

Computer Networks Lab

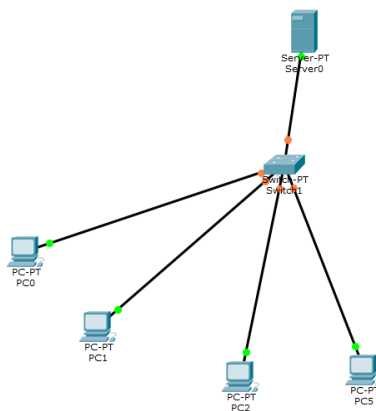
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DHCP in CPT

Method:

- Open Cisco Packet Tracer and create a new network topology.
- Add a server and a switch to the topology.
- Connect the server and switch using a straight-through cable.
- Connect a PC to the switch using a straight-through cable.
- Configure the IP address of the server interface connected to the switch.
- Configure the default gateway on the PC to be the IP address of the server interface connected to the switch.
- Click on "Services" in the bottom left corner of the Packet Tracer window.
- Click on "DHCP" in the list of available services.
- Drag and drop the DHCP service onto the router.
- Double-click on the DHCP service to open the configuration window.
- Configure the DHCP pool by entering the following information:
 - Pool Name
 - Network
 - Subnet Mask
 - Default Router: Enter the IP address of the server interface connected to the switch.
 - DNS Server: Enter the IP address of DNS server.
 - Click on "Save" to save the DHCP configuration.
- Right-click on the router and select "Start" to start the DHCP service.

Initial Topology:



Server - DHCP Configuration:

SERVICES

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.0.1

DNS Server: 10.0.0.1

Start IP Address : 192 168 0 0

Subnet Mask: 255 255 255 0

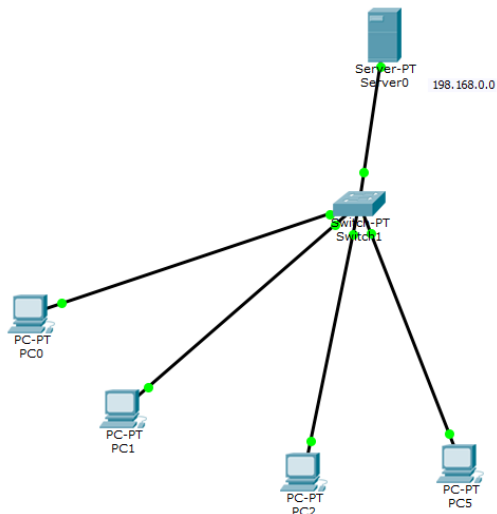
Maximum number of Users : 256

TFTP Server: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP
server...	192.168.0.1	10.0.0.1	192.168.0.0	255.255....	256	0.0.0.0

After Configuration in each PC:

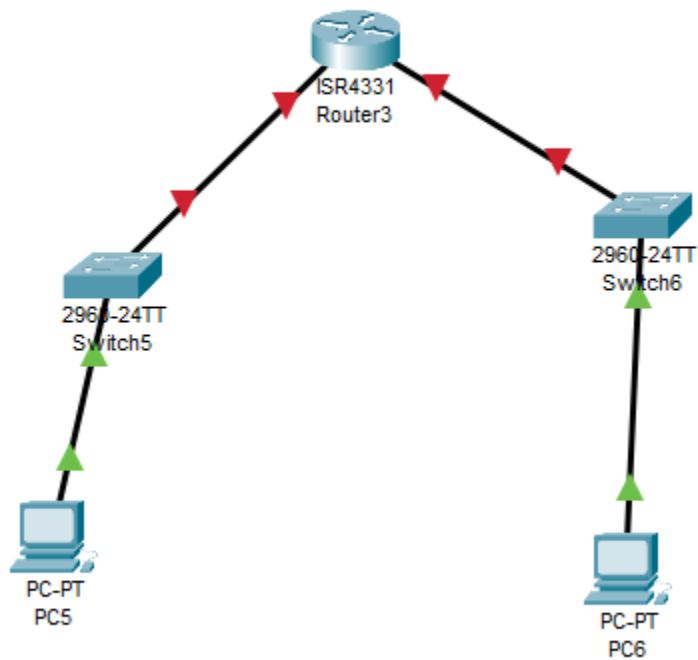


IPV6 Configuration in CPT

Method:

- Place and connect the devices.
- Configure the router using the following commands In CLI
 - i) enable
 - ii) conf t
 - iii) int g0/0/0
 - iv) ipv6 address FE80::1 link-local
 - v) no shut

Initial Topology:



CLI :

```
Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int g0/0/0
Router(config-if)#ipv6 address FE80::1 link-local
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/0, changed state to up

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

Router(config-if)#int g0/0/1
Router(config-if)#ipv6 address FE80::1 link-local
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1,
changed state to up
```

After Configuration:

