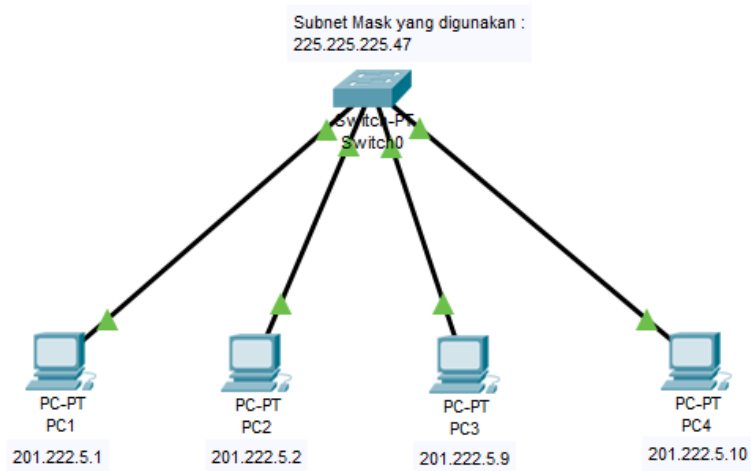


Nama : Maulana Lutfi Sholihin
NIM : L200170048
Kelas : B
Modul : 2

MODUL 3

Kegiatan 1. Desain dan Konfigurasi Subnetting



A. Pengaturan Alamat IP

- PC1

PC1

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 201.222.5.1

Subnet Mask: 255.255.255.248

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::290:CFF:FE46:555

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

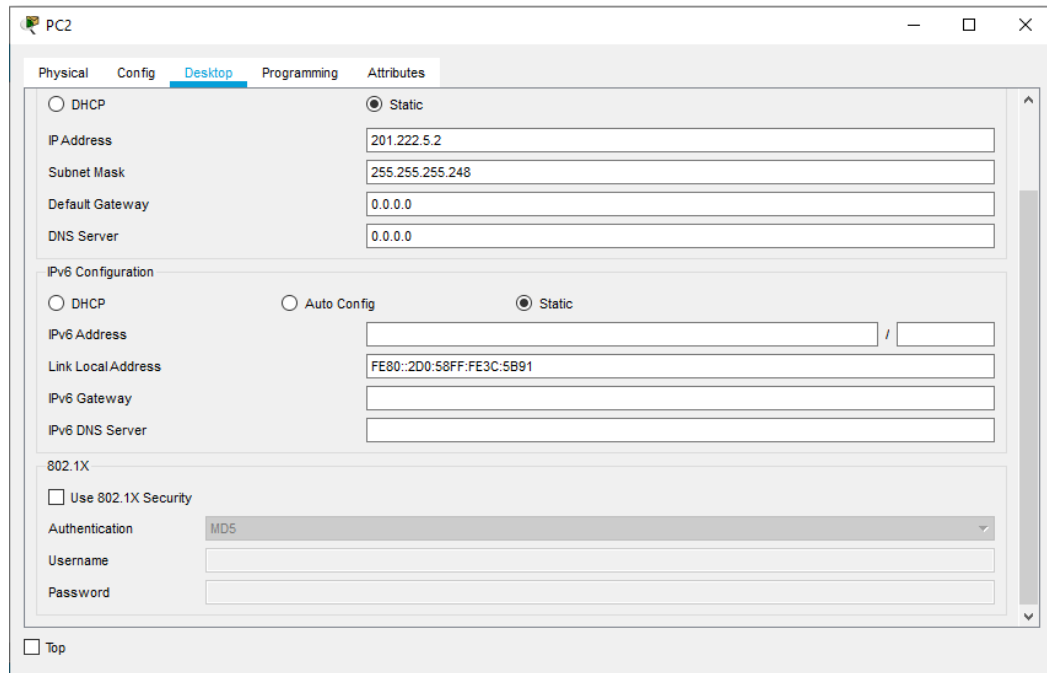
Authentication: MD5

Username:

Password:

☐ Top

- PC2



PC2

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 201.222.5.2

Subnet Mask: 255.255.255.248

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::2D0:58FF:FE3C:5B91

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

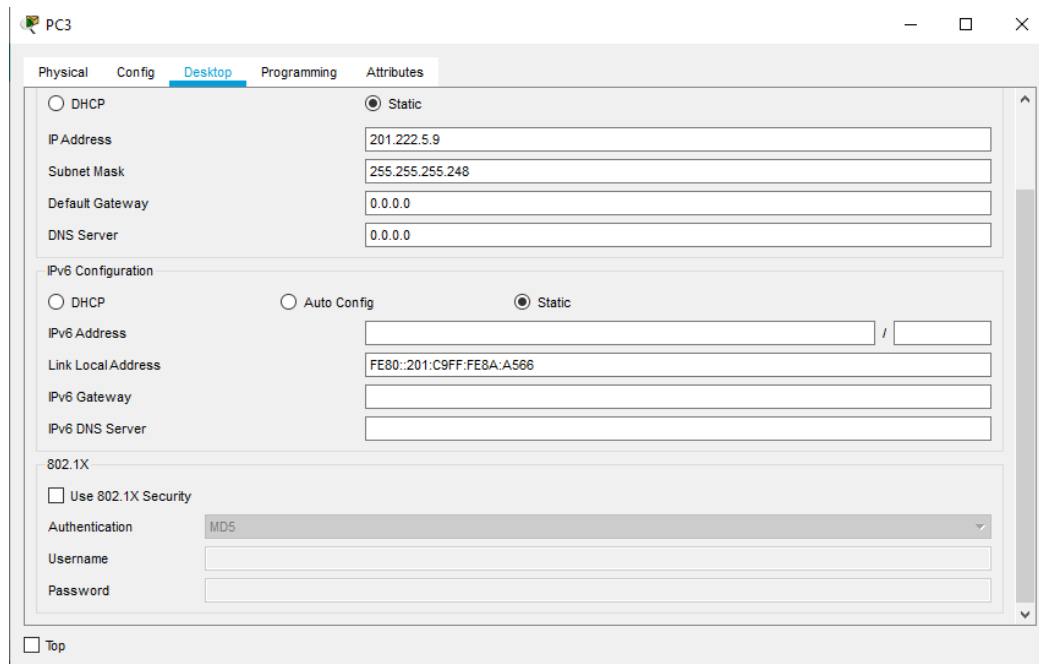
Authentication: MD5

Username:

Password:

☐ Top

- PC3



PC3

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 201.222.5.9

Subnet Mask: 255.255.255.248

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::201:C9FF:FE8A:A566

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

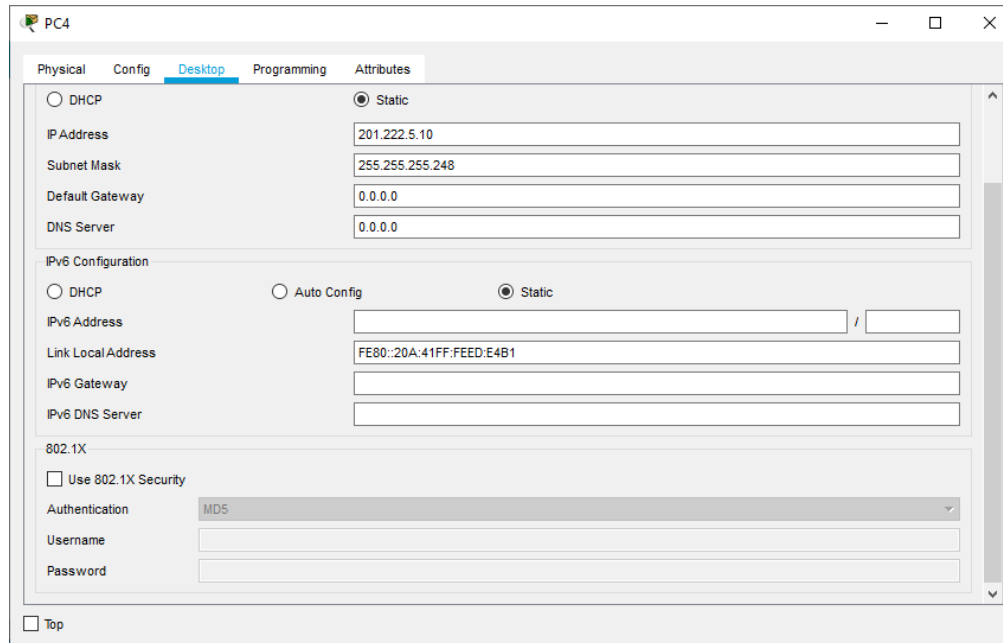
Authentication: MD5

Username:

Password:

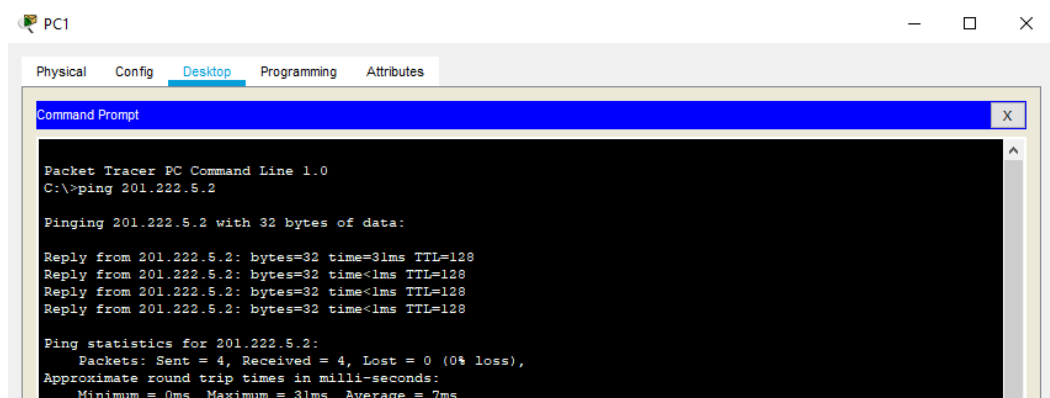
☐ Top

- PC4

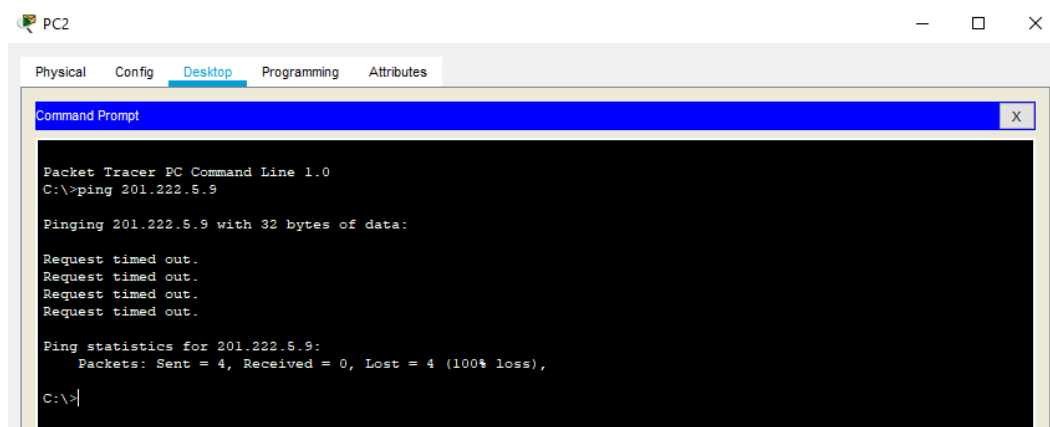


B. Uji Koneksi Jaringan

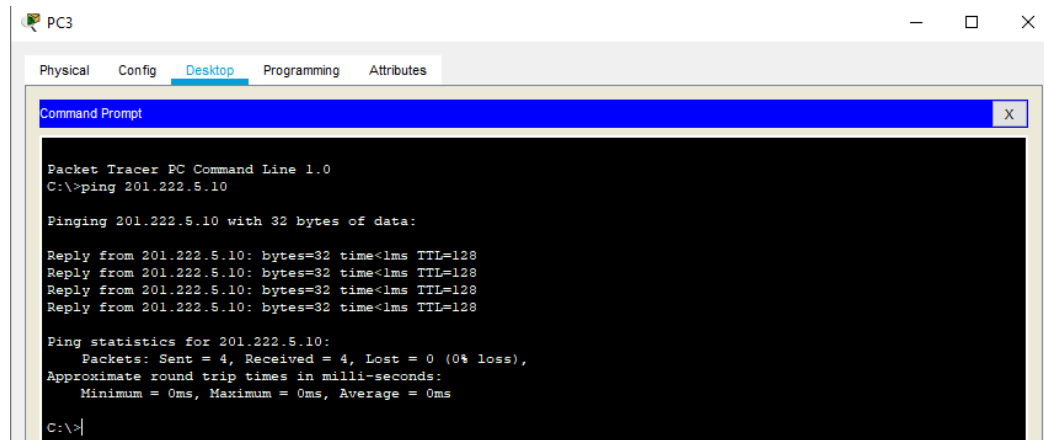
PC1 ke PC2



PC2 ke PC3



PC3 ke PC4



The screenshot shows a Packet Tracer PC3 desktop environment. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The window title is 'Command Prompt' with a close button (X). The text inside the window shows the execution of a ping command from PC3 to PC4 (201.222.5.10). The output indicates that all four packets were successfully received with 0% loss and 0ms round trip times.

```
Packet Tracer PC Command Line 1.0
C:\>ping 201.222.5.10

Pinging 201.222.5.10 with 32 bytes of data:

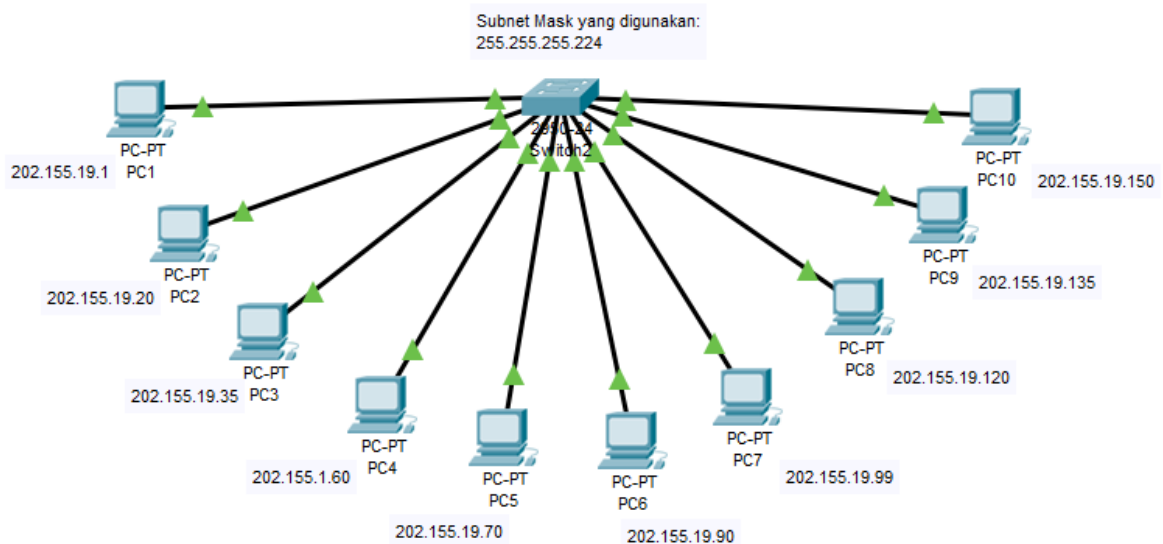
Reply from 201.222.5.10: bytes=32 time<1ms TTL=128
Reply from 201.222.5.10: bytes=32 time<1ms TTL=128
Reply from 201.222.5.10: bytes=32 time<1ms TTL=128
Reply from 201.222.5.10: bytes=32 time<1ms TTL=128

Ping statistics for 201.222.5.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Tugas Modul

1. Desain Rangkaian



2. Subnet Mask yang digunakan yaitu 255.255.255.224

Didapat dari pengubahan bilangan biner 00000000 pada blok terakhir menjadi bilangan biner 1.

IIIIIIII.IIIIIII.IIIIIII.00000000 -> IIIIIII.IIIIIII.IIIIIII.III00000

