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Matkul : Jaringan Komputer 5I
Modul 1
Laporan Praktikum

Subnet an IPv4 Network

Addressing Table

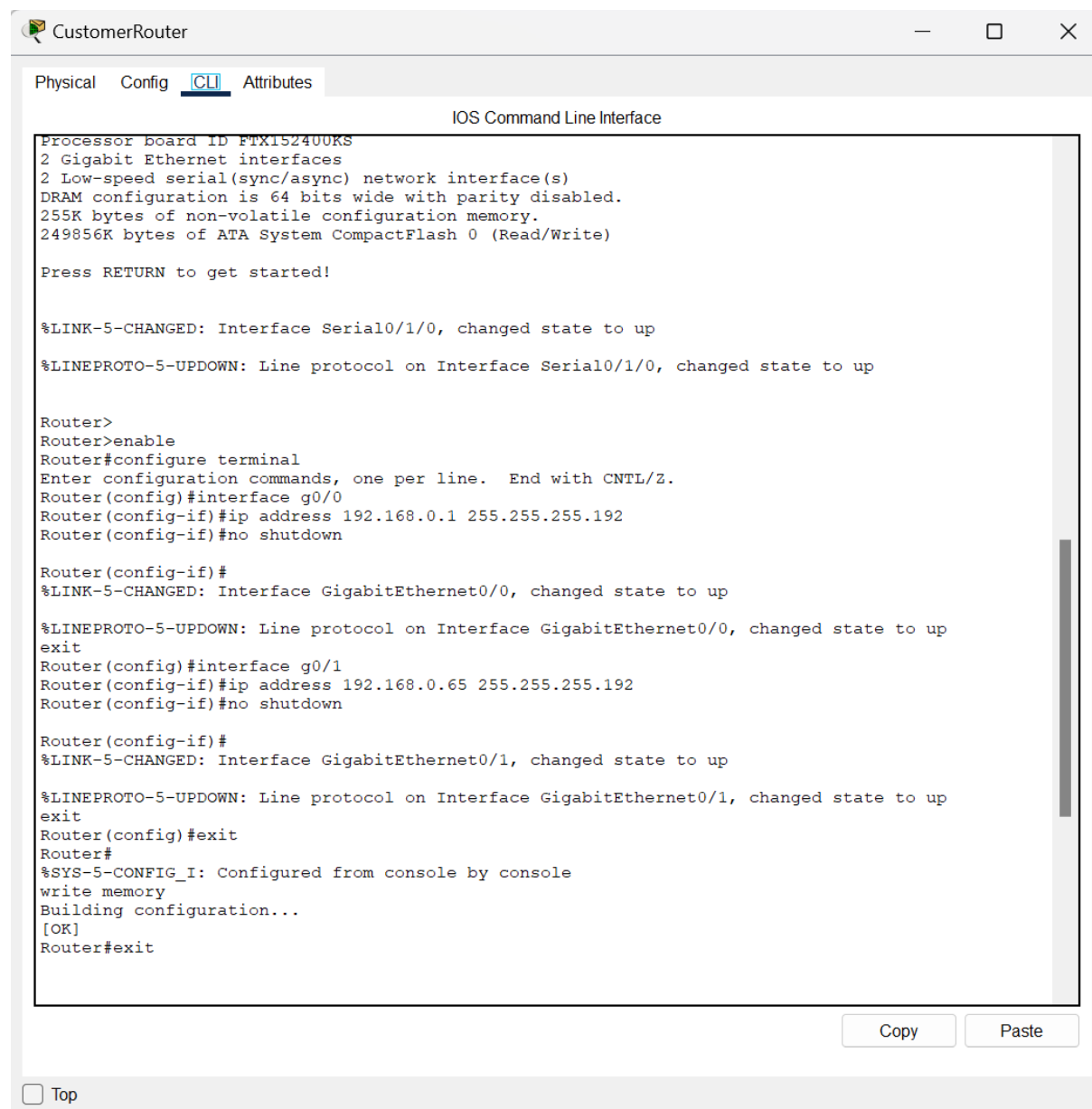
Device	Interface	IP Address	Subnet Mask	Default Gateway
CustomerRouter	G0/0	192.168.0.1	255.255.255.192	N/A
	G0/1	192.168.0.65	255.255.255.192	
	S0/1/0	209.165.201.2	255.255.255.252	
LAN-A Switch	VLAN1	192.168.0.2	255.255.255.192	192.168.0.1
LAN-B Switch	VLAN1	192.168.0.66	255.255.255.192	192.168.0.65
PC-A	NIC	192.168.0.62	255.255.255.192	192.168.0.1
PC-B	NIC	192.168.0.126	255.255.255.192	192.168.0.65
ISPRouter	G0/0	209.165.200.225	255.255.255.224	N/A
	S0/1/0	209.165.201.1	255.255.255.252	
ISPSwitch	VLAN1	209.165.200.226	255.255.255.224	209.165.200.225
ISP Workstation	NIC	209.165.200.235	255.255.255.224	209.165.200.225
ISP Server	NIC	209.165.200.240	255.255.255.224	209.165.200.225

