

LAB 9: VLANs and Routing

Objective:

The objective of this lab is for the student to demonstrate that she can configure VLANs and RIP and/or Static routes.

Required:

1. Configure the IP address, subnet mask, and default gateway for the computers in your LAN. Configure all computers, and record the IP addresses of the computers in your LANs.

LAN:

IP Address:

Subnet Mask:

Gateway:

LAN2:

IP Address:

Subnet Mask:

Gateway:

Detailed Lab Steps Task #1

1. Your first task is to configure the IP address for VLAN1. Enable the VLAN1 interface. List the command sequence required to accomplish this task. Indicate both the prompt and the command.
2. Next, configure the IP addresses for the computers (PC1 and PC2), and for the router (R1).

When you have completed this task, verify that you have network connectivity from the switch SW1 to the computers. List the command sequence required to accomplish this task.
3. Next, use the command that displays the current VLAN interface information.
4. What is the default VLAN and which ports currently belong to it?
5. How many VLANs are set up by default on the switch? List the VLANs.
6. In the next step, you are to create two VLANs, VLAN2 (Finance) and VLAN3 (Office). List the command sequence required to create the VLANs, and assign names to each VLAN.
7. Verify that the two new VLANs have been created. List the command sequence required to accomplish this task.
8. Which ports are currently assigned to VLANs 2 and 3?
9. Issue the commands that assign the ports connecting S1, PC1, and PC2 to their respective VLANs.
10. Use the proper command to verify that the switch ports have been properly assigned. List the command sequence required to accomplish this task.