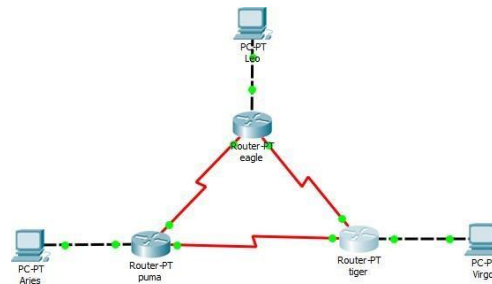


**Nama** : Muhammad Rizky K H  
**NIM** : L200170133  
**Kelas** : C  
**Modul** : 7

## Kegiatan 2

### RIP(Routing Information Protocol)

#### 1. Rancangan Jaringan



#### 2. Nomor alamat jaringan pada konfigurasi routing RIP

```
shutdow
!
interface Serial12/0
ip address 172.21.1.1 255.255.255.0
clock rate 2000000
!
interface Serial13/0
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
!
```

Nomor alamat route RIP adalah 172.21.0.0

#### 3. Melakukan perintah “debug ip rip” pada route eagle

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

Ctrl+F6 to exit CLI focus

Copy Paste

4. Trace dari PC leo ke PC aries sebelum memutus router eagle ke router puma

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

Trace complete.

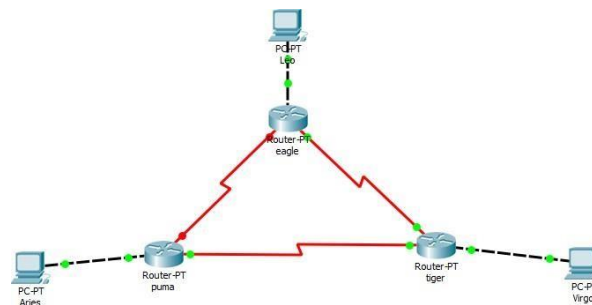
C:\>tracert 172.21.20.2

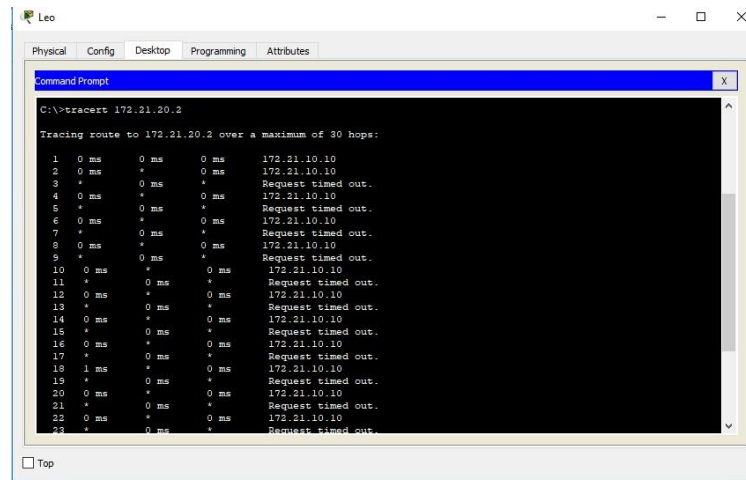
Tracing route to 172.21.20.2 over a maximum of 30 hops:

  0  0 ms  0 ms  0 ms  172.21.10.10
  1  0 ms  *      0 ms  172.21.10.10
  2  *      0 ms  *      Request timed out.
  3  0 ms  *      0 ms  172.21.10.10
  4  *      0 ms  *      Request timed out.
  5  0 ms  *      0 ms  172.21.10.10
  6  *      0 ms  *      Request timed out.
  7  0 ms  *      0 ms  172.21.10.10
  8  *      0 ms  *      Request timed out.
  9  0 ms  *      0 ms  172.21.10.10
 10  *      0 ms  *      Request timed out.
 11  0 ms  *      0 ms  172.21.10.10
 12  *      0 ms  *      Request timed out.
 13  *      0 ms  *      Request timed out.
```

Top

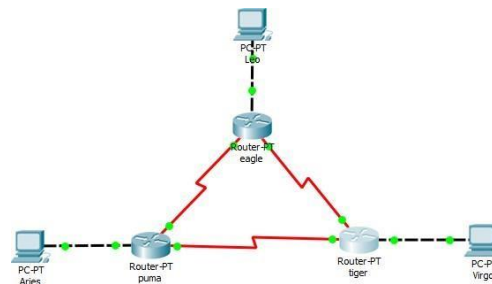
5. Trace dari PC leo ke PC aries setelah diputus antara router eagle ke router puma





### Kegiatan 3 EIGRP

#### 1. Rancangan jaringan



#### 2. 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

