

**Nama : Utari Isnawati**

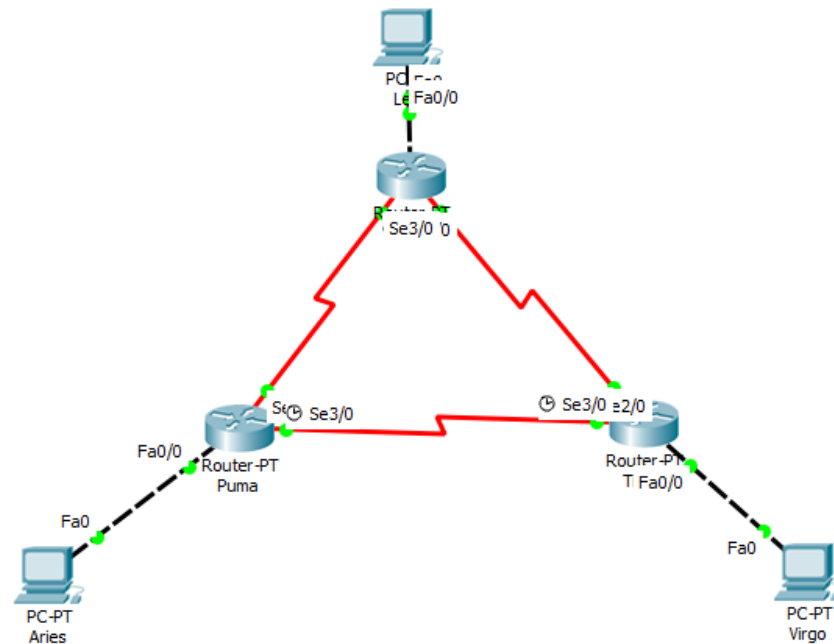
**NIM : L200174074**

**Class : X**

## **Laporan Praktikum Modul 7**

### **RIP**

1. Membuka topologi NetMap



2. Load Configurasi.
3. Konfigurasi routing RIP pada router eagle.

```

IOS Command Line Interface

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

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

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

Router#show running-config
Building configuration...

Current configuration : 917 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
!
!

```

#### 4. Melihan konfigurasi routing RIP

```

Router#show running-config
Building configuration...

Current configuration : 917 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
!
!

```

- a. Nomor alamat jaringan yang terdaftar pada konfigurasi routing RIP adalah 172.21.0.0

#### 5. Melihat proses update routing RIP.

```

Router#debug ip rip
RIP protocol debugging is on
Router#RIP: sending v1 update to 255.255.255.255 via
FastEthernet0/0 (172.21.100.10)
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 172.21.100.0 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 172.21.100.0 metric 1
Router#

```

Pada proses update routing RIP pada router eagle, terjadi proses pengiriman data v1 kepada jaringan yang terhubung dengan router eagle.

6. Konfigurasi routing RIP pada router puma dan tiger.
  - a. Konfigurasi router puma.

```

Router>enable
Router#config 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)#

```

Masuk ke mode konfigurasi, lalu ketikkan perintah router rip, setelah itu masukkan alamat jaringan.

7. Trace dari PC leo ke PC aries.

```

Packet Tracer PC Command Line 1.0
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      172.21.100.10
  2  1 ms      1 ms      0 ms      172.21.1.2
  3  *          3 ms      0 ms      172.21.20.2

Trace complete.

C:\>

```

8. Memutuskan hubungan antara router eagle dan puma

```
Router(config-if)#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
```

Pada proses update yang terjadi pada router eagle, metric dari subnet 172.21.20.0 berubah, yang awalnya metric 2 menjadi metric 16.

9. Melakukan trace dari PC leo ke PC aries

```
Trace complete.
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

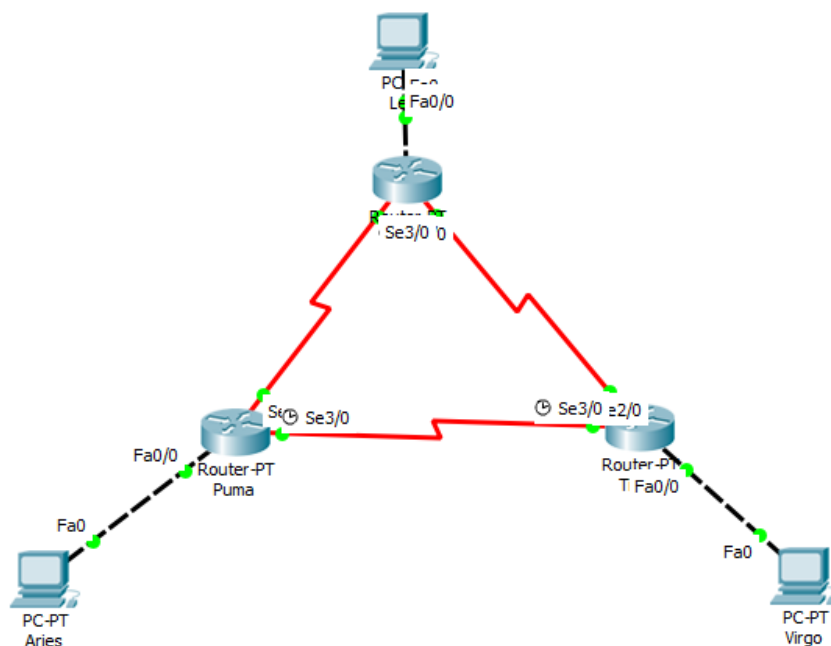
  1  1 ms      6 ms      0 ms      172.21.100.10
  2  0 ms      *         0 ms      172.21.100.10
  3  *         0 ms      *         Request timed out.
  4  0 ms      *         0 ms      172.21.100.10
  5  *         0 ms      *         Request timed out.
  6  0 ms      *         0 ms      172.21.100.10
  7  *         0 ms      *         Request timed out.
  8  0 ms      *         0 ms      172.21.100.10
  9  *         0 ms      *         Request timed out.
 10  0 ms      *         0 ms      172.21.100.10
 11  *         0 ms      *         Request timed out.
 12  0 ms      *         0 ms      172.21.100.10
 13  *         0 ms      *         Request timed out.
 14  0 ms      *         0 ms      172.21.100.10
 15  *         0 ms      *         Request timed out.
 16  0 ms      *         0 ms      172.21.100.10
 17  *         0 ms      *         Request timed out.
 18  0 ms      *         0 ms      172.21.100.10
 19  *         0 ms      *         Request timed out.
 20  0 ms      *         0 ms      172.21.100.10
 21  *         0 ms      *         Request timed out.
 22  0 ms      *         0 ms      172.21.100.10
 23  *         0 ms      *         Request timed out.
 24  0 ms      *         0 ms      172.21.100.10
 25  *         0 ms      *         Request timed out.
 26  0 ms      *         0 ms      172.21.100.10
 27  *         0 ms      *         Request timed out.
 28  0 ms      *         0 ms      172.21.100.10
 29  *         0 ms      *         Request timed out.
 30  0 ms      *         0 ms      172.21.100.10

Trace complete.
```

