

**COMPUTER NETWORKS
PRACTICUM 7**



By:

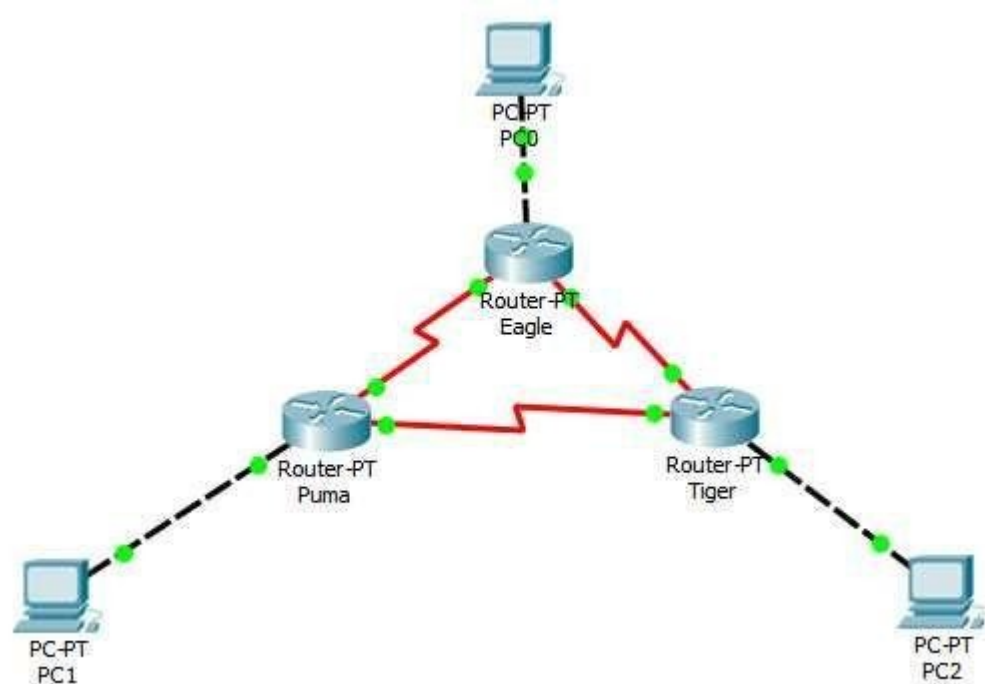
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NIM: L200183043

**INFORMATION TECHNOLOGY FACULTY OF
COMMUNICATION AND INFORMATICS UNIVERSITY
OF MUHAMMADIYAH SURAKARTA 2020**

ACTIVITY 1

- A. Membuat topologi
- B. Memberi nama router



- C. Konfigurasi IP Router
 - Eagle (Ethernet 0)

Eagle

Physical Config CLI Attributes

IOS Command Line Interface

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa 0/0
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
```



Eagle (Serial 0)

The screenshot shows the Eagle network simulator window with the 'CLI' tab selected. The window title is 'Eagle'. The CLI interface shows the following commands and output:

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int serial 2/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip address 172.21.1.100 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to down

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

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

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

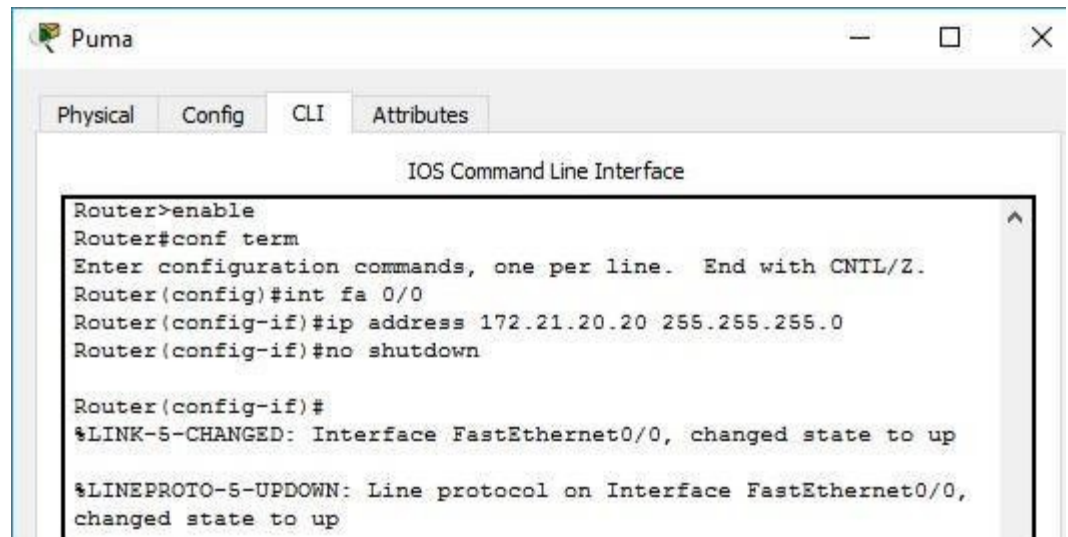
➤ Eagle (Serial 1)

The screenshot shows the Eagle network simulator window with the 'CLI' tab selected. The window title is 'Eagle'. The CLI interface shows the following commands and output:

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int serial 3/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip address 172.21.2.100 255.255.255.0
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
```

Puma (Ethernet 0)



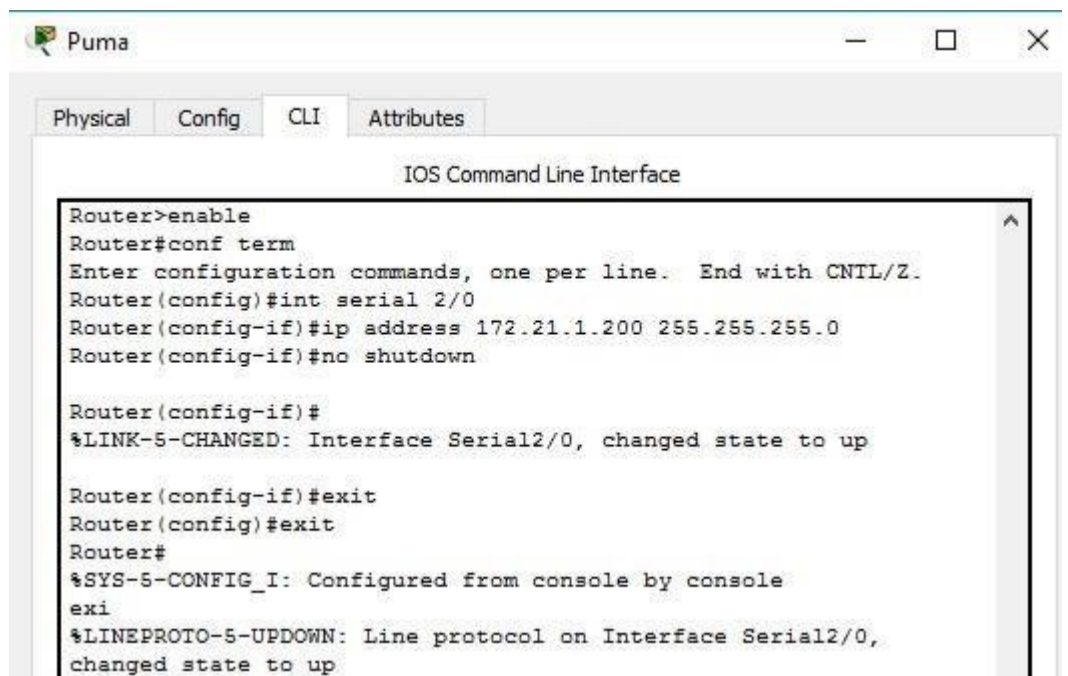
The screenshot shows a window titled "Puma" with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the "IOS Command Line Interface". The terminal output shows the following commands and responses:

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa 0/0
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 (Serial 0)



The screenshot shows a window titled "Puma" with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the "IOS Command Line Interface". The terminal output shows the following commands and responses:

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int serial 2/0
Router(config-if)#ip address 172.21.1.200 255.255.255.0
Router(config-if)#no shutdown

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

Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
exi
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0,
changed state to up
```



Puma (Serial 1)

The screenshot shows a window titled "Puma" with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the "IOS Command Line Interface". The command history shows the following sequence:

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int serial 3/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip address 172.21.3.200 255.255.255.0
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
```

➤ Tiger (Ethernet 0)

The screenshot shows a window titled "Tiger" with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the "IOS Command Line Interface". The command history shows the following sequence:

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa 0/0
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
```

Tiger (Serial 0)



The screenshot shows the 'Tiger' application window with the 'CLI' tab selected. The title bar includes a 'Tiger' icon and standard window controls. The main area is titled 'IOS Command Line Interface' and contains a text box with the following text:

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int serial 2/0
Router(config-if)#ip address 172.21.2.300 255.255.255.0
^
% Invalid input detected at '^' marker.

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

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

➤ **Tiger (Serial 1)**

The screenshot shows the 'Tiger' application window with the 'CLI' tab selected. The title bar includes a 'Tiger' icon and standard window controls. The main area is titled 'IOS Command Line Interface' and contains a text box with the following text:

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int serial 3/0
Router(config-if)#ip address 172.21.3.300 255.255.255.0
^
% Invalid input detected at '^' marker.

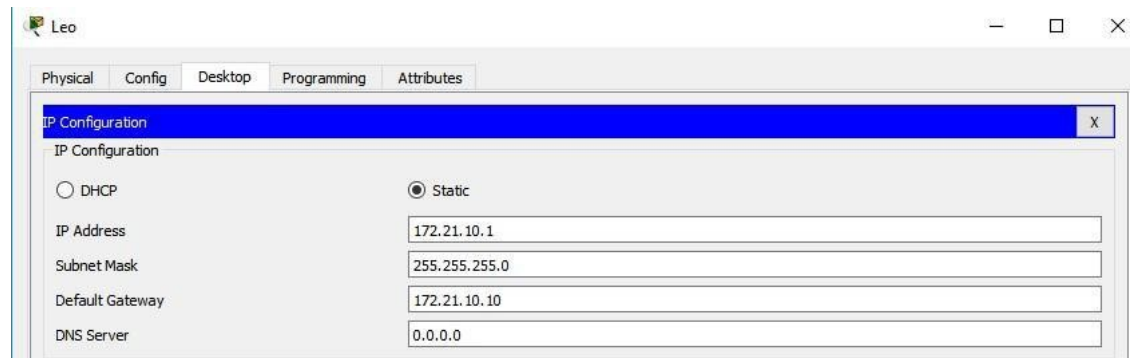
Router(config-if)#ip address 172.21.3.3 255.255.255.0
Router(config-if)#no shutdown

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

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

D. Konfigurasi PC

- Leo (PC1)



Leo

Physical Config Desktop Programming Attributes

IP Configuration

IP Configuration

☐ DHCP ☒ Static

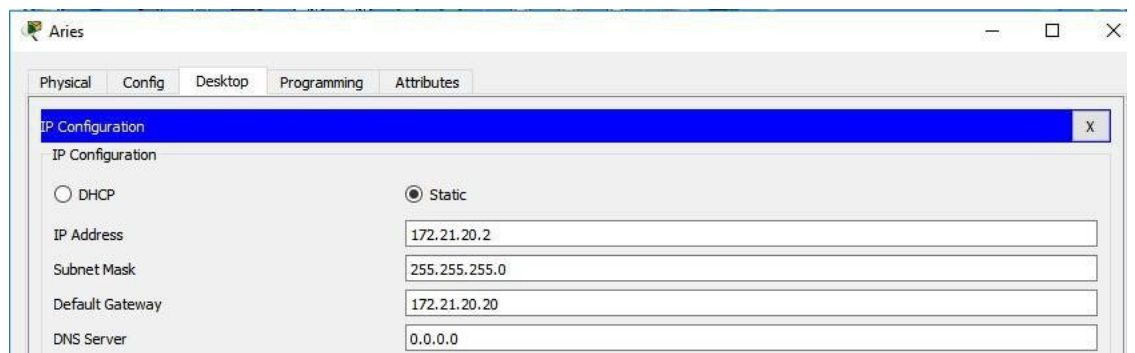
IP Address: 172.21.10.1

Subnet Mask: 255.255.255.0

Default Gateway: 172.21.10.10

DNS Server: 0.0.0.0

- Aries (PC2)



Aries

Physical Config Desktop Programming Attributes

IP Configuration

IP Configuration

☐ DHCP ☒ Static

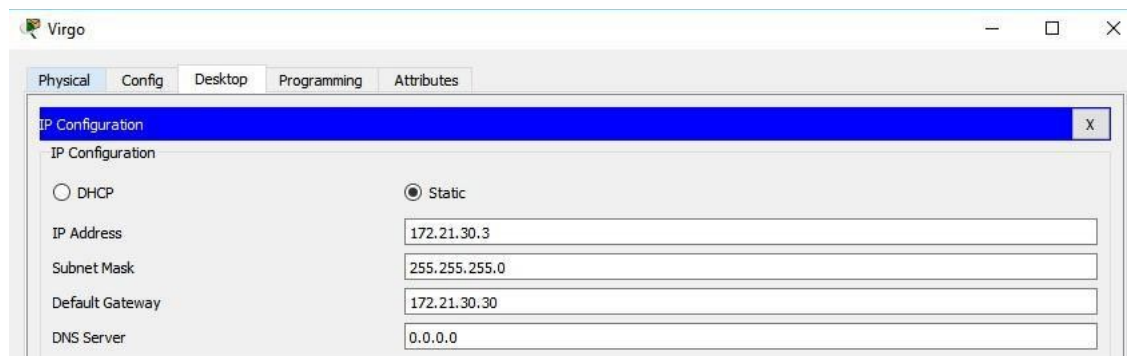
IP Address: 172.21.20.2

Subnet Mask: 255.255.255.0

Default Gateway: 172.21.20.20

DNS Server: 0.0.0.0

- Virgo (PC3)



Virgo

Physical Config Desktop Programming Attributes

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address: 172.21.30.3

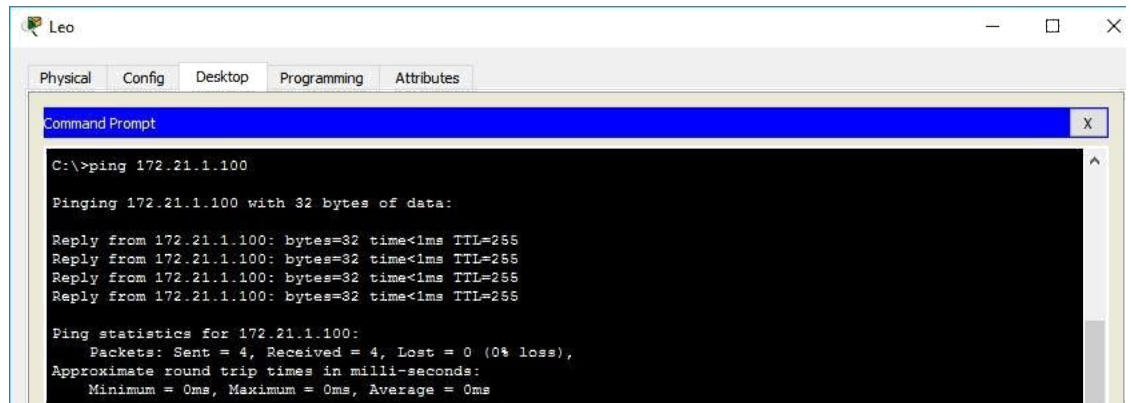
Subnet Mask: 255.255.255.0

Default Gateway: 172.21.30.30

DNS Server: 0.0.0.0

E. Memastikan kesesuaian konfigurasi

- Ping dari PC Leo ke router Eagle



Leo

Physical Config Desktop Programming Attributes

Command Prompt

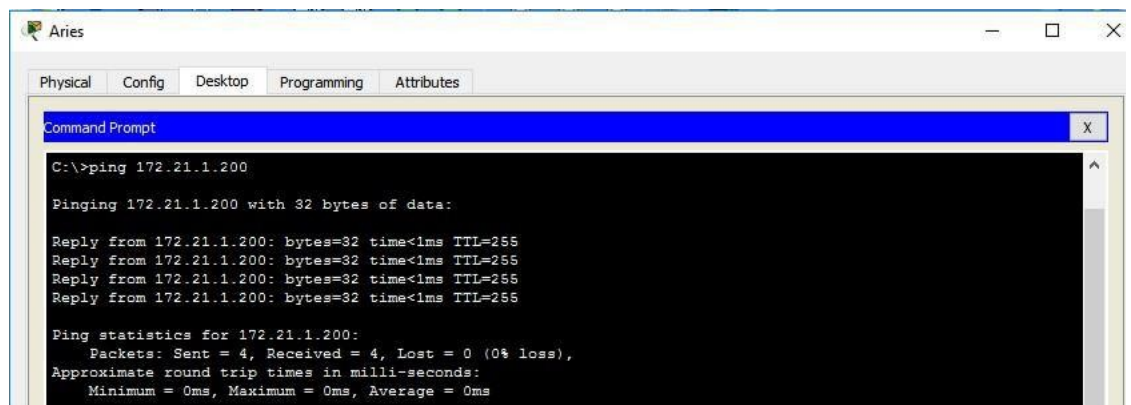
```
C:\>ping 172.21.1.100

Pinging 172.21.1.100 with 32 bytes of data:

Reply from 172.21.1.100: bytes=32 time<1ms TTL=255
Reply from 172.21.1.100: bytes=32 time<1ms TTL=255
Reply from 172.21.1.100: bytes=32 time<1ms TTL=255
Reply from 172.21.1.100: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.1.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

➤ Ping dari PC Aries ke router Puma



Aries

Physical Config Desktop Programming Attributes

Command Prompt

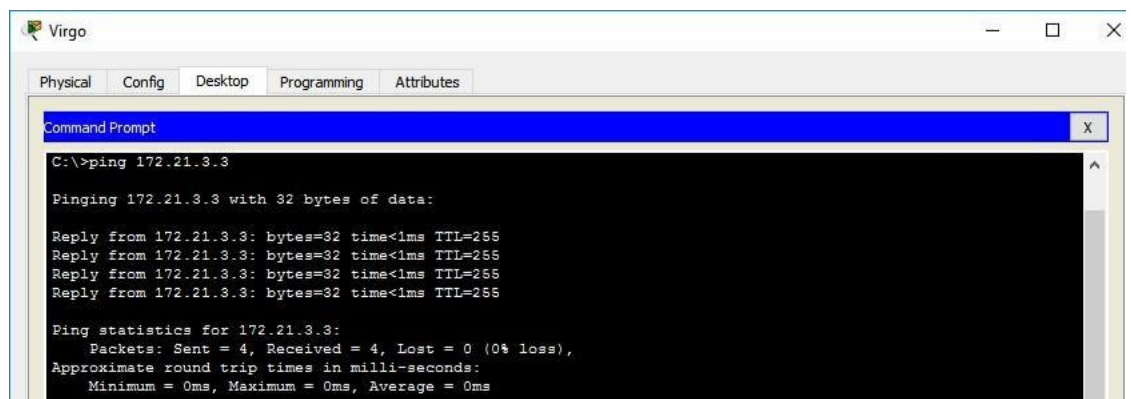
```
C:\>ping 172.21.1.200

Pinging 172.21.1.200 with 32 bytes of data:

Reply from 172.21.1.200: bytes=32 time<1ms TTL=255
Reply from 172.21.1.200: bytes=32 time<1ms TTL=255
Reply from 172.21.1.200: bytes=32 time<1ms TTL=255
Reply from 172.21.1.200: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.1.200:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

➤ Ping dari PC Virgo ke router Tiger



Virgo

Physical Config Desktop Programming Attributes

Command Prompt

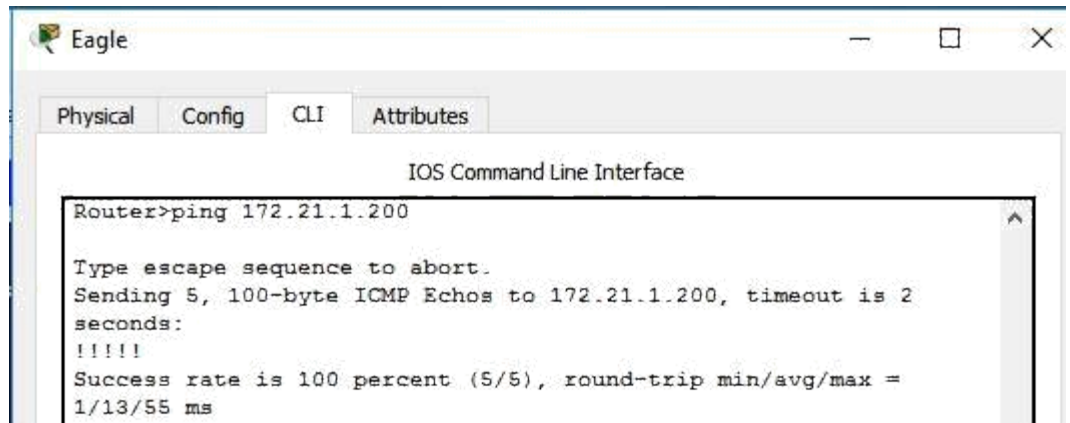
```
C:\>ping 172.21.3.3

Pinging 172.21.3.3 with 32 bytes of data:

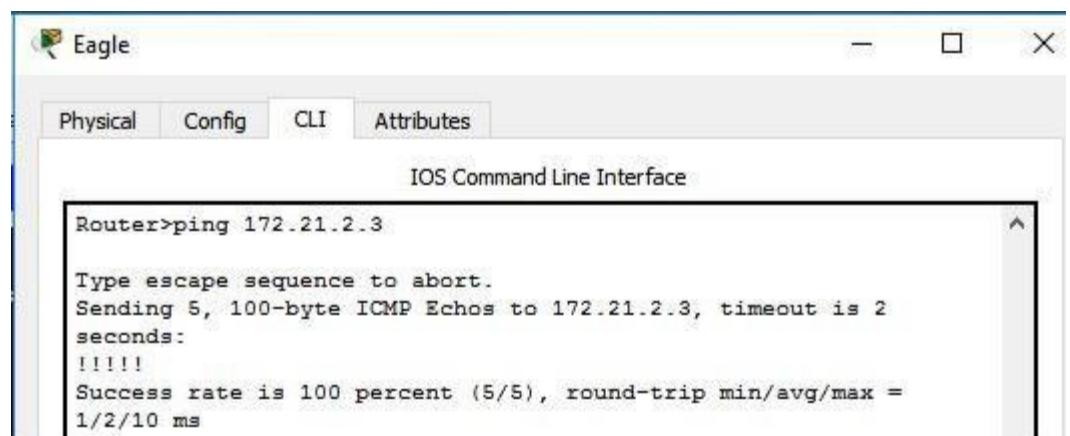
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255

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
```

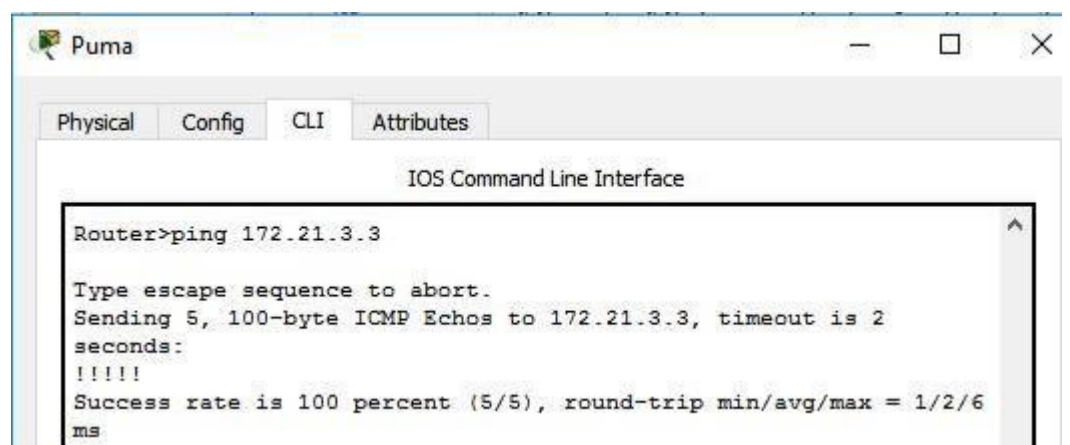
➤ Ping dari router Eagle ke router Puma



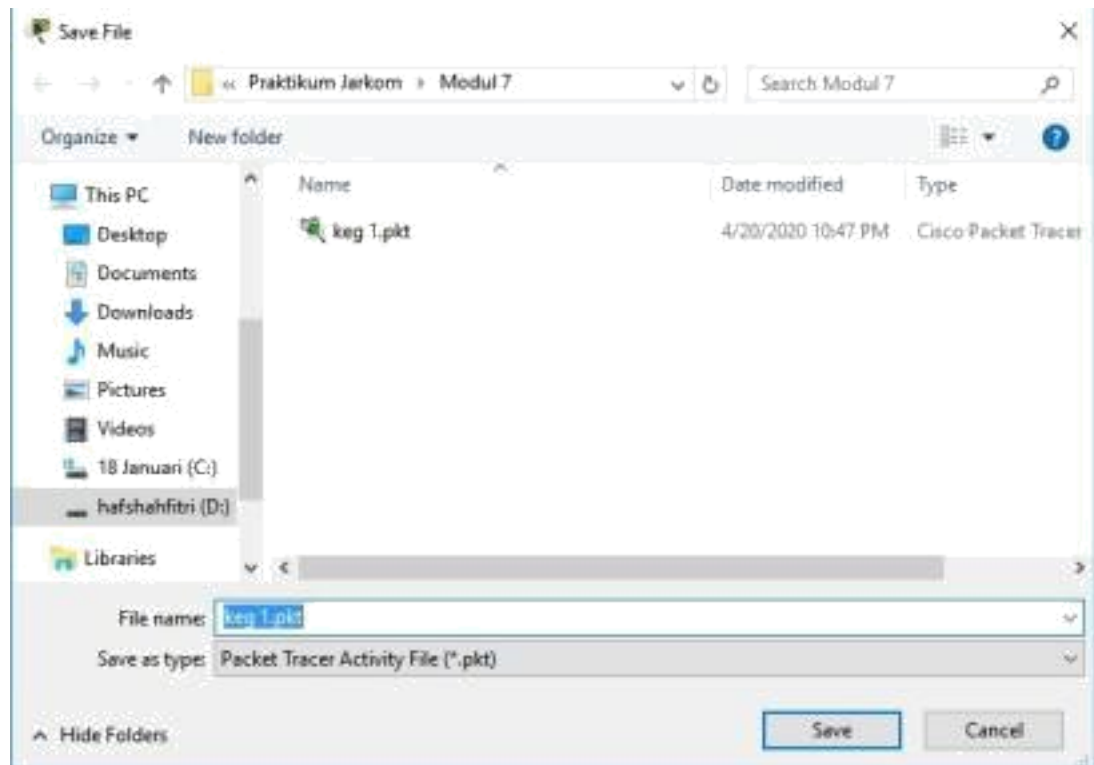
➤ Ping dari router Eagle ke router Tiger



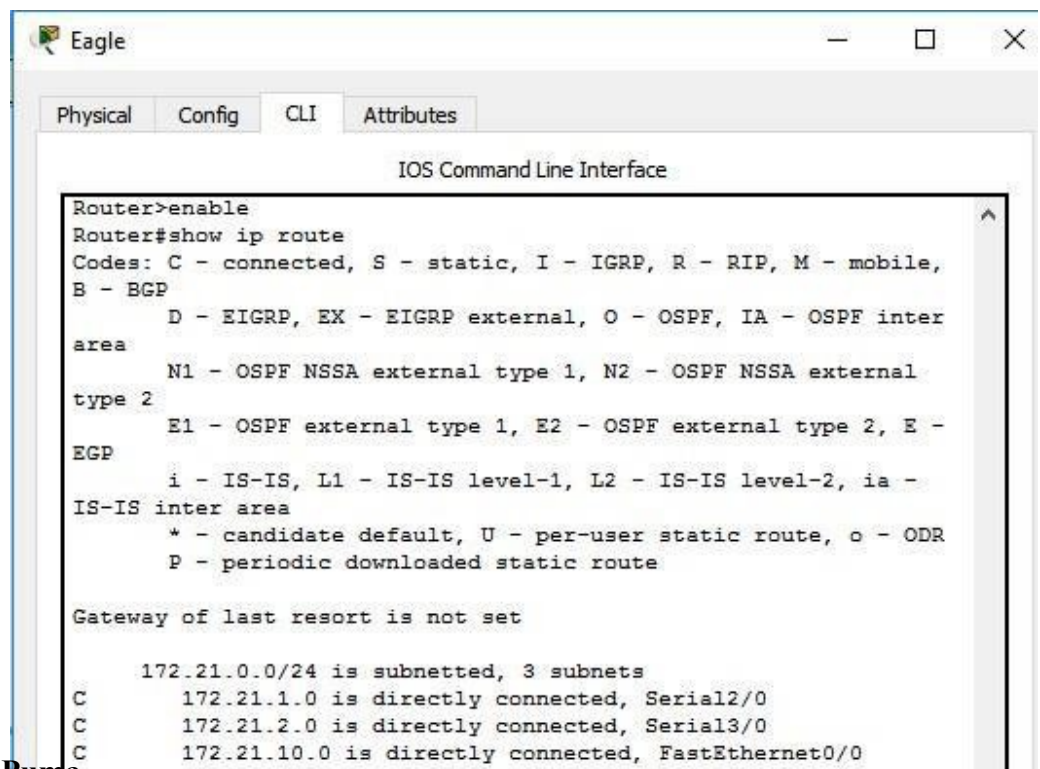
➤ Ping dari router Puma ke router Tiger



F. Simpan konfigurasi



G. **Tugas 7A . Melihat route table masing-masing router**
 ➤ Eagle



➤ Puma

Puma

Physical Config CLI Attributes

IOS Command Line Interface

```
Router>enable
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
```

➤ Tiger

Tiger

Physical Config CLI Attributes

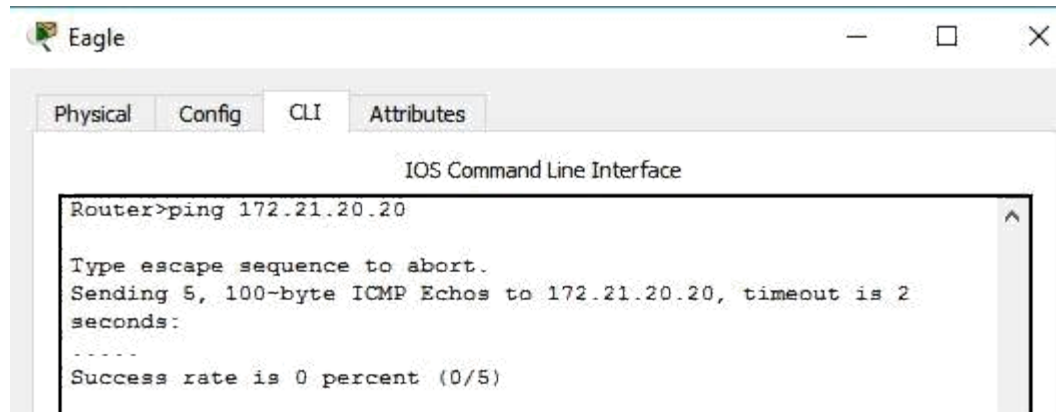
IOS Command Line Interface

```
Router>enable
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

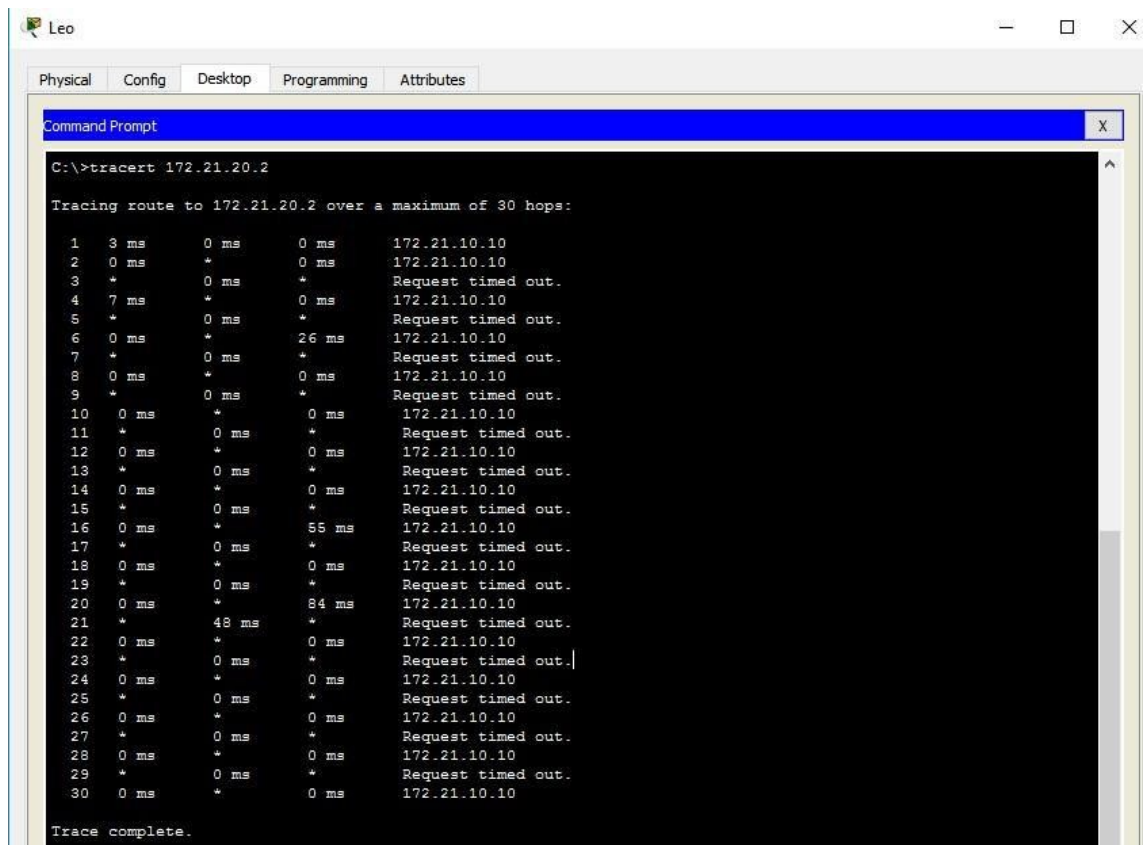
Gateway of last resort is not set

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
```

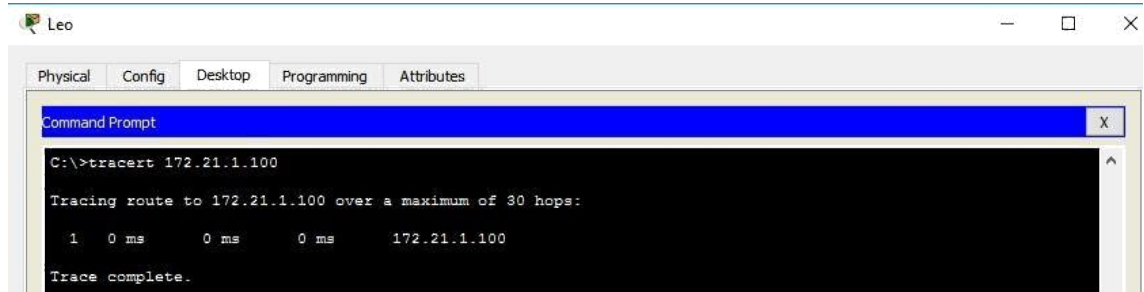
H. Tugas 8A . Ping dari Eagle ke interface e0 router Puma **JELASIN**



I. Tugas 9A . Trace PC Leo ke PC Aries **JELASIN**



J. Tugas 10A . Trace PC Leo ke interface s0 router Eagle **JELASIN**



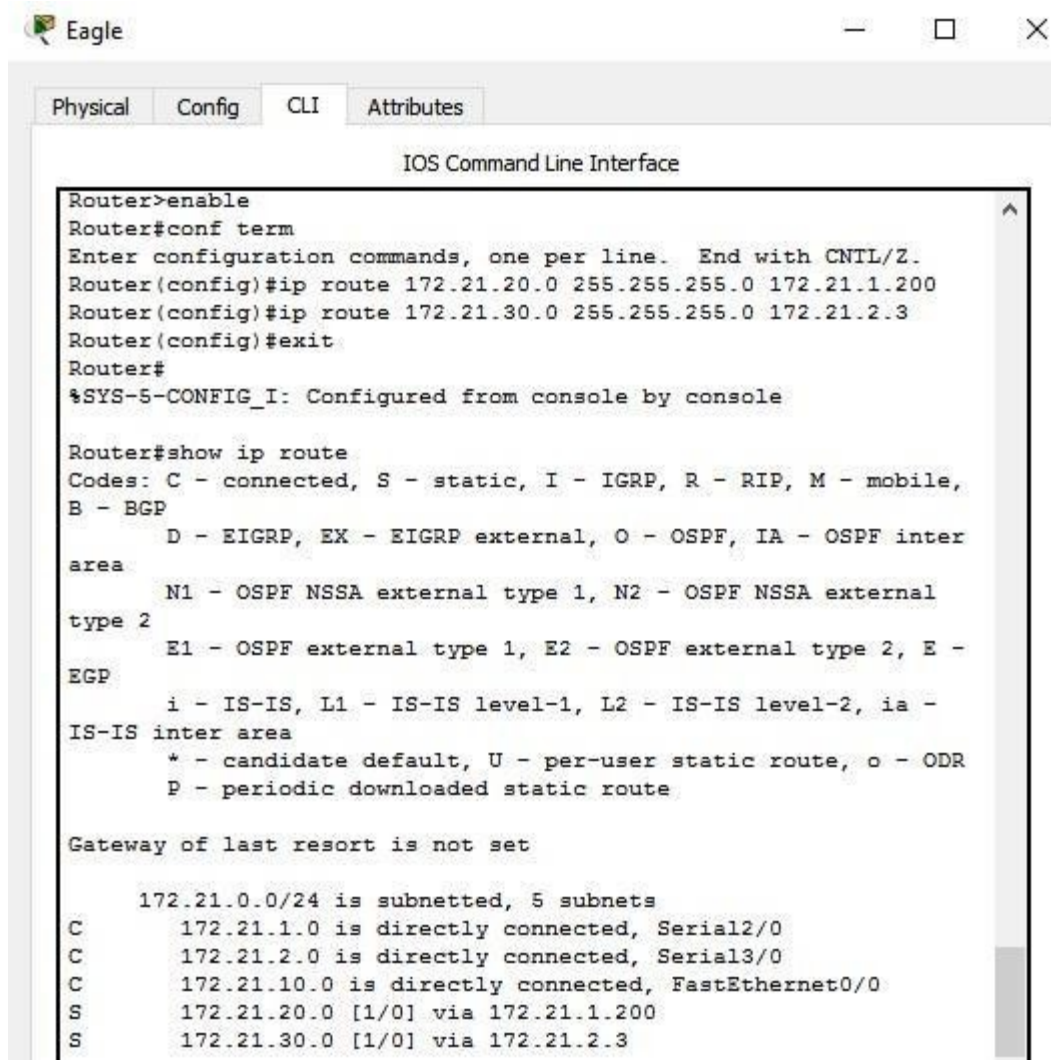
```
C:\>tracert 172.21.1.100

Tracing route to 172.21.1.100 over a maximum of 30 hops:

  1  0 ms    0 ms    0 ms    172.21.1.100

Trace complete.
```

K. Route table untuk masing-masing router



```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.1.200
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.2.3
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

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, 5 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
S       172.21.20.0 [1/0] via 172.21.1.200
S       172.21.30.0 [1/0] via 172.21.2.3
```

❖ Tugas 11A

- Langkah penambahan route table pada router Puma

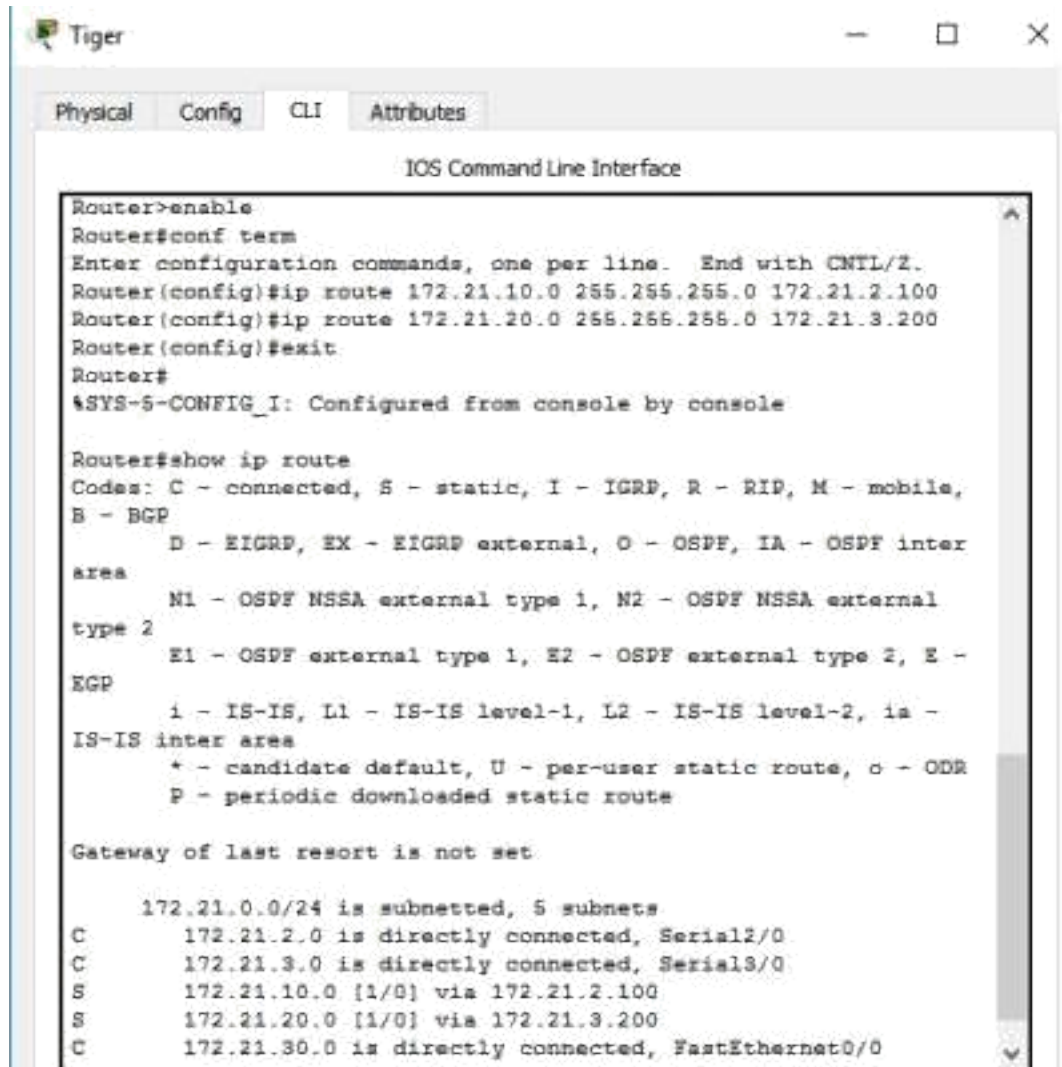

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.1.100
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.3.3
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

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, 5 subnets
C       172.21.1.0 is directly connected, Serial2/0
C       172.21.3.0 is directly connected, Serial3/0
S       172.21.10.0 [1/0] via 172.21.1.100
C       172.21.20.0 is directly connected, FastEthernet0/0
S       172.21.30.0 [1/0] via 172.21.3.3
```

- Langkah penambahan route table pada router Tiger



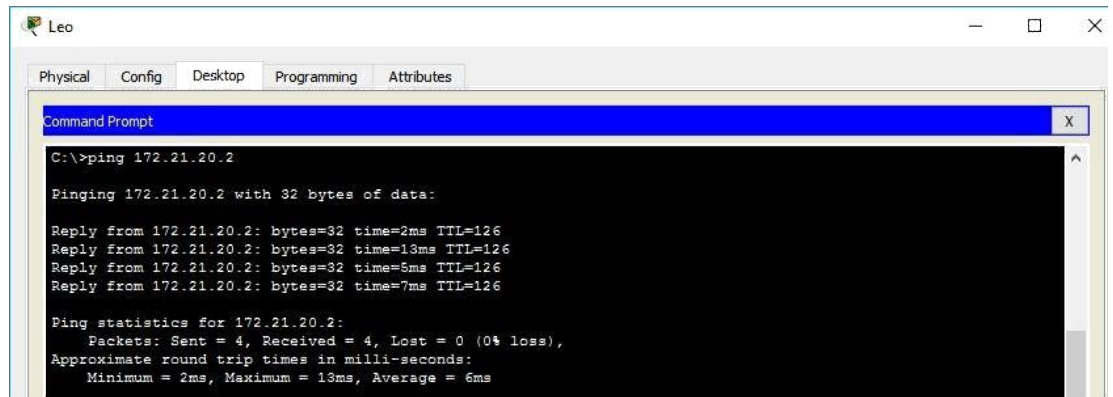
```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.2.100
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.3.200
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

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, 5 subnets
C       172.21.2.0 is directly connected, Serial2/0
C       172.21.3.0 is directly connected, Serial3/0
S       172.21.10.0 [1/0] via 172.21.2.100
S       172.21.20.0 [1/0] via 172.21.3.200
C       172.21.30.0 is directly connected, FastEthernet0/0
```

L. Tugas 12A.
➤ Ping PC Leo ke PC Aries



Leo

Physical Config Desktop Programming Attributes

Command Prompt

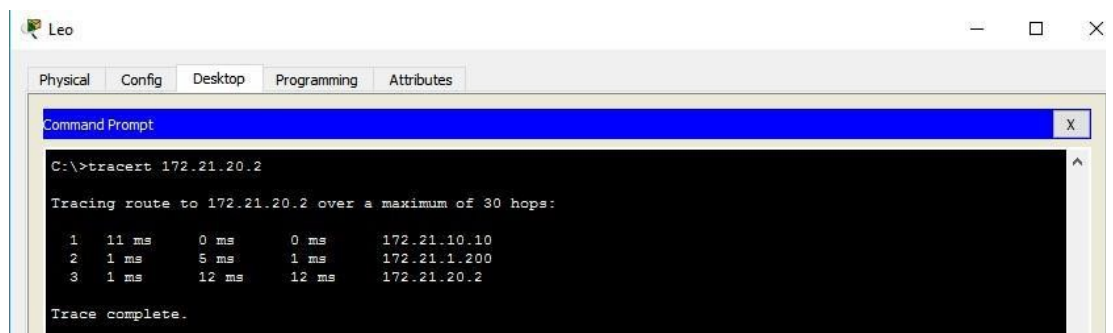
```
C:\>ping 172.21.20.2

Pinging 172.21.20.2 with 32 bytes of data:

Reply from 172.21.20.2: bytes=32 time=2ms TTL=126
Reply from 172.21.20.2: bytes=32 time=13ms TTL=126
Reply from 172.21.20.2: bytes=32 time=5ms TTL=126
Reply from 172.21.20.2: bytes=32 time=7ms 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 = 2ms, Maximum = 13ms, Average = 6ms
```

➤ Trace PC Leo ke PC Aries **JELASKAN**



Leo

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

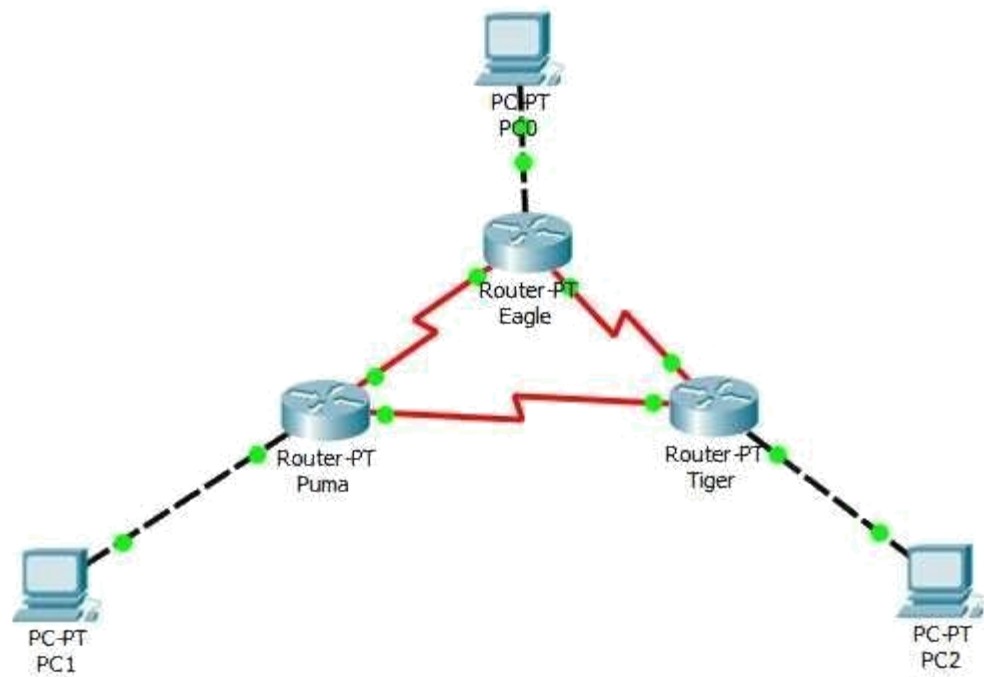
  0  11 ms    0 ms    0 ms    172.21.10.10
  1  1 ms     5 ms    1 ms    172.21.1.200
  2  1 ms    12 ms   12 ms   172.21.20.2

Trace complete.
```

ACTIVITY 2

A. Membuka topologi kegiatan 1

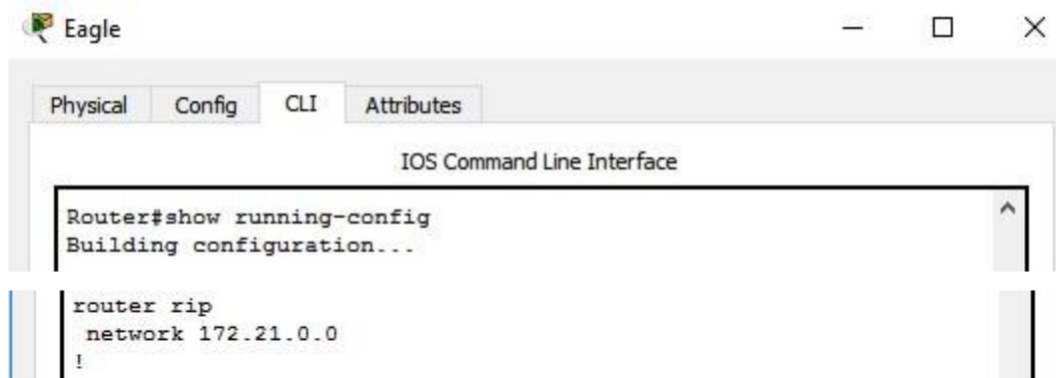
B. Load konfigurasi seluruh device yang disimpan pada langkah 6 kegiatan 1



C. Konfigurasi routing RIP pada router Eagle

```
Eagle
Physical Config CLI Attributes
IOS Command Line Interface
Router>enable
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
```

D. Melihat konfigurasi routing RIP

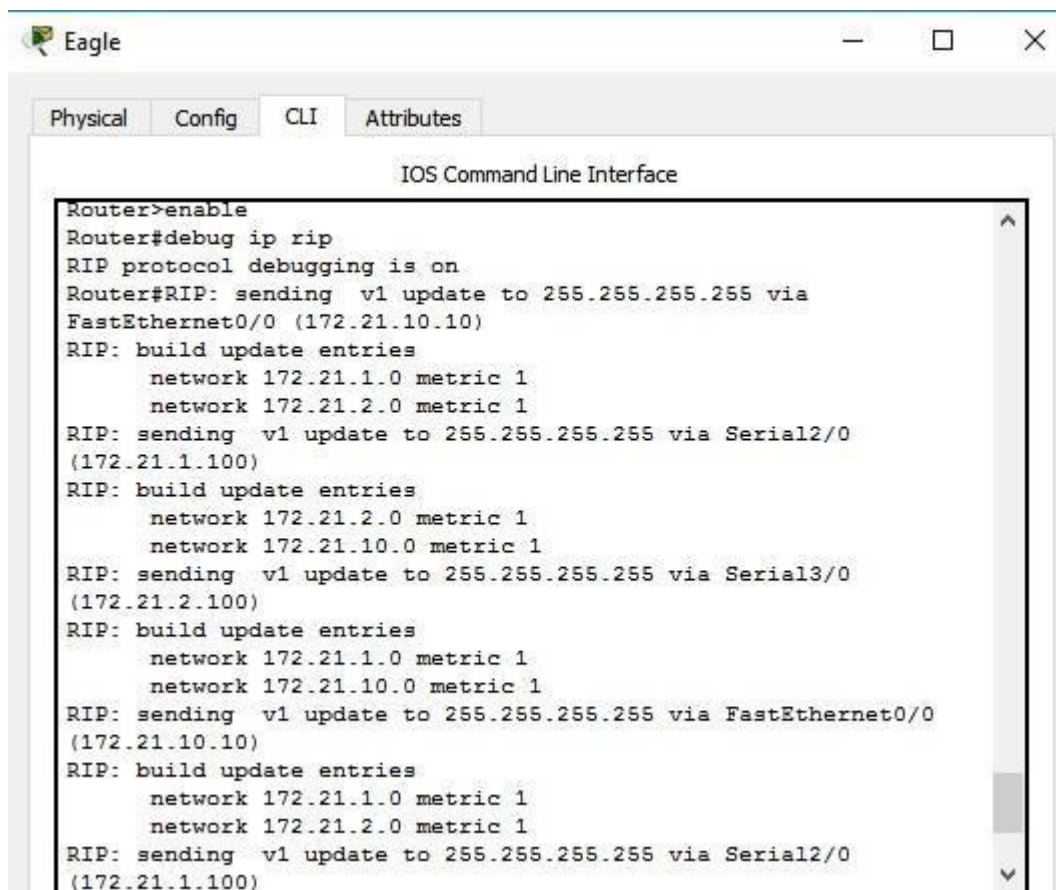


```
Router#show running-config
Building configuration...

router rip
 network 172.21.0.0
!
```

- ❖ **Tugas 4A** . Nomer alamat jaringan yang terdaftar pada konfigurasi routing RIP
172.21.0.0
- ❖ **Tugas 4B** . Mengapa alamat jaringan yang terhubung dengan interface e0, s0, dan s1 tidak didaftarkan ke konfigurasi routing RIP **GATAU**

E. Proses update routing RIP



```
Router>enable
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
(172.21.1.100)
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
(172.21.2.100)
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
(172.21.1.100)
```

```

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
(172.21.2.100)
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
(172.21.1.100)
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
(172.21.2.100)
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

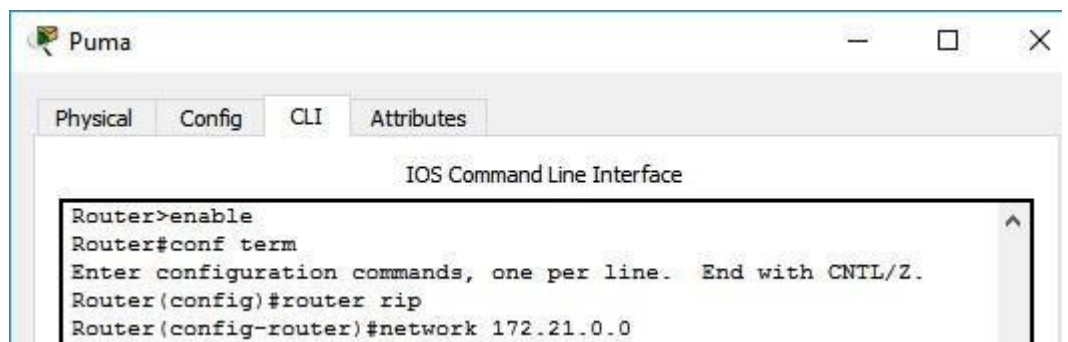
```

❖ **Tugas 54** : Penjelasan singkat proses update routing RIP

F. Konfigurasi routing RIP pada puma dan tiger

➤ PUMA

- Konfigurasi routing RIP



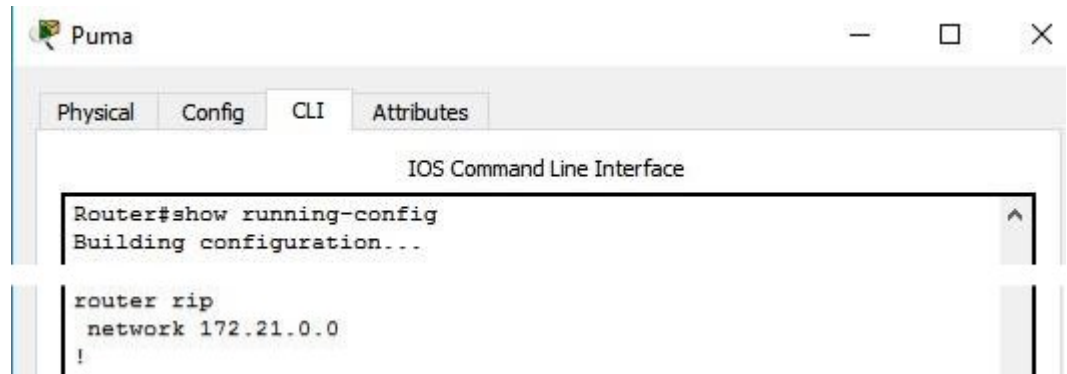
The screenshot shows a window titled 'Puma' with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The commands entered are:

```

Router>enable
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

```

- Melihat konfigurasi routing RIP

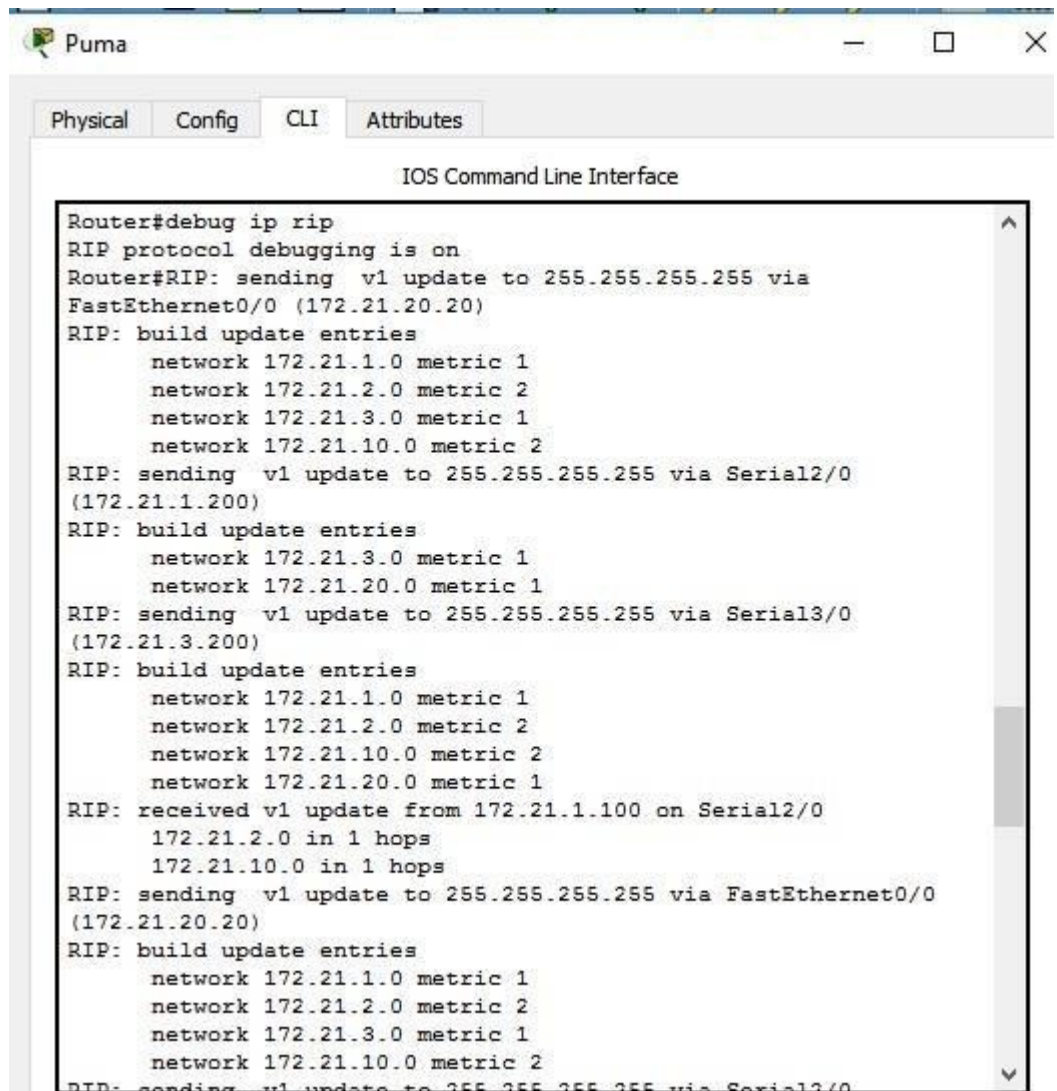


The image shows a Puma window with a tabbed interface. The 'CLI' tab is selected, displaying the 'IOS Command Line Interface'. The text in the terminal shows the command 'Router#show running-config' and its output, which includes 'router rip' and 'network 172.21.0.0'.

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

router rip
 network 172.21.0.0
!
```

- Update routing RIP



The image shows a Puma window with a tabbed interface. The 'CLI' tab is selected, displaying the 'IOS Command Line Interface'. The text in the terminal shows the command 'Router#debug ip rip' and its output, which includes 'RIP protocol debugging is on' and several lines of debug output showing RIP updates and build update entries.

```
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
(172.21.1.200)
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
(172.21.3.200)
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 172.21.1.100 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
```



```
RIP: sending v1 update to 255.255.255.255 via Serial3/0
(172.21.3.200)
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 172.21.1.100 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
(172.21.1.200)
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
(172.21.3.200)
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 172.21.1.100 on Serial2/0
    172.21.2.0 in 1 hops
    172.21.10.0 in 1 hops
```

➤ TIGER

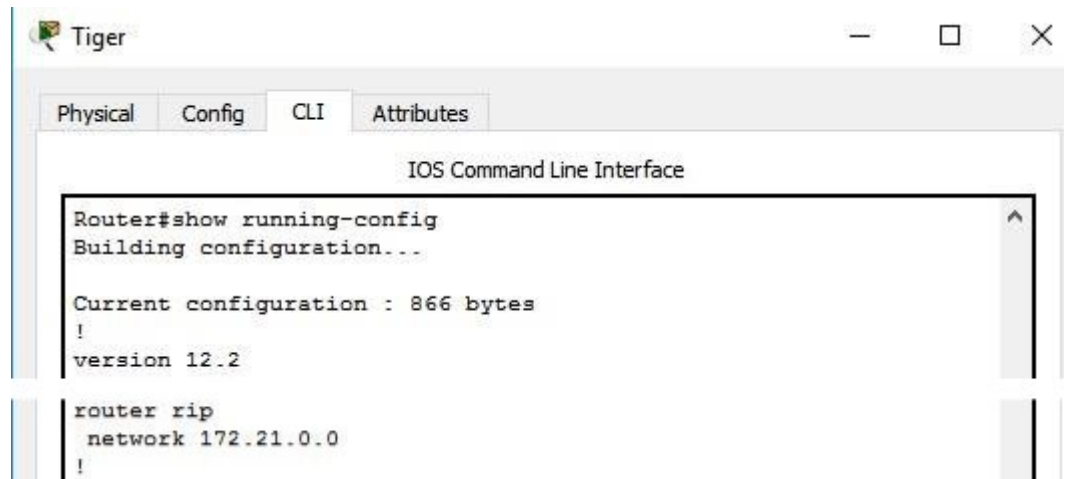
- Konfigurasi routing RIP



The screenshot shows the TIGER network simulator window. The 'CLI' tab is selected, displaying the 'IOS Command Line Interface'. The command sequence entered is as follows:

```
Router>enable
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
```

- Melihat konfigurasi routing RIP



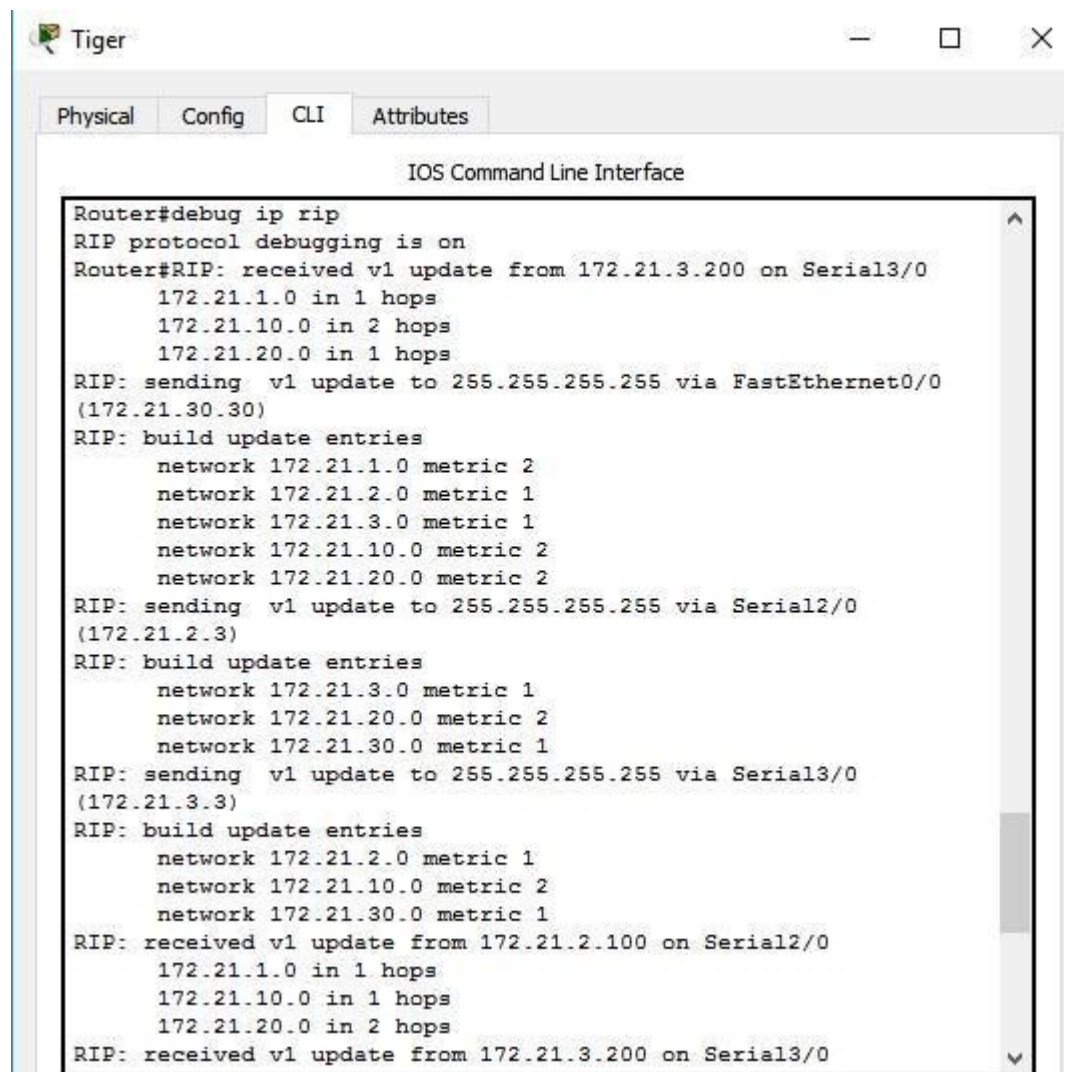
The screenshot shows a window titled 'Tiger' with four tabs: 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is active, displaying the 'IOS Command Line Interface'. The text in the terminal is as follows:

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

Current configuration : 866 bytes
!
version 12.2

router rip
 network 172.21.0.0
!
```

- Update routing RIP

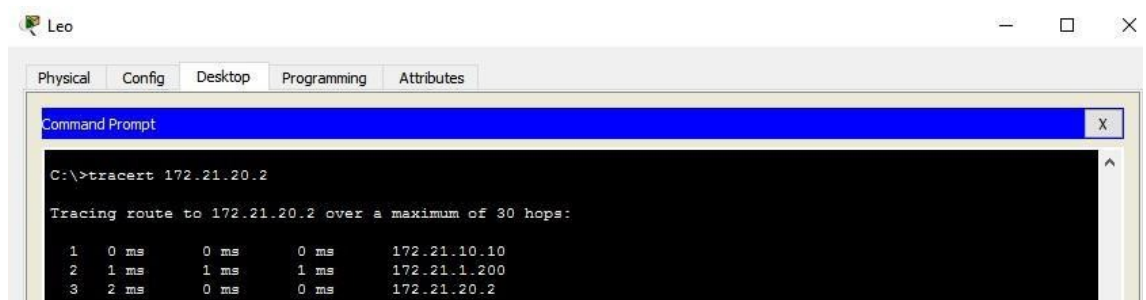


The screenshot shows the same 'Tiger' window with the 'CLI' tab active. The terminal displays the output of the 'debug ip rip' command, showing the router's internal routing updates and received updates from neighbors.

```
Router#debug ip rip
RIP protocol debugging is on
Router#RIP: received v1 update from 172.21.3.200 on Serial3/0
  172.21.1.0 in 1 hops
  172.21.10.0 in 2 hops
  172.21.20.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0
(172.21.30.30)
RIP: build update entries
  network 172.21.1.0 metric 2
  network 172.21.2.0 metric 1
  network 172.21.3.0 metric 1
  network 172.21.10.0 metric 2
  network 172.21.20.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0
(172.21.2.3)
RIP: build update entries
  network 172.21.3.0 metric 1
  network 172.21.20.0 metric 2
  network 172.21.30.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0
(172.21.3.3)
RIP: build update entries
  network 172.21.2.0 metric 1
  network 172.21.10.0 metric 2
  network 172.21.30.0 metric 1
RIP: received v1 update from 172.21.2.100 on Serial2/0
  172.21.1.0 in 1 hops
  172.21.10.0 in 1 hops
  172.21.20.0 in 2 hops
RIP: received v1 update from 172.21.3.200 on Serial3/0
```

```
RIP: sending v1 update to 255.255.255.255 via Serial3/0
(172.21.3.3)
RIP: build update entries
    network 172.21.2.0 metric 1
    network 172.21.10.0 metric 2
    network 172.21.30.0 metric 1
RIP: received v1 update from 172.21.2.100 on Serial2/0
    172.21.1.0 in 1 hops
    172.21.10.0 in 1 hops
    172.21.20.0 in 2 hops
RIP: received v1 update from 172.21.3.200 on Serial3/0
    172.21.1.0 in 1 hops
    172.21.10.0 in 2 hops
    172.21.20.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0
(172.21.30.30)
RIP: build update entries
    network 172.21.1.0 metric 2
    network 172.21.2.0 metric 1
    network 172.21.3.0 metric 1
    network 172.21.10.0 metric 2
    network 172.21.20.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0
(172.21.2.3)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 2
    network 172.21.30.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0
(172.21.3.3)
RIP: build update entries
```

G. Tracert PC Leo ke PC Aries

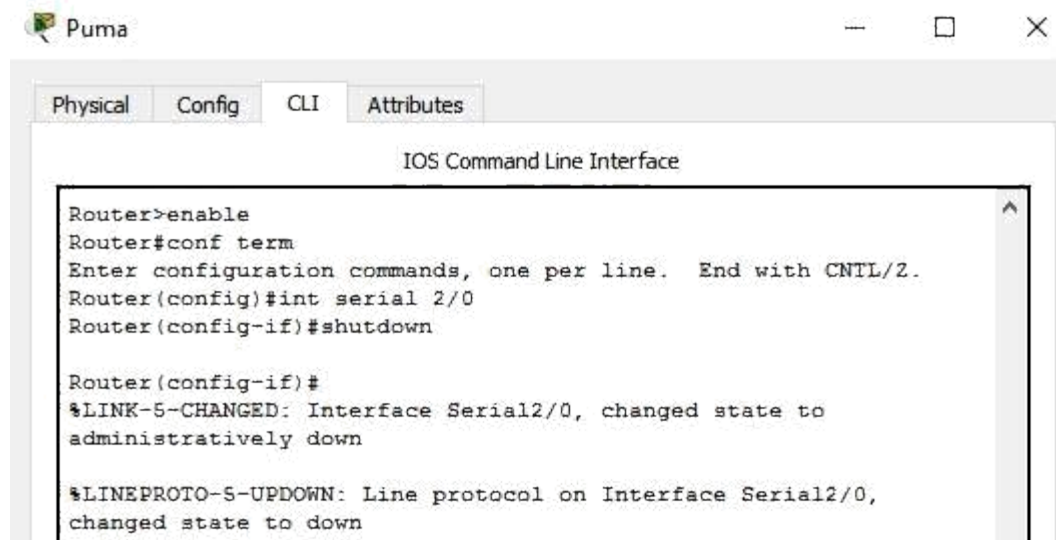


```
Leo
Physical Config Desktop Programming Attributes
Command Prompt
C:\>tracert 172.21.20.2

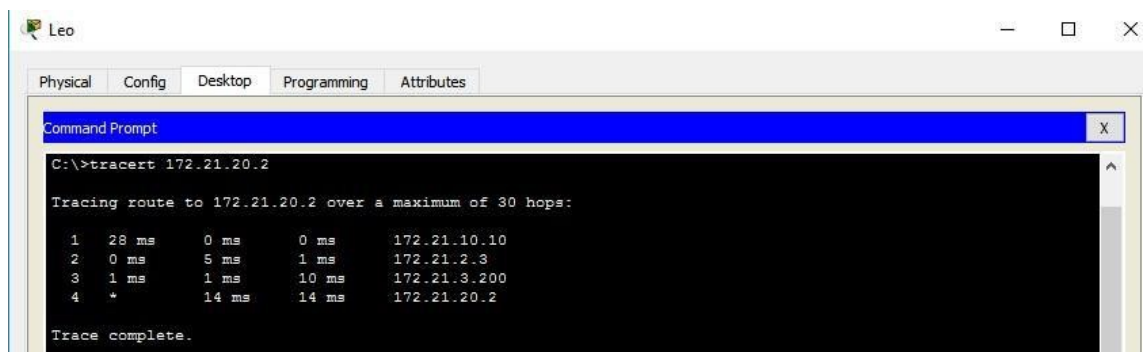
Tracing route to 172.21.20.2 over a maximum of 30 hops:

  1  0 ms    0 ms    0 ms    172.21.10.10
  2  1 ms    1 ms    1 ms    172.21.1.200
  3  2 ms    0 ms    0 ms    172.21.20.2
```

H. Memutus hubungan antara router Eagle dan Puma

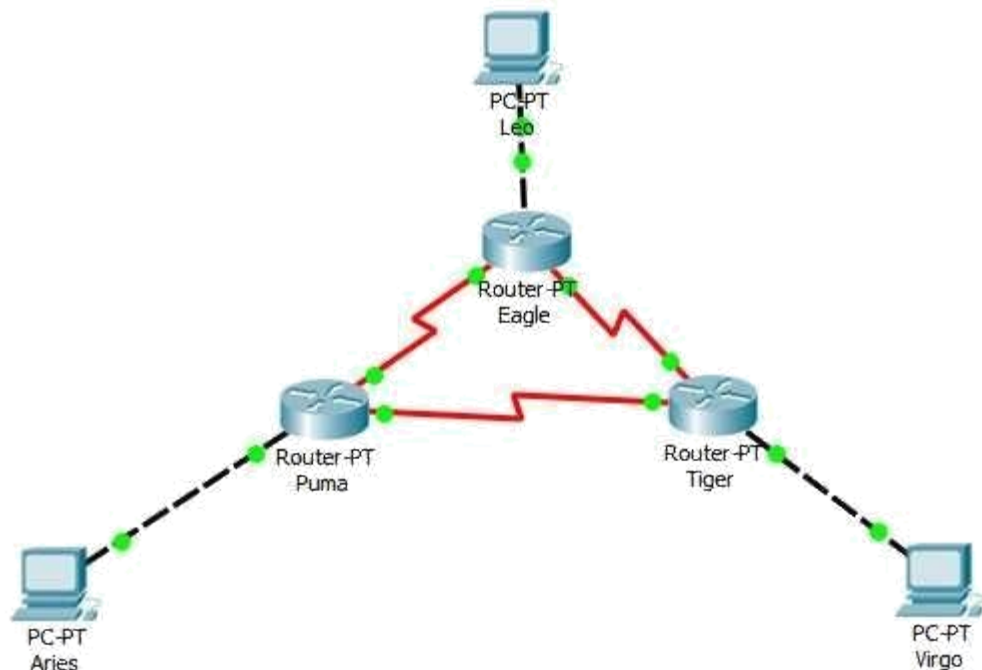


I. Tracert PC Leo ke PC Aries



ACTIVITY 3

- A. Membuka topologi kegiatan 1
- B. Load konfigurasi seluruh device yang disimpan pada langkah 6 kegiatan 1



C. Konfigurasi routing RIP pada router eagle

```

Eagle
Physical Config CLI Attributes
IOS Command Line Interface
Router>enable
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
  
```

D. Melihat konfigurasi routing RIP

```

Eagle
Physical Config CLI Attributes
IOS Command Line Interface
router eigrp 100
network 172.21.0.0
auto-summary
!
router rip
network 172.21.0.0
!
  
```

E. Melihat transaksi routing IGRP

F. Gatau

G. Routing IGRP pada router Puma dan Tiger

➤ PUMA

- **Konfigurasi routing RIP**
 - **Melihat konfigurasi routing RIP**
 - **Melihat transaksi routing IGRP**
- **TIGER**

- **Konfigurasi routing RIP**
- **Melihat konfigurasi routing RIP**
- **Melihat transaksi routing IGRP**

H. Trace PC Leo ke PC Aries

I. Memutus hubungan antara router Eagle dan Puma

J. Trace PC Leo ke PC Aries