

**LAPORAN PROYEK AKHIR**  
**PRAKTIKUM KONSEP JARINGAN**



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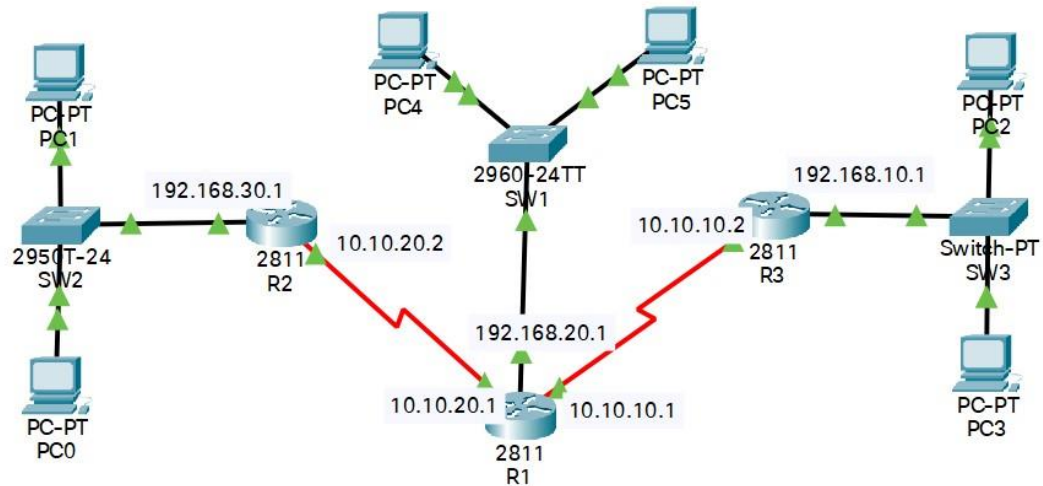
**Kelas :** 2/D4 Teknik Informatika A

**NRP :** 3122600009

**Laporan Proyek Akhir**

# Praktikum Konsep Jaringan

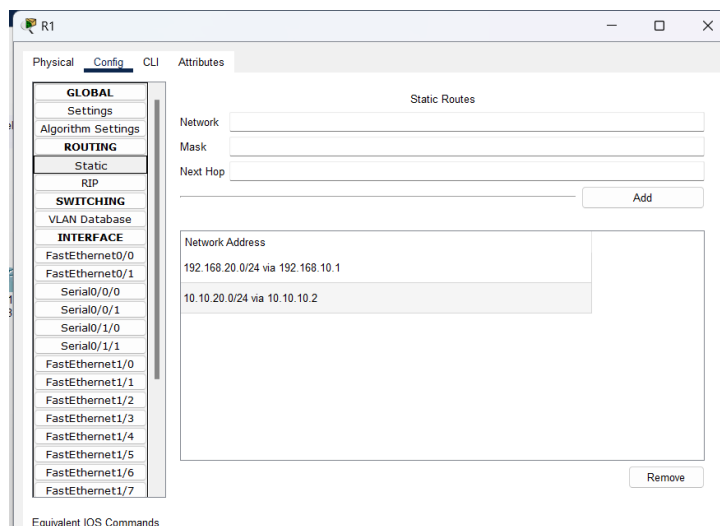
## Soal 1

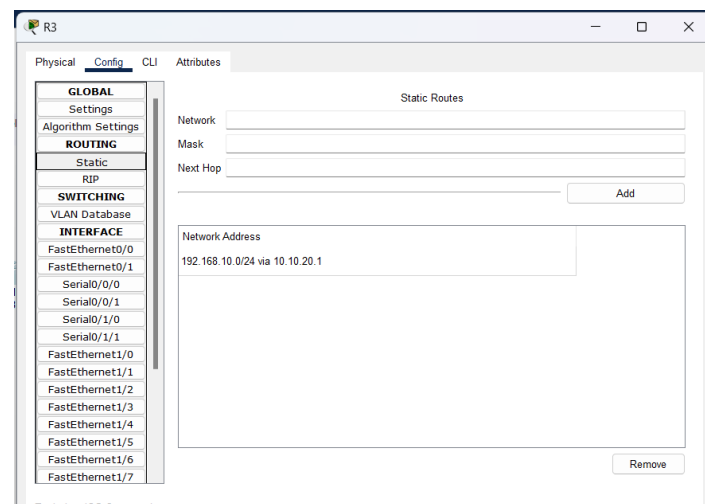
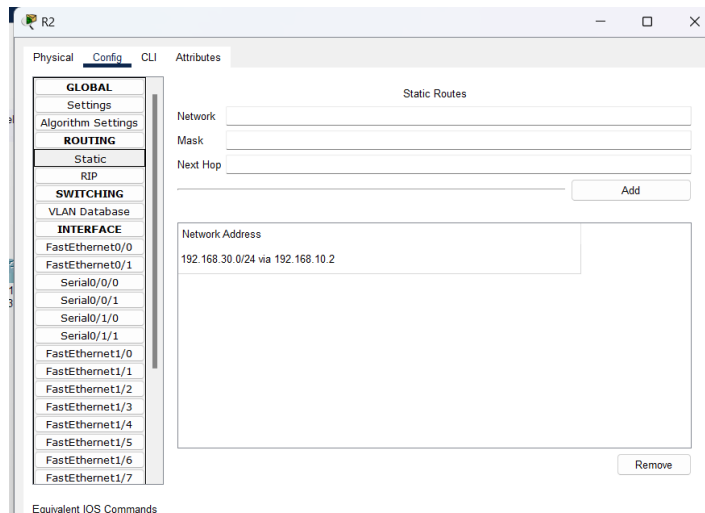


Konfigurasi tabel routing pada R1, R2 dan R3 dengan menggunakan statik routing sehingga seluruh PC yang ada dapat terhubung dengan baik.

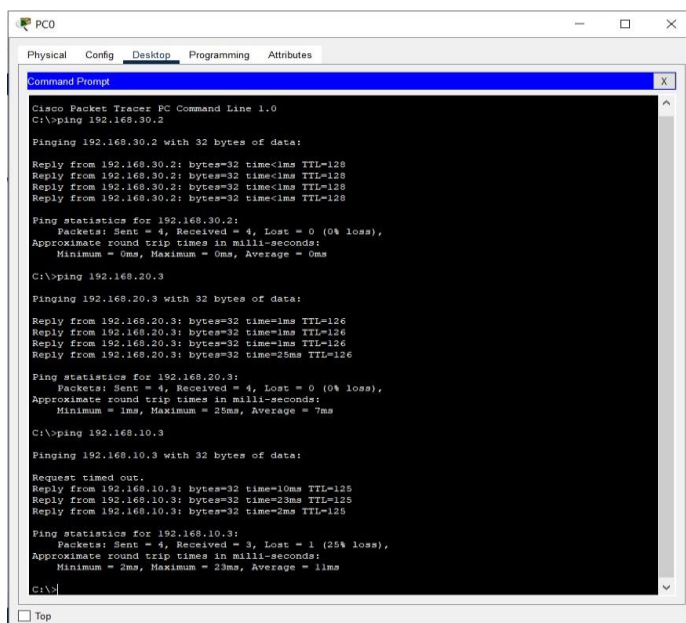
**Jawaban:**

Konfigurasi Router:





Ping antar device:



PC3

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time<1ms TTL=128
Reply from 192.168.10.2: bytes=32 time<1ms TTL=128
Reply from 192.168.10.2: bytes=32 time<1ms TTL=128
Reply from 192.168.10.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Reply from 192.168.20.2: bytes=32 time=13ms TTL=126
Reply from 192.168.20.2: bytes=32 time=7ms TTL=126
Reply from 192.168.20.2: bytes=32 time=16ms TTL=126
Reply from 192.168.20.2: bytes=32 time=13ms TTL=126

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 7ms, Maximum = 16ms, Average = 12ms

C:\>ping 192.168.30.2

Pinging 192.168.30.2 with 32 bytes of data:

Reply from 192.168.30.2: bytes=32 time=18ms TTL=125
Reply from 192.168.30.2: bytes=32 time=2ms TTL=125
Reply from 192.168.30.2: bytes=32 time=18ms TTL=125
Reply from 192.168.30.2: bytes=32 time=24ms TTL=125

Ping statistics for 192.168.30.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 24ms, Average = 15ms

