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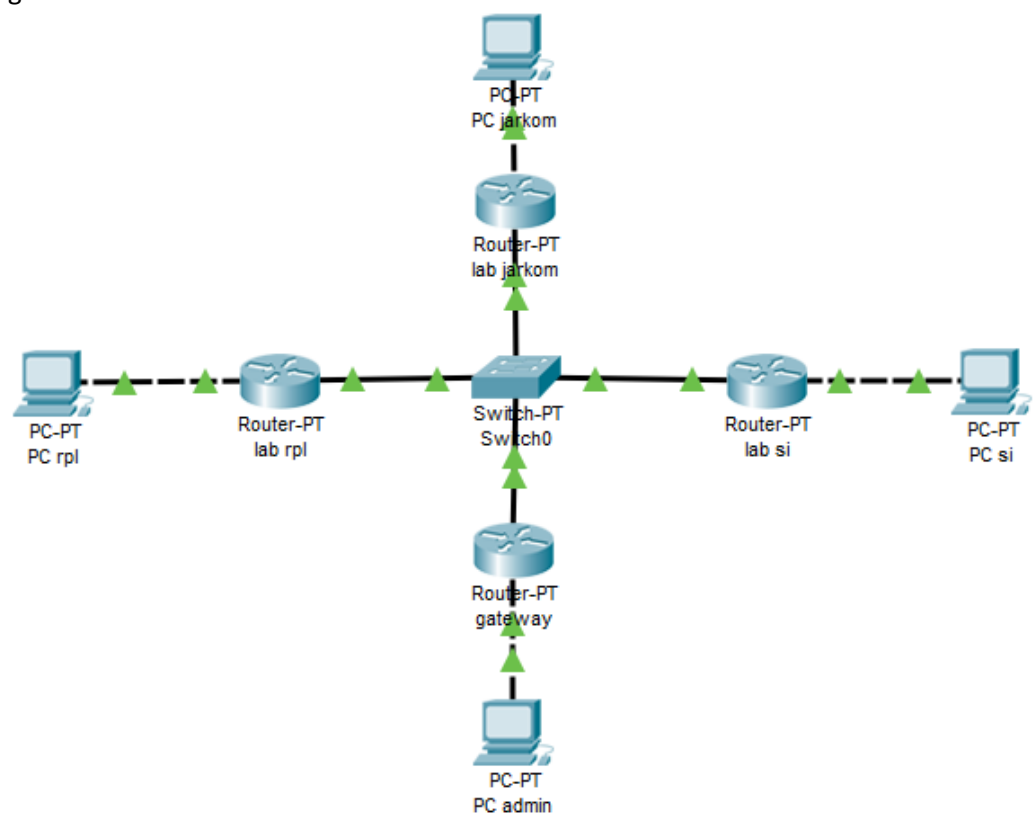
MODUL 11

Perancangan Jaringan Laboratorium Sederhana

Menggunakan Packet Tracer

TUGAS

1. **Jaringan 1**
   a. Topologi

   b. Tabel routing statis
      - Router Jarkom

```
Jarkom>en
Jarkom#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Jarkom(config)#ip route 172.17.0.0 255.255.255.0 172.16.0.2
Jarkom(config)#ip route 172.18.0.0 255.255.255.0 172.16.0.2
Jarkom(config)#ip route 172.19.0.0 255.255.255.0 172.16.0.2
Jarkom(config)#
Jarkom(config)#
```

- Router Sistem Informasi

```
SistemInformasi>en
SistemInformasi#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
SistemInformasi(config)#ip route 172.16.0.0 255.255.255.0 172.17.0.2
SistemInformasi(config)#ip route 172.18.0.0 255.255.255.0 172.17.0.2
SistemInformasi(config)#ip route 172.19.0.0 255.255.255.0 172.17.0.2
SistemInformasi(config)#
SistemInformasi(config)#
```

- Router RPL

```
RPL>
RPL>en
RPL#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
RPL(config)#ip route 172.16.0.0 255.255.255.0 172.18.0.2
RPL(config)#ip route 172.17.0.0 255.255.255.0 172.18.0.2
RPL(config)#ip route 172.19.0.0 255.255.255.0 172.18.0.2
RPL(config)#
RPL(config)#
```