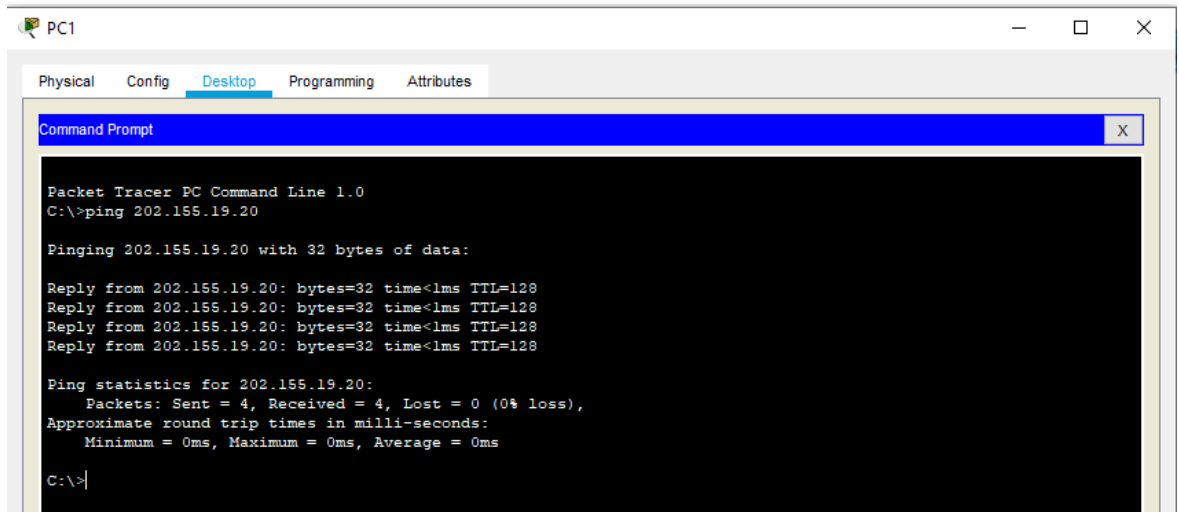
Karena diperlukan 5 subnet, maka dengan mengubah 3 digit biner 0 menjadi biner 1 sudah didapatkan $2^3 = 8$ Subnet, dan sudah mencukupi

- **Jumlah Subnet (2^x):**
 $2^3 = 8$ Subnet
- **Host per Subnet ($2^y - 2$) :**
 $2^5 - 2 = 30$ Host
- **Block Subnet**
 $256 - 224 = 32$ IP
- Tabel Subnet

Netw ork	202.155. 19.0	202.155. 19.32	202.155. 19.64	202.155. 19.96	202.155. 19.128	202.155. 19.160	202.155. 19.192	202.155. 19.224
IP Awal	202.155. 19.1	202.155. 19.33	202.155. 19.65	202.155. 19.97	202.155. 19.129	202.155. 19.161	202.155. 19.193	202.155. 19.225
IP Akhir	202.155. 19.30	202.155. 19.62	202.155. 19.94	202.155. 19.126	202.155. 19.158	202.155. 19.190	202.155. 19.222	202.155. 19.254
Broad cast	202.155. 19.31	202.155. 19.63	202.155. 19.95	202.155. 19.127	202.155. 19.159	202.155. 19.191	202.155. 19.223	202.155. 19.255

3. Uji Coba Koneksi

- PC1 ke PC2



The screenshot shows the 'PC1' window with the 'Desktop' tab selected. A 'Command Prompt' window is open, displaying the output of a ping command to 202.155.19.20. The output shows four successful replies with 32 bytes of data, each taking less than 1ms. The ping statistics indicate 4 packets sent, 4 received, and 0% loss.

