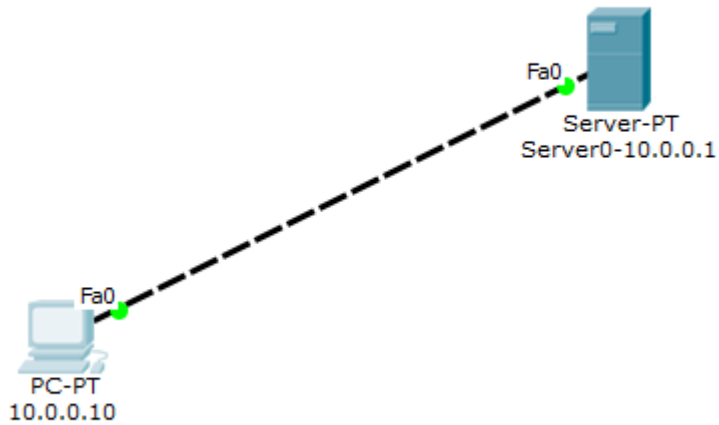


## CN LAB 5

### Configure http and DNS server

1.End Device PC and a server



2.Go to 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

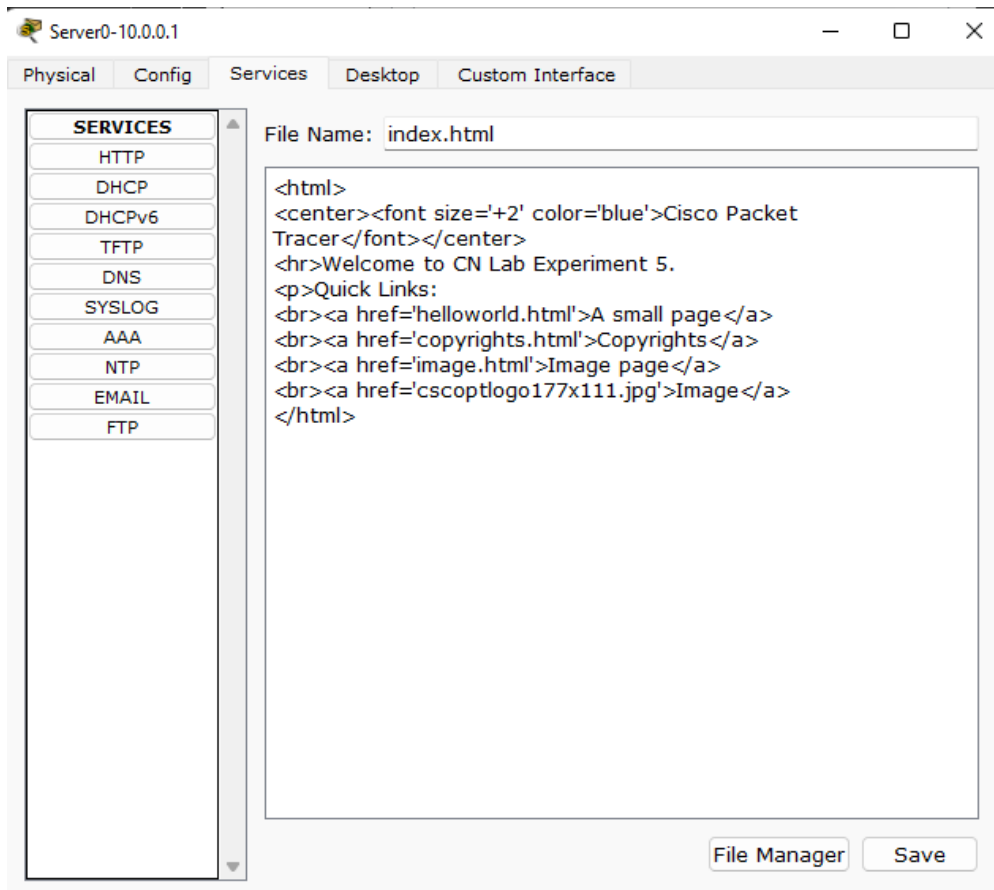
Name  Type

Address

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

3.Edit index.html

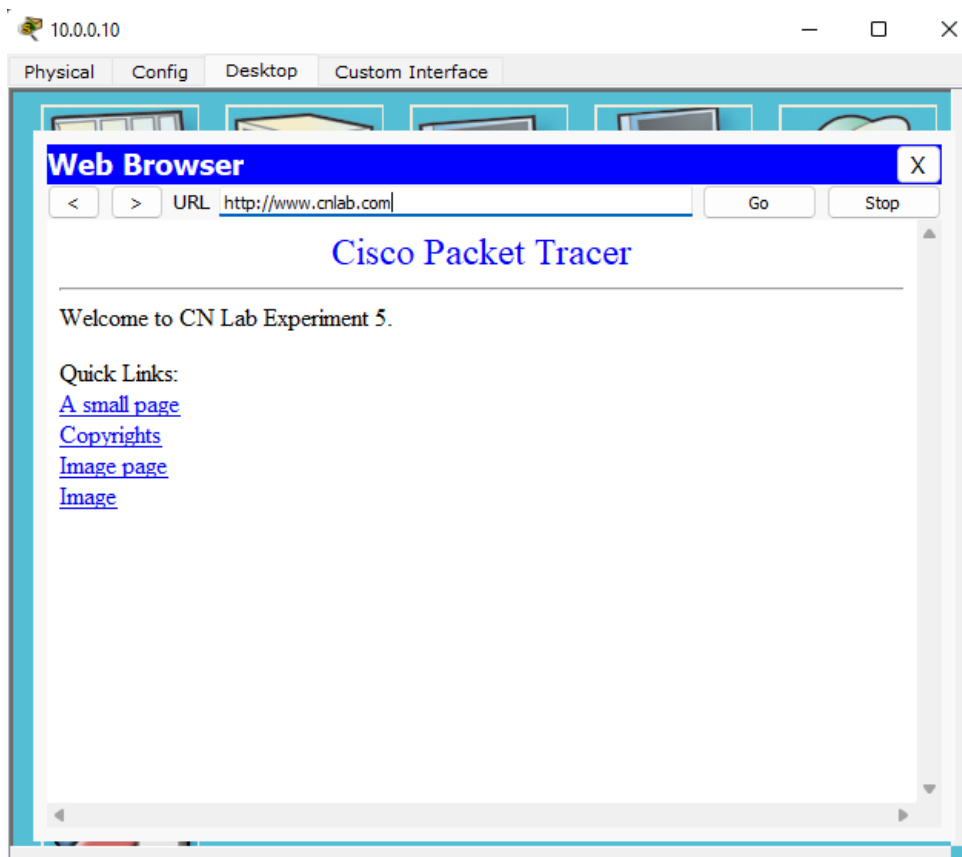
Server->Services->index.html->edit



4. Go to end device.

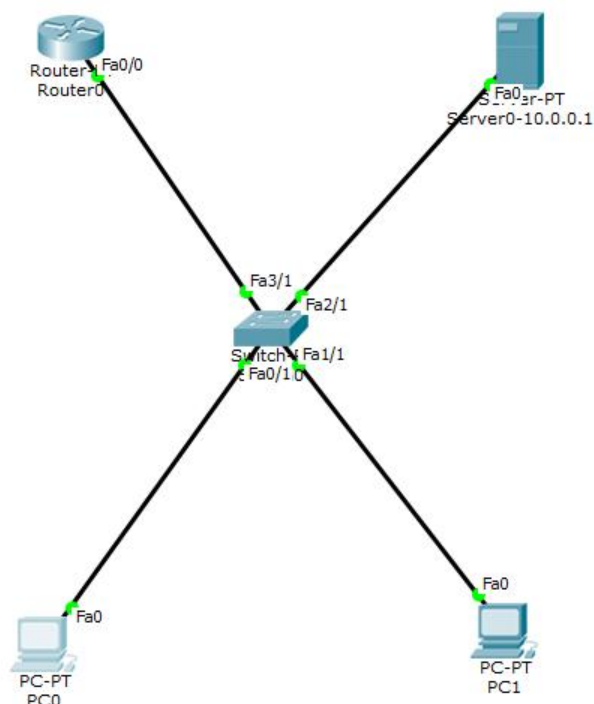
-> Desktop -> Web Browser

Type [www.cnlab.com](http://www.cnlab.com) -> Go



## Configure DHCP within a LAN

1. Two end devices, a switch , router and a Server.



2. Configure ip address pf router using CLI
3. Configure ip address of server using Server->Desktop->IP Configuration

```
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)#
```

#### 4. Server->Services

Set the pool name, default gateway=IP address of the router, TFTP Server=IP address of the Server

The screenshot shows the configuration window for Server0-10.0.0.1, specifically the Services tab. The DHCP service is configured for the FastEthernet0 interface. The Pool Name is 'sevitha', the Default Gateway is '10.0.0.2', and the DNS Server is '0.0.0.0'. The Start IP Address is '10.0.0.0' and the Subnet Mask is '255.0.0.0'. The Maximum number of Users is '512'. The TFTP Server is '10.0.0.1'. A table at the bottom lists the DHCP pool configuration.

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

#### 5. The ip address of the end devices gets assigned automatically

Goto PC0->Desktop->IP Configuration->select DHCP{IPv4}

The screenshot shows the configuration window for PC0, specifically the Desktop tab. The IP Configuration section is selected, and the DHCP radio button is chosen. The IP Address is '10.0.0.3', the Subnet Mask is '255.0.0.0', the Default Gateway is '0.0.0.0', and the DNS Server is empty. The IPv6 Configuration section is also visible, with the DHCP radio button selected. The IPv6 Address is empty, the Link Local Address is 'FE80::201:96FF:FE81:8DB9', the IPv6 Gateway is empty, and the IPv6 DNS Server is empty.

PC1

Physical Config Desktop Custom Interface

### IP Configuration

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IP Address 10.0.0.4

Subnet Mask 255.0.0.0

Default Gateway 0.0.0.0

DNS Server

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

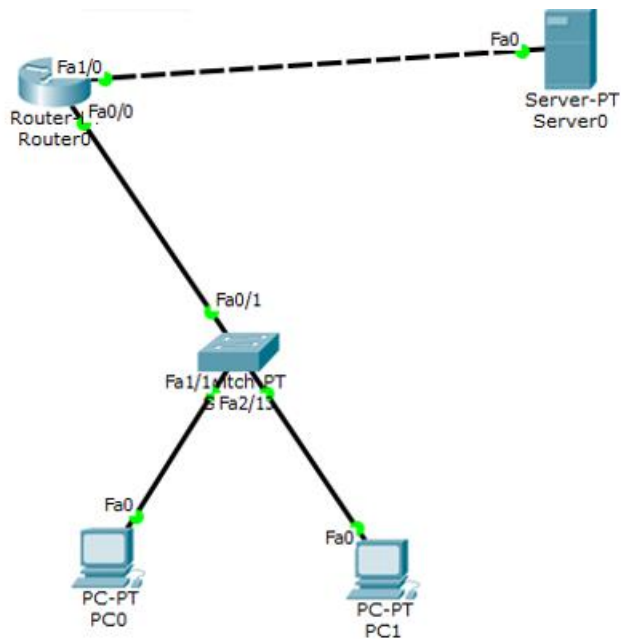
Link Local Address FE80::2E0:F9FF:FE30:971B

IPv6 Gateway

IPv6 DNS Server

## Configure DHCP outside a LAN

1. Two end devices, a switch, router and a server.



2. Router CLI

```
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
```

3. Server->Services

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

#### 4. End devices

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:

**IP Configuration**

X

## 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