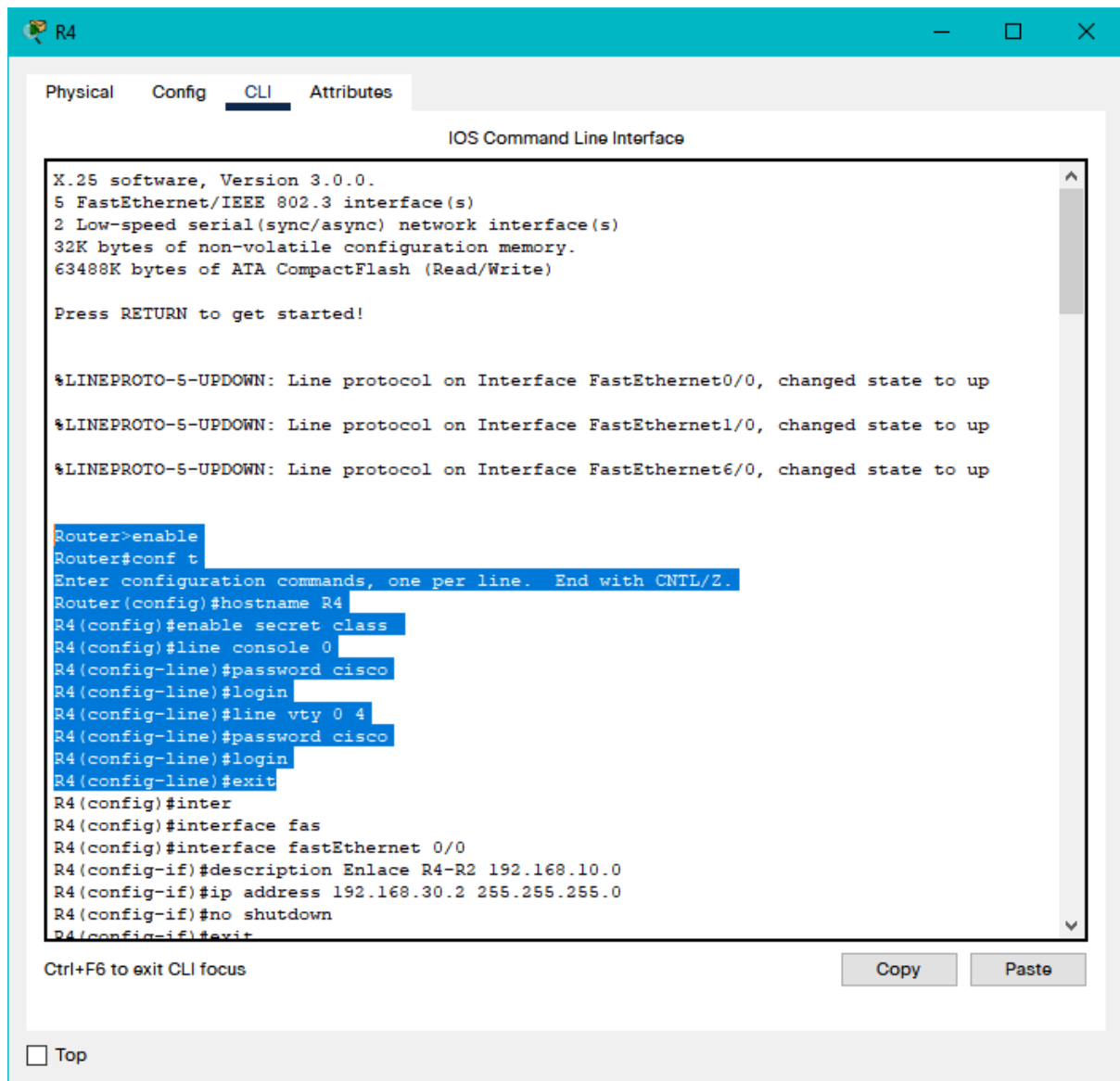
Configurar a interface fastEthernet 1/0
R3(config)#interface fastEthernet 1/0
R3(config-if)#description Enlace R3-R4
R3(config-if)#ip address 192.168.40.1 255.255.255.0
R3(config-if)#no shutdown
R3(config-if)#exit



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

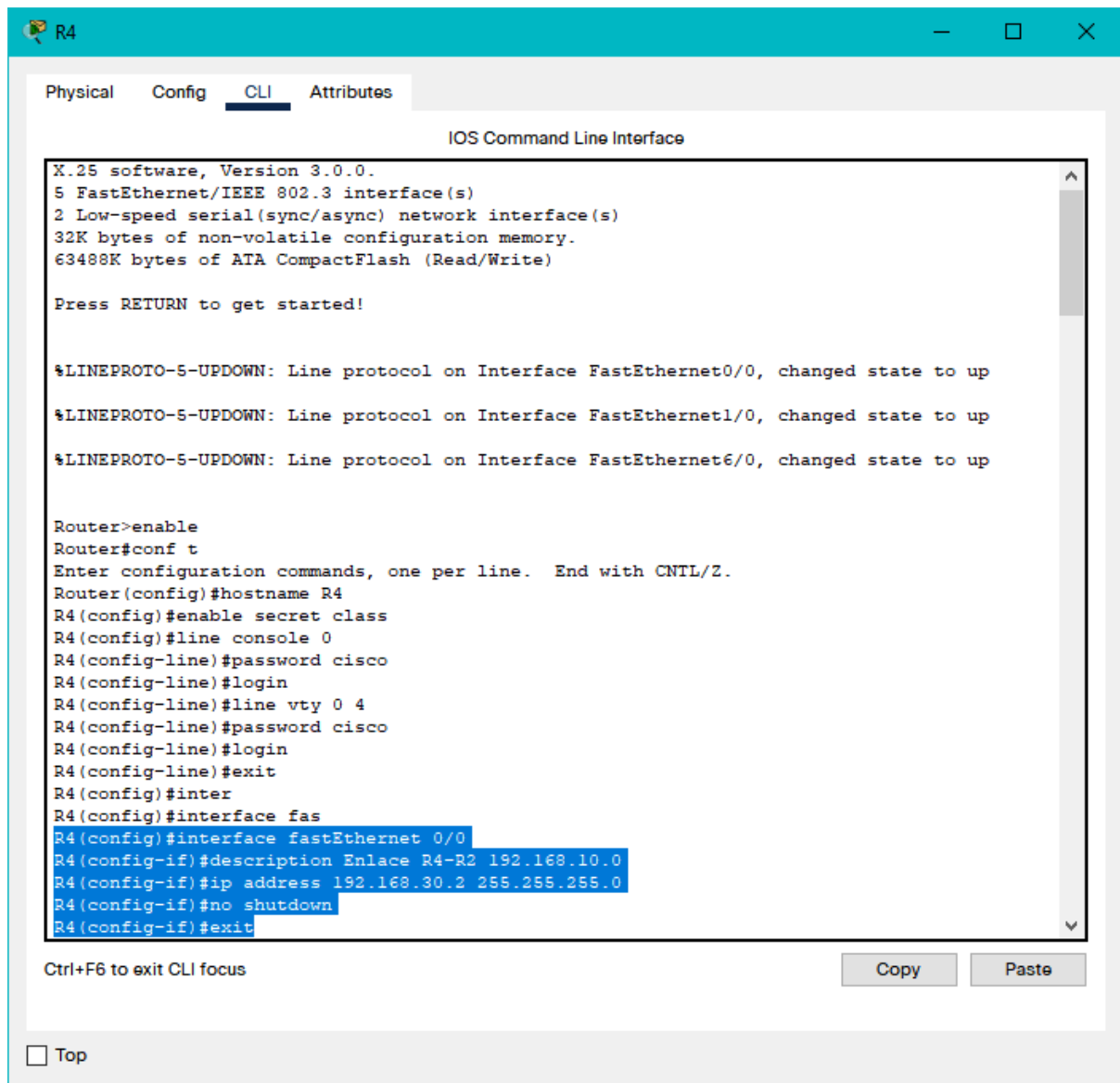
R4(config-if)#description Enlace R4-R2 192.168.10.0

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

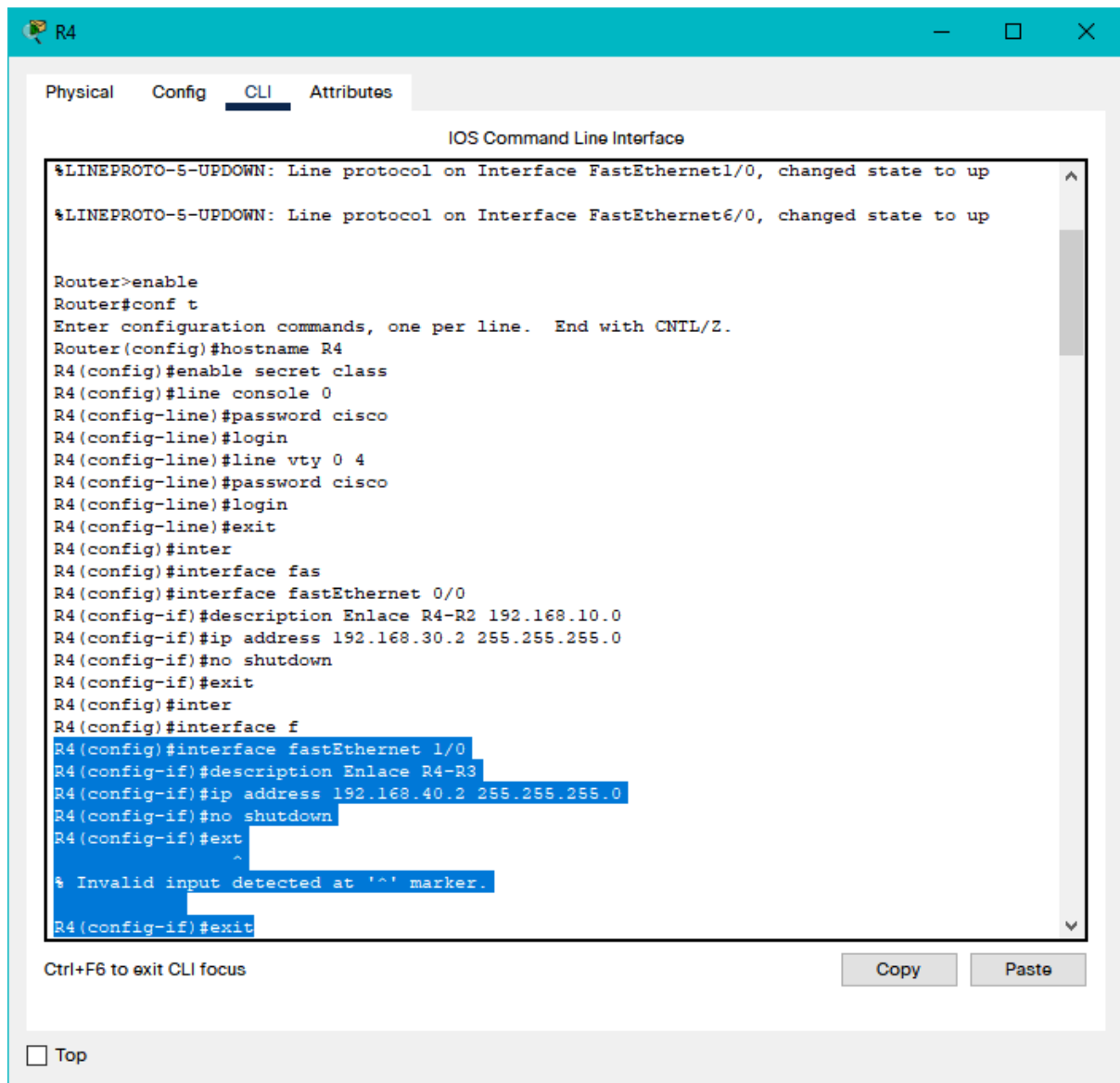
R4(config)#interface fastEthernet 1/0

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
```

R4

Physical

Config

CLI

Attributes

IOS Command Line Interface

```
R4(config-line)#login
R4(config-line)#line vty 0 4
R4(config-line)#password cisco
R4(config-line)#login
R4(config-line)#exit
R4(config)#inter
R4(config)#interface fas
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
R4(config-if)#no shutdown
R4(config-if)#exit
R4(config)#inter
R4(config)#interface f
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)#ext
^
% Invalid input detected at '^' marker.

R4(config-if)#exit
R4(config)#inter
R4(config)#interface f
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
^
% Invalid input detected at '^' marker.

