CTT245 Basic Network Switch Configuration Lab

1. Connect your PC serial port to the console port of your switch.
2. Use Putty to start a console session to your switch. Use the same Putty settings as you used to connect to your Cisco router.
3. Press Enter to generate output from your switch if necessary.
4. What is the default hostname for the switch? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Now you will configure parameters on the switch using almost exactly the same commands you used to configure your router's basic configuration: (Remember to substitute your row number where appropriate.)

Switch>enable

Switch#config t

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

Switch(config)#hostname CTTSwitchRow0

CTTSwitchRow0(config)#enable secret P@ssword *This sets a password for the EN mode*

CTTSwitchRow0(config)#line con 0

CTTSwitchRow0(config-line)#password P@ssword *This sets a password to access the console port*

CTTSwitchRow0(config-line)#login

CTTSwitchRow0(config-line)#exit

CTTSwitchRow0(config)#line vty 0 15

CTTSwitchRow0(config-line)#password P@ssword *This sets a password to access the VTY ports*

CTTSwitchRow0(config-line)#login

CTTSwitchRow0(config-line)#exit

CTTSwitchRow0(config)#

1. Questions:
   1. What is the purpose **Login** command?
   2. How many VTY lines are on this Cisco switch by default?
   3. How many VTY lines were on your Cisco router by default?

(remember to start counting at 0)

1. Configure the switch's banner motd (message of the day):

CTTSwitchRow0#config t

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

CTTSwitchRow0(config)#

CTTSwitchRow0(config)#banner #

The “#” is an “escape” character. It tells the switch when you want to stop entering banner text and want to return to a command prompt. This allows for multiple line banners.

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

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CTTSwitchRow0(config)#exit

CTTSwitchRow0#

1. Save your configuration.

CTTSwitchRow0#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

CTTSwitchRow0#

1. Questions:
   1. What does the copy run start command do?
   2. If you did not enter **copy run start**, what would happen the next time you reloaded the stitch?
2. Show your running configuration.

CTTSwitchRow0#show run

Building configuration...

Current configuration : 1428 bytes

!

version 12.2

no service pad

service timestamps debug uptime

service timestamps log uptime

no service password-encryption

!

hostname CTTSwitchRow0

!

enable secret 5 $1$gboS$odKIb/DrIkYZ8/15PhOr1/

!

no aaa new-model

ip subnet-zero

!

!

!

!

!

!

no file verify auto

spanning-tree mode pvst

spanning-tree extend system-id

!

vlan internal allocation policy ascending

!

!

interface FastEthernet0/1

!

interface FastEthernet0/2

!

interface FastEthernet0/3

!

interface FastEthernet0/4

!

interface FastEthernet0/5

!

interface FastEthernet0/6

!

interface FastEthernet0/7

!

interface FastEthernet0/8

!

interface FastEthernet0/9

!

interface FastEthernet0/10

!

interface FastEthernet0/11

!

interface FastEthernet0/12

!

interface FastEthernet0/13

!

interface FastEthernet0/14

!

interface FastEthernet0/15

!

interface FastEthernet0/16

!

interface FastEthernet0/17

!

interface FastEthernet0/18

!

interface FastEthernet0/19

!

interface FastEthernet0/20

!

interface FastEthernet0/21

!

interface FastEthernet0/22

!

interface FastEthernet0/23

!

interface FastEthernet0/24

!

interface GigabitEthernet0/1

!

interface GigabitEthernet0/2

!

interface Vlan1

ip address dhcp

!

ip classless

ip http server

ip http secure-server

!

!

!

control-plane

!

banner motd ^C

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!

line con 0

password P@ssword

login

line vty 0 4

password P@ssword

login

line vty 5 15

password P@ssword

login

!

!

end

CTTSwitchRow0#

1. Questions:
   1. How many ports (interfaces) are on your switch?
   2. What kind of ports are they?
   3. If I wanted to configure port (interface) 10, what are the commands to get into the correct configuration mode from enable mode? (Hint: How did you configured a port on a router?)
2. Setup your switch's IP configuration. (Remember to substitute your own row number where appropriate.)

CTTSwitchRow0#

CTTSwitchRow0#config t

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

CTTSwitchRow0(config)#int vlan 1

CTTSwitchRow0(config-if)#ip address 10.0.0.3 255.255.255.0

CTTSwitchRow0(config-if)#description CTT classroom - Row 0 switch

CTTSwitchRow0(config-if)#no shutdown

CTTSwitchRow0(config-if)#exit

CTTSwitchRow0(config)#ip default-gateway 10.0.0.1

CTTSwitchRow0(config)#exit

CTTSwitchRow0#

1. Show your MAC Address Table. The addresses for VLAN all are internal to the switch. Use the MAC addresses for VLAN 1.

CTTSwitchRow0#show mac-address-table

Mac Address Table

Vlan Mac Address Type Ports

---- ----------- -------- -----

All 0100.0ccc.cccc STATIC CPU

All 0100.0ccc.cccd STATIC CPU

All 0180.c200.0000 STATIC CPU

All 0180.c200.0001 STATIC CPU

All 0180.c200.0002 STATIC CPU

All 0180.c200.0003 STATIC CPU

All 0180.c200.0004 STATIC CPU

All 0180.c200.0005 STATIC CPU

All 0180.c200.0006 STATIC CPU

All 0180.c200.0007 STATIC CPU

All 0180.c200.0008 STATIC CPU

All 0180.c200.0009 STATIC CPU

All 0180.c200.000a STATIC CPU

All 0180.c200.000b STATIC CPU

All 0180.c200.000c STATIC CPU

All 0180.c200.000d STATIC CPU

All 0180.c200.000e STATIC CPU

All 0180.c200.000f STATIC CPU

All 0180.c200.0010 STATIC CPU

All ffff.ffff.ffff STATIC CPU

1 a80c.0d99.cb01 DYNAMIC Fa0/3

1 c0ea.e45d.cde1 DYNAMIC Fa0/7

Total Mac Addresses for this criterion: 22

CTTSwitchRow0#

1. Questions:
   1. What is a MAC address?
   2. How many bits long is a MAC address?
   3. How many bytes long is a MAC address?
   4. What are the two parts of a MAC address and how long is each part?
2. On the workstations in your row connected to the switch, use the **ipconfig /all** command to confirm which workstations is plugged into which switch ports. (Use VLAN 1 only.)

| **Switch Port** | **MAC Address** | **Workstation 1, 2, 3 or 4** |
| --- | --- | --- |
| Complete Chart | Add cells as needed | Confirm |

1. Questions:

What is different about the way Cisco displays a MAC address and the way one is displayed in Windows?

(No matter how it is displayed, a MAC address is just a 32 bit physical address. I have also seen MAC addresses displayed with dashes “-“ between every byte. These formatting characters are only added to make it easier for you to read and technically are not part of the MAC address.)

1. Save your configuration.

CTTSwitchRow0#copy run start

Destination filename [startup-config]?

Building configuration...

[OK]

CTTSwitchRow0#

1. What is the command to reboot your switch?
2. Reboot your switch using the above command.
3. How long did your switch take to reboot?
4. Do a **show run** command.

How many times did you need to enter a password?

What was each password for? (You may not need all 3 lines.)

1. If you wanted to reset your switch to factory defaults, what is the command you would use to clear all the configuration settings you just entered from the startup configuration?
2. This concludes the lab.

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