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LAB 1:

2.9.1: Packet Tracer - Basic Switch and End Device Configuration

Addressing Table

Device	Interface	IP Address	Subnet Mask
Room-145	VLAN 1	172.16.5.35	255.255.255.0
Room-146	VLAN 1	172.16.5.40	255.255.255.0
Manager	NIC	172.16.5.50	255.255.255.0
Reception	NIC	172.16.5.60	255.255.255.0

Objectives

- Configure hostnames and IP addresses on two Cisco Internetwork Operating System (IOS) switches using the command-line interface (CLI).
- Use Cisco IOS commands to specify or limit access to the device configurations.
- Use IOS commands to save the running configuration.
- Configure two host devices with IP addresses.
- Verify connectivity between the two PC end devices.

Scenario

As a recently hired LAN technician, your network manager has asked you to demonstrate your ability to configure a small LAN. Your tasks include configuring initial settings on two switches using the Cisco IOS and configuring IP address parameters on host devices to provide end-to-end connectivity. You are to use two switches and two hosts/PCs on a cabled and powered network.

Instructions

Configure the devices to fulfill the requirements below.

Requirements

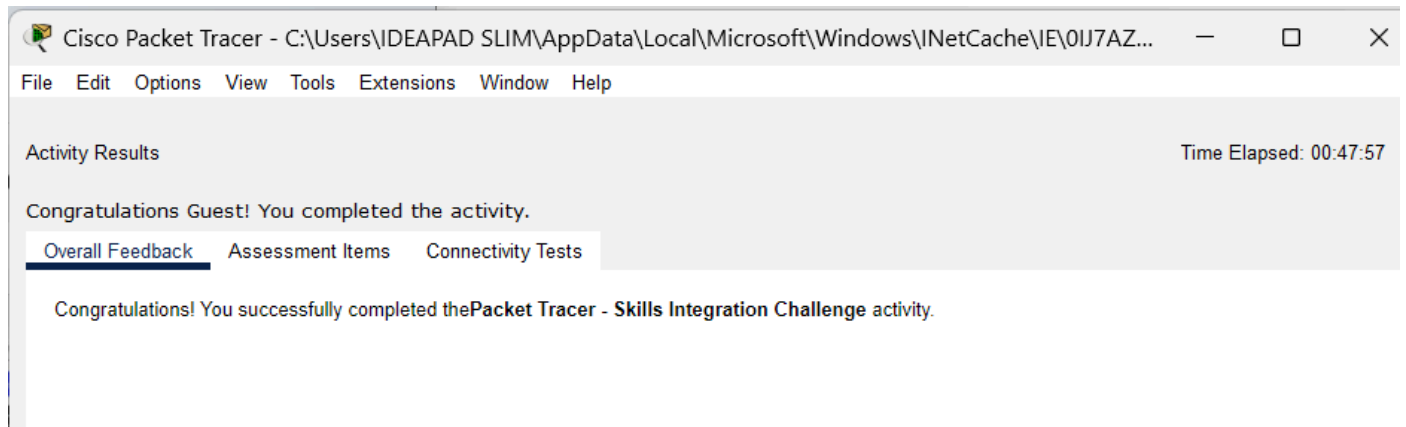
- Use a console connection to access each switch.
- Name _____ and _____ switches.
- Use the _____ password for all lines.
- Use the _____ secret password.
- Encrypt all clear text passwords.
- Configure an appropriate message-of-the-day (MOTD) banner.
- Configure addressing for all devices according to the Addressing Table.
- Save your configurations.

- Verify connectivity between all devices.

Note: Click **Check Results** to see your progress. Click **Reset Activity** to generate a new set of requirements. If you click on this before you complete the activity, all configurations will be lost.

Screenshots:

A. Results:



Cisco Packet Tracer - C:\Users\IDEAPAD SLIM\AppData\Local\Microsoft\Windows\INetCache\IE\0IJ7AZ...

File Edit Options View Tools Extensions Window Help

Activity Results Time Elapsed: 00:49:59

Congratulations Guest! You completed the activity.