Hasil tracer kedua antara PC leo dan PC aries berbeda, yaitu terjadi rto setiap setelah proses tracer berhasil, sehingga prosesnya selangseling, berhasil lalu rto, begitu seterusnya hingga 30 hops.

## IGRP

1. Membuka topologi NetMap yang dipakai pada kegiatan 1.



2. Load konfigurasi seluruh device yang disimpan pada langkah 6 kegiatan 1.
3. Konfigurasi routing RIP pada router eagle.

```
Router>en
Router#no debug ip rip
RIP protocol debugging is off
Router#config 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)#
```

4. Melihat konfigurasi routing IGRP.

```

ip address 172.21.2.1 255.255.255.0
!
interface FastEthernet4/0
no ip address
shutdown
!
interface FastEthernet5/0
no ip address
shutdown
!
router eigrp 100
network 172.21.0.0
auto-summary
!
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 172.21.30.0 255.255.255.0 172.21.3.3
ip route 172.21.30.0 255.255.255.0 172.21.2.3
!
ip flow-export version 9
!
!

```

Nomor alamat jaringan yang terdaftar pada konfigurasi routing IGRP adalah 172.21.0.0

5. Melihat proses transaksi routing IGRP pada router eagle.

Pada proses ini eigrp mengirimkan pesan Hello kepada semua jaringan yang terhubung dengan router eagle.

6. Kami tidak melakukan perintah “debug ip igrp events”.
7. Melakukan konfigurasi routing IGRP pada router puma dan tiger.
  - a. Konfigurasi routing IGRP pada router puma.

```

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

```

Masuk ke mode konfigurasi, lalu ketikkan perintah router eigrp 100, selanjutnya masukkan alamat jaringan.

- b. EIRGP pada router eagle mulai mengirim pesan Hello ke router puma dan tiger.
8. Melakukan trace dari PC leo ke PC aries.

```

Packet Tracer PC Command Line 1.0
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      172.21.100.10
  2  0 ms      1 ms      1 ms      172.21.1.2
  3  *          0 ms      0 ms      172.21.20.2

Trace complete.

C:\>|

```

9. Memutus hubungan antara router eagle dan router puma.

Setelah hubungan antara router eagle dan router puma terputus, proses pengiriman pesan ke router puma juga terputus.

10. 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      172.21.100.10
  2  0 ms      *          0 ms      172.21.100.10
  3  *          0 ms      *          Request timed out.
  4  0 ms      *          0 ms      172.21.100.10
  5  *          0 ms      *          Request timed out.
  6  0 ms      *          0 ms      172.21.100.10
  7  *          0 ms      *          Request timed out.
  8  0 ms      *          0 ms      172.21.100.10
  9  *          0 ms      *          Request timed out.
 10  0 ms      *          0 ms      172.21.100.10
 11  *          1 ms      *          Request timed out.
 12  0 ms      *          0 ms      172.21.100.10
 13  *          0 ms      *          Request timed out.
 14  0 ms      *          0 ms      172.21.100.10
 15  *          0 ms      *          Request timed out.
 16  0 ms      *          0 ms      172.21.100.10
 17  *          0 ms      *          Request timed out.
 18  0 ms      *          0 ms      172.21.100.10
 19  *          0 ms      *          Request timed out.
 20  0 ms      *          0 ms      172.21.100.10
 21  *          0 ms      *          Request timed out.
 22  0 ms      *          0 ms      172.21.100.10
 23  *          0 ms      *          Request timed out.
 24  0 ms      *          0 ms      172.21.100.10
 25  *          0 ms      *          Request timed out.
 26  0 ms      *          0 ms      172.21.100.10
 27  *          0 ms      *          Request timed out.
 28  0 ms      *          0 ms      172.21.100.10
 29  *          0 ms      *          Request timed out.
 30  0 ms      *          0 ms      172.21.100.10

Trace complete.

```

Hasil tracer kedua antara PC leo dan PC aries berbeda, yaitu terjadi rto setiap setelah proses tracer berhasil, sehingga prosesnya selangseling, berhasil lalu rto, begitu seterusnya hingga 30 hops.