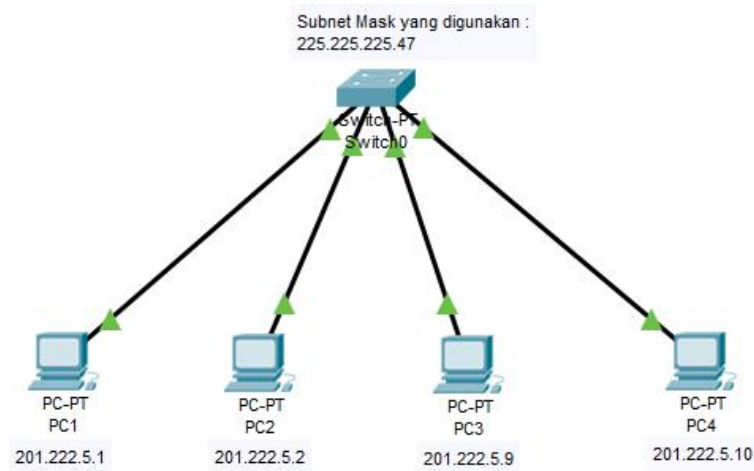


Nama : Andika Wirapala Fathin Azfar
NIM : L200170048
Kelas : A
Modul : 3

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: MDS

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

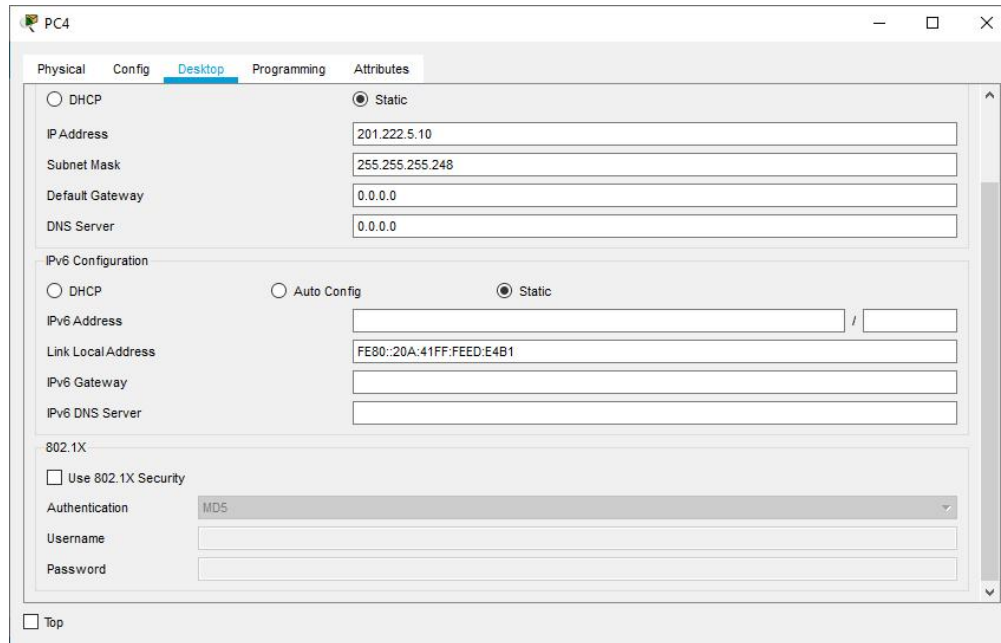
Authentication: MDS

Username:

Password:

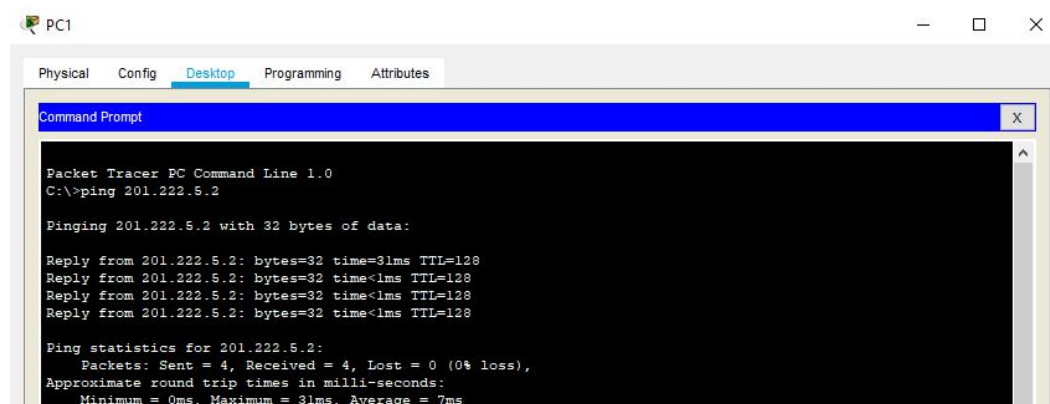
☐ Top

- PC4

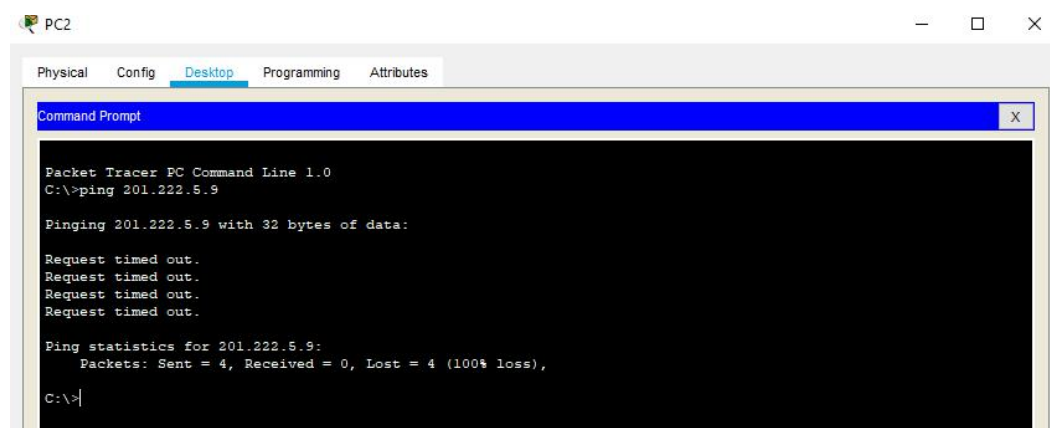


B. Uji Koneksi Jaringan

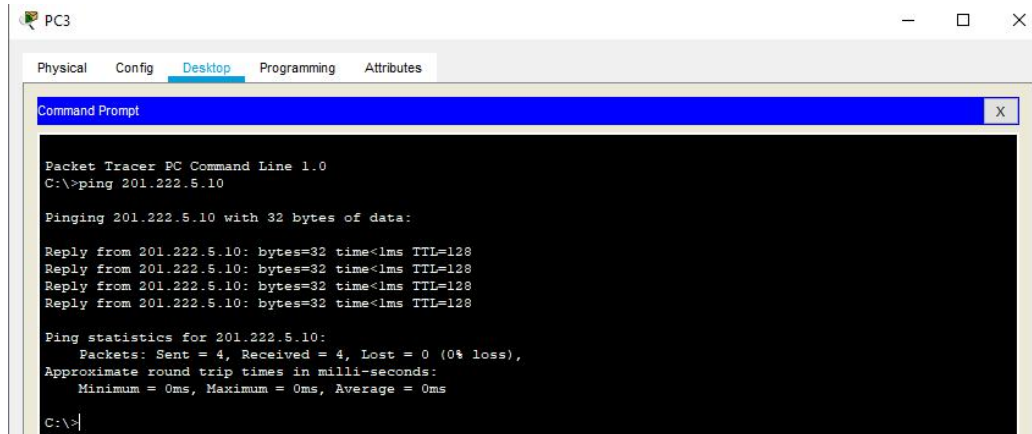
PC1 ke PC2



PC2 ke PC3



PC3 ke PC4



The screenshot shows a Packet Tracer interface for PC3. The 'Desktop' tab is active, displaying a 'Command Prompt' window. The window title is 'Command Prompt' with a close button (X). The text inside the window is as follows:

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

Pinging 201.222.5.10 with 32 bytes of data:

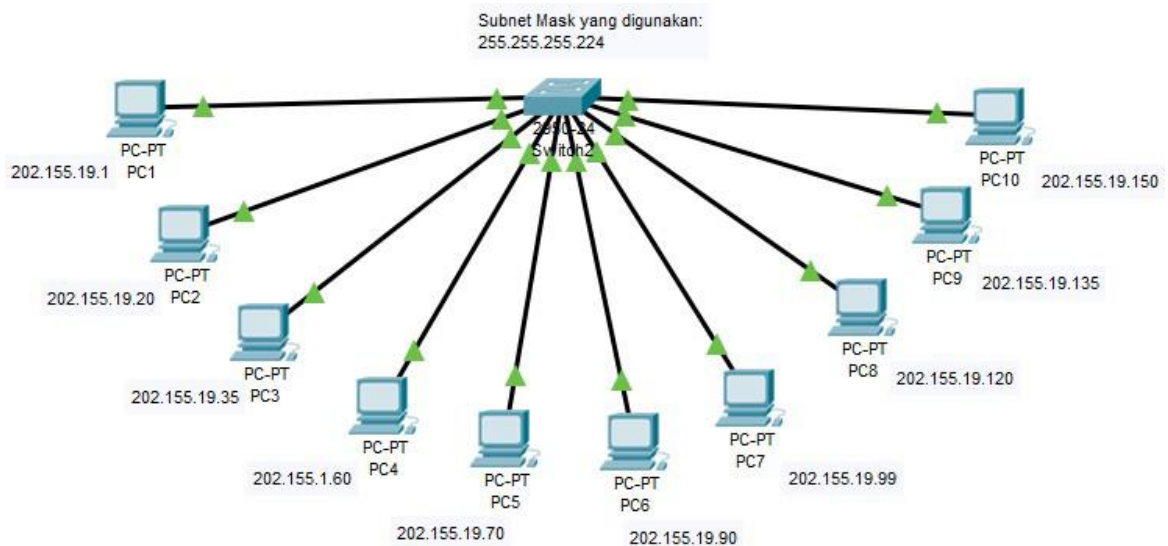
Reply from 201.222.5.10: bytes=32 time<1ms TTL=128
Reply from 201.222.5.10: bytes=32 time<1ms TTL=128
Reply from 201.222.5.10: bytes=32 time<1ms TTL=128
Reply from 201.222.5.10: bytes=32 time<1ms TTL=128

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 perubahan bilangan biner 00000000 pada blok terakhir menjadi bilangan biner 1.

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

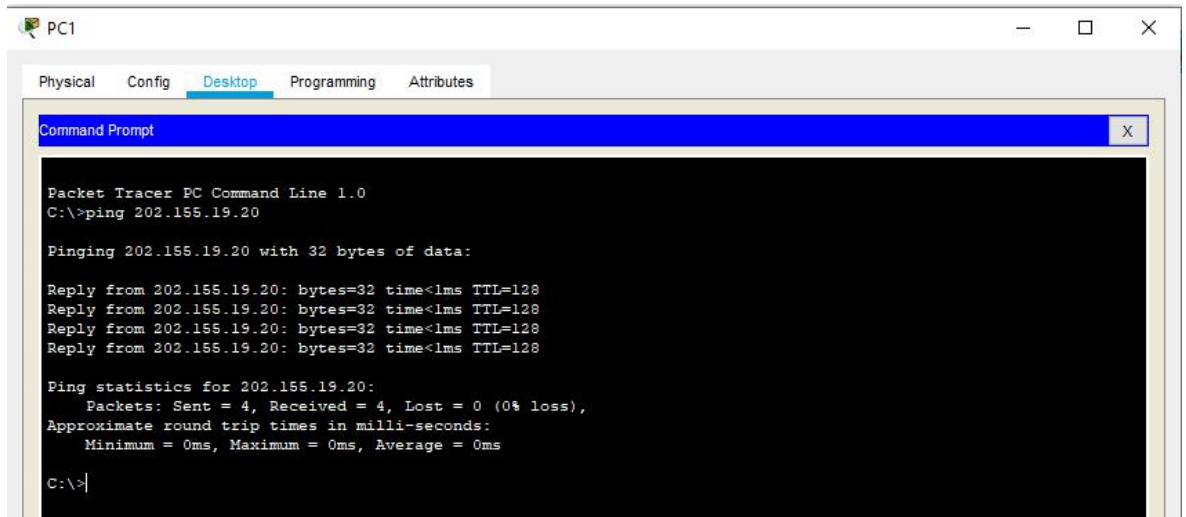
Karena diperlukan 5 subnet, maka dengan mengubah 3 digit biner 0 menjadi biner 1 sudah didapatkan $2^3 = 8$ Subnet, dan sudah mencukupi