Overall Feedback Assessment Items Connectivity Tests

Below are the results of your connectivity tests:

	Status	Test Condition	Points	Source	Destination	Type
1	Correct	Successful	2	Manager	Reception : 172.16.5.60	ICMP
2	Correct	Successful	0	Room-145	Room-146 : 172.16.5.40	ICMP
3	Correct	Successful	2	Manager	Room-146 : 172.16.5.40	ICMP
4	Correct	Successful	2	Reception	Room-145 : 172.16.5.35	ICMP
5	Correct	Successful	2	Manager	Room-145 : 172.16.5.35	ICMP
6	Correct	Successful	2	Reception	Room-146 : 172.16.5.40	ICMP
7						
8						
9						
10						
11						
12						

Cisco Packet Tracer - C:\Users\IDEAPAD SLIM\AppData\Local\Microsoft\Windows\INetCache\IE\0IJ7AZ...

File Edit Options View Tools Extensions Window Help

Activity Results Time Elapsed: 00:49:42

Congratulations Guest! You completed the activity.

Overall Feedback Assessment Items Connectivity Tests

Expand/Collapse All Show Incorrect Items

Assessment Items	Status	Points
Room-145		
Banner MOTD	Correct	2
Console Line		0
Password	Correct	1
Enable Secret	Correct	2
Host Name	Correct	1
Ports		
Vlan1		
IP Address	Correct	7
Port Status	Correct	5
Subnet Mask	Correct	7
Service Password Encryption	Correct	1
Startup Config	Correct	2
VTY Lines		0
VTY Line 0		0
Password	Correct	1
Room-146		
Banner MOTD	Correct	2
Console Line		0
Password	Correct	1
Enable Secret	Correct	2
Host Name	Correct	1
Ports		
Vlan1		

Score : 100/100

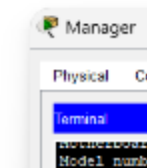
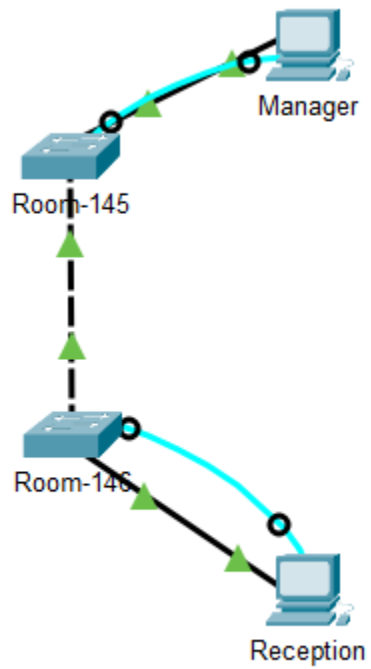
Item Count : 30/34

Component	Items/Total	Score
Basic Security Configuration	10/10	14/14
Configuration Management	2/2	4/4
Hostname Configuration	2/2	2/2
IPv4 Host Address Configuration	10/10	70/70
Connectivity		
Connectivity Tests	6/6	10/10

Close

B. Working:

1. Console:



2. Naming Switches:

i) Room-145 (Manager):

Manager

Physical Config Desktop Programming

Terminal

```
Motherboard Revision Number : B0
Model number : WS-C2960-24TT-L
System serial number : FOC1010X104
Top Assembly Part Number : 800-27221-02
Top Assembly Revision Number : A0
Version ID : V02
CLEI Code Number : COM3L00BRA
Hardware Board Revision Number : 0x01

Switch Ports Model          SW Version        SW Image
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*  1 26    WS-C2960-24TT-L    15.0(2)SE4        C2960-LANBASEK9-M

Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
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Compiled Wed 26-Jun-13 02:49 by mnguyen

Press RETURN to get started!

%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 FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Switch>enable
Switch#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#configure terminal
^
% Invalid input detected at '^' marker.

Switch(config)#
Switch(config)#host
% Incomplete command.
Switch(config)#hostname Room-145
Room-145(config)#
```

ii) Room-146 (Reception):

```
Switch>enable
Switch#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#configure terminal
^
% Invalid input detected at '^' marker.

Switch(config)#hostname Room-146
Room-146(config)#
```