R4(config-if)#no shutdown
R4(config-if)#ip address 192.168.60.1 255.255.255.0
R4(config-if)#no shutdown
R4(config-if)#exit
```

Ctrl+F6 to exit CLI focus

Copy

Paste

☐ Top

Etapa 3

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

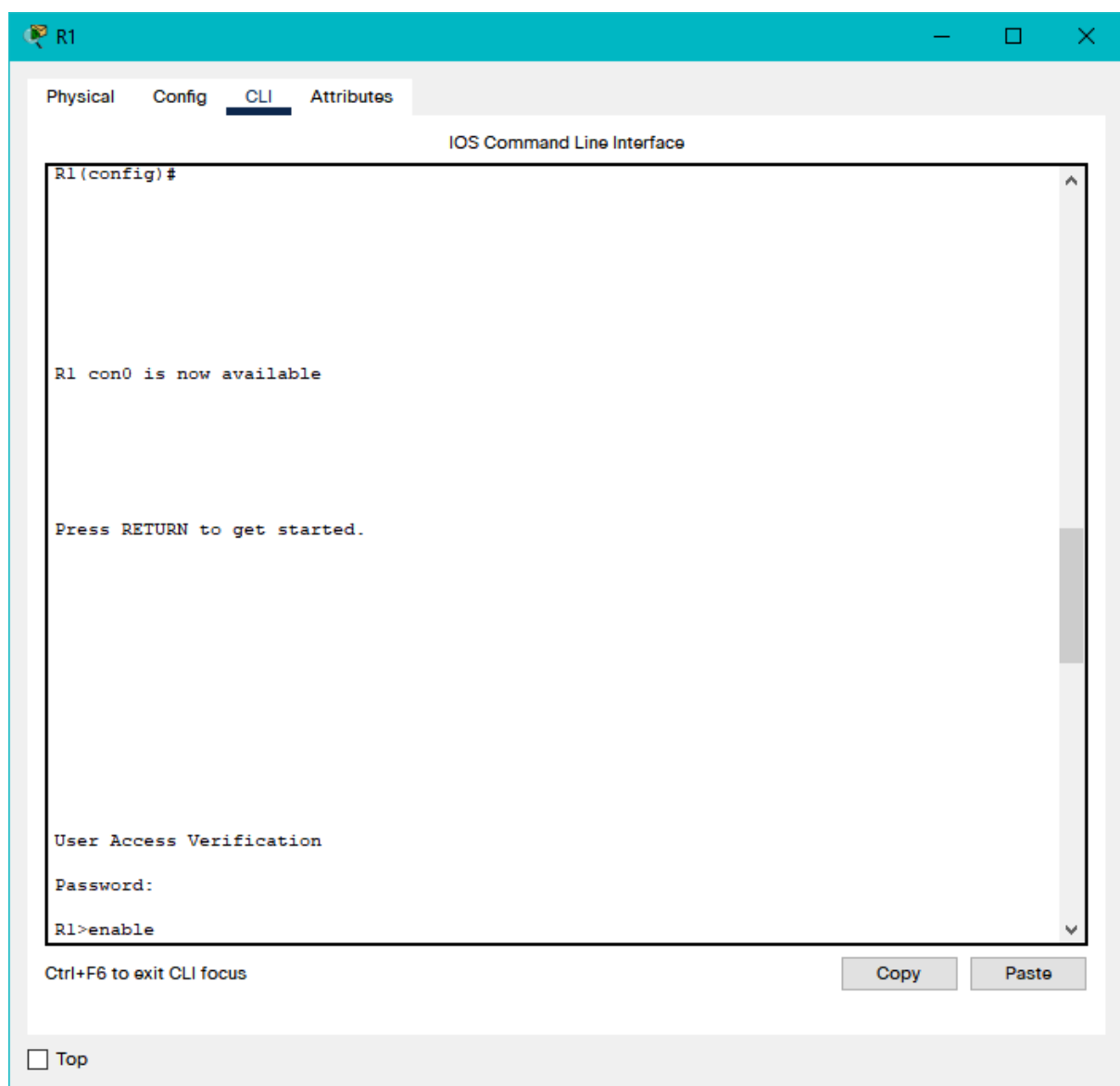
Consultar Módulo-08 Camada de Rede

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



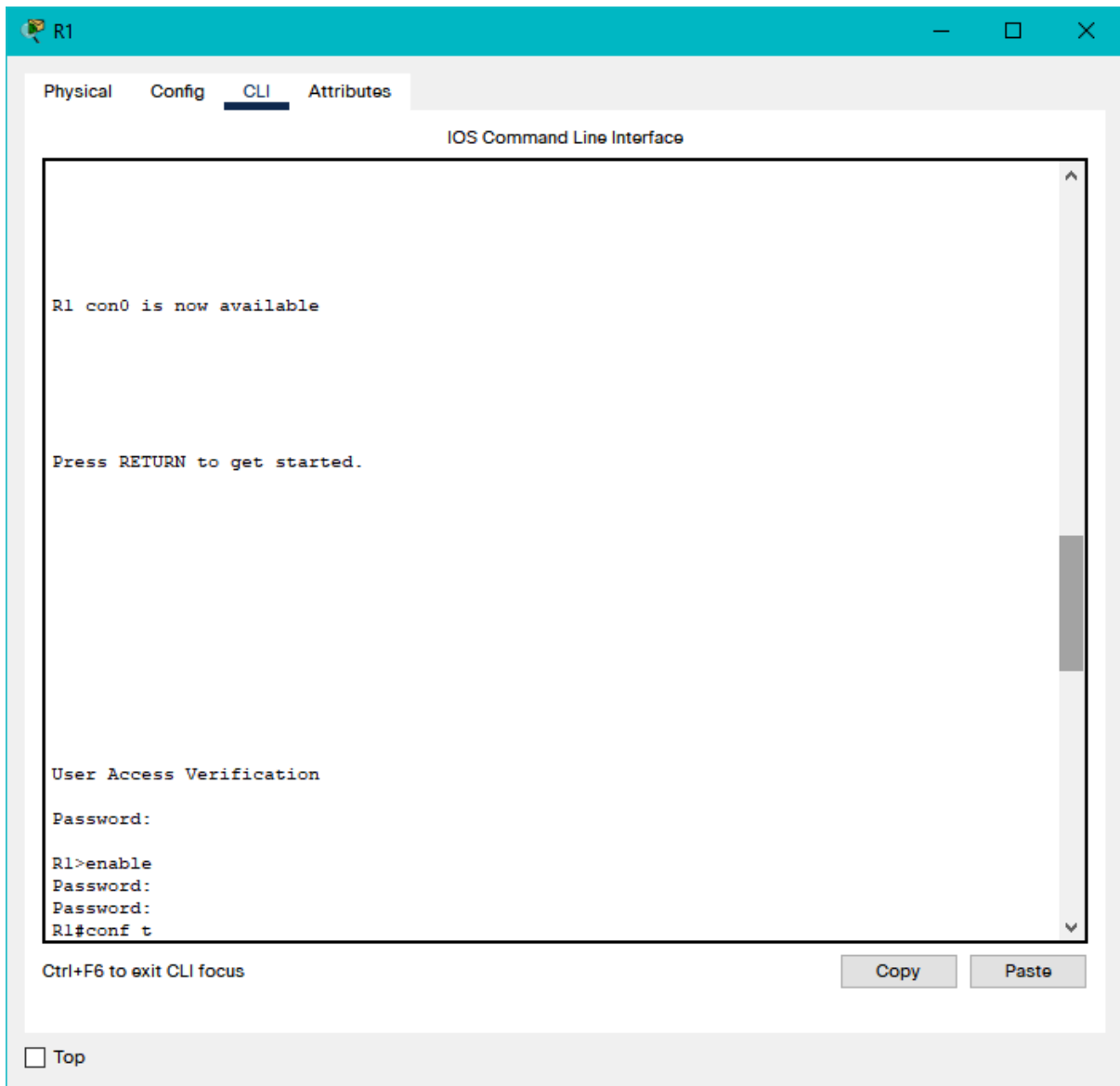
**** Entrar no modo EXEC Privilegiado com a senha class ****

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

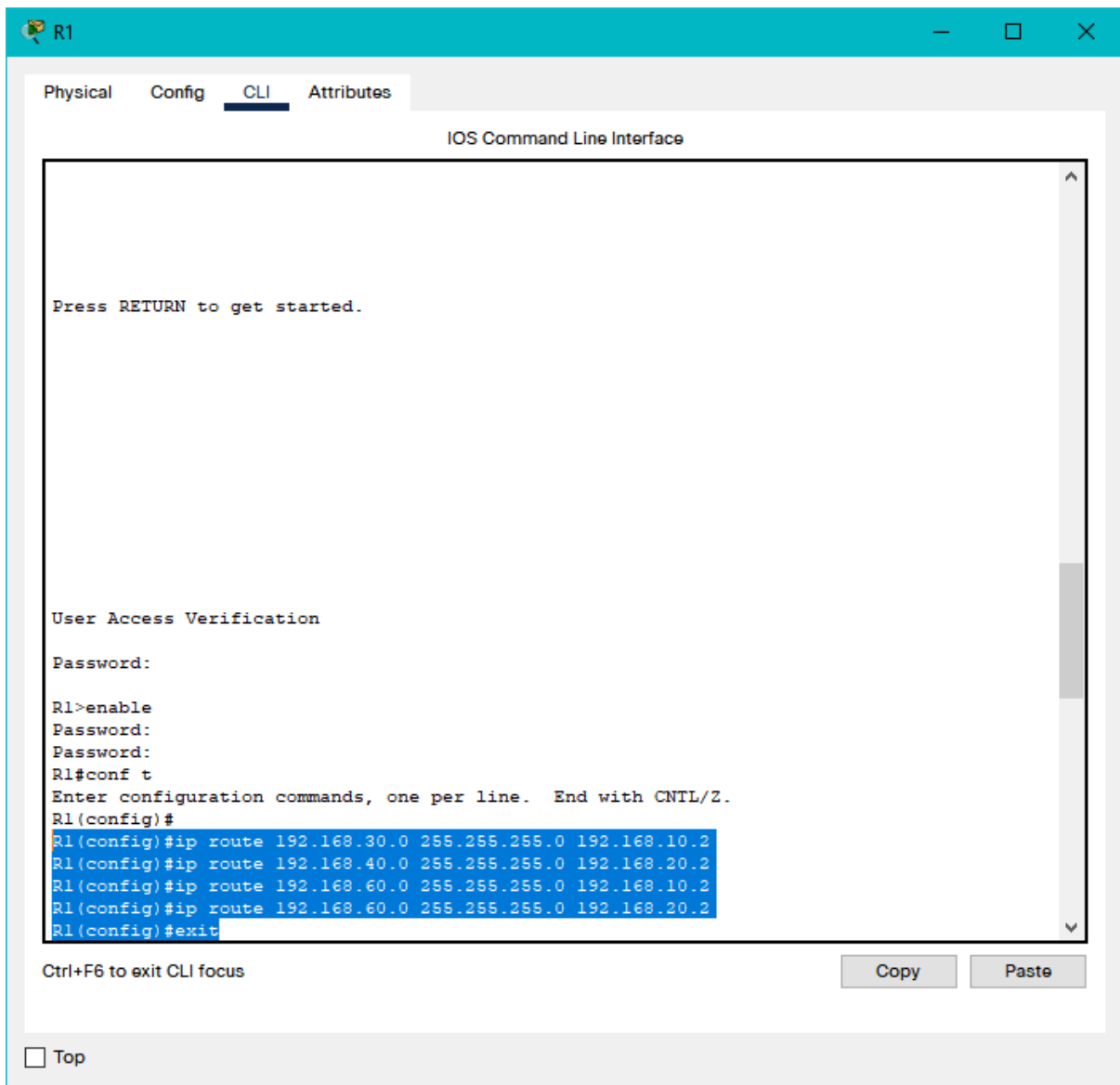
R1(config)#ip route 192.168.60.0 255.255.255.0 192.168.10.2

R1(config)#ip route 192.168.60.0 255.255.255.0 192.168.20.2