- **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

Network	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
Broadcast	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 Packet Tracer PC Command Line interface for PC1. The 'Desktop' tab is selected. The Command Prompt window displays the output of a ping command to 202.155.19.20. The output shows four successful replies with 32 bytes of data, a time of 1ms, and a TTL of 128. 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

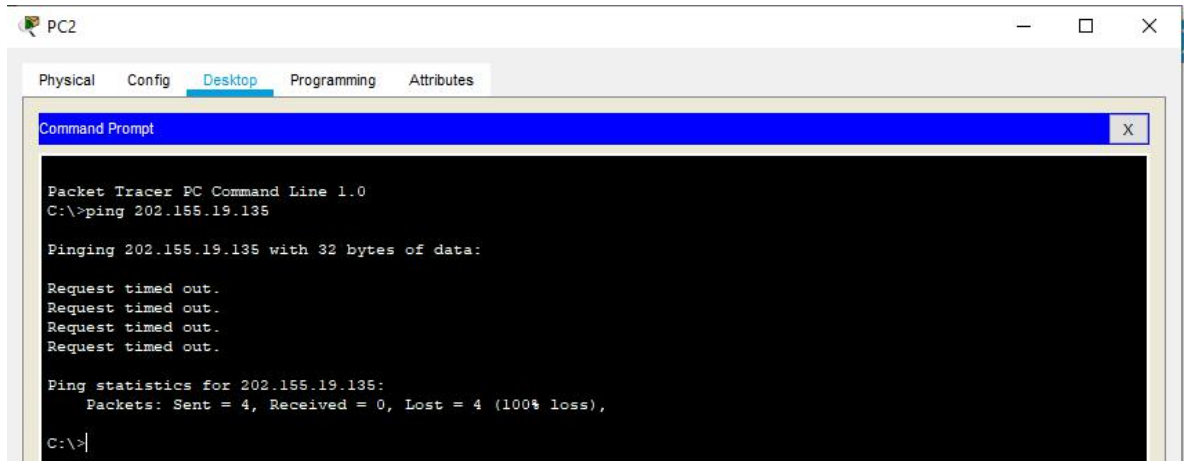
Pinging 202.155.19.20 with 32 bytes of data:

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 Packet Tracer PC Command Line interface for PC2. The 'Desktop' tab is selected. The Command Prompt window displays 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