3. Use the 8ubRu password for all lines

i) Room -146 (Reception)

```
Switch(config)#hostname Room-146
Room-146(config)#line console 0
Room-146(config-line)#password 8ubR^Z
Room-146#
%SYS-5-CONFIG_I: Configured from console by console

Room-146#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Room-146(config)#line console 0
Room-146(config-line)#password 8ubRu
Room-146(config-line)#login
Room-146(config-line)#exit
Room-146(config)#line
% Incomplete command.
Room-146(config)#line vty 0
Room-146(config-line)#line vty 0 15
Room-146(config-line)#password 8ubRu
Room-146(config-line)#login
Room-146(config-line)#exit
Room-146(config)#
```

ii) Room-145 (Manager)

```
Switch(config)#
Switch(config)#host
% Incomplete command.
Switch(config)#hostname Room-145
Room-145(config)#line console 0
Room-145(config-line)#password 8ubRu
Room-145(config-line)#exit
Room-145(config)#line vty 0 15
Room-145(config-line)#password 8ubRu
Room-145(config-line)#login
Room-145(config-line)#exit
Room-145(config)#
```

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4. Use the C9WrE secret password.

i) Room-145 (Manager)

```
Room-145(config)#enable secret C9WrE
Room-145(config)#
```

ii) Room-146 (Reception)

```
Room-146(config-line)#exit
Room-146(config)#enable secret C9WrE
Room-146(config)#
```

5. Encrypt all clear text passwords.

i) Room-146 (Reception)

```
Room-146(config)#service password-encryption
Room-146(config)#
```

ii) Room-145 (Manager)

```
Room-145(config)#service password-encryption
Room-145(config)#
```

6. Configure an appropriate message-of-the-day (MOTD) banner.

i) Room-145 (Manager)

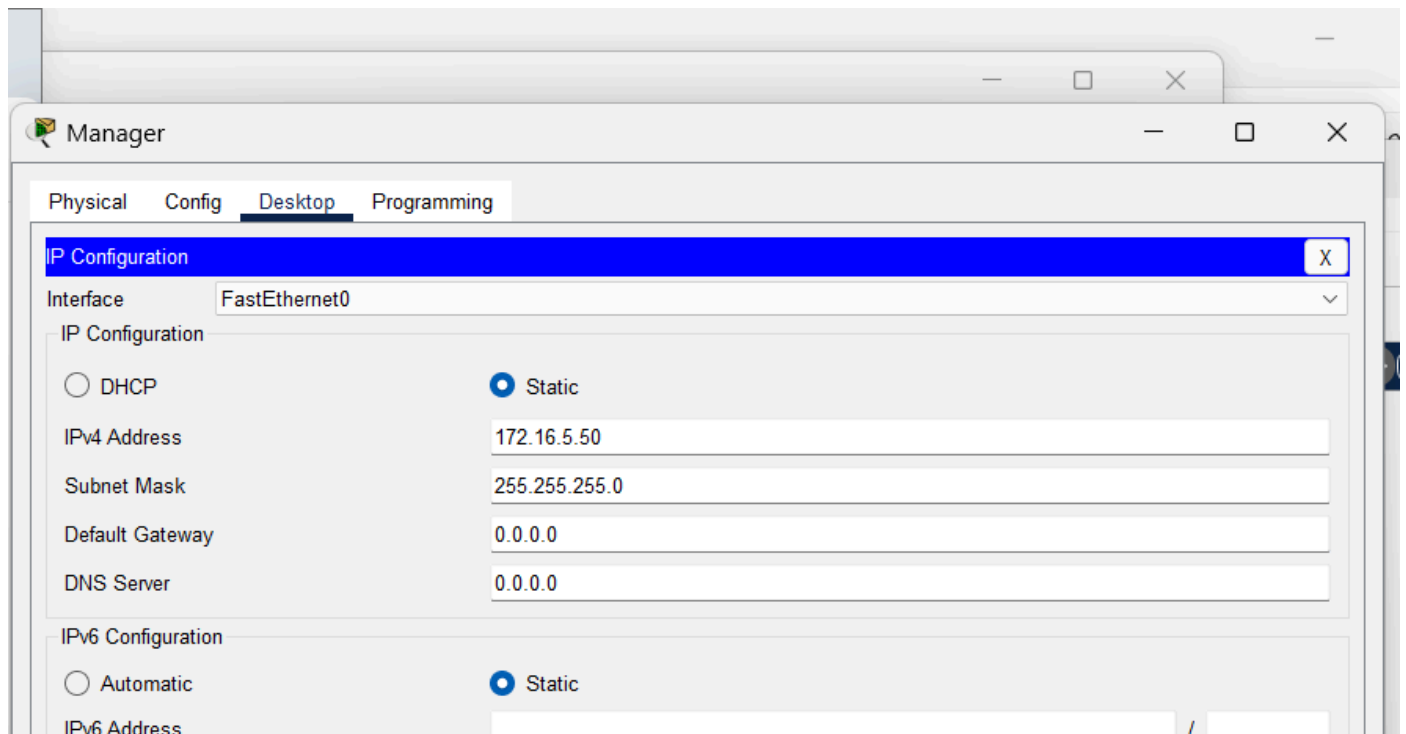
```
Room-145(config)#banner motd &Unauthorized access is strictly Prohibited&
Room-145(config)#
```

