



Task no : 9

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Section = 5B

Course = Computer Network

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Lab 9 - Task

Task 1;

Different Between “Sub-Netting & Super-Netting”, with Example
(draw structure in cisco)

Answer :

Sub-Netting

Definition :

Dividing a larger network into smaller subnetworks.

Purpose :

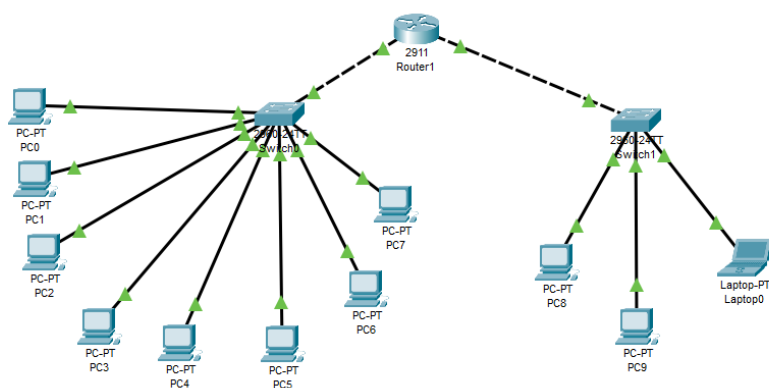
Improves network efficiency by reducing the size of broadcast domains and isolating traffic.

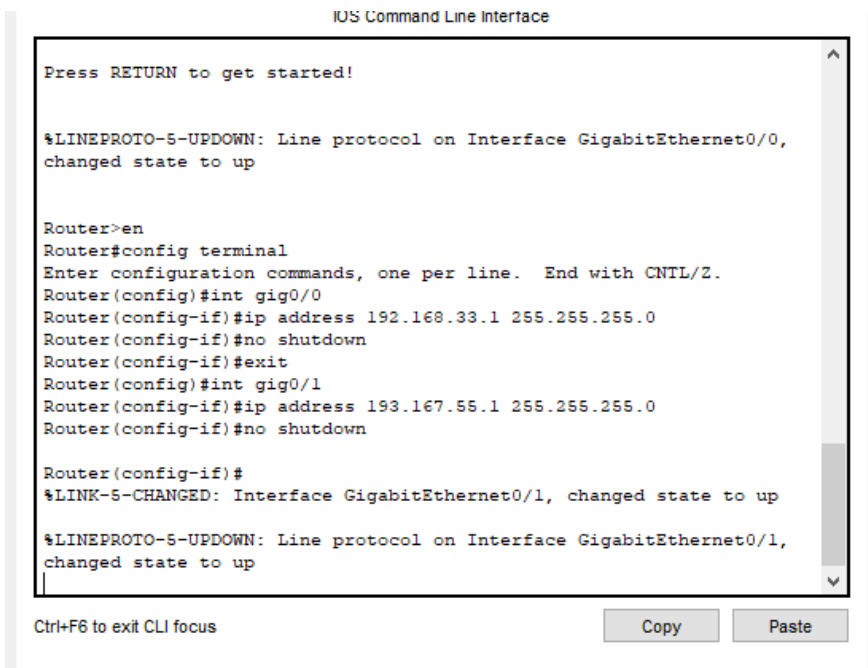
Address Scope :

Uses host bits to create more networks (e.g., breaking down a /24 into multiple /28s).

Use Case

For dividing an organization’s network into logical parts (departments).





```
IOS Command Line Interface

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0,
changed state to up

Router>en
Router#config terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int gig0/0
Router(config-if)#ip address 192.168.33.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#int gig0/1
Router(config-if)#ip address 193.167.55.1 255.255.255.0
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

Ctrl+F6 to exit CLI focus
```

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Super-Netting

Definition:

Combining multiple smaller networks into a larger one.

Purpose :

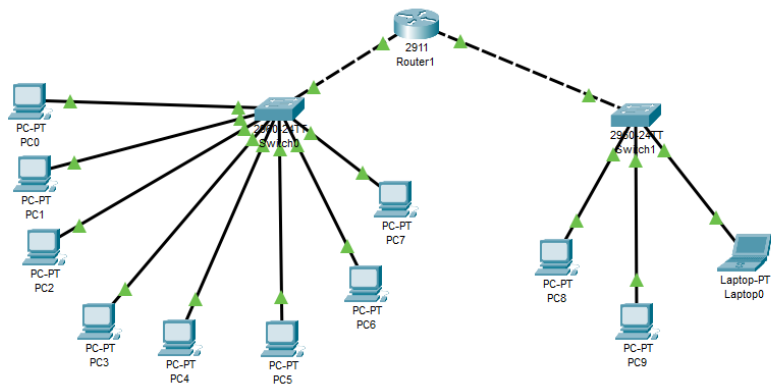
Reduces the size of routing tables and simplifies routing by grouping routes together.

Address Scope :

Uses network bits to aggregate multiple networks into one (e.g., combining /24 into /22).

Use Case :

For ISP routing to summarize multiple customer networks into one route.



```
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)#ip dhcp pool lan1
Router(dhcp-config)#network 192.168.33.0 255.255.255.0
Router(dhcp-config)#exit
Router(config)#ip dhcp pool lan2
Router(dhcp-config)#network 193.167.55.0 255.255.255.0
Router(dhcp-config)#exit
Router(config)#
```