

TUGAS MODUL 03 SUBNETTING

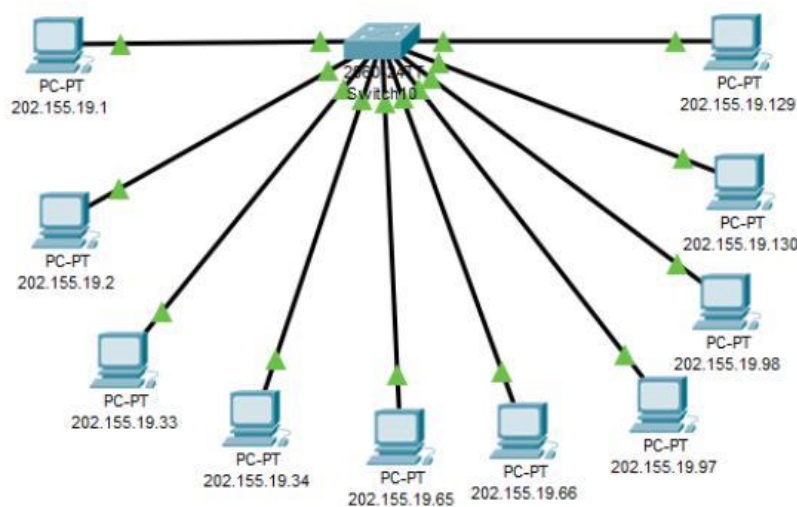
Nama : Aiza Fravy Qanza

NIM : L200170144

Kelas : D

Tugas Modul

1. Menyusun peralatan jaringan yang terdiri dari 1 buah switch dan 10 buah unit PC



2. Tentukan subnet mask yang harus digunakan pada semua komputer tersebut, tiap-tiap divisi dapat menampung hingga 25 unit PC dan subnet mask default yaitu 255.255.255.0 (11111111). Karena kita hanya butuh 5 maka kita ambil 3 bit dari sebelah kiri.

$$2^3 - 2 = 6, \text{ binernya } (11100000)$$

$$\text{Sehingga, } (1 \times 27) + (1 \times 26) + (1 \times 25) + (0 \times 24) + (0 \times 23) + (0 \times 22) + (0 \times 21) + (0 \times 20) = 224$$

Range IP yang didapat : $256 - 224 = 32$ IP Address, dimana dengan ini syarat bahwa tiap-tiap divisi dapat menampung hingga 25 komputer dapat terpenuhi

IP Address

IP Address awal	IP Address akhir	Subnet Address
202.155.19.1	202.155.19.31	202.155.19.0
202.155.19.33	202.155.19.63	202.155.19.32
202.155.19.65	202.155.19.95	202.155.19.64
202.155.19.97	202.155.19.127	202.155.19.96
202.155.19.129	202.155.19.159	202.155.19.128
202.155.19.161	202.155.19.191	202.155.19.160
202.155.19.193	202.155.19.223	202.155.19.192
202.155.19.225	202.155.19.254	202.155.19.224

3. Setelah itu memberikan alamat IP pada masing-masing PC berdasarkan masing-masing divisi dengan menggunakan subnet mask 255.255.255.224

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 202.155.19.1

Subnet Mask: 255.255.255.224

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:BAFF:FE08:54A8

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 202.155.19.33

Subnet Mask: 255.255.255.224

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::204:9AFF:FE2B:5606

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 202.155.19.65

Subnet Mask: 255.255.255.224

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:FE39:5C82

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 202.155.19.97

Subnet Mask: 255.255.255.224

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration:

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::202:16FF:FE71:968D

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MDS

Username:

Password:

☐ Top

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 202.155.19.129

Subnet Mask: 255.255.255.224

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration:

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::20B:BEFF:FE62:1916

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MDS

Username:

Password:

☐ Top

PC 1 = 202.155.19.1 – 202.155.19.31
 PC 2 = 202.155.19.33 – 202.155.19.63
 PC 3 = 202.155.19.65 – 202.155.19.95
 PC 4 = 202.155.19.97 – 202.155.19.127
 PC 5 = 202.155.19.129 – 202.155.19.159

4. Melakukan tes koneksi dengan cara melakukan ping

Physical Config **Desktop** Programming Attributes

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Packet Tracer PC Command Line 1.0
C:\>ping 202.155.19.2

Pinging 202.155.19.2 with 32 bytes of data:

Reply from 202.155.19.2: bytes=32 time=1ms TTL=128
Reply from 202.155.19.2: bytes=32 time=1ms TTL=128
Reply from 202.155.19.2: bytes=32 time=3ms TTL=128
Reply from 202.155.19.2: bytes=32 time=1ms TTL=128

Ping statistics for 202.155.19.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 2ms

C:\>
  
```

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