

Lab 5 - 02 November 2020

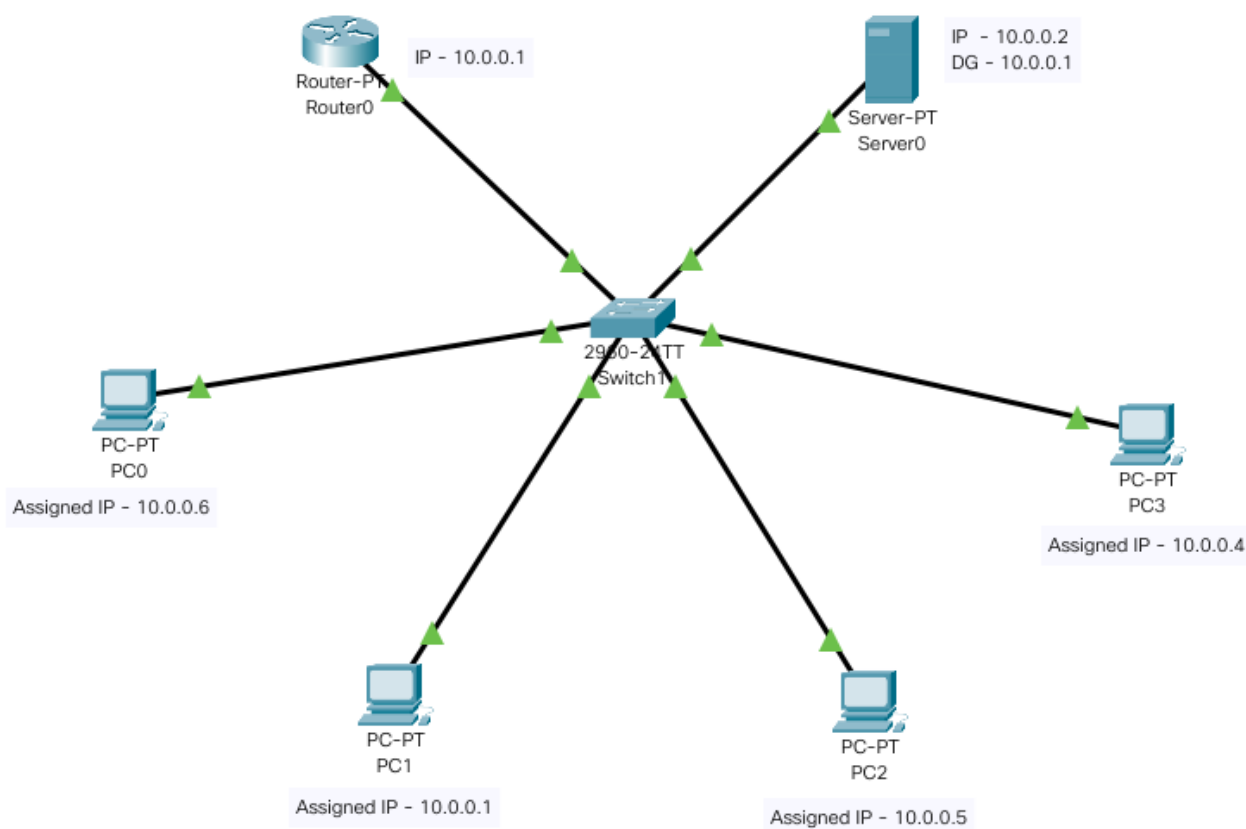
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1BM18CS036

Configuring DHCP within a LAN

Procedure

- Topology, as shown in image, was created using Router-PT, 2960 Switch, Server-PT, and 4 PCs.
- IP addresses were assigned to Router and the server as shown in image below.



- DHCP service in the Server0 was enabled with the following configs.

Server0

Physical Config **Services** Desktop Programming Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DHCP

Interface **FastEthernet0** Service ☒ On ☐ Off

Pool Name

Default Gateway

DNS Server

Start IP Address :

Subnet Mask:

Maximum Number of Users :

TFTP Server:

WLC Address:

Add

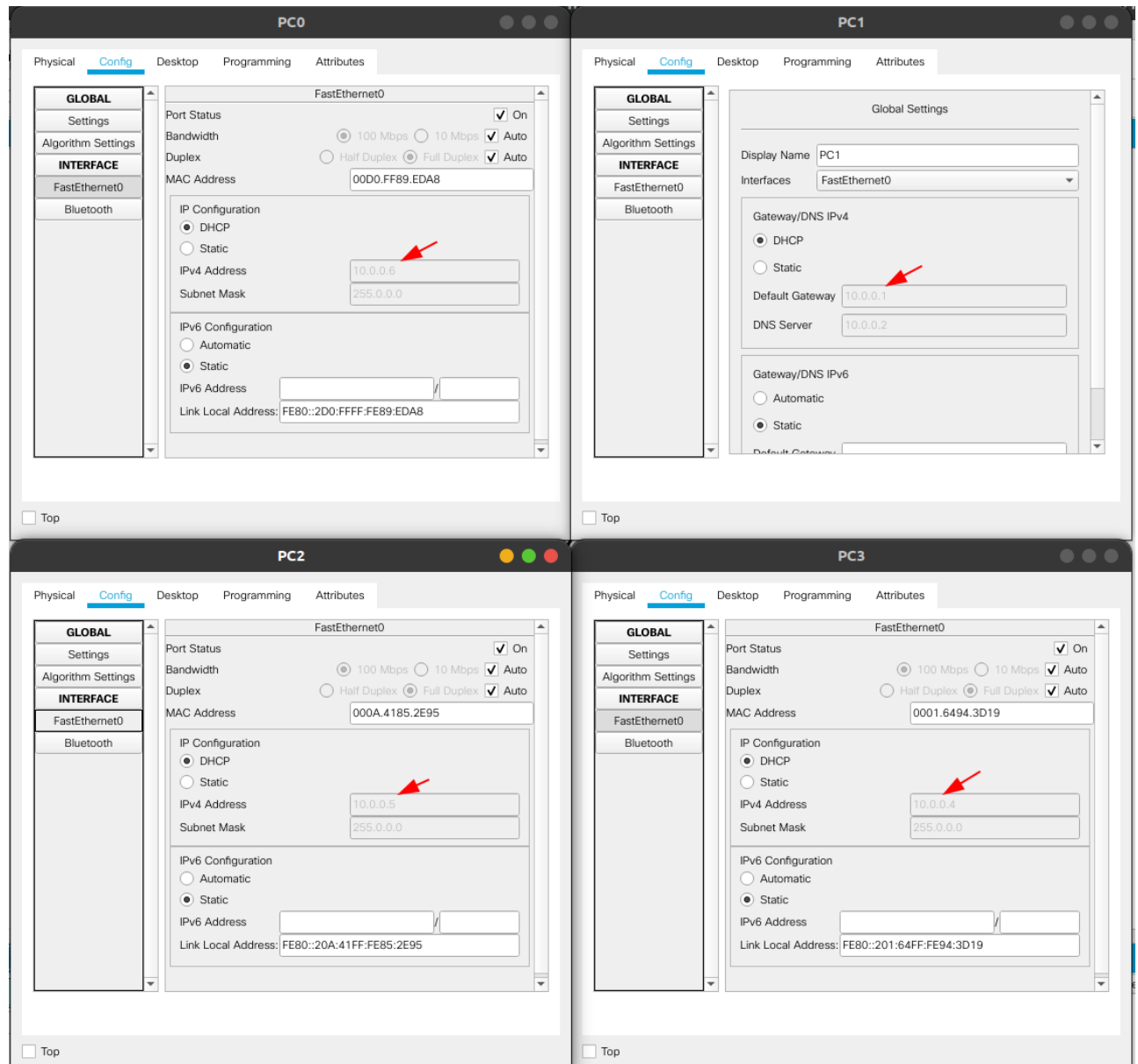
Save

Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max Use	TFTP Server	WLC Address
serverPool	10.0....	10.0....	10.0....	255.0...	5...	10.0....	0.0.0.0

☐ Top

- DHCP server in the Server0 automatically assigns the IP addresses to PC0, PC1, PC2, PC3 on enabling the DHCP service.



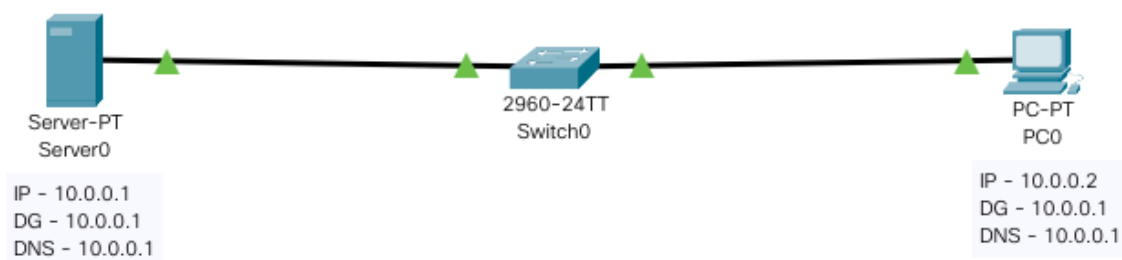
Demonstration of WEB server and DNS

Initialize HTTP server in the Server0.

