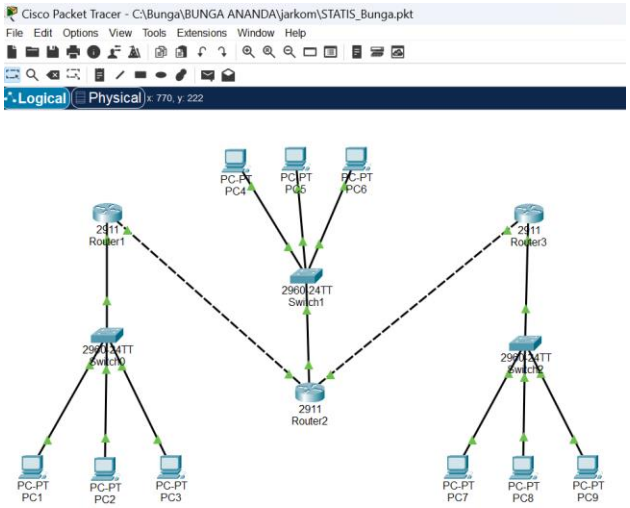
Nama : Bunga Ananda
NIM : 09010282327020
Kelas : MI3A
MK : PRATIKUM JARINGAN KOMPUTER

LAPORAN HASIL PRAKTIKUM



Tabel Routing 1

```
09010282327020_R1(config)#ip route 192.168.20.0 255.255.255.0 10.10.10.2
09010282327020_R1(config)#ip route 10.20.10.0 255.255.255.255 10.10.10.2
09010282327020_R1(config)#ip route 192.168.40.0 255.255.255.0 10.10.10.2
09010282327020_R1(config)#
09010282327020_R1(config)#exit
09010282327020_R1#
%SYS-5-CONFIG_I: Configured from console by console

09010282327020_R1#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       10.10.10.1/32 is directly connected, GigabitEthernet0/1
S       10.20.10.0/30 [1/0] via 10.10.10.2
S       10.20.10.0/32 [1/0] via 10.10.10.2
     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
S    192.168.20.0/24 [1/0] via 10.10.10.2
S    192.168.40.0/24 [1/0] via 10.10.10.2

09010282327020_R1#
```

Copy Paste

Tabel Routing 2

```
09010282327020_R2(config)#ip route 192.168.2.0 255.255.255.0 10.10.10.1
09010282327020_R2(config)#ip route 192.168.40.0 255.255.255.0 10.20.10.2
09010282327020_R2(config)#exit
09010282327020_R2#
%SYS-5-CONFIG_I: Configured from console by console

09010282327020_R2#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
S    192.168.2.0/24 [1/0] via 10.10.10.1
     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
S    192.168.40.0/24 [1/0] via 10.20.10.2

09010282327020_R2#
```

Tabel Routing 3

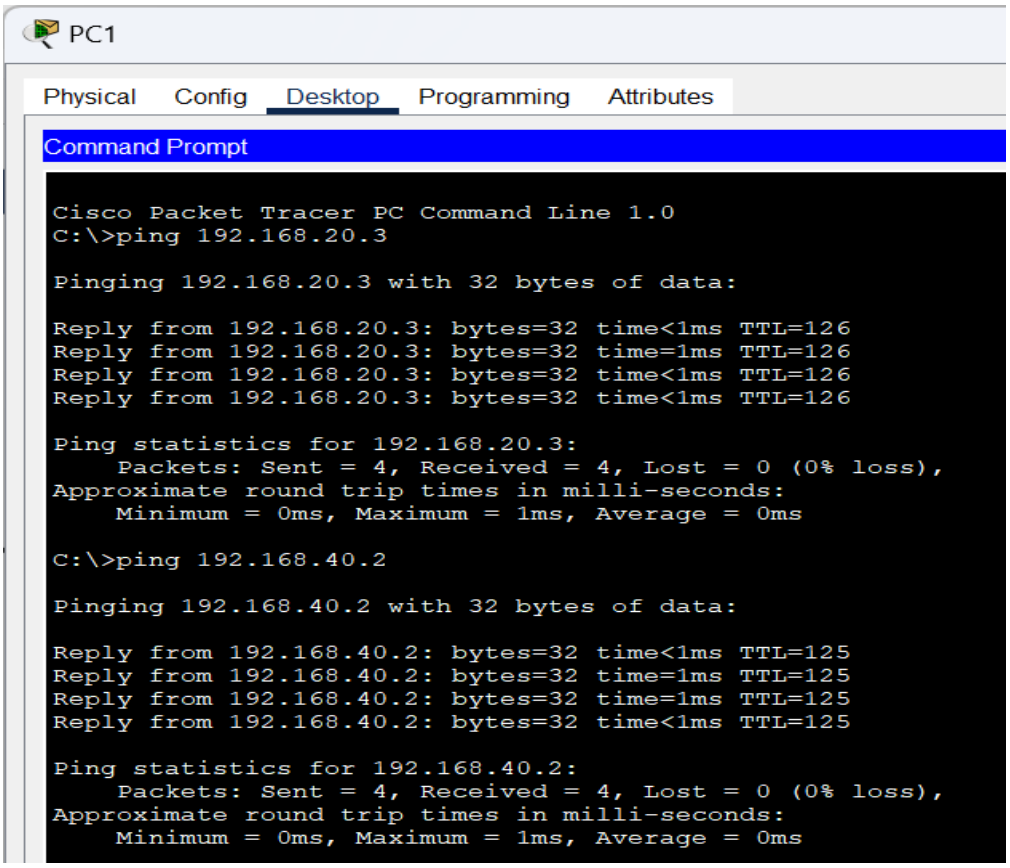
```
09010282327020_R3(config)#ip route 192.168.20.0 255.255.255.0 10.20.10.1
09010282327020_R3(config)#ip route 10.10.10.0 255.255.255.255 10.20.10.1
09010282327020_R3(config)#ip route 192.168.2.0 255.255.255.0 10.20.10.1
09010282327020_R3(config)#exit
09010282327020_R3#
%SYS-5-CONFIG_I: Configured from console by console

09010282327020_R3#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
S       10.10.10.0/32 [1/0] via 10.20.10.1
C       10.20.10.0/30 is directly connected, GigabitEthernet0/2
L       10.20.10.2/32 is directly connected, GigabitEthernet0/2
S    192.168.2.0/24 [1/0] via 10.20.10.1
S    192.168.20.0/24 [1/0] via 10.20.10.1
     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

09010282327020_R3#
```

Tes Koneksi ICMP (catat hasil yang anda dapatkan)

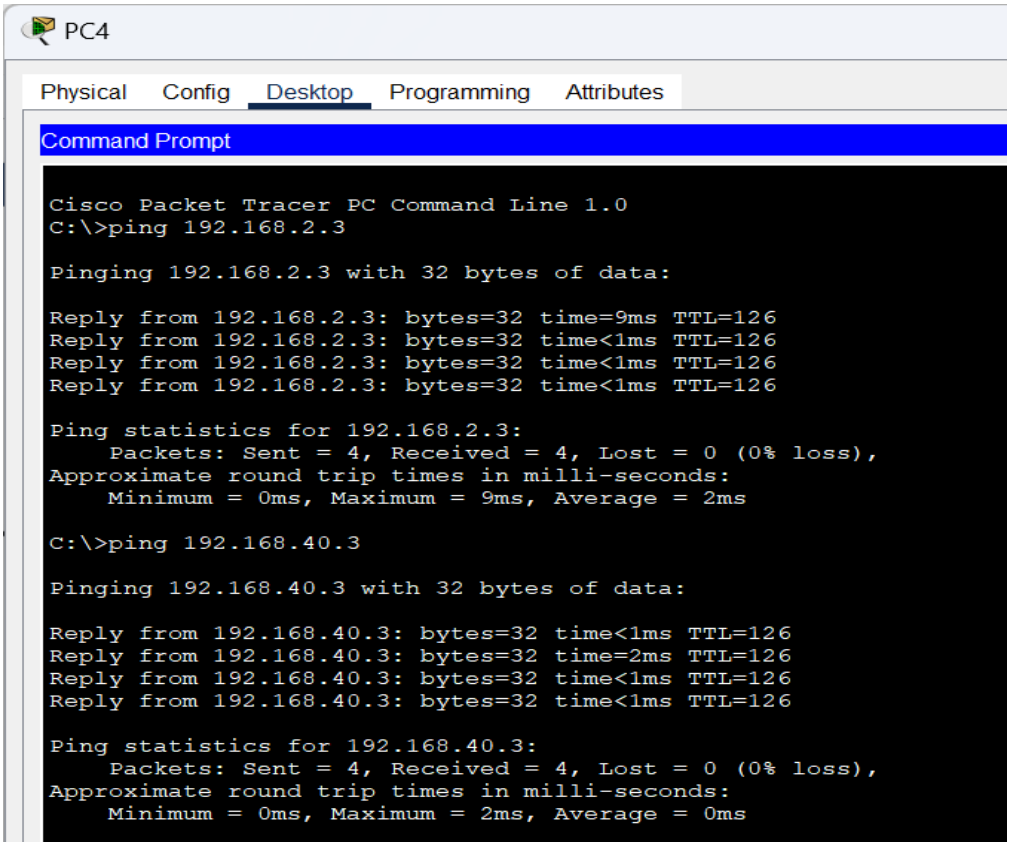
No	Sumber	Tujuan	Hasil	
			Ya	Tidak
1	PC 1	PC 2	Ya	
		PC3	Ya	
		PC 4	Ya	
		PC 5	Ya	
		PC 6	Ya	
		PC 7	Ya	
		PC 8	Ya	
		PC 9	Ya	
2	PC 4	PC 1	Ya	
		PC 2	Ya	
		PC 3	Ya	
		PC 5	Ya	
		PC 6	Ya	
		PC 7	Ya	
		PC 8	Ya	
		PC 9	Ya	
3	PC 7	PC 1	Ya	
		PC 2	Ya	
		PC 3	Ya	
		PC 4	Ya	
		PC	Ya	
		PC 7	Ya	
		PC 8	Ya	
		PC 9	Ya	

