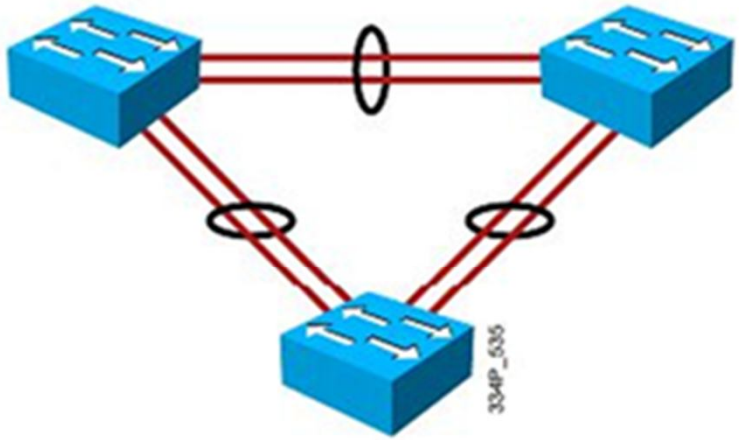
PAgP and LACP

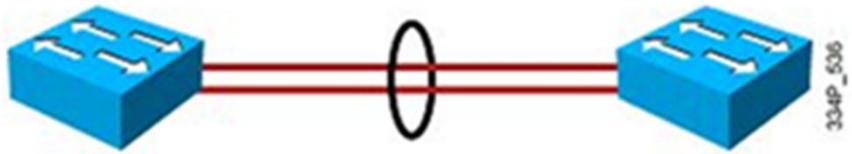
- Protocols to negotiate the EtherChannel link creation and maintenance.
- PAgP is a Cisco proprietary protocol.
- LACP is IEEE 802.3ad standard.
- Static EtherChannel configuration without protocol.

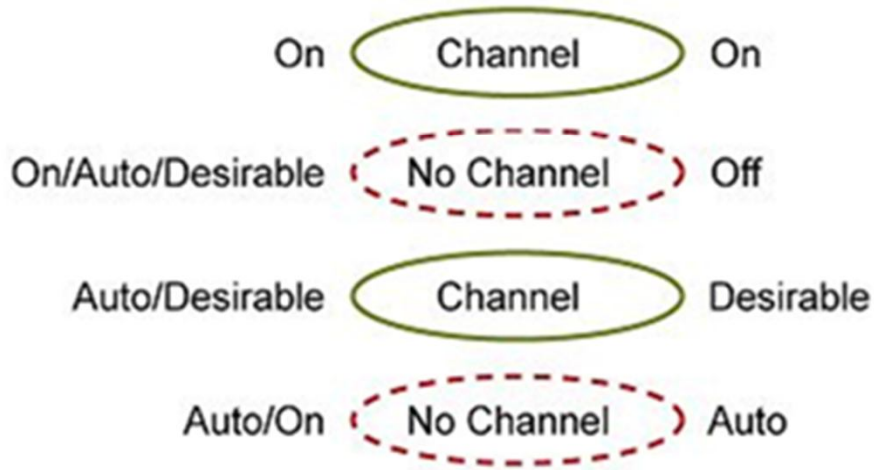


PAgP Modes

PAgP negotiates EtherChannel formation and maintenance:

- On: channel member without negotiation (no protocol)
- Desirable: actively ask if the other side can/will
- Auto: passively wait for other side to ask
- Off: EtherChannel not configured on interface

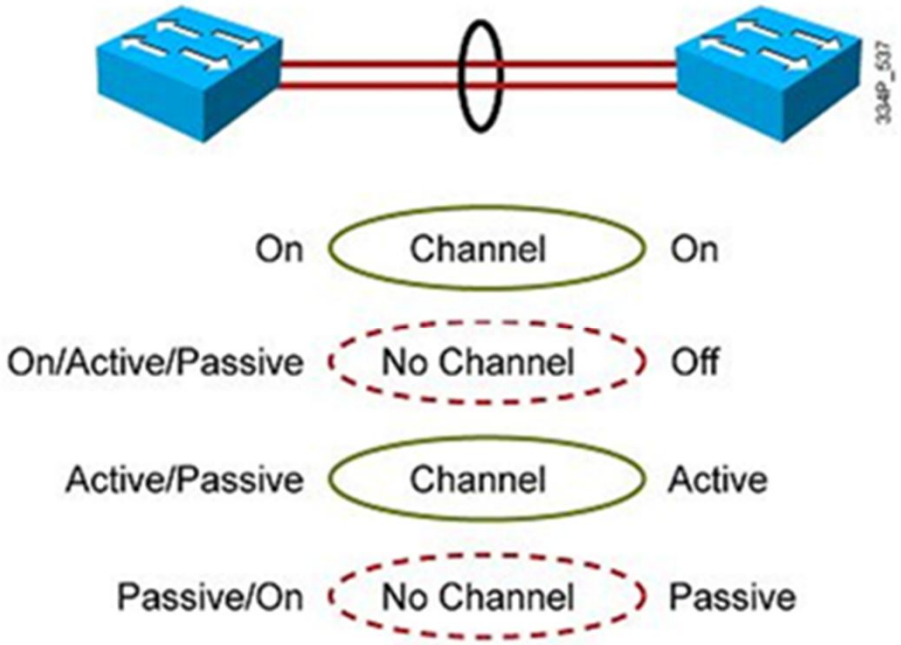




LACP Modes

LACP negotiates EtherChannel formation and maintenance:

- On: channel member without negotiation (no protocol)
- Active: actively ask if the other side can/will
- Passive: passively wait for other side to ask
- Off: EtherChannel not configured on interface



How to Configure Port Channels Using EtherChannel

Basic tasks:

- Identify the ports to use on each switch.
- Specify PAgP or LACP protocol (optional).
- Configure channel group on interface.
  - Specify a channel group number.
  - Specify the mode (will set protocol).
    - On (no protocol)
    - Auto/desirable (PAgP)
    - Active/passive (LACP)
- Configure port-channel interface.
  - Access or trunk mode and other parameters.
- Verify connectivity.

Guidelines for Configuring EtherChannel

Port-channel interface configuration changes affect the EtherChannel.

The physical interface configuration changes affect the interface only.

EtherChannel cannot be used if SPAN is a destination port.

All interfaces within an EtherChannel must have same configuration.

- Same speed and duplex.
- Same mode (access or trunk).
- Same native and allowed VLANs on trunk ports.
- Same access VLAN on access ports.
- Configure these parameters on the port-channel interface.