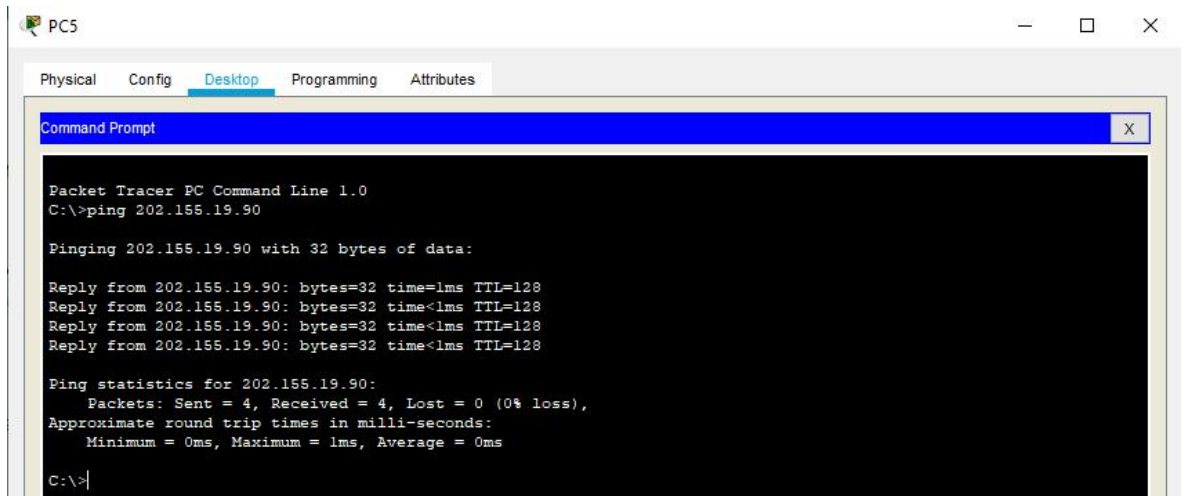
Pinging 202.155.19.135 with 32 bytes of data:

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 Packet Tracer PC Command Line interface for PC5. The 'Desktop' tab is selected. The Command Prompt window displays the output of a ping command to 202.155.19.90. The output shows four successful replies with 32 bytes of data, a time of 1ms, and a TTL of 128. 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

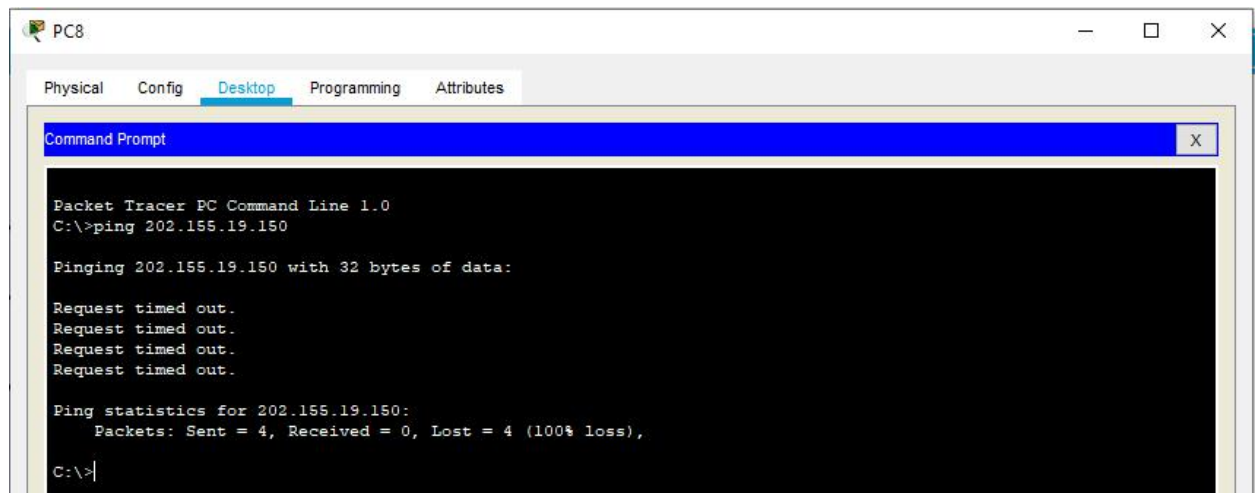
Pinging 202.155.19.90 with 32 bytes of data:

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



The screenshot shows a Packet Tracer PC8 window with the 'Desktop' tab selected. A 'Command Prompt' window is open, displaying the following text:

```
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:\>|
```