

Packet Tracer - Implement EtherChannel

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Objectives

Part 1: Build the network

Part 2: Configure EtherChannel

Background

You have been assigned the task of designing an EtherChannel implementation for a company that wants to improve the performance of their switch trunk links. You will try several different ways of implementing the EtherChannel links in order to evaluate which is the best for the company. You will build the topology, configure trunk ports, and implement LACP and PAgP EtherChannels.

Instructions

Part 1: Build the network.

Use the table below to build the switch topology.

Step 1: Obtain the devices that are required.

- Click the **Network Devices** icon in the bottom tool bar.
- Click the **Switches** entry in the submenu.
- Locate the **2960** switch icon. Click and drag the icon for the 2960 switch into the topology area.
- Repeat the step above so that there are **three** 2960 switches in the topology area.
- Arrange the devices into a layout that you can work with by clicking and dragging.

Step 2: Name the devices.

The devices have default names that you will need to change. You will name the devices **SWA**, **SWB**, and **SWC**. You are changing the display names of the devices. This is the text label that appears below each device. It is **not** the host name. Your display names must match the names that are given in this step **exactly**. If a display name does not match, you will not be scored for your device configuration.

- Click the device display name that is below the device icon. A text field should appear with a flashing insertion point. If the configuration window for the device appears, close it and try again by clicking a little further away from the device icon.
- Replace the current display name with the appropriate display name.
- Repeat until all devices are named.

Step 3: Connect the devices.

- Click the orange lightning bolt Connections icon in the bottom toolbar.
- Locate the Ethernet straight-through cable icon. It looks like a solid black diagonal line.

- c. To connect the device, click the Ethernet straight-through cable icon and then click the first device that you want to connect. Select the correct port and then click the second device. Select the correct port and the devices will be connected.
- d. Connect the devices as specified in the table below.

| Port Channel | Devices | Port Connections | Type |
|--------------|------------|------------------|------|
| 1 | SWA to SWB | G0/1 to G0/1 | PAgP |
| | | G0/2 to G0/2 | |
| 2 | SWA to SWC | F0/21 to F0/21 | LACP |
| | | F0/22 to F0/22 | |
| 3 | SWB to SWC | F0/23 to F0/23 | LACP |
| | | F0/24 to F0/24 | |

Part 2: Configure EtherChannel

On each switch, configure the ports that will be used in the Port Channels as static trunk ports.

Step 1: Configure a PAgP EtherChannel.

Follow the procedure that was used in previous activities to configure Port Channel 1 as a PAgP EtherChannel between SWA and SWB. Both sides should negotiate the EtherChannel.

Step 2: Configure a LACP EtherChannel.

Configure Port Channel 2 as an LACP channel between SWA and SWC. Both sides should negotiate the EtherChannel.

Step 3: Configure a Backup LACP EtherChannel

Configure Port Channel 3 channel as an LACP channel between SWB and SWC. In this case, SWC initiates negotiation with SWB. SWB does not initiate negotiation of the channel.

Part 3: Post your screenshots

On the PT Activity window, make sure that the completion grade is **100%**. Click on the **Check Results** button and select the **Assessment Items** tab. Take a screen shot of the whole window, showing the table of assessment items, and the score/item count. Own your photo by placing a watermark on your photo with your name and USC ID Number. Paste your screenshot below:

Packet Tracer - Implement EtherChannel

Cisco Packet Tracer - C:\Users\ADMIN\Desktop\temp\dumalaganDa\6.4.1 Packet Tracer - Implement Etherchannel.pka

File Edit Options View Tools Extensions Window Help

Activity Results Time Elapsed: 00:26:07

Congratulations Guest! You completed the activity.

Overall Feedback Assessment Items Connectivity Tests

Expand/Collapse All Show Incorrect Items

| Assessment Items | Status | Points | Component(s) |
|--------------------------------|---------|--------|---------------------|
| Network | | | |
| SWA | | | |
| Ports | | | |
| FastEthernet0/21 | | | |
| Channel Group | Correct | 3 | EtherChannel Co... |
| Channel Mode | Correct | 3 | EtherChannel Co... |
| Link to SWC | | | |
| Connects to FastEthernet0/21 | Correct | 1 | Device Connecti... |
| Type | Correct | 1 | Device Connecti... |
| Port Mode | Correct | 1 | Trunk Configuration |
| FastEthernet0/22 | | | |
| Channel Group | Correct | 3 | EtherChannel Co... |
| Channel Mode | Correct | 3 | EtherChannel Co... |
| Link to SWC | | | |
| Connects to FastEthernet0/22 | Correct | 1 | Device Connecti... |
| Type | Correct | 1 | Device Connecti... |
| Port Mode | Correct | 1 | Trunk Configuration |
| GigabitEthernet0/1 | | | |
| Channel Group | Correct | 3 | EtherChannel Co... |
| Channel Mode | Correct | 3 | EtherChannel Co... |
| Link to SWB | | | |
| Connects to GigabitEthernet0/1 | Correct | 1 | Device Connecti... |
| Type | Correct | 1 | Device Connecti... |
| Port Mode | Correct | 1 | Trunk Configuration |
| GigabitEthernet0/2 | | | |
| Channel Group | Correct | 3 | EtherChannel Co... |
| Channel Mode | Correct | 3 | EtherChannel Co... |
| Link to SWB | | | |
| Connects to GigabitEthernet0/2 | Correct | 1 | Device Connecti... |

| Component | Items/Total | Score |
|----------------------------|-------------|-------|
| Device Connections | 12/12 | 12/12 |
| EtherChannel Configuration | 24/24 | 72/72 |
| Trunk Configuration | 12/12 | 12/12 |

Score : 96/96
Item Count : 48/48

Close

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Packet Tracer - Implement EtherChannel

Cisco Packet Tracer - C:\Users\ADMIN\Desktop\temp\dumalaganDa\6.4.1 Packet Tracer - Implement Etherchannel.pkt

File Edit Options View Tools Extensions Window Help

Logical Physical x100% y:5

flashing insertion point. If the configuration window for the device appears, close it and try again by clicking a little further away from the device icon.

b. Replace the current display name with the appropriate display name.

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Step 3: Connect the devices.

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Time Elapsed: 00:26:26 Completion: 100%

Back 1/1 Next

Time: 00:29:45

Scenario 0

New Delete

Toggle PCU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Realtime Simulation

Read the instructions and create your network here.

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