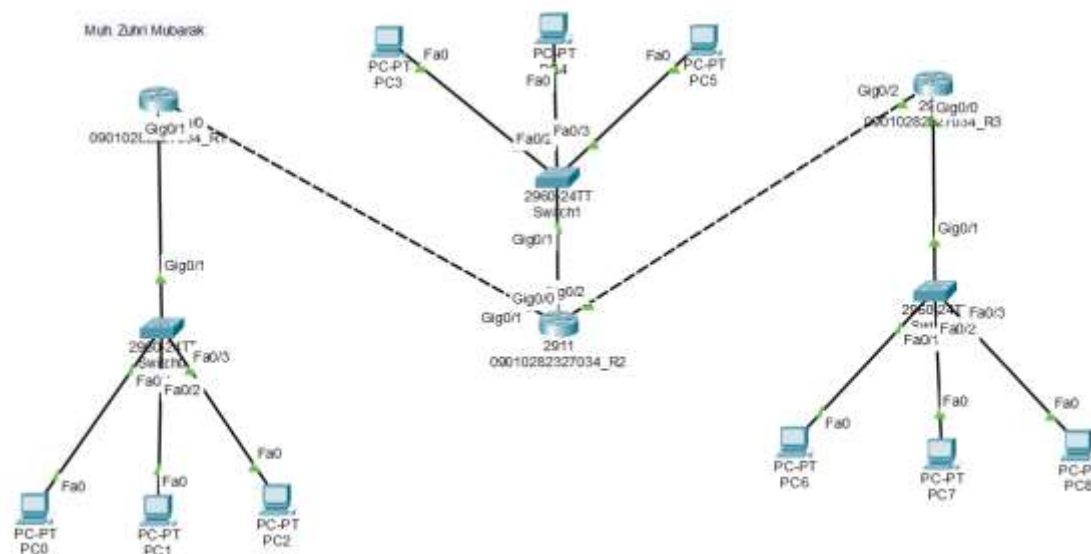


LAPORAN HASIL PRAKTIKUM

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Judul Percobaan : Dynamic

Hasil Percobaan :



Router 1

```
Router(config)#router rip
Router(config-router)#version 2
Router(config-router)#network 192.168.2.0
Router(config-router)#network 10.10.10.0
Router#show ip route
Codes: L - local, C - connected, S - static, 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

```
10.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
C    10.10.10.0/30 is directly connected, GigabitEthernet0/1
L    10.10.10.1/32 is directly connected, GigabitEthernet0/1
R    10.20.10.0/30 [120/1] via 10.10.10.2, 00:00:04, GigabitEthernet0/1
192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.2.0/24 is directly connected, GigabitEthernet0/0
L    192.168.2.1/32 is directly connected, GigabitEthernet0/0
R    192.168.20.0/24 [120/1] via 10.10.10.2, 00:00:04, GigabitEthernet0/1
R    192.168.40.0/24 [120/2] via 10.10.10.2, 00:00:04, GigabitEthernet0/1
```

Hasill Percobaan :

Router 2

```
Router(config)#router rip
Router(config-router)#version 2
Router(config-router)#network 192.168.20.0
Router(config-router)#network 10.10.10.0
Router(config-router)#network 10.20.10.0
Router#show ip route
Codes: L - local, C - connected, S - static, 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

```
      10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
C       10.10.10.0/30 is directly connected, GigabitEthernet0/1
L       10.10.10.2/32 is directly connected, GigabitEthernet0/1
C       10.20.10.0/30 is directly connected, GigabitEthernet0/2
L       10.20.10.1/32 is directly connected, GigabitEthernet0/2
R       192.168.2.0/24 [120/1] via 10.10.10.1, 00:00:22, GigabitEthernet0/1
      192.168.20.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.20.0/24 is directly connected, GigabitEthernet0/0
L       192.168.20.1/32 is directly connected, GigabitEthernet0/0
R       192.168.40.0/24 [120/1] via 10.20.10.2, 00:00:13, GigabitEthernet0/2
```

Router 3

```
Router(config)#router rip
Router(config-router)#version 2
Router(config-router)#network 192.168.40.0
Router(config-router)#network 10.20.10.0
Router#show ip route
Codes: L - local, C - connected, S - static, 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

