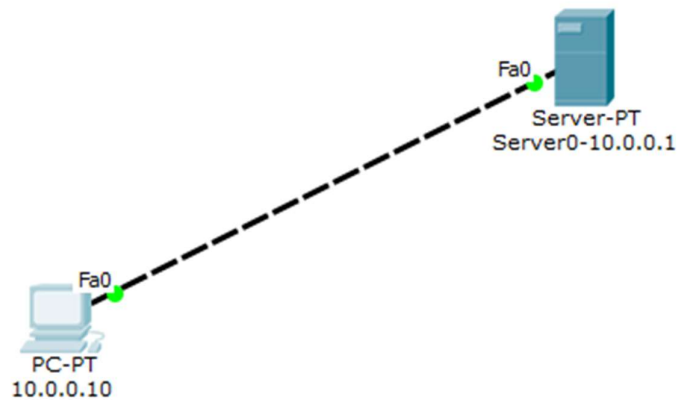


## LAB-4(26-07-2023)

-1BM21CS209

5.How to configure HTTP and DNS Server.



Server0-10.0.0.1

Physical Config Services Desktop Custom Interface

**SERVICES**

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

**DNS**

DNS Service ☒ On ☐ Off

Resource Records

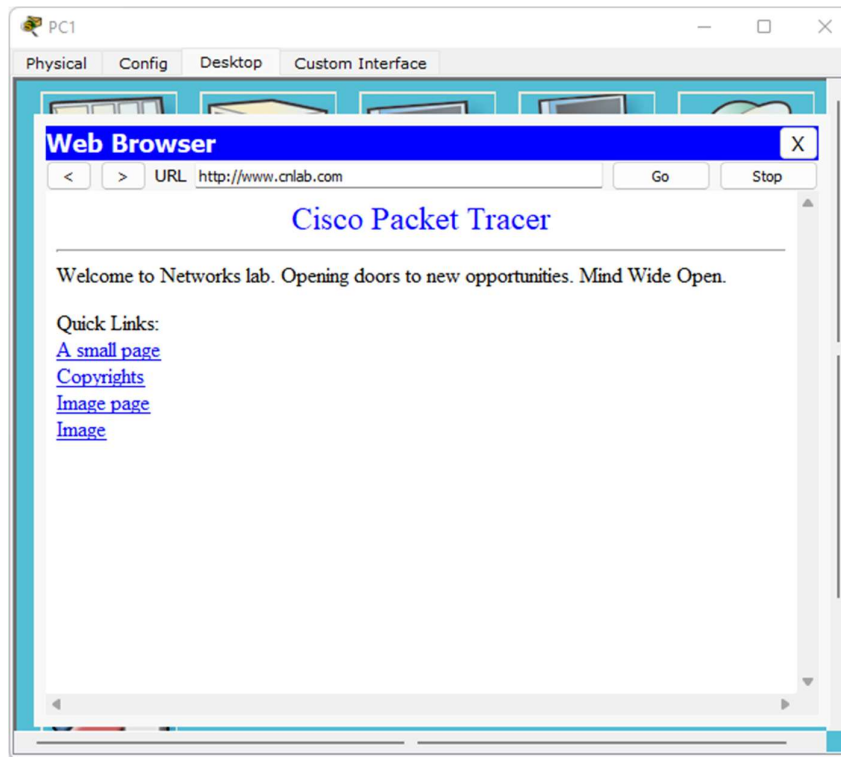
Name www.cnlab.com Type A Record ▼

Address 20.0.0.1

Add Save Remove

No.	Name	Type	Detail
0	www.cnlab.com	A Record	10.0.0.1

DNS Cache



06-07-2023

5 How to Configure HTTP and DNS with server.

→

nslookup is a command which will provide ip address for any domain name.

In Server,

Configure the ip address to server

Turn on HTTP & HTTPS requests. Under DNS, configure the DNS service with ip address

In PC,

Configure the ip address to server

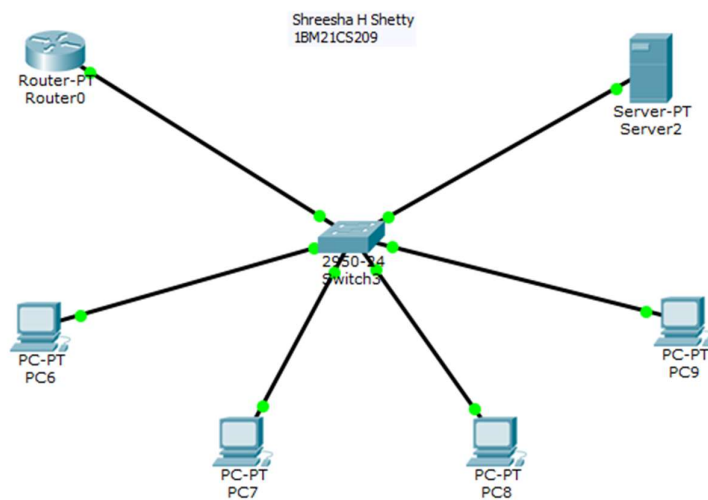
Under Desktop → browse web → type domain name

Outcome:

We were able to configure DNS and HTTP server by which the IP address is accessed when the domain name is given.

