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Roll No: 07

ASSIGNMENT 9

Problem Statement

Implement DHCP using cisco packet tracer

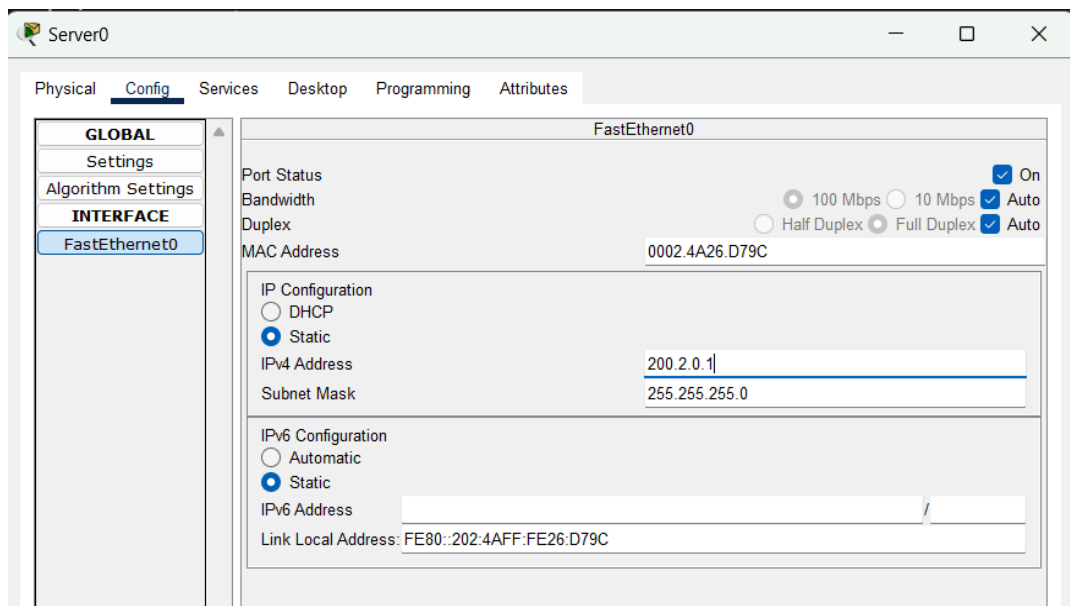
Implementation

1. Server

a. Server Config

i. IP Address : 200.2.0.1

Subnet Mask : 255.255.255.0



b. DHCP Config

i. Default Gateway : 200.2.0.1

ii. DNS Server : 10.0.0.1

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: serverPool

Default Gateway: 200.2.0.1

DNS Server: 10.0.0.1

Start IP Address: 200 2 0 0

Subnet Mask: 255 255 255 0

Maximum Number of Users: 512

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	0.0.0.0	0.0.0.0	200.2.0.0	255.255.255.0	512	0.0.0.0	0.0.0.0

2. PC0

a. IP Address : 200.2.0.2

b. Subnet Mask : 255.255.255.0

c. Default Gateway : 200.2.0.1

d. DNS Server : 10.0.0.1

The screenshot shows a configuration window for PC0 with tabs for Physical, Config, Desktop, Programming, and Attributes. The 'Config' tab is active, and the 'IP Configuration' section is expanded. The interface is set to 'FastEthernet0'. Under 'IP Configuration', 'Static' is selected, and the fields are filled with: IPv4 Address: 200.2.0.2, Subnet Mask: 255.255.255.0, Default Gateway: 200.2.0.1, and DNS Server: 10.0.0.1. Under 'IPv6 Configuration', 'Static' is also selected, with fields for IPv6 Address, Link Local Address (FE80::201:63FF:FE4E:8752), Default Gateway, and DNS Server. The '802.1X' section has 'Use 802.1X Security' unchecked, with 'Authentication' set to 'MD5' and empty fields for 'Username' and 'Password'.

