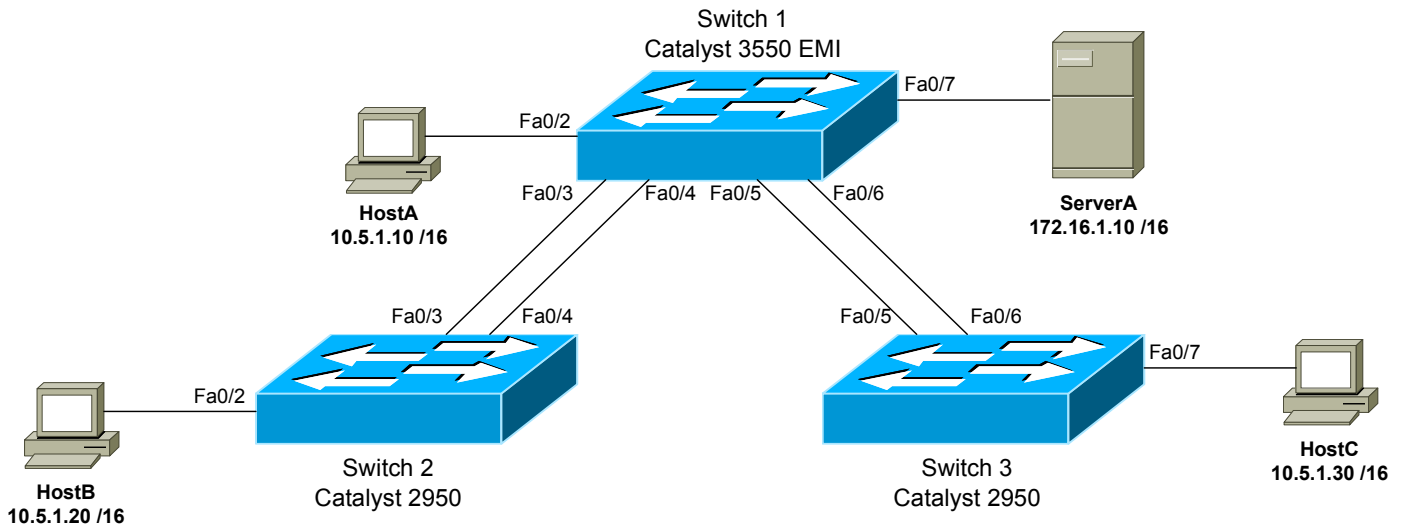


- Advanced Switching Lab -

Advanced Switching – Lab



Basic Objectives:

1. Configure and cable the Ethernet interfaces as indicated in the above diagram.

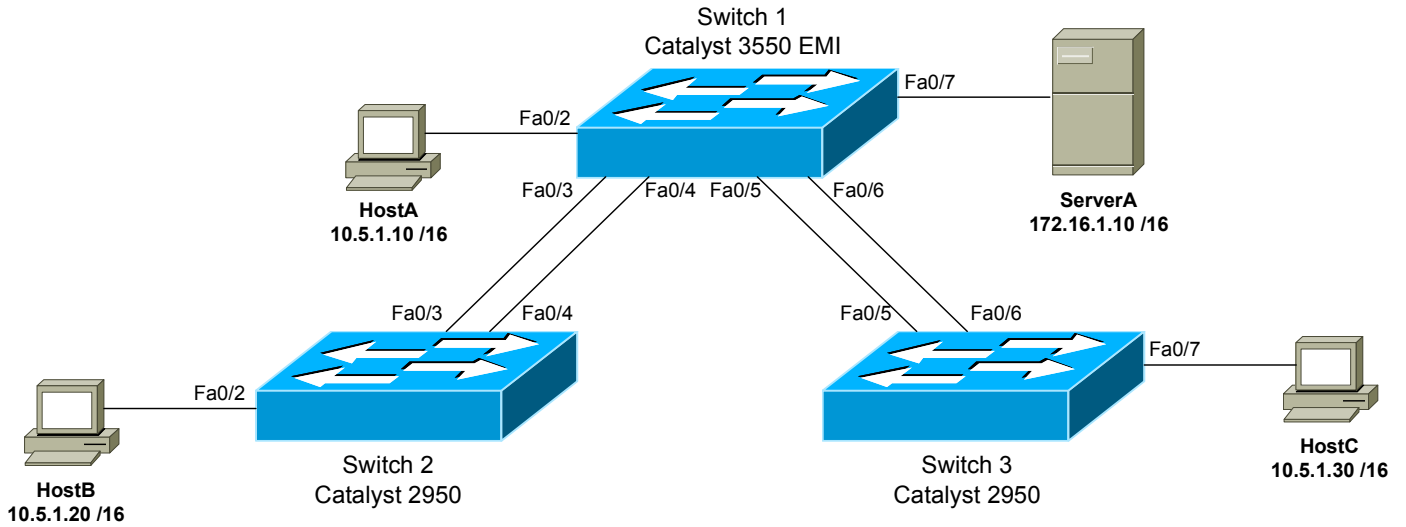
Switching Objectives:

2. Remove all VLAN configuration from all switch interfaces. Delete all VLANs from the vlan.dat database on all three switches.

3. Ensure that VLANs can only be created on Switch 3.

* * *

Advanced Switching – Lab (continued)



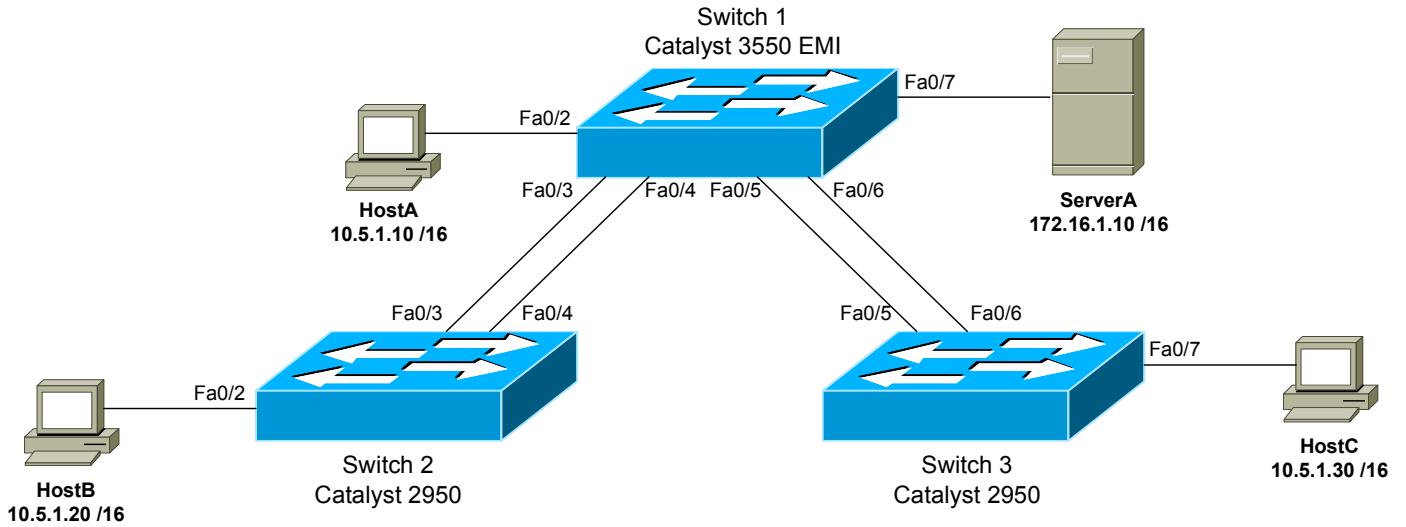
Switching Objectives:

- 4. Ensure that VLAN updates are secure between switches, using the latest version of the protocol.

- 5. Configure trunking as diagrammed above. DTP should not be used. Use a standardized encapsulation protocol.

- 6. STP should see the redundant trunk links as one logical interface. This should be accomplished dynamically using a standardized protocol.

