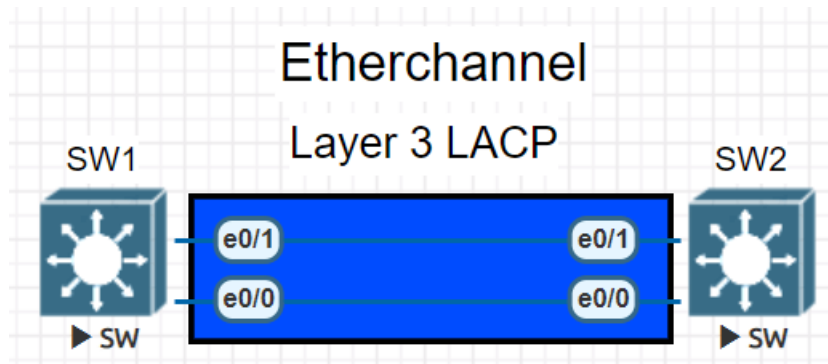


Etherchannel Layer 3 LACP Configuration

In this How To we will cover how to configure LACP for a Layer 3 Etherchannel on Cisco Catalyst switches.



- We will need to first bundle our interfaces into a port-channel. Then we will turn our member interfaces into Layer 3 Routed ports.

```
SW1(config)#interface range eth0/0 - 1 # This command will put you into the interface sub-configuration mode for multiple interfaces
```

```
SW1(config-if-range)#channel-group 44 mode active # This command will bundle the member interfaces into a port-channel using LACP negotiation to actively negotiate with the other side.
```

```
SW1(config-if-range)#no switchport # This command turns off the Layer 2 functionality of a switchport, and turns it into a Layer 3 routed port
```

- Now we will go into our port-channel configure an IP address

```
SW1(config)#interface po44 # This command will put us into the port-channel sub-configuration mode
```

```
SW1(config-if)#ip address [IPv4 address] [Subnet_Mask] # This command will configure an IP address for the interface
```

- The complete configuration for both switches is shown below

```
SW1(config)#interface range eth0/0 - 1
SW1(config-if-range)#channel-group 44 mode active
SW1(config-if-range)#no switchport
SW1(config-if-range)#exit
SW1(config)#interface po44
SW1(config-if)#ip address 10.10.10.1 255.255.255.0
SW1(config-if)#
```

```
SW2(config)#interface range eth0/0 - 1
SW2(config-if-range)#channel-group 44 mode active
SW2(config-if-range)#no switchport
SW2(config-if-range)#exit
SW2(config)#interface po44
SW2(config-if)#ip address 10.10.10.2 255.255.255.0
SW2(config-if)#
```

Verification

- The following show commands will verify if the Etherchannel is working properly.

SW1#show etherchannel summary # This command will show us if our Etherchannel is bundled and active.

```
SW1#show etherchannel summary
Flags: (D) - down (P) - bundled in port-channel
       I - stand-alone S - suspended
       H - Hot-standby (LACP only)
       (R) - Layer3 (S) - Layer2
       (U) - in use N - not in use, no aggregation
       f - failed to allocate aggregator

       M - not in use, minimum links not met
       m - not in use, port not aggregated due to minimum links not met
       u - unsuitable for bundling
       w - waiting to be aggregated
       d - default port

       A - formed by Auto LAG

Number of channel-groups in use: 1
Number of aggregators: 1

Group  Port-channel  Protocol  Ports
-----
10     Po10(SU)         -         Gi2/0(P) Gi2/1(P) Gi2/2(P)
                          Gi2/3(P)
```

Show command to verify
Ether channel information.

Flags

- D = Down
- P = Member interfaces are bundled
- R = Layer 3 EtherChannel
- S = Layer 2 Etherchannel
- U = Currently In Use

Which Etherchannel protocol
is in use.