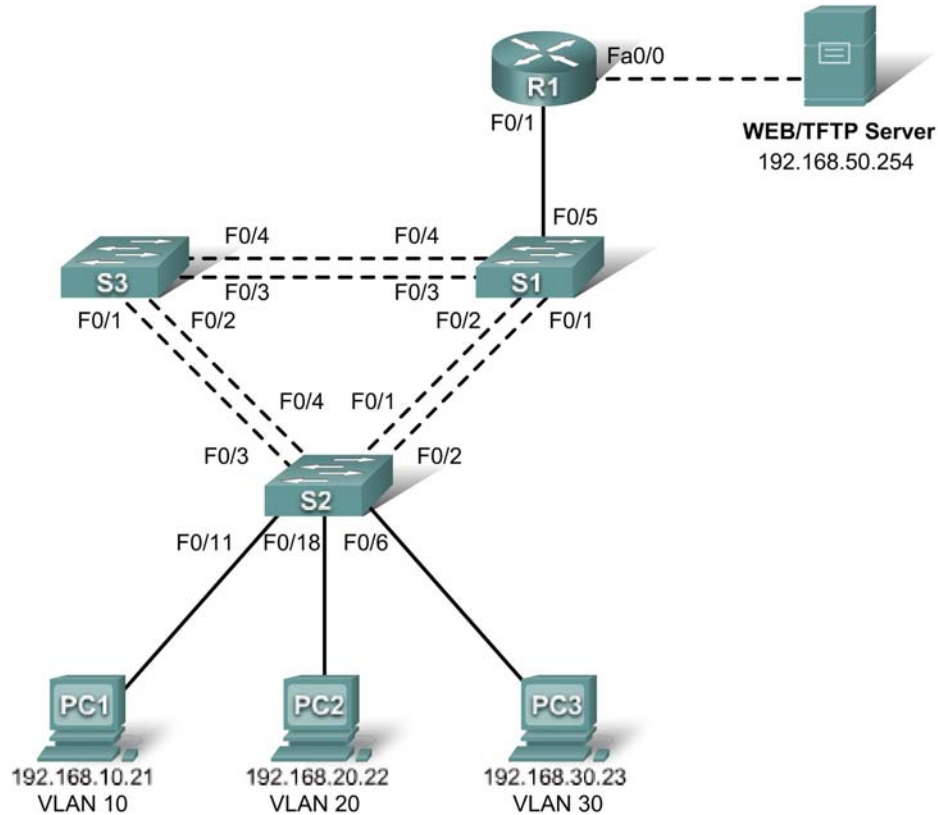


PT Activity 6.4.3: Troubleshooting Inter-VLAN Routing

Topology Diagram



Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
S1	VLAN 99	192.168.99.11	255.255.255.0	192.168.99.1
S2	VLAN 99	192.168.99.12	255.255.255.0	192.168.99.1
S3	VLAN 99	192.168.99.13	255.255.255.0	192.168.99.1
R1	Fa0/0	192.168.50.1	255.255.255.0	N/A
	Fa0/1	See Interface Configuration Table		N/A
PC1	NIC	192.168.10.21	255.255.255.0	192.168.10.1
PC2	NIC	192.168.20.22	255.255.255.0	192.168.20.1
PC3	NIC	192.168.30.23	255.255.255.0	192.168.30.1
Server	NIC	192.168.50.254	255.255.255.0	192.168.50.1

Port Assignments – S2

Ports	Assignment	Network
Fa0/1 - 0/5	802.1q Trunks (Native VLAN 99)	192.168.99.0 /24
Fa0/6 - 0/10	VLAN 30 – Sales	192.168.30.0 /24
Fa0/11 - 0/17	VLAN 10 – R&D	192.168.10.0 /24
Fa0/18 - 0/24	VLAN 20 - Engineering	192.168.20.0 /24

Interface Configuration Table – R1

Interface	Assignment	IP Address
Fa0/1.1	VLAN 1	192.168.1.1 /24
Fa0/1.10	VLAN 10	192.168.10.1 /24
Fa0/1.20	VLAN 20	192.168.20.1 /24
Fa0/1.30	VLAN 30	192.168.30.1 /24
Fa0/1.99	VLAN 99	192.168.99.1 /24

Learning Objectives

- Troubleshoot and correct the Inter-VLAN issues and configuration errors.
- Document the network configuration.

Introduction

In this activity, you will troubleshoot the network, find and correct all configuration errors, and document the corrected network.

Task 1: Troubleshoot and Correct the Inter-VLAN Issues and Configuration Errors

Begin by identifying what is working and what is not. Use **cisco** as the user EXEC password and **class** as the privileged EXEC password on all switches and the router.

What is the state of the interfaces?

What hosts can ping other hosts?

Which hosts can ping the server?

What routes should be in the R1 routing table?

When all errors are corrected, you should be able to ping the remote server from any PC or any switch. In addition, you should be able to ping between the three PCs and ping the management interfaces on switches from any PC.

Your completion percentage should be 100%. If not, troubleshoot for missing configuration statements.

Task 2: Document the Network Configuration

When you have successfully completed your troubleshooting, capture the output of the router and all three switches with the **show run** command and save it to a text file.