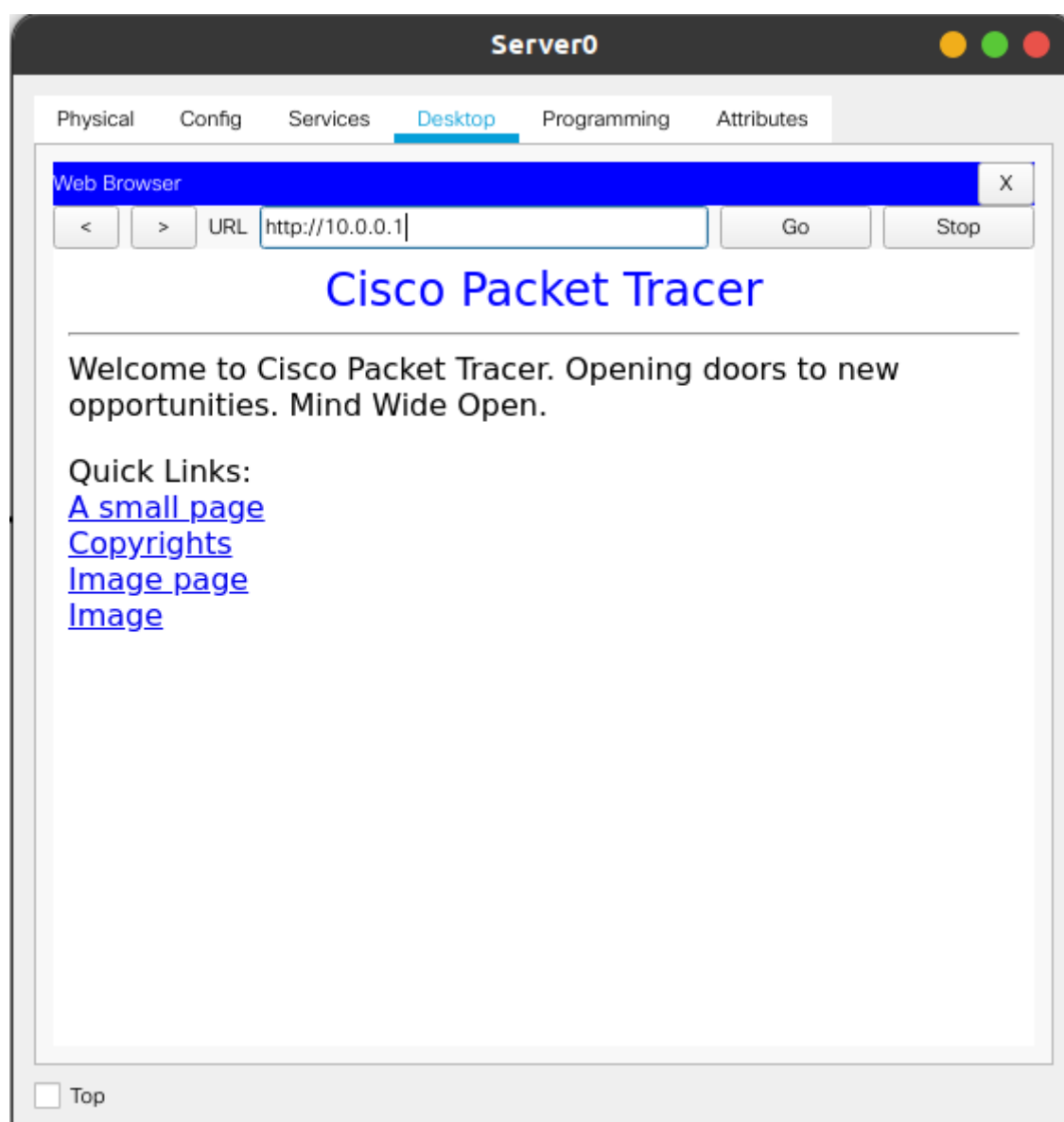
Add a record in the DNS to route *test.com* to 10.0.0.1.

Procedure

- Topology, as shown in the image below, was created using Server-PT, 2960 Switch, and a PC.



- It was first verified that 10.0.0.1 has a HTTP server running.



- Then, an address entry was added for *test.com* in the DNS records as shown below.

Server0

Physical

Config

Services

Desktop

Programming

Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

DNS

DNS Service ☒ On ☐ Off

Resource Records

Name Type

A Record

Address

Add

Save

Remove

No.	Name	Type	Detail
0	test.com	A Record	10.0.0.1

DNS Cache

☐ Top

- PC0 was setup with the following configs.

The screenshot shows a configuration window for a PC named PC0. The window has a title bar with standard macOS window controls (yellow, green, red buttons). Below the title bar are tabs: Physical, Config (selected), Desktop, Programming, and Attributes. On the left is a sidebar with a tree view containing 'GLOBAL' (expanded) and 'INTERFACE'. Under 'GLOBAL' are 'Settings' and 'Algorithm Settings'. Under 'INTERFACE' are 'FastEthernet0' and 'Bluetooth'. The main area is titled 'Global Settings' and contains the following fields:

- Display Name: PC0
- Interfaces: FastEthernet0 (dropdown)
- Gateway/DNS IPv4:
 - ☐ DHCP
 - ☒ Static
 - Default Gateway: 10.0.0.1
 - DNS Server: 10.0.0.1
- Gateway/DNS IPv6:
 - ☐ Automatic
 - ☒ Static
 - Default Gateway: (empty field)
 - DNS Server: (empty field)

At the bottom left of the window is a checkbox labeled 'Top'.

- The DNS server is tested by going to *test.com* URL from PC0

