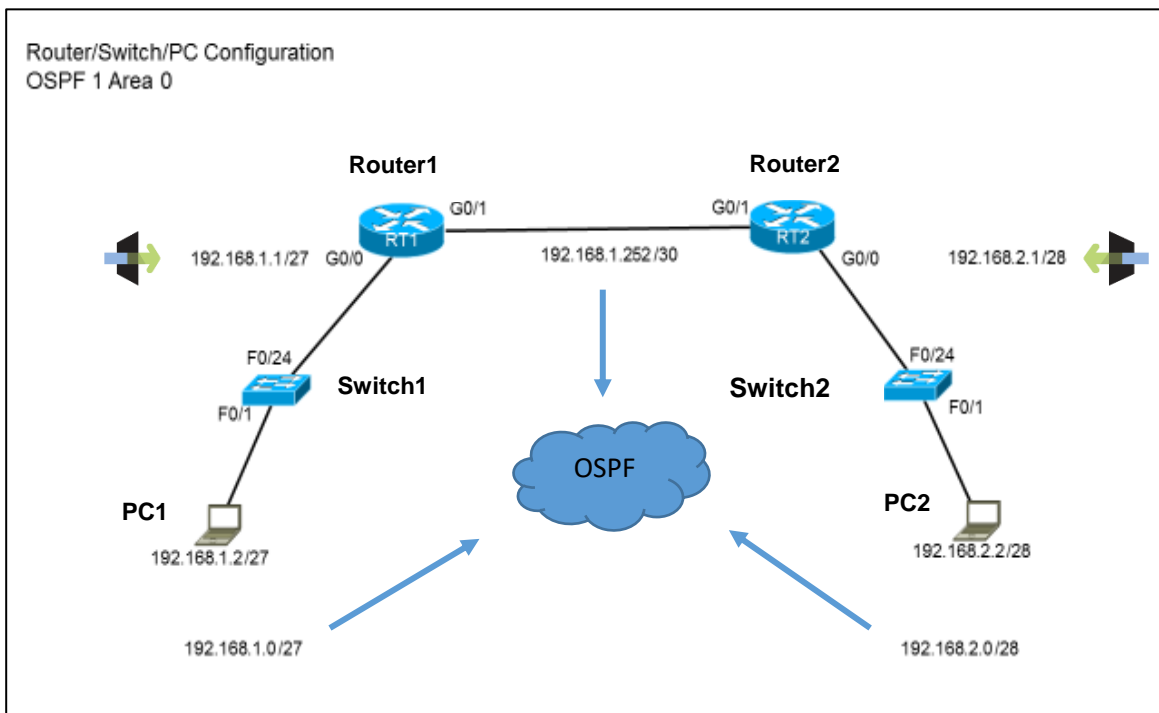


Module F Switch Walk-through

Command	What it Does
<i>Many commands on the switch are the same as the router</i>	
Switch# show run	Displays your current running configuration
Switch# copy run start	Copies the current running configuration to memory (saves it!)
Switch# write -OR- wr	Alternative for copy run start . Writes config directly to NVRAM
Switch# show version	Shows the current version of IOS, configuration registry number, uptime, MAC address, and other information
Switch# erase startup-configuration Switch# reload	Wipes startup config. Allows you to start with a default configuration. Works on routers and switches
Switch# ping 192.168.1.1	Sends a PING to that IP address
exit	Sends you back one level
Keyboard	What it Does
CRTL A	Moves the cursor to the beginning of the CLI line
CTRL E	Moves the cursor to the end of the CLI line
CTRL + SHIFT 6	Press these keys to stop all unwanted process and return to your prompt
CTRL Z	Exits all configuration modes and returns you to privileged exec mode (Switch#)
SPACE BAR	Advances the CLI a page at a time scrolling
ENTER	Advances the CLI line by line.

Network Diagram



Module F Switch Walk-through

Note: The Ethernet interfaces supporting user traffic are in a “No Shut” state by default and will pass traffic automatically upon having a device connected.

Switch 1 Admin

Note: Items displayed in *italics* are variable, depending on parameters required

Switch> **enable**

Switch# **configure terminal** (Or **config t** for short. This enters the global configuration mode)

Switch(config)# **hostname** *Switch1* (sets the hostname to the italicized portion)

Switch1 (config)# **banner motd** * *This Switch was configured by me.* *

Switch1 (config)# **enable password** *cisco* or **enable secret** *cisco*

Switch1 (config)#**no ip domain-lookup**

Switch1 (config)# **line console 0** (enables config mode to configure console line)

Switch1 (config-line)# **password** *cisco* (where *cisco* is the given console password)

Switch1 (config-line)# **login** (tells the Switch or switch to require the password to gain access)

Switch1 (config-line)# **exec-timeout 0 0** (disables your connection from timing out – use only in bench testing, never in a production environment)

