

EtherChannel

Rohith