ICND1

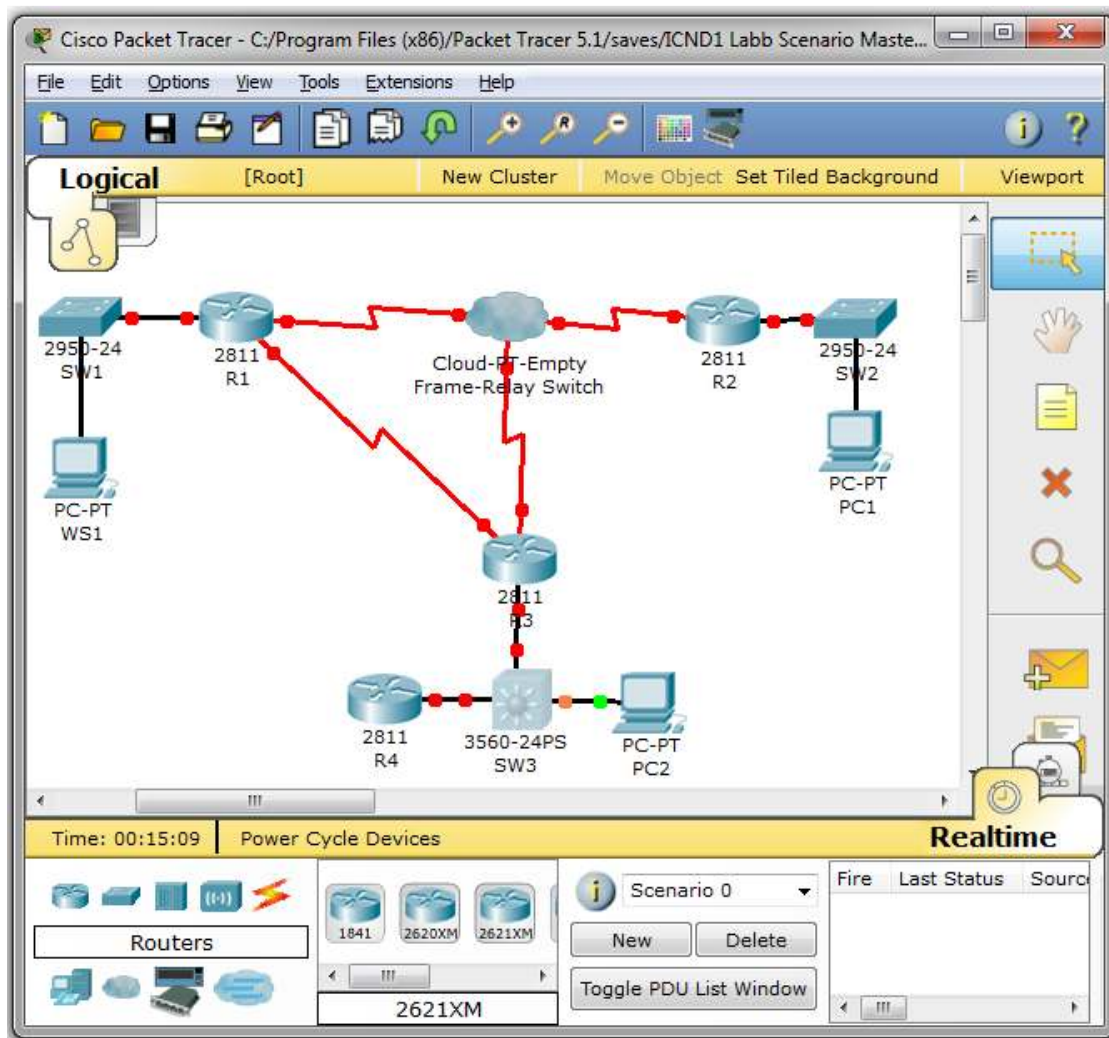## *Switch Configuration Lab*

TOPOLOGY

- 3xPC (hosts)
- 2x2950 (Layer 2 Switches)
- 1x3560 (Layer 3 Switch)
- 5x2811 (Routers, unused in this set of labs)

All configurations have been set to factory defaults for these labs

Lab Exercise 1: Initial Switch Configurations

Equipment Involved: SW1, SW2 & SW3

STEP1: Configure Hostnames on All Switches

- Double click on SW1 to open the command line interface window

- Press **<enter>** to get to user exec mode
- Type **en** and press **<enter>** to go into privileged mode (no password required)

- Type **config t** to enter global configuration mode (see above)
- Type **hostname SWX (X=site number, site 1 would be SW1, site 2 would be SW2, etc.)** to create the appropriate name on the device.   The prompt should immediately change to the new hostname
- Type **exit** to return to the command line, and type **copy running-config startup-config (**or **wr mem)** to save the configuration to memory.
- Repeat for switches 2 and 3
- When finished, select **File > Save** on the main screen in order to save your changes in the simulator file