Langkah 1 : Hitung Host yang diperlukan sesuai perintah yaitu 50 dan 40 host pada masing masing PC. Hitung menggunakan IP Address yang diberikan yaitu 192.168.0.0 dengan netmask /24 yaitu 255.255.255.0

Langkah 2 : Setelah menemukan IP Address yang sesuai dengan perhitungan IP Address yaitu VLSM untuk membagi kedua IP tersebut sehingga mendapatkan Alamat IP Address yaitu 192.168.0.1 dan netmask 255.255.255.192

Langkah 3 : Berdasarkan alamat IP Address tersebut dapat di temukan bahwa pada PC A dengan default-gateway 192.168.0.1 dengan netmask 255.255.255.192 dan juga pada PC B dengan default-gateway 192.168.0.65 dengan netmask 255.255.255.192

Langkah 4 : Lakukan Konfigurasi pada Customer Route dari interface G0/0 hingga S0/1/0



The screenshot shows a window titled "CustomerRouter" with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the "IOS Command Line Interface". The text in the CLI window is as follows:

```
Processor board ID FTX152400KS
2 Gigabit Ethernet interfaces
2 Low-speed serial(sync/async) network interface(s)
DRAM configuration is 64 bits wide with parity disabled.
255K bytes of non-volatile configuration memory.
249856K bytes of ATA System CompactFlash 0 (Read/Write)

Press RETURN to get started!

%LINK-5-CHANGED: Interface Serial0/1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1/0, changed state to up

Router>
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface g0/0
Router(config-if)#ip address 192.168.0.1 255.255.255.192
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
exit
Router(config)#interface g0/1
Router(config-if)#ip address 192.168.0.65 255.255.255.192
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
write memory
Building configuration...
[OK]
Router#exit
```

At the bottom right of the CLI window, there are "Copy" and "Paste" buttons. At the bottom left, there is a "Top" button.

- Tekan ENTER
- ketik 'enable'
- ketik 'configure terminal'
- untuk masuk kedalam masing-masing interface ketikan 'interface g0/0'
- ketik 'ip address 192.168.0.1 255.255.255.192' yang sesuai dengan keperluan
- lakukan hal ini hingga semua interface terpenuhi
- lakukan konfigurasi ini juga pada setiap perangkat mulai dari LAN A Switch, HIngg PC B

Langkah 5 : Setelah semua selesai pada konfigurasi dengan CLI selanjutnya kita lakukan konfigurasi pada kedua PC A dan B

PC-A

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.0.62

Subnet Mask 255.255.255.192

Default Gateway 192.168.0.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::2E0:B0FF:FE58:A7A9

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

pada menu Dekstop klik bagian IP Configuration : lalu masukkan IP Address yang sesuai seperti di gambar pada PC A

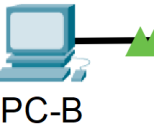
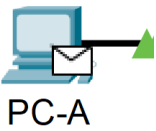
Langkah 6 : Lakukan juga konfigurasi pada PC B

The screenshot shows the configuration window for PC-B. The 'Desktop' tab is selected, and the 'IP Configuration' section is active. The interface is 'FastEthernet0'. Under 'IP Configuration', 'Static' is selected. The IPv4 Address is '192.168.0.126', Subnet Mask is '255.255.255.192', Default Gateway is '192.168.0.65', and DNS Server is '0.0.0.0'. Under 'IPv6 Configuration', 'Static' is selected. The IPv6 Address is empty, Link Local Address is 'FE80::250:FFF:FE33:E320', and both Default Gateway and DNS Server are empty. Under '802.1X', 'Use 802.1X Security' is unchecked, Authentication is 'MD5', and Username and Password fields are empty. A 'Top' button is at the bottom left.

Section	Option	Value
IP Configuration	<input checked="" type="radio"/> Static	
	IPv4 Address	192.168.0.126
	Subnet Mask	255.255.255.192
	Default Gateway	192.168.0.65
	DNS Server	0.0.0.0
IPv6 Configuration	<input checked="" type="radio"/> Static	
	IPv6 Address	
	Link Local Address	FE80::250:FFF:FE33:E320
	Default Gateway	
	DNS Server	
802.1X	<input type="checkbox"/> Use 802.1X Security	
	Authentication	MD5
	Username	
	Password	

Setelah semua selesai coba untuk mengirim data ke masing masing PC

Langkah 7 : Kirim data. Dengan klik logo email lalu klik kedua PC



Langkah 8 : Cek status

e	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC-A	PC-B	ICMP	■	0.000	N	0	(edit)	(delete)
	Successful	PC-A	PC-B	ICMP	■	0.000	N	1	(edit)	(delete)

Jika sudah berhasil seperti ini maka sudah selesai konfigurasi