

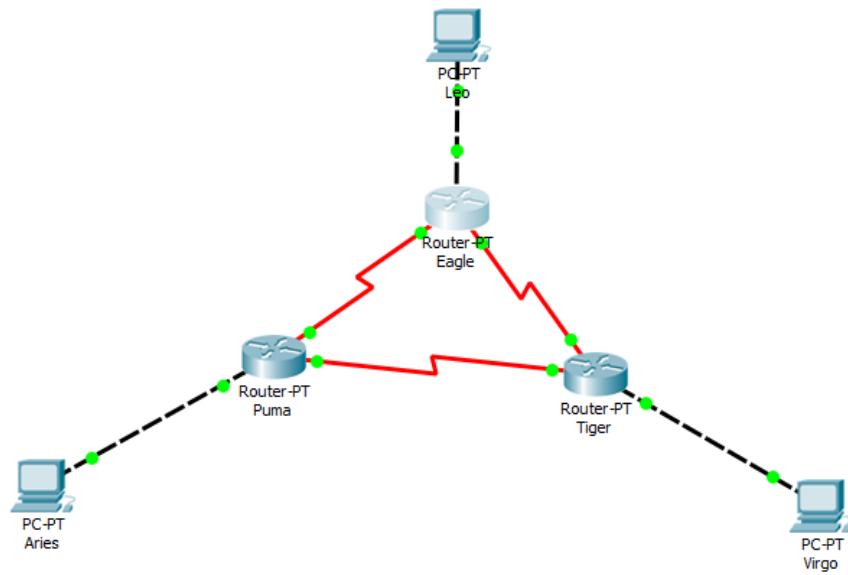
NAMA : WINDI SAPUTRI

NIM : L200170115

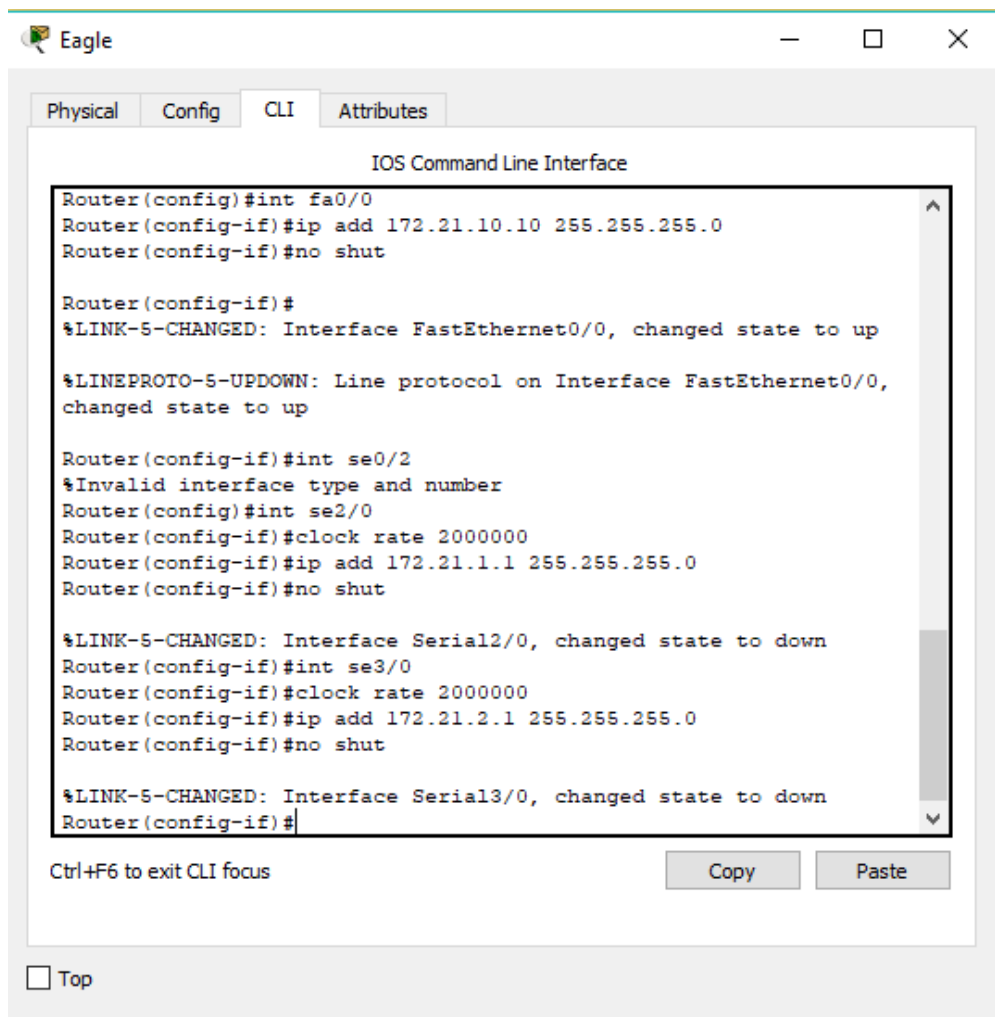
KELAS : C

MODUL 7

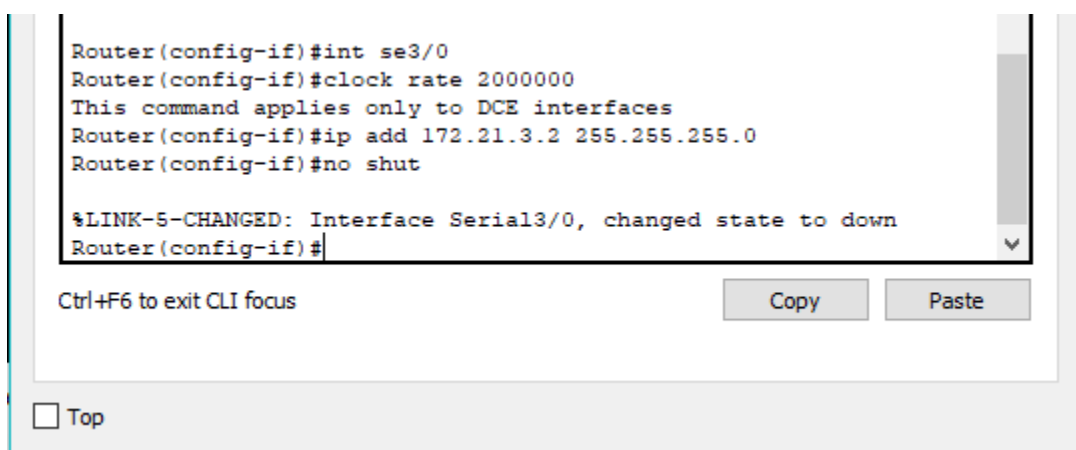
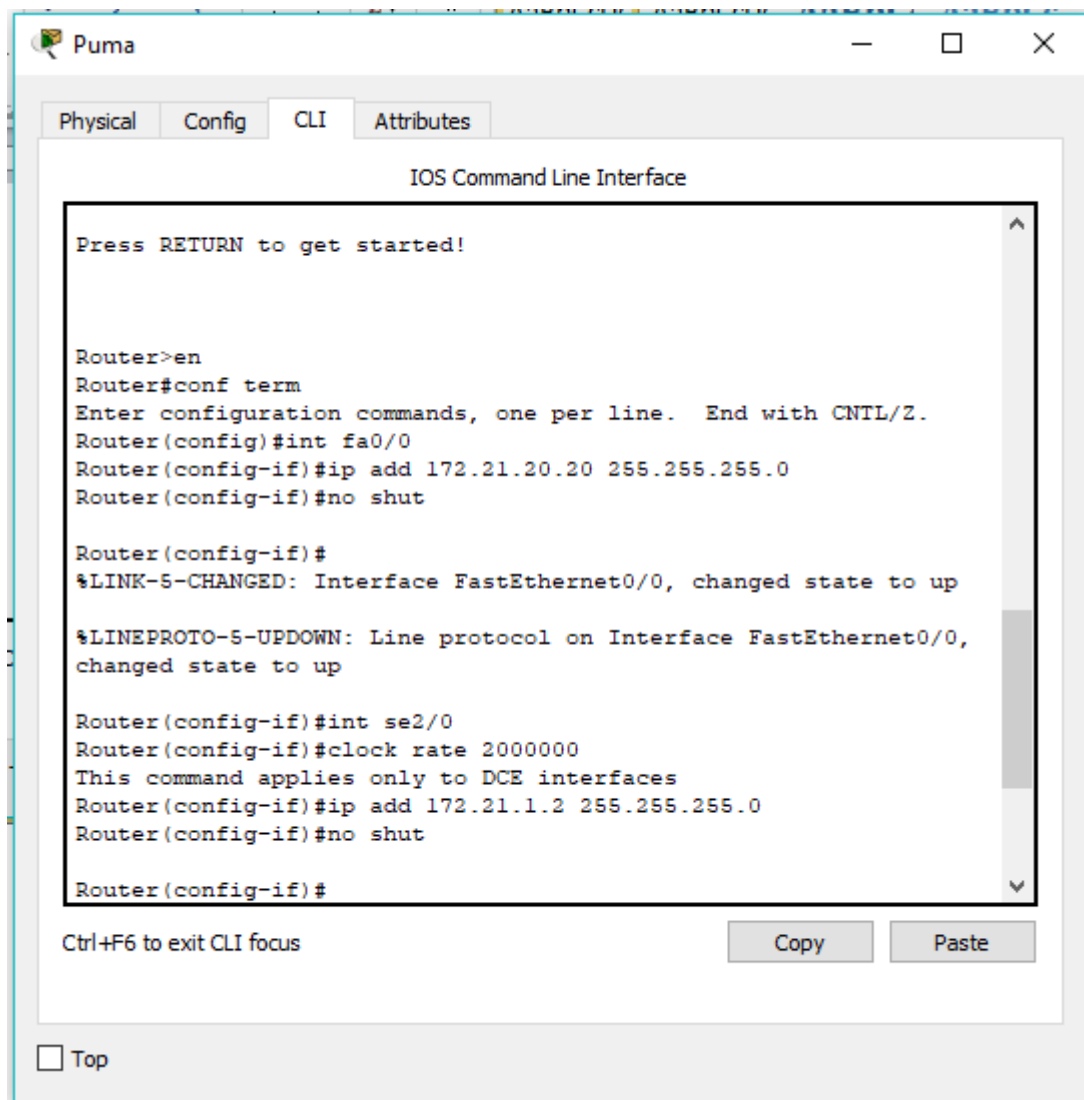
KEGIATAN 1.



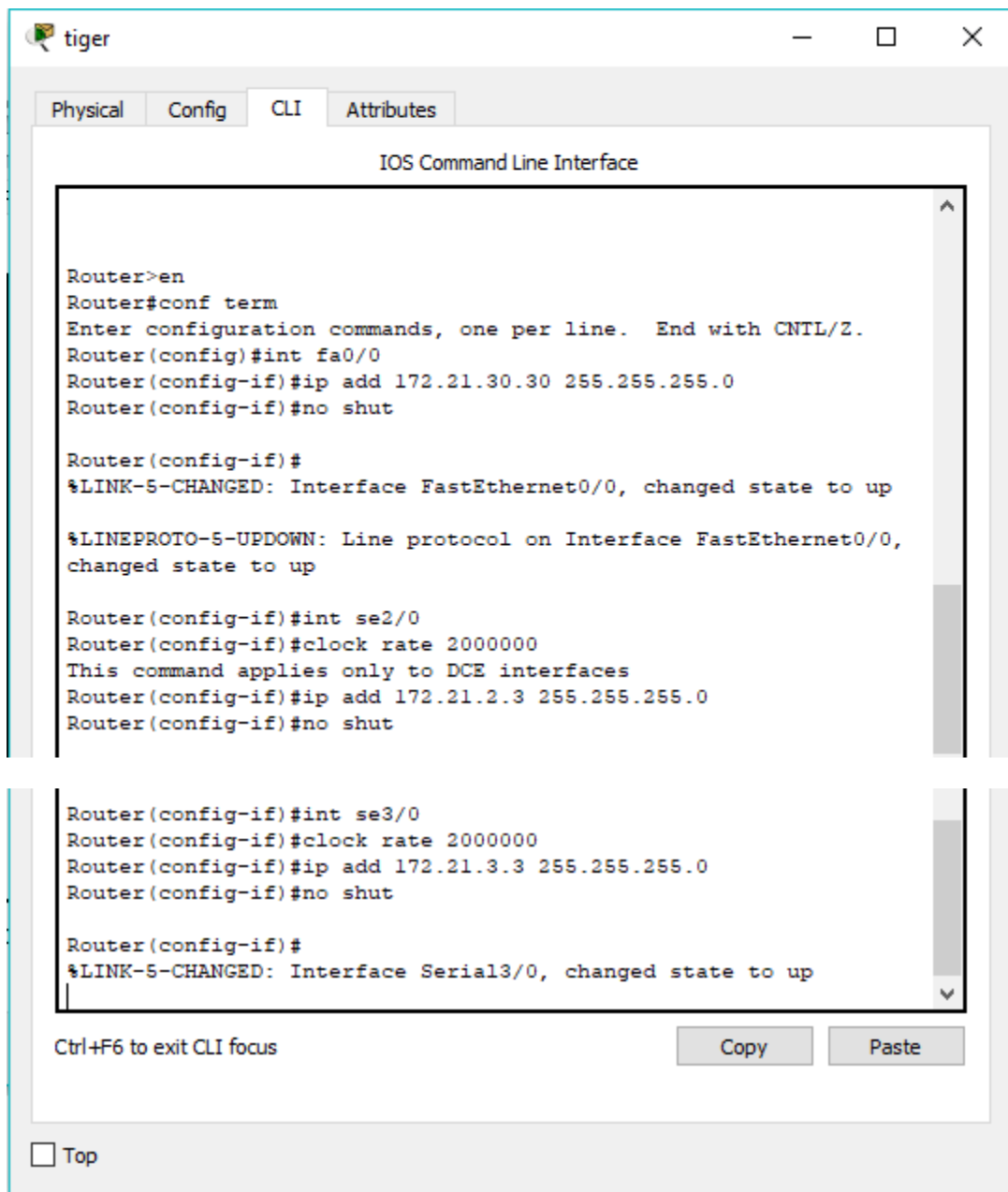
1. KONFIGURASI ROUTER EAGLE



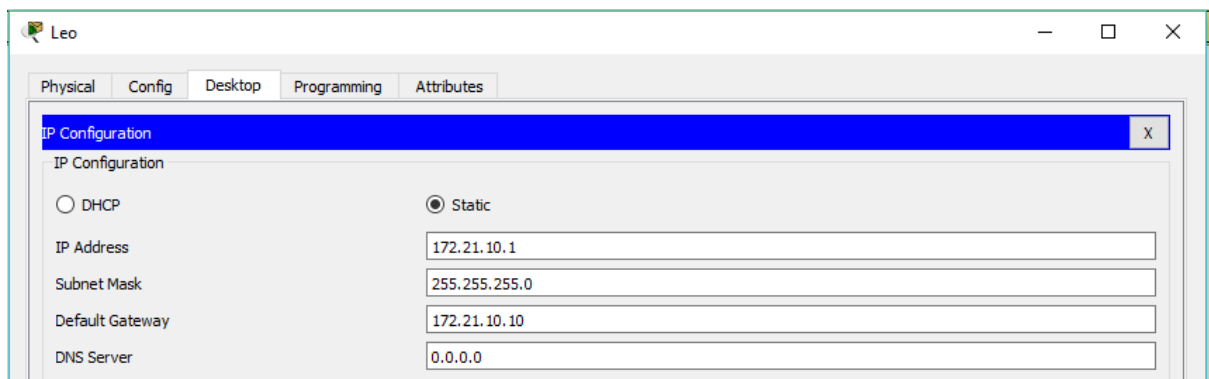
2. KONFIGURASI ROUTER PUMA



3. KONFIGURASI ROUTER TIGER



4. KONFIGURASI PC



Leo

Physical Config Desktop Programming Attributes

IP Configuration X

IP Configuration

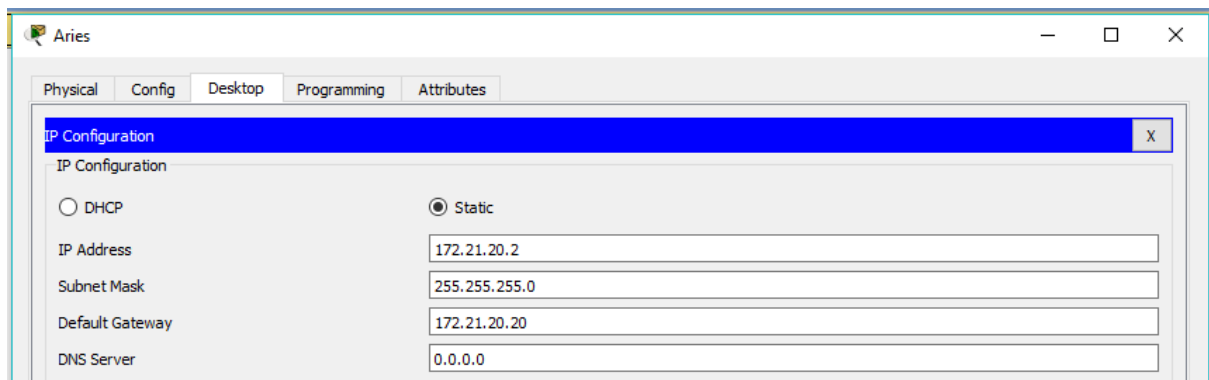
☐ DHCP ☒ Static

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

Physical Config Desktop Programming Attributes

IP Configuration X

IP Configuration

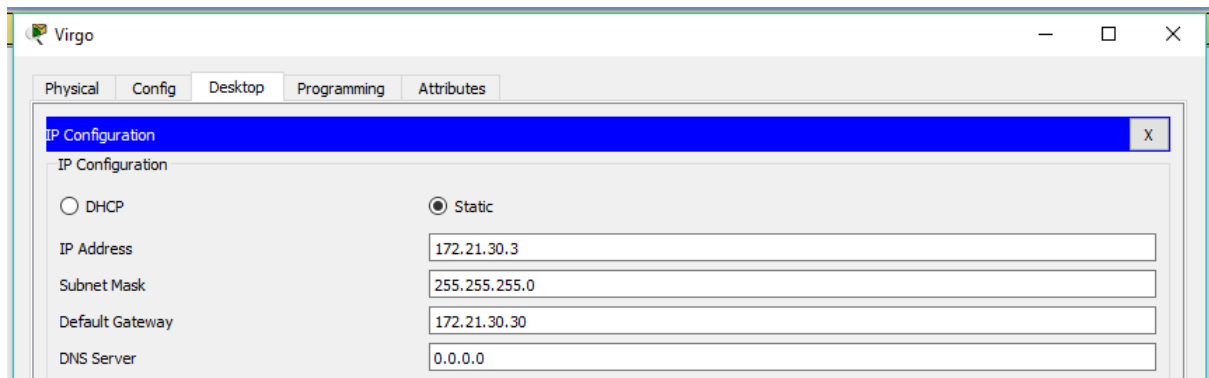
☐ DHCP ☒ Static

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

Physical Config Desktop Programming Attributes

IP Configuration X

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.30.3

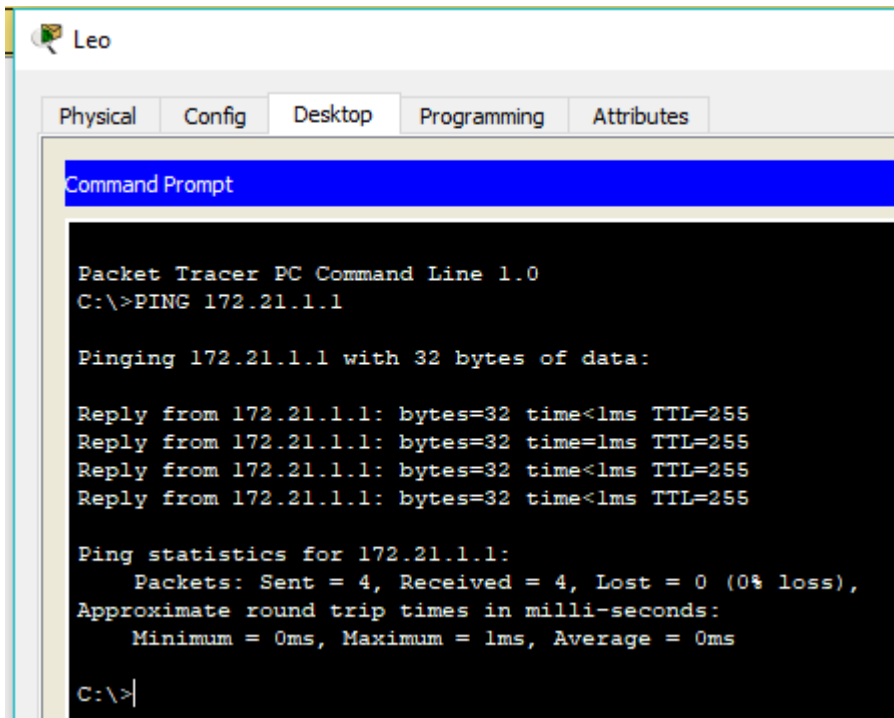
Subnet Mask 255.255.255.0

Default Gateway 172.21.30.30

DNS Server 0.0.0.0

5. LAKUKAN PING

- DARI LEO KE ROUTER EAGLE



The screenshot shows the Packet Tracer interface for a PC named 'Leo'. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command prompt shows the execution of the 'ping' command to the IP address 172.21.1.1. The output indicates that all four packets were successfully received with 0% loss.

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

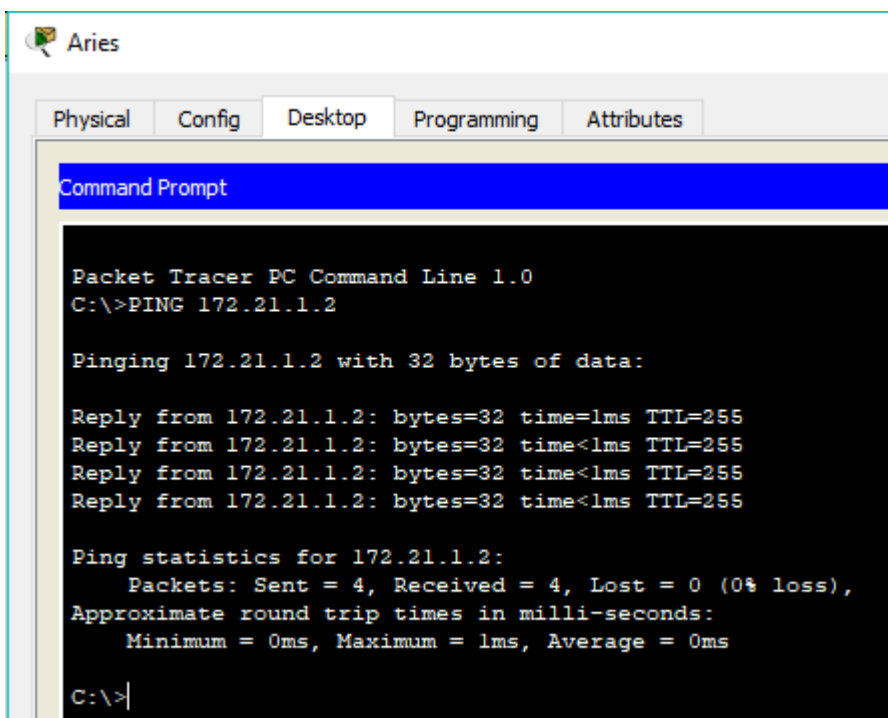
Pinging 172.21.1.1 with 32 bytes of data:

Reply from 172.21.1.1: bytes=32 time<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:\>|
```

- DARI PC ARIES KE ROUTER PUMA



The screenshot shows the Packet Tracer interface for a PC named 'Aries'. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command prompt shows the execution of the 'ping' command to the IP address 172.21.1.2. The output indicates that all four packets were successfully received with 0% loss.

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

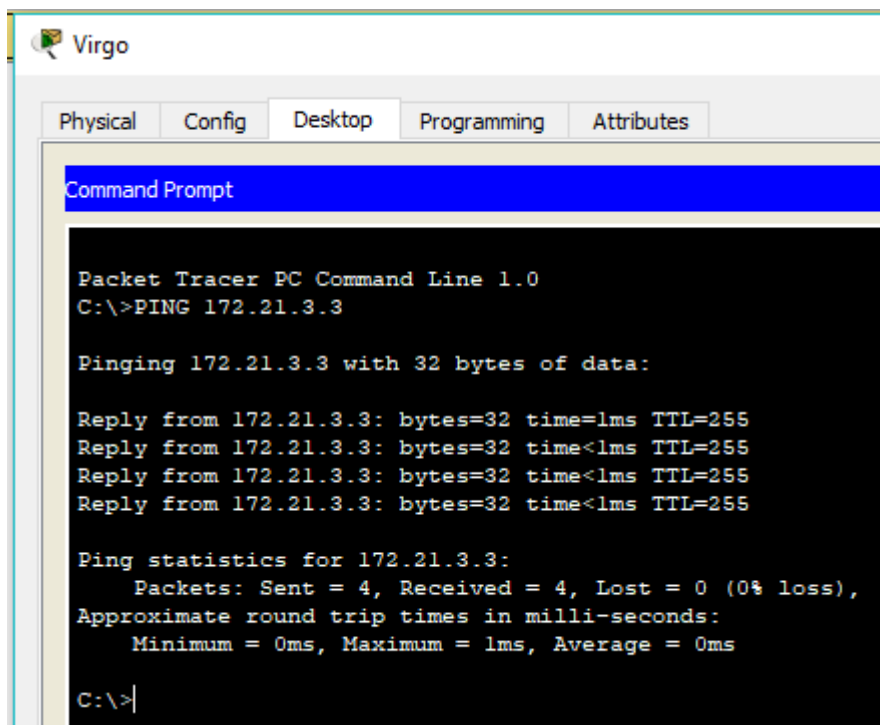
Pinging 172.21.1.2 with 32 bytes of data:

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

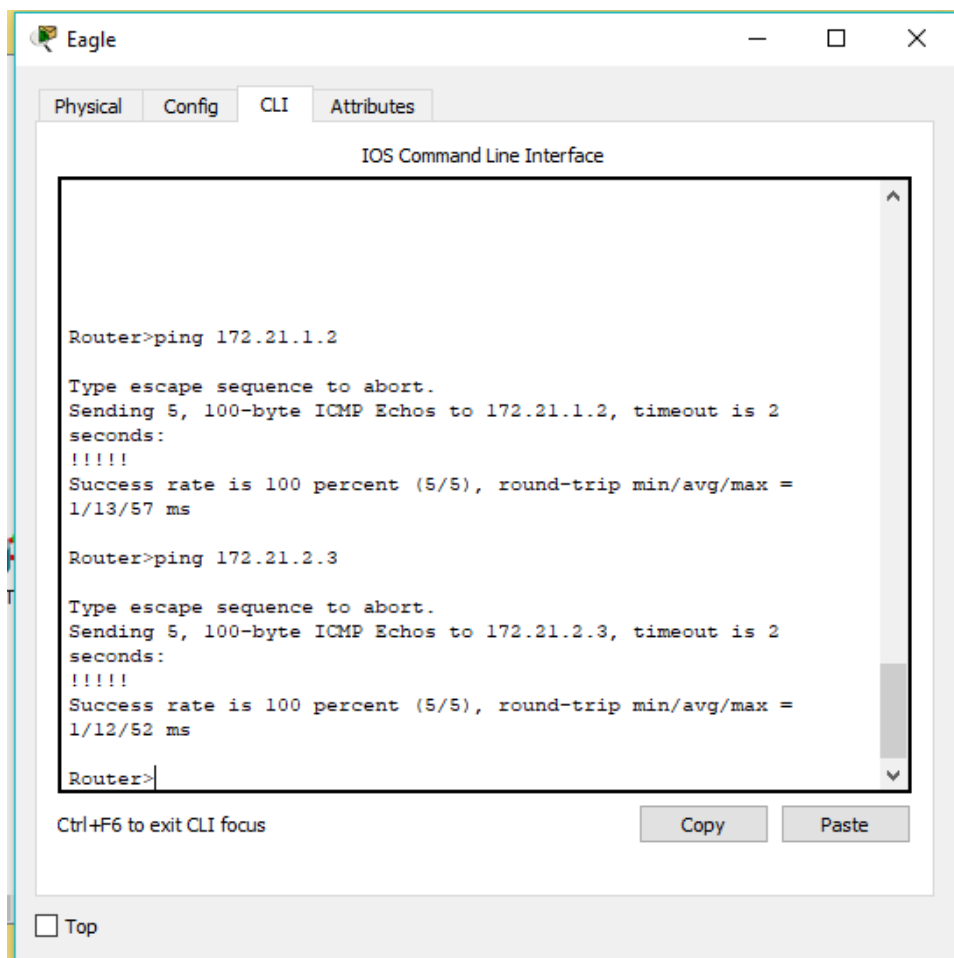
Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|
```

