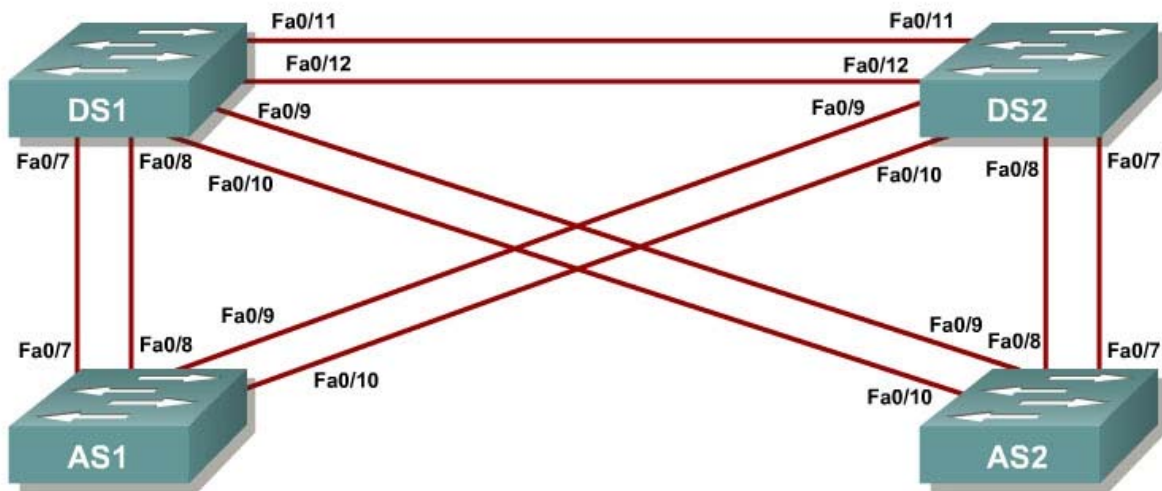


Case Study 2 Voice and Security in a Switched Network

Topology Diagram



Instructions

Plan, design, and implement the International Travel Agency switched network as shown in the diagram and described below. Implement the design on the lab set of switches. Verify that all configurations are operational and functioning according to the guidelines.

Scenario

The International Travel Agency has two distribution switches, DLS1 and DLS2, and two access layer switches, ALS1 and ALS2. Configure a group of switches as follows:

- Disable the links between the access layer switches.
- Place all switches in the VTP domain CISCO and set them all to VTP mode transparent.
- Make sure that all inter-switch links are statically set as 802.1q links.
- Create VLANs 10 and 200 on all switches. Give DLS1 and DLS2 SVIs in VLAN 10 and assign addresses in the 172.16.10.0/24 subnet.
- Configure DLS1 and DLS2 to use HSRP on the 172.16.10.0/24 subnet. Make DLS1 the primary gateway, and enable preemption on both switches.

- Place ports Fa0/15 through Fa0/20 in VLAN 10 on both access layer switches.
- Enable PortFast on all access ports.
- Enable QoS on all switches involved in the scenario.
- Configure ALS1 F0/15 and F0/16 for using Cisco IP phones with a voice VLAN of 200 and trust the IP phone CoSes.
- Configure ALS1 F0/18 through F0/20 for port security. Allow only up to three MAC addresses to be learned on each port and then drop any traffic from other MAC addresses.
- Configure ALS2 F0/18 to only allow the MAC address 1234.1234.1234 and to shut down if a violation occurs.