CCNP SWITCH(642-813) Lab – STP+LACP(New)

[Scenario

You have been tasked with configuring SwitchB,which has a minimal configuration and has been added to the existing network shown in the topology diagram.

SwitchA is currently configured correctly.but will need to be modified to support the addition of SwtichB. The VTP and STP configuration modes on SwitchA should not be modified. However SwtichA needs to be the root switch for all vlan instances.

The two connections between SwitchA and SwitchB need to be configured using a non-proprietary protocol that allows both the lines to be actively forwarding data,with SwtichA controlling activation. Propagation of unnessary broadcasts should be limited using manual pruning on this trunk link.

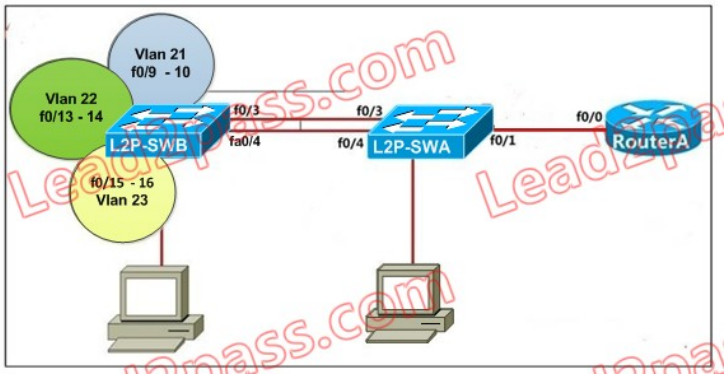
For operational and security reasons trunking between SwitchA and SwitchB should uncondition and Vlan1 and other access vlans need to be tagged when traversing the trunk link.

Requirements for SwitchB

Vlan RST ID = 21, supports two servers attached to fa0/9 and fa0/10

- Vlan RST ID = 22, supports two servers attached to fa0/13 and fa0/14
- Vlan RST ID = 23, supports two servers attached to fa0/15 and fa0/16
- Access ports supporting servers must transition immediately to forwarding state.
- No routing is to be supported on SwitchB
- Only SVI Vlan 1 is to be configured and it is to use address 192.168.1.11/24
- SwitchA and SwitchB use cisco as the enable password
- Ensure that devices on SwitchB can reach devices behind RouteA

[Topology



[Solution

1. Verification on the Pre-Configuration:

Switch A:
a. Check the Router's interface IP [192.168.1.10] [**Need to set for the default gateway for Switch B**]
b. Checks the Vlans [1, 11-13, 98-99] already created and identify the Native vlan [99] and it's Name [TrunkNative]
c. Check the all the interfaces especially Fast Ethernet 0/3 and 0/4 [Because in many of the people report that those interfaces were already assigned to a vlan98, so we need to remove it from that vlan because we later we will be assigning them to trunk port]

Switch B:
a. Check the created vlans. [Only vlan1 created]
b. Check the SVI is assigned to the vlan1 as noted in the question [192.168.1.11/24, most of the times it is assigned in the exam]

2. Configuration on Switch B: [Configure Vlan/Assign ports/Make the Switch A ROOT for the STP

B: The Access Switch		
vlan 21 name RDT vlan 22 name SST vlan 23 name TST vlan 99 name TrunkNative	int range fa 0/9 – 10 switchport mode access switchport access vlan21 spanning-tree portfast int range fa 0/13 – 14 switchport mode access switchport access vlan22 spanning-tree portfast int range fa 0/15 – 16 switchport mode access switchport access vlan23 spanning-tree portfast	int vlan1 ip add 192.168.1.11 ip default-gateway 192.168.1.10 ~~spanning-tree vlan 1,11-13,21-23,98-99 priority 61440~~ spanning-tree vlan 1,21,22,23,99 priority 61440

3. Configuration on Switch A: [Configure Vlan/ Verify the ROOT configured

A: The Distribution Switch		
vlan 21 name RDT vlan 22 name SST vlan 23 name TST	show spanning-tree [verify the ROOT]	

4. Configure the Trunk Ports and Finally, Port-Aggregation [LACP

B: The Access Switch	A: The Distribution Switch
int range fa 0/3 – 4 switchport trunk encapsulation dot1Q switchport mode trunk switchport trunk allowd vlan 1,21-23 switchport trink native vlan 99 channel-protocol lacp channel-group 1 mode passive int port-channel 1 no shutdown switchport trunk native vlan 99 copy run start	int range fa 0/3 – 4 no switchport access vlan 98 ~~switchport trunk encapsulation dot1Q~~ switchport mode trunk switchport trunk allowd vlan 1,21-23 switchport trink native vlan 99 channel-protocol lacp channel-group 1 mode active int port-channel 1 no shutdown switchport trunk native vlan 99 copy run start

5. Varify the configuration :

On Access Switch B ping 192.168.1.10
!!!!!

Note:
1. The copy run start will not work most of the times, do not worry. Leave it.

2. **int port-channel 1**

switchport trunk native vlan 99
The above command is not needed most of the times. Use it if you gat any vlan mismatch notification on the screen.

3. SVI is configured most of the times.

4. switchport trunk encapsulation dot1Q / This command will not work on the Distribution switch [A]. Assume it is configured on the LAB.

5. Finally no not try any unwanted/wrong commands on the console. That is not a real switch!

6. **In the packet tracer which I have uploaded, you can configure every thing. But, after 1 minute the Port channel will be down. It is an issue with the Packet Tracer.**

STP+LACP.ptk

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