

# DHCP

## (Dynamic Host Control Protocol)

### Lab

**Book Source:** 101 LABS by Paul Browning

**CompTIA Network +**

**Completed by:** Thomas Price

**Lab Objective:**

Learn how DHCP servers allocate IP information.

**Lab Purpose:**

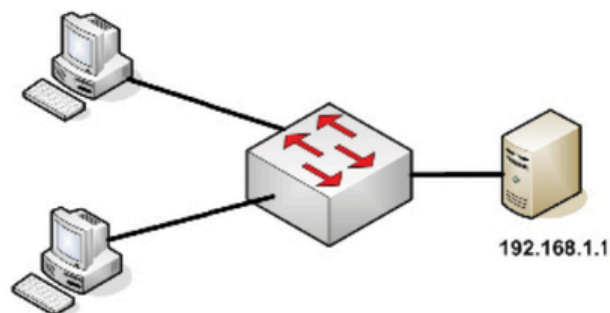
The vast majority of IP networks use DHCP to allocate IP information to hosts. Here we'll configure a scope of addresses and other IP information to be allocated.

**Lab Tool:**

Packet Tracer

**Lab Topology:**

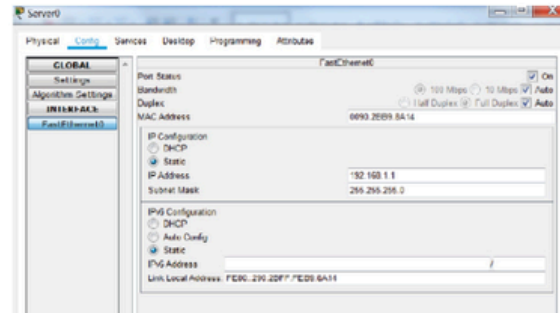
Please use the following topology to complete this lab exercise:



### Lab Walkthrough:

#### Task 1:

Connect a generic server to a Cisco switch using straight-through cables. You will add an IP address to the server but not to the host PCs, which will be using DHCP.



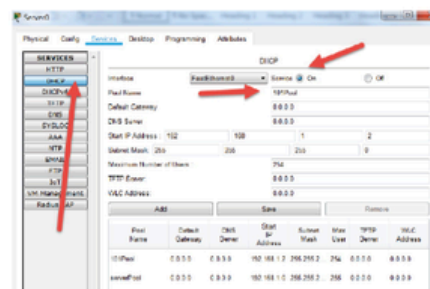
#### Task 2:

Configure the DHCP information on the server. Allocate the following:

Address start—192.168.1.2

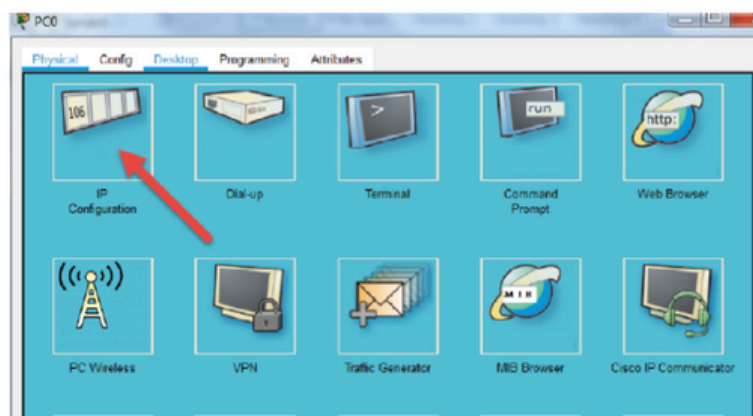
Subnet mask—255.255.255.0

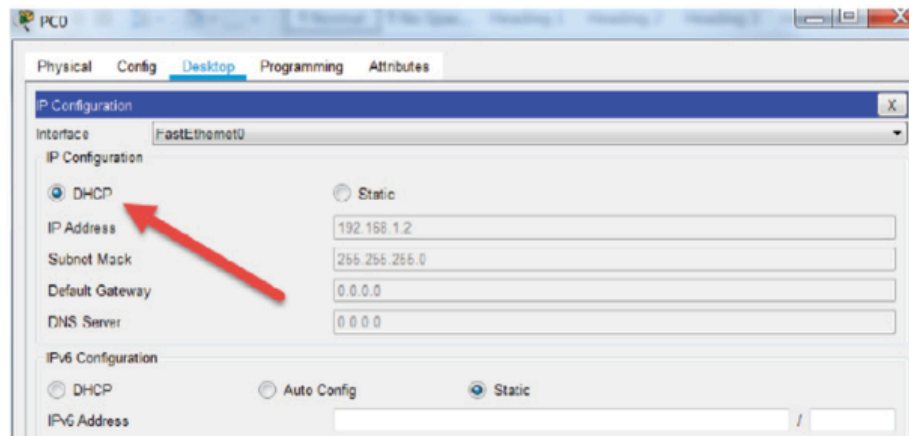
Pool name—101Pool



#### Task 3:

Configure the hosts to obtain information via DHCP. Here is how to do it on one of the hosts.





#### Task 4:

Check the configuration has been applied by issuing the 'ipconfig' command on the hosts. Here it is on one of the hosts. If you hover your mouse over the image of any device in Packet Tracer, you will also see the IP configuration settings.

```
C:\>ipconfig

FastEthernet0 Connection:(default port)

Link-local IPv6 Address.....: FE80::200:CFF:FE11:C9A8
IP Address.....: 192.168.1.3
Subnet Mask.....: 255.255.255.0
Default Gateway.....: 0.0.0.0

Bluetooth Connection:
```

#### Task 5:

I tried adding a DNS server address and IP default gateway, but it doesn't appear to work in Packet Tracer. It does have its limitations.

#### Note:

You can also configure a router to allocate IP information via DHCP as I'm sure your home router does.