C:\>
```

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PCS

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

Reply from 192.168.20.3: bytes=32 time<1ms TTL=128
Reply from 192.168.20.3: bytes=32 time=25ms TTL=128
Reply from 192.168.20.3: bytes=32 time<1ms TTL=128
Reply from 192.168.20.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.20.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 25ms, Average = 6ms

C:\>ping 192.168.30.3

Pinging 192.168.30.3 with 32 bytes of data:

Reply from 192.168.30.3: bytes=32 time=1ms TTL=126
Reply from 192.168.30.3: bytes=32 time=1ms TTL=126
Reply from 192.168.30.3: bytes=32 time=2ms TTL=126
Reply from 192.168.30.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.30.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

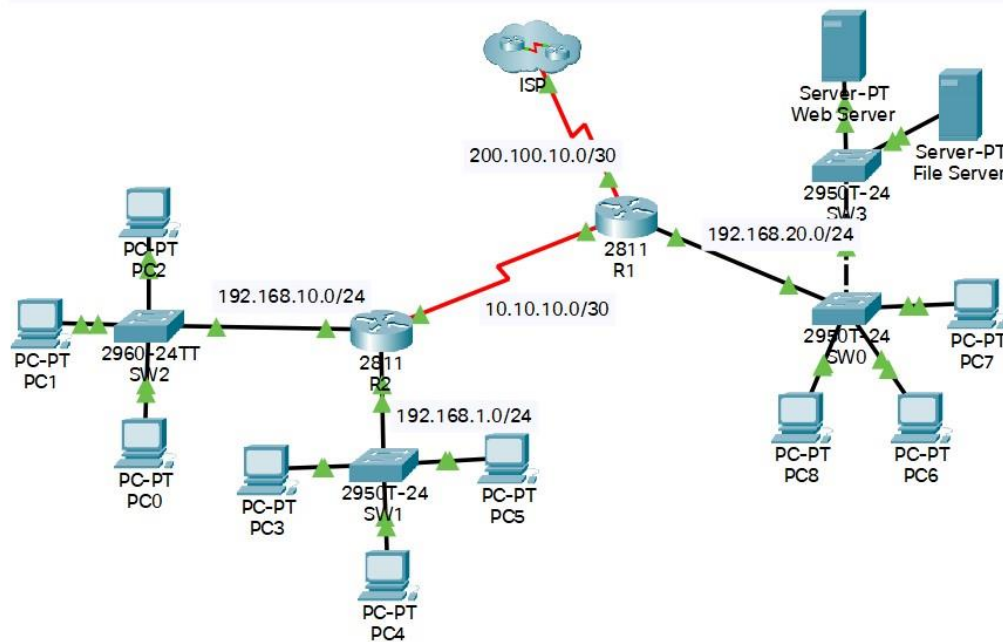
Reply from 192.168.10.3: bytes=32 time=11ms TTL=126
Reply from 192.168.10.3: bytes=32 time=1ms TTL=126
Reply from 192.168.10.3: bytes=32 time=1ms TTL=126
Reply from 192.168.10.3: bytes=32 time=9ms TTL=126

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 11ms, Average = 6ms

C:\>
```

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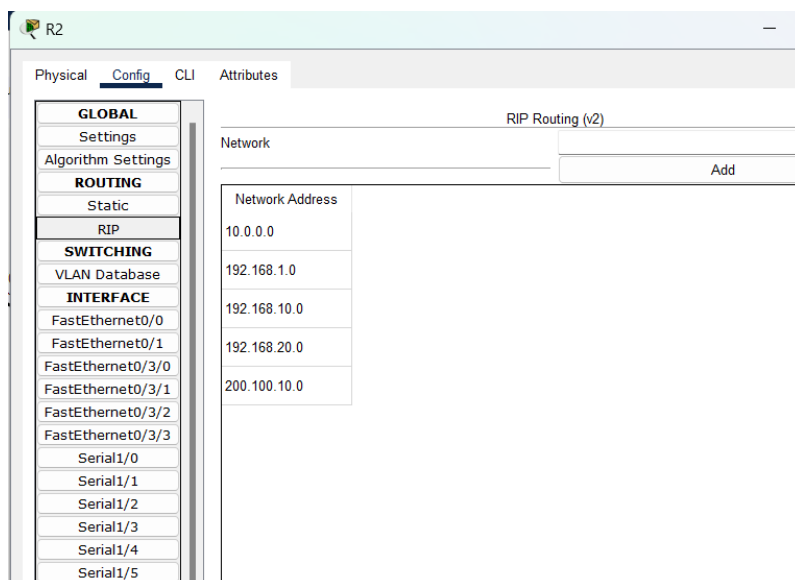
## Soal 2