## 6. How to configure ip address dynamically.

### Configure DHCP within LAN



```
Router0
Physical Config CLI
IOS Command Line Interface
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---
Continue with configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastEthernet0/0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#
```

Server2

Physical Config Services Desktop Custom Interface

**SERVICES**

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

### DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

Start IP Address: 10.0.0.0

Subnet Mask: 255.0.0.0

Maximum number of Users: 512

TFTP Server: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server
S	10.0.0.10	10.0.0.20	10.0.0.1	255.0.0.0	512	10.0.0.20
serverPool	0.0.0.0	0.0.0.0	10.0.0.0	255.0.0.0	512	0.0.0.0

PC6

Physical Config Desktop Custom Interface

## IP Configuration

IP Configuration

☒ DHCP ☐ Static

IP Address: 10.0.0.1

Subnet Mask: 255.0.0.0

Default Gateway: 0.0.0.0

DNS Server:

IPv6 Configuration

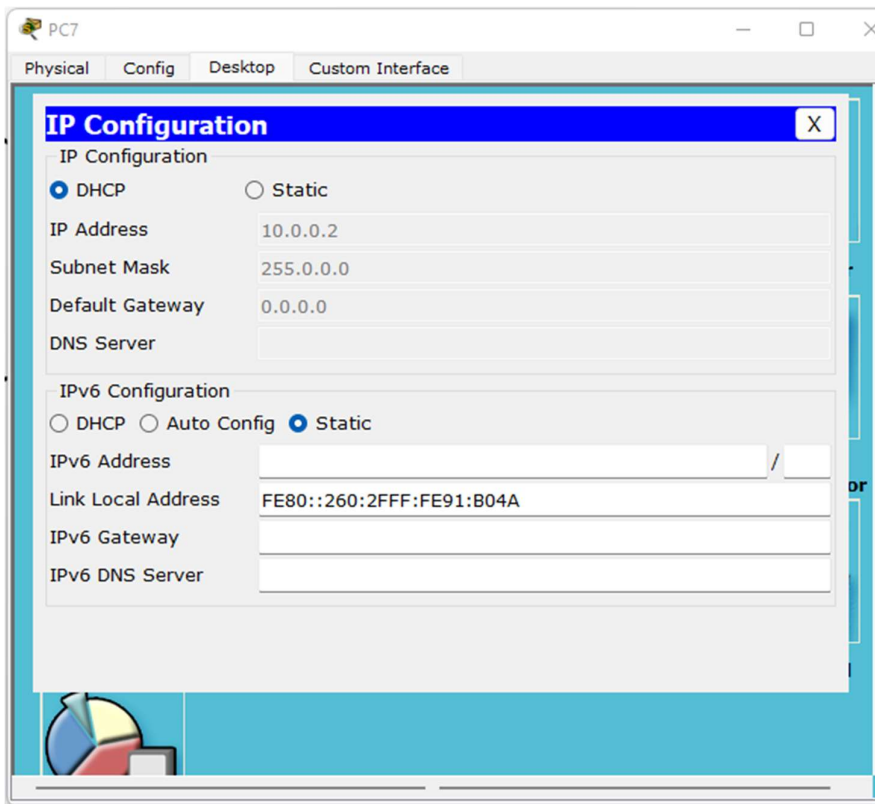
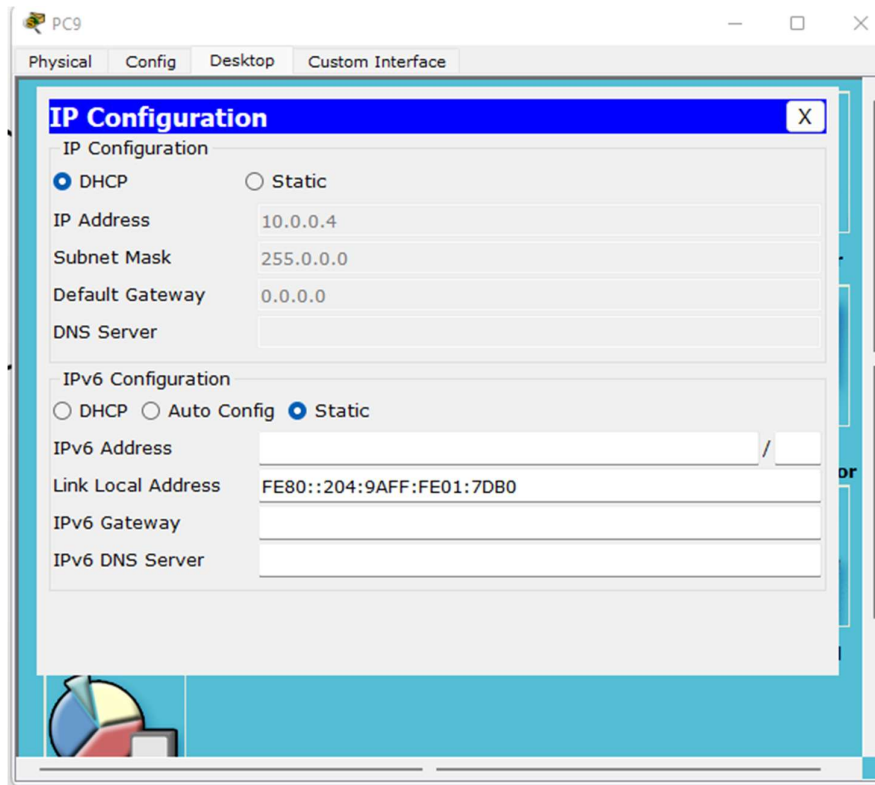
☐ DHCP ☐ Auto Config ☒ Static