- Router Gateway

```
UMS>en
UMS#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
UMS(config)#ip route 172.16.0.0 255.255.255.0 172.19.0.2
UMS(config)#ip route 172.17.0.0 255.255.255.0 172.19.0.2
UMS(config)#ip route 172.18.0.0 255.255.255.0 172.19.0.2
UMS(config)#
UMS(config)#
```

c. Menguji konektivitas PC klien

```
C:\>ping 172.16.0.2

Pinging 172.16.0.2 with 32 bytes of data:

Reply from 172.16.0.2: bytes=32 time=1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 172.16.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

```
C:\>ping 172.17.0.2

Pinging 172.17.0.2 with 32 bytes of data:

Reply from 172.17.0.2: bytes=32 time<1ms TTL=126
Reply from 172.17.0.2: bytes=32 time<1ms TTL=126
Reply from 172.17.0.2: bytes=32 time=1ms TTL=126
Reply from 172.17.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 172.17.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

```
C:\>ping 172.18.0.2

Pinging 172.18.0.2 with 32 bytes of data:

Reply from 172.18.0.2: bytes=32 time=1ms TTL=126
Reply from 172.18.0.2: bytes=32 time=1ms TTL=126
Reply from 172.18.0.2: bytes=32 time<1ms TTL=126
Reply from 172.18.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 172.18.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

2. Jaringan 2

a. Topologi

b. Metode Routing Statis
   - Router Gateway

```
UMS>en
UMS#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
UMS(config)#ip route 192.168.2.0 255.255.255.0 192.168.1.2
UMS(config)#ip route 192.168.3.0 255.255.255.0 192.168.1.2
UMS(config)#
```

   - Router Jarkom

```
Jarkom>en
Jarkom#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Jarkom(config)#ip route 192.168.3.0 255.255.255.0 192.168.2.2
Jarkom(config)#
```

   - Router Sistem Informasi

```
SistemInformasi>en
SistemInformasi#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
SistemInformasi(config)#ip route 192.168.1.0 255.255.255.0 192.168.2.1
SistemInformasi(config)#
```

   - Router RPL

```
RPL>en
RPL#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
RPL(config)#ip route 192.168.1.0 255.255.255.0 192.168.3.1
RPL(config)#ip route 192.168.2.0 255.255.255.0 192.168.3.1
RPL(config)#
```

c. Metode Routing Dinamis
  - Router Gateway

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname UMS
UMS(config)#int se2/0
UMS(config-if)#ip address 192.168.1.0 255.255.255.0
Bad mask /24 for address 192.168.1.0
UMS(config-if)#ip address 192.168.1.1 255.255.255.0
UMS(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
UMS(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
```

  - Router Jarkom

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname Jarkom
Jarkom(config)#int se2/0
Jarkom(config-if)#ip address 192.168.1.2 255.255.255.0
Jarkom(config-if)#no shutdown

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

Jarkom(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Jarkom(config-if)#exit
Jarkom(config)#int se3/0
Jarkom(config-if)#ip address 192.168.2.1 255.255.255.0
Jarkom(config-if)#clock rate 2000000
Jarkom(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down
Jarkom(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
```

- Router Sistem Informasi

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname SistemInformasi
SistemInformasi(config)#int se2/0
SistemInformasi(config-if)#ip address 192.168.2.2 255.255.255.0
SistemInformasi(config-if)#clock rate 2000000
This command applies only to DCE interfaces
SistemInformasi(config-if)#no shutdown

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

SistemInformasi(config-if)#exit
SistemInformasi(config)#int
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

% Incomplete command.
SistemInformasi(config)#int se3/0
SistemInformasi(config-if)#ip address 192.168.3.1 255.255.255.0
SistemInformasi(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down
SistemInformasi(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
```

- Router RPL

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname RPL
RPL(config)#int se2/0
RPL(config-if)#ip address 192.168.3.2 255.255.255.0
RPL(config-if)#no shutdown

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

RPL(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
```