

Class Activity

Title: Build a Simple Network

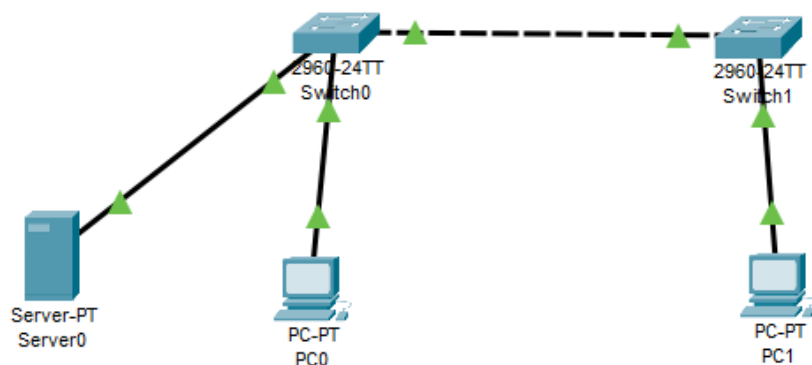
Introduction

Objectives

- Part 1: Set Up the Network Topology (Ethernet only)
- Part 2: Configure PC Hosts
- Part 3: Configure and Verify Basic Switch Settings

Instructions:

Create the below topology using the requirements given in the below table.



| Component | Requirements | Marks obtained |
|----------------------------------|---|----------------|
| PC0 (User Generic PC) | Display Name: User1 (0.5 mark) | |
| | IP address: 192.168.1.2 (1 mark) | |
| | DNS Server: 192.168.1.1 (0.5 mark) | |
| PC1 (User Generic PC) | Display Name: User2 (0.5 mark) | |
| | IP address: 192.168.1.3 (1 mark) | |
| | DNS Server: 192.168.1.1 (0.5 mark) | |
| Server (Use Generic Server) | Display Name: Server1 (0.5 mark) | |
| | IP address: 192.168.1.4 (1 mark) | |
| | DNS Server: 192.168.1.1 (0.5 mark) | |
| Switch 0 (Use Generic Switch) | Display Name: Switch1 (0.5 mark) | |
| | Host Name: MainSwitch (0.5 mark) | |
| Switch1 (Use Generic Switch) | Display Name: Switch2 (0.5 mark) | |
| | Host Name: SecondSwitch (0.5 mark) | |
| | Connect all devices with correct media. (1 marks) | |

| | |
|---|--|
| Ping from Client to Server and show in the simulation mode. (2 marks) | |
| Total Marks | |

Additional Configuration:

Configure and Verify Basic Switch Settings

Steps

Step 1: Console into the switch0. Do this by clicking on the switch

Step 2: Enter privileged EXEC mode.

You can access all switch commands in privileged EXEC mode. The privileged EXEC command set includes those commands contained in user EXEC mode, as well as the **configure** command through which access to the remaining command modes are gained. Enter privileged EXEC mode by entering the **enable** command.

Switch> **enable**

Switch#

The prompt changed from **Switch>** to **Switch#** which indicates privileged EXEC mode.

Step 3: Enter configuration mode.

Use the **configuration terminal** command to enter configuration mode.

Switch# **configure terminal**

Enter configuration commands, one per line. End with CNTL/Z.

```
Switch(config)#
```

The prompt changed to reflect global configuration mode.

Step 4: Give the switch a name.

Use the **hostname** command to change the switch name to **MainSwitch**.

```
Switch(config)# hostname MainSwitch
```

```
MainSwitch(config)#
```

Step 5: Prevent unwanted DNS lookups.

To prevent the switch from attempting to translate incorrectly entered commands as though they were hostnames, disable the Domain Name System (DNS) lookup.

```
S1(config)# no ip domain-lookup
```

```
S1(config)#
```

Step 6: Enter local passwords.

To prevent unauthorized access to the switch, passwords must be configured.

```
MainSwitch(config)# enable secret beekeeper
```

```
MainSwitch(config)# line con 0
```

```
MainSwitch(config-line)# password cisco
```

```
MainSwitch(config-line)# login
```

```
MainSwitch(config-line)# exit
```

```
MainSwitch(config)#
```

Step 7: Enter a login MOTD banner.

A login banner, known as the message of the day (MOTD) banner, should be configured to warn anyone accessing the switch that unauthorized access will not be tolerated.

The **banner motd** command requires the use of delimiters to identify the content of the banner message. The delimiting character can be any character as long as it does not occur in the message. For this reason, symbols, such as the **#**, are often used.

```
MainSwitch(config)# banner motd #
```

Enter TEXT message. End with the character '#'.

Unauthorized access is strictly prohibited and prosecuted to the full extent of the law. #

```
MainSwitch(config)# exit
```

```
MainSwitch#
```

Step 8: Save the configuration.

Use the **copy** command to save the running configuration to the startup file on non-volatile random access memory (NVRAM).

```
MainSwitch# copy running-config startup-config
```

```
Destination filename [startup-config]? [Enter]
```

Building configuration...

[OK]

```
MainSwitch#
```

Step 9: Display the current configuration.

The **show running-config** command displays the entire running configuration, one page at a time. Use the spacebar to advance paging. The commands configured in Steps 1 – 8 are highlighted below.

MainSwitch# **show running-config**

Note: the content below will be displayed

Building configuration...

Current configuration : 1409 bytes

!

! Last configuration change at 03:49:17 UTC Mon Mar 1 1993

!

version 15.0

no service pad

service timestamps debug datetime msec

service timestamps log datetime msec

no service password-encryption

!

hostname MainSwitch

!

boot-start-marker

boot-end-marker

!

enable secret 4 06YFDUHH61wAE/kLkDq9BGho1QM5EnRtoyr8cHAUg.2

!

no aaa new-model

system mtu routing 1500

!

!

no ip domain-lookup

!

<output omitted>

!

banner motd ^C

Unauthorized access is strictly prohibited and prosecuted to the full extent of the law.

^C

!

line con 0

```
password cisco
```

```
login
```

```
line vty 0 4
```

```
login
```

```
line vty 5 15
```

```
login
```

```
!
```

```
end
```

```
S1#
```

Step 10: Repeat Steps 1 to 9 to configure switch S2.

The only difference for this step is to change the hostname to **SecondSwitch**.

Submission:

Upon completing the task, save your packet tracer as **.pkt** and upload on Google Classroom.