Screenshot hasil Ping pada cmd PC :

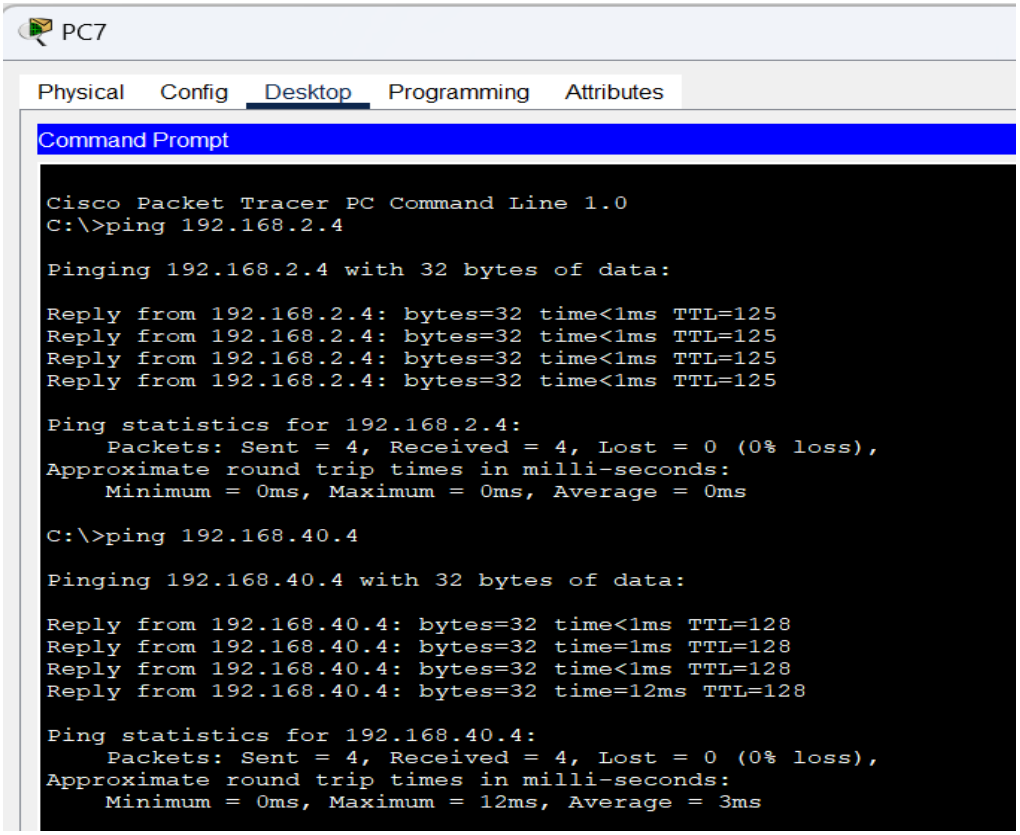
PC1 → PC5
PC1 → PC7



PC4 → PC2
PC4 → PC8



PC7 → PC3
PC7 → PC9



Hasil Percobaan

1. **Konfigurasi Router:**
   - Router (R1, R2, R3) berhasil dikonfigurasi dengan alamat IP yang sesuai.
   - Tabel routing statis menunjukkan entri "S", menandakan rute statis telah ditambahkan dengan benar.
2. **Tes Koneksi ICMP:**
   - Pengujian koneksi ICMP (ping) berhasil tanpa masalah.
   - Paket ICMP dapat dikirim dan diterima antara perangkat, menandakan fungsi routing statis yang baik.

Analisis Percobaan

Percobaan ini menekankan pentingnya konfigurasi dan pembuatan tabel routing untuk komunikasi antar jaringan. Dalam jaringan yang tidak terhubung langsung, routing statis memungkinkan perangkat berkomunikasi dengan menambahkan entri secara manual.

Faktor Penting:

- **Pengaturan IP Address:** Konfigurasi alamat IP yang benar sangat penting agar setiap router dapat mengarahkan paket ke jaringan yang tepat.
- **Pembuatan Tabel Routing:** Entri routing yang akurat diperlukan untuk mengenali rute ke jaringan yang tidak langsung terhubung.

Kesimpulan Percobaan

Percobaan ini menunjukkan bahwa routing statis berhasil diimplementasikan dengan konfigurasi yang tepat. Komunikasi antar perangkat di subnet yang berbeda berjalan baik asalkan tabel routing disiapkan dengan benar. Namun, perubahan pada topologi jaringan atau jumlah router mengharuskan pembaruan manual pada tabel routing untuk menjaga kelancaran komunikasi.