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INTERVLAN ROUTING

CONFIGURING AND TROUBLESHOOTING VLANS

VLANS

Vlans are a logical connection instead of a physical one. Vlans allow for security separating such things as departments of a corporation (personnel department and maintenance department).

- They are their own broadcast domain
- They cost less than upgrades to equipment
- Reduces traffic
- Make smaller broadcast domains

FOR MORE INFORMATION ON VLANS SEE:
HTTPS://WWW.CISCO.COM/C/EN/US/TD/DOCS/SWITCHES/LAN/CATALYST4500/12-2/25EW/CONFIGURATION/GUIDE/CONF/VLANS.HTML

In this lab, you will notice that there are two networks set-up next to each other the network to the left is the one you will configure. The network to the right will already be set-up with mistakes, so that you may learn to trouble shoot.

HOW TO CREATE VLANS:

1. Go to switch 1 and config terminal
2. Switch1(config)**vlan** vlan_id
3. Switch1(config if) name
4. Go to the inter face for the respective vlan and config that port
5. Switch1(config) int f 0/1
6. Switch1(config if) switchport mode access
7. Switch1(config if) switchport access vlan 10
8. Switch1(config if) no shutdown

InterVLAN Routing

InterVlan routing enables a person on one vlan to communicate with a person on a different vlan.

FOR MORE INFORMATION ON INTERVLAN ROUTING SEE:
HTTPS://WWW.CISCO.COM/C/EN/US/SUPPORT/DOCS/LAN-SWITCHING/INTER-VLAN-ROUTING/41860-HOWTO-L3-INTERVLANROUTING.HTML

How to Configure InterVLAN Routing:

1. Go into the sub-interface connected to the switch
2. Router1(config) int g 0/0.10
3. Router1(config if)encapsulation dot1q vlan-id (10)

Trouble Shooting Vlans

The network to the left has already been configured, but there are somethings wrong with it. Your task is to use your show commands to find the issues and fix them.

> *You can search for additional help on the **Help** menu.*