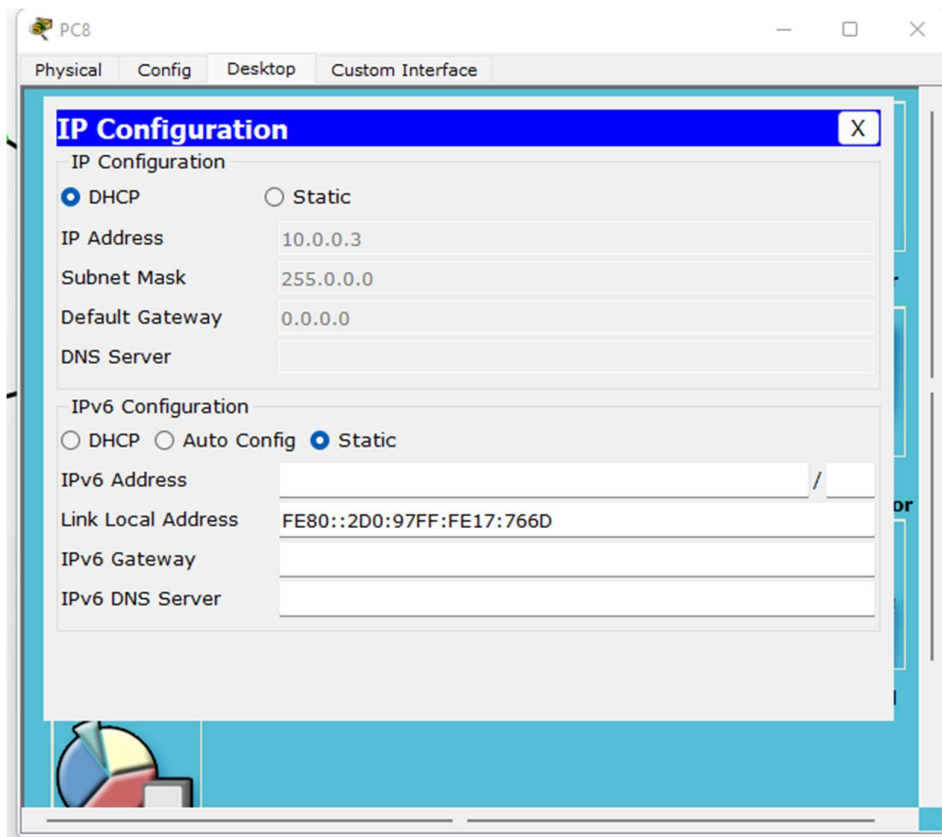
IPv6 Address: /

Link Local Address: FE80::250:FFF:FE1A:8C72

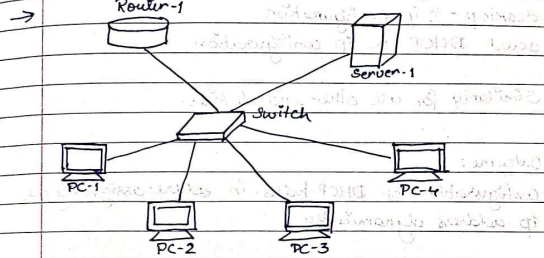
IPv6 Gateway:

IPv6 DNS Server:





## 6. How to configure ip address dynamically.



→ In Router,  
configure ip address  
Router>enable  
#config terminal  
#interface fastEthernet 0/0  
#ip address 10.0.0.10 255.0.0.0  
#no shutdown  
#exit

In Server,  
Configure ip address.  
Turn on service in DHCP in Services.  
Enter pool name, default gateway (router ip address)  
DNS server (server ip address)  
Start Ip address → 10.0.0.0  
Subnet Mask → 255.0.0.0 and Add

In end device (PC-1),  
desktop → ip configuration  
select DHCP in ip configuration

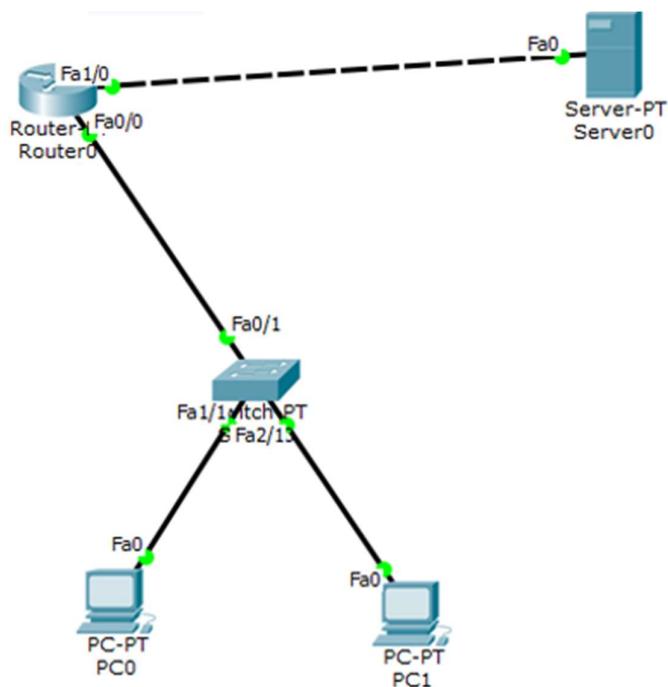
Similarly for all other end devices.

Outcome:  
Configuration of DHCP helps in ~~address~~ assigning the ip address dynamically.

Sun  
11/8/23



## Configure DHCP within LAN



Router0

Physical Config CLI

### IOS Command Line Interface

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastEthernet 1/0
Router(config-if)#ip address 10.0.0.10 255.0.0.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastEthernet 0/0
Router(config-if)#ip address 20.0.0.10 255.0.0.0
Router(config-if)#ip helper-address 10.0.0.2
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
exit
```

Copy Paste



Server0

Physical Config Services Desktop Custom Interface

**SERVICES**

HTTP  
DHCP  
DHCPv6  
TFTP  
DNS  
SYSLOG  
AAA  
NTP  
EMAIL  
FTP

**DHCP**

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

Start IP Address : 10 0 0 0

Subnet Mask: 255 0 0 0

Maximum number of Users : 512

TFTP Server: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server
cnPool2	20.0.0.10	10.0.0.2	20.0.0.10	255.0.0.0	512	10.0.0.2
CNPool	10.0.0.10	10.0.0.2	10.0.0.10	255.0.0.0	512	10.0.0.2
server...	0.0.0.0	0.0.0.0	10.0.0.0	255.0.0.0	512	0.0.0.0

PC0

Physical Config Desktop Custom Interface

**IP Configuration**

IP Configuration

☒ DHCP ☐ Static

IP Address: 20.0.0.12

Subnet Mask: 255.0.0.0

Default Gateway: 20.0.0.10

DNS Server: 10.0.0.2

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::290:CFF:FE80:7D65

IPv6 Gateway:

IPv6 DNS Server:

PC1

Physical Config Desktop Custom Interface

### IP Configuration

IP Configuration

☒ DHCP ☐ Static

IP Address: 20.0.0.11

Subnet Mask: 255.0.0.0

Default Gateway: 20.0.0.10

DNS Server: 10.0.0.2

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::205:5EFF:FEC0:8918

IPv6 Gateway:

IPv6 DNS Server:

