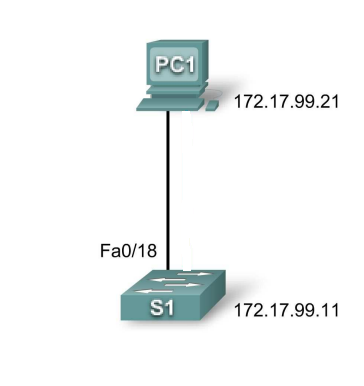
**Lab2.1 Basic switch configuration**

**Topology **

**Task 1: Cable and Reload the Switch**  
**Step 1: Cable a network.**  
Cable a network that is similar to the one in the topology diagram. Create a console connection to the switch.

The cable that you use to connect the two devices is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Step2: Reload the switch**

Switch#reload  
**Task 2: Verify the Default Switch Configuration**

**Step 1: Evaluate each of IOS modes.**

Prompt for user exec mode is\_\_\_\_r1>\_\_\_\_\_\_\_

Prompt for privileged exec mode is\_\_\_\_\_\_r1#\_\_\_\_\_

Prompt for global configuration mode is\_\_r1(conf)\_\_\_\_\_\_\_\_\_

Prompt for specific configuration mode is\_r1(conf-if)\_\_\_\_\_\_\_\_\_\_

**Step 2: Enter privileged mode.**  
You can access all the switch commands in privileged mode. However, because many of the privileged commands configure operating parameters, privileged access should be password-protected to prevent unauthorized use.   
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#  
Notice that the prompt changed in the configuration to reflect privileged EXEC mode.  
**Step 3: Examine the current switch configuration.**  
Examine the current running configuration file.  
Switch#**show running-config**

Examine the characteristics of the virtual interface VLAN1:  
Switch#**show interface vlan1**

The status is:\_\_\_\_\_\_\_\_\_\_\_\_\_

**Step 4: Display Cisco IOS information.**  
Examine the following version information that the switch reports.  
Switch#**show version**

**Step 5: Examine the Fast Ethernet interfaces.**  
Examine the default properties of the Fast Ethernet interface used by PC1.  
Switch#**show interface fastethernet 0/18**

Status is\_\_\_\_\_\_\_\_\_\_\_

Switch#**show interface fastethernet 0/1**

Status is\_\_\_\_\_\_\_\_\_\_\_\_

**Step 6: Examine VLAN information.**  
Examine the default VLAN settings of the switch.  
Switch#**show vlan**

**Task 3: Create a Basic Switch Configuration**  
**Step 1: Assign a name to the switch.**  
Here's a review of the commands used to configure the hostname.  
S1#**configure terminal**  
S1(config)#**hostname S1**  
S1(config)#**exit**  
**Step 2: Set the access passwords.**  
Enter config-line mode for the console. Set the login password to **conpass**. Also configure the vty lines 0 to 15 with the password **vtypass**.  
S1#**configure terminal**  
Enter the configuration commands, one for each line. When you have finished, return to global configuration mode by entering the **exit** command or pressing Ctrl-Z.  
S1(config)#**line console 0**  
S1(config-line)#**password conpass**  
S1(config-line)#**login**  
S1(config-line)#**line vty 0 15**  
S1(config-line)#**password vtypass**  
S1(config-line)#**login**  
S1(config-line)#**exit**  
Why is the **login** command required?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Step 3. Set the command mode passwords.**  
Set the enable secret password to class. This password protects access to privileged EXEC mode.  
S1(config)#**enable secret class**  
**Step 4. Configure the Layer 3 address of the switch.**  
Before you can manage S1 remotely from PC1, you need to assign the switch an IP address. The default configuration on the switch is to have the management of the switch controlled through VLAN 1.  
However, a best practice for basic switch configuration is to change the management VLAN to a VLAN other than VLAN 1. For management purposes, we will use VLAN 99. The selection of VLAN 99 is arbitrary and in no way implies you should always use VLAN 99.  
First, you will create the new VLAN 99 on the switch. Then you will set the IP address of the switch to 172.17.99.11 with a subnet mask of 255.255.255.0 on the internal virtual interface VLAN 99.  
S1(config)#**vlan 99**  
S1(config-vlan)#**exit**  
S1(config)#**interface vlan99**  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan99, changed state to down  
S1(config-if)#**ip address 172.17.99.11 255.255.255.0**  
S1(config-if)#**no shutdown**

S1(config-if)#**exit**  
S1(config)#  
Notice that the VLAN 99 interface is in the down state even though you entered the command **no** **shutdown**. The interface is currently down because no switchports are assigned to VLAN 99.  
Assign all user ports to VLAN 99.  
S1#**configure terminal**  
S1(config)#**interface range fa0/1 - 24**  
S1(config-if-range)#**switchport access vlan 99**  
S1(config-if-range)#**exit**  
S1(config-if-range)#

**Step5:Verify the connectivity by using the following command**

PC>ping 172.17.99.11

**Step6: Set Login Banner Message Hello Everyone**

S1(config)#banner motd #Hello Everyone#

**Task4: Remotely Access the switch from PC**

PC>telnet 172.17.99.11

User Authentication

Password:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Remove hostname of the switch by using remote access method

S1(config)#no hostname

**Task5: Examining CLI help options**

Switch#c

The message displayed is\_\_\_\_\_\_\_\_\_\_\_

Switch#copy

The message displayed is\_\_\_\_\_\_\_\_\_\_\_

Switch#copy running-config 10.1.2.3

The message displayed is\_\_\_\_\_\_\_\_\_\_\_

**Task6: configure settings on interfaces**

Switch(config)#interface fa0/1

Switch(config-if)#speed 10

Switch(config-if)#duplex half

Switch(config-if)#decription towardspc

**Task 7: Save the configuration.**  
You have completed the basic configuration of the switch. Now back up the running configuration file to NVRAM to ensure that the changes made will not be lost if the system is rebooted or loses power.  
S1#**copy running-config startup-config**

**Task 8: Examine the startup configuration file.**  
To see the configuration that is stored in NVRAM, issue the **show startup-config** command from privileged EXEC mode.  
S1#**show startup-config**