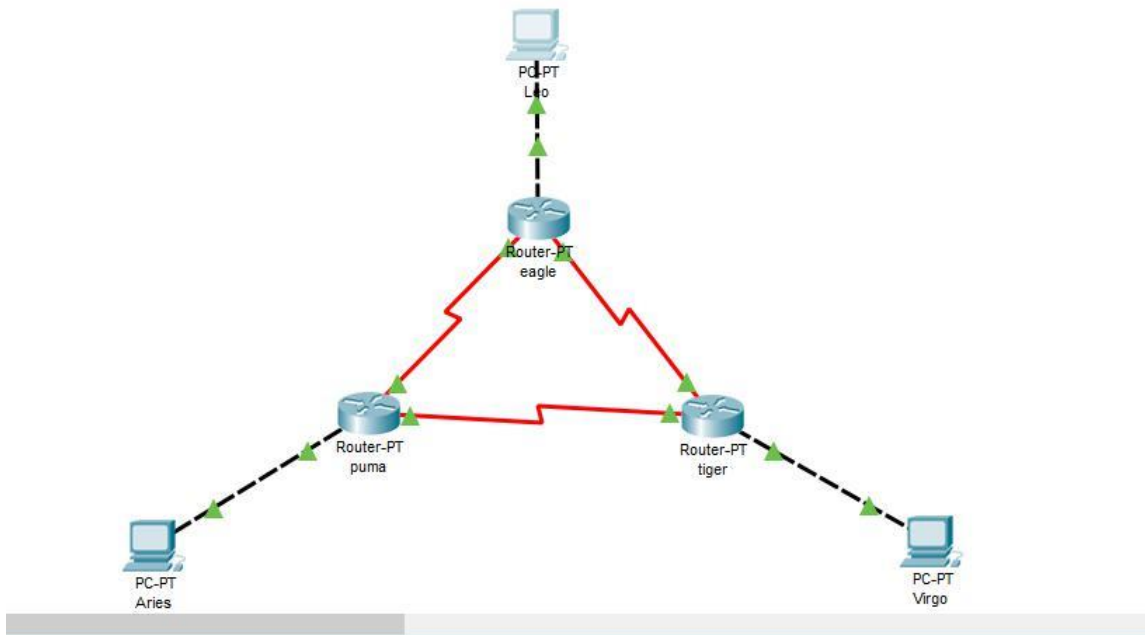


NAMA : Febrainto ridwan syah

NIM : L200170121

KELAS : C

MODUL : 7



1. Konfigurasi masing-masing Interface pada tiap Router dengan IP Address.

a. Router Eagle

eagle

```
Physical Config CLI Attributes
IOS Command Line Interface

Would you like to enter the initial configuration dialog? [yes/no]: n

Press RETURN to get started!

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip address 172.21.10.10 255.255.255.0
Router(config-if)#no shutdown

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

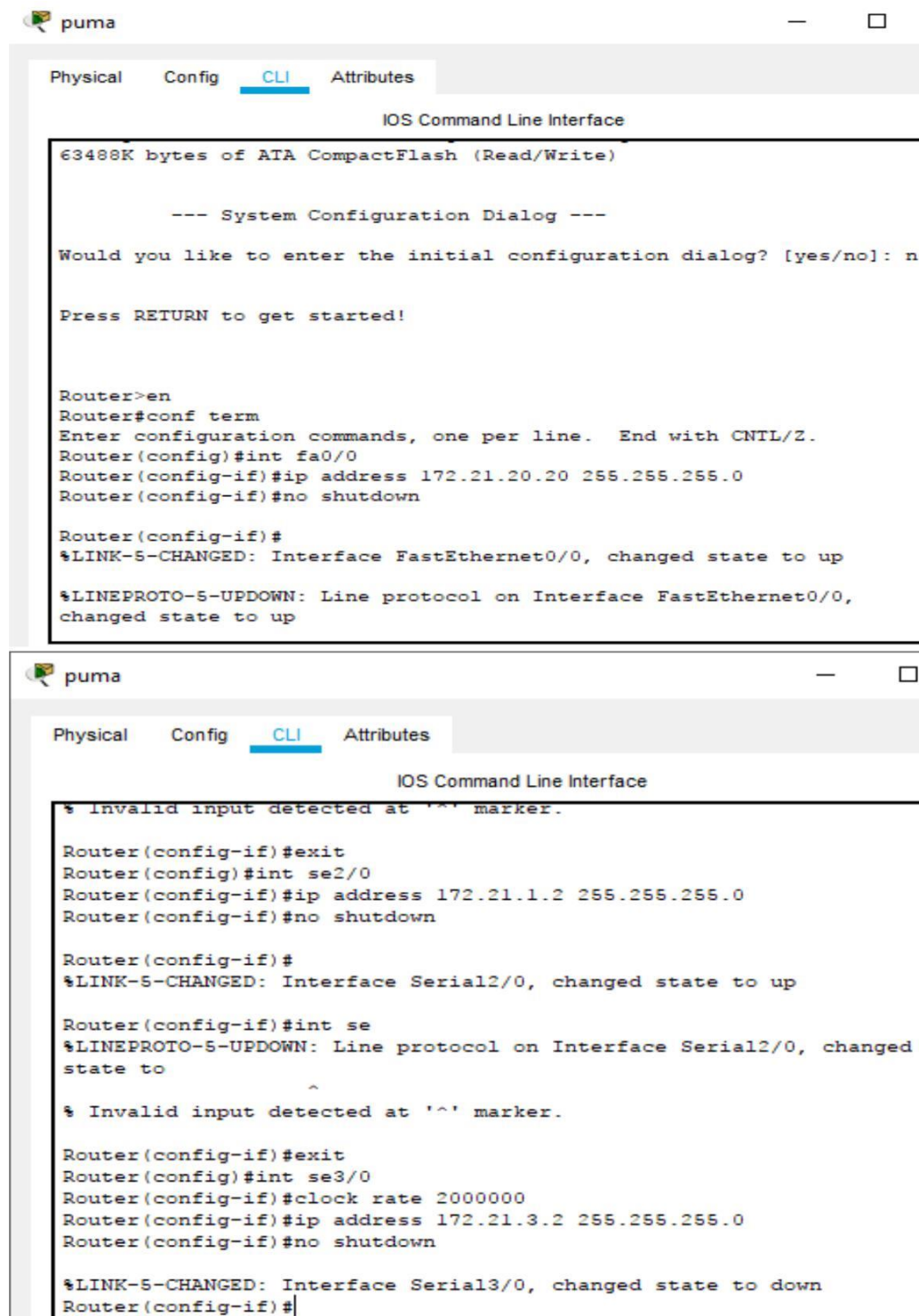
Router(config-if)#exit
Router(config)#int se2/0
Router(config-if)#clock rate 2000000
This command applies only to DCE interfaces
Router(config-if)#172.21.1.1 255.255.255.0
% Invalid input detected at '^' marker.

Router(config-if)#ip address 172.21.1.1 255.255.255.0
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#exit
Router(config)#int se3/0
Router(config-if)#ip address 172.21.2.1 255.255.255.0
Router(config-if)#no shutdown

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

b. Router Puma



The image shows two screenshots of the Router Puma CLI interface. The top screenshot shows the initial configuration steps, including entering terminal mode, configuring interface fa0/0 with IP address 172.21.20.20, and enabling the interface. The bottom screenshot shows further configuration steps, including exiting the previous interface, configuring interface se2/0 with IP address 172.21.1.2, and then configuring interface se3/0 with clock rate 2000000 and IP address 172.21.3.2.

```
puma

Physical  Config  CLI  Attributes

IOS Command Line Interface

63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: n

Press RETURN to get started!

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip address 172.21.20.20 255.255.255.0
Router(config-if)#no shutdown

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

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

puma

Physical  Config  CLI  Attributes

IOS Command Line Interface

% Invalid input detected at '^' marker.

Router(config-if)#exit
Router(config)#int se2/0
Router(config-if)#ip address 172.21.1.2 255.255.255.0
Router(config-if)#no shutdown


Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#int se
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed
state to
^
% Invalid input detected at '^' marker.

Router(config-if)#exit
Router(config)#int se3/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip address 172.21.3.2 255.255.255.0
Router(config-if)#no shutdown

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

c. Router Tiger

 tiger

Physical Config CLI Attributes

IOS Comma

```
Press RETURN to get started!

Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip address 172.21.30.30 255.255.255.0
Router(config-if)#no shutdown

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

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

Router(config-if)#exit
Router(config)#int se2/0
Router(config-if)#ip address 172.21.2.3 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#exit
Router(config)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config)#int se3/0
Router(config-if)#clock rate 2000000
This command applies only to DCE interfaces
Router(config-if)#ip address 172.21.3.3 255.255.255.0
Router(config-if)#no shutdown

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

2. Konfigurasi IP Address pada setiap PC.
 - a. PC Leo

The screenshot shows the configuration window for a PC named 'Leo'. The 'Desktop' tab is selected. Under the 'Static' radio button, the IP Address is 172.21.10.1, Subnet Mask is 255.255.255.0, Default Gateway is 172.21.10.10, and DNS Server is 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with an empty IPv6 Address field, Link Local Address of FE80::20A:41FF:FE01:A435, and empty fields for IPv6 Gateway and IPv6 DNS Server. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MD5, and empty fields for Username and Password.

Field	Value
IP Address	172.21.10.1
Subnet Mask	255.255.255.0
Default Gateway	172.21.10.10
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::20A:41FF:FE01:A435
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

- b. PC Aries

The screenshot shows the configuration window for a PC named 'Aries'. The 'Desktop' tab is selected. Under the 'Static' radio button, the IP Address is 172.21.20.2, Subnet Mask is 255.255.255.0, Default Gateway is 172.21.20.20, and DNS Server is 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with an empty IPv6 Address field, Link Local Address of FE80::201:42FF:FE45:8211, and empty fields for IPv6 Gateway and IPv6 DNS Server. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MD5, and empty fields for Username and Password.

Field	Value
IP Address	172.21.20.2
Subnet Mask	255.255.255.0
Default Gateway	172.21.20.20
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::201:42FF:FE45:8211
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

c. PC Virgo

The screenshot shows the configuration window for a PC named 'Virgo'. The 'Desktop' tab is selected. Under the 'IP Configuration' section, the 'Static' radio button is chosen. The IP Address is set to 172.21.30.3, Subnet Mask to 255.255.255.0, Default Gateway to 172.21.30.30, and DNS Server to 0.0.0.0. The 'IPv6 Configuration' section has the 'Static' radio button selected, with fields for IPv6 Address, Link Local Address (FE80::230:F2FF:FEBD:E459), IPv6 Gateway, and IPv6 DNS Server. The '802.1X' section has 'Use 802.1X Security' unchecked, and the 'Authentication' dropdown is set to 'MD5'. There are input fields for Username and Password. A 'Top' button is at the bottom left.

3. Uji konfigurasi telah sesuai (proses ping)

a. PC Leo ke router eagle

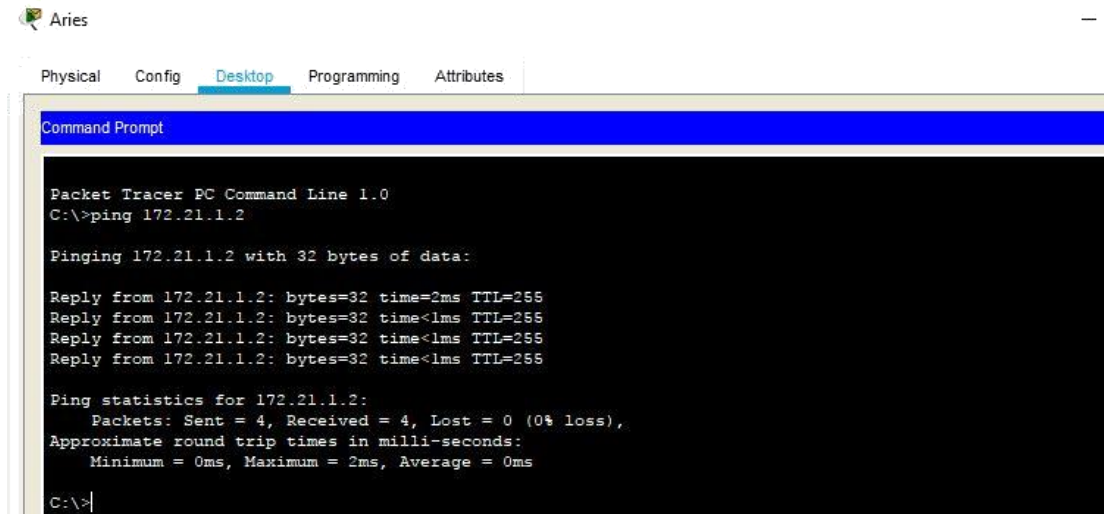
```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.1

Pinging 172.21.1.1 with 32 bytes of data:

Reply from 172.21.1.1: bytes=32 time=29ms TTL=255
Reply from 172.21.1.1: bytes=32 time<1ms TTL=255
Reply from 172.21.1.1: bytes=32 time<1ms TTL=255
Reply from 172.21.1.1: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 29ms, Average = 7ms
```

b. PC Aries ke router puma



Aries

Physical Config **Desktop** Programming Attributes

Command Prompt

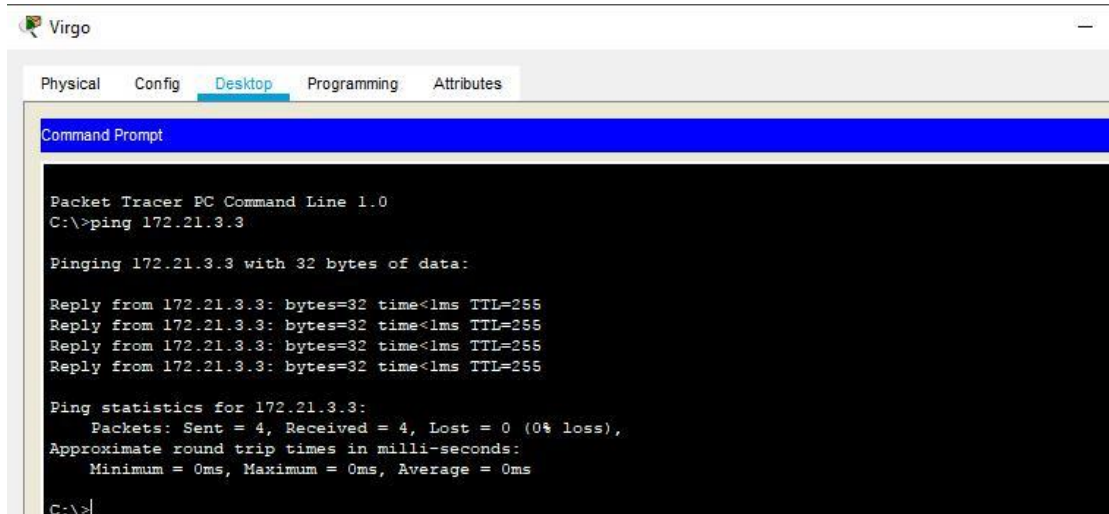
```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.2

Pinging 172.21.1.2 with 32 bytes of data:

Reply from 172.21.1.2: bytes=32 time=2ms TTL=255
Reply from 172.21.1.2: bytes=32 time<1ms TTL=255
Reply from 172.21.1.2: bytes=32 time<1ms TTL=255
Reply from 172.21.1.2: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms
C:\>|
```

c. PC Virgo ke router tiger



Virgo

Physical Config **Desktop** Programming Attributes

Command Prompt

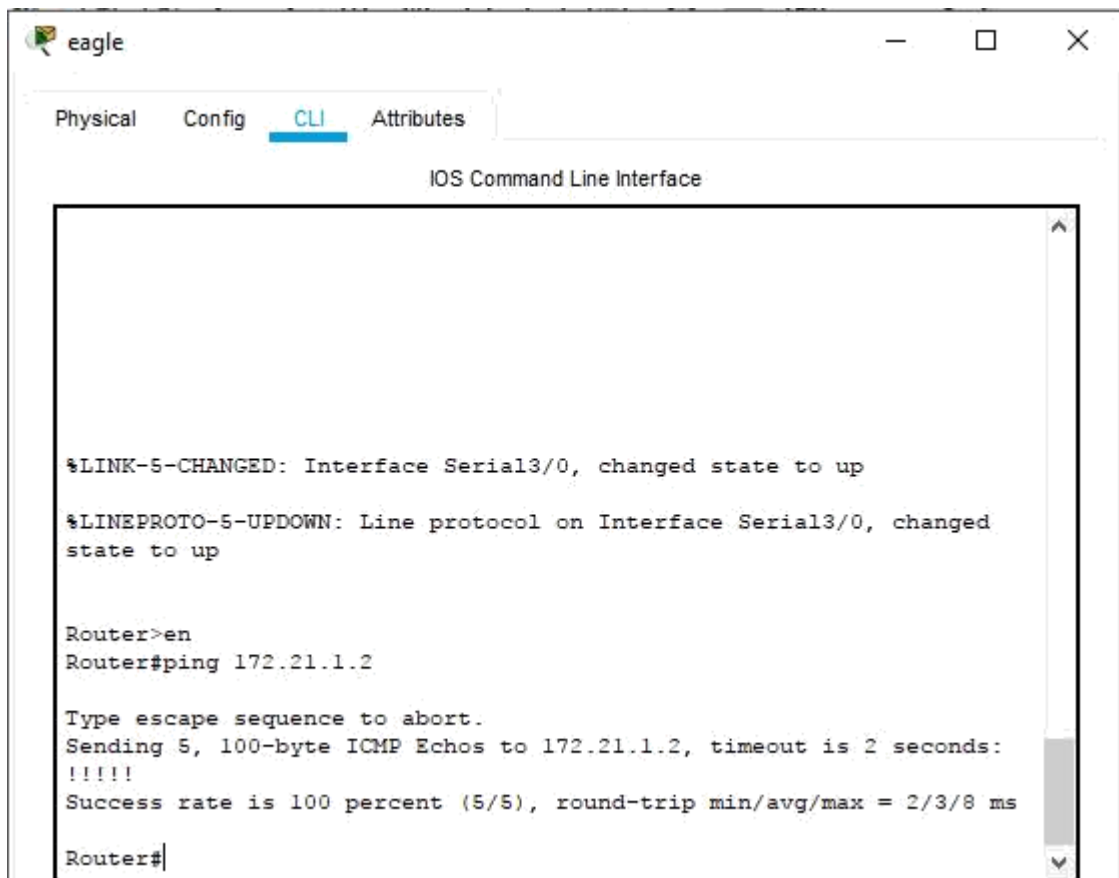
```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.3.3

Pinging 172.21.3.3 with 32 bytes of data:

Reply from 172.21.3.3: bytes=32 time<1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.3.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>|
```

d. Router eagle ke puma



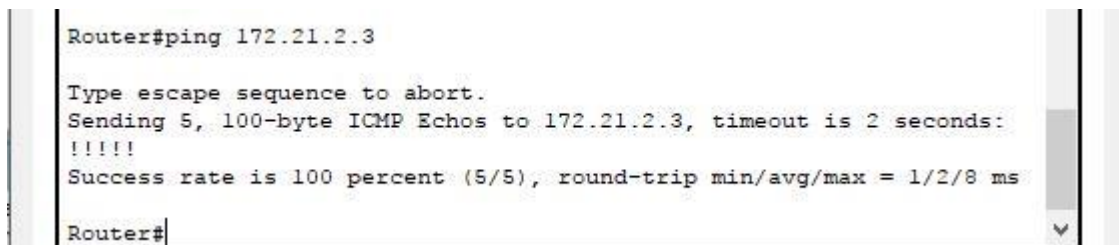
The screenshot shows the 'eagle' network simulator window. The 'CLI' tab is selected, displaying the 'IOS Command Line Interface'. The interface shows the following text:

```
%LINK-5-CHANGED: Interface Serial3/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed
state to up

Router>en
Router#ping 172.21.1.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.1.2, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 2/3/8 ms
Router#
```

e. Router eagle ke tiger

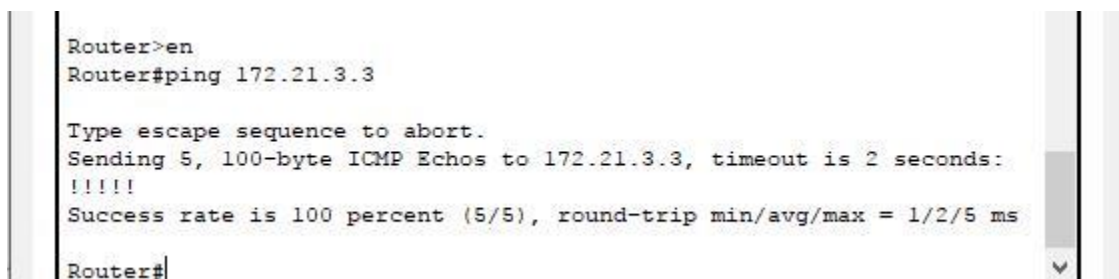


The screenshot shows the CLI of a router in the eagle simulator. The following text is displayed:

```
Router#ping 172.21.2.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.2.3, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/8 ms
Router#
```

f. Router puma ke tiger

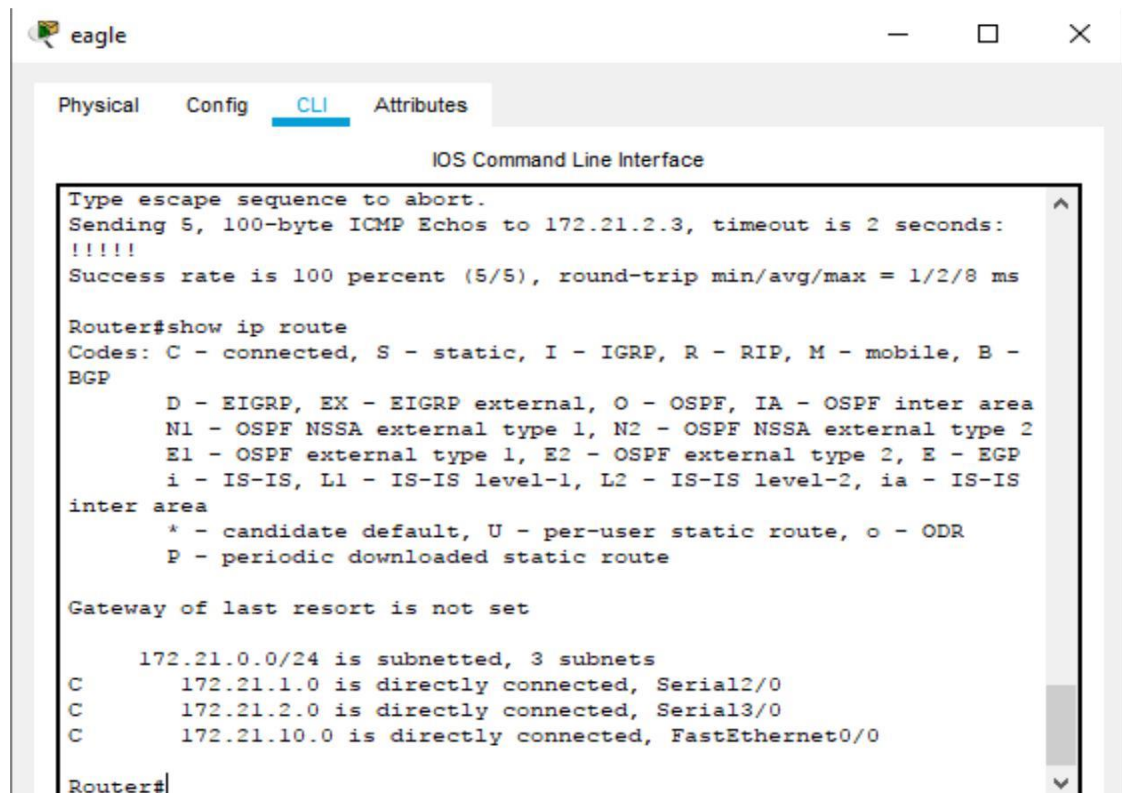


The screenshot shows the CLI of a router in the eagle simulator. The following text is displayed:

```
Router>en
Router#ping 172.21.3.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.3.3, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/5 ms
Router#
```


7. melihat router table pada masing router



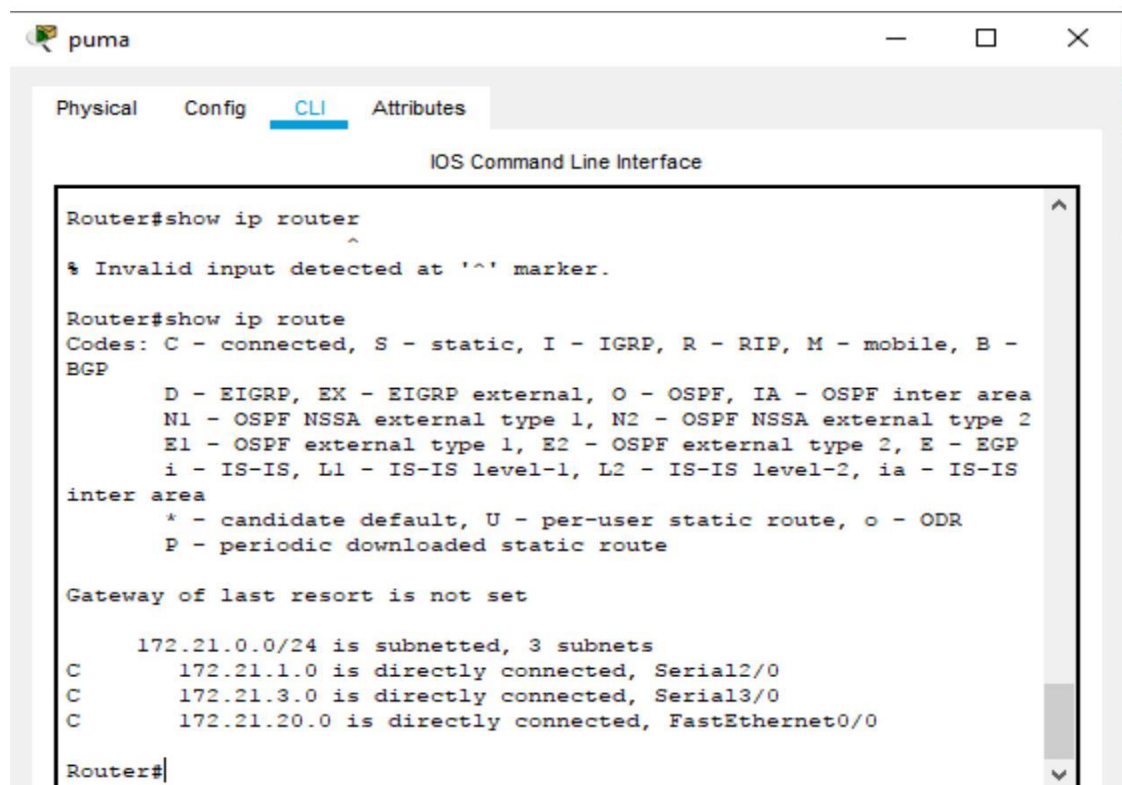
```
eagle
Physical Config CLI Attributes
IOS Command Line Interface
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.2.3, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/8 ms

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

      172.21.0.0/24 is subnetted, 3 subnets
C       172.21.1.0 is directly connected, Serial2/0
C       172.21.2.0 is directly connected, Serial3/0
C       172.21.10.0 is directly connected, FastEthernet0/0

Router#
```



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

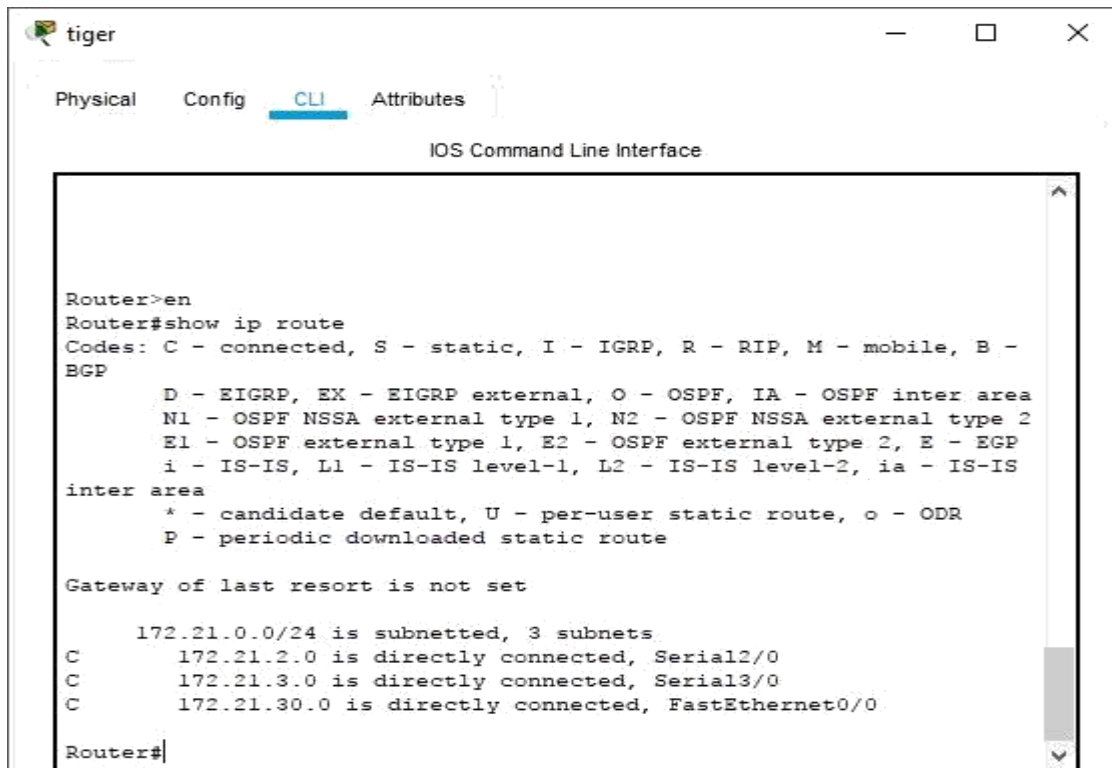
Router#show ip router
^
% Invalid input detected at '^' marker.

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

      172.21.0.0/24 is subnetted, 3 subnets
C       172.21.1.0 is directly connected, Serial2/0
C       172.21.3.0 is directly connected, Serial3/0
C       172.21.20.0 is directly connected, FastEthernet0/0

Router#
```

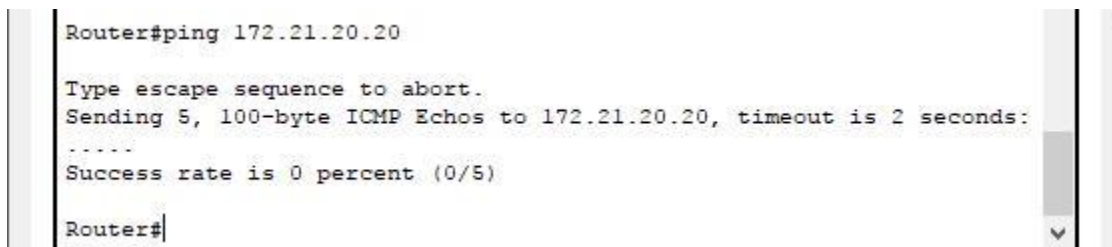
```
tiger
Physical Config CLI Attributes
IOS Command Line Interface

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

    172.21.0.0/24 is subnetted, 3 subnets
C       172.21.2.0 is directly connected, Serial2/0
C       172.21.3.0 is directly connected, Serial3/0
C       172.21.30.0 is directly connected, FastEthernet0/0
Router#
```

8. Melakukan ping dari router eagle ke alamat fa router puma (172.21.20.20)



```
Router#ping 172.21.20.20

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.20.20, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)

Router#
```

Tugas 8A: pada gambar di atas dijelaskan bahwa router eagle dengan alamat fa router puma saling terhubung.

9. Melakukan trace dari PC Leo ke PC Aries

Leo

Physical Config Desktop Programming Attributes

Command Prompt

```
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 29ms, Average = 7ms

C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  1  0 ms    0 ms    0 ms    172.21.10.10
  2  0 ms    *        0 ms    172.21.10.10
  3  *        0 ms    *        Request timed out.
  4  0 ms    *        0 ms    172.21.10.10
  5  *        0 ms    *        Request timed out.
  6  0 ms    *        0 ms    172.21.10.10
  7  *        0 ms    *        Request timed out.
  8  0 ms    *        0 ms    172.21.10.10
  9  *        0 ms    *        Request timed out.
 10  0 ms    *        0 ms    172.21.10.10
 11  *        0 ms    *        Request timed out.
 12  0 ms    *        0 ms    172.21.10.10
 13  *        0 ms    *        Request timed out.
 14  0 ms    *        0 ms    172.21.10.10
 15  *        0 ms    *        Request timed out.
 16  0 ms    *        0 ms    172.21.10.10
 17  *        0 ms    *        Request timed out.
 18  0 ms    *        0 ms    172.21.10.10
 19  *        0 ms    *        Request timed out.
 20  0 ms    *        0 ms    172.21.10.10
 21  *        0 ms    *        Request timed out.
 22  0 ms    *        0 ms    172.21.10.10
 23  *        0 ms    *        Request timed out.
 24  0 ms    *        2 ms    172.21.10.10
 25  *        0 ms    *        Request timed out.
 26  0 ms    *        0 ms    172.21.10.10
 27  *        0 ms    *        Request timed out.
 28  0 ms    *        0 ms    172.21.10.10
 29  *        0 ms    *        Request timed out.
 30  0 ms    *        0 ms    172.21.10.10

Trace complete.

C:\>
```

10. melakukan trace dari PC Leo ke alamat s0 router eagle(172.21.1.1)

```
C:\>tracert 172.21.1.1

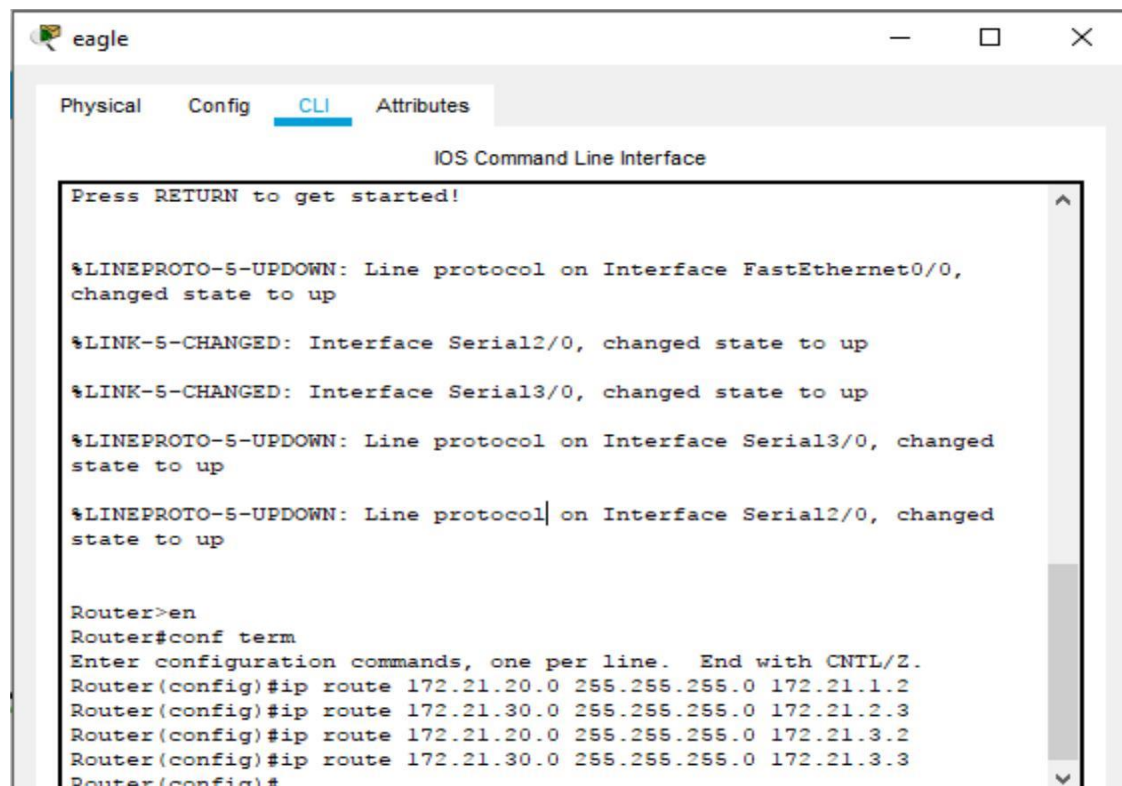
Tracing route to 172.21.1.1 over a maximum of 30 hops:

  1  0 ms    0 ms    1 ms    172.21.1.1

Trace complete.

C:\>
```

11A. Menambahkan route table (static route)



The screenshot shows the 'eagle' network simulator window with the 'CLI' tab selected. The 'IOS Command Line Interface' is active, displaying a series of status messages and configuration commands. The status messages indicate that the line protocol on FastEthernet0/0 and Serial2/0 has changed to 'up', and the link state on Serial3/0 has also changed to 'up'. The configuration commands show the user entering 'en' for enable mode, 'conf term' for configuration terminal, and then four 'ip route' commands to add static routes. The routes are: 172.21.20.0/24 to 172.21.1.2, 172.21.30.0/24 to 172.21.2.3, 172.21.20.0/24 to 172.21.3.2, and 172.21.30.0/24 to 172.21.3.3. The prompt is currently at 'Router(config)#'.

```
eagle
Physical Config CLI Attributes
IOS Command Line Interface
Press RETURN to get started!

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

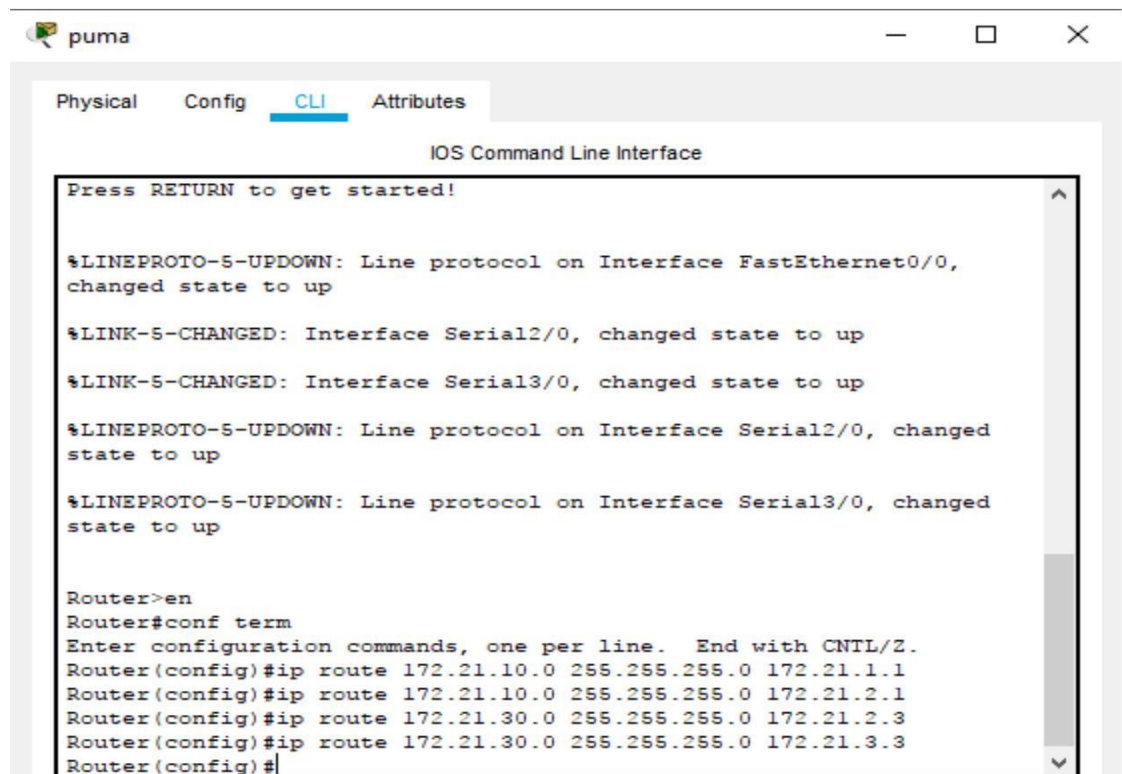
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINK-5-CHANGED: Interface Serial3/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed
state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed
state to up

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.1.2
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.2.3
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.3.2
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.3.3
Router(config)#
```



The screenshot shows the 'puma' network simulator window with the 'CLI' tab selected. The 'IOS Command Line Interface' is active, displaying a series of status messages and configuration commands. The status messages indicate that the line protocol on FastEthernet0/0 and Serial2/0 has changed to 'up', and the link state on Serial3/0 has also changed to 'up'. The configuration commands show the user entering 'en' for enable mode, 'conf term' for configuration terminal, and then four 'ip route' commands to add static routes. The routes are: 172.21.10.0/24 to 172.21.1.1, 172.21.10.0/24 to 172.21.2.1, 172.21.30.0/24 to 172.21.2.3, and 172.21.30.0/24 to 172.21.3.3. The prompt is currently at 'Router(config)#'.

```
puma
Physical Config CLI Attributes
IOS Command Line Interface
Press RETURN to get started!

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

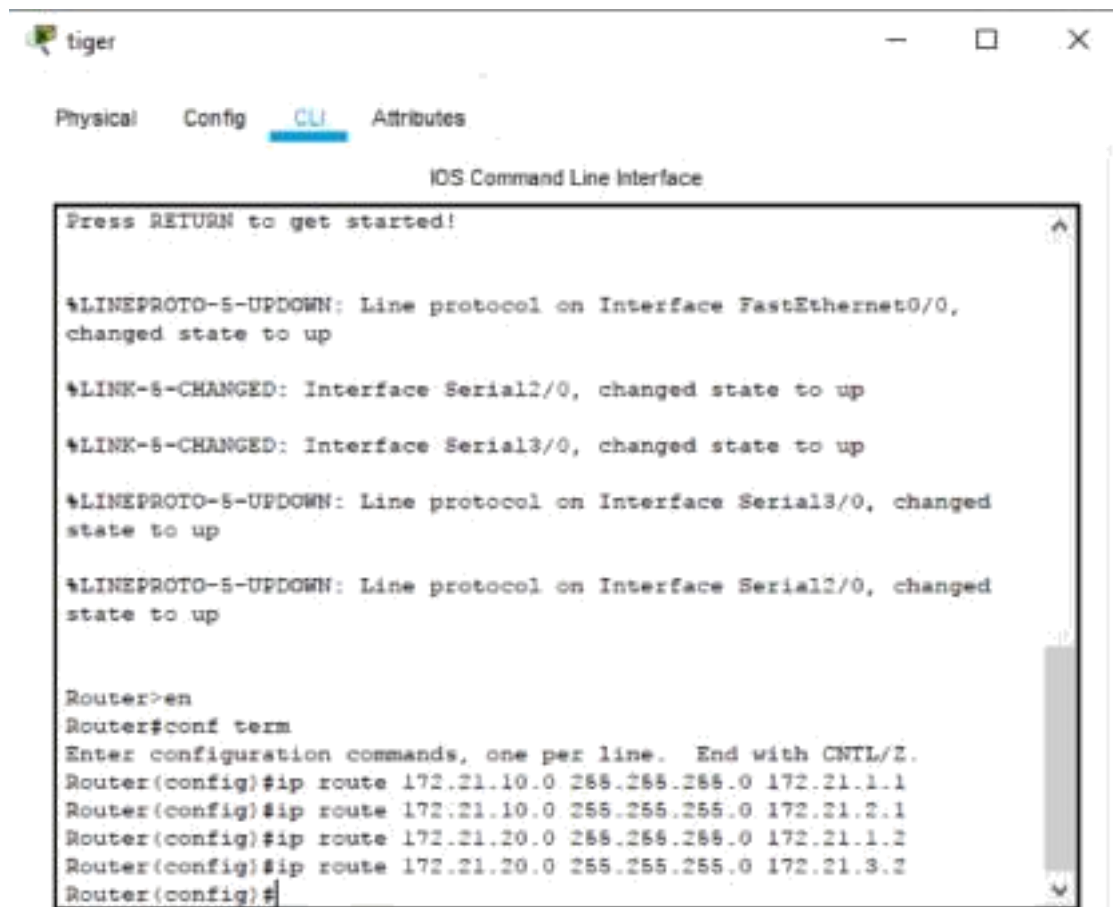
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINK-5-CHANGED: Interface Serial3/0, changed state to up

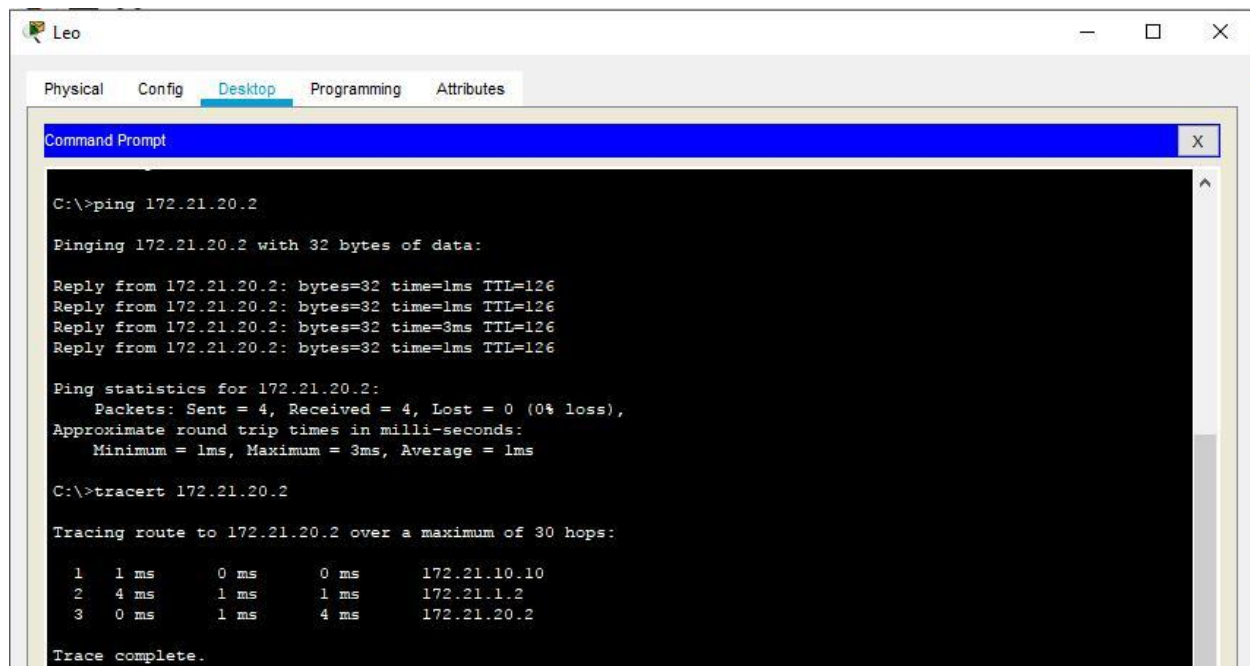
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed
state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed
state to up

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.1.1
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.2.1
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.2.3
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.3.3
Router(config)#
```



12A. Melakukan ping dan trace dari PC Leo ke PC Aries



3.konfigurasi routing rip, show running conf dan debug ip rip

```

!
!
!
!
!
!
interface FastEthernet0/0
 ip address 172.21.10.10 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 172.21.1.1 255.255.255.0
!
interface Serial3/0
 ip address 172.21.2.1 255.255.255.0
 clock rate 2000000
!
interface FastEthernet4/0
 no ip address
 shutdown
!
interface FastEthernet5/0
 no ip address
 shutdown
!
router rip
 network 172.21.0.0
!
ip classless
ip route 172.21.20.0 255.255.255.0 172.21.1.2
ip route 172.21.30.0 255.255.255.0 172.21.2.3

```

Physical Config CLI Attributes

IOS Command Line Interface

```

Router#
Router#debug ip rip
RIP protocol debugging is on
Router#RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.10.10)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.2.0 metric 1
    network 172.21.10.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.2.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.10.0 metric 1
RIP: sendingRIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.10.10)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.2.0 metric 1
    network 172.21.10.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.2.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.10.0 metric 1
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.10.10)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.2.0 metric 1
    network 172.21.10.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.2.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.10.0 metric 1

```

Physical Config CLI Attributes

IOS C

```
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 172.21.0.0
Router(config-router)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#sh running-config
Building configuration...

Current configuration : 985 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
!
!
!
!
!
!
ip cef
no ipv6 cef
!
!
!
!
!
!
!
!
```




Physical Config CLI Attributes

IOS Command Line

```
RIP: received v1 update from 172.21.1.1 on Serial2/0
    172.21.2.0 in 1 hops
    172.21.10.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.20.20)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.3.0 metric 1
    network 172.21.10.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.2)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.3.2)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.10.0 metric 2
    network 172.21.20.0 metric 1
RIP: received v1 update from 172.21.1.1 on Serial2/0
    172.21.2.0 in 1 hops
    172.21.10.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.20.20)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.3.0 metric 1
    network 172.21.10.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.2)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.3.2)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.10.0 metric 2
    network 172.21.20.0 metric 1
```

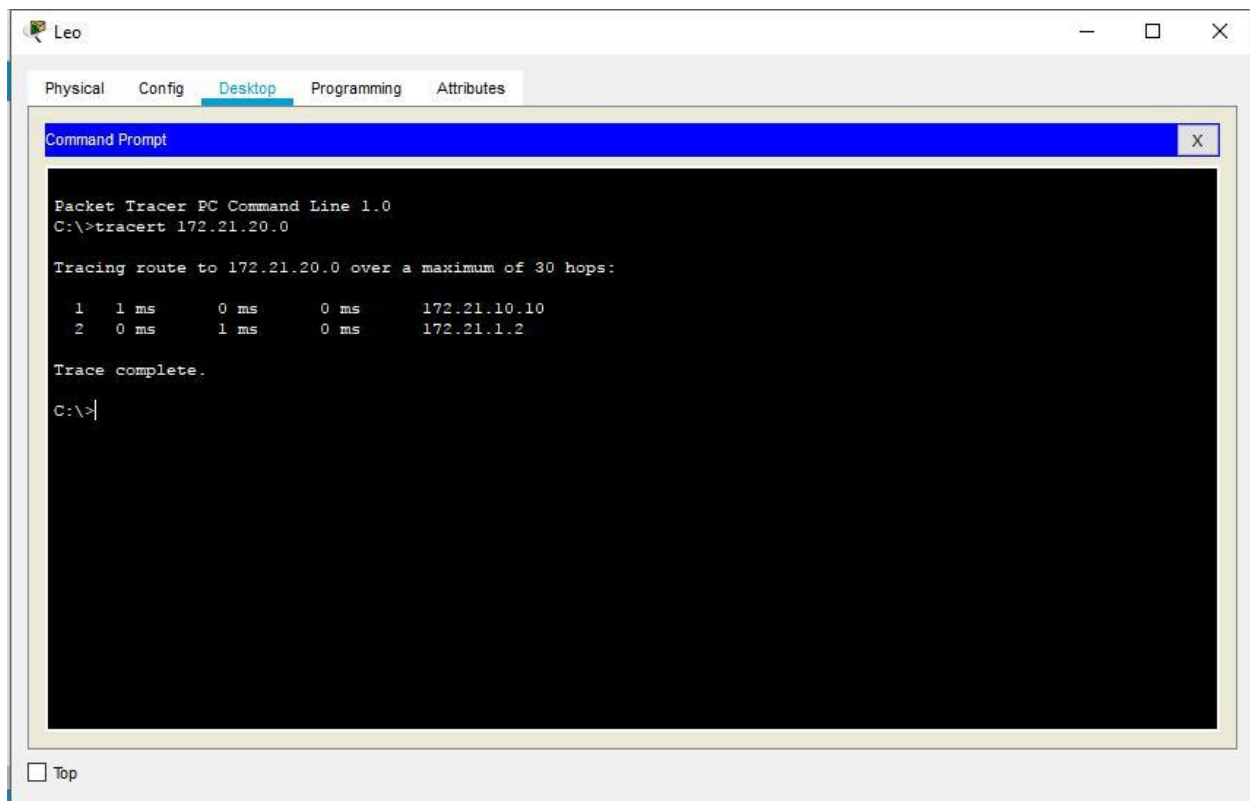


Physical Config CLI Attributes

IOS Command Line Interface

```
Router#debug ip rip
RIP protocol debugging is on
Router#RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.20.20)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.3.0 metric 1
    network 172.21.10.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.2)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.3.2)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.10.0 metric 2
    network 172.21.20.0 metric 1
RIP: received v1 update from 172.21.1.1 on Serial2/0
    172.21.2.0 in 1 hops
    172.21.10.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.20.20)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.3.0 metric 1
    network 172.21.10.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.2)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.3.2)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.10.0 metric 2
    network 172.21.20.0 metric 1
RIP: received v1 update from 172.21.1.1 on Serial2/0
```

Ping leo ke aries



Melakukan shut down

```
Router(config)#int se2/0
Router(config-if)#shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to
administratively down
```

Trace dari leo ke aries

```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  1  0 ms    0 ms    0 ms    172.21.10.10
  2  1 ms    2 ms    1 ms    172.21.2.3
  3  0 ms    2 ms    1 ms    172.21.3.2
  4  0 ms    0 ms    0 ms    172.21.20.2

Trace complete.
```

Kegiatan 3

Pada mode configuration, konfigurasi routing RIP dan debug ip eigrp pada router eagle.



```
Physical  Config  CLI  Attributes  IO
Enter configuration commands, one per line.  End with CNTRL/Z.
Router(config)#
Router(config)#router eigrp 100
Router(config-router)#network 172.21.0.0
Router(config-router)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console
s
% Ambiguous command: "s"
Router#show running-conf
Building configuration...

Current configuration : 985 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
!
!
!
!
!
!
ip cef
no ipv6 cef
!
!
!
!
!
!
!
!
!
!
--More--
```

eagle

Physical Config **CLI** Attributes

IOS Command Line Interface

```

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.2
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0

EIGRP: Received HELLO on Serial3/0 nbr 172.21.2.3
AS 100, Flags 0x0, Seq 11/0 idbQ 0/0

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.2
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0

EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Received HELLO on Serial3/0 nbr 172.21.2.3
AS 100, Flags 0x0, Seq 11/0 idbQ 0/0

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.2
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0

```

Pada mode configuration, konfigurasi routing RIP dan debug ip eigrp pada router puma

puma

Physical Config **CLI** Attributes

IOS Co

```

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 172.21.0.0
Router(config-router)#
%DUAL-S-NBRCHANGE: IP-EIGRP 100: Neighbor 172.21.1.1 (Serial2/0) is up: new adjacency

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

Router#show running-conf
Building configuration...

Current configuration : 1005 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
!
!
!
ip cef
no ipv6 cef
!
!
!
!
!
!
--More--

```

puma

Physical Config CLI Attributes

IOS Command Line Interface

```
EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0
EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.1
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0
EIGRP: Received HELLO on Serial3/0 nbr 172.21.3.3
AS 100, Flags 0x0, Seq 11/0 idbQ 0/0
EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0
EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0
EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0
EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.1
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0
EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0
EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0
EIGRP: Received HELLO on Serial3/0 nbr 172.21.3.3
AS 100, Flags 0x0, Seq 11/0 idbQ 0/0
EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0
EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.1
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0
EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0
```

Pada mode configuration, konfigurasi routing RIP dan debug ip eigrp pada router tiger

tiger

Physical Config CLI Attributes

IOS Command Line Interface

```
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router eigrp 100
Router(config-router)#network 172.21.0.0
Router(config-router)#
%DUAL-6-NBRCHANGE: IP-EIGRP 100: Neighbor 172.21.2.1 (Serial2/0) is up: new adjacency
%DUAL-6-NBRCHANGE: IP-EIGRP 100: Neighbor 172.21.3.2 (Serial3/0) is up: new adjacency
Router(config-router)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console
Router#show running-conf
Building configuration...

Current configuration : 965 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
!
!
ip cef
no ipv6 cef
!
!
--More--
```

```

EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.1
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0

EIGRP: Received HELLO on Serial3/0 nbr 172.21.3.3
AS 100, Flags 0x0, Seq 11/0 idbQ 0/0

EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.1
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0

EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

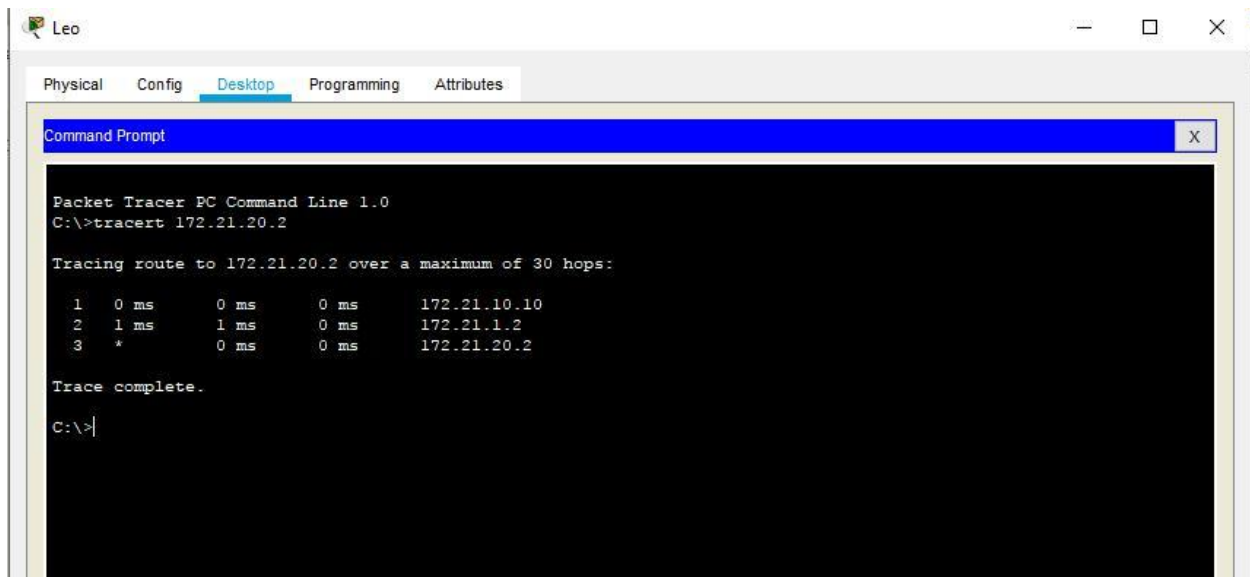
EIGRP: Received HELLO on Serial3/0 nbr 172.21.3.3
AS 100, Flags 0x0, Seq 11/0 idbQ 0/0

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0 iidbQ un/rely 0/0

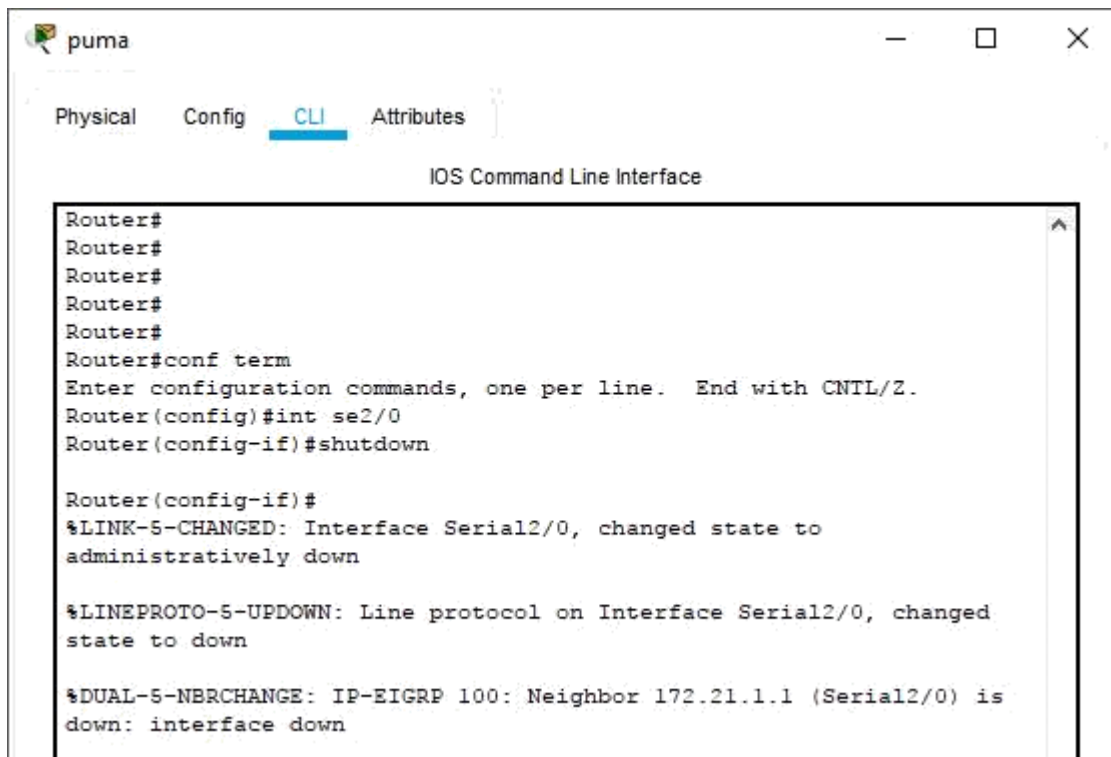
EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.1
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0

```

Melakukan trace dari leo ke aries



Buat hubungan antara router eagle dan puma terputus dan perhatikan proses update routing RIP yang terjadi.



Melakukan trace dari leo ke aries

