Konsep Jaringan

Nama Dosen Pengampu dan Gelar

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SOAL 1

- **Setup R1**
    1. Pada config->routing->static tambahkan alamat untuk menuju router lain(RI dan R2).

Network Address
192.168.10.0/24 via 10.10.10.2
192.168.30.0/24 via 10.10.20.2

    - o Untuk menuju R3, tambahkan network R3 yakni 192.168.10.0 dengan Mask 255.255.255.0. Isi next hop dengan 10.10.10.2 karena pada R3, interface yang terhubung dengan R1 memiliki IP 10.10.10.2.
    - o Untuk menuju R2, tambahkan network R2 yakni 192.168.30.0 dengan Mask 255.255.255.0. Isi next hop dengan 10.10.20.2 karena pada R2, interface yang terhubung dengan R1 memiliki IP 10.10.20.2.
    - o **Config Soal 1\R1_running-config.txt**

- **Setup R3**
    1. Pada config->routing->static tambahkan alamat untuk menuju router lain(R2 dan R3).

Network Address
192.168.20.0/24 via 10.10.10.1
192.168.30.0/24 via 10.10.20.2
192.168.30.0/24 via 10.10.10.1

    - o Untuk menuju R2, tambahkan network R2 yakni 192.168.30.0 dengan Mask 255.255.255.0. Isi next hop dengan 10.10.20.2. Tambahkan lagi tapi dengan next hop 10.10.10.1, karena sebelum mencapai R2, packet akan melewati R1 terlebih dulu.
    - o Untuk menuju R1, tambahkan network R1 yakni 192.168.20.0 dengan Mask 255.255.255.0. Isi next hop dengan 10.10.10.1 karena pada R1, interface yang terhubung dengan R2 memiliki IP 10.10.10.1.
    - o Config Soal 1\R3_running-config.txt

- **Setup R2**
    1. Pada config->routing->static tambahkan alamat untuk menuju router lain(R1 dan R3).

Network Address
192.168.20.0/24 via 10.10.20.1
192.168.10.0/24 via 10.10.10.2
192.168.10.0/24 via 10.10.20.1

- o Untuk menuju R3, tambahkan network R3 yakni 192.168.10.0 dengan Mask 255.255.255.0. Isi next hop dengan 10.10.10.2. Tambahkan lagi tapi dengan next hop 10.10.20.1, karena sebelum mencapai R3, packet akan melewati R1 terlebih dulu.
- o Untuk menuju R1, tambahkan network R1 yakni 192.168.20.0 dengan Mask 255.255.255.0. Isi next hop dengan 10.10.20.1 karena pada R1, interface yang terhubung dengan R2 memiliki IP 10.10.20.1.
- o [Config Soal 1\R2_running-config.txt](Config Soal 1\R2_running-config.txt)

R2 Menuju R1 dan R3

```
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.10.2: bytes=32 time=5ms TTL=125
Reply from 192.168.10.2: bytes=32 time=4ms TTL=125
Reply from 192.168.10.2: bytes=32 time=4ms TTL=125

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 4ms, Maximum = 5ms, Average = 4ms

C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.20.2: bytes=32 time=2ms TTL=126
Reply from 192.168.20.2: bytes=32 time=2ms TTL=126
Reply from 192.168.20.2: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 2ms, Average = 2ms
```
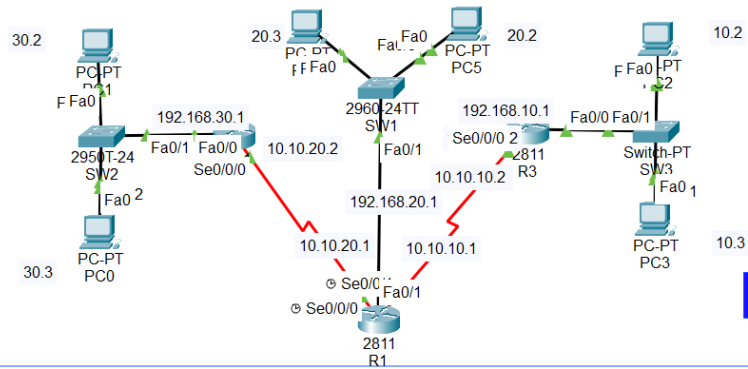
Hasil akhir

Konfigurasikan tabel routing pada R1, R2 dan R3 dengan menggunakan statik routing sehungga seluruh PC yang ada dapat terhubung dengan baik.

Sultan Argya S. F/3122600022

SOAL 2

- **Setup R1**
  1. Route Table

  RIP Routing (v2)

Network Address
10.0.0.0
192.168.1.0
192.168.10.0
192.168.20.0
200.100.10.0

  2. Config
     Config Soal 2\R1_running-config.txt

- **Setup R2**
  1. Route Table

  RIP Routing (v2)

Network Address
10.0.0.0
192.168.1.0
192.168.10.0
192.168.20.0
200.100.10.0

  2. Config
     Config Soal 2\R2_running-config.txt

- **Ping Test**

```
C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

Request timed out.
Reply from 192.168.10.3: bytes=32 time=1ms TTL=127
Reply from 192.168.10.3: bytes=32 time<1ms TTL=127
Reply from 192.168.10.3: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.20.2: bytes=32 time=2ms TTL=126
Reply from 192.168.20.2: bytes=32 time=3ms TTL=126
Reply from 192.168.20.2: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 3ms, Average = 2ms

C:\>ping 192.168.1.4

Pinging 192.168.1.4 with 32 bytes of data:

Reply from 192.168.1.4: bytes=32 time<1ms TTL=128
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

SOAL 3

- **R1 Setup**
  Config Soal 3\R1_running-config.txt
- **R2 Setup**
  Config Soal 3\R2_running-config.txt
- **R3 Setup**
  Config Soal 3\R3_running-config.txt

- **Ping Test**

```
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Request timed out.
Request timed out.
Reply from 192.168.1.2: bytes=32 time=1ms TTL=125
Reply from 192.168.1.2: bytes=32 time<1ms TTL=125

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 2, Lost = 2 (50% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time<1ms TTL=125
Reply from 192.168.1.2: bytes=32 time<1ms TTL=125
Reply from 192.168.1.2: bytes=32 time=1ms TTL=125
Reply from 192.168.1.2: bytes=32 time<1ms TTL=125

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```