```
Packet Tracer PC Command Line 1.0
C:\>ping 202.155.19.20

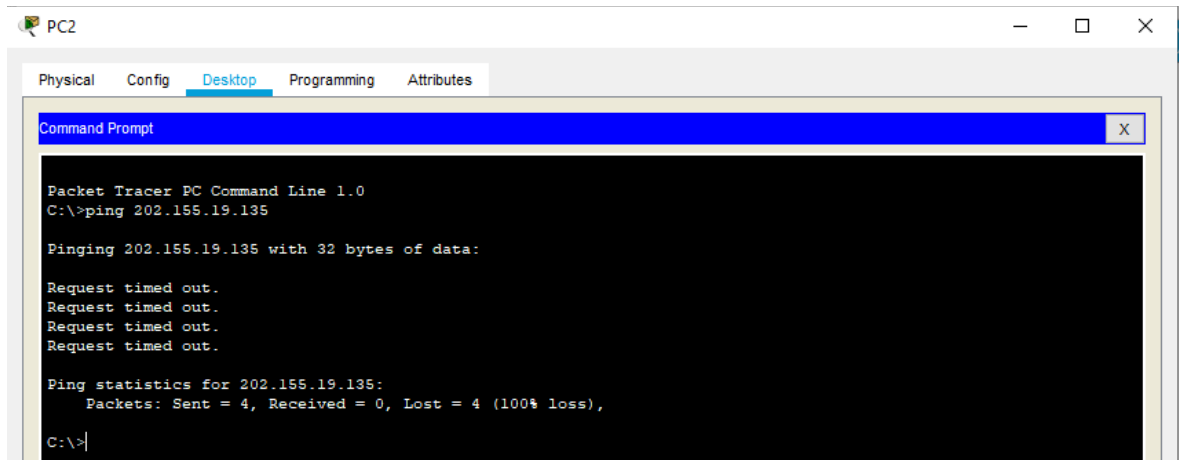
Pinging 202.155.19.20 with 32 bytes of data:

Reply from 202.155.19.20: bytes=32 time<1ms TTL=128
Reply from 202.155.19.20: bytes=32 time<1ms TTL=128
Reply from 202.155.19.20: bytes=32 time<1ms TTL=128
Reply from 202.155.19.20: bytes=32 time<1ms TTL=128

Ping statistics for 202.155.19.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

- PC2 ke PC9



The screenshot shows the 'PC2' window with the 'Desktop' tab selected. A 'Command Prompt' window is open, displaying the output of a ping command to 202.155.19.135. The output shows four 'Request timed out' messages. The ping statistics indicate 4 packets sent, 0 received, and 100% loss.

```
Packet Tracer PC Command Line 1.0
C:\>ping 202.155.19.135

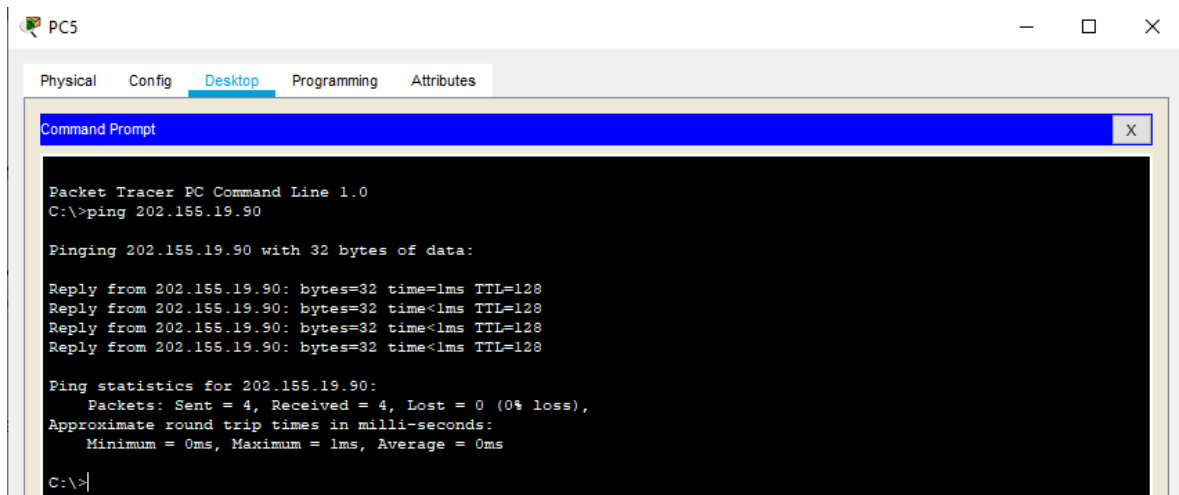
Pinging 202.155.19.135 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 202.155.19.135:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

- PC5 ke PC6



The screenshot shows the 'PC5' window with the 'Desktop' tab selected. A 'Command Prompt' window is open, displaying the output of a ping command to 202.155.19.90. The output shows four successful replies with 32 bytes of data, each taking less than 1ms. The ping statistics indicate 4 packets sent, 4 received, and 0% loss.

