



## **CSE3003 : Computer Networks**

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**Lab Slot :** L39 + L40

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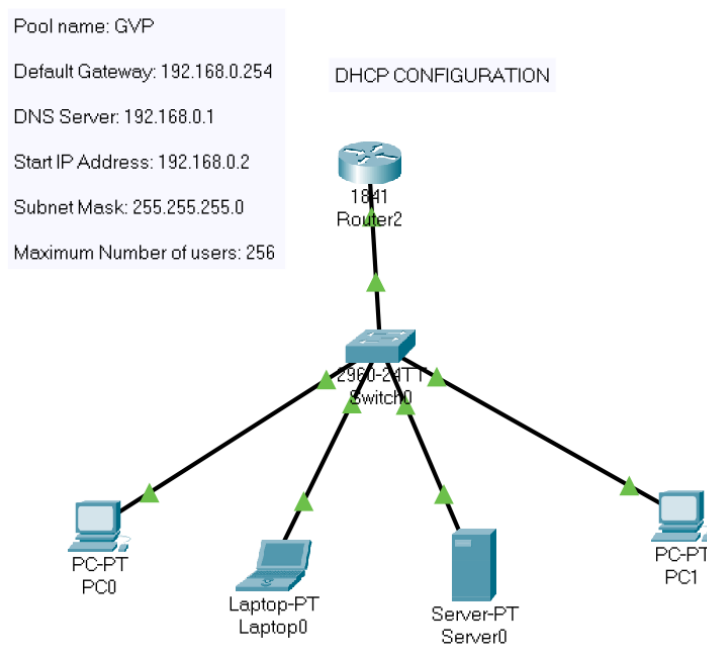
## Ex.No: 11 DHCP Configuration

Date : 17-05-2021

DHCP stands for Dynamic Host Configuration Protocol. When a host (DHCP client) needs an IP configuration, it connects to a DHCP server and requests for an IP configuration. A DHCP server contains several pre-configured IP configurations. When it receives a DHCP request from a DHCP client, it provides an IP configuration to the client from all available IP configurations.

In this lab, I configured a DHCP server both on a router and on a generic server in Cisco Packet Tracer.

### 1. Build the network topology :



### 2. On the router, configure *interface fa0/0* to act as the default gateway for our LAN.

```
Router>enable
Router#config terminal
Router(config)#int fa0/0
Router(config-if)#ip add 192.168.0.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
```

### 3. Configure DHCP server on the Router. In the server we will define a **DHCP pool** of IP addresses to be assigned to hosts, a **Default gateway** for the LAN and a **DNS Server**.

```
Router(config)#
Router(config)#ip dhcp pool GVP
Router(dhcp-config)#network 192.168.0.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.0.254
Router(dhcp-config)#dns-server 192.168.0.1
Router(dhcp-config)#exit
```

```
Router(config)#exit

Router#write memory

Building configuration...

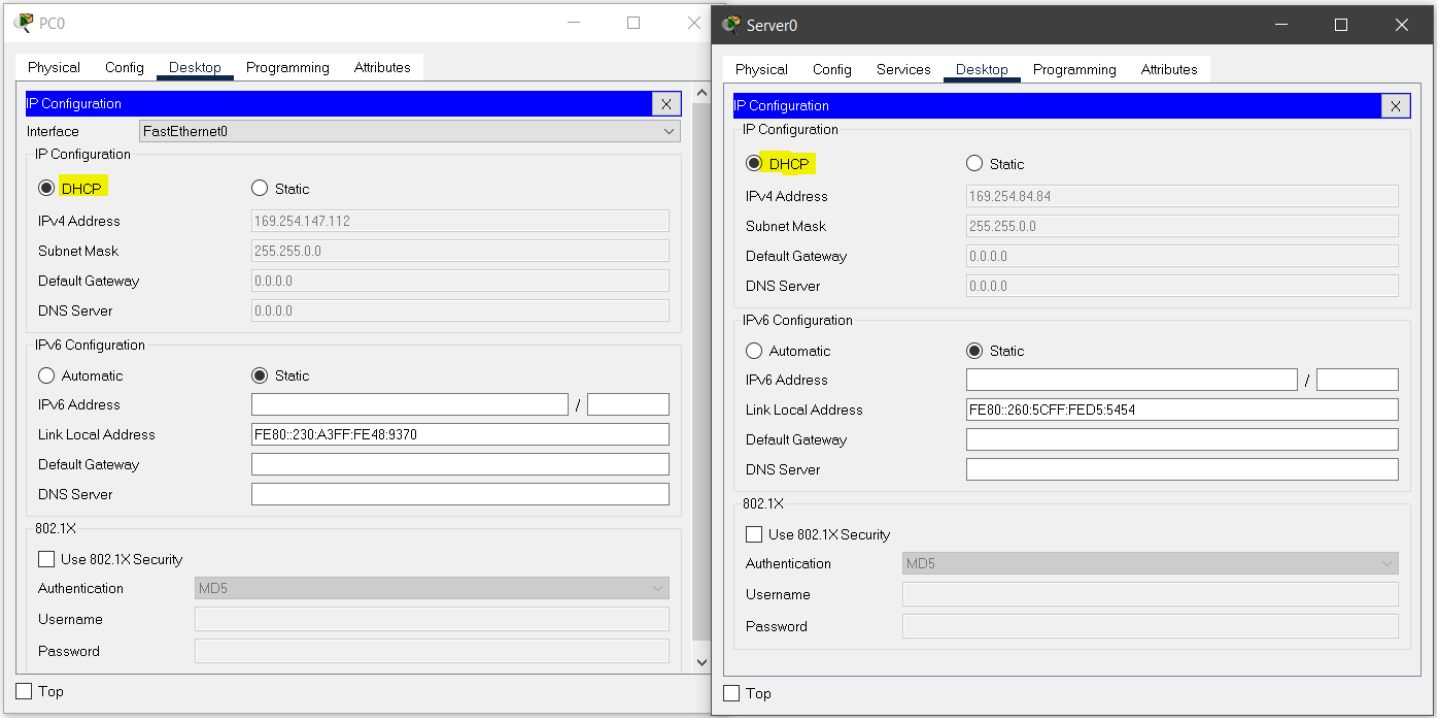
[OK]

Router#
```

