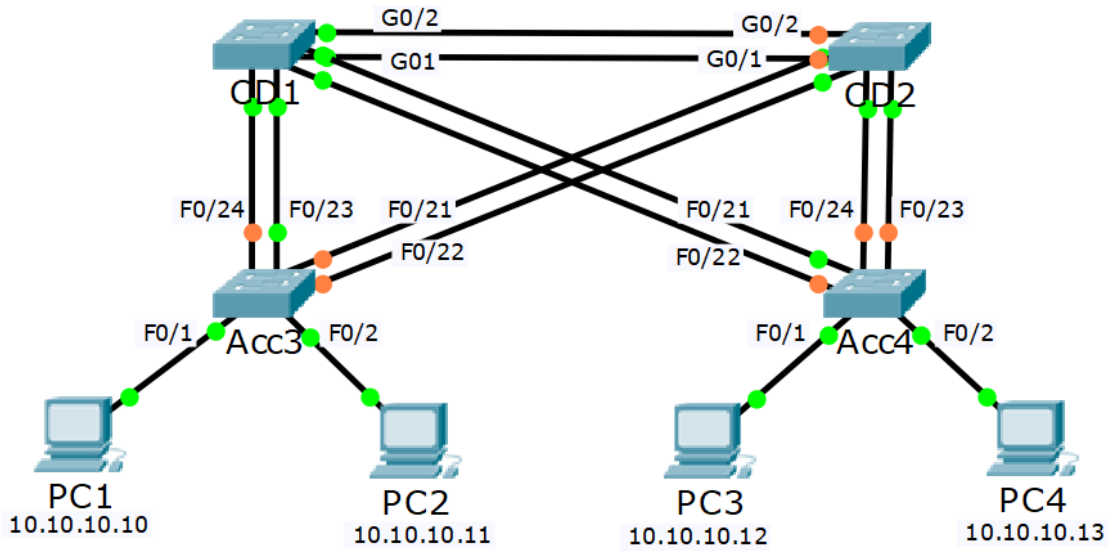
26-1 EtherChannel Configuration – Lab Exercise

In this lab you will configure Etherchannel links in a campus LAN.

Lab Topology



Load the Startup Configurations

Open the ’26-1 EtherChannel Configuration.pkt’ file in Packet Tracer to load the lab.

LACP EtherChannel Configuration

1) The access layer switches Acc3 and Acc4 both have two FastEthernet uplinks. How much total bandwidth is available between the PCs attached to Acc3 and the PCs attached to Acc4?

2) Convert the existing uplinks from Acc3 to CD1 and CD2 to LACP EtherChannel. Configure descriptions on the port channel interfaces to help avoid confusion later.

3) Verify the EtherChannels come up.

PAgP EtherChannel Configuration

4) Convert the existing uplinks from Acc4 to CD1 and CD2 to PAgP EtherChannel. (Note that in a real world environment you should always use LACP if possible.)

5) Verify the EtherChannels come up.

Static EtherChannel Configuration

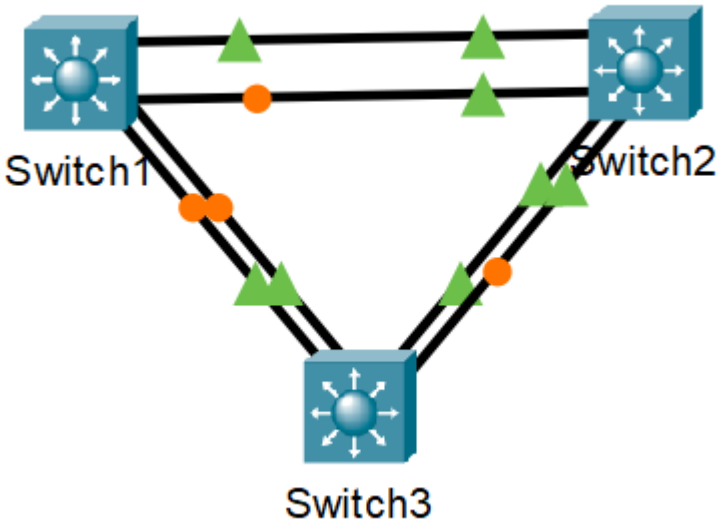
6) Convert the existing uplinks between CD1 and CD2 to static EtherChannel.

7) Verify the EtherChannel comes up.

8) How much total bandwidth is available between the PCs attached to Acc3 and the PCs attached to Acc4 now?

Layer 3 EtherChannel Configuration

The Layer 3 switches Switch1, Switch2 and Switch3 are physically separate from the switches you configured earlier in this lab exercise.



9) Switch1 and Switch2 are connected together with their GigabitEthernet1/0/1 and 1/0/2 interfaces.
Configure these interfaces as a Layer 3 Etherchannel with LACP.
Configure IP address 192.168.0.1/30 on Switch1 and 192.168.0.2/30 on Switch2.

10) Switch1 and Switch3 are connected together with their GigabitEthernet1/0/3 and 1/0/4 interfaces.
Configure these interfaces as a Layer 3 Etherchannel with LACP.
Configure IP address 192.168.0.5/30 on Switch1 and 192.168.0.6/30 on Switch3.

11) Switch2 and Switch3 are connected together with their GigabitEthernet1/0/5 and 1/0/6 interfaces.
Configure these interfaces as a Layer 3 Etherchannel with LACP.
Configure IP address 192.168.0.9/30 on Switch2 and 192.168.0.10/30 on Switch3.

12) Verify the EtherChannels come up.

13) Configure Switch1, Switch2 and Switch3 to advertise the IP subnets configured on their Etherchannel interfaces in OSPF Area 0.

14) Verify the OSPF adjacencies are formed successfully after a short delay.

15) Verify Switch1, Switch2 and Switch3 have routes to all configured networks in their routing tables.

16) Which physical ports on which switches do you expect the Spanning Tree protocol to disable? Verify this.