```
Packet Tracer PC Command Line 1.0
C:\>ping 202.155.19.90

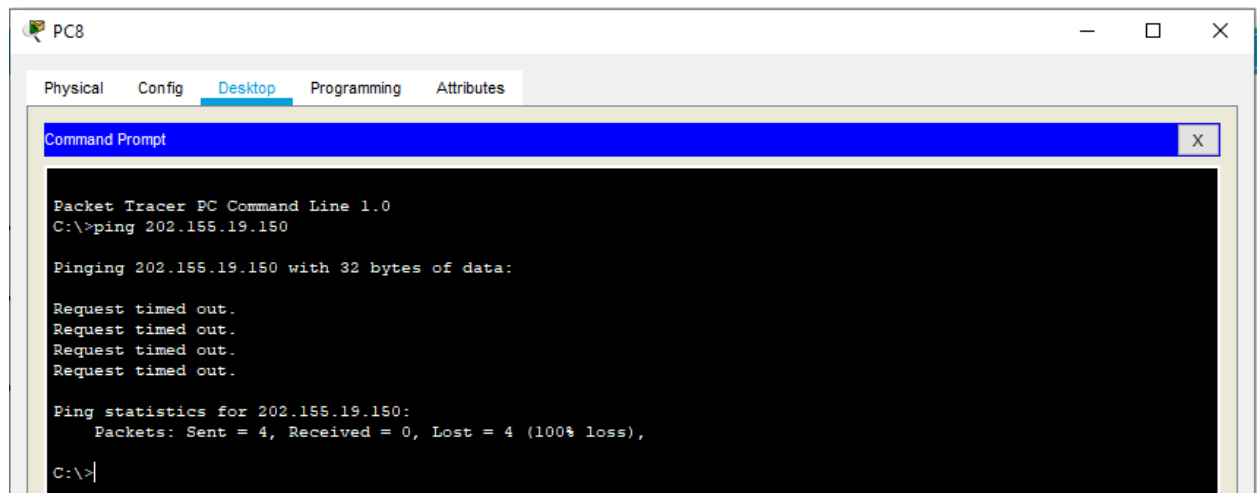
Pinging 202.155.19.90 with 32 bytes of data:

Reply from 202.155.19.90: bytes=32 time<1ms TTL=128
Reply from 202.155.19.90: bytes=32 time<1ms TTL=128
Reply from 202.155.19.90: bytes=32 time<1ms TTL=128
Reply from 202.155.19.90: bytes=32 time<1ms TTL=128

Ping statistics for 202.155.19.90:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

- PC8 ke PC10



```
PC8
Physical Config Desktop Programming Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping 202.155.19.150
Pinging 202.155.19.150 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 202.155.19.150:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>|
```