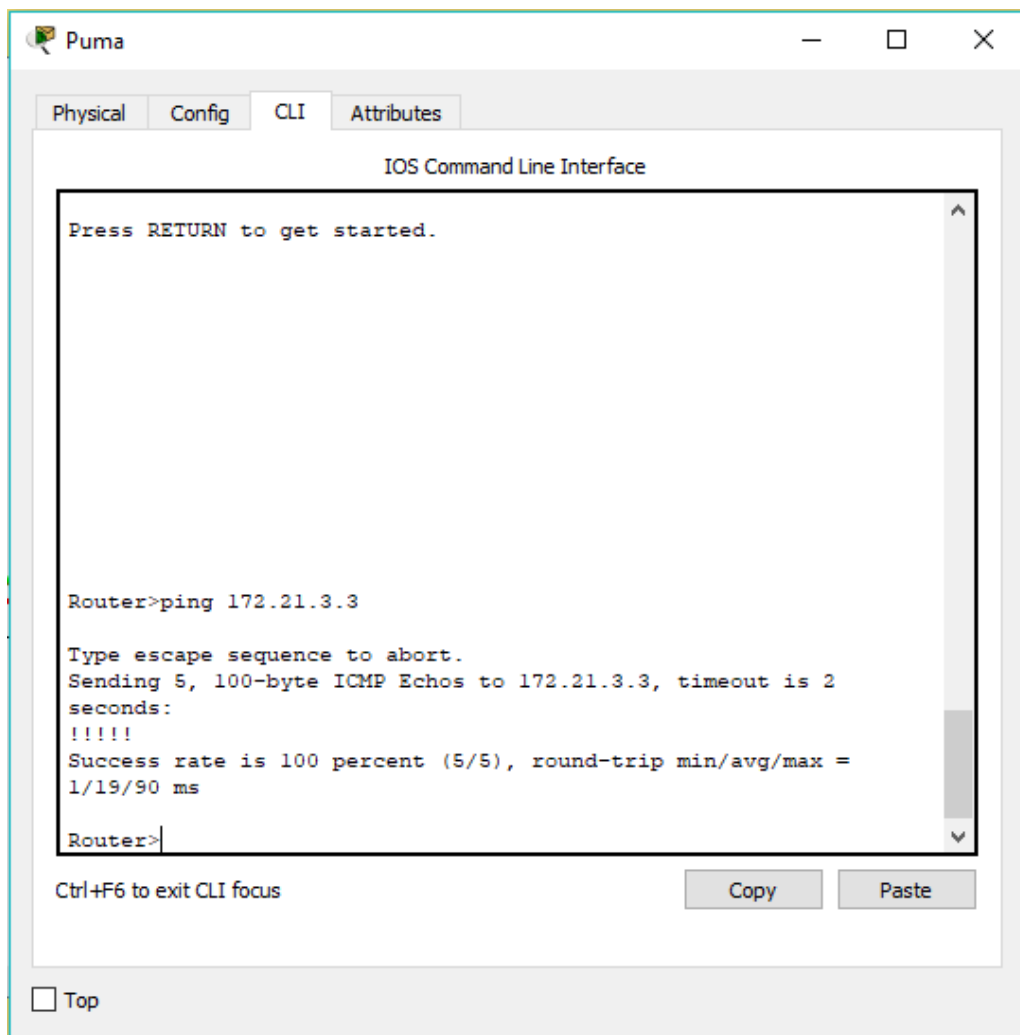
- DARI PC VIRGO KE ROUTER TIGER



- DARI ROUTER EAGLE KE ROUTER PUMA DAN TIGER

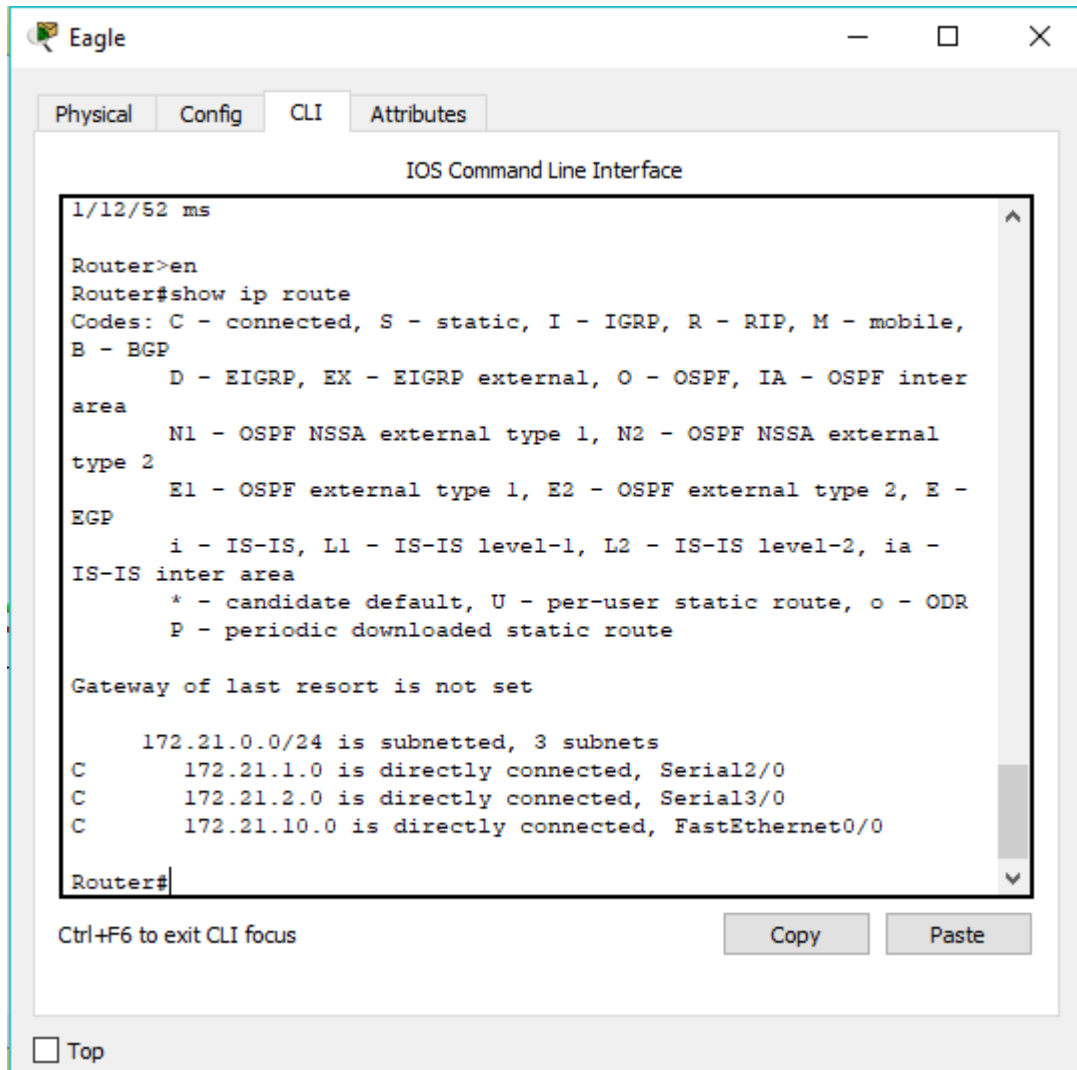


- DARI ROUTER PUMA KE ROUTER TIGER



6. IP ROUTE

7A. HASIL TAMPILAN MASING – MASING ROUTER



```
1/12/52 ms

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

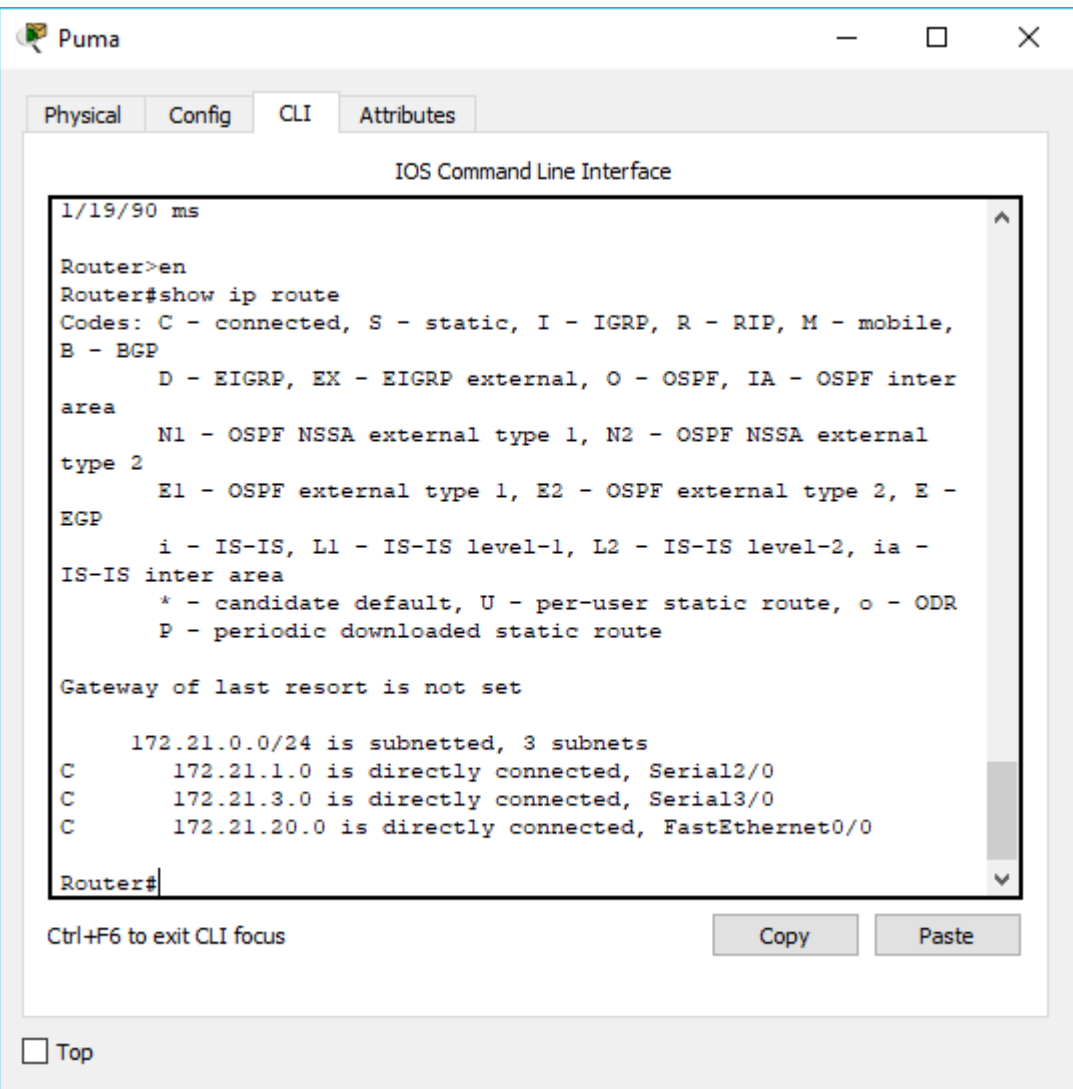
Gateway of last resort is not set