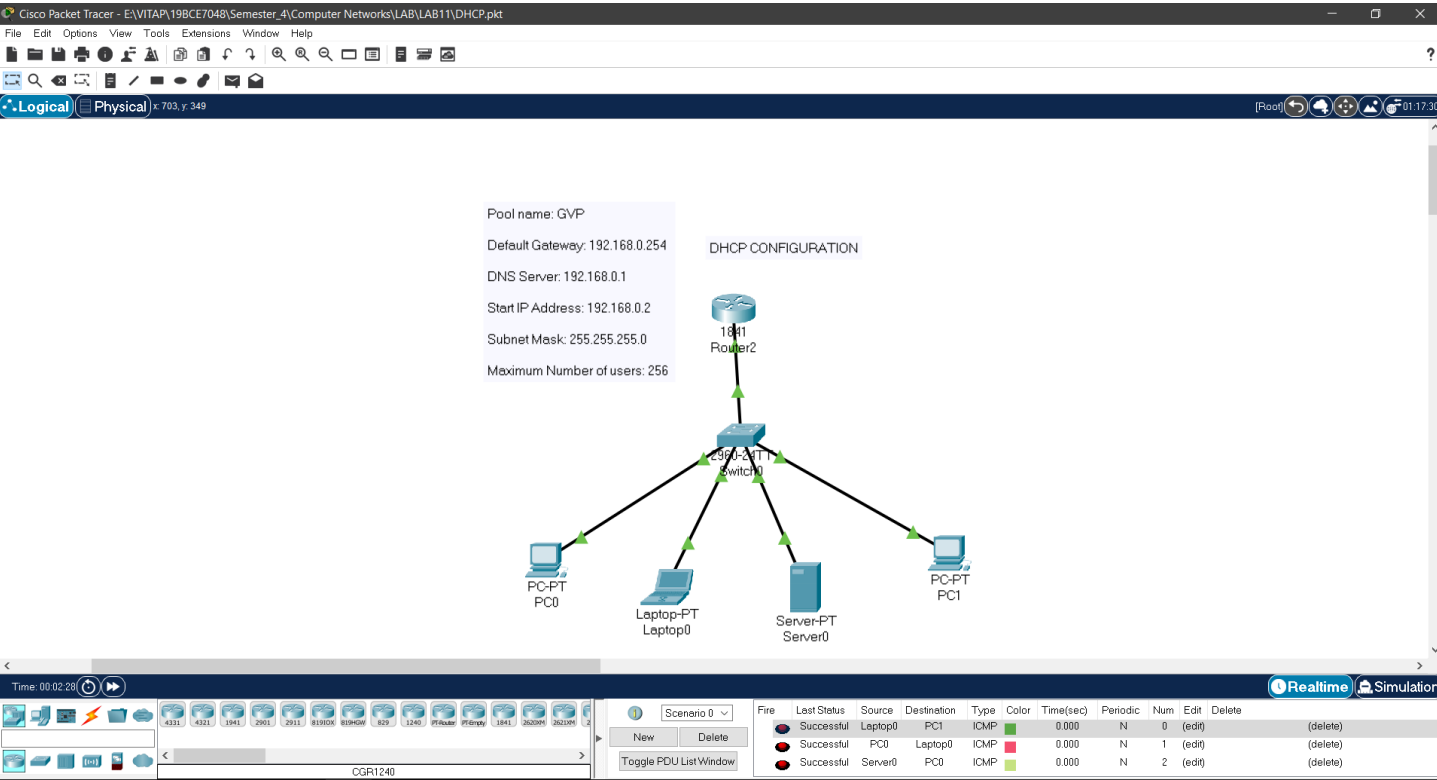
4. Now go to every PC and on their **IP configuration** tabs, enable **DHCP**. Every PC should be able to obtain an IP address, default gateway and DNS server, as defined in step 2.

For example, to enable DHCP on PC1:

Click **PC1->Desktop->IP configuration**. Then enable DHCP :



5. Creating and configuring DHCP Server :



In the above picture, you can observe that the packets are sent from different desktops and status is successful. This is how to configure DHCP Server that pre-configures IP.