ii) Room-146 (Reception)

```
Room-146(config)#banner motd "Warning! Unauthorized access is strictly Prohibited!"
Room-146(config)#
```

7. Configure addressing for all devices according to the Addressing Table.

i) Manager



```

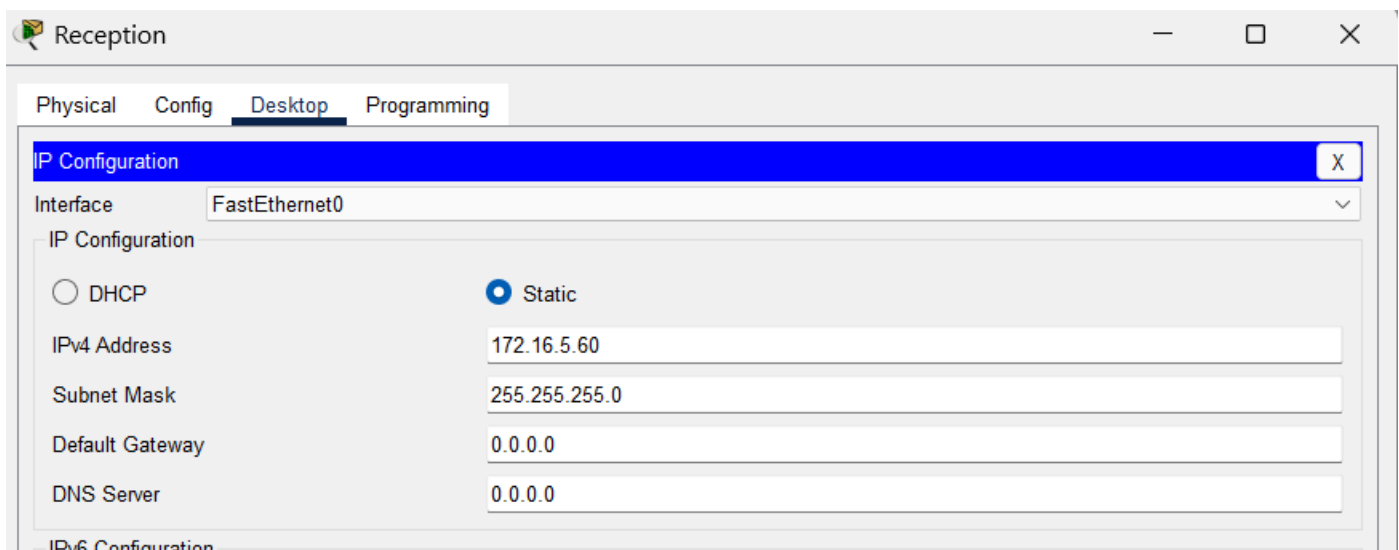
Room-145#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Room-145(config)#interface vlan 1
Room-145(config-if)#ip address 172.16.5.35 255.255.255.0
Room-145(config-if)#no shutdown

Room-145(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

```

ii) Reception



The screenshot shows a window titled "Reception" with four tabs: Physical, Config, Desktop, and Programming. The "Config" tab is active, and within it, the "IP Configuration" section is selected. The "Interface" dropdown menu is set to "FastEthernet0". Under "IP Configuration", the "Static" radio button is selected. The fields for "IPv4 Address", "Subnet Mask", "Default Gateway", and "DNS Server" are all set to "0.0.0.0".

Field	Value
Interface	FastEthernet0
IP Configuration	Static
IPv4 Address	0.0.0.0
Subnet Mask	0.0.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0

```

Room-146(config)#interface vlan 1
Room-146(config-if)#ip address 172.16.5.40 255.255.255.0
Room-146(config-if)#no shutdown

Room-146(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

```

8. Save your configurations.

i) Manager


```
Room-145(config-if)#^Z
Room-145#
%SYS-5-CONFIG_I: Configured from console by console

Room-145#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Room-145#
```

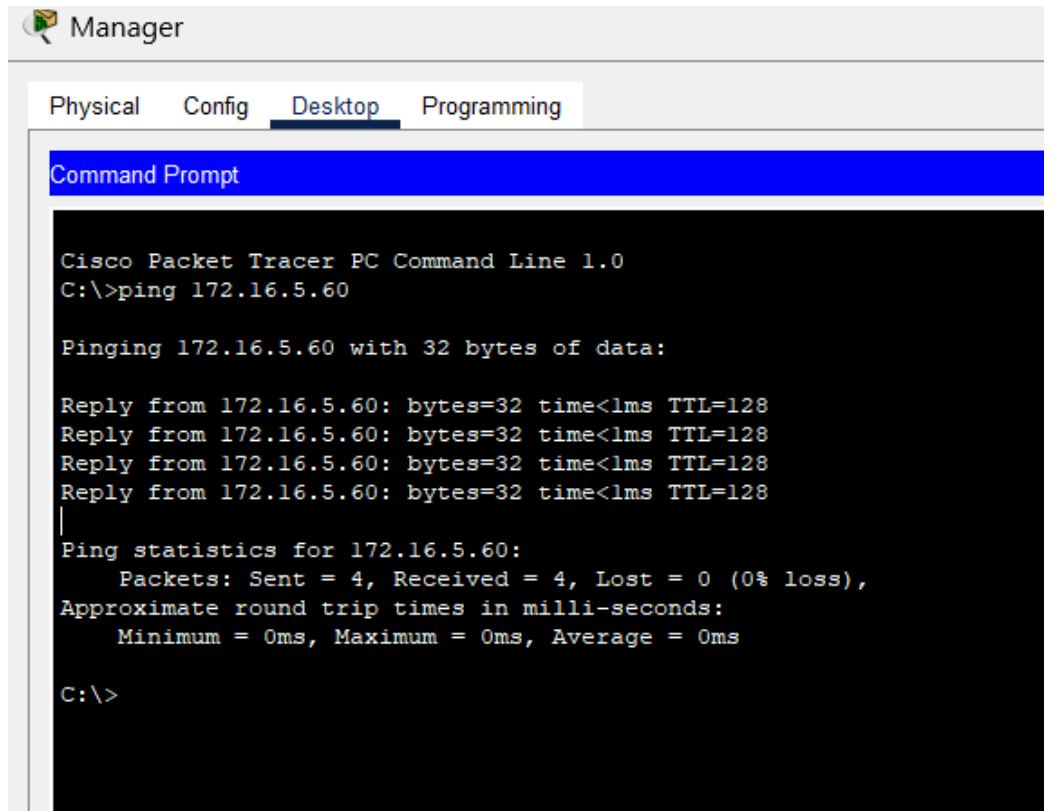
ii) Reception

```
Room-146(config-if)#^Z
Room-146#
%SYS-5-CONFIG_I: Configured from console by console

Room-146#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Room-146#
```

9. Verify connectivity between all devices.

i) Manager



The screenshot shows the Cisco Packet Tracer Manager interface. At the top, there is a tab bar with 'Physical', 'Config', 'Desktop', and 'Programming'. The 'Desktop' tab is selected. Below the tabs, there is a 'Command Prompt' window. The command prompt displays the following text:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 172.16.5.60

Pinging 172.16.5.60 with 32 bytes of data:

Reply from 172.16.5.60: bytes=32 time<1ms TTL=128
Reply from 172.16.5.60: bytes=32 time<1ms TTL=128
Reply from 172.16.5.60: bytes=32 time<1ms TTL=128
Reply from 172.16.5.60: bytes=32 time<1ms TTL=128
|
Ping statistics for 172.16.5.60:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```