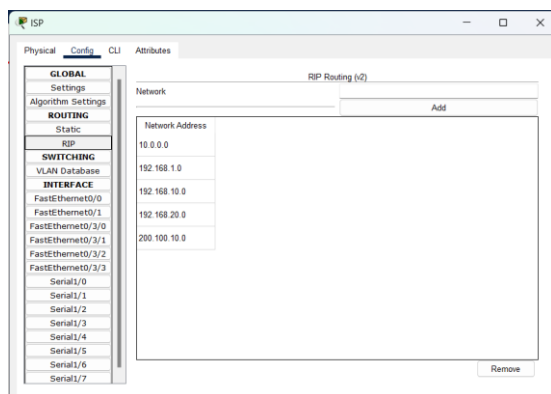
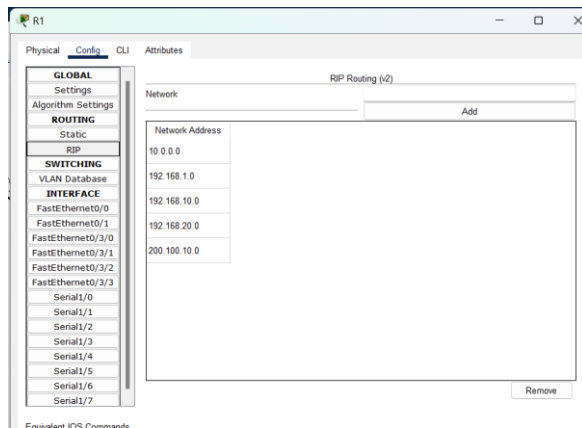


Konfigurasi tabel routing pada R1, R2 dan R3 dengan menggunakan RIP sehingga seluruh PC dapat terhubung ke ISP dengan baik.

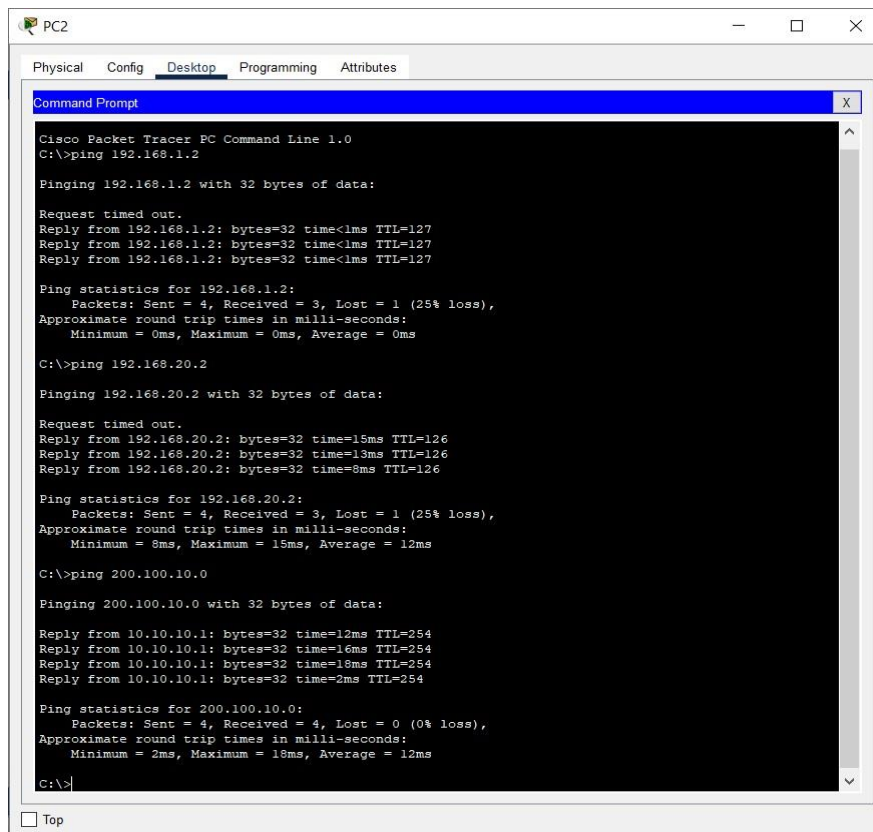
**Jawaban:**

Konfigurasi Router:





Ping antar device:



```
PC5
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time<1ms TTL=127
Reply from 192.168.10.2: bytes=32 time<1ms TTL=127
Reply from 192.168.10.2: bytes=32 time<1ms TTL=127
Reply from 192.168.10.2: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Reply from 192.168.20.2: bytes=32 time=14ms TTL=126
Reply from 192.168.20.2: bytes=32 time=16ms TTL=126
Reply from 192.168.20.2: bytes=32 time=14ms TTL=126
Reply from 192.168.20.2: bytes=32 time=11ms TTL=126

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 11ms, Maximum = 18ms, Average = 14ms

C:\>ping 200.100.10.0

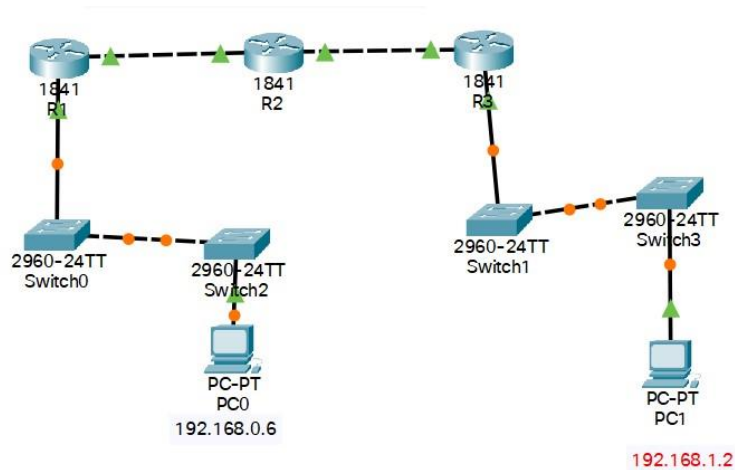
Pinging 200.100.10.0 with 32 bytes of data:

Reply from 10.10.10.1: bytes=32 time=12ms TTL=254
Reply from 10.10.10.1: bytes=32 time=32ms TTL=254
Reply from 10.10.10.1: bytes=32 time=18ms TTL=254
Reply from 10.10.10.1: bytes=32 time=2ms TTL=254

Ping statistics for 200.100.10.0:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 32ms, Average = 16ms

C:\>
```

### Soal 3



Permasalahan yang harus di selesaikan: PC0 tidak bisa ping ke PC 1!

**Jawaban:**

Di sini saya akan menyelesaikan permasalahannya menggunakan Static Routing.

Konfigurasi Router:

R1

PhysicalConfigCLIAttributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

Static Routes

Network

Mask

Next Hop

Add

Network Address

192.168.1.0/24 via 10.0.0.2

Remove

R2

PhysicalConfigCLIAttributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

Static Routes

Network

Mask

Next Hop

Add

Network Address

192.168.1.0/24 via 172.16.0.2

192.168.0.0/24 via 10.0.0.1

Remove

Equivalent IOS Commands

R3

PhysicalConfigCLIAttributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

Static Routes

Network

Mask

Next Hop

Add

Network Address

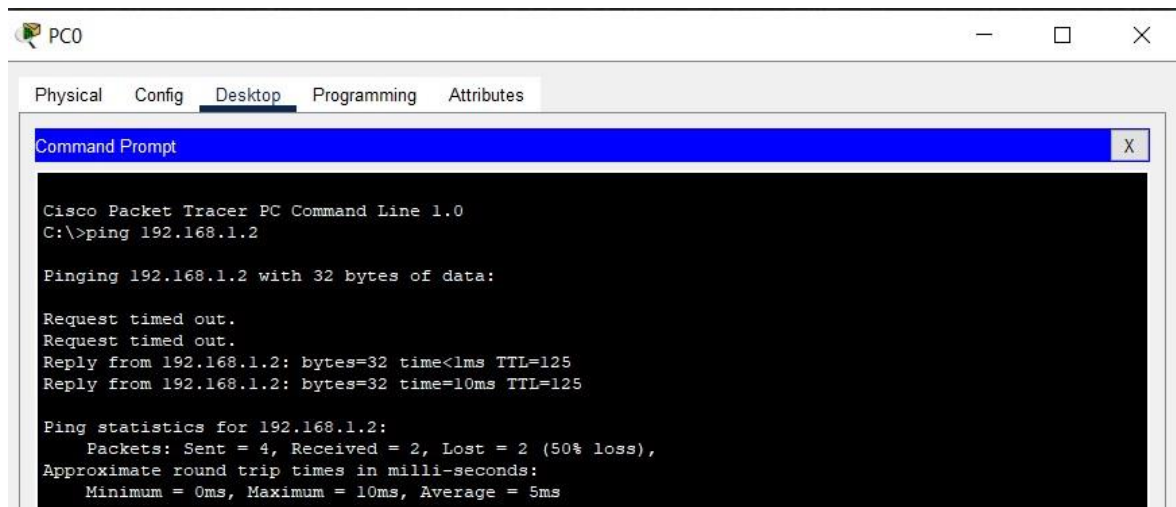
192.168.0.0/24 via 172.16.0.1

Remove

Equivalent IOS Commands



Ping antar device:



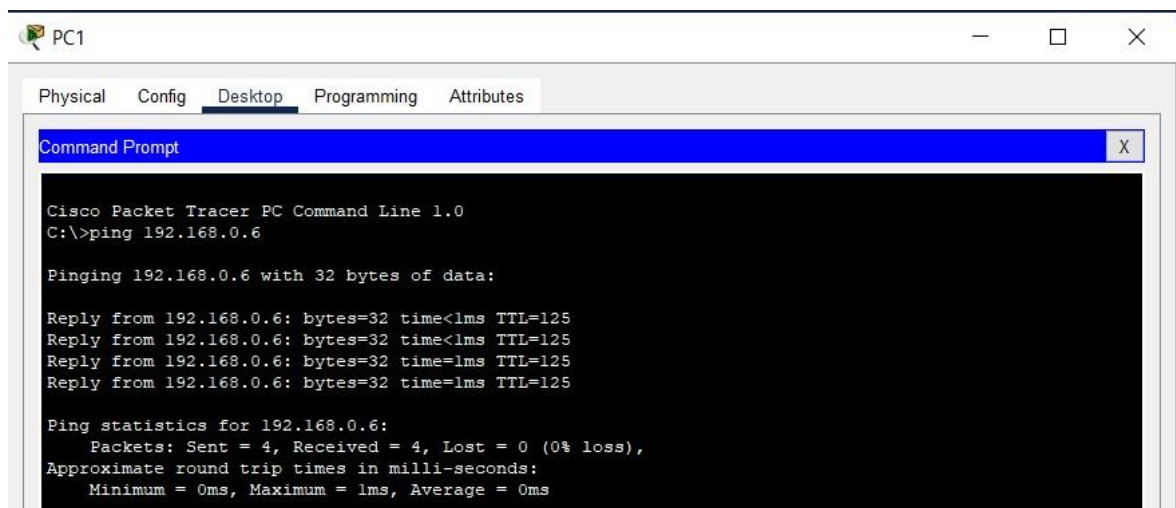
The screenshot shows the 'PC0' window in Cisco Packet Tracer. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command prompt shows the execution of a ping command to 192.168.1.2. The output indicates that the first two requests timed out, while the next two succeeded with 32 bytes of data, 1ms round trip time, and a TTL of 125. The ping statistics show 4 packets sent, 2 received, and a 50% loss rate.

```
Cisco Packet Tracer PC Command Line 1.0
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=10ms 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 = 10ms, Average = 5ms
```



The screenshot shows the 'PC1' window in Cisco Packet Tracer. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command prompt shows the execution of a ping command to 192.168.0.6. The output indicates that all four requests succeeded with 32 bytes of data, 1ms round trip time, and a TTL of 125. The ping statistics show 4 packets sent, 4 received, and a 0% loss rate.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.6

Pinging 192.168.0.6 with 32 bytes of data:

Reply from 192.168.0.6: bytes=32 time<1ms TTL=125
Reply from 192.168.0.6: bytes=32 time<1ms TTL=125
Reply from 192.168.0.6: bytes=32 time=1ms TTL=125
Reply from 192.168.0.6: bytes=32 time=1ms TTL=125

Ping statistics for 192.168.0.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```