STEP 2: Configure Basic Access Settings on All Switches
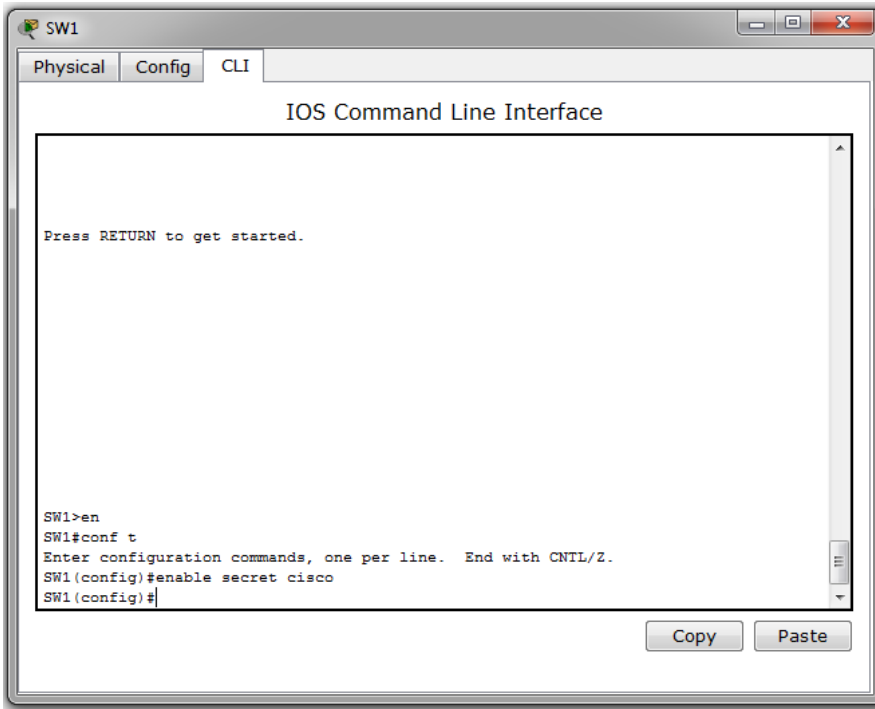
- Double click on SW1 to open the command line interface window
- Press **<enter>** to get to user exec mode
- Type **en** and press **<enter>** to go into privileged mode (no password required)
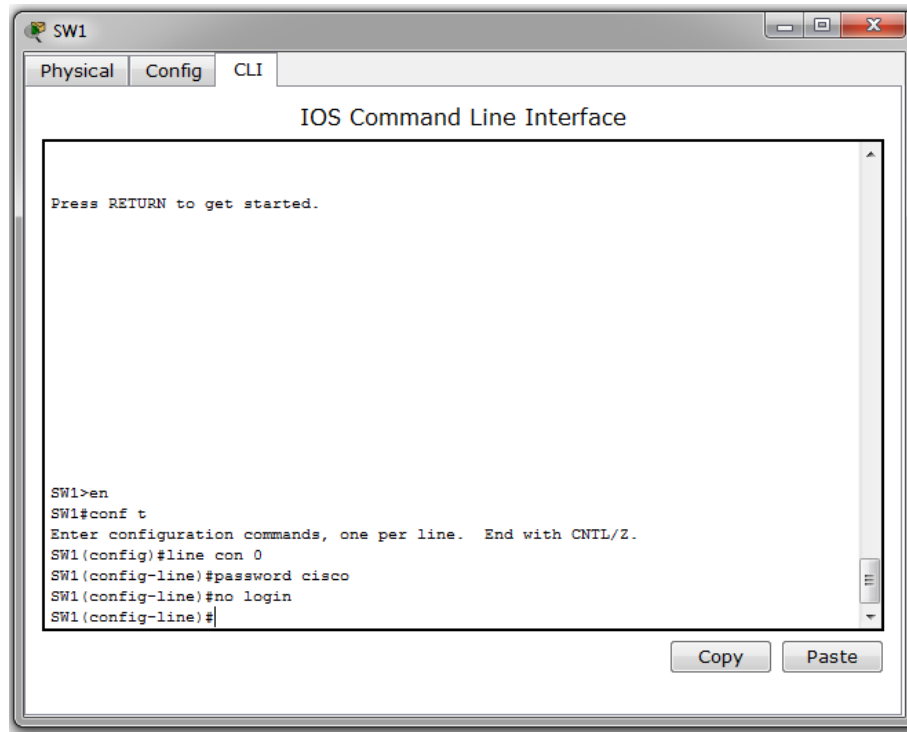
- Type **config t** and press **<enter>** to go into global configuration mode (see above)
- Type **line con 0** to enter *console* configuration mode
- Type **password cisco** to set the password for logins on the console port
- Type **no login** to prevent having to use a password to gain access to the switch (never use this in a production environment, just makes the lab login process simpler)
- Type **line vty 0 15** to enter *virtual terminal* configuration mode(e.g., telnet/ssh access)
- Type **password cisco** to set the password for logins on the virtual terminal port
- Type login to force all users to enter a password for remote access
- Type **exit** to return to the command line, and type **copy running-config startup-config (**or **wr mem)** to save the configuration to memory.
- Repeat for switches 2 and 3
- When finished, select **File > Save** on the main screen in order to save your changes in the simulator file