```

#### 3. Lakukan perintah "show running-config" pada mode user.

```

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--

```

4. Lakukan perintah "debug ip igrp transactions" pada mode user dan di router eagle.  
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 iadbQ un/rely 0/0

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

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

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

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

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

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

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

EIGRP: Sending HELLO on Serial3/0

```

6. Melakukan konfigurasi routing EIGRP pada router puma dan tiger

**Router Puma :**

- Konfigurasi routing EIGRP pada 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
```

- 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 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-5-NBRCHANGE: IP-EIGRP 100: Neighbor 172.21.3.2 (Serial3/0)
is up: new adjacency

%DUAL-5-NBRCHANGE: 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

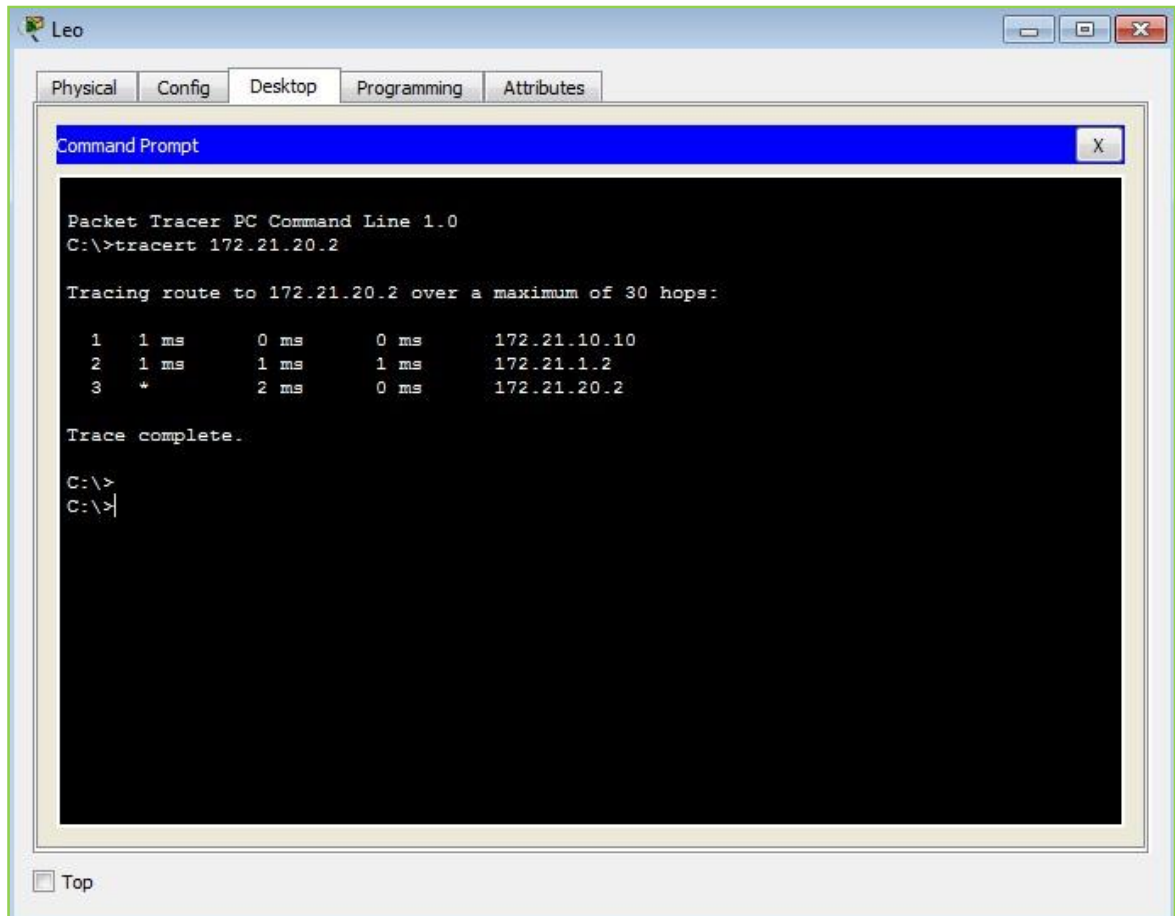
EIGRP: Sending HELLO on Serial3/0
AS 100, Flags 0x0, Seq 11/0 idbQ 0/0 iidbQ un/rely 0/0

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
|

```

## 7. Melakukan tracert dari PC Leo ke PC aries



#### 8. Membuat hubungan antara router eagle dan 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
```

#### 9. Melakukan trace dari PC leo 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	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:\>|
```