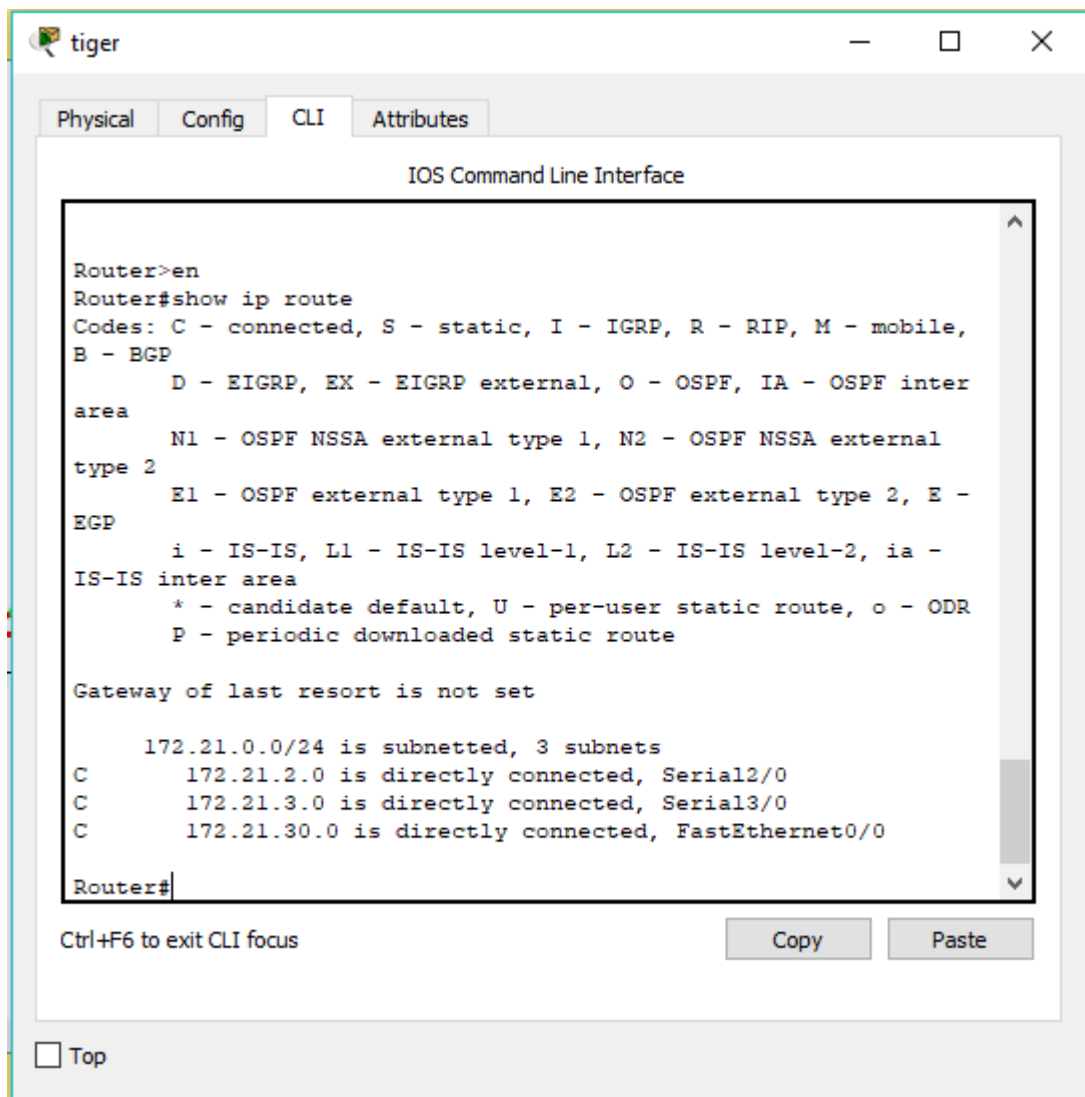
      172.21.0.0/24 is subnetted, 3 subnets
C       172.21.1.0 is directly connected, Serial2/0
C       172.21.2.0 is directly connected, Serial3/0
C       172.21.10.0 is directly connected, FastEthernet0/0
Router#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top





8A. PING DARI ROUTER EAGLE KE ALAMAT INTERFACE(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#
```