STEP 3: Create Basic Security Settings on All Switches

- Double click on SW1 (2950 Switch A) to open the command line interface window
- Press **<enter>** to get to user exec mode
- Type **en** and press **<enter>** to go into privileged mode (no password required)

- Type **config t** and press **<enter>** to go into global configuration mode (see above)
- Type **enable secret cisco** to set the encrypted password used to enter privileged mode
- Type **exit** to return to global configuration mode
- Repeat for switches 2 and 3
  When finished, select File > Save on the main screen in order to save your changes in the simulator file

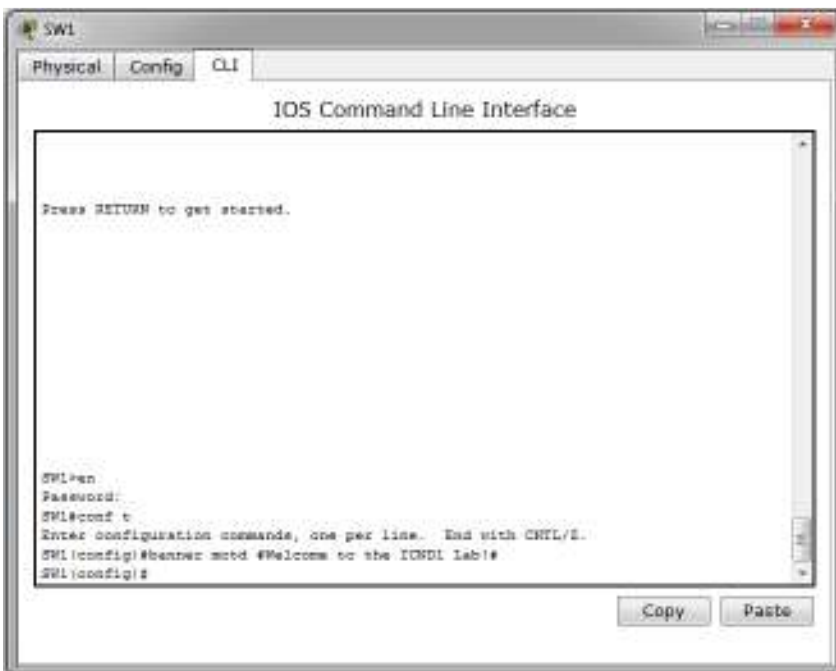**STEP 4**: Set Other Basic Settings on All Switches

- Double click on SW1 (2950 Switch A) to open the command line interface window
- Press **<enter>** to get to user exec mode
  Type **en** and press **<enter>** to go into privileged mode (password **cisco**)

- Type **config t** and press **<enter>** to go into global configuration mode (see above)
- Type **banner motd #Welcome to the ICND1 Lab!"**
- Type **exit** to return to the command line, and type **copy running-config startup-config (**or **wr mem)** to save the configuration to memory.
- Repeat for switches 2 and 3
  When finished, select File > Save on the main screen in order to save your changes in the simulator file

Lab Exercise 2: Switch Interface Configurations

Equipment Involved: SW1, SW2 & SW3

STEP1: Configure Ports & Interfaces on All Switches

- Double click on SW2 (2950 Switch A) to open the command line interface window
- Press **<enter>** to get to user exec mode
- Type **en** and press **<enter>** to go into privileged mode (password **cisco**)


```
Welcome to the ICND1 Lab!

SW1>en
Password:
SW1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
SW1(config)#interface vlan 1
SW1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Vlan1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
SW1(config-if)#ip add 192.168.1.111 255.255.255.0
SW1(config-if)#interface fa0/2
SW1(config-if)#switchport mode access
SW1(config-if)#switchport access vlan 1
SW1(config-if)#
```

- Type **config t** and press **<enter>** to go into global configuration mode (see above)
- Type **interface vlan 1** to enter *Switched Virtual Interface* configuration mode for VLAN 1
- First, ensure that the interface is functioning by typing the **no shutdown** command
- Set the interface IPv4 address with the **ip address 192.168.X.11X 255.255.255.0** command (X = the site number, Site one would be 192.168.1.111, Site 2 would be 192.168.2.112, etc.)
- Set the interface attached to the LAN workstation to access mode

  - Type the command **interface Fa0/2** (on SW1 & SW2), or **interface fa0/3** (on SW3)
  - Type **switchport mode access** to enable the port to support a single VLAN
  - Assign the port to VLAN 1 with the command **switchport access vlan 1**

- Test connectivity to the workstation using the **ping 192.168.X.100** (X = the site number, Site one would be 192.168.1.100, Site 2 would be 192.168.2.100, etc.)

- Repeat for switches 2 and 3
- When finished, select **File > Save** on the main screen in order to save your changes in the simulator file