```
      10.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
R       10.10.10.0/30 [120/1] via 10.20.10.1, 00:00:21, GigabitEthernet0/2
C       10.20.10.0/30 is directly connected, GigabitEthernet0/2
L       10.20.10.2/32 is directly connected, GigabitEthernet0/2
R       192.168.2.0/24 [120/2] via 10.20.10.1, 00:00:21, GigabitEthernet0/2
R       192.168.20.0/24 [120/1] via 10.20.10.1, 00:00:21, GigabitEthernet0/2
      192.168.40.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.40.0/24 is directly connected, GigabitEthernet0/0
L       192.168.40.1/32 is directly connected, GigabitEthernet0/0
```

Hasill Percobaan :

Tes Koneksi ICMP

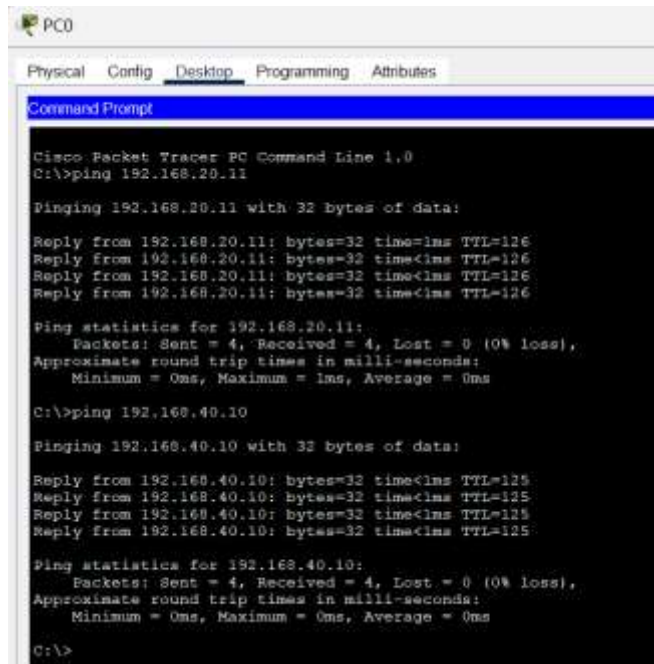
No	Sumber	Tujuan	Hasil	
			Ya	Tidak
1	PC 1	PC 2	Ya	
		PC 3	Ya	
		PC 4	Ya	
		PC 5	Ya	
		PC 6	Ya	
		PC 7	Ya	
		PC 8	Ya	
		PC 9	Ya	

No	Sumber	Tujuan	Hasil	
			Ya	Tidak
2	PC 4	PC 1	Ya	
		PC 2	Ya	
		PC	Ya	
		PC 5	Ya	
		PC 6	Ya	
		PC 7	Ya	
		PC 8	Ya	
		PC 9	Ya	

No	Sumber	Tujuan	Hasil	
			Ya	Tidak
3	PC 7	PC 1	Ya	
		PC 2	Ya	
		PC 3	Ya	
		PC 4	Ya	
		PC 5	Ya	
		PC 6	Ya	
		PC 8	Ya	
		PC 9	Ya	

Hasil Percobaan :

PC 1



```
PC0
Physical Config Desktop Programming Attributes
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.20.11

Pinging 192.168.20.11 with 32 bytes of data:

Reply from 192.168.20.11: bytes=32 time<1ms TTL=126
Reply from 192.168.20.11: bytes=32 time<1ms TTL=126
Reply from 192.168.20.11: bytes=32 time<1ms TTL=126
Reply from 192.168.20.11: bytes=32 time<1ms TTL=126

Ping statistics for 192.168.20.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.40.10

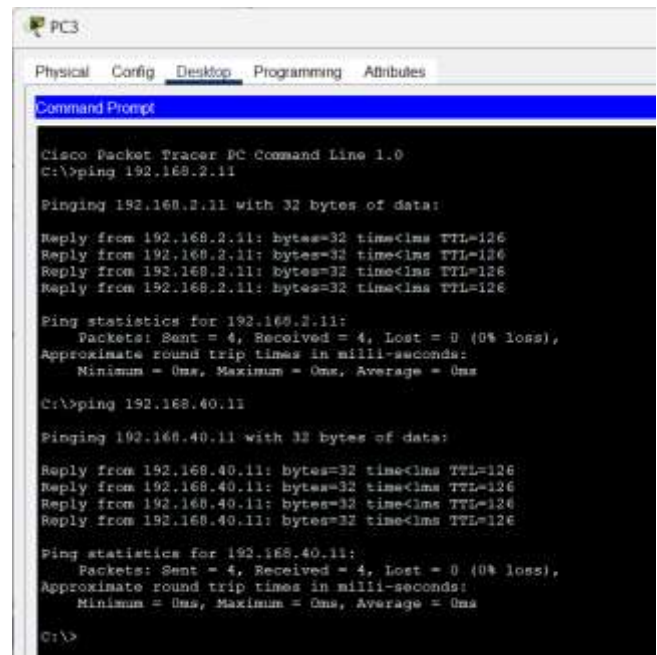
Pinging 192.168.40.10 with 32 bytes of data:

Reply from 192.168.40.10: bytes=32 time<1ms TTL=125
Reply from 192.168.40.10: bytes=32 time<1ms TTL=125
Reply from 192.168.40.10: bytes=32 time<1ms TTL=125
Reply from 192.168.40.10: bytes=32 time<1ms TTL=125

Ping statistics for 192.168.40.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