Advanced Switching – Lab (continued)



Switching Objectives:

7. Create the following VLANs, and assign the specified names:

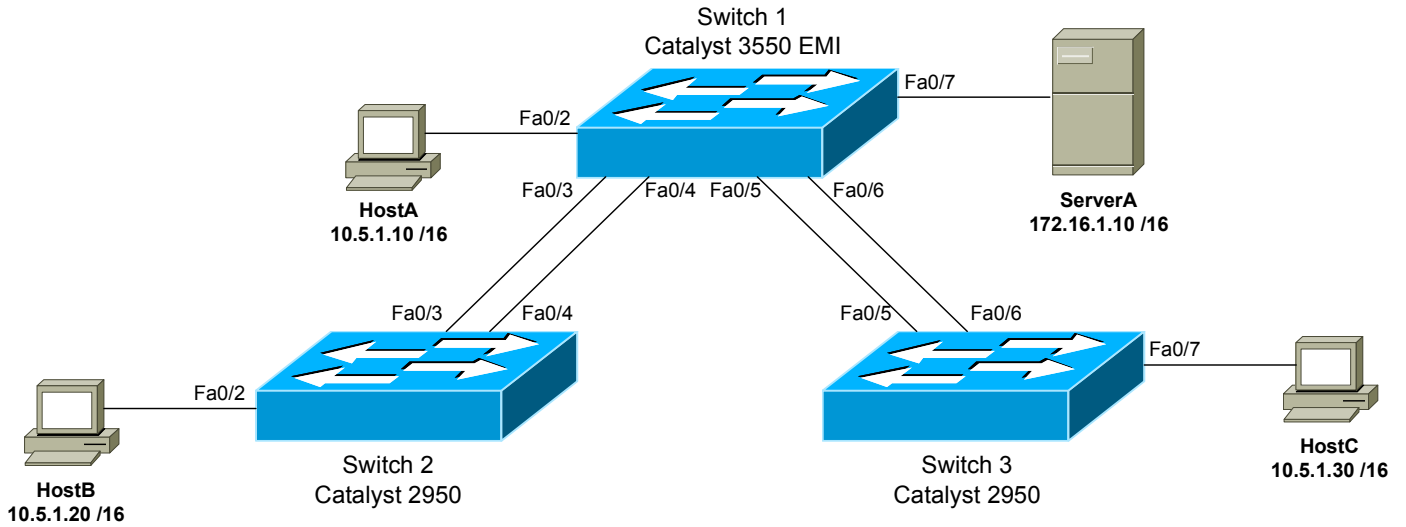
- VLAN 200 – Workstations
- VLAN 201 – Printers
- VLAN 202 – Access Points
- VLAN 203 – Servers

8. Ensure the above VLANs have propagated to all switches.

9. Assign the interfaces connecting to HostA, HostB, and HostC to VLAN 200.

* * *

Advanced Switching – Lab (continued)



Switching Objectives:

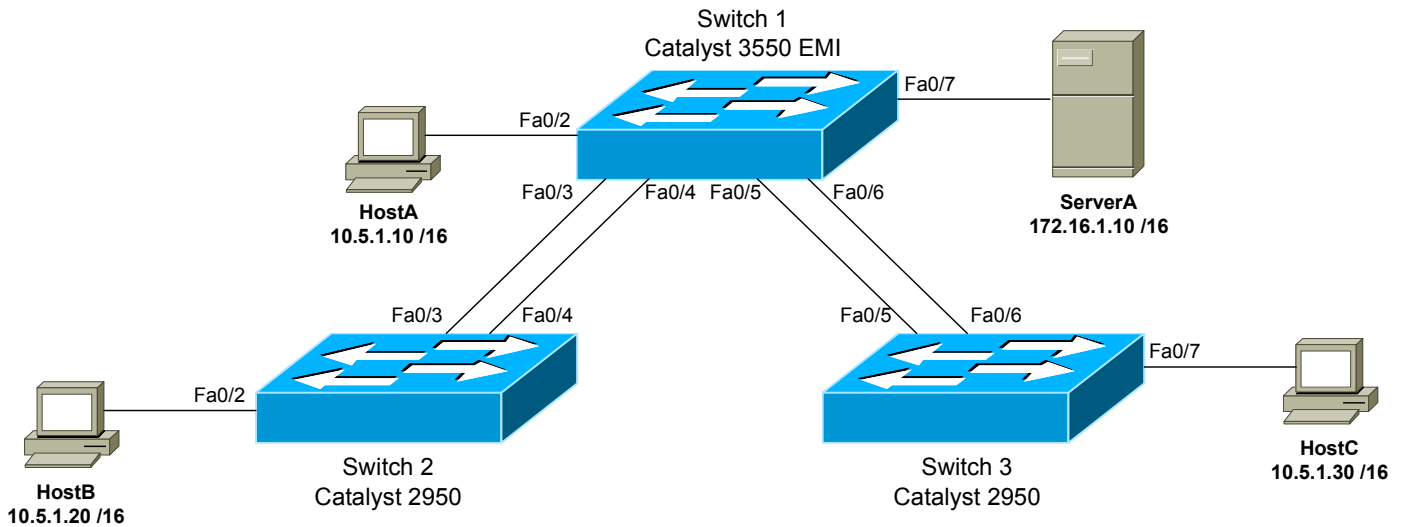
10.Ensure connectivity between the hosts.

11.Assign the interface connecting to ServerA to VLAN 203.

12.Ensure that the interfaces connecting to HostA, HostB, HostC, and ServerA get placed in an STP forwarding state immediately.

* * *

Advanced Switching – Lab (continued)



Switching Objectives:

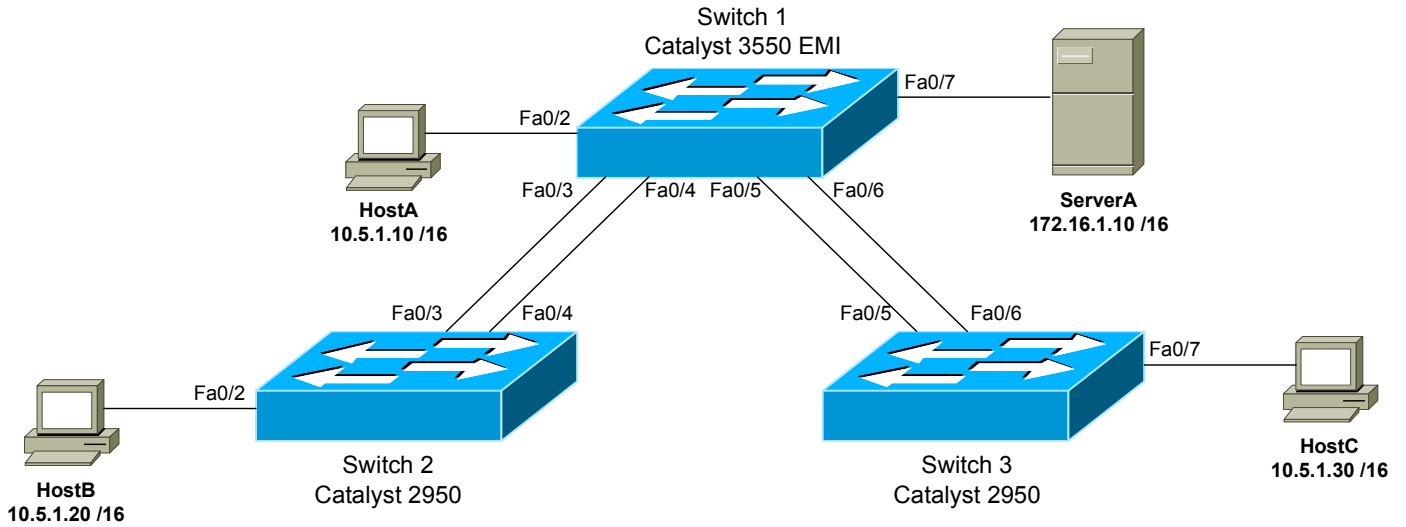
13.Ensure that the three hosts can communicate with ServerA. Do not use any external routing equipment to accomplish this.

14.Ensure that the interfaces connecting to HostA, HostB, and HostC only accept packets sourced from the MAC addresses of their respective hosts. Ensure that the interface will be placed in an errdisable state if a violation occurs.

15.Ensure that Switch 2 becomes the Root Bridge for all specified VLANs.

* * *

Advanced Switching – Lab (continued)



Switching Objectives:

16.Ensure that all switches bypass the Max Age timer if the Root Bridge fails.

17.Ensure that the interfaces connecting to HostA, HostB, and HostC will be placed in an errdisable state if a BPDU is received.

18.Ensure that data sent *out* interfaces connecting to HostA, HostB, and HostC will be copied to interface fa0/12 on each switch, for diagnostic purposes.

* * *