

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up

Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name voice
Switch(config-vlan)#vlan 20
Switch(config-vlan)#name data
Switch(config-vlan)#exit
Switch(config)#int fa 0/24
Switch(config-if)#no sh
Switch(config-if)#switchport mode trunk
Switch(config-if)#exit
Switch(config)#int ra fa 0/1-10
Switch(config-if-range)#swm
^
% Invalid input detected at '^' marker.

Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#switchport voice vlan 10
Switch(config-if-range)#exit
Switch(config)#
```

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IOS Command Line Interface

```
Switch(config-vlan)#name data
Switch(config-vlan)#exit
Switch(config)#int fa 0/24
Switch(config-if)#no sh
Switch(config-if)#switchport mode trunk
Switch(config-if)#exit
Switch(config)#int ra fa 0/1-10
Switch(config-if-range)#swm
^
% Invalid input detected at '^' marker.

Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#switchport voice vlan 10
Switch(config-if-range)#exit
Switch(config)#do sh vlan br
```

VLAN Name	Status	Ports
1 default	active	Fa0/11, Fa0/12, Fa0/13, Fa0/14 Fa0/15, Fa0/16, Fa0/17, Fa0/18 Fa0/19, Fa0/20, Fa0/21, Fa0/22 Fa0/23, Fa0/24
10 voice	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10
20 data	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

```
Switch(config)#
```

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IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#no sh

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)#no ip add
Router(config-if)#int fa0/0.10
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.10, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.10, changed state to up

Router(config-subif)#encapsulation dot1Q 10
Router(config-subif)#ip add 192.168.180.1 255.255.255.0
% 192.168.180.0 overlaps with Serial1/0
Router(config-subif)#int fa0/0.20
%Invalid interface type and number
Router(config)#int fa0/0.10
Router(config-subif)#encapsulation dot1Q 10
Router(config-subif)#ip add 10.10.10.1 255.255.255.0
Router(config-subif)#int fa0/0.20
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.20, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.20, changed state to up
```

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IOS Command Line Interface

```
%Invalid interface type and number
Router(config)#int fa0/0.10
Router(config-subif)#encapsulation dot1Q 10
Router(config-subif)#ip add 10.10.10.1 255.255.255.0
Router(config-subif)#int fa0/0.20
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.20, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.20, changed state to up

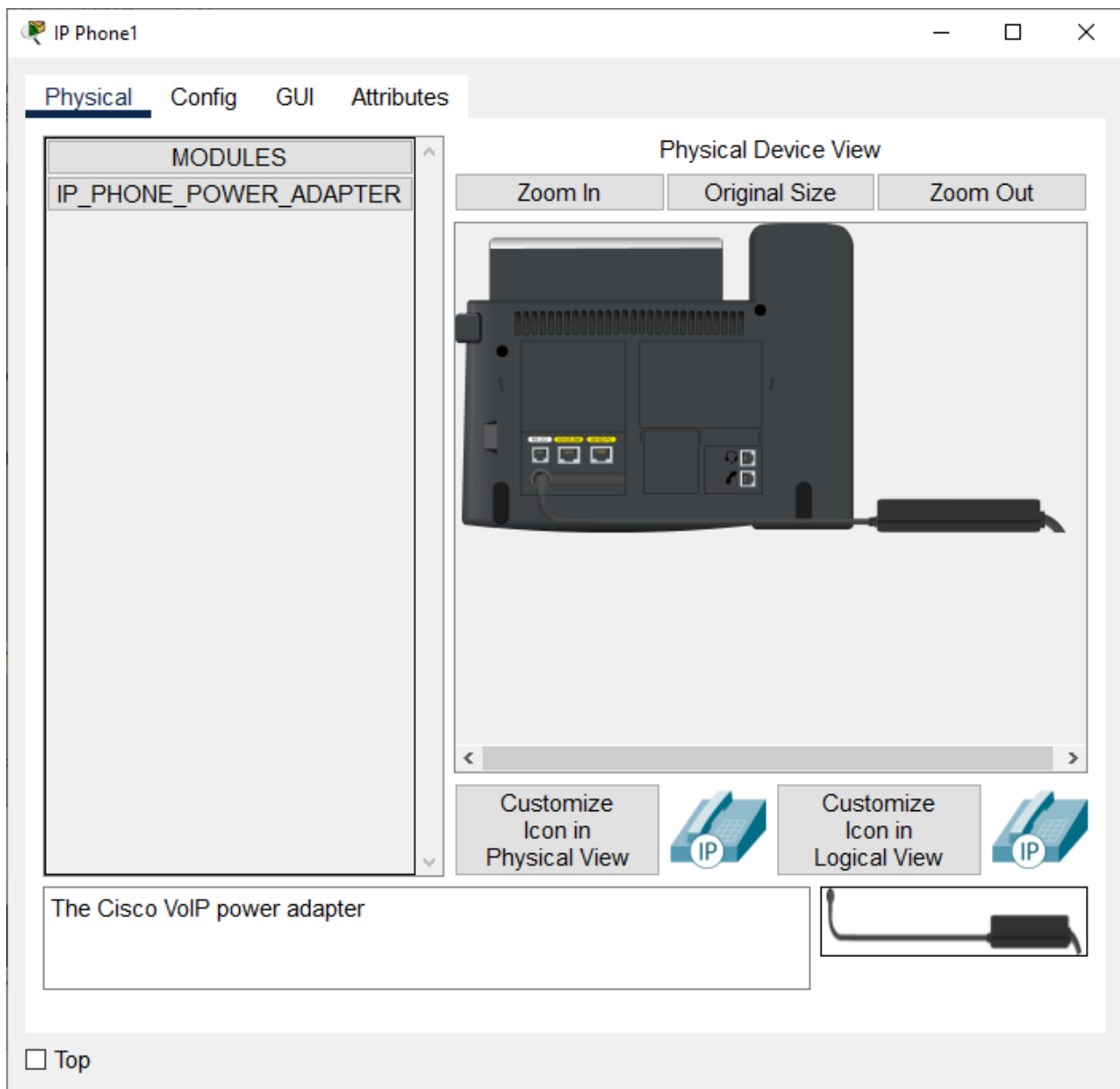
Router(config-subif)#encapsulation dot1Q 20
Router(config-subif)#ip add 20.20.20.1 255.255.255.0
Router(config-subif)#exit
Router(config)#ip dhcp pool 1
Router(dhcp-config)#net 10.10.10.0 255.255.255.0
Router(dhcp-config)#def 10.10.10.1
Router(dhcp-config)#dns 10.10.10.1
Router(dhcp-config)#option 150 ip 10.10.10.1
Router(dhcp-config)#ip dhcp exc 10.10.10.1 10.10.10.10
Router(config)#ip dhcp exc 20.20.20.1 20.20.20.10
Router(config)#ip dhcp pool 2
Router(dhcp-config)#net 20.20.20.0 255.255.255.0
Router(dhcp-config)#def 20.20.20.1
Router(dhcp-config)#dns 20.20.20.1
Router(dhcp-config)#option 150 ip 10.10.10.1
Router(dhcp-config)#telephony-service
Router(config-telephony)#max-sn 20
      ^
% Invalid input detected at '^' marker.

Router(config-telephony)#max-ephones 10
Router(config-telephony)#max-dn 20
Router(config-telephony)#ip source-address 10.10.10.1 port 2000
Router(config-telephony)#
```

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PC48

PhysicalConfigDesktopProgrammingAttributes

IP ConfigurationX

InterfaceFastEthernet0

IP Configuration

☒ DHCP

☐ Static

DHCP request successful.

IPv4 Address

20.20.20.14

Subnet Mask

255.255.255.0

Default Gateway

20.20.20.1

DNS Server

20.20.20.1

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

/

Link Local Address

FE80::20A:F3FF:FE33:456D

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

Username

Password

☐ Top

Home VolP0

Physical

Config

Attributes

GLOBAL

Settings

Global Settings

Display Name

Home VolP0

Server Address

10.10.10.1

☐ Top

Router18

Physical

Config

CLI

Attributes

IOS Command Line Interface

```
Router(dhcp-config)#option 150 ip 10.10.10.1
Router(dhcp-config)#telephony-service
Router(config-telephony)#max-sn 20
      ^
% Invalid input detected at '^' marker.

Router(config-telephony)#max-ephones 10
Router(config-telephony)#max-dn 20
Router(config-telephony)#ip source-address 10.10.10.1 port 2000
Router(config-telephony)##DHCPD-4-PING_CONFLICT: DHCP address conflict:  server pinged
10.10.10.13.

Router(config-telephony)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#sh ephone

ephone-1 Mac:0001.9792.DBDE TCP socket:[1] activeLine:1 UNREGISTERED
mediaActive:0 offhook:1 ringing:0 reset:0 reset_sent:0 paging 0 debug:0 caps:8
IP:0.0.0.0 0    keepalive 43 max_line 2
button 1: dn CH1 DOWN

ephone-2 Mac:0001.C72D.5D80 TCP socket:[1] activeLine:1 UNREGISTERED
mediaActive:0 offhook:1 ringing:0 reset:0 reset_sent:0 paging 0 debug:0 caps:8
IP:0.0.0.0 0    keepalive 43 max_line 2
button 1: dn CH1 DOWN

ephone-3 Mac:0050.0F84.45A2 TCP socket:[1] activeLine:1 UNREGISTERED
mediaActive:0 offhook:1 ringing:0 reset:0 reset_sent:0 paging 0 debug:0 caps:8
IP:0.0.0.0 0    keepalive 43 max_line 2
button 1: dn CH1 DOWN
Router#
```

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☐ Top

New

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up

Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name voice
Switch(config-vlan)#vlan 20
Switch(config-vlan)#name data
Switch(config-vlan)#exit
Switch(config)#int fa0/24
Switch(config-if)#no sh
Switch(config-if)#switchport mode trunk
Switch(config-if)#exit
Switch(config)#int ra fa 0/1-10
Switch(config-if-range)#switchport mode access vlan 20
^
% Invalid input detected at '^' marker.

Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#switchport voice vlan 10
Switch(config-if-range)#exit
Switch(config)#
```

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IOS Command Line Interface

```
Switch(config-vlan)#name data
Switch(config-vlan)#exit
Switch(config)#int fa0/24
Switch(config-if)#no sh
Switch(config-if)#switchport mode trunk
Switch(config-if)#exit
Switch(config)#int ra fa 0/1-10
Switch(config-if-range)#switchport mode access vlan 20
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#switchport voice vlan 10
Switch(config-if-range)#exit
Switch(config)#do sh vlan br
```

VLAN Name	Status	Ports
1 default	active	Fa0/11, Fa0/12, Fa0/13, Fa0/14 Fa0/15, Fa0/16, Fa0/17, Fa0/18 Fa0/19, Fa0/20, Fa0/21, Fa0/22 Fa0/23, Fa0/24
10 voice	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10
20 data	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

```
Switch(config)#
```

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IOS Command Line Interface

Press RETURN to get started!

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial1/0
Router(config-if)#clock rate 64000
Router(config-if)#ip address 192.168.180.3 255.255.255.0
Router(config-if)#ip address 192.168.180.3 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up

Router(config-if)#exit
Router(config)#int fa 0/0
Router(config-if)#no sh

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)#no ip add
Router(config-if)#int fa 0/0.10
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.10, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.10, changed state to up
```

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IOS Command Line Interface

```
Router(config-subif)#encapsulation dot1Q 10
Router(config-subif)#ip add 10.10.10.1 255.255.255.0
Router(config-subif)#int fa 0/0.20
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.20, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.20, changed state to up

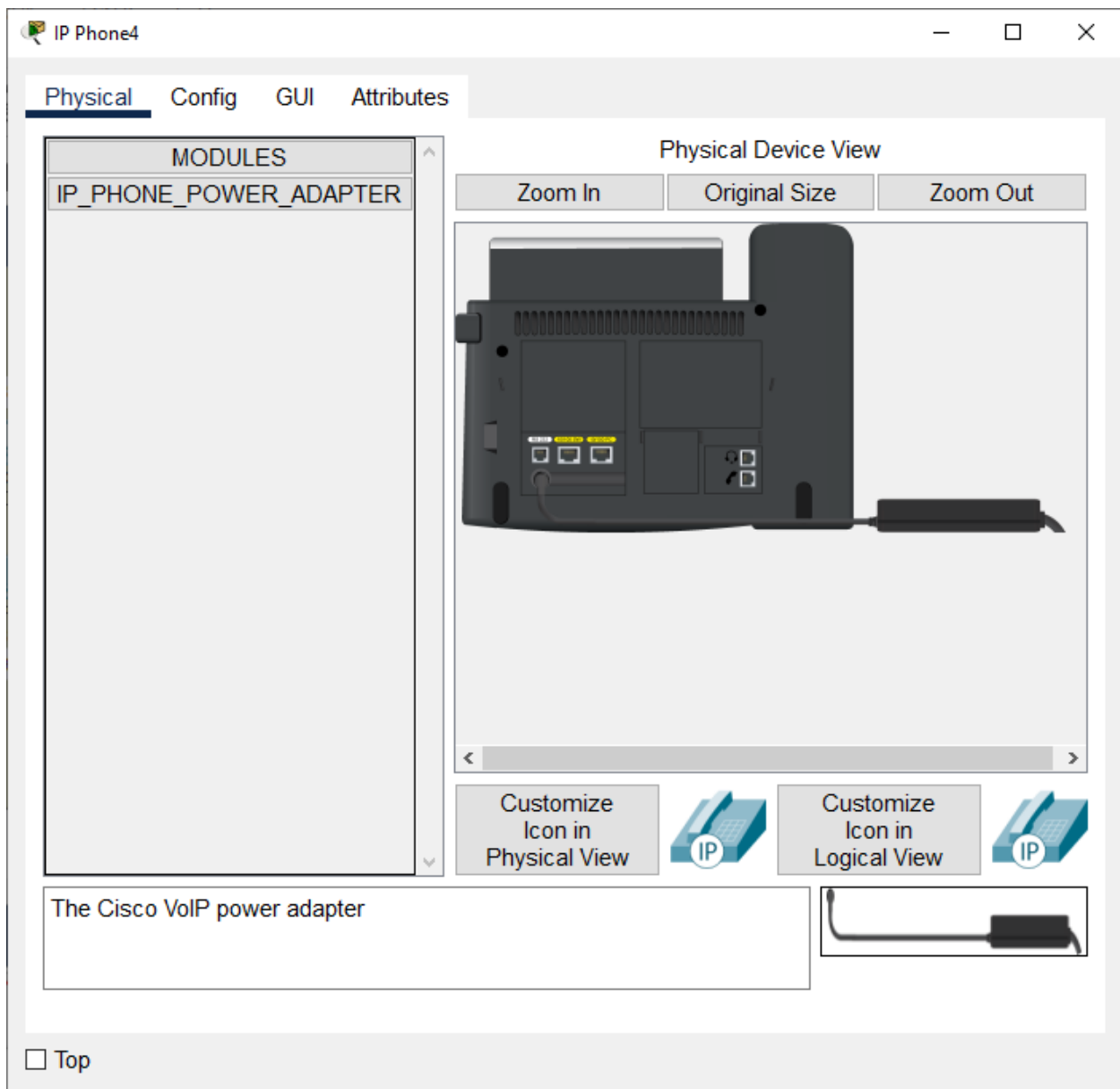
Router(config-subif)#encapsulation dot1Q 20
Router(config-subif)#ip add 20.20.20.1 255.255.255.0
Router(config-subif)#exit
Router(config)#ip dhcp pool 1
Router(dhcp-config)#net 10.10.10.0 255.255.255.0
Router(dhcp-config)#def 10.10.10.1
Router(dhcp-config)#^
% Invalid input detected at '^' marker.

Router(dhcp-config)#def 10.10.10.1
Router(dhcp-config)#dns 10.10.10.1
Router(dhcp-config)#option 150 ip 10.10.10.1
Router(dhcp-config)#ip dhcp exc 10.10.10.1 10.10.10.10
Router(config)#ip dhcp exc 20.20.20.1 20.20.20.10
Router(config)#
Router(config)#ip dhcp pool 2
Router(dhcp-config)#net 20.20.20.0 255.255.255.0
Router(dhcp-config)#def 20.20.20.1
Router(dhcp-config)#dns 20.20.20.1
Router(dhcp-config)#option 150 ip 10.10.10.1
Router(dhcp-config)#exit
Router(config)#telephony-service
Router(config-telephony)#max-dn 20
Router(config-telephony)#max-ephones 10
Router(config-telephony)#ip source-address 10.10.10.1 port 2000
Router(config-telephony)#
```

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Home VolP3

Physical

Config

Attributes

GLOBAL

Settings

Global Settings

Display Name

Home VolP3

Server Address

10.10.10.1

☐ Top

IOS Command Line Interface

```
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router#sh ephone
```

```
ephone-1 Mac:000C.CF2A.0AA4 TCP socket:[1] activeLine:1 UNREGISTERED
mediaActive:0 offhook:1 ringing:0 reset:0 reset_sent:0 paging 0 debug:0 caps:8
IP:0.0.0.0 0    keepalive 43 max_line 2
button 1: dn CH1 DOWN

ephone-2 Mac:0060.3EA8.83E6 TCP socket:[1] activeLine:1 UNREGISTERED
mediaActive:0 offhook:1 ringing:0 reset:0 reset_sent:0 paging 0 debug:0 caps:8
IP:0.0.0.0 0    keepalive 43 max_line 2
button 1: dn CH1 DOWN

ephone-3 Mac:00D0.5848.3382 TCP socket:[1] activeLine:1 UNREGISTERED
mediaActive:0 offhook:1 ringing:0 reset:0 reset_sent:0 paging 0 debug:0 caps:8
IP:0.0.0.0 0    keepalive 43 max_line 2
button 1: dn CH1 DOWN

ephone-4 Mac:0030.F257.B701 TCP socket:[1] activeLine:1 UNREGISTERED
mediaActive:0 offhook:1 ringing:0 reset:0 reset_sent:0 paging 0 debug:0 caps:8
IP:0.0.0.0 0    keepalive 43 max_line 2
button 1: dn CH1 DOWN

ephone-5 Mac:0001.C9E4.9B01 TCP socket:[1] activeLine:1 UNREGISTERED
mediaActive:0 offhook:1 ringing:0 reset:0 reset_sent:0 paging 0 debug:0 caps:8
IP:0.0.0.0 0    keepalive 43 max_line 2
button 1: dn CH1 DOWN

ephone-6 Mac:00D0.FF6C.4D01 TCP socket:[1] activeLine:1 UNREGISTERED
mediaActive:0 offhook:1 ringing:0 reset:0 reset_sent:0 paging 0 debug:0 caps:8
IP:0.0.0.0 0    keepalive 43 max_line 2
button 1: dn CH1 DOWN
Router#
```

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IOS Command Line Interface

```
button 1: dn CH1 DOWN
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ephone-dn 1
Router(config-ephone-dn)%%LINK-3-UPDOWN: Interface ephone_dsp DN 1.1, changed state to up
number 1001
Router(config-ephone-dn)#number 1001
Router(config-ephone-dn)#ephone-dn 2
Router(config-ephone-dn)%%LINK-3-UPDOWN: Interface ephone_dsp DN 2.1, changed state to up

Router(config-ephone-dn)#number 1002
Router(config-ephone-dn)#ephone-dn 3
Router(config-ephone-dn)%%LINK-3-UPDOWN: Interface ephone_dsp DN 3.1, changed state to up

Router(config-ephone-dn)#number 1003
Router(config-ephone-dn)#ephone-dn 4
Router(config-ephone-dn)%%LINK-3-UPDOWN: Interface ephone_dsp DN 4.1, changed state to up

Router(config-ephone-dn)#number 1004
Router(config-ephone-dn)#ephone-dn 5
Router(config-ephone-dn)%%LINK-3-UPDOWN: Interface ephone_dsp DN 5.1, changed state to up

Router(config-ephone-dn)#number 1005
Router(config-ephone-dn)#ephone-dn 6
Router(config-ephone-dn)%%LINK-3-UPDOWN: Interface ephone_dsp DN 6.1, changed state to up

Router(config-ephone-dn)#number 1005
Router(config-ephone-dn)#6
Router(config-ephone-dn)
^
% Invalid input detected at '^' marker.

Router(config-ephone-dn)#ephone-dn 6
Router(config-ephone-dn)#number 1006
Router(config-ephone-dn)#
```

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IOS Command Line Interface

```
Router(config-ephone-dn)#number 1006
Router(config-ephone-dn)#exit
Router(config)#ephone 1
Router(config-ephone)#button 1:1
Router(config-ephone)#ephone 2
Router(config-ephone)#button 1:2
Router(config-ephone)#
%IPPHONE-6-REGISTER: ephone-1 IP:10.10.10.12 Socket:2 DeviceType:Phone has registered.

%IPPHONE-6-REGISTER: ephone-2 IP:10.10.10.11 Socket:2 DeviceType:Phone has registered.

Router(config-ephone)#ephone 3
Router(config-ephone)#button 1:3
Router(config-ephone)#ephone 4
Router(config-ephone)#ephone 4
%IPPHONE-6-REGISTER: ephone-3 IP:10.10.10.13 Socket:2 DeviceType:Phone has regibutton 1:3
Dn already assigned.
Router(config-ephone)#ephone 4
Router(config-ephone)#button 1:4
Router(config-ephone)#
%IPPHONE-6-REGISTER: ephone-4 IP:20.20.20.11 Socket:2 DeviceType:Phone has registered.

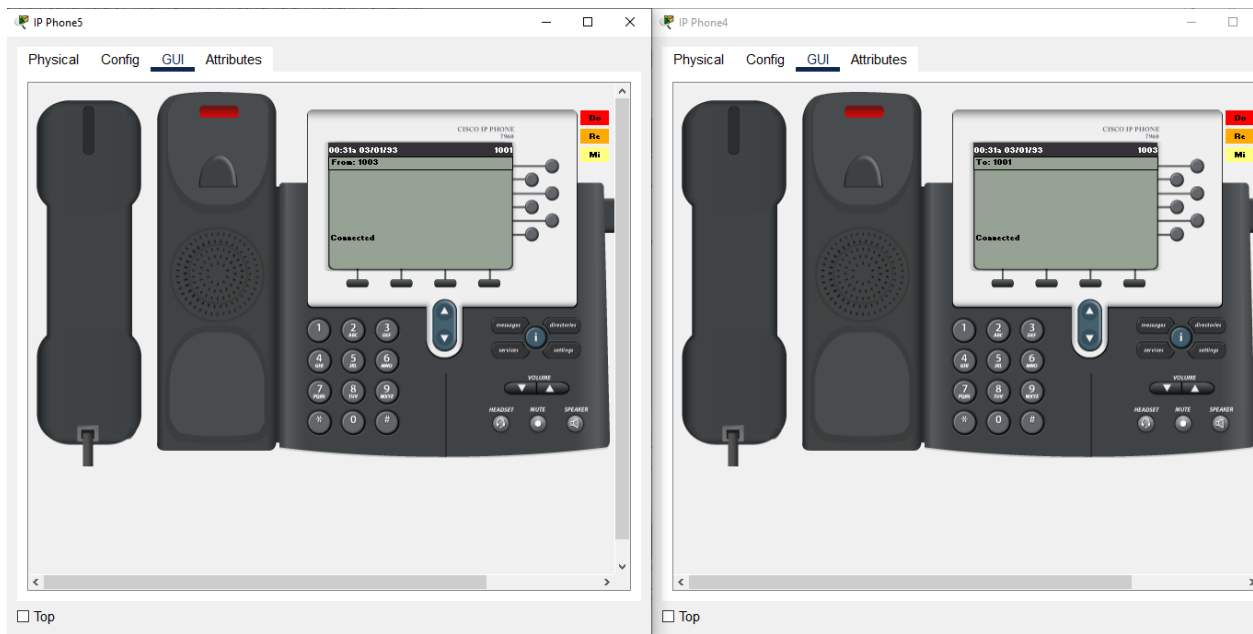
Router(config-ephone)#ephone 5
Router(config-ephone)#button 1:5
Router(config-ephone)#ephone 5
%IPPHONE-6-REGISTER: ephone-5 IP:20.20.20.12 Socket:2 DeviceType:Phone has registered.
^
% Invalid input detected at '^' marker.

Router(config-ephone)#ephone 6
Router(config-ephone)#button 1:6
Router(config-ephone)#
%IPPHONE-6-REGISTER: ephone-6 IP:20.20.20.13 Socket:2 DeviceType:Phone has registered.
```

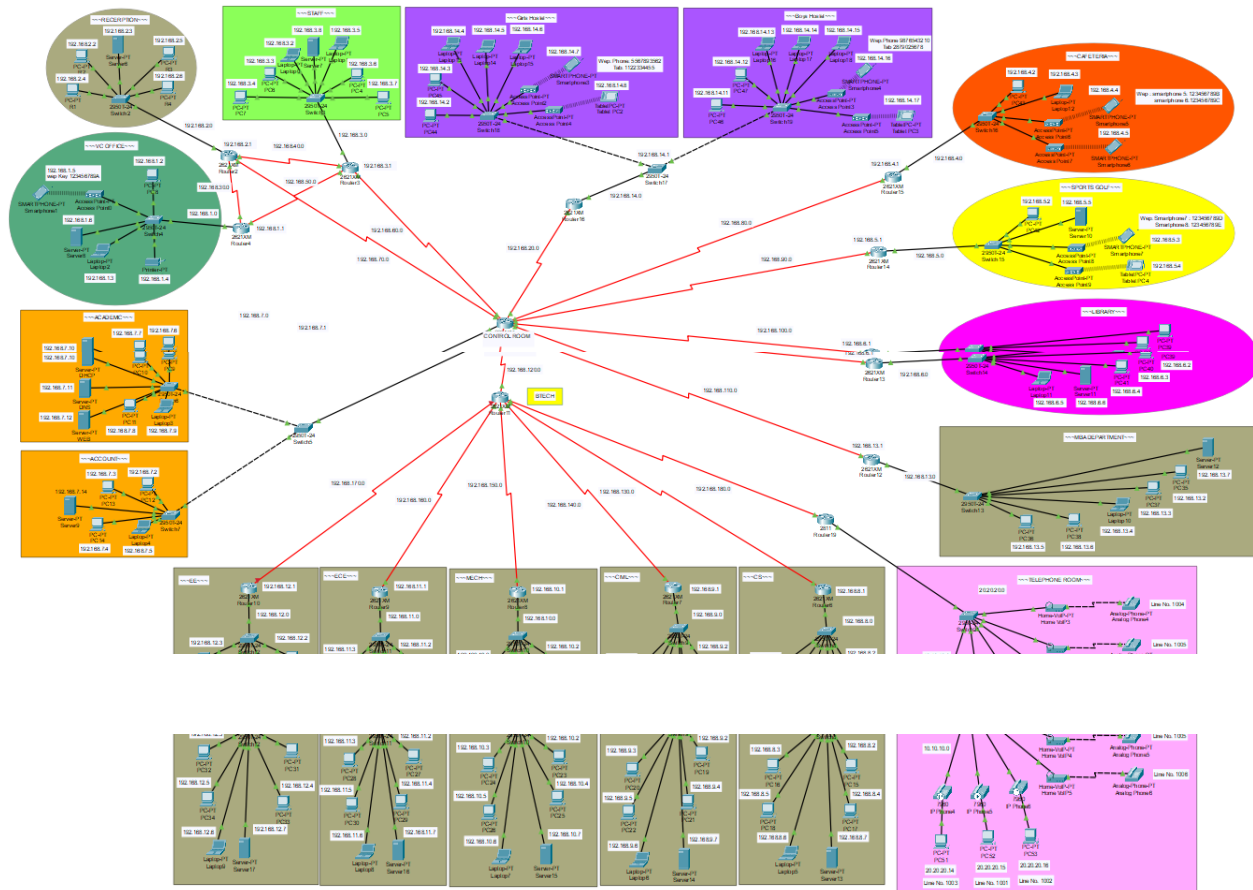
Ctrl+F6 to exit CLI focus

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Overall Nwtwork



Eigrp

Router 2

 Router2

Physical Config CLI Attributes

IOS Command Line Interface

```
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, FastEthernet0/0
C    192.168.30.0/24 is directly connected, Serial0/0
C    192.168.40.0/24 is directly connected, Serial0/1
C    192.168.70.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp ?
  <1-65535> Autonomous system number
Router(config)#router eigrp 100
Router(config-router)#network 192.168.2.0
Router(config-router)#network 192.168.30.0
Router(config-router)#network 192.168.40.0
Router(config-router)#network 192.168.70.0
Router(config-router)#no auto summary
Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#write
Building configuration...
[OK]
Router#
```

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Router 3

Router3

Physical

Config

CLI

Attributes

IOS Command Line Interface

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 192.168.3.0/24 is directly connected, FastEthernet0/0
C 192.168.40.0/24 is directly connected, Serial0/0
C 192.168.50.0/24 is directly connected, Serial0/1
C 192.168.60.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.3.0
Router(config-router)#network 192.168.40.0
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.40.3 (Serial0/0) is up: new adjacency

Router(config-router)#network 192.168.50.0
Router(config-router)#network 192.168.60.0
Router(config-router)#no auto summary
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.40.3 (Serial0/0) resync: summary configured

Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#

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Router 4

IOS Command Line Interface

```
eigrp      IP-EIGRP show commands
interface  IP interface status and configuration
nat        IP NAT information
nbar       Network-Based Application Recognition
ospf       OSPF information
protocols  IP routing protocol process parameters and statistics
rip        IP RIP show commands
route      IP routing table
ssh        Information on SSH

Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.1.0
Router(config-router)#network 192.168.30.0
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.30.3 (Serial0/2) is up: new adjacency

Router(config-router)#network 192.168.50.0
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.50.3 (Serial0/3) is up: new adjacency

Router(config-router)#no auto summary
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.30.3 (Serial0/2) resync: summary
configured

%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.50.3 (Serial0/3) resync: summary
configured
exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
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, 2 subnets, 2 masks
C    10.10.10.0/24 is directly connected, FastEthernet0/0.10
L    10.10.10.1/32 is directly connected, FastEthernet0/0.10
20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    20.20.20.0/24 is directly connected, FastEthernet0/0.20
L    20.20.20.1/32 is directly connected, FastEthernet0/0.20
192.168.180.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.180.0/24 is directly connected, Serial1/0
L    192.168.180.3/32 is directly connected, Serial1/0
```

```
Router#config t
```

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

```
Router(config)#router eigrp 100
```

```
Router(config-router)#network 10.0.0.0
```

```
Router(config-router)#network 20.0.0.0
```

```
Router(config-router)#network 192.168.180.0
```

```
Router(config-router)#no auto summary
```

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

```
Router(config)#exit
```

```
Router#
```

```
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router#
```

Ctrl+F6 to exit CLI focus

Copy

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IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up

Router>en
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    192.168.14.0/24 is directly connected, FastEthernet0/0
C    192.168.20.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.14.0
Router(config-router)#network 192.168.20.0
Router(config-router)#no auto summary
Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up

Router>en
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, FastEthernet0/0
C    192.168.80.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.4.0
Router(config-router)#network 192.168.80.0
Router(config-router)#no auto summary
Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up

Router>en
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    192.168.5.0/24 is directly connected, FastEthernet0/0
C    192.168.90.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.5.0
Router(config-router)#network 192.168.90.0
Router(config-router)#no auto summary
Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up

Router>en
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    192.168.6.0/24 is directly connected, FastEthernet0/0
C    192.168.100.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.6.0
Router(config-router)#network 192.168.100.0
Router(config-router)#no auto summary
Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up

Router>en
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    192.168.13.0/24 is directly connected, FastEthernet0/0
C    192.168.110.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.13.0
Router(config-router)#network 192.168.110.0
Router(config-router)#no auto summary
Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

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IOS Command Line Interface

```
L 10.10.10.1/32 is directly connected, FastEthernet0/0.10
  20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 20.20.20.0/24 is directly connected, FastEthernet0/0.20
L 20.20.20.1/32 is directly connected, FastEthernet0/0.20
  192.168.180.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.180.0/24 is directly connected, Serial1/0
L 192.168.180.3/32 is directly connected, Serial1/0
```

```
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 10.0.0.0
Router(config-router)#network 20.0.0.0
Router(config-router)#network 192.168.180.0
Router(config-router)#no auto summary
Router(config-router)#exit
Router(config)#exit
Router#
```

%SYS-5-CONFIG_I: Configured from console by console

```
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 10.10.10.0
Router(config-router)#network 10.0.0.0
Router(config-router)#network 20.0.0.0
Router(config-router)#network 20.20.20.0
Router(config-router)#network 192.168.180.0
Router(config-router)#no auto summary
Router(config-router)#exit
Router(config)#exit
Router#
```

%SYS-5-CONFIG_I: Configured from console by console

Ctrl+F6 to exit CLI focus

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Router11

Physical Config CLI Attributes

IOS Command Line Interface

```
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 192.168.120.0/24 is directly connected, Serial0/2
C 192.168.130.0/24 is directly connected, Serial0/0
C 192.168.140.0/24 is directly connected, Serial0/1
C 192.168.150.0/24 is directly connected, Serial0/3
C 192.168.160.0/24 is directly connected, Serial1/0
C 192.168.170.0/24 is directly connected, Serial1/1
C 192.168.180.0/24 is directly connected, Serial1/2

Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.120.0
Router(config-router)#network 192.168.130.0
Router(config-router)#network 192.168.140.0
Router(config-router)#network 192.168.150.0
Router(config-router)#network 192.168.160.0
Router(config-router)#network 192.168.170.0
Router(config-router)#network 192.168.180.0
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.180.3 (Serial1/2) is up: new adjacency

Router(config-router)#no auto summary
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.180.3 (Serial1/2) resync: summary configured

Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

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Router5

Physical Config CLI Attributes

IOS Command Line Interface

```
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.7.0
Router(config-router)#network 192.168.20.0
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.20.2 (Serial0/2) is up: new adjacency

Router(config-router)#network 192.168.60.0
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.60.2 (Serial0/3) is up: new adjacency

Router(config-router)#network 192.168.70.0
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.70.2 (Serial0/0) is up: new adjacency

Router(config-router)#network 192.168.80.0
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.80.2 (Serial0/1) is up: new adjacency

Router(config-router)#network 192.168.90.0
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.90.2 (Serial1/0) is up: new adjacency

Router(config-router)#network 192.168.100.0
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.100.2 (Serial1/1) is up: new adjacency

Router(config-router)#network 192.168.120.0
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.120.2 (Serial1/3) is up: new adjacency

Router(config-router)#network 192.168.110.0
Router(config-router)#
%DUAL-S-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.110.2 (Serial1/2) is up: new adjacency

Router(config-router)#no auto summary
Router(config-router)#
Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
Router>en
Router#sh 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    192.168.8.0/24 is directly connected, FastEthernet0/0
C    192.168.130.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.8.0
Router(config-router)#network 192.168.130.0
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.130.2 (Serial0/2) is up: new adjacency

Router(config-router)#no auto summary
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.130.2 (Serial0/2) resync: summary
configured

Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
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   192.168.9.0/24 is directly connected, FastEthernet0/0
C   192.168.140.0/24 is directly connected, Serial0/2

Router#router eigrp 100
      ^
% Invalid input detected at '^' marker.

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.9.0
Router(config-router)#network 192.168.140.0
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.140.2 (Serial0/2) is up: new adjacency

Router(config-router)#no auto summary
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.140.2 (Serial0/2) resync: summary
configured

Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
% Incomplete command.
Router#sh 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    192.168.10.0/24 is directly connected, FastEthernet0/0
C    192.168.150.0/24 is directly connected, Serial0/3

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.10.0
Router(config-router)#network 192.168.150.0
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.150.2 (Serial0/3) is up: new adjacency

Router(config-router)#no auto summary
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.150.2 (Serial0/3) resync: summary
configured

Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
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   192.168.11.0/24 is directly connected, FastEthernet0/0
C   192.168.160.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.11.0
Router(config-router)#network 192.168.160.0
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.160.2 (Serial0/2) is up: new adjacency

Router(config-router)#no auyo summary
^
% Invalid input detected at '^' marker.

Router(config-router)#no auto summary
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.160.2 (Serial0/2) resync: summary
configured

Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

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Router10

PhysicalConfigCLIAttributes

IOS Command Line Interface

```
Router>en
Router#sh 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    192.168.12.0/24 is directly connected, FastEthernet0/0
C    192.168.170.0/24 is directly connected, Serial0/2

Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 192.168.12.0
Router(config-router)#network 192.168.170.0
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.170.2 (Serial0/2) is up: new adjacency

Router(config-router)#no auto summary
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.170.2 (Serial0/2) resync: summary
configured

Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

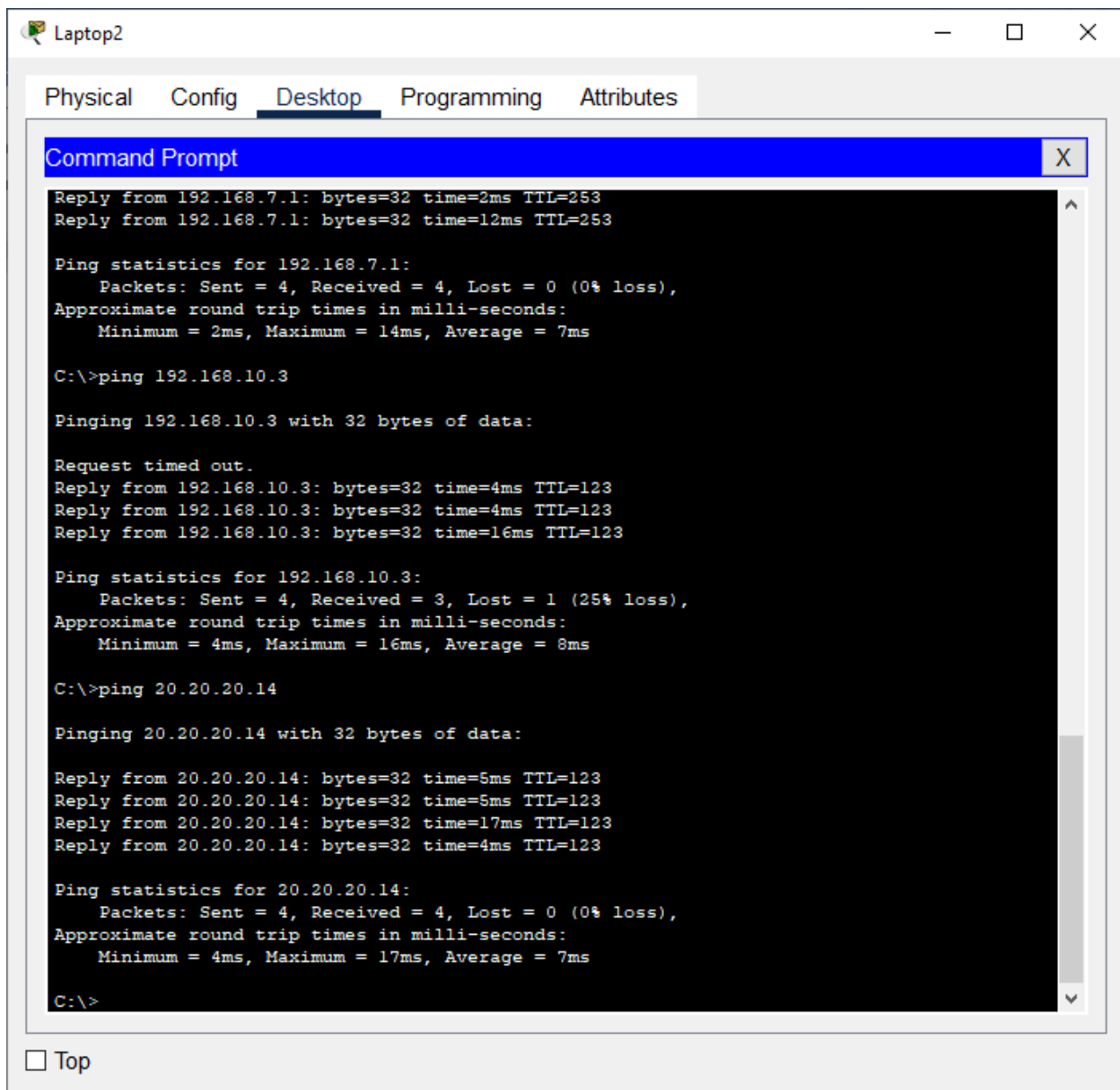
Router#
```

Ctrl+F6 to exit CLI focus

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☐ Top

Results



tABLES

IOS Command Line Interface

```
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
%SYS-5-CONFIG_I: Configured from console by console

Router(config-router)#end
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
Router#sh ip eigrp neighb
^
% Invalid input detected at '^' marker.

Router#sh ip eigrp neighbors
^
% Invalid input detected at '^' marker.

Router#sh ip eigrp ?
  interfaces  IP-EIGRP interfaces
  neighbors   IP-EIGRP neighbors
  topology    IP-EIGRP Topology Table
  traffic     IP-EIGRP Traffic Statistics
Router#sh ip eigrp neighbors
IP-EIGRP neighbors for process 100
H   Address          Interface      Hold Uptime    SRTT   RTO   Q   Seq
                               (sec)          (ms)                  Cnt   Num
0   192.168.170.2     Se0/2         14   00:19:58    40    1000  0   267

Router#
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
interfaces IP-EIGRP interfaces
neighbors IP-EIGRP neighbors
topology IP-EIGRP Topology Table
traffic IP-EIGRP Traffic Statistics
Router#sh ip eigrp neighbors
IP-EIGRP neighbors for process 100
H   Address          Interface      Hold Uptime      SRTT  RTO  Q   Seq
      (sec)              (ms)          Cnt  Num
0   192.168.170.2    Se0/2         14   00:19:58   40    1000  0   267

Router#sh ip eigrp topology
IP-EIGRP Topology Table for AS 100/ID(192.168.170.3)

Codes: P - Passive, A - Active, U - Update, Q - Query, R - Reply,
       r - Reply status

P 10.10.10.0/24, 1 successors, FD is 21026560
   via 192.168.170.2 (21026560/20514560), Serial0/2
P 20.20.20.0/24, 1 successors, FD is 21026560
   via 192.168.170.2 (21026560/20514560), Serial0/2
P 192.168.1.0/24, 1 successors, FD is 3708416
   via 192.168.170.2 (3708416/3196416), Serial0/2
P 192.168.2.0/24, 1 successors, FD is 3196416
   via 192.168.170.2 (3196416/2684416), Serial0/2
P 192.168.3.0/24, 1 successors, FD is 3196416
   via 192.168.170.2 (3196416/2684416), Serial0/2
P 192.168.4.0/24, 1 successors, FD is 3196416
   via 192.168.170.2 (3196416/2684416), Serial0/2
P 192.168.5.0/24, 1 successors, FD is 21538560
   via 192.168.170.2 (21538560/21026560), Serial0/2
P 192.168.6.0/24, 1 successors, FD is 21538560
   via 192.168.170.2 (21538560/21026560), Serial0/2
P 192.168.7.0/24, 1 successors, FD is 2684416
--More--
```

Ctrl+F6 to exit CLI focus

Copy

Paste

Router10

Physical

Config

CLI

Attributes

IOS Command Line Interface

```
P 192.168.180.0/24, 1 successors, FD is 21024000
  via 192.168.170.2 (21024000/20512000), Serial0/2
Router#
Router#sh ip route eigrp
  10.0.0.0/24 is subnetted, 1 subnets
D    10.10.10.0 [90/21026560] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
  20.0.0.0/24 is subnetted, 1 subnets
D    20.20.20.0 [90/21026560] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.1.0/24 [90/3708416] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.2.0/24 [90/3196416] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.3.0/24 [90/3196416] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.4.0/24 [90/3196416] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.5.0/24 [90/21538560] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.6.0/24 [90/21538560] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.7.0/24 [90/2684416] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.8.0/24 [90/2684416] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.9.0/24 [90/2684416] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.10.0/24 [90/2684416] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.11.0/24 [90/21026560] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
D    192.168.13.0/24 [90/21538560] via 192.168.170.2, 4294967273:4294967257:4294967292,
Serial0/2
```

Ctrl+F6 to exit CLI focus

Copy

Paste

☐ Top

RIP

Physical Config CLI Attributes**GLOBAL**

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Network Address

192.168.2.0

192.168.30.0

192.168.40.0

192.168.70.0

Add

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
%SYS-5-CONFIG_I: Configured from console by console
```

□ Top

Router3

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Network Address

192.168.3.0

192.168.40.0

192.168.50.0

192.168.60.0

Add

Remove

Equivalent IOS Commands

%SYS-5-CONFIG_I: Configured from console by console

Router#configure terminal

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

Router(config)#router rip

Router(config-router)#

Top

Physical Config CLI Attributes**GLOBAL**

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Network Address

192.168.1.0

192.168.30.0

192.168.50.0

Add

Remove

Equivalent IOS Commands

%SYS-5-CONFIG_I: Configured from console by console

Router#configure terminal

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

Router(config)#router rip

Router(config-router)#

☐ Top

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Network Address

192.168.14.0

192.168.20.0

Add

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 192.168.14.0
Router(config-router)#network 192.168.20.0
Router(config-router)#
```

Physical Config CLI Attributes**GLOBAL**

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Network Address

192.168.4.0

192.168.80.0

Add

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 192.168.4.0
Router(config-router)#network 192.168.80.0
Router(config-router)#
```

☐ Top

Physical Config CLI Attributes**GLOBAL**

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Add

Network Address

192.168.5.0

192.168.90.0

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
%SYS-5-CONFIG_I: Configured from console by console
```

□ Top

Physical Config CLI Attributes**GLOBAL**

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Add

Network Address

192.168.6.0

192.168.100.0

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 192.168.6.0
Router(config-router)#network 192.168.100.0
Router(config-router)#
```

☐ Top

Physical Config CLI Attributes**GLOBAL**

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Network Address

192.168.13.0

192.168.110.0

Add

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 192.168.13.0
Router(config-router)#network 192.168.110.0
Router(config-router)#
```

☐ Top

Router19

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

Serial1/0

Serial1/1

Serial1/2

Serial1/3

Serial1/4

Serial1/5

RIP Routing

Network

Add

Network Address

10.0.0.0

20.0.0.0

192.168.180.0

Remove

Equivalent IOS Commands

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

Router(config)#router rip

Router(config-router)#network 192.168.180.0

Router(config-router)#network 20.0.0.0

Router(config-router)#network 10.0.0.0

Router(config-router)#

Top

Router5

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

etwork Address

192.168.7.0

192.168.20.0

192.168.60.0

192.168.70.0

192.168.80.0

192.168.90.0

192.168.100.0

192.168.110.0

192.168.120.0

Add

Remove

Equivalent IOS Commands

Router(config-router)#network 192.168.80.0

Router(config-router)#network 192.168.90.0

Router(config-router)#network 192.168.100.0

Router(config-router)#network 192.168.110.0

Router(config-router)#network 192.168.120.0

Router(config-router)#

Top

Physical Config CLI Attributes**GLOBAL**

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Network Address

192.169.120.0

192.169.130.0

192.169.140.0

192.169.150.0

192.169.160.0

192.169.170.0

192.169.180.0

Add

Remove

Equivalent IOS Commands

```
Router(config-router)#network 192.169.140.0
Router(config-router)#network 192.169.150.0
Router(config-router)#network 192.169.160.0
Router(config-router)#network 192.169.170.0
Router(config-router)#network 192.169.180.0
Router(config-router)#
```

☐ Top

Router6

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Add

Network Address

192.168.8.0

192.168.130.0

Remove

Equivalent IOS Commands

Router#configure terminal

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

Router(config)#router rip

Router(config-router)#network 192.168.8.0

Router(config-router)#network 192.168.130.0

Router(config-router)#

Top

Physical Config CLI Attributes**GLOBAL**

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Network Address

192.168.9.0

192.168.140.0

Add

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 192.168.9.0
Router(config-router)#network 192.168.140.0
Router(config-router)#
```

☐ Top

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP**INTERFACE**

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Network Address

192.168.10.0

192.168.150.0

Add

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 192.168.10.0
Router(config-router)#network 192.168.150.0
Router(config-router)#
```

Router9

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Add

Network Address

192.168.11.0

192.168.160.0

Remove

Equivalent IOS Commands

Router#configure terminal

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

Router(config)#router rip

Router(config-router)#network 192.168.11.0

Router(config-router)#network 192.168.160.0

Router(config-router)#

☐ Top

Router10

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet0/1

Serial0/0

Serial0/1

Serial0/2

Serial0/3

Serial1/0

Serial1/1

Serial1/2

Serial1/3

RIP Routing

Network

Add

Network Address

192.168.12.0

192.168.170.0

Remove

Equivalent IOS Commands

Router#configure terminal

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

Router(config)#router rip

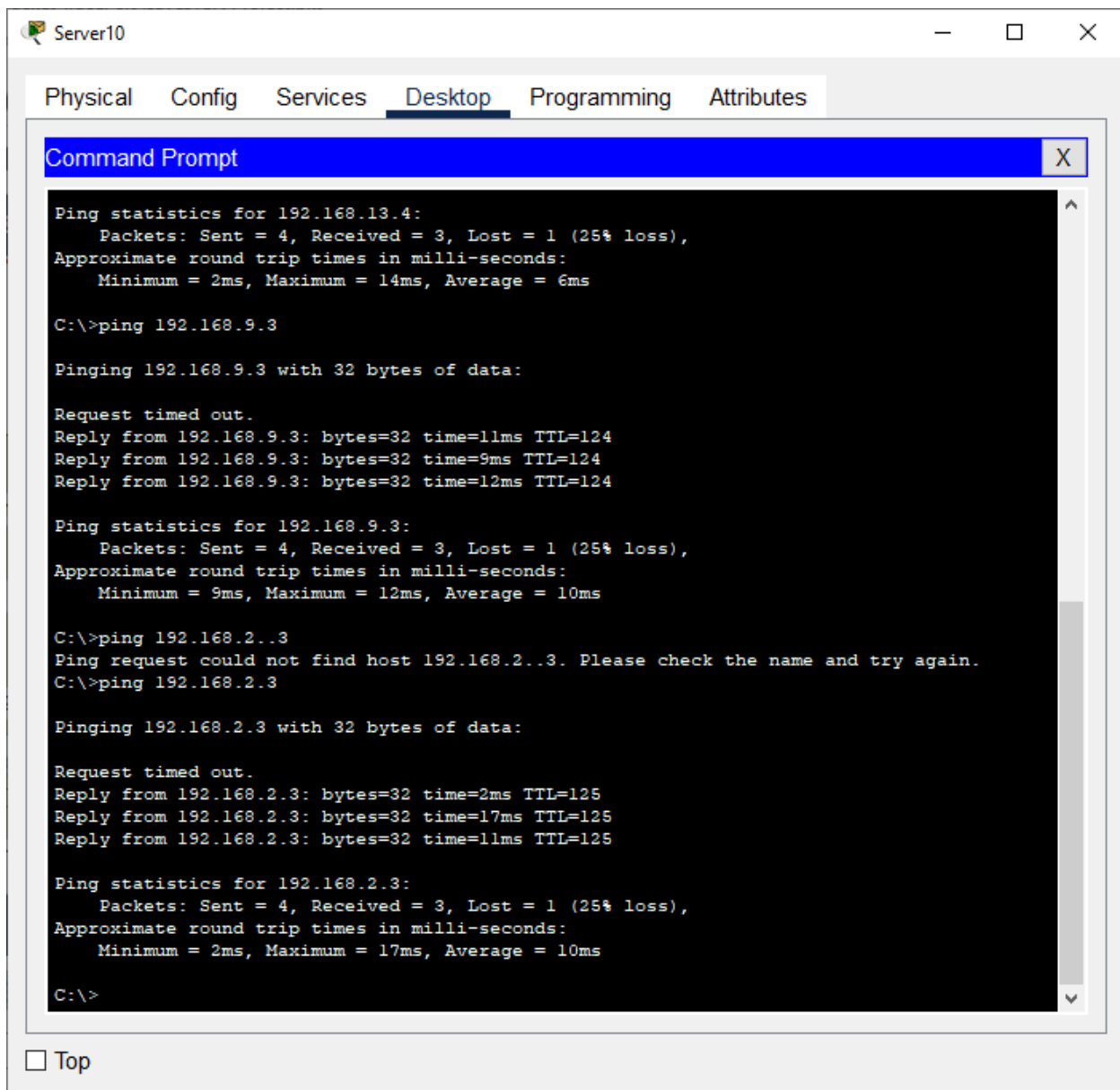
Router(config-router)#network 192.168.12.0

Router(config-router)#network 192.168.170.0

Router(config-router)#

Top

Results



OSPF
Password

IOS Command Line Interface

```
Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#enable password rec123
Router(config)#enable ?
  password  Assign the privileged level password
  secret    Assign the privileged level secret
Router(config)#enable secret ?
  0          Specifies an UNENCRYPTED password will follow
  5          Specifies an ENCRYPTED secret will follow
  LINE       The UNENCRYPTED (cleartext) 'enable' secret
  level      Set exec level password
Router(config)#enable secret recp123
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#disable
Router>en
Password:
Password:
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

Ctrl+F6 to exit CLI focus

Copy

Paste



Router3

Physical Config CLI Attributes

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.50.2 (Serial0/1) is up: new adjacency
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.60.3 (Serial0/2) is up: new adjacency
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.40.3 (Serial0/0) is up: new adjacency

Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#enable password staff123
Router(config)#enable secret staff123s
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
Router#disable
Router>en
Password:
Password:
Password:
% Bad secrets

Router>en
Password:
Password:
Router#
```

Ctrl+F6 to exit CLI focus

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☐ Top

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface Serial0/2, changed state to up
%LINK-5-CHANGED: Interface Serial0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.50.3 (Serial0/3) is up: new adjacency
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.30.3 (Serial0/2) is up: new adjacency

Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#enable password prin123
Router(config)#enable ?
    password  Assign the privileged level password
    secret    Assign the privileged level secret
Router(config)#enable secret prin123s
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#disable
Router>en
Password:
Password:
Router#
```

Ctrl+F6 to exit CLI focus

Copy

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IOS Command Line Interface

```
Compiled Wed 27-Apr-04 19:01 by miwang

Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory
.
Processor board ID JAD05190MTZ (4292891495)
M860 processor: part number 0, mask 49
Bridging software.
X.25 software, Version 3.0.0.
2 FastEthernet/IEEE 802.3 interface(s)
12 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface Serial0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.20.3 (Serial0/2) is up: new adjacency

Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#enable password hos123
Router(config)#enable secret hos123s
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
Copyright (c) 1986-2005 by cisco Systems, Inc.  
Compiled Wed 27-Apr-04 19:01 by miwang  
  
Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory  
.  
Processor board ID JAD05190MTZ (4292891495)  
M860 processor: part number 0, mask 49  
Bridging software.  
X.25 software, Version 3.0.0.  
2 FastEthernet/IEEE 802.3 interface(s)  
12 Low-speed serial(sync/async) network interface(s)  
32K bytes of non-volatile configuration memory.  
63488K bytes of ATA CompactFlash (Read/Write)  
  
Press RETURN to get started!  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up  
  
%LINK-5-CHANGED: Interface Serial0/2, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up  
  
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.80.3 (Serial0/2) is up: new adjacency  
  
Router>en  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#enable password cafel23  
Router(config)#exit  
Router#  
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

Copy

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IOS Command Line Interface

```
Copyright (c) 1986-2005 by cisco Systems, Inc.  
Compiled Wed 27-Apr-04 19:01 by miwang  
  
Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory  
.  
Processor board ID JAD05190MTZ (4292891495)  
M860 processor: part number 0, mask 49  
Bridging software.  
X.25 software, Version 3.0.0.  
2 FastEthernet/IEEE 802.3 interface(s)  
12 Low-speed serial(sync/async) network interface(s)  
32K bytes of non-volatile configuration memory.  
63488K bytes of ATA CompactFlash (Read/Write)  
  
Press RETURN to get started!  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up  
  
%LINK-5-CHANGED: Interface Serial0/2, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up  
  
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.90.3 (Serial0/2) is up: new adjacency  
  
Router>en  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#enable password sports123  
Router(config)#exit  
Router#  
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
Copyright (c) 1986-2005 by cisco Systems, Inc.  
Compiled Wed 27-Apr-04 19:01 by miwang  
  
Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory  
.  
Processor board ID JAD05190MTZ (4292891495)  
M860 processor: part number 0, mask 49  
Bridging software.  
X.25 software, Version 3.0.0.  
2 FastEthernet/IEEE 802.3 interface(s)  
12 Low-speed serial(sync/async) network interface(s)  
32K bytes of non-volatile configuration memory.  
63488K bytes of ATA CompactFlash (Read/Write)  
  
Press RETURN to get started!  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up  
  
%LINK-5-CHANGED: Interface Serial0/2, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up  
  
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.100.3 (Serial0/2) is up: new adjacency  
  
Router>en  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#enable password 1bl123  
Router(config)#exit  
Router#  
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
Copyright (c) 1986-2005 by cisco Systems, Inc.  
Compiled Wed 27-Apr-04 19:01 by miwang  
  
Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory  
.  
Processor board ID JAD05190MTZ (4292891495)  
M860 processor: part number 0, mask 49  
Bridging software.  
X.25 software, Version 3.0.0.  
2 FastEthernet/IEEE 802.3 interface(s)  
12 Low-speed serial(sync/async) network interface(s)  
32K bytes of non-volatile configuration memory.  
63488K bytes of ATA CompactFlash (Read/Write)  
  
Press RETURN to get started!  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up  
  
%LINK-5-CHANGED: Interface Serial0/2, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up  
  
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.110.3 (Serial0/2) is up: new adjacency  
  
Router>en  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#enable password mbal23  
Router(config)#exit  
Router#  
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINK-5-CHANGED: Interface Serial1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.10, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.20, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.180.2 (Serial1/0) is up: new adjacency
%IPPHONE-6-REGISTER: ephone-1 IP:10.10.10.13 Socket:2 DeviceType:Phone has registered.
%IPPHONE-6-REGISTER: ephone-3 IP:10.10.10.12 Socket:2 DeviceType:Phone has registered.
%IPPHONE-6-REGISTER: ephone-2 IP:10.10.10.15 Socket:2 DeviceType:Phone has registered.
%IPPHONE-6-REGISTER: ephone-5 IP:20.20.20.11 Socket:2 DeviceType:Phone has registered.
%IPPHONE-6-REGISTER: ephone-6 IP:20.20.20.14 Socket:2 DeviceType:Phone has registered.
%IPPHONE-6-REGISTER: ephone-4 IP:20.20.20.12 Socket:2 DeviceType:Phone has registered.

Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#enable password tell123
Router(config)#enable secret tell123s
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.120.3 (Serial0/2) is up: new adjacency
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.170.3 (Serial1/1) is up: new adjacency
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.130.3 (Serial0/0) is up: new adjacency
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.180.3 (Serial1/2) is up: new adjacency
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.160.3 (Serial1/0) is up: new adjacency
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.140.3 (Serial0/1) is up: new adjacency
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.150.3 (Serial0/3) is up: new adjacency

Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#enable password btech123
Router(config)#enable secret btech123s
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
Copyright (c) 1986-2005 by cisco Systems, Inc.  
Compiled Wed 27-Apr-04 19:01 by miwang  
  
Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory  
.  
Processor board ID JAD05190MTZ (4292891495)  
M860 processor: part number 0, mask 49  
Bridging software.  
X.25 software, Version 3.0.0.  
2 FastEthernet/IEEE 802.3 interface(s)  
12 Low-speed serial(sync/async) network interface(s)  
32K bytes of non-volatile configuration memory.  
63488K bytes of ATA CompactFlash (Read/Write)  
  
Press RETURN to get started!  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up  
  
%LINK-5-CHANGED: Interface Serial0/2, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up  
  
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.170.2 (Serial0/2) is up: new adjacency  
  
Router>en  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#enable password eel23  
Router(config)#exit  
Router#  
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
Copyright (c) 1986-2005 by cisco Systems, Inc.  
Compiled Wed 27-Apr-04 19:01 by miwang  
  
Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory  
.  
Processor board ID JAD05190MTZ (4292891495)  
M860 processor: part number 0, mask 49  
Bridging software.  
X.25 software, Version 3.0.0.  
2 FastEthernet/IEEE 802.3 interface(s)  
12 Low-speed serial(sync/async) network interface(s)  
32K bytes of non-volatile configuration memory.  
63488K bytes of ATA CompactFlash (Read/Write)  
  
Press RETURN to get started!  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up  
  
%LINK-5-CHANGED: Interface Serial0/2, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up  
  
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.160.2 (Serial0/2) is up: new adjacency  
  
Router>en  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#enable password ecel23  
Router(config)#exit  
Router#  
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
Compiled Wed 27-Apr-04 19:01 by miwang

Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory
.
Processor board ID JAD05190MTZ (4292891495)
M860 processor: part number 0, mask 49
Bridging software.
X.25 software, Version 3.0.0.
2 FastEthernet/IEEE 802.3 interface(s)
12 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface Serial0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.150.2 (Serial0/3) is up: new adjacency

Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#enable password mech123
Router(config)#
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

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IOS Command Line Interface

```
Copyright (c) 1986-2005 by cisco Systems, Inc.  
Compiled Wed 27-Apr-04 19:01 by miwang  
  
Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory  
.  
Processor board ID JAD05190MTZ (4292891495)  
M860 processor: part number 0, mask 49  
Bridging software.  
X.25 software, Version 3.0.0.  
2 FastEthernet/IEEE 802.3 interface(s)  
12 Low-speed serial(sync/async) network interface(s)  
32K bytes of non-volatile configuration memory.  
63488K bytes of ATA CompactFlash (Read/Write)  
  
Press RETURN to get started!  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up  
  
%LINK-5-CHANGED: Interface Serial0/2, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up  
  
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.140.2 (Serial0/2) is up: new adjacency  
  
Router>en  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#enable password civill23  
Router(config)#exit  
Router#  
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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Router6

Physical

Config

CLI

Attributes

IOS Command Line Interface

Cisco Internetwork Operating System Software
IOS (tm) C2600 Software (C2600-I-M), Version 12.2(28), RELEASE SOFTWARE (fc5)
Technical Support: <http://www.cisco.com/techsupport>
Copyright (c) 1986-2008 by Cisco Systems, Inc.
Compiled Wed 27-Apr-04 19:01 by miwang

Cisco 2621 (MPC860) processor (revision 0x200) with 253952K/8192K bytes of memory
.
Processor board ID JAD08190MTZ (4252891455)
M860 processor: part number 0, mask 49
Bridging software
X.25 software, Version 3.0.0.
2 FastEthernet/IEEE 802.3 interface(s)
12 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface Serial0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up
%DUAL-5-NEIGHCHANGE: IP-EIGRP 100: Neighbor 192.168.130.2 (Serial0/2) is up: new adjacency

Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#enable password csl23
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.80.2 (Serial0/1) is up: new adjacency
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.100.2 (Serial1/1) is up: new adjacency
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/2, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 192.168.110.2 (Serial1/2) is up: new adjacency

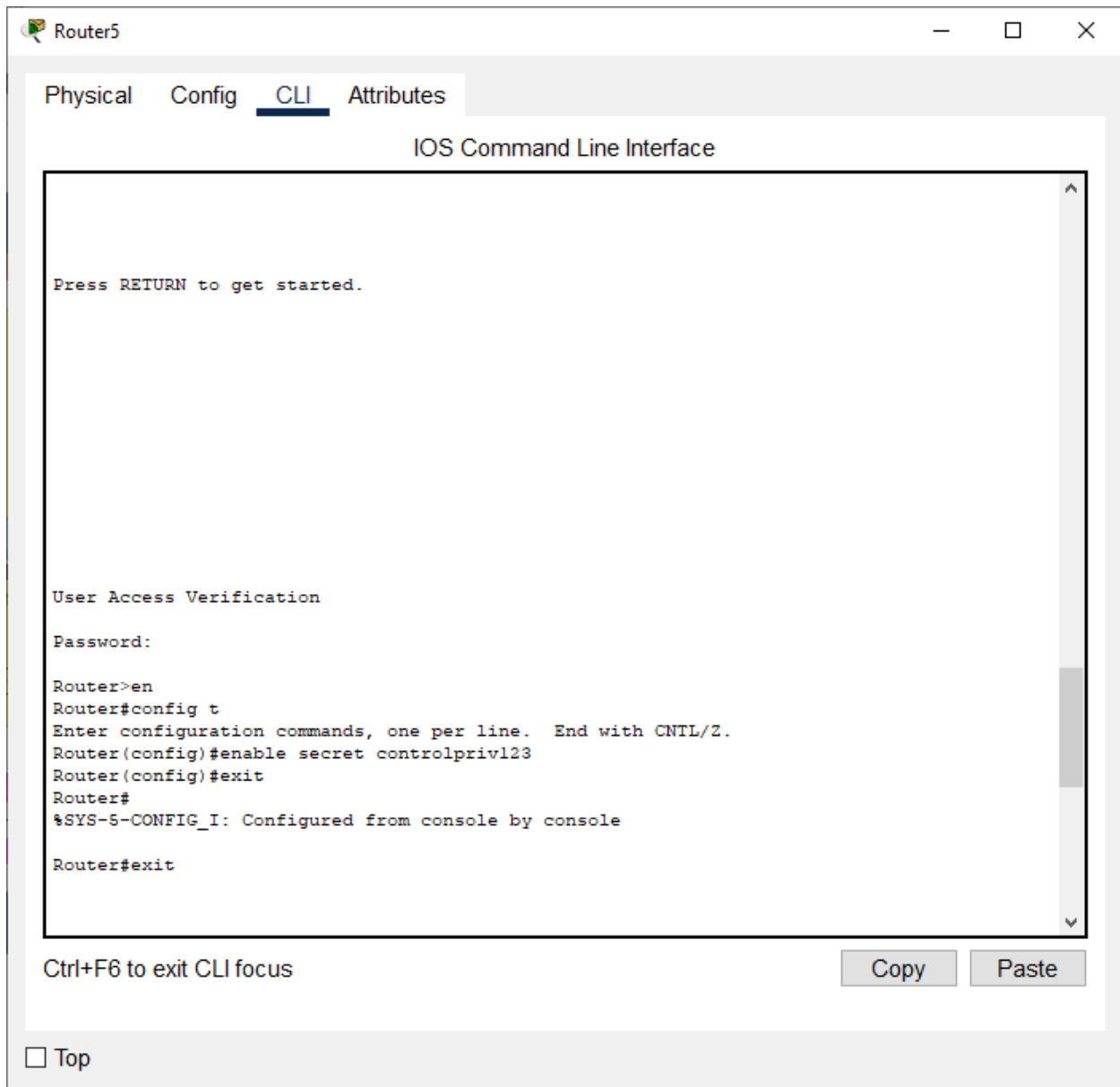
Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#line console 0
Router(config-line)#password controll123
Router(config-line)#login
Router(config-line)#exit
Router(config)#line vty 0 15
Router(config-line)#password controll123
Router(config-line)#login
Router(config-line)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#exit
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
```

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

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

```
Switch>en
```

```
Switch#config t
```

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

```
Switch(config)#line console 0
```

```
Switch(config-line)#password off
```

```
Switch(config-line)#login
```

```
Switch(config-line)#exit
```

```
Switch(config)#line vty 0 15
```

```
Switch(config-line)#password off
```

```
Switch(config-line)#login
```

```
Switch(config-line)#exit
```

```
Switch(config)#exit
```

```
Switch#
```

```
%SYS-5-CONFIG_I: Configured from console by console
```

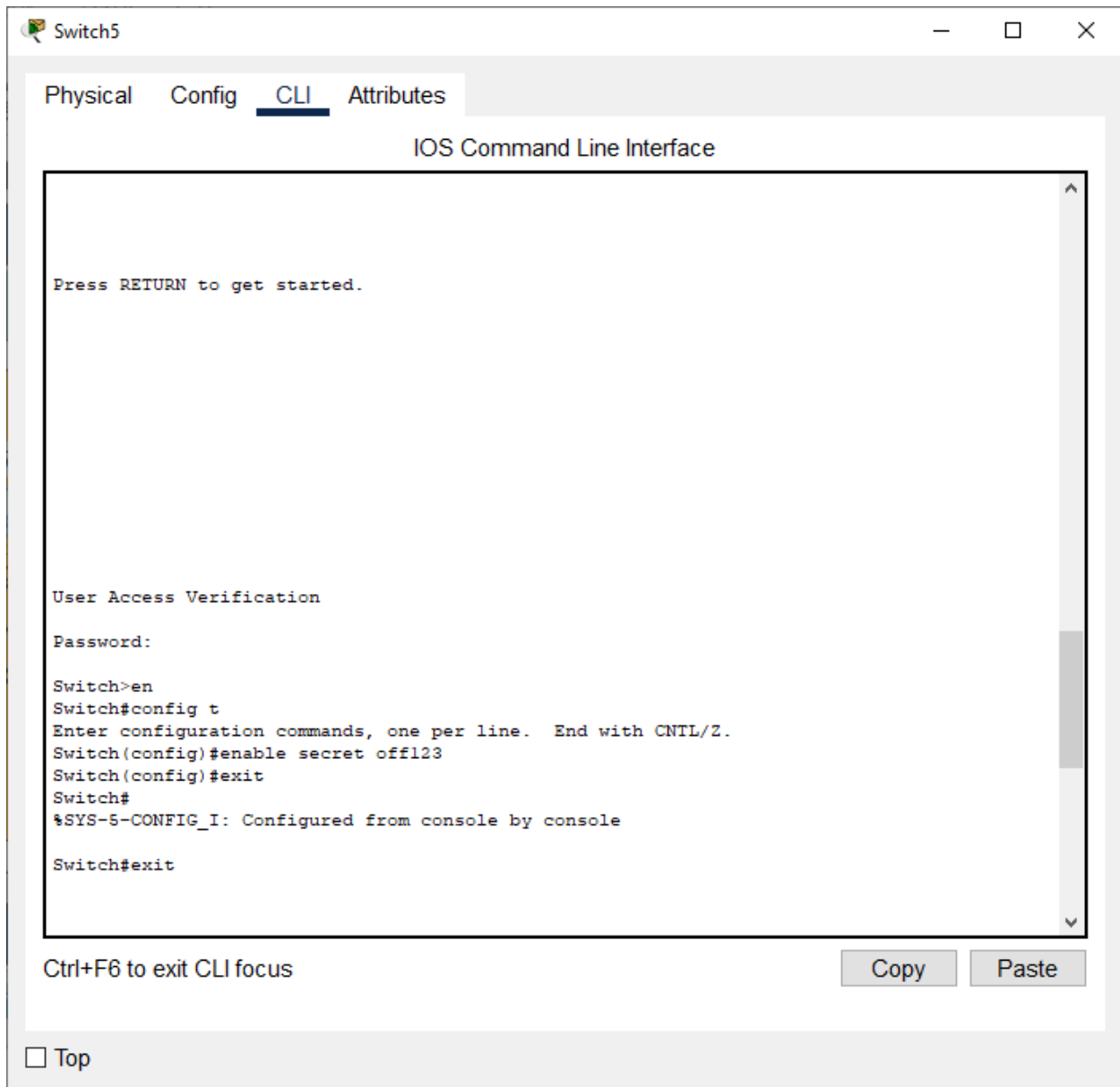
```
Switch#exit
```

```
Switch con0 is now available
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/7, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/8, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/8, changed state to up

Switch>en
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#enable password acad123
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/7, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/8, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/8, changed state to up

Switch>en
Switch#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#enable secret gl23
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/7, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/8, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/8, changed state to up

Switch>en
Switch#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#enable password bl23
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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