Switch1 (config-line)# **logging synchronous** (Stops console messages from interfering, always puts the cursor back to where you were typing)

Switch1 (config-line)# **exit** (drops out of line config mode)

Switch1 (config)# **line vty 0 15** (16 total VTY “lines”, numbered 0 through 4. These allow for remote connections to configure your device)

Switch1 (config-line)# **password** *cisco* (where *cisco* is the given vty password)

Switch1 (config-line)# **login**

Switch1 (config-line)#**transport input telnet** (other options are ssh, all or none)

Switch1 (config-line)# **exit** (drops out of line config mode)

Switch 1 VLAN 1 and Default Gateway

Switch1 (config)#**interface vlan 1** (configure the VLAN interface)

Switch1(config-if)#**ip address** *192.168.1.4* *255.255.255.224* (2nd IP address of the network, Subnet Mask)

Switch1 (config-if)#**no shut** (turn on the interface)

Switch1 (config-if)#**exit**

Switch1 (config)#**ip default-gateway** *192.168.1.1* (IP address of the router)

Switch1(config)#**exit**

Switch1#**copy run start** -or- **wr**

Module F Switch Walk-through

Switch 2 Admin

Switch> **enable**

Switch# **configure terminal** (Or **config t** for short. This enters the global configuration mode)

Switch(config)# **hostname Switch2** (sets the hostname to the italicized portion)

Switch2 (config)# **banner motd** * *This Switch was configured by me.* *

Switch2 (config)# **enable password** *cisco* or **enable secret** *cisco*

Switch2 (config)#**no ip domain-lookup**

Switch2 (config)# **line console 0** (enables config mode to configure console line)

Switch2 (config-line)# **password** *cisco* (where *cisco* is the given console password)

Switch2 (config-line)# **login** (tells the Switch or switch to require the password to gain access)

Switch2 (config-line)# **exec-timeout 0 0** (disables your connection from timing out – use only in bench testing, never in a production environment)

Switch2 (config-line)# **logging synchronous** (Stops console messages from interfering, always puts the cursor back to where you were typing)

Switch2 (config-line)# **exit** (drops out of line config mode)

Switch2 (config)# **line vty 0 5** (16 total VTY “lines”, numbered 0 through 4. These allow for remote connections to configure your device)

Switch2 (config-line)# **password** *cisco* (where *cisco* is the given vty password)

Switch2 (config-line)# **login**

Switch2 (config-line)#**transport input** *telnet* (other options are ssh, all or none)

Switch2 (config-line)# **exit** (drops out of line config mode)

Switch 2 VLAN 1 and Default Gateway

Switch2 (config)#**interface vlan 1** (configure the VLAN interface)

Switch2(config-if)#**ip address** *192.168.2.2 255.255.255.240* (2nd IP address of the network, Subnet Mask)

Switch2 (config-if)#**no shut** (turn on the interface)

Switch2 (config-if)#**exit**

Switch2 (config)#**ip default-gateway** *192.168.2.1* (IP address of the router)

Switch2(config)#**exit**

Switch2#**copy run start** -or- **wr**

Configure Packet Tracer PCs interface (Do BOTH PCs):

- Place the PC on the screen
- Select the DESKTOP tab
- Select Interface > Fast Ethernet 0
- Enable the STATIC IP option in IP CONFIGURATION
- Enter the correct **IP Address, Subnet Mask, Default Gateway** per your network diagram

Module F Switch Walk-through

Setting Your Physical Workstation IP (as needed):

- Click on Network Connection on Desktop
- Double-Click Local Connection
- Click Properties
- Scroll to the bottom and double-click Internet Protocol (TCP/IP)
- Replace existing info with your assigned workstation IP, SM, and Default Gateway
- Once information is updated Click on OK then OK again, an hourglass should appear telling you the information is being updated on your NIC.

Ping the Switch's VLAN1 interface from your PC:

- Connect a straight-through cable from your PC's NIC to an open Ethernet port on the local switch.
- On your PC, double-click on Command Prompt on your desktop.
- At the command prompt, type **ipconfig** to show the IP settings for your workstation.
- Type **ping XXX.XXX.XXX.XXX** (a switch's VLAN 1 IP address)
- Good: At least 3 *Reply From* lines, Bad: *Destination Host Unreachable*
- If bad, double-check your PC IP Address, your Switch's IP address, and ensure your cable is in the correct port and firmly seated.

Ping the Router from your PC:

- On your PC, double-click on Command Prompt on your desktop.
- At the command prompt, type **ipconfig** to show the IP settings for your workstation.
- Type **ping XXX.XXX.XXX.XXX** (your Gateway, the router's IP address)
- Good: At least 3 *Replies From* lines, Bad: *Destination Host Unreachable*
- If bad, double-check your PC IP Address, your Switch's IP address, make sure VLAN 1 is not shut down, and ensure your cable is in the correct port and firmly seated.