SUPERIOR UNIVERSITY

Task no : 9

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Section = 5B

Course = Computer Network

Date = 29-nov-2024

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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 :

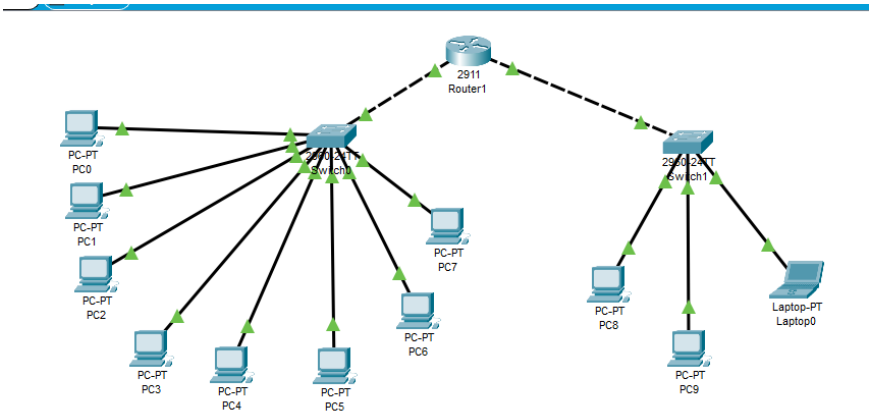
Improves network efficiency by reducing the size of broadcast domains and isolating traffic.

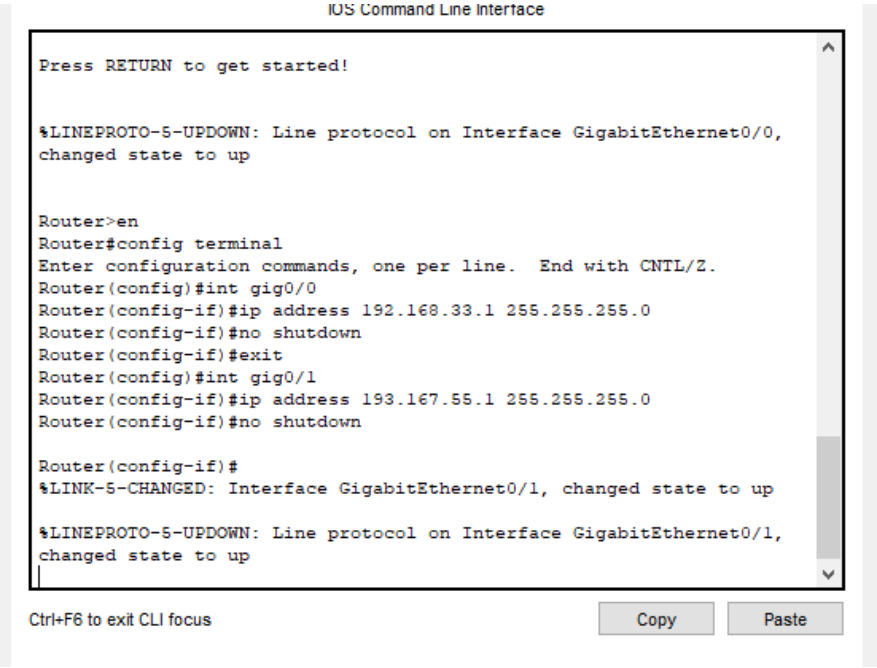
Address Scope :

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).





Super-Netting

Definition:

Combining multiple smaller networks into a larger one.

Purpose :

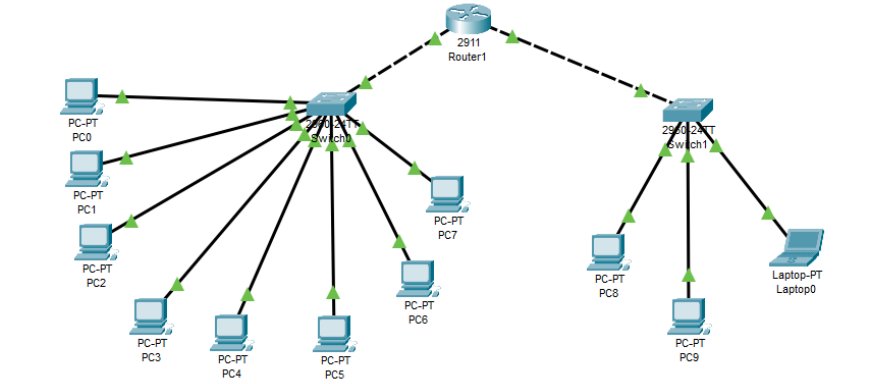
Reduces the size of routing tables and simplifies routing by grouping routes together.

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)#
```