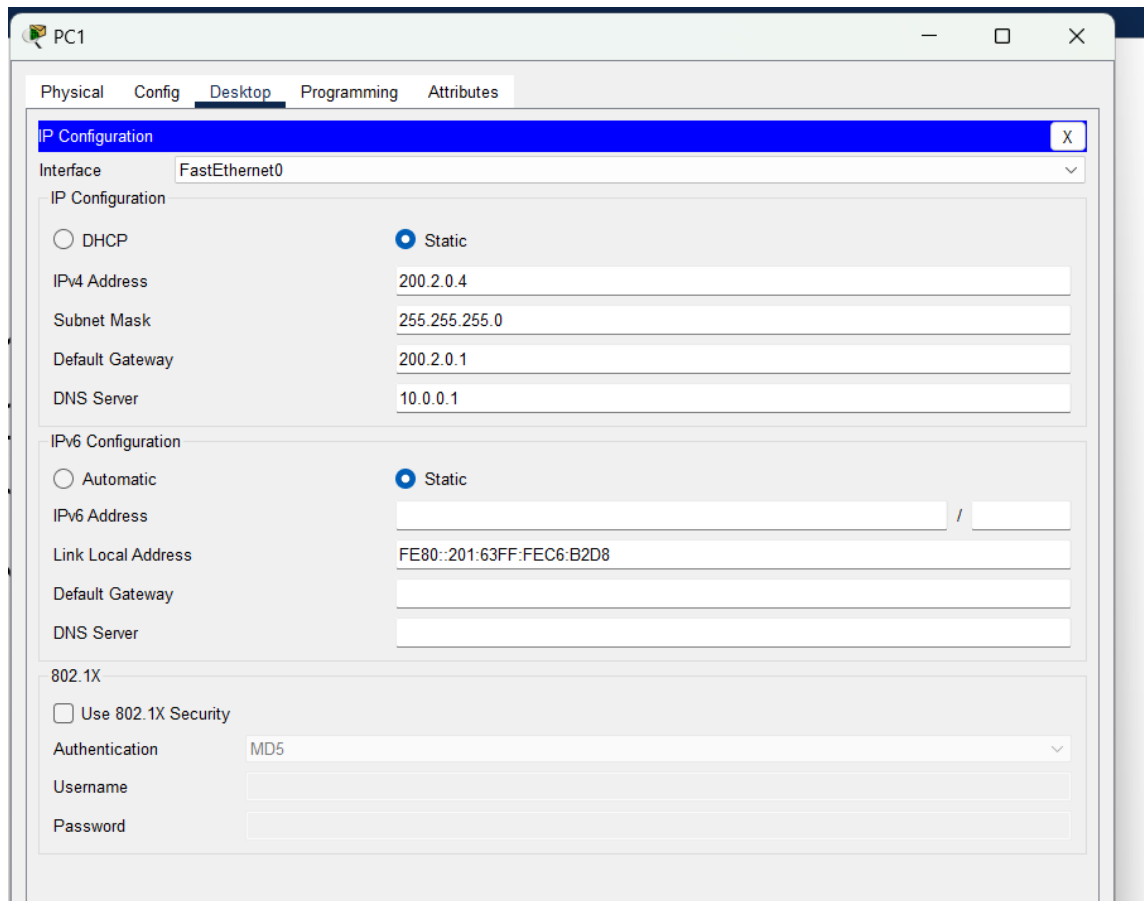
3. PC1

a. IP Address : 200.2.0.4

b. Subnet Mask : 255.255.255.0

c. Default Gateway : 200.2.0.1

d. DNS Server : 10.0.0.1



4. PC2

- a. IP Address : 200.2.0.5
- b. Subnet Mask : 255.255.255.0
- c. Default Gateway : 200.2.0.1
- d. DNS Server : 10.0.0.1