**** Voltar ao modo EXEC Privilegiado ****

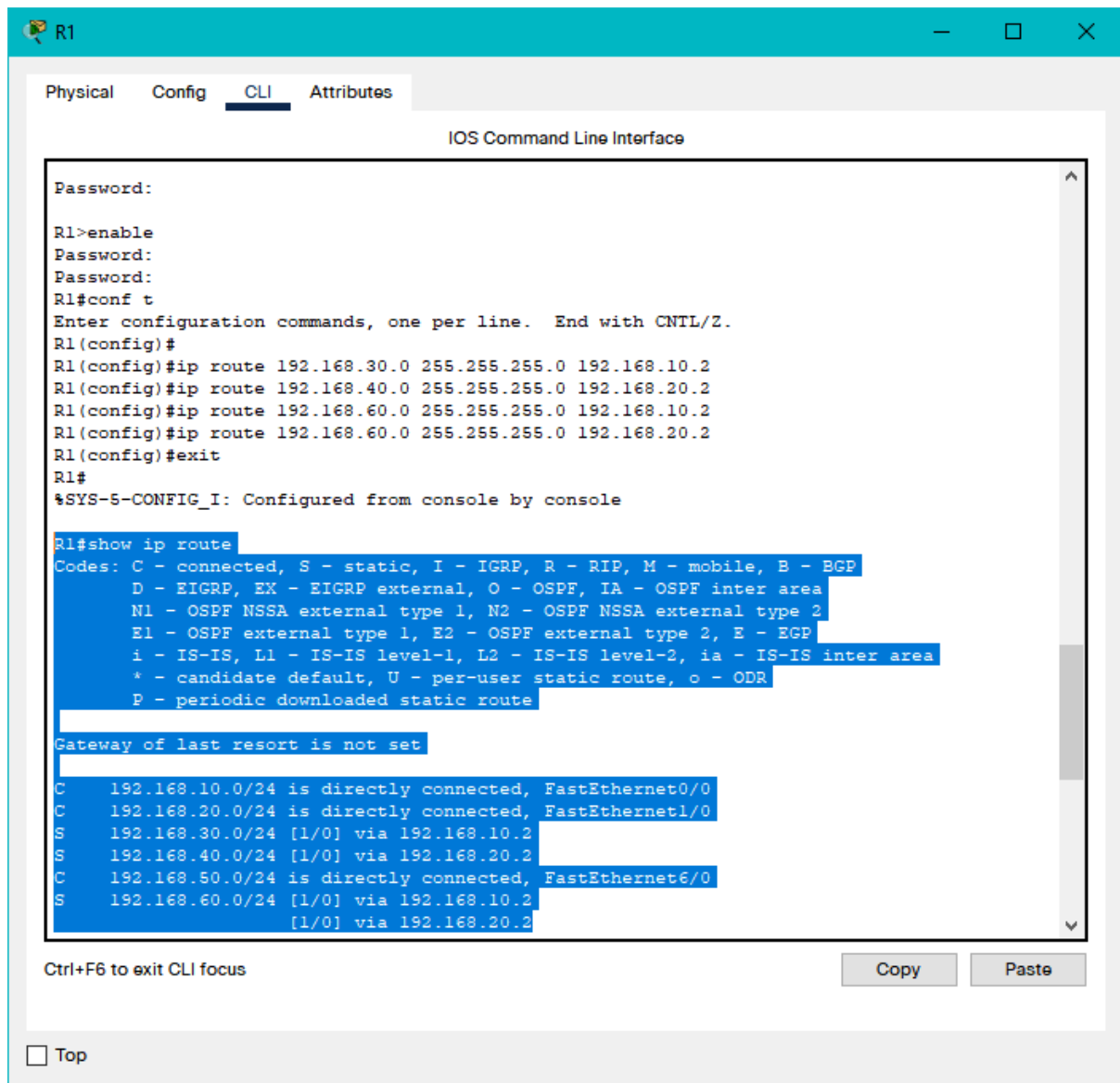
R1(config)#exit

R1#



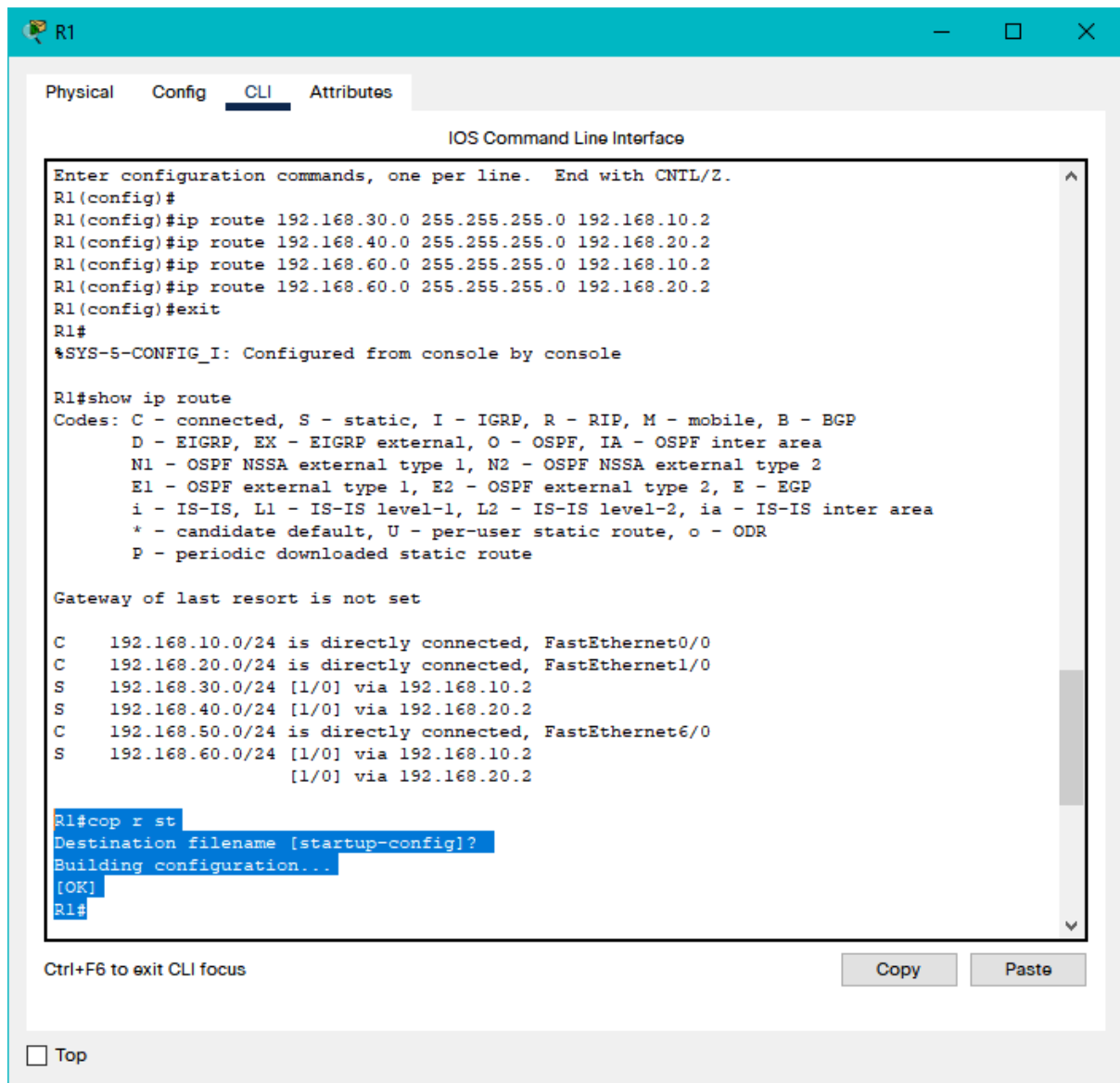
**** Mostrar a tabela de rotas ****

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

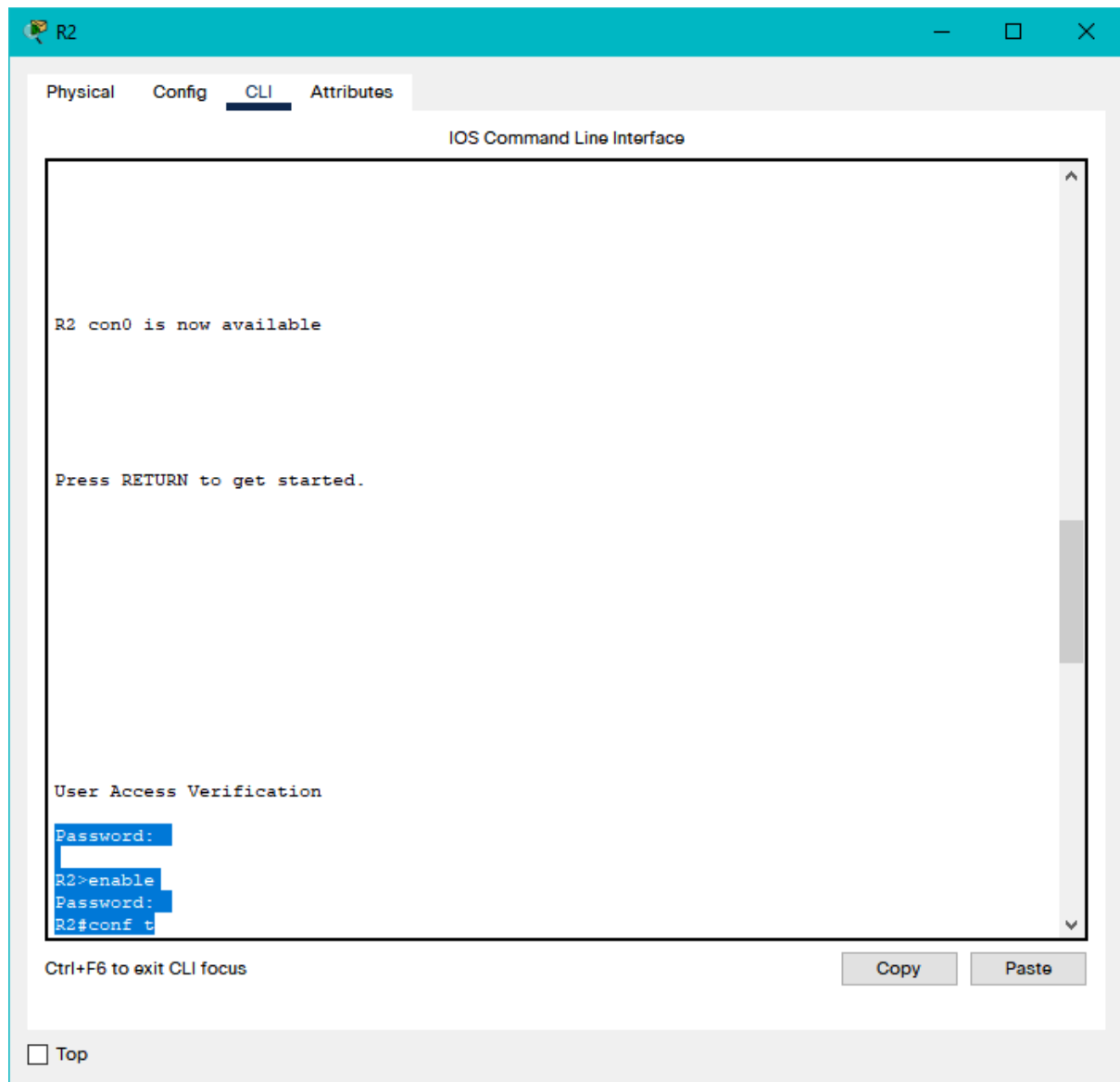
**** Entrar no modo EXEC Privilegiado com a senha class ****

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

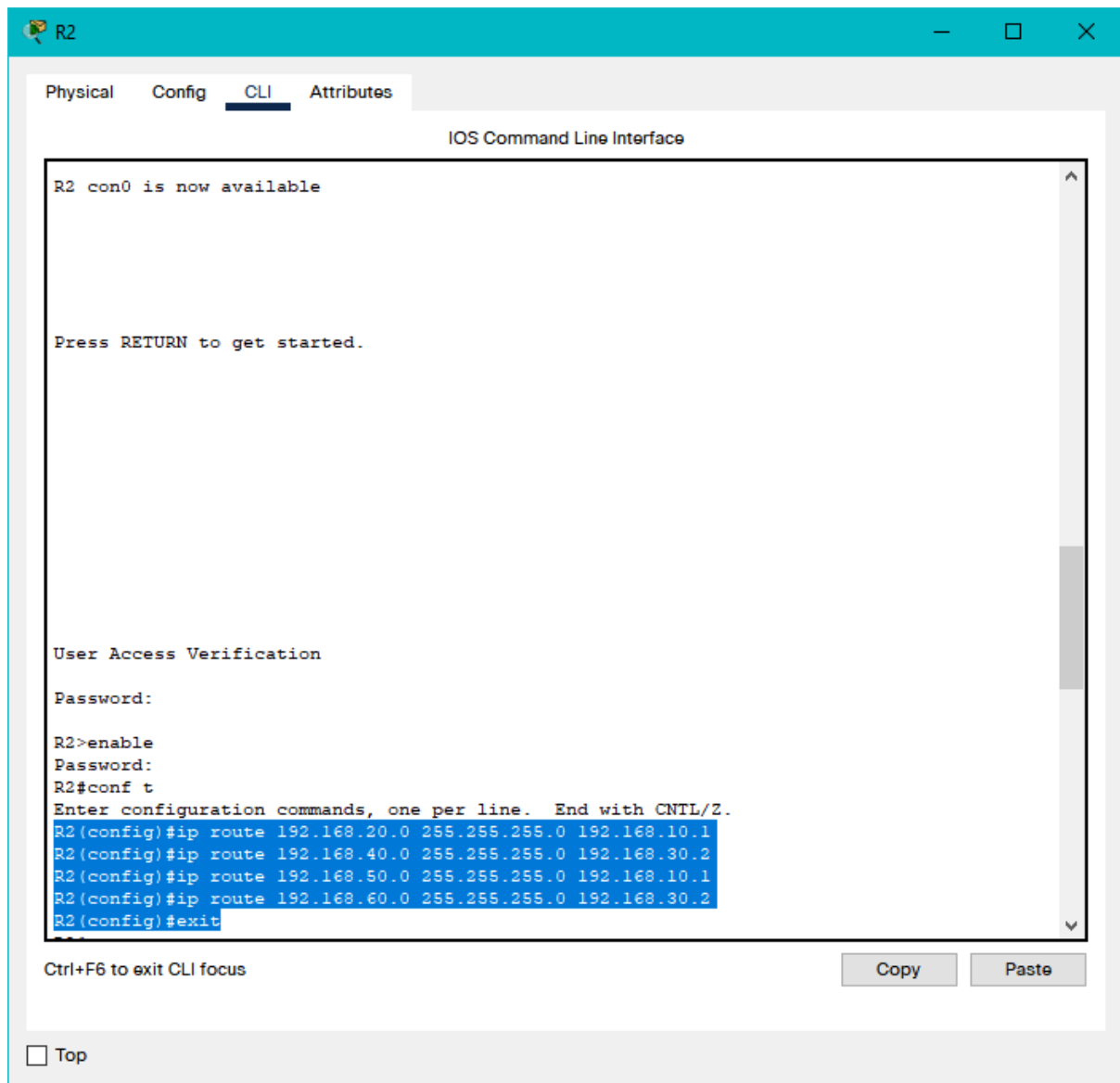
R2(config)#ip route 192.168.50.0 255.255.255.0 192.168.10.1

R2(config)#ip route 192.168.60.0 255.255.255.0 192.168.30.2

**** Voltar ao modo EXEC Privilegiado ****

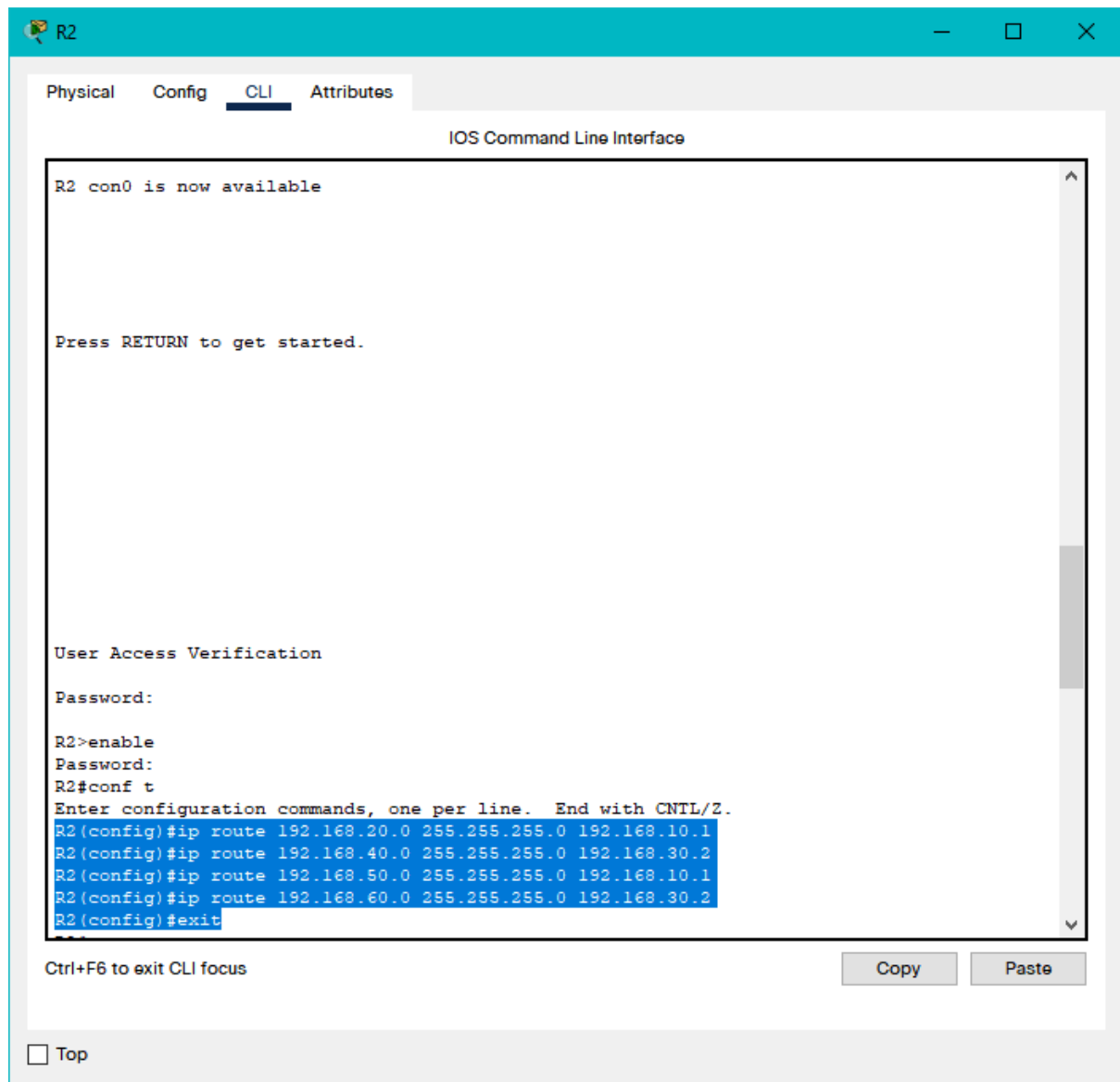
R2(config)#exit

R2#