PC 4



```
PC3
Physical Config Desktop Programming Attributes
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.11

Pinging 192.168.2.11 with 32 bytes of data:

Reply from 192.168.2.11: bytes=32 time<1ms TTL=126
Reply from 192.168.2.11: bytes=32 time<1ms TTL=126
Reply from 192.168.2.11: bytes=32 time<1ms TTL=126
Reply from 192.168.2.11: bytes=32 time<1ms TTL=126

Ping statistics for 192.168.2.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.40.11

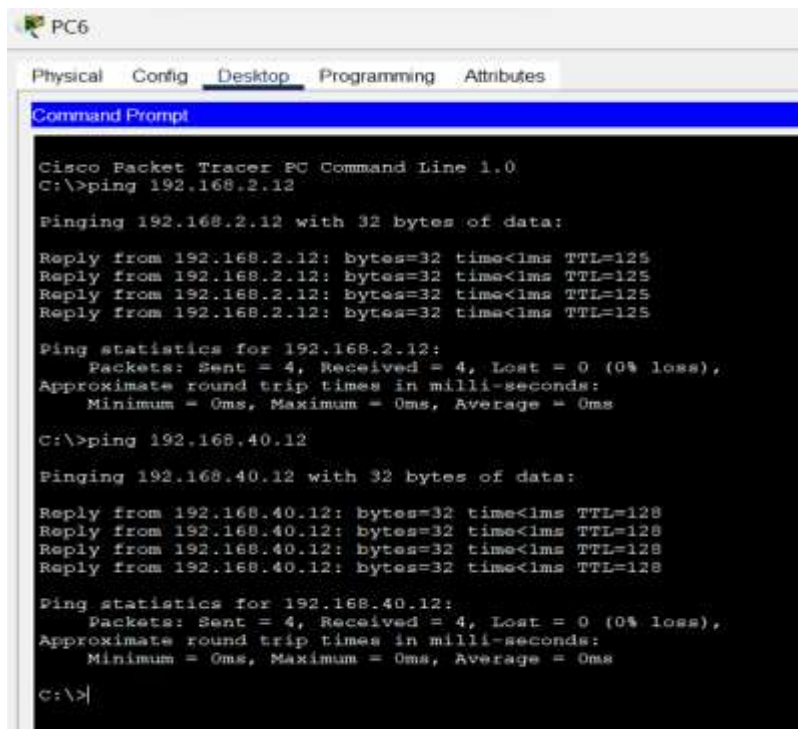
Pinging 192.168.40.11 with 32 bytes of data:

Reply from 192.168.40.11: bytes=32 time<1ms TTL=126
Reply from 192.168.40.11: bytes=32 time<1ms TTL=126
Reply from 192.168.40.11: bytes=32 time<1ms TTL=126
Reply from 192.168.40.11: bytes=32 time<1ms TTL=126

Ping statistics for 192.168.40.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

PC 7



```
PC6
Physical Config Desktop Programming Attributes
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.12

Pinging 192.168.2.12 with 32 bytes of data:

Reply from 192.168.2.12: bytes=32 time<1ms TTL=125
Reply from 192.168.2.12: bytes=32 time<1ms TTL=125
Reply from 192.168.2.12: bytes=32 time<1ms TTL=125
Reply from 192.168.2.12: bytes=32 time<1ms TTL=125

Ping statistics for 192.168.2.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.40.12

Pinging 192.168.40.12 with 32 bytes of data:

Reply from 192.168.40.12: bytes=32 time<1ms TTL=128
Reply from 192.168.40.12: bytes=32 time<1ms TTL=128
Reply from 192.168.40.12: bytes=32 time<1ms TTL=128
Reply from 192.168.40.12: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.40.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Analisi Percobaan :

Berdasarkan hasil konfigurasi dan pengujian, terlihat bahwa setiap router berhasil menjalankan protokol RIPv2 yang memungkinkan informasi routing didistribusikan secara otomatis diantara router. Hal ini terbukti dari adanya informasi tabel routing yang menampilkan jalur menuju jaringan lain, ditandai dengan huruf "D" sebagai tanda bahwa jalur tersebut merupakan rute dinamis. Hasil tes koneksi ICMP menunjukkan bahwa semua PC dalam jaringan dapat saling terhubung, yang menunjukkan keberhasilan penerapan routing dinamis. Penggunaan RIP membatasi jumlah hop maksimal hingga 15, yang cocok untuk jaringan berskala kecil hingga menengah seperti dalam percobaan ini

Kesimpulan Percobaan :

Dari percobaan ini, menunjukkan bahwa konfigurasi routing dinamis menggunakan RIP pada jaringan dengan topologi yang terdiri dari beberapa router berhasil dilakukan. Semua perangkat dalam jaringan dapat terhubung dengan lancar berkat mekanisme distribusi informasi routing RIP. Protokol RIP versi 2 terbukti efektif dalam mendukung jaringan berskala kecil hingga menengah. Pengujian koneksi ICMP yang menunjukkan "YA" pada setiap tes menunjukkan bahwa seluruh konfigurasi berjalan sesuai dengan rencana tanpa kendala konektivitas.