PC2

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 200.2.0.5

Subnet Mask 255.255.255.0

Default Gateway 200.2.0.1

DNS Server 10.0.0.1

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::20C:CFFF:FE3C:6342

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

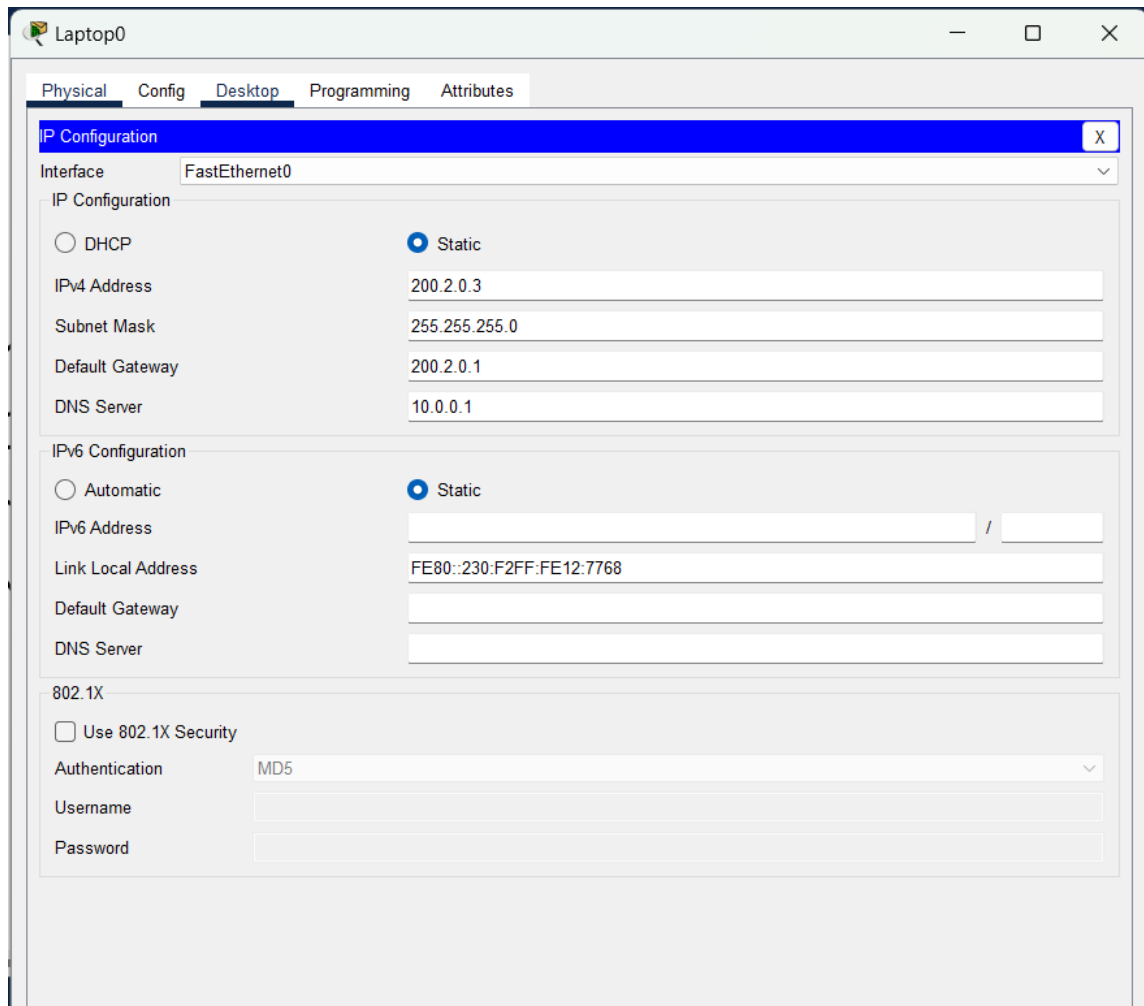
Authentication MD5

Username

Password

5. Laptop0

- a. IP Address : 200.2.0.3
- b. Subnet Mask : 255.255.255.0
- c. Default Gateway : 200.2.0.1
- d. DNS Server : 10.0.0.1



6. Laptop1

- a. IP Address : 200.2.0.6
- b. Subnet Mask : 255.255.255.0
- c. Default Gateway : 200.2.0.1
- d. DNS Server : 10.0.0.1

