

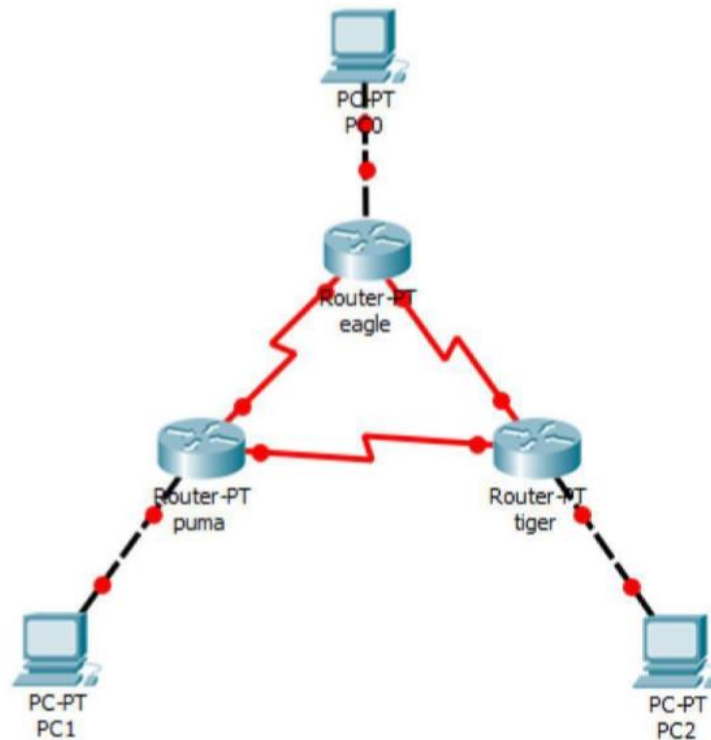
Nama : Yogatama Dwi Prasetya

Kelas : D

NIM :L200170180

Kegiatan 1 Static Routing

1. Buat topologi
2. Beri nama



3. – Konfigurasi IP address interface ethernet 0 untuk router eagle

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

- Konfigurasi IP address interface serial 0 dan serial 1 untuk router eagle

```
Router(config-if)#int se2/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip add 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)#int se3/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip add 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)#
```

- Konfigurasi IP address interface ethernet 0 untuk router puma

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

- Konfigurasi IP address interface serial 0 dan serial 1 untuk router puma

```
Router(config-if)#int se2/0
Router(config-if)#ip add 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 se3/0
Router(config-if)#cl
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0,
changed state to up
% Ambiguous command: "c"
Router(config-if)#clock rate 2000000
Router(config-if)#ip add 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)#
```

- Konfigurasi IP address interface ethernet 0 untuk router tiger

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

- Konfigurasi IP address interface serial 0 dan serial 1 untuk router puma

```
Router(config-if)#int se2/0
Router(config-if)#ip add 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)#int se3/0
Router(config-if)#ip add 162
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0,
changed state to up

^
% Invalid input detected at '^' marker.

Router(config-if)#ip add 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

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

4. Konfigurasi IP address PC Leo

LEO

Physical Config Desktop Programming Attributes

IP Configuration

IP Configuration

☐ DHCP ☒ Static

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 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::260:5CFF:FE58:27BC

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

- Konfigurasi IP address PC Aries

ARIES

Physical Config Desktop Programming Attributes

IP Configuration

IP Configuration

☐ DHCP ☒ Static

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 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

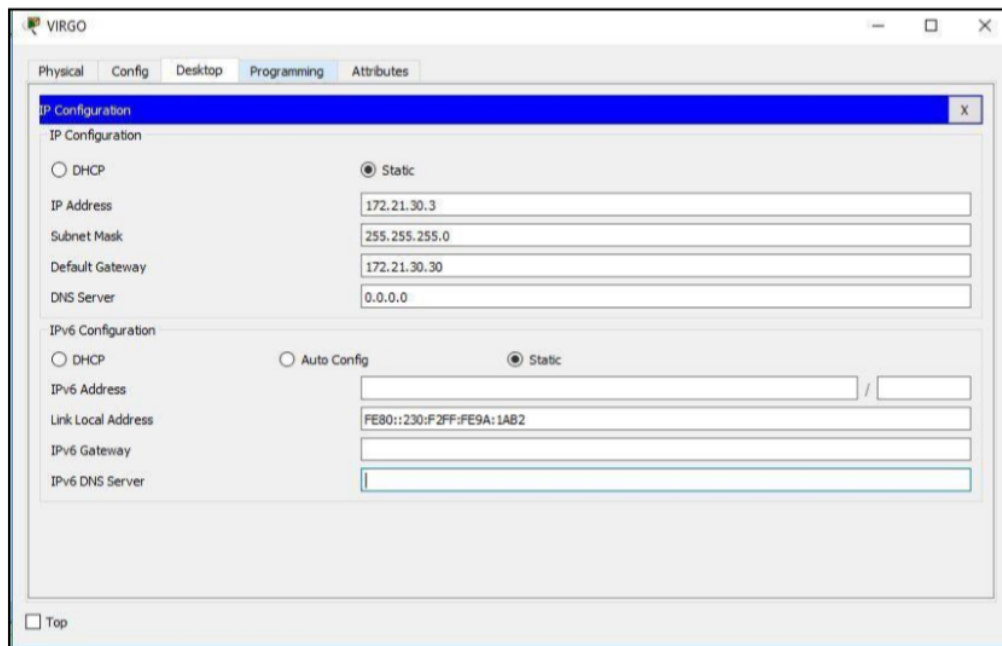
Link Local Address: FE80::201:97FF:FE12:845B

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

- Konfigurasi IP address PC Virgo



5. Lakukan ping dari PC Leo ke router eagle

```
C:\>ping 172.21.1.1

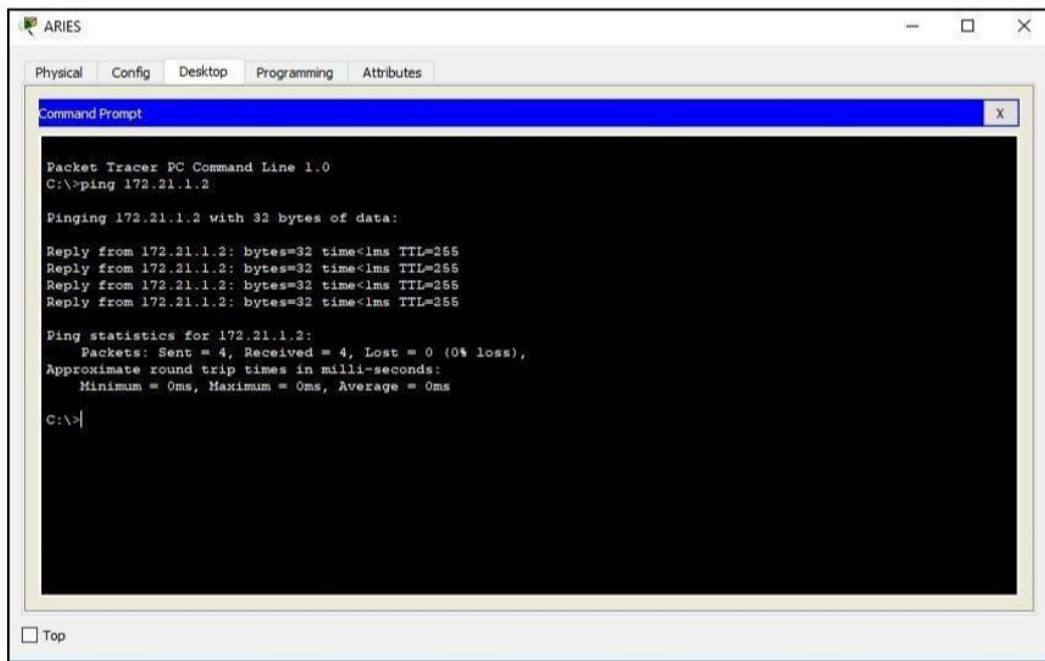
Pinging 172.21.1.1 with 32 bytes of data:

Reply from 172.21.1.1: bytes=32 time=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
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 = 1ms, Average = 0ms

C:\>|
```

- Lakukan ping dari PC Aries ke router puma



The screenshot shows a Packet Tracer PC window for 'ARIES'. The 'Command Prompt' tab is active, displaying the following text:

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

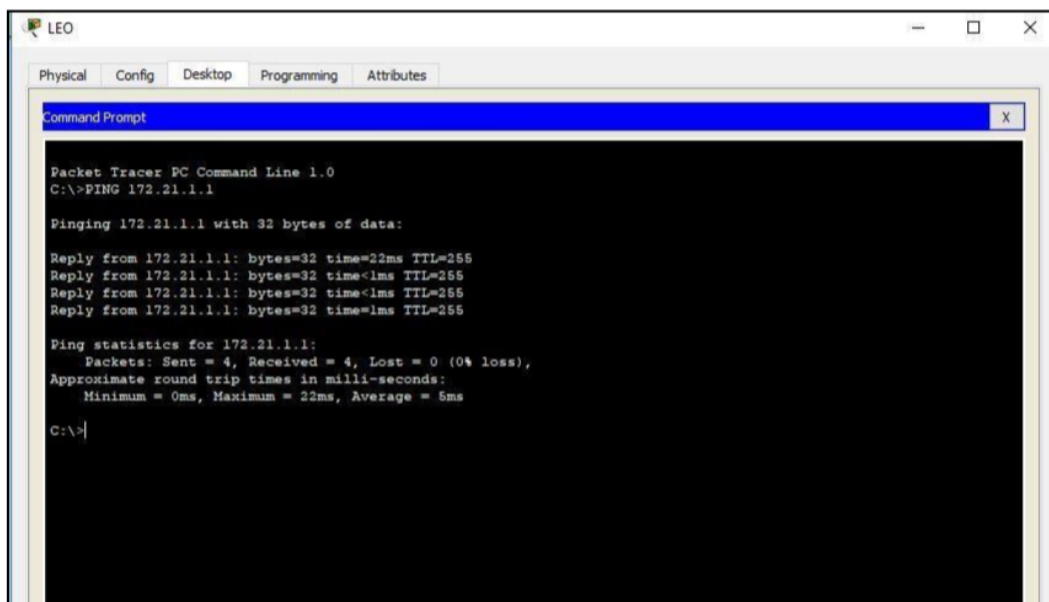
Pinging 172.21.1.2 with 32 bytes of data:

Reply from 172.21.1.2: bytes=32 time<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
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 = 0ms, Average = 0ms

C:\>
```

- Lakukan ping dari PC Leo ke router tiger



The screenshot shows a Packet Tracer PC window for 'LEO'. The 'Command Prompt' tab is active, displaying the following text:

```
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=22ms 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 = 22ms, Average = 5ms

C:\>
```

- Lakukan ping PC Virgo ke router tiger

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

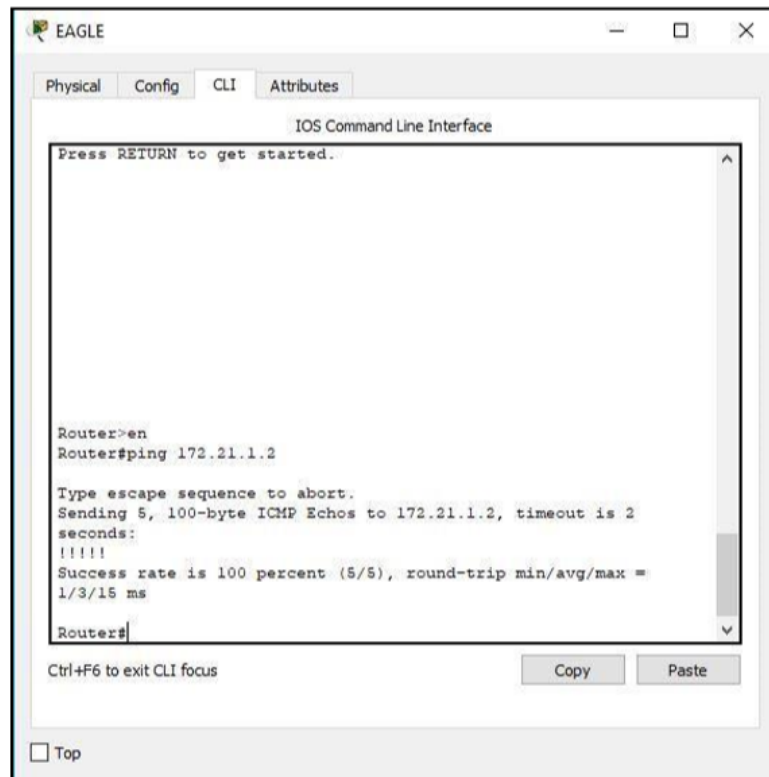
Pinging 172.21.3.3 with 32 bytes of data:

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

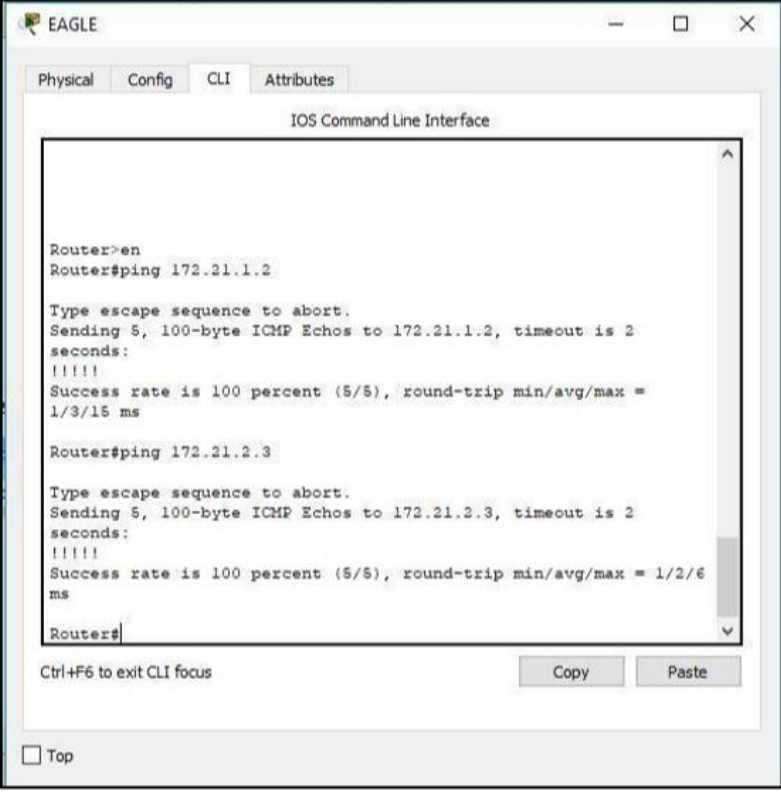
Ping statistics for 172.21.3.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|
```

- Lakukan ping dari router eagle ke router puma



- Lakukan ping router eagle ke router tiger



The screenshot shows the EAGLE network simulator window. It has tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The text in the CLI window is as follows:

```
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 =
1/3/15 ms

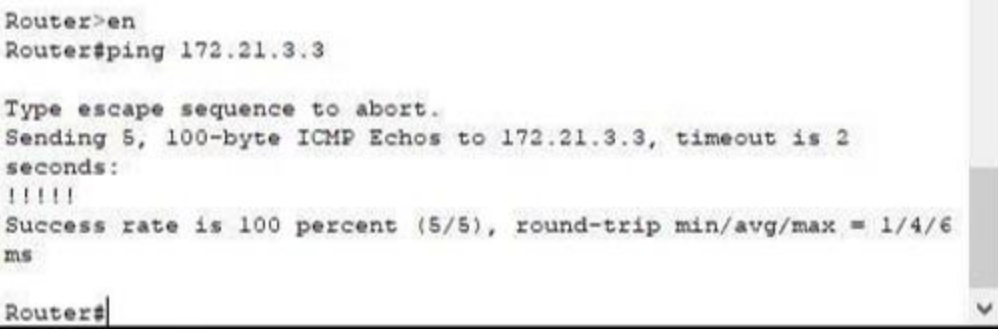
Router#ping 172.21.2.3

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 = 1/2/6
ms

Router#
```

Below the CLI window, there is a text label 'Ctrl+F6 to exit CLI focus' and two buttons labeled 'Copy' and 'Paste'. At the bottom left of the window, there is a checkbox labeled 'Top' which is currently unchecked.

- Lakukan ping dari router puma ke router tiger



The screenshot shows a portion of the EAGLE network simulator's CLI window. The text displayed is:

```
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 = 1/4/6
ms

Router#
```

6. Simpan Konfigurasi seluruh device yang telah dilakukan

7. – Melihat route table router eagle

```
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       172.21.1.0 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#
```

- Melihat route table router puma

```
Router#
Router#sh ip rout
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#
```

- Melihat route table router tiger

```
Router>en
Router#sh ip rout
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. Lakukan ping dari router eagle kealamat interface S0 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#
```

9. Lakukan trace dari PC leoke PC aries

```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  0  0 ms    0 ms    0 ms    172.21.10.10
  1  1 ms    4 ms    13 ms   172.21.1.2
  2  13 ms   3 ms    10 ms   172.21.20.2

Trace complete.

C:\>
```

10. Lakukan trace dari PC leokealamat interface 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      0 ms      172.21.1.1

Trace complete.

C:\>|
```

11. - Menambahkan route table pada router eagle

```
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)#|
```

- Menambahkan route table pada router puma

```
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 172.21.30.0 255.255.255.0 172.21.3.3
Router(config)#|
```

- Menambahkan route table pada router tiger

```
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.2.1
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.3.2
Router(config)#|
```

12. Lakukan ping dari PC leoke PC aries, danlakukan pula trace dari PC leokearies

```
C:\>tracert 172.21.1.1

Tracing route to 172.21.1.1 over a maximum of 30 hops:

  1  0 ms      0 ms      0 ms      172.21.1.1

Trace complete.

C:\>ping 172.21.20.2

Pinging 172.21.20.2 with 32 bytes of data:

Reply from 172.21.20.2: bytes=32 time=1ms TTL=126
Reply from 172.21.20.2: bytes=32 time=2ms TTL=126
Reply from 172.21.20.2: bytes=32 time=1ms TTL=126
Reply from 172.21.20.2: bytes=32 time=1ms TTL=126

Ping statistics for 172.21.20.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms
```

```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

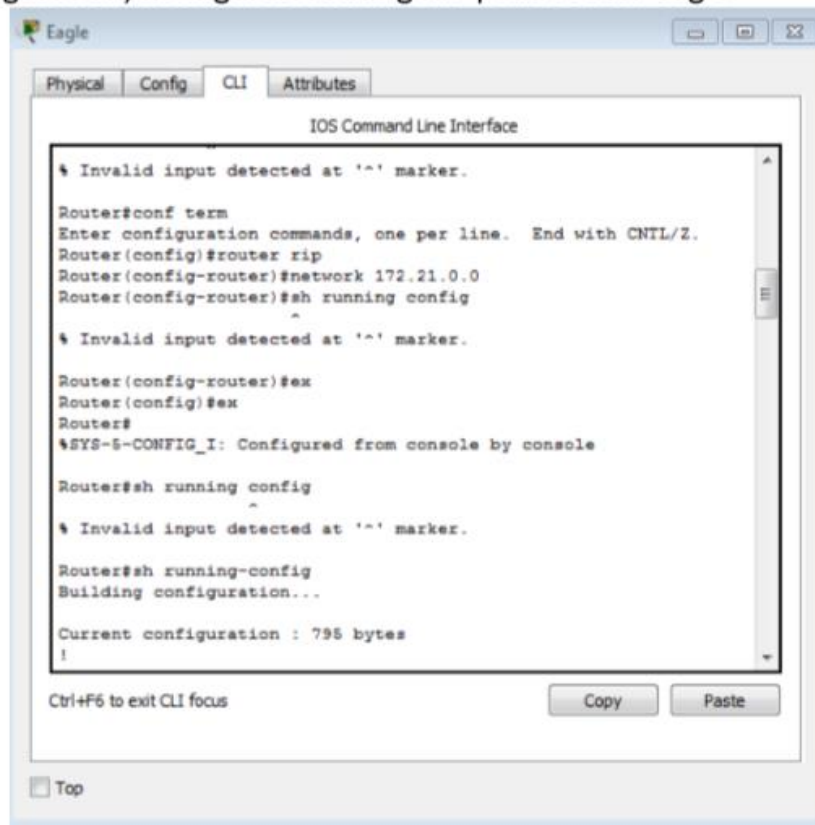
  1  0 ms      0 ms      0 ms      172.21.10.10
  2  1 ms      4 ms      13 ms     172.21.1.2
  3  13 ms     3 ms      10 ms     172.21.20.2

Trace complete.

C:\>|
```

KEGIATAN 2 RIP (Routing Information Protocol)

3. Pada mode configuration, konfigurasi routing RIP pada router eagle.



The screenshot shows the Eagle emulator window with the 'CLI' tab selected. The terminal displays the following commands and output:

```
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)#sh running config
^
% Invalid input detected at '^' marker.

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

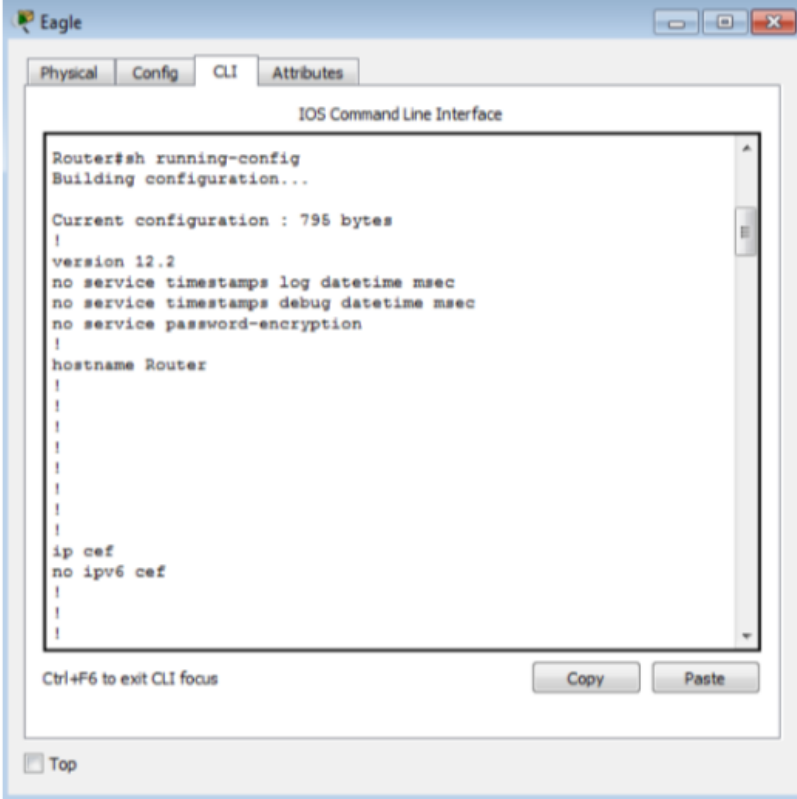
Router#sh running config
^
% Invalid input detected at '^' marker.

Router#sh running-config
Building configuration...

Current configuration : 795 bytes
!
```

At the bottom of the CLI window, there is a prompt "Ctrl+F6 to exit CLI focus" and two buttons: "Copy" and "Paste".

4. Lihat konfigurasi routing RIP yang telah dibuat dengan perintah ***"Show running-config"*** pada mode user.



The screenshot shows the Eagle network simulator window. The 'CLI' tab is selected, displaying the IOS Command Line Interface. The command 'Router#sh running-config' has been entered, and the output shows the current configuration, which includes version 12.2, service timestamps, and the hostname 'Router'. The configuration is displayed in a scrollable text area. Below the text area, there are buttons for 'Copy' and 'Paste', and a 'Top' button at the bottom left.

```
Router#sh running-config
Building configuration...

Current configuration : 795 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
!
!
!
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

```
!  
!  
!  
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  
  clock rate 2000000  
!  
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 flow-export version 9  
!  
!  
!
```

```
!  
!  
!  
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  
  clock rate 2000000  
!  
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 flow-export version 9  
!  
!  
!
```

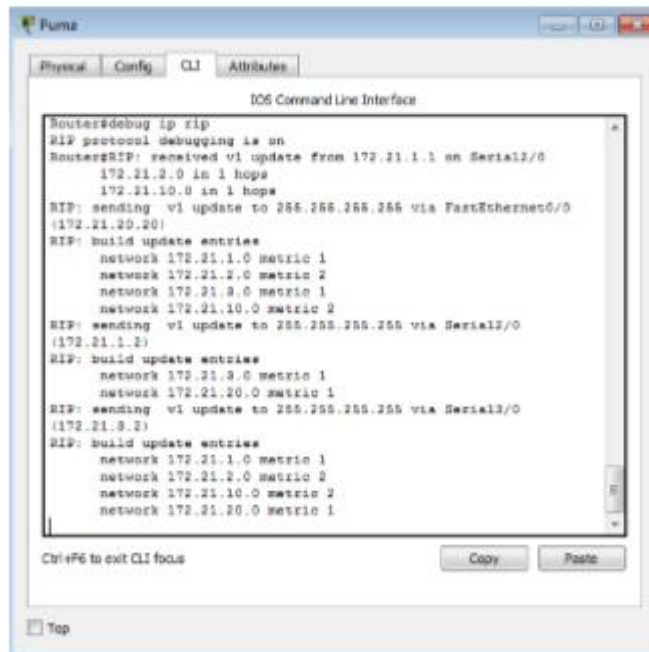

Perhatikan konfigurasi pada bagian ***“Router RIP”***.

```
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: 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
```

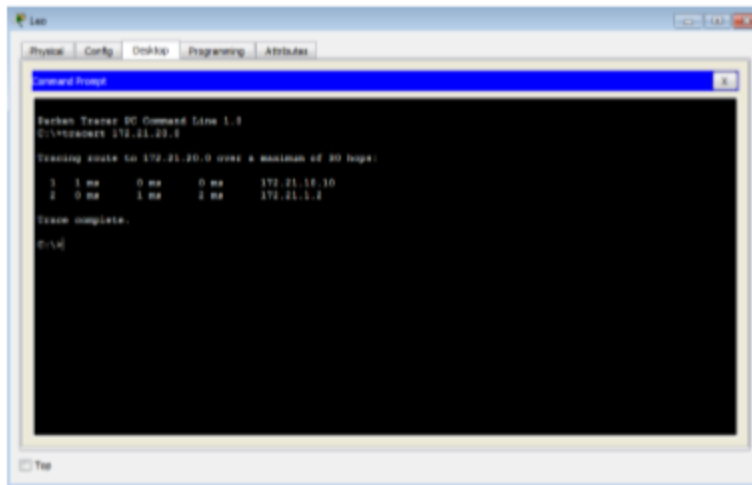
5. Lihat proses update routing RIP pada router eagle dengan perintah *"debug ip rip"* pada mode user.

```
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: 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
```

6. Lakukan konfigurasi routing RIP pada router puma dan tiger. Perhatikan proses update routing RIP pada router eagle ketika konfigurasi router puma dan tiger dilakukan.



7. Dari PC leo lakukan trace ke PC aries.



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

Langkah pengoperasian

-Masuk ke router puma

-Masuk ke mode interface s0

-Ketik shutdown

```
Router(config-if)#shutdown

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

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0,
changed state to down
RIP: received v1 update from 172.21.3.3 on Serial3/0
172.21.1.0 in 16 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0
(172.21.20.20)
RIP: build update entries
network 172.21.2.0 metric 16
network 172.21.3.0 metric 1
network 172.21.10.0 metric 16
network 172.21.30.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial3/0
(172.21.3.2)
RIP: build update entries
```

9. Dari PC leo lakukan trace ke PC aries

```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

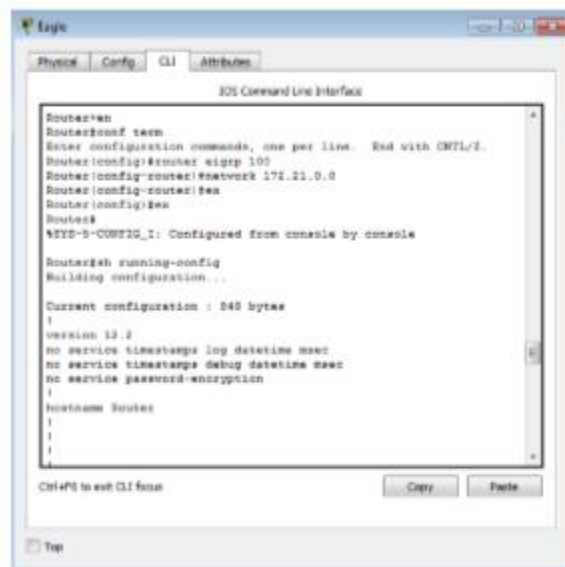
  1  0 ms    0 ms    0 ms    172.21.10.10
  2  1 ms    2 ms    1 ms    172.21.2.3
  3  0 ms    2 ms    1 ms    172.21.3.2
  4  0 ms    0 ms    0 ms    172.21.20.2

Trace complete.

C:\>|
```

KEGIATAN 3 IGRP (Interior Gateway Routing Protocol)

3. Pada mode configuration, konfigurasi routing RIP pada router eagle.



4. Lihat konfigurasi routing EIGRP yang telah dibuat dengan perintah *“Show running-config”* pada mode user. Perhatikan konfigurasi pada bagian *“router rip”*



5. Lihat proses transaksi routing EIGRP pada router eagle dengan perintah "debug EIGRP transactions" pada mode user. Tunggu beberapa saat untuk melihat informasi transaksi routing EIGRP yang terjadi.

```
EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 1/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 1/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 1/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 1/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 1/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 1/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 1/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 1/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Sending HELLO on Serial3/0
```

6. Lihat proses transaksi routing EIGRP pada router eagle dengan perintah "**debug ip eigrp transactions**" pada mode user. Tunggu beberapa saat untuk melihat informasi transaksi routing EIGRP yang terjadi.

Catatan : Hasil tampilan perintah "debug ip eigrp transactions" memperlihatkan informasi update routing EIGRP secara detail. Untuk melihat informasi update routing EIGRP secara lebih ringkas digunakan perintah "debug ip eigrp events". (dengan lebih dahulu menonaktifkan "debug ip eigrp transactions" dengan perintah "no debug ip eigrp transactions").

7. Lakukan konfigurasi routing EIGRP pada router puma dan tiger. Perhatikan proses update routing EIGRP pada router eagle (secara detail) ketika konfigurasi router puma dan tiger dilakukan.

Router Puma :

- Konfigurasi routing EIGRP pada router puma :

```

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-MRCHANGE: IP-EIGRP 100: Neighbor 172.21.1.1 (Serial2/0)
is up: new adjacency

```

- Melihat konfigurasi routing EIGRP yang telah dibuat.

```
Router#show running-config
Building configuration...

Current configuration : 795 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--
```

- Melihat proses transaksi routing EIGRP pada router puma.

```
Router#debug eigrp packets
EIGRP Packets debugging is on
 (UPDATE, REQUEST, QUERY, REPLY, HELLO, ACK )
Router#
EIGRP: Received HELLO on Serial2/0 nbr 172.21.1.1
AS 100, Flags 0x0, Seq 6/0 idbQ 0/0

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 6/0 idbQ 0/0 iadbQ un/rely 0/0

EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 6/0 idbQ 0/0 iadbQ un/rely 0/0

EIGRP: Sending HELLO on Serial2/0
AS 100, Flags 0x0, Seq 6/0 idbQ 0/0 iadbQ un/rely 0/0
```

Router Tiger :

- Konfigurasi routing EIGRP pada router tiger.

```
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-MRCHANGE: IP-EIGRP 100: Neighbor 172.21.3.2 (Serial3/0)
is up: new adjacency

%DUAL-6-MRCHANGE: IP-EIGRP 100: Neighbor 172.21.2.1 (Serial2/0)
is up: new adjacency
|
```


- Melihat konfigurasi routing EIGRP yang telah dibuat.

```
Router#show running-config
Building configuration...

Current configuration : 775 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--
```

- Melihat proses transaksi routing EIGRP pada router tiger.

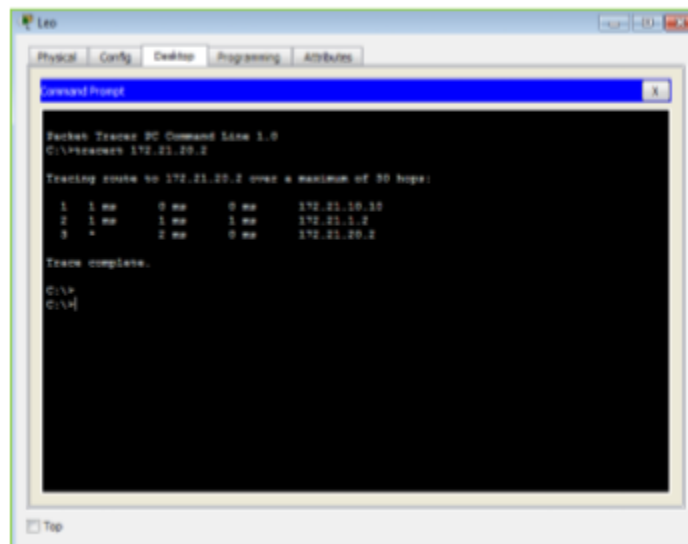
```
Router#debug eigrp packets
EIGRP Packets debugging is on
(UPDATE, REQUEST, QUERY, REPLY, HELLO, ACK )
Router#
EIGRP: Received HELLO on Serial2/0 nbr 172.21.2.1
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0

EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 11/0 idbQ 0/0 iidbQ un/rely 0/0

EIGRP: Received HELLO on Serial3/0 nbr 172.21.3.2
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0

EIGRP: Sending HELLO on FastEthernet0/0
AS 100, Flags 0x0, Seq 11/0 idbQ 0/0 iidbQ un/rely 0/0
```

8. Dari PC Leo lakukan trace ke PC aries



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

Langkah pengoperasian:

-Masuk ke router puma

-Masuk mode interface s0

-Ketik shutdown

```
Router#no debug eigrp packets
EIGRP Packets debugging is off
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int s0/0
Router(config-if)#shutdown

Router(config-if)#
%LINE-6-CHANGED: Interface Serial2/0, changed state to
administratively down

%LINEPROTO-6-UPDOWN: Line protocol on Interface Serial2/0,
changed state to down

%DUAL-6-NDCHANGE: IP-EIGRP 100: Neighbor 172.21.1.1 (Serial2/0)
is down: interface down
```

10. Dari pc leo lakukan trace ke PC Aries.

```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

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

Trace complete.

C:\>
```