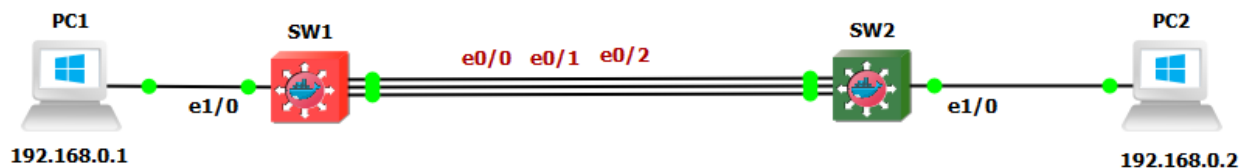


## LACP (Link Aggregation Control Protocol):

- o Link Aggregation Control Protocol is the open standard 802.3ad.
- o Combine multiple links into a single logical link to increase bandwidth.
- o All links participating in a single logical link must have the same settings.
- o All ports participating must have the same speed and duplex configuration.
- o All ports participating in single logical link must be in the same VLAN.
- o All ports participating in single logical link must be in same operational mode.
- o No ports participating in single logical link can have SPAN configured.
- o Can have up to 16 ports in LACP EtherChannel only 8 can be active at one time.
- o The LACP protocol can be configured in either **passive** or **active** mode.
- o In the active mode, the port or interface actively tries to bring up LACP.
- o In the passive mode, it does not initiate the negotiation of LACP protocol.
- o LACP advertises messages with the multicast MAC address **0180:C200:0002**.



### SW1 LACP Configuration

```
SW1(config)#interface range ethernet 0/0-2
SW1(config-if-range)#switchport trunk encapsulation dot1q
SW1(config-if-range)#switchport mode trunk
SW1(config-if-range)#channel-protocol lacp
SW1(config-if-range)#channel-group 1 mode active
SW1# show etherchannel summary
SW1# show etherchannel detail
SW1# show etherchannel port-channel
SW1#show spanning-tree vlan 1
```

### SW2 LACP Configuration

```
SW2(config)#interface range e0/0-2
SW2(config-if-range)#switchport trunk encapsulation dot1q
SW2(config-if-range)#switchport mode trunk
SW2(config-if-range)#channel-protocol lacp
SW2(config-if-range)#channel-group 1 mode passive
SW2# show etherchannel summary
SW2# show etherchannel detail
SW2# show etherchannel port-channel
SW2#show spanning-tree vlan 1
```