Laptop1

PhysicalConfigDesktopProgrammingAttributes

IP Configuration

InterfaceFastEthernet0

IP Configuration

DHCP

Static

IPv4 Address200.2.0.6

Subnet Mask255.255.255.0

Default Gateway200.2.0.1

DNS Server10.0.0.1

IPv6 Configuration

Automatic

Static

IPv6 Address

Link Local AddressFE80::230:A3FF:FEBA:C52

Default Gateway

DNS Server

802.1X

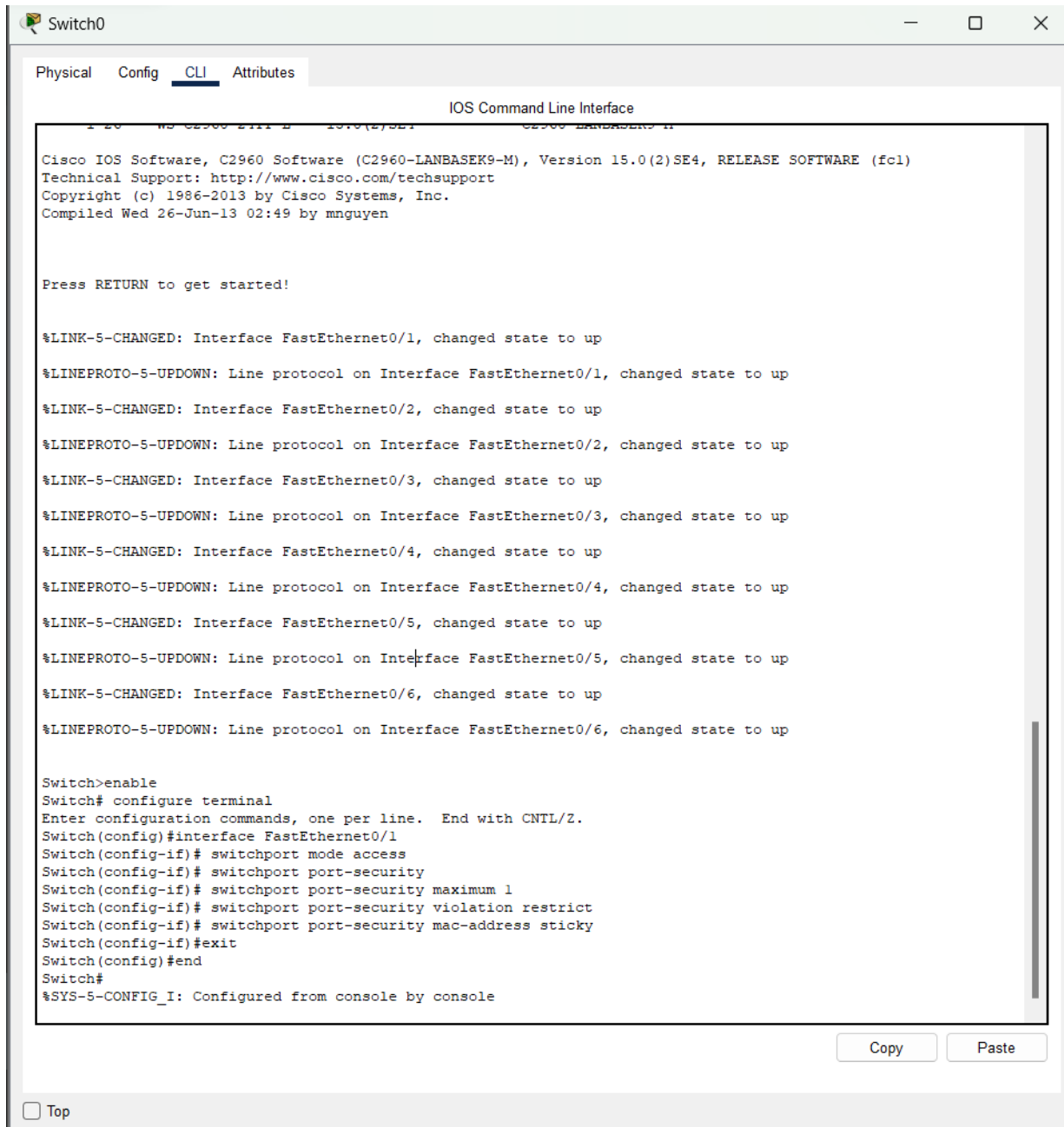
Use 802.1X Security

AuthenticationMD5

Username

Password

Adding MAC Security to the swerver using switch



```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface

Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4, RELEASE SOFTWARE (fcl)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2013 by Cisco Systems, Inc.
Compiled Wed 26-Jun-13 02:49 by mnnguyen

Press RETURN to get started!

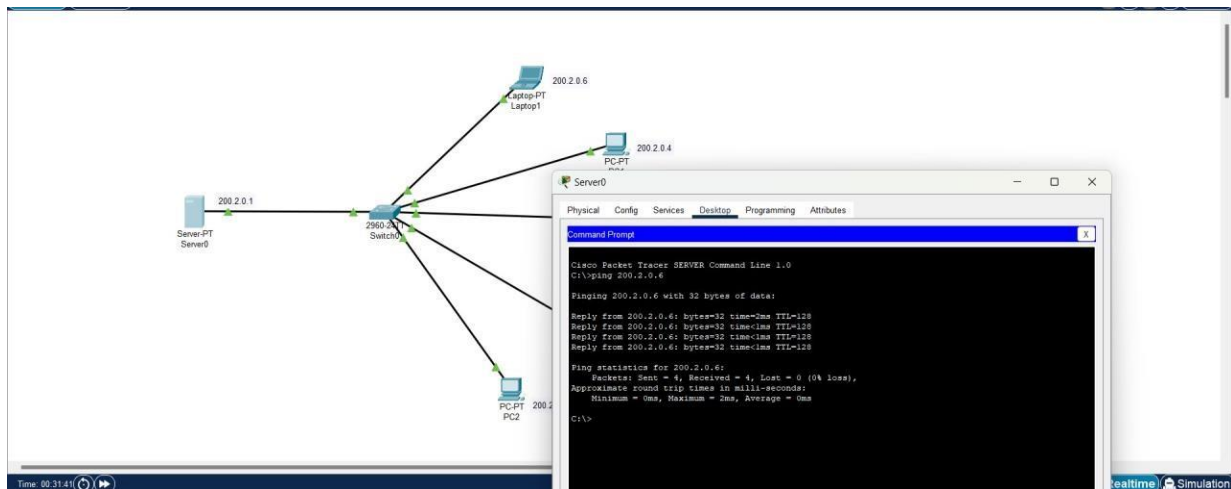
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up

Switch>enable
Switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface FastEthernet0/1
Switch(config-if)# switchport mode access
Switch(config-if)# switchport port-security
Switch(config-if)# switchport port-security maximum 1
Switch(config-if)# switchport port-security violation restrict
Switch(config-if)# switchport port-security mac-address sticky
Switch(config-if)#exit
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

Copy Paste

☐ Top

Cross checking if it is being allowed



Results