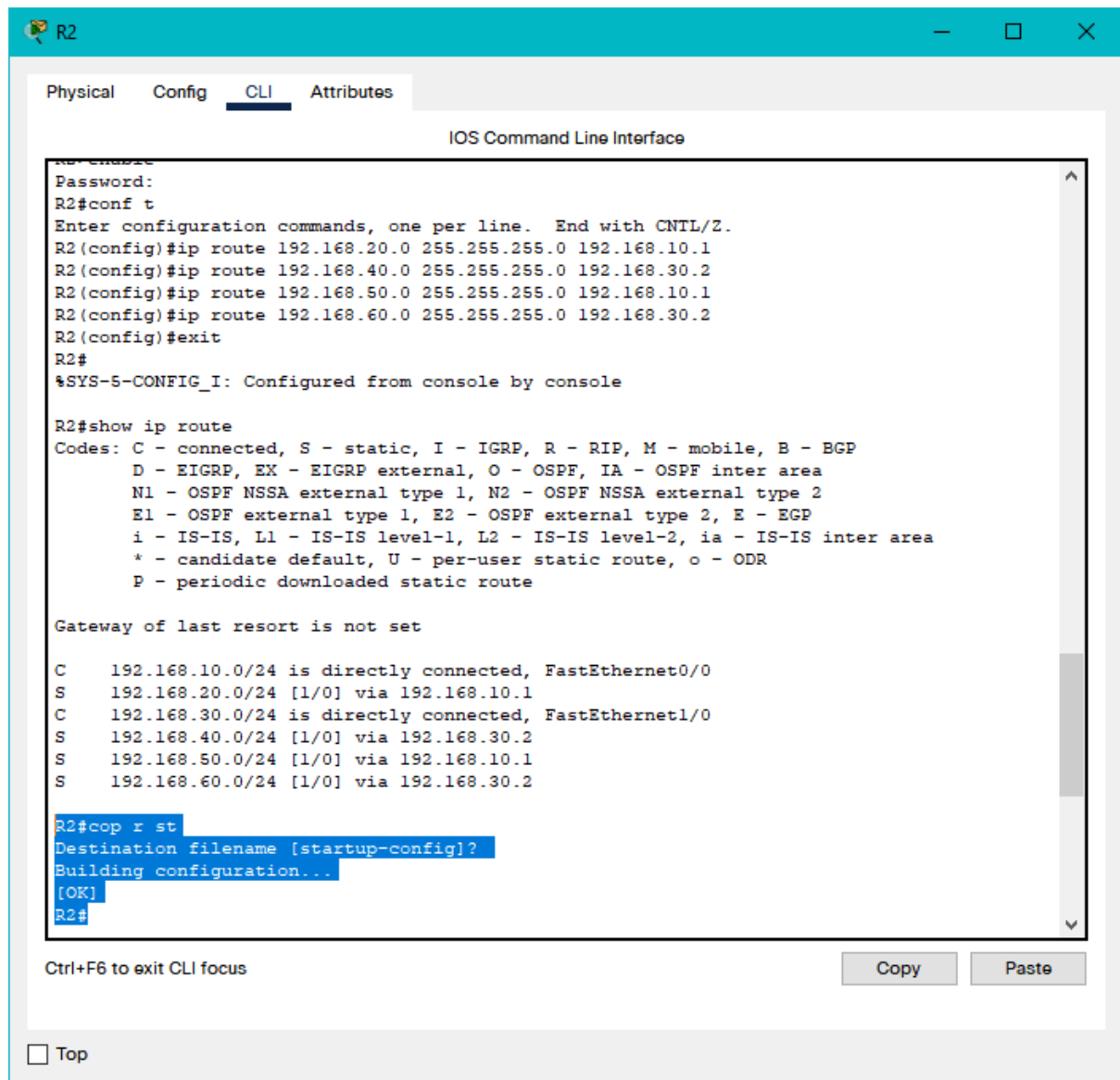
**** Mostrar a tabela de rotas ****

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

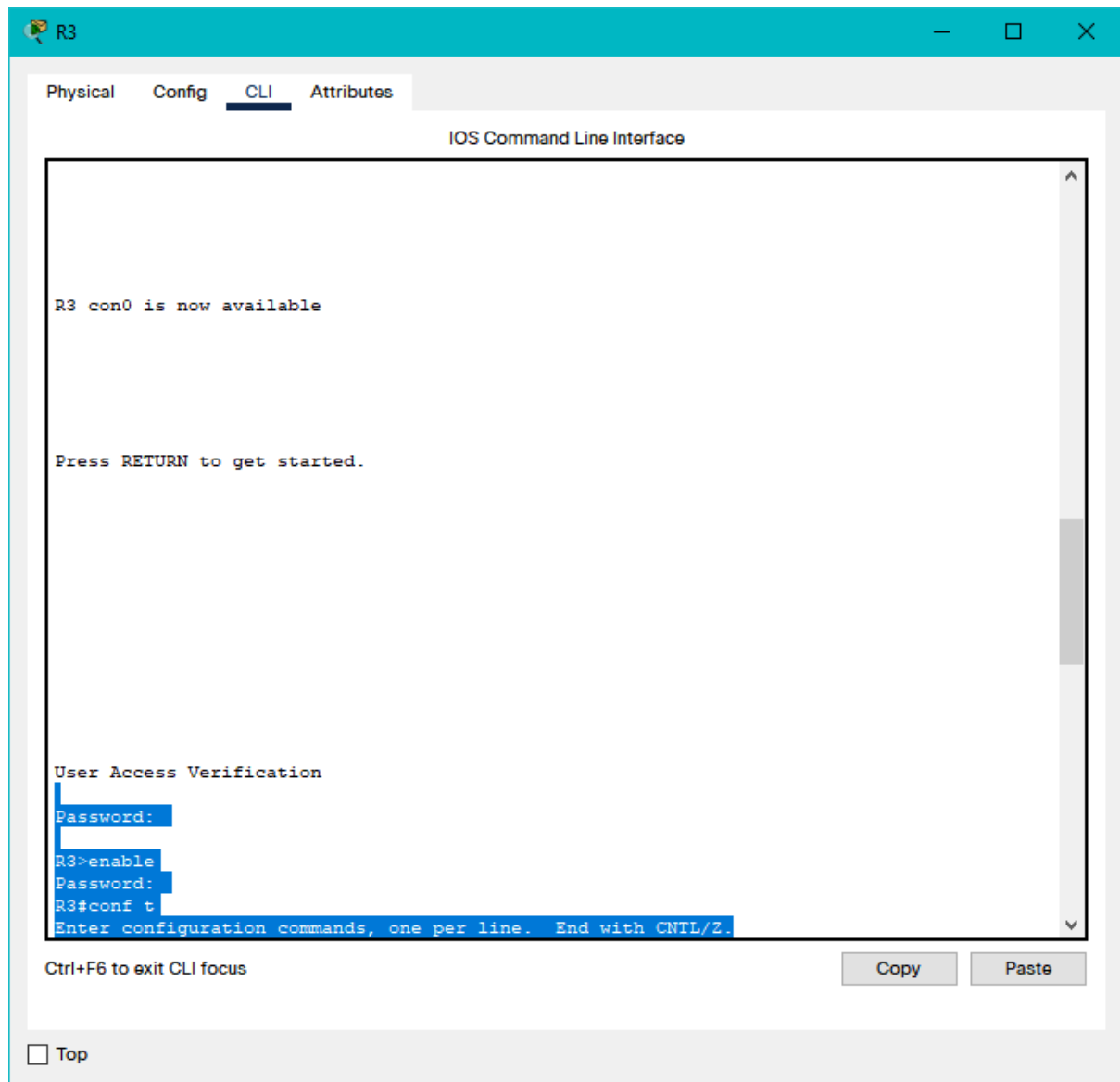
**** Entrar no modo EXEC Privilegiado com a senha class ****

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

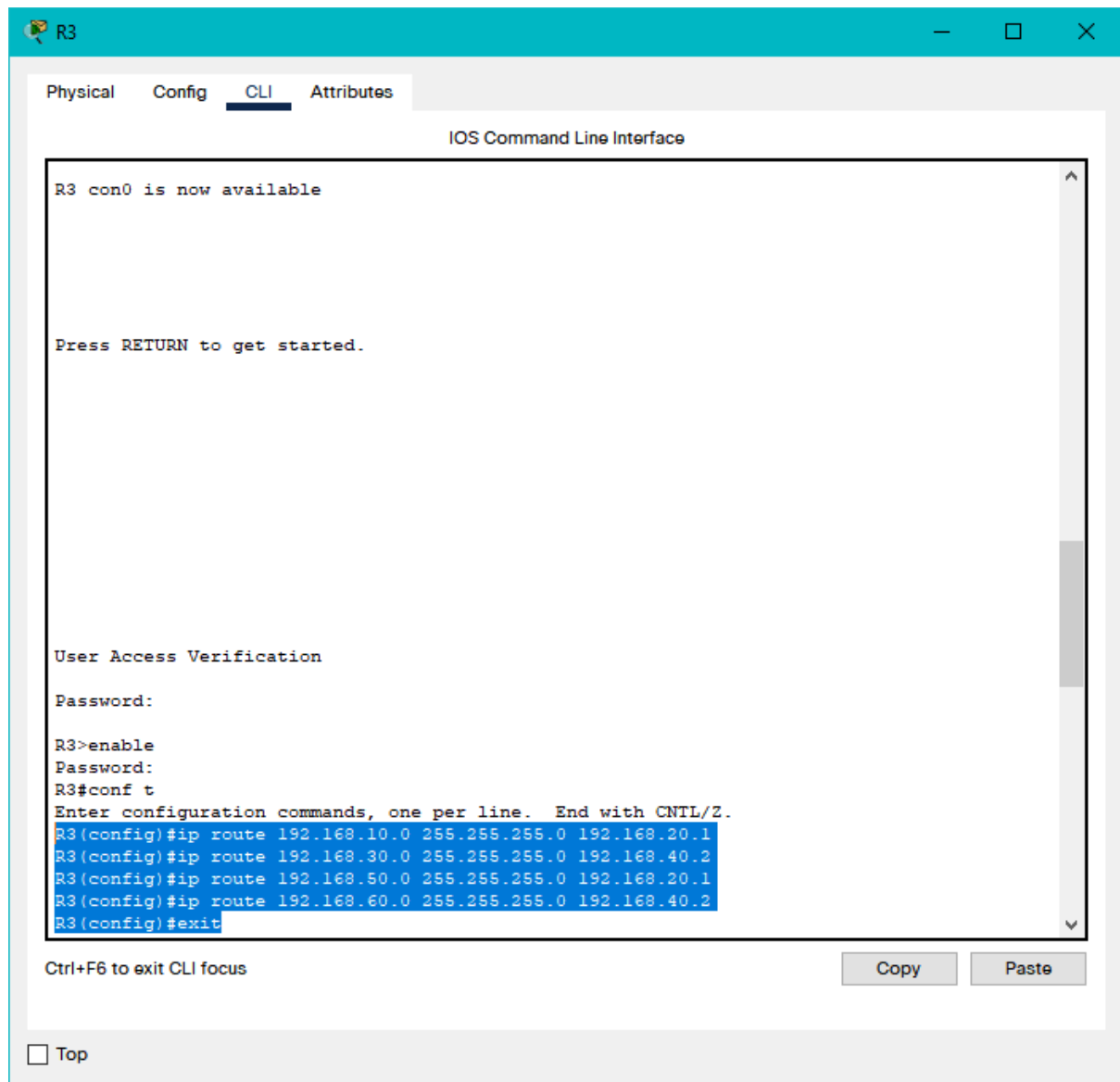
R3(config)#ip route 192.168.50.0 255.255.255.0 192.168.20.1

R3(config)#ip route 192.168.60.0 255.255.255.0 192.168.40.2

**** Voltar ao modo EXEC Privilegiado ****

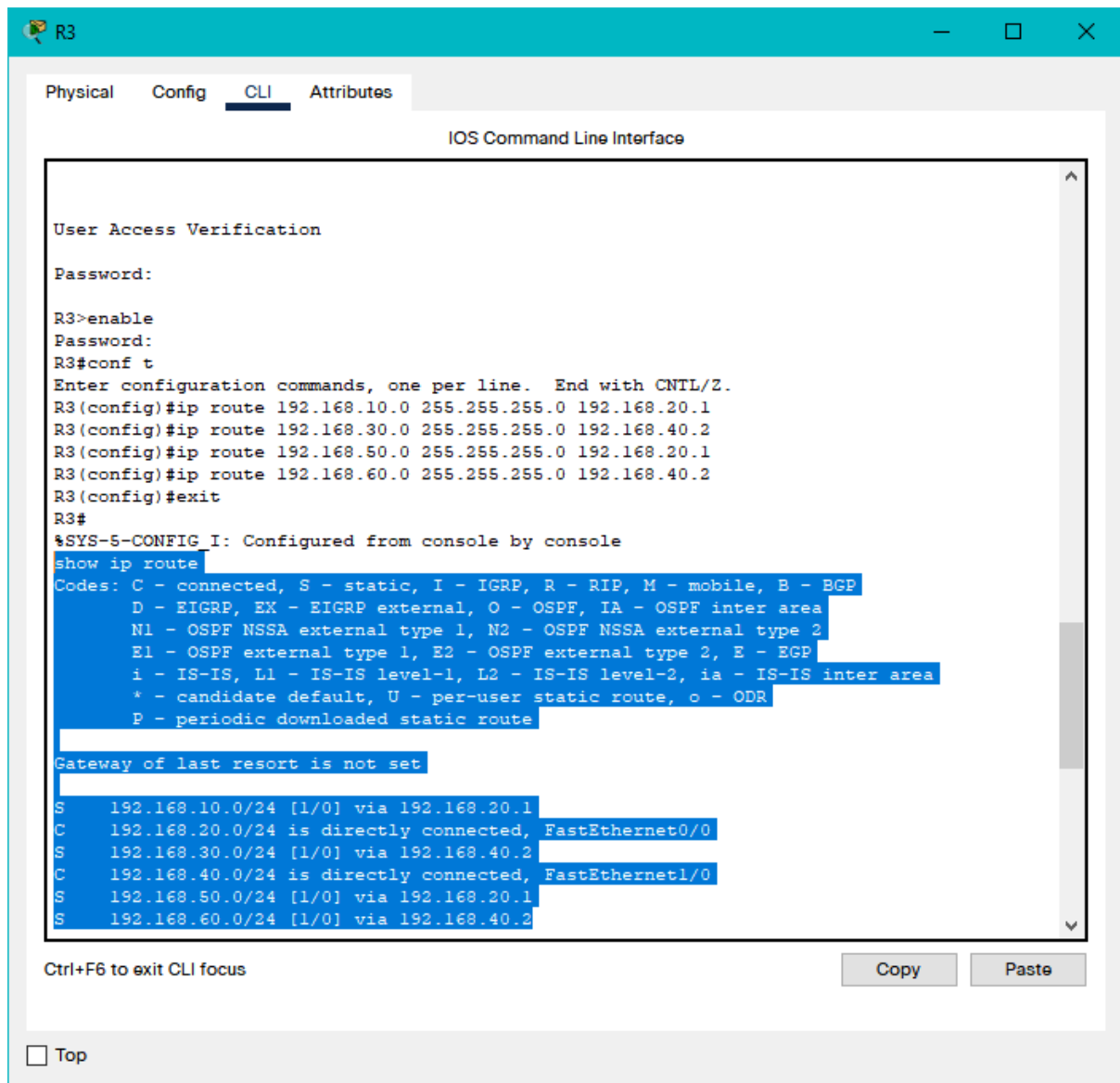
R3(config)#exit

R3#



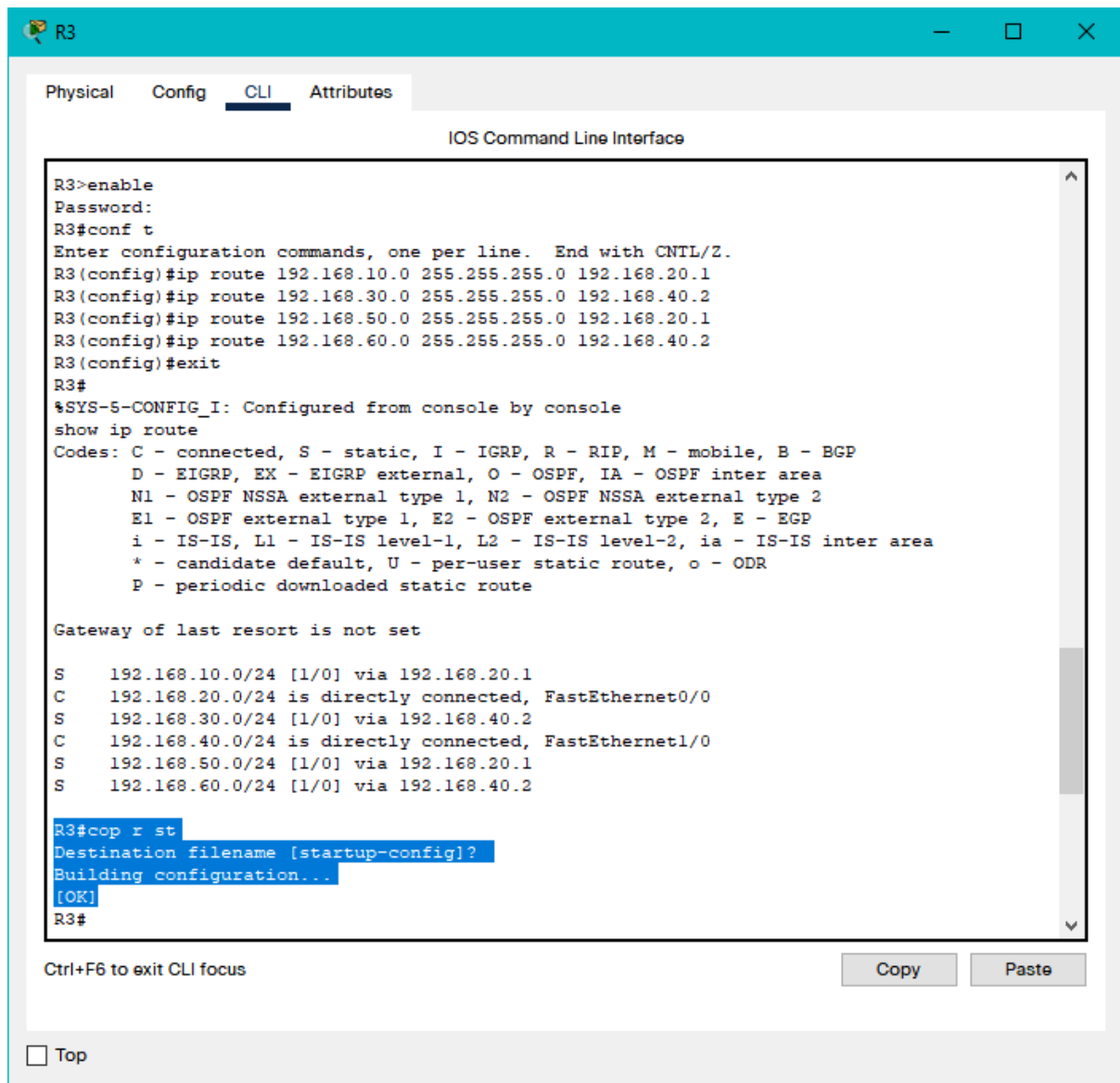
**** Mostrar a tabela de rotas ****

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

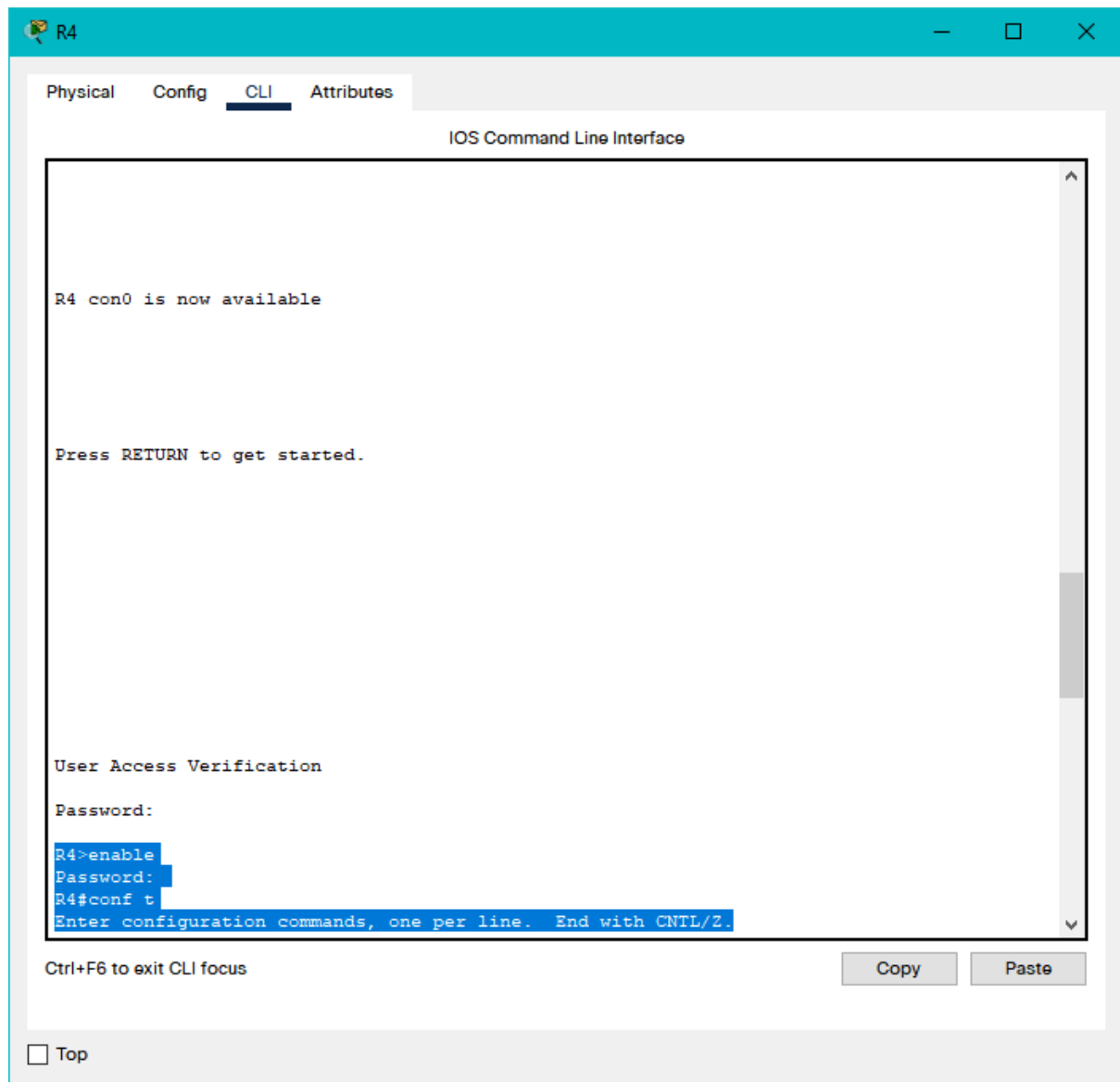
**** Entrar no modo EXEC Privilegiado com a senha class ****

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

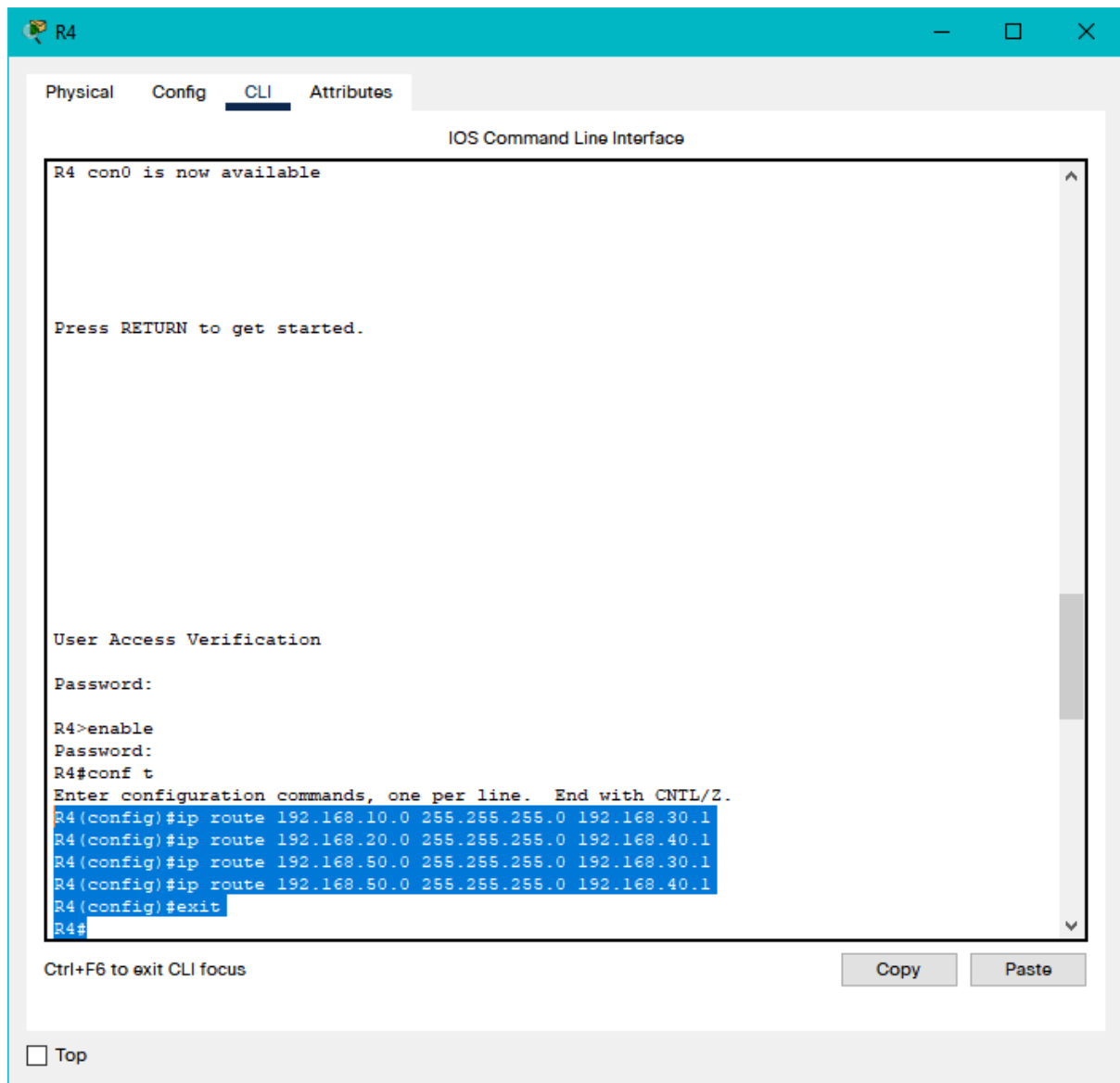
R4(config)#ip route 192.168.50.0 255.255.255.0 192.168.30.1

R4(config)#ip route 192.168.50.0 255.255.255.0 192.168.40.1

**** Voltar ao modo EXEC Privilegiado ****

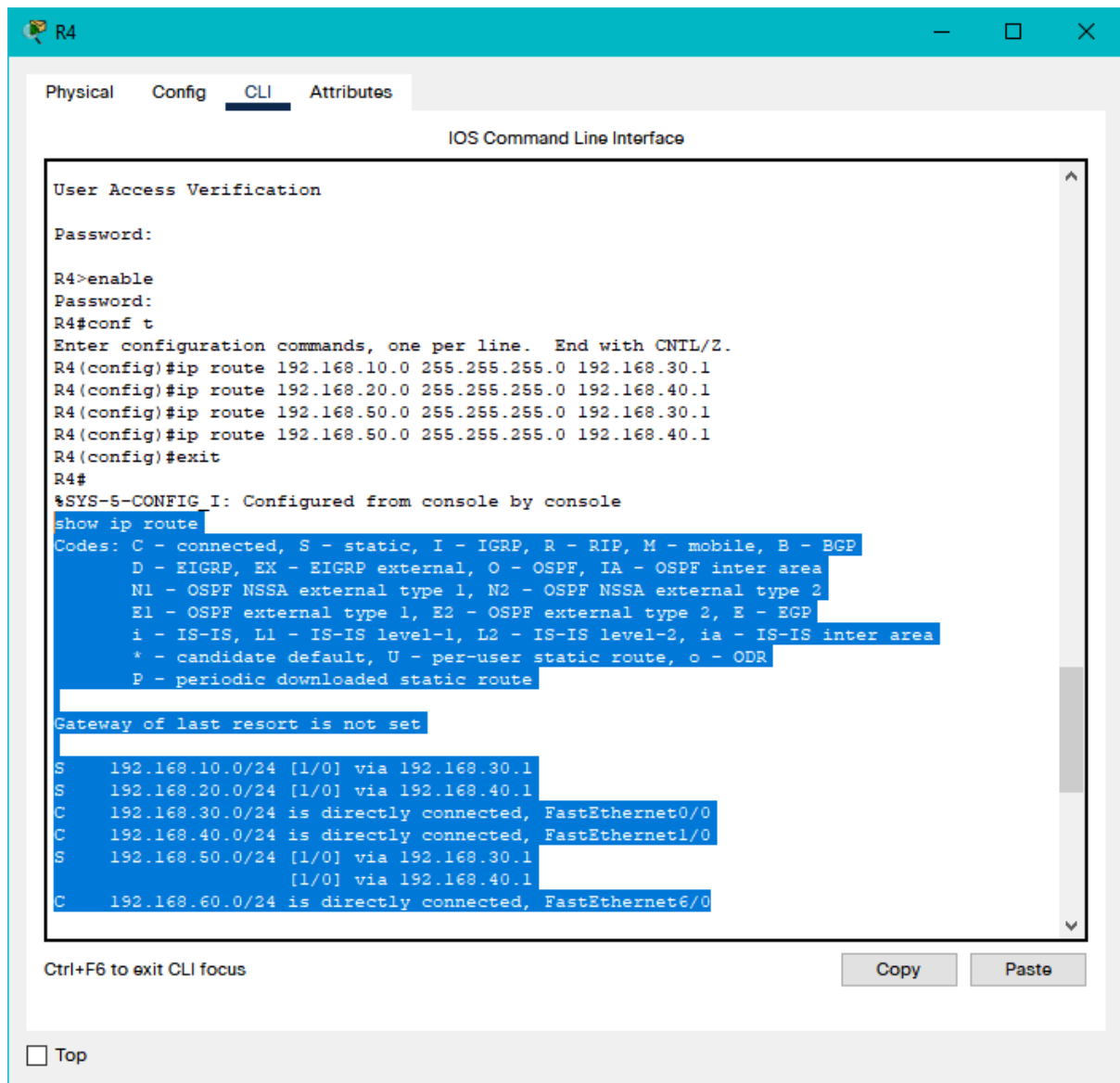
R4(config)#exit

R4#



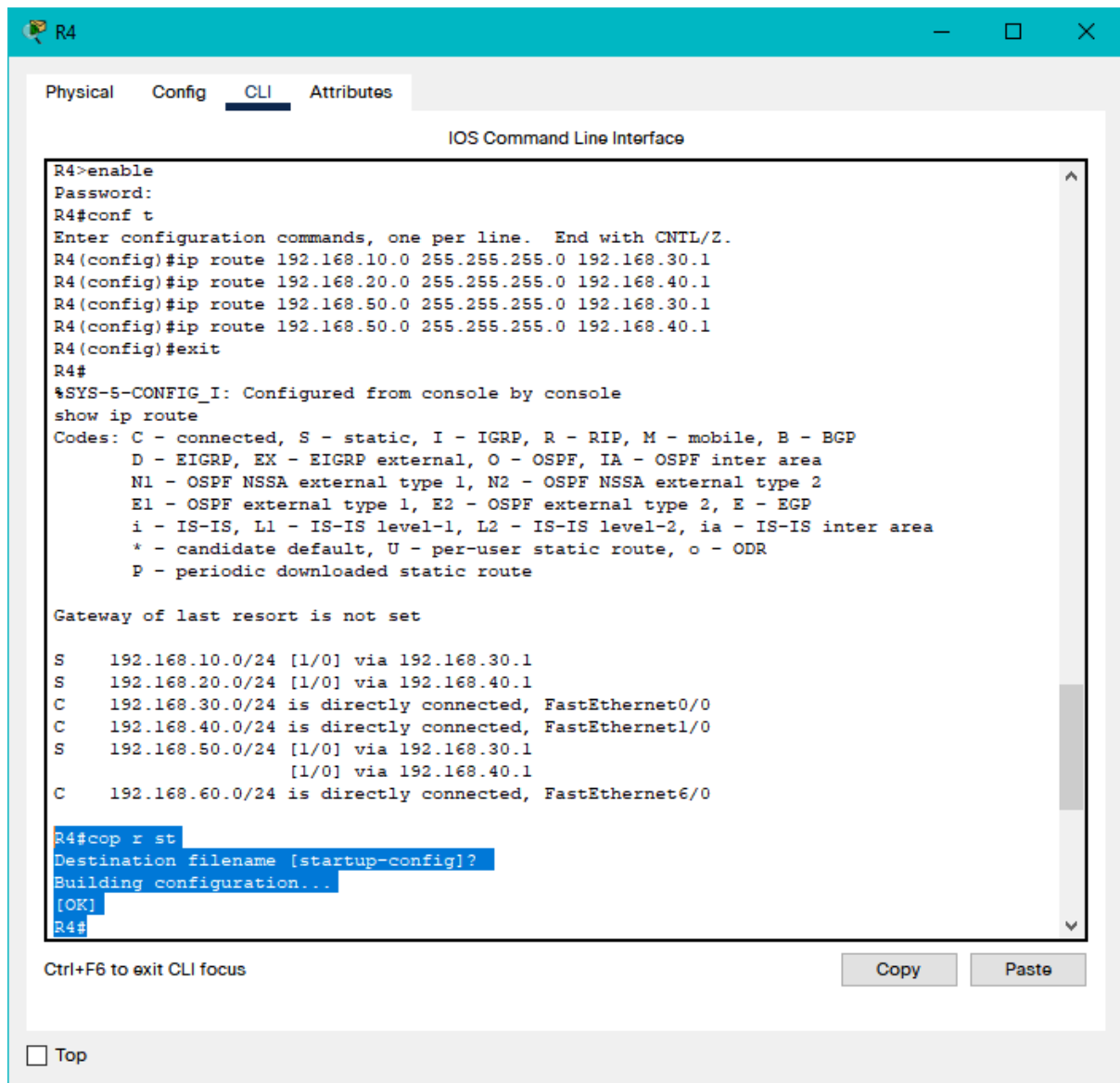
**** Mostrar a tabela de rotas ****

R4#show ip route



**** Salvar as configurações ****

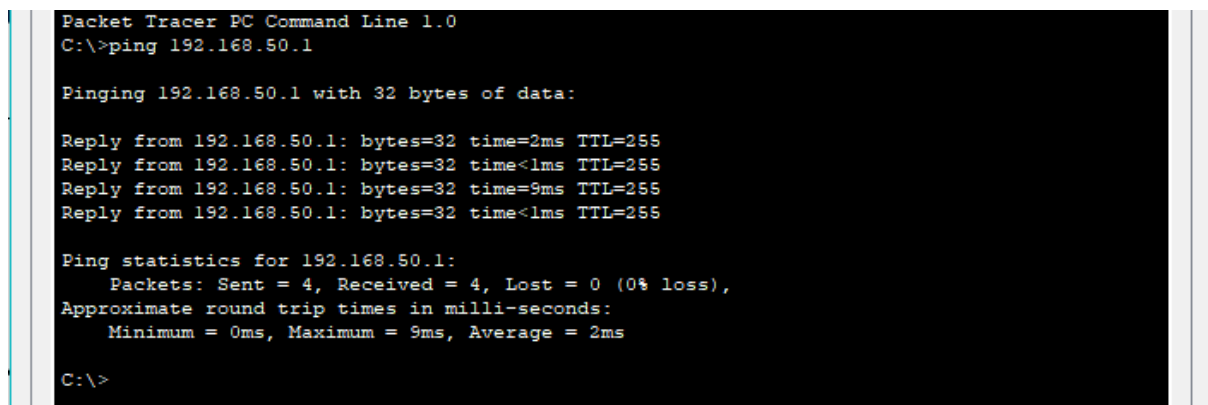
R4#copy running-config startup-config



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

```
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
```

192.168.20.2

```
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
```

192.168.40.2

```
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
```

192.168.30.2

```
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 = 0ms, Average = 0ms
```

192.168.60.2

```
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
```

192.168.60.3

```
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
```

192.168.60.4

```
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=3ms 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 = 3ms, Average = 1ms
```

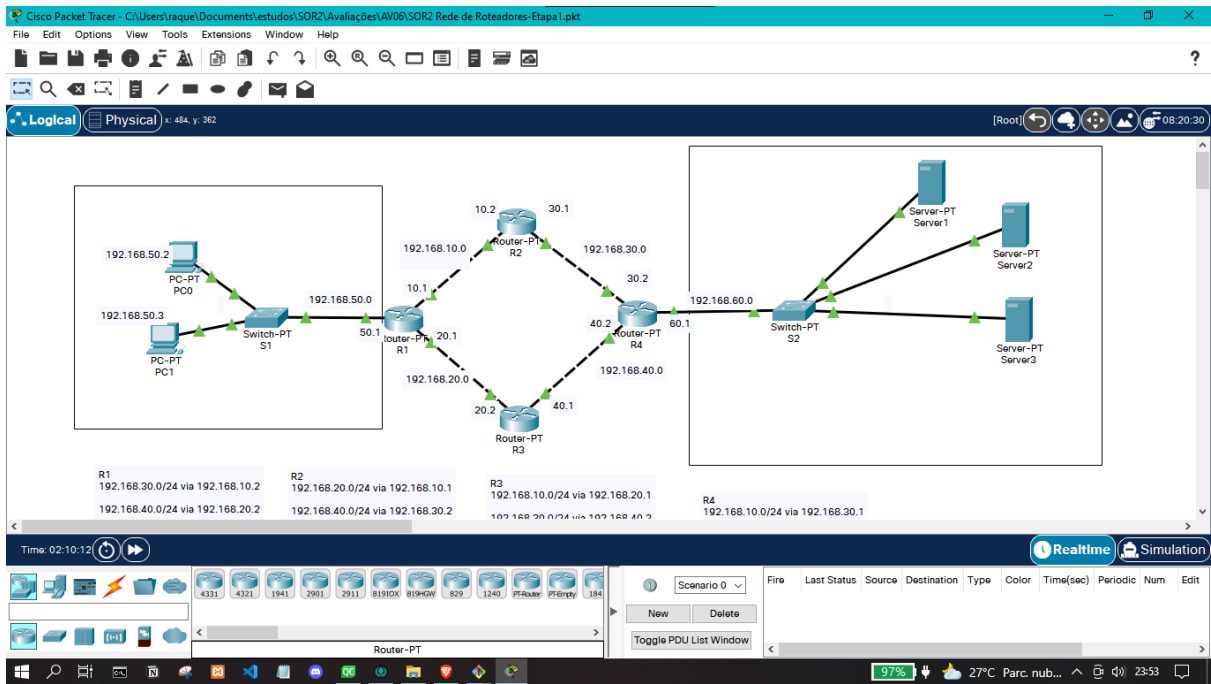
192.168.60.5

```
C:\>ping 192.168.60.5

Pinging 192.168.60.5 with 32 bytes of data:

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

Ping statistics for 192.168.60.5:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```



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

Server4

PhysicalConfigServicesDesktopProgrammingAttributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

FastEthernet0

Port Status

☒ On

Bandwidth

☒ 100 Mbps☐ 10 Mbps

☒ Auto

Duplex

☐ Half Duplex☒ Full Duplex

☒ Auto

MAC Address

0004.9ABA.E7DA

IP Configuration

☐ DHCP

☒ Static

IPv4 Address

192.168.60.5

Subnet Mask

255.255.255.0

IPv6 Configuration

☐ Automatic

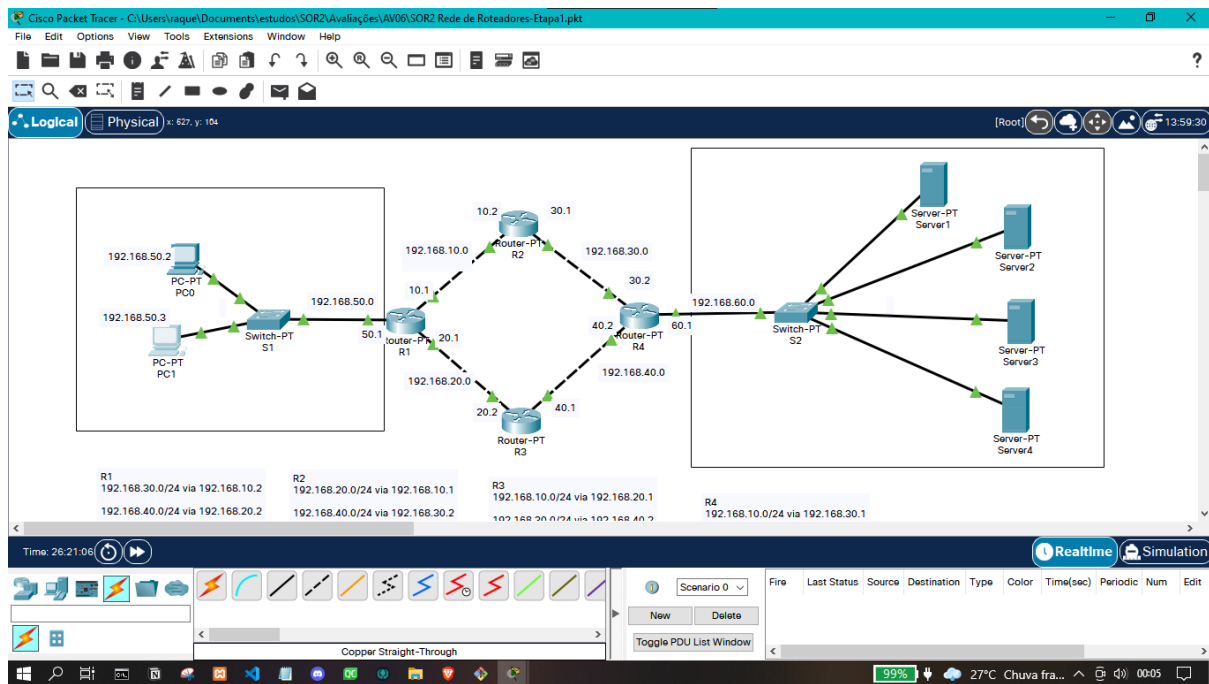
☒ Static

IPv6 Address

Link Local Address

FE80::204:9AFF:FEBA:E7DA

☐ Top



```
C:\>ping 192.168.60.5

Pinging 192.168.60.5 with 32 bytes of data:

Request timed out.
Reply from 192.168.60.5: bytes=32 time<1ms TTL=125
Reply from 192.168.60.5: bytes=32 time<1ms TTL=125
Reply from 192.168.60.5: bytes=32 time<1ms TTL=125

Ping statistics for 192.168.60.5:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Etapa 4

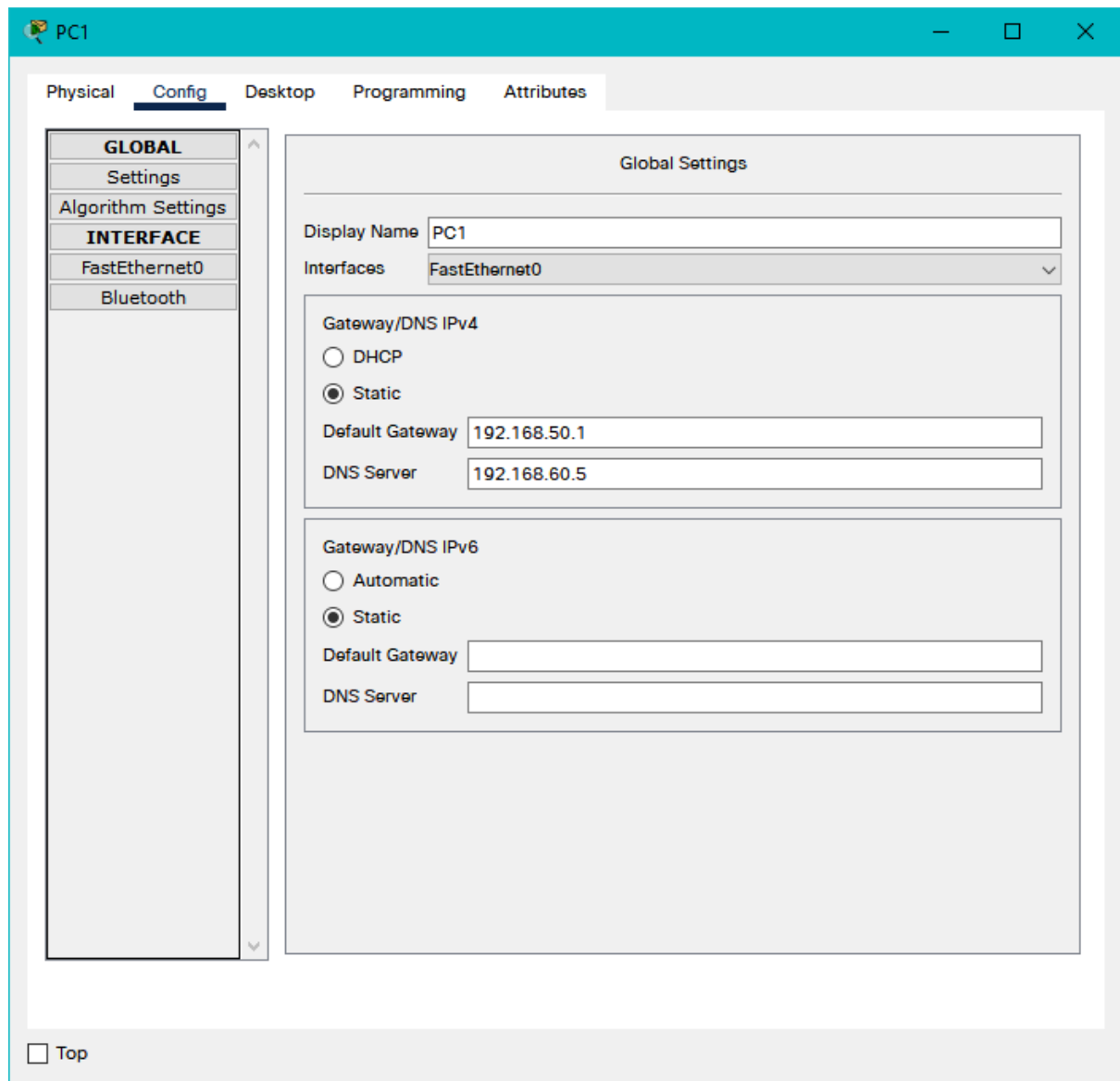
Nessa etapa faremos a configuração dos serviços HTTP, DHCP, FTP e DNS.

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

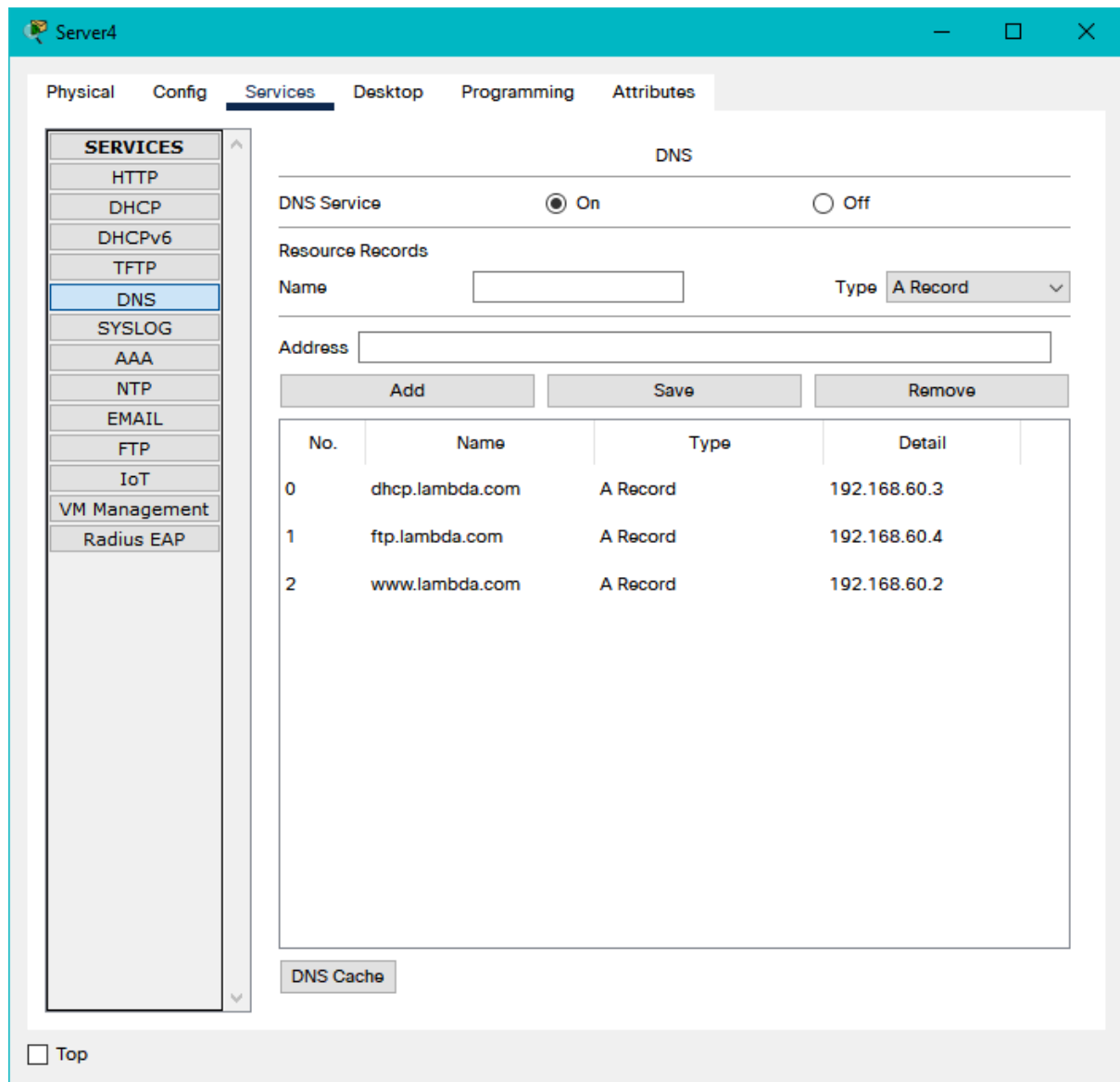
The screenshot shows a window titled "PC0" with a teal header bar. Below the header are tabs: "Physical", "Config" (selected), "Desktop", "Programming", and "Attributes". On the left is a sidebar with a tree view containing "GLOBAL" (expanded), "Settings", "Algorithm Settings", and "INTERFACE" (expanded). Under "INTERFACE", "FastEthernet0" is selected. The main area displays the "Global Settings" for "FastEthernet0". It includes a "Display Name" field with "PC0" and an "Interfaces" dropdown menu showing "FastEthernet0". Below this are two sections: "Gateway/DNS IPv4" and "Gateway/DNS IPv6". In the IPv4 section, the "Static" radio button is selected, and the "DNS Server" field is filled with "192.168.60.5". The IPv6 section also has "Static" selected, but its fields are empty. At the bottom left of the window is a "Top" button.

Section	Option	Value
Global Settings	Display Name	PC0
	Interfaces	FastEthernet0
Gateway/DNS IPv4	DHCP	<input type="radio"/>
	Static	<input checked="" type="radio"/>
	DNS Server	192.168.60.5
Gateway/DNS IPv6	Automatic	<input type="radio"/>
	Static	<input checked="" type="radio"/>
	DNS Server	



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 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

```
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

```
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
```

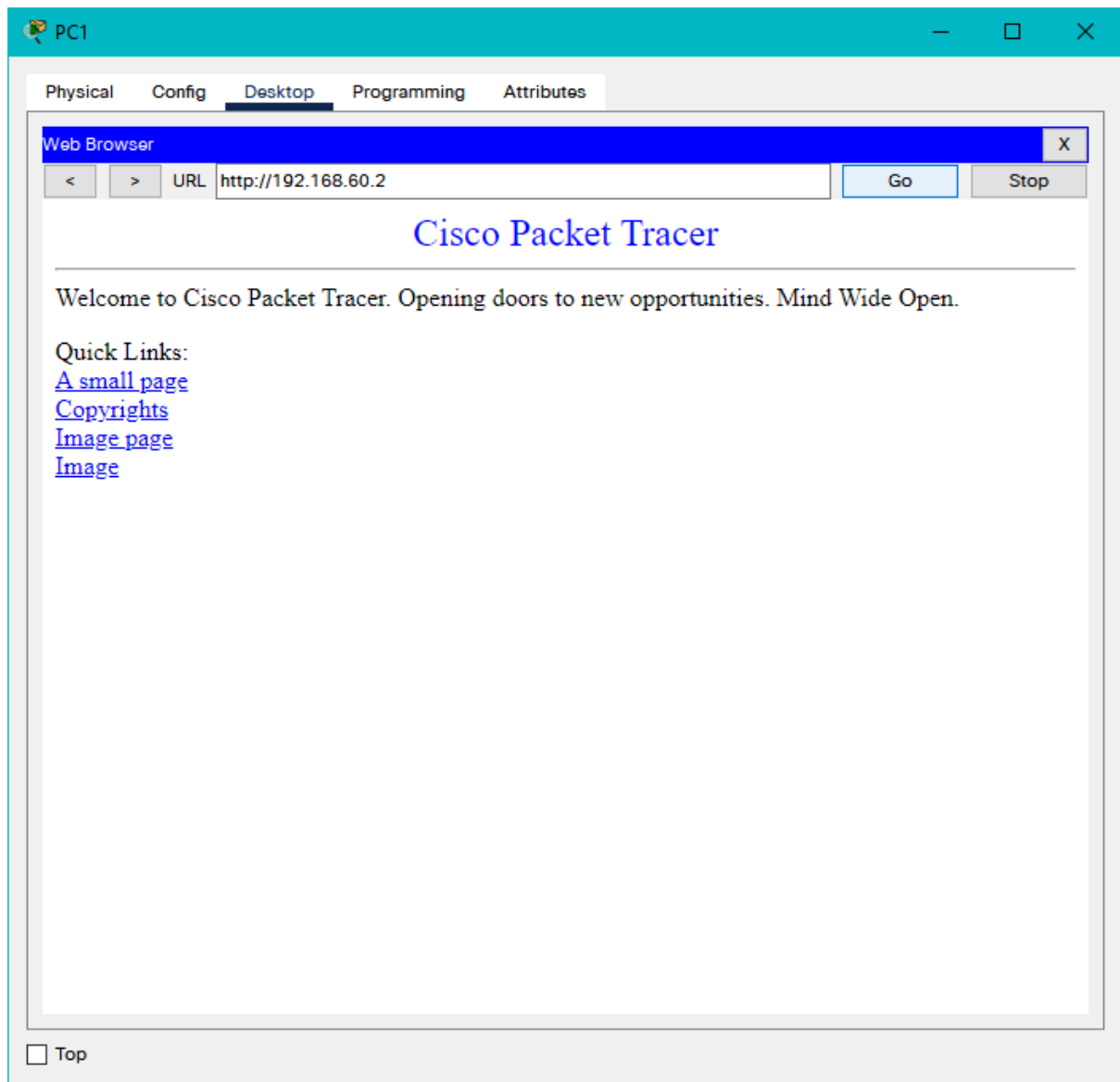
Observação: No início a resposta é lenta por conta do processo de resolução de nomes.

2) Configurar e testar o serviço HTTP

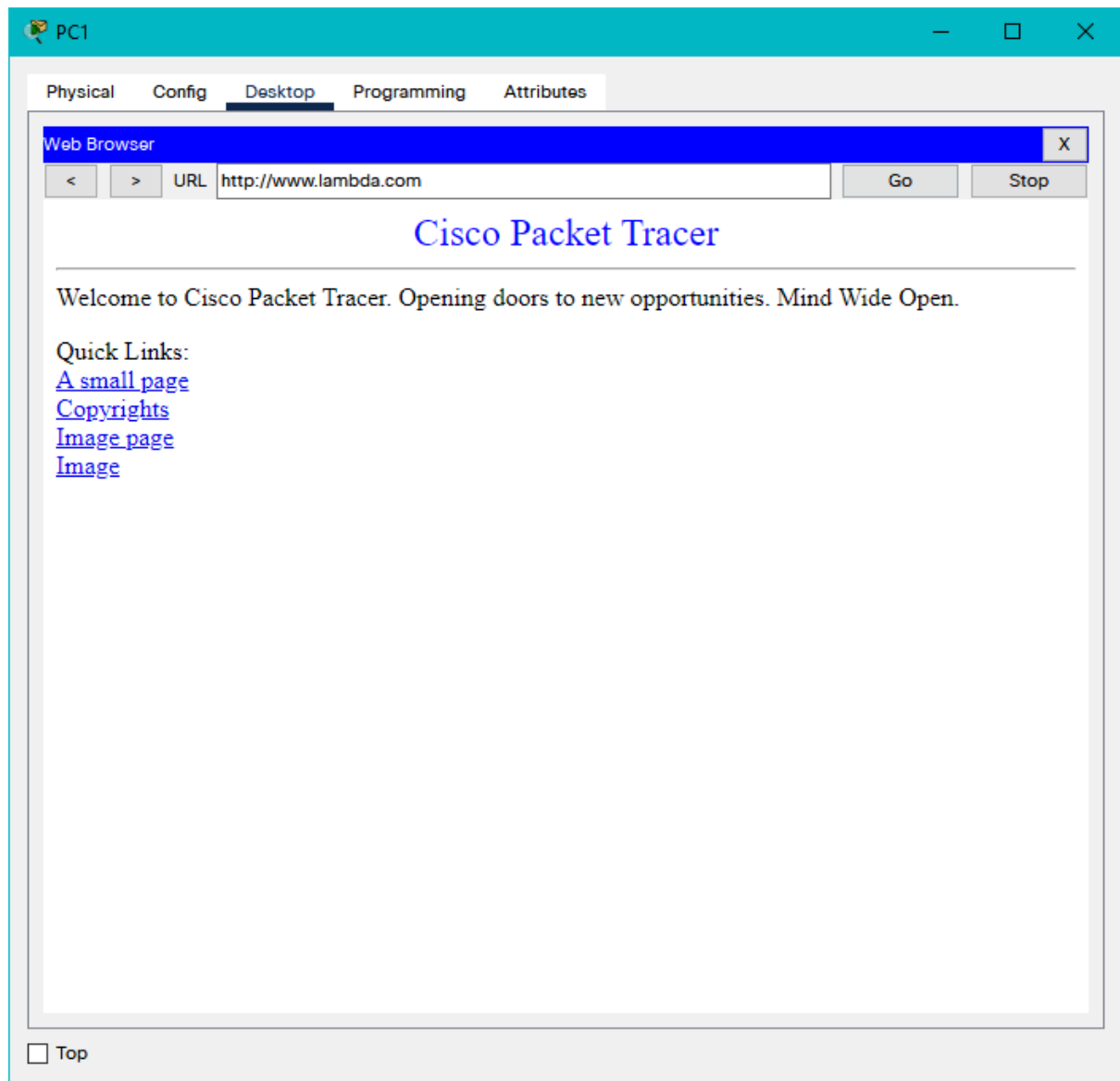
A configuração do serviço HTTP consiste em ativá-lo conforme a figura

Testes HTTP

do PC1 chamar do WebBrowser a URL 192.168.60.2



do PC1 chamar do WebBrowser a URL <http://www.lambda.com>



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.

Ele não cria um endereço IP dinamicamente para o PC.

PC1

Physical Config Desktop Programming Attributes

GLOBAL

- Settings
- Algorithm Settings

INTERFACE

- FastEthernet0
- Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 000C.CFBD.A301

IP Configuration

☒ DHCP

☐ Static

IPv4 Address

Subnet Mask

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

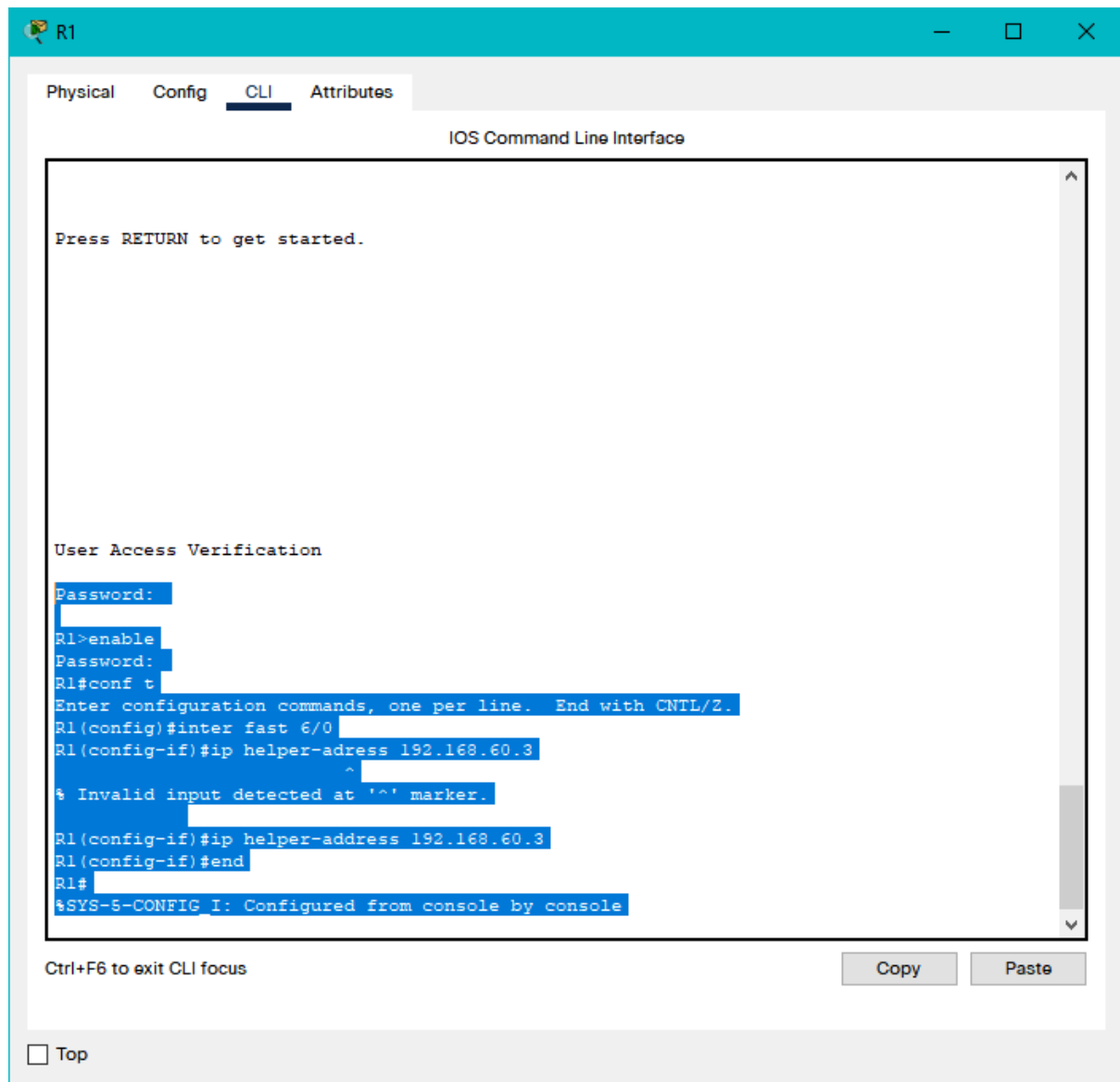
Link Local Address: FE80::20C:CFFF:FEBD:A301

☐ Top

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 CTRL/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

Após a configuração correta do servidor dhcp a providência de endereços IP se deu sem empecilhos. Nos fornecendo então um endereço válido e correspondente para aquele host.

PC1

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IPv4 Address 192.168.50.3

Subnet Mask 255.255.255.0

Default Gateway 192.168.50.1

DNS Server 192.168.60.5

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::20C:CFFF:FE8D:A301

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

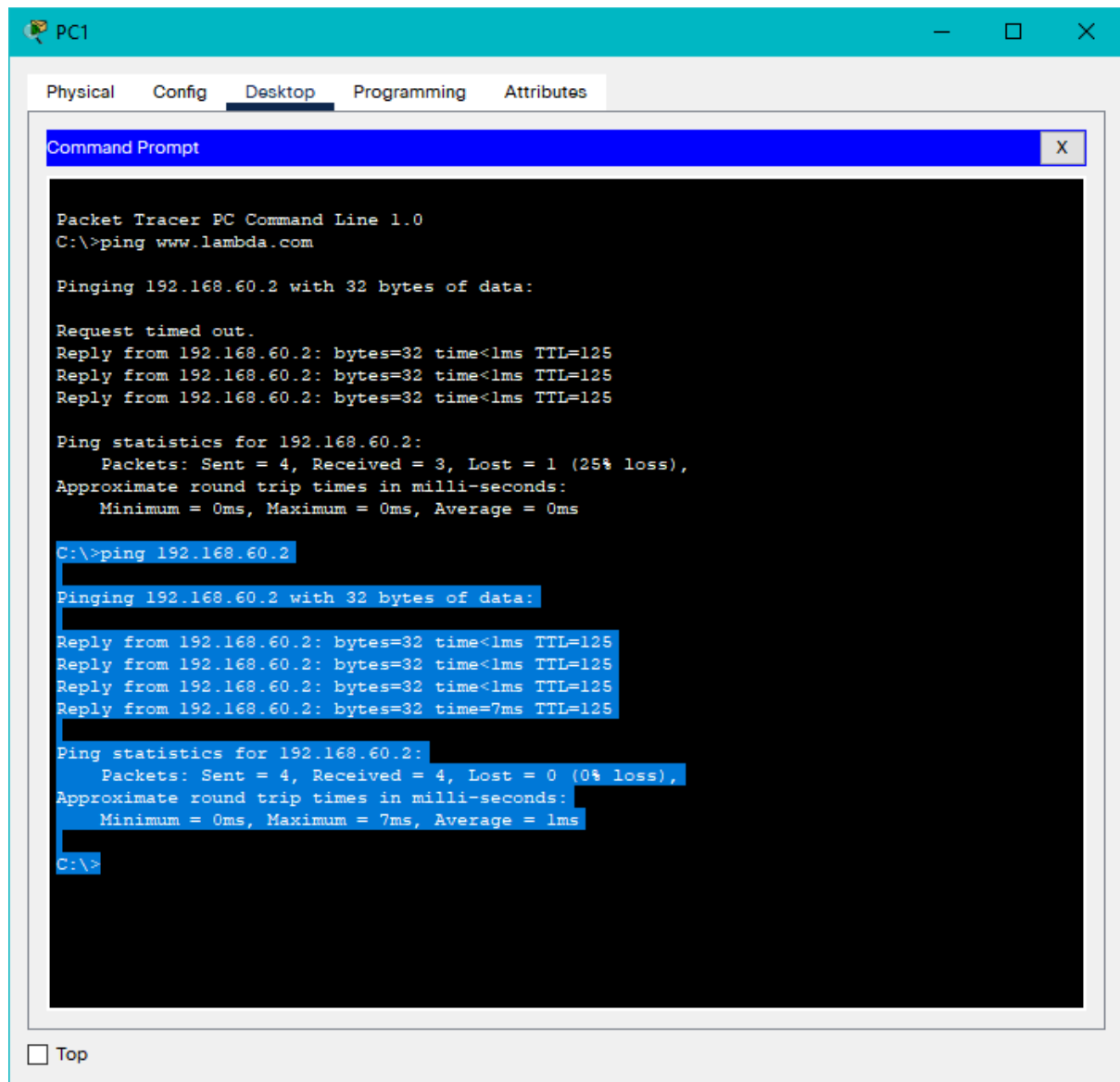
Authentication MD5

Username

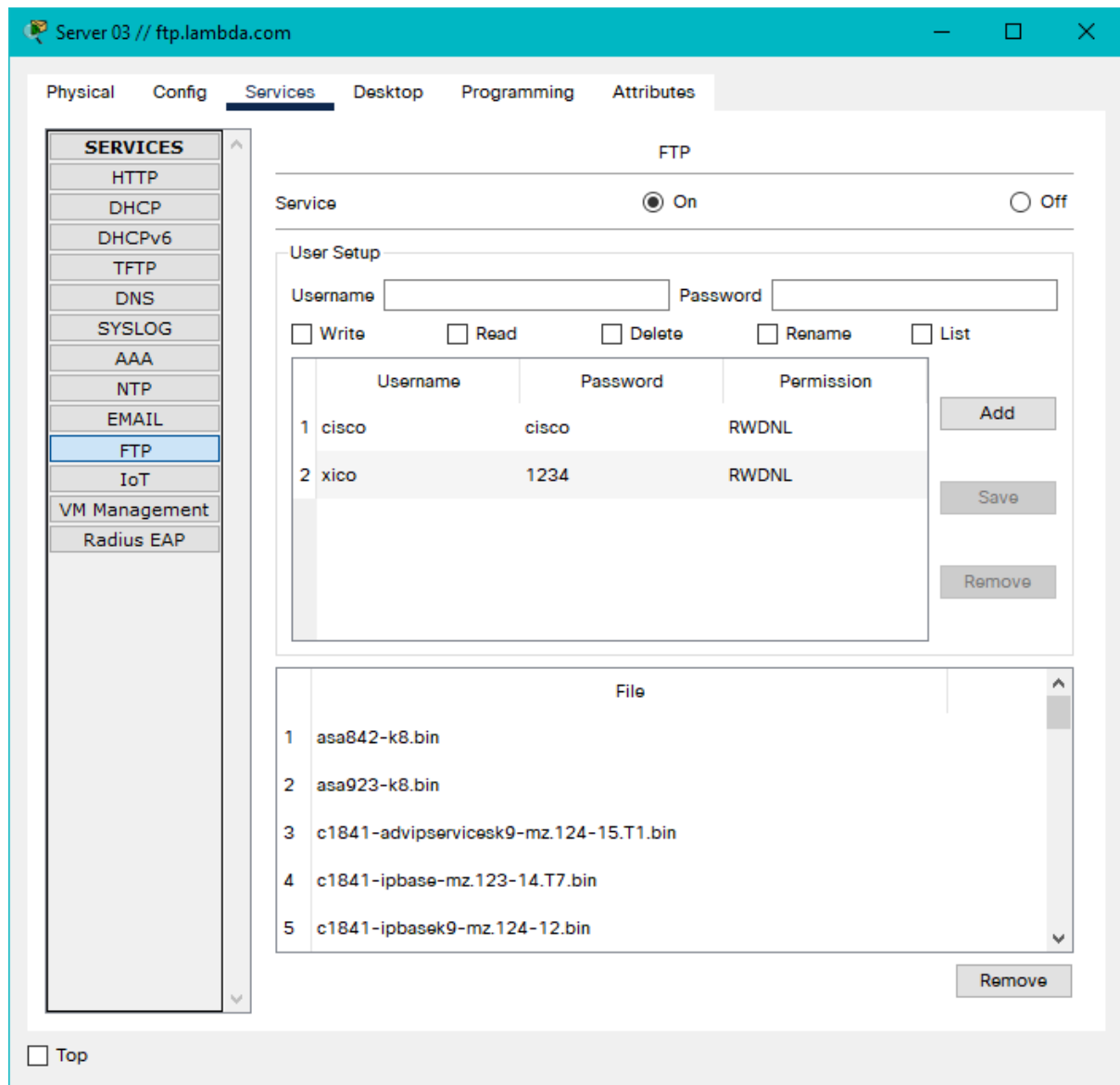
Password

☐ Top

Testar a conectividade usando o ping para o IP 192.168.60.2



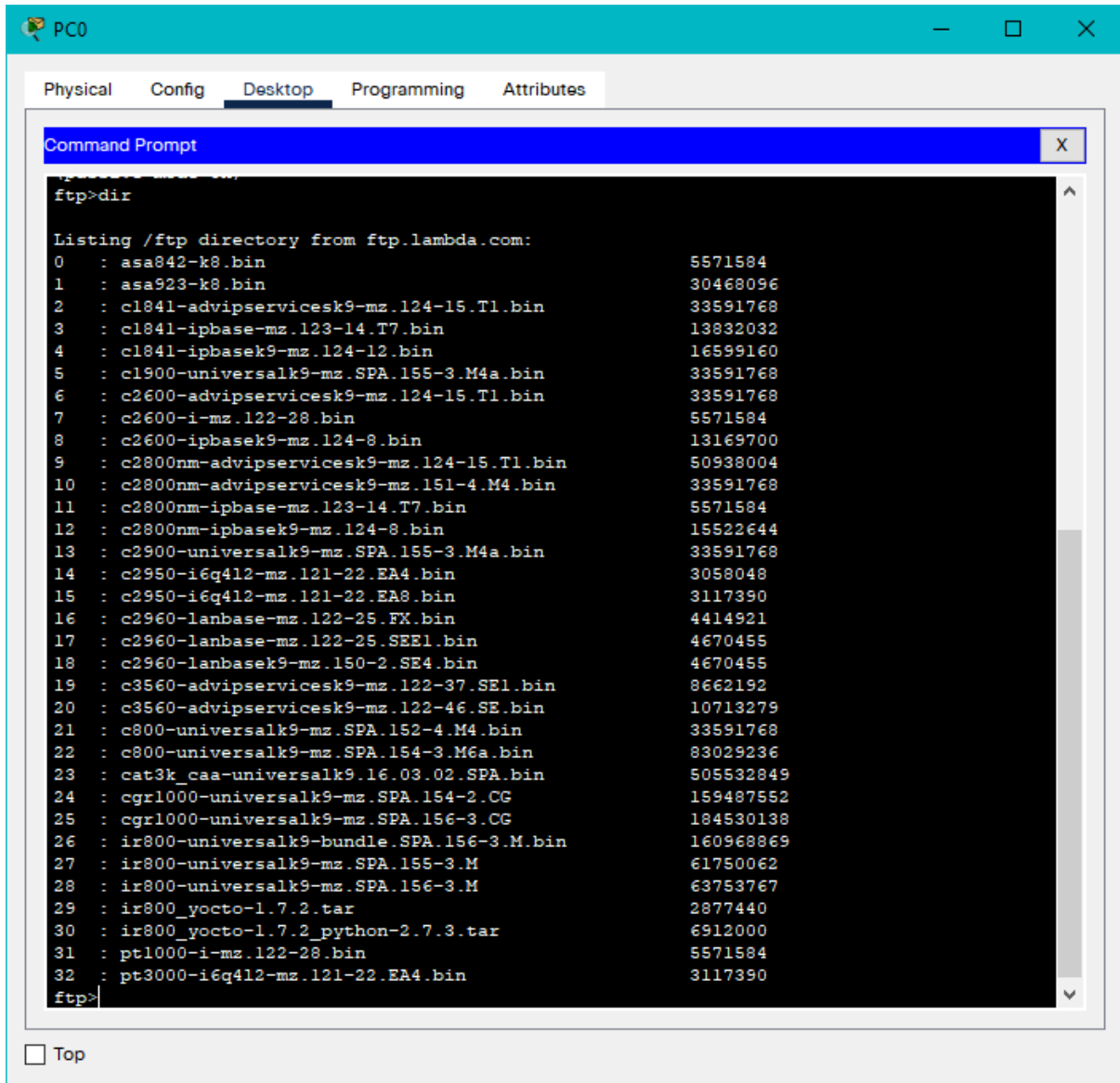
4) Configurar e testar o serviço FTP



```
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)
```

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

ftp>dir



PC0

Physical Config Desktop Programming Attributes

Command Prompt

ftp>dir

Listing /ftp directory from ftp.lambda.com:

0	: asa842-k8.bin	5571584
1	: asa923-k8.bin	30468096
2	: cl841-advipservicesk9-mz.124-15.T1.bin	33591768
3	: cl841-ipbase-mz.123-14.T7.bin	13832032
4	: cl841-ipbasek9-mz.124-12.bin	16599160
5	: cl900-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.SEE1.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>

☐ Top

ftp>help

```
ftp>help
```

```
?  
cd  
delete  
dir  
get  
help  
passive  
put  
pwd  
quit  
rename
```

```
ftp>
```