9A. DARI PC LEO MELAKUKAN TRACE KE PC ARIES

Leo

Physical Config Desktop Programming Attributes

Command Prompt

Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 59ms, Average = 15ms

C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

1	0 ms	0 ms	1 ms	172.21.10.10
2	0 ms	*	0 ms	172.21.10.10
3	*	0 ms	*	Request timed out.
4	1 ms	*	0 ms	172.21.10.10
5	*	0 ms	*	Request timed out.
6	1 ms	*	1 ms	172.21.10.10
7	*	0 ms	*	Request timed out.
8	0 ms	*	0 ms	172.21.10.10
9	*	2 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	*	1 ms	*	Request timed out.
18	0 ms	*	0 ms	172.21.10.10
19	*	0 ms	*	Request timed out.
20	1 ms	*	1 ms	172.21.10.10
21	*	0 ms	*	Request timed out.
22	4 ms	*	1 ms	172.21.10.10
23	*	0 ms	*	Request timed out.
24	0 ms	*	0 ms	172.21.10.10
25	*	0 ms	*	Request timed out.
26	1 ms	*	0 ms	172.21.10.10
27	*	1 ms	*	Request timed out.
28	1 ms	*	0 ms	172.21.10.10
29	*	1 ms	*	Request timed out.
30	0 ms	*	0 ms	172.21.10.10

Trace complete.

C:\>

☐ Top

10A. DARI PC LEO MELAKUKAN TRACE KE ALAMAT INTERFACE 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:\>
```

☐ Top

11A. PENAMBAHAN ROUTER TABLE

- 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)#
```

- PUMA

```
Router(config)#conf term
%Invalid hex value
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)#
```

Ctrl+F6 to exit CLI focus

Copy Paste

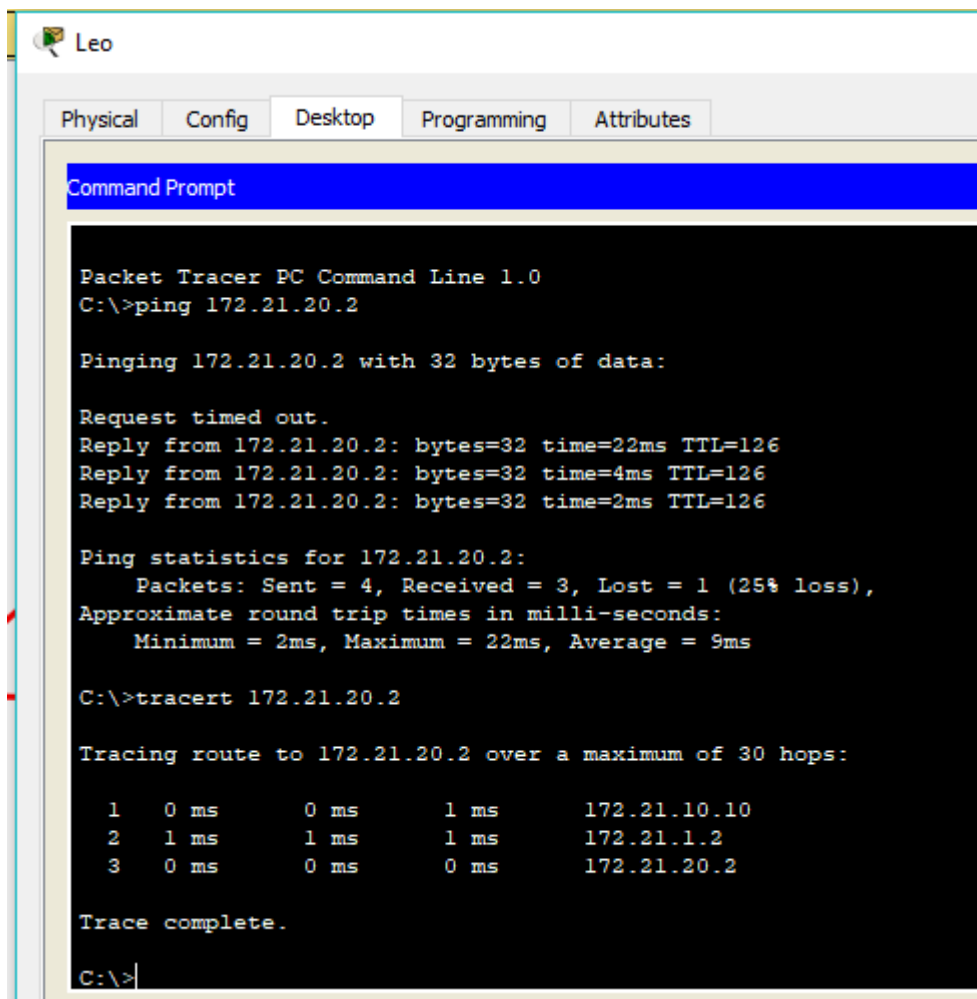
- TIGER

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

Ctrl+F6 to exit CLI focus

Copy Paste

12A. PING DARI PC LEO KE PC ARIES DAN TRACE



The screenshot shows the Command Prompt window for PC Leo in Packet Tracer. The window has tabs for Physical, Config, Desktop, Programming, and Attributes. The Desktop tab is active, showing a Command Prompt titled "Command Prompt". The prompt displays the output of the following commands:

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.20.2

Pinging 172.21.20.2 with 32 bytes of data:

Request timed out.
Reply from 172.21.20.2: bytes=32 time=22ms TTL=126
Reply from 172.21.20.2: bytes=32 time=4ms TTL=126
Reply from 172.21.20.2: bytes=32 time=2ms TTL=126

Ping statistics for 172.21.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 22ms, Average = 9ms

C:\>tracert 172.21.20.2

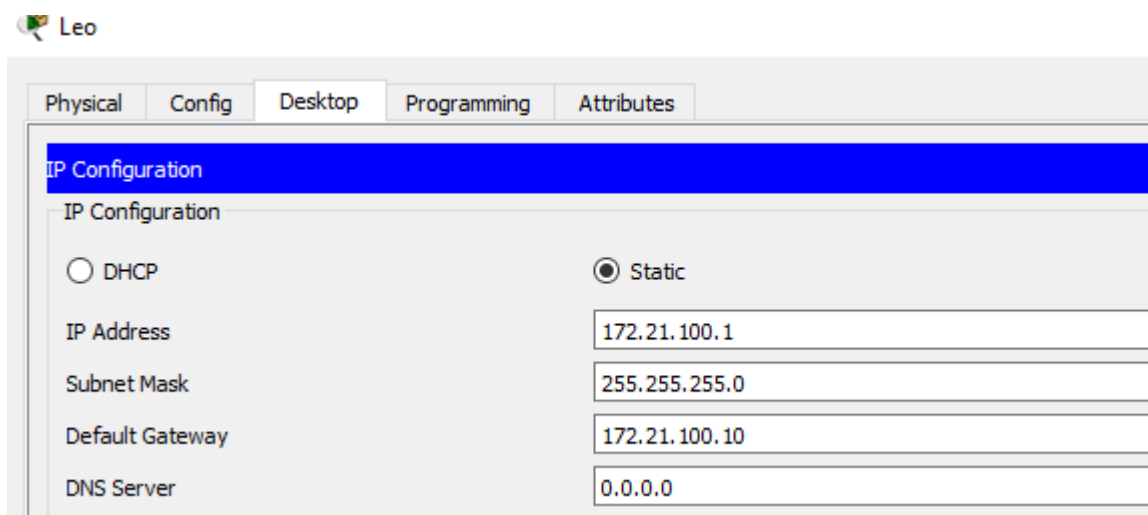
Tracing route to 172.21.20.2 over a maximum of 30 hops:

  1  0 ms    0 ms    1 ms    172.21.10.10
  2  1 ms    1 ms    1 ms    172.21.1.2
  3  0 ms    0 ms    0 ms    172.21.20.2

Trace complete.

C:\>
```

12B. MENGUBAH IP LEO MENJADI 172.21.100.1/24



The screenshot shows the IP Configuration window for PC Leo in Packet Tracer. The window has tabs for Physical, Config, Desktop, Programming, and Attributes. The Config tab is active, showing the IP Configuration section. The configuration is set to Static IP.

IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	172.21.100.1
Subnet Mask	255.255.255.0
Default Gateway	172.21.100.10
DNS Server	0.0.0.0

KONFIGURASI IP EAGLE TERBARU

```
Router(config-if)#conf term
%Invalid hex value
Router(config)#int fa0/0
Router(config-if)#ip add 172.21.100.10 255.255.255.0
Router(config-if)#no shut
Router(config-if)#
```

KONFIGURASI IP PUMA TERBARU

```
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.100.0 255.255.255.0 172.21.1.1
Router(config)#
```

Ctrl+F6 to exit CLI focus

Copy

Paste

KONFIGURASI IP TIGER TERBARU

```
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.100.0 255.255.255.0 172.21.2.1
Router(config)#
```

MELAKUKAN PING

- DARI LEO KE PUMA

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

C:\>
```

- DARI PUMA KE LEO

```
C:\>ping 172.21.100.1

Pinging 172.21.100.1 with 32 bytes of data:

Reply from 172.21.100.1: bytes=32 time=1ms TTL=126
Reply from 172.21.100.1: bytes=32 time=4ms TTL=126
Reply from 172.21.100.1: bytes=32 time=1ms TTL=126
Reply from 172.21.100.1: bytes=32 time=4ms TTL=126

Ping statistics for 172.21.100.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 4ms, Average = 2ms

C:\>
```


- DARI VIRGO KE LEO



```
Physical Config Desktop Programming Attributes
Command Prompt

Packet Tracer PC Command Line 1.0
C:\>ping 172.21.100.1

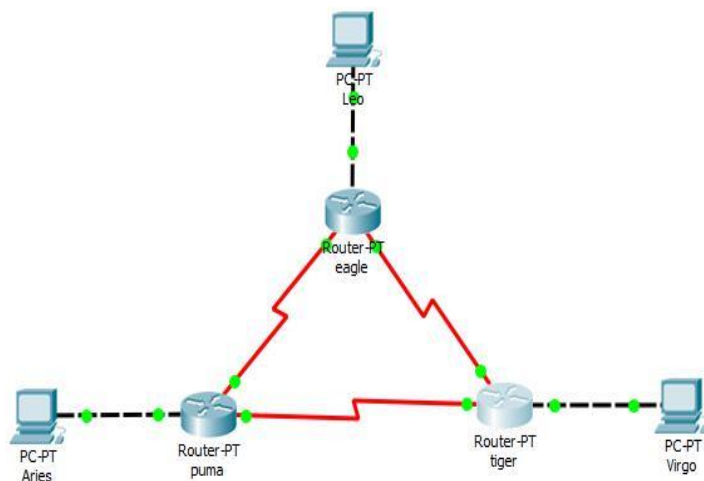
Pinging 172.21.100.1 with 32 bytes of data:

Reply from 172.21.100.1: bytes=32 time=2ms TTL=126
Reply from 172.21.100.1: bytes=32 time=1ms TTL=126
Reply from 172.21.100.1: bytes=32 time=1ms TTL=126
Reply from 172.21.100.1: bytes=32 time=1ms TTL=126

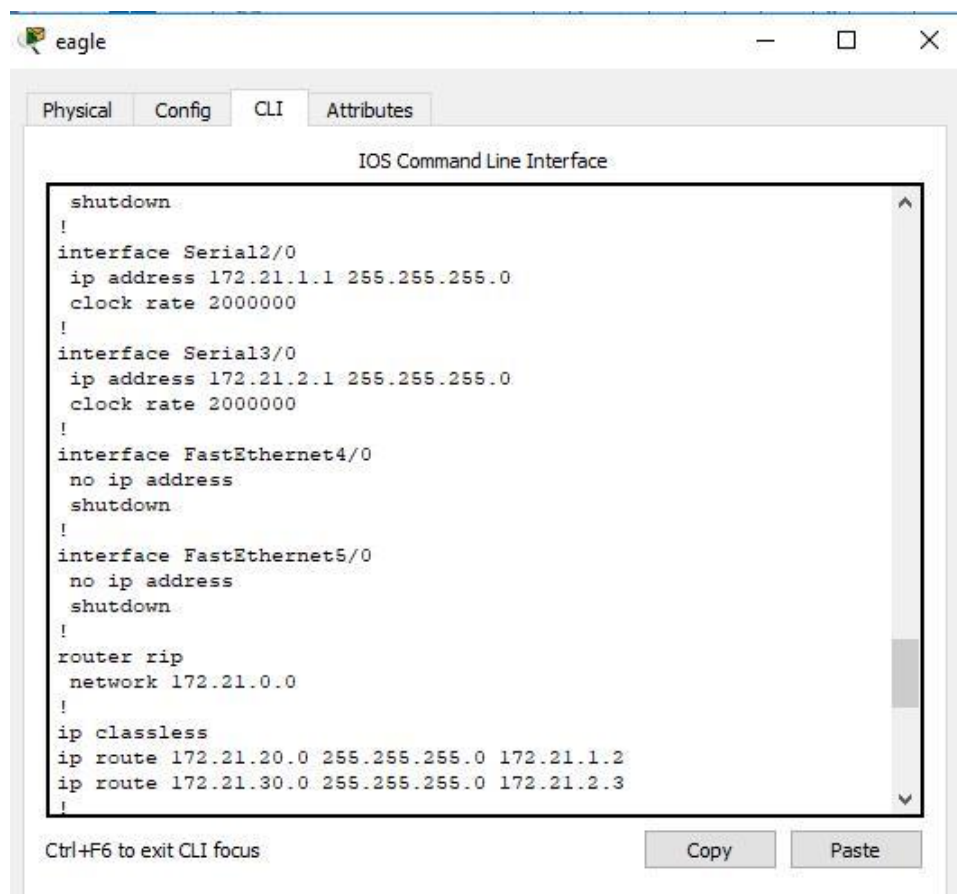
Ping statistics for 172.21.100.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>|
```

2. KEGIATAN2



3. NOMOR ALAMAT JARINGAN YANG TERDAFTAR PADA KONFIGURASI ROUTING RIP



4. DEBUG IP RIP

```
Router>en
Router#debug ip rip
RIP protocol debugging is on
Router#
```

5. TRACE DARI PC LEO KE PC ARIES SEBELUM MEMUTUS ROUTER EAGLE KE ROUTER PUMA

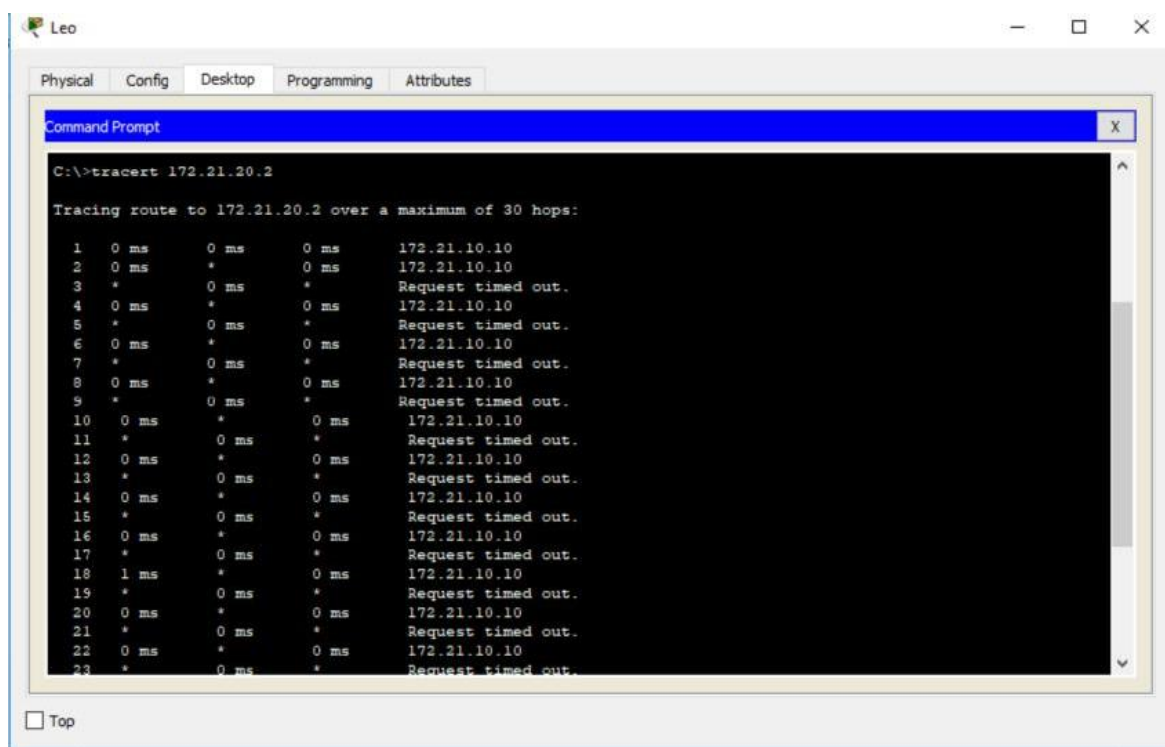
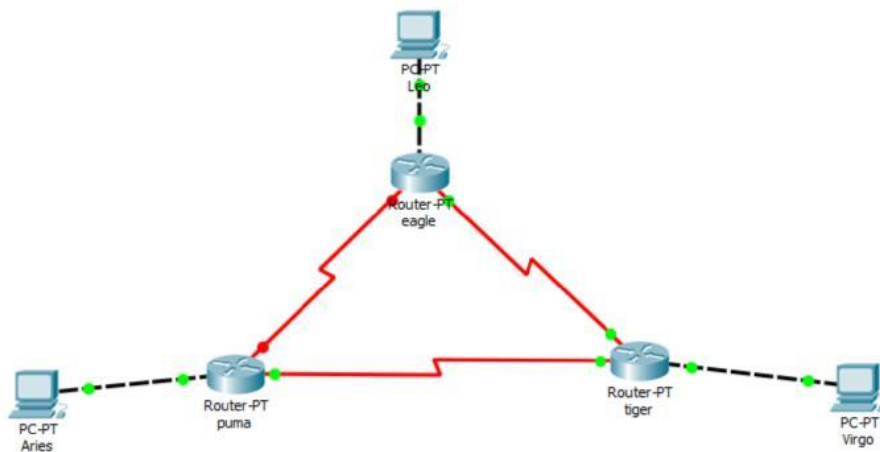
```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  1  3 ms      0 ms      0 ms      172.21.10.10
  2  1 ms      1 ms      1 ms      172.21.1.2
  3  *          3 ms      3 ms      172.21.20.2

Trace complete.
```

6 . TRACE DARI PC LEO KE PC ARIES SETELAH DIPUTUS ANTARA ROUTER EAGLE KE ROUTER PUMA



3. KEGIATAN 3

1. KONFIGURASI ROUTING RIP PADA ROUTER EAGLE

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

2. LAKUKAN PERINTAH show running-config

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

Current configuration : 815 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-- |
```

3. LAKUKAN PERINTAH `debug ip-igrp transactions` pada mode user.

```
Building configuration...

Current configuration : 795 bytes
EIGRP: Sending HELLO on Serial2/0
  AS 100, Flags 0x0, Seq 1/0 idbQ 0/0 iidbQ un/rely 0/0
  version 12.2
  no service timestamps log datetime msec
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
  !
ip cef
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
```

4. MELAKUKAN KONFIGURASI ROUTING EIGRP PADA ROUTER PUMA DAN TIGER

ROUTER PUMA :

```
changed state to up

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-5-NBRCHANGE: IP-EIGRP 100: Neighbor 172.21.1.1 (Serial2/0)
is up: new adjacency
```

```

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--

```

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 iidbQ un/rely 0/0

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

EIGRP: Sending HELLO on Serial2/0
      AS 100, Flags 0x0, Seq 6/0 idbQ 0/0 iidbQ 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-S-NBRCHANGE: IP-EIGRP 100: Neighbor 172.21.3.2 (Serial3/0)
is up: new adjacency

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

```
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-- |
```

TRANSAKSI ROUTING EIGRP PADA ROUTER TIGER

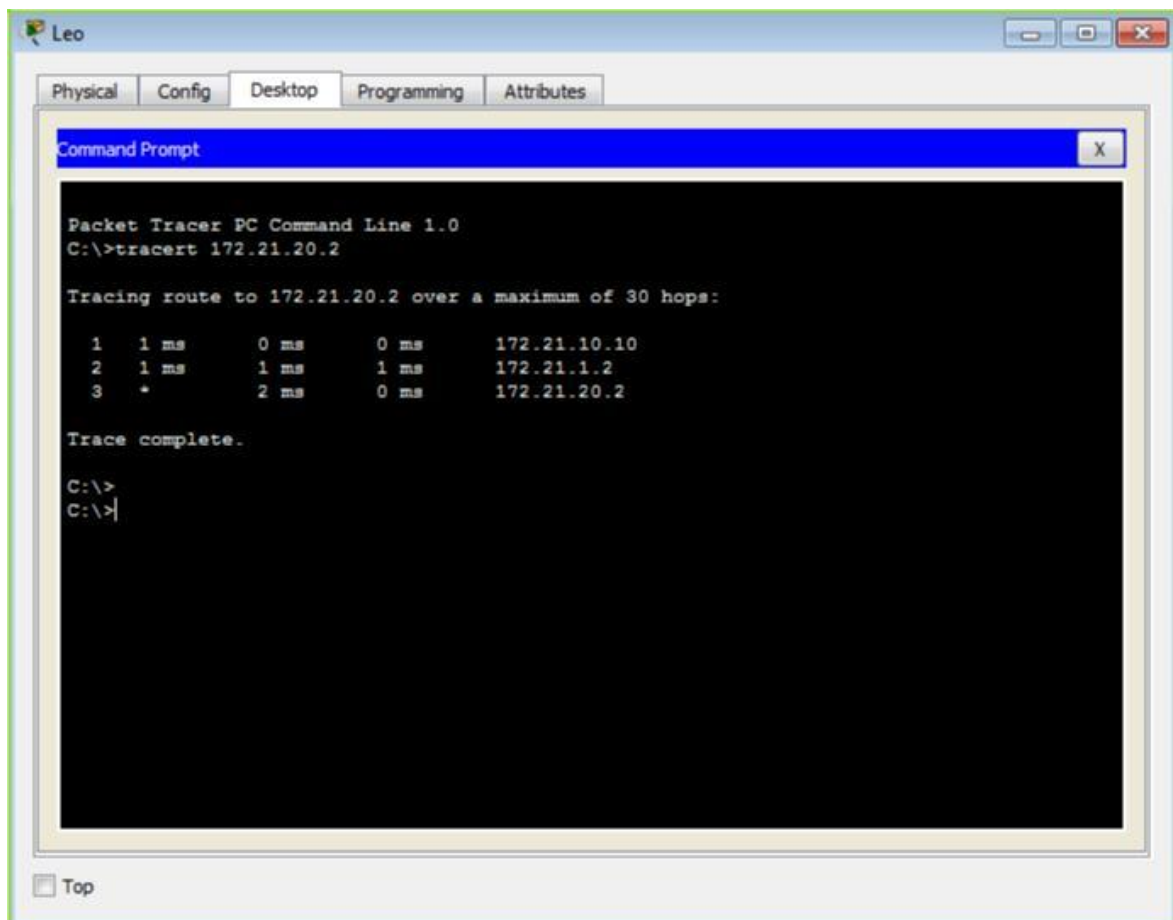
```
Router#debug eigrp packets
EIGRP Packets debugging is on
(UPDATE, REQUEST, QUERY, REPLY, HELLO, ACK )
Router#
EIGRP: Received HELLO on Serial2/0 nbr 172.21.2.1
AS 100, Flags 0x0, Seq 9/0 idbQ 0/0

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
|
```

5. MELAKUKAN TRACE KE DARI LEO KE ARIES



6. MEMBUAT HUBUNGAN ANTARA ROUTER EAGLE DENGAN ROUTER PUMA TERPUTUS

```
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 se2/0
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

%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 172.21.1.1 (Serial2/0)
is down: interface down
|
```


7. MELAKUKAN 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      1 ms      0 ms      172.21.2.3
  3  1 ms      2 ms      0 ms      172.21.3.2
  4  1 ms      0 ms      0 ms      172.21.20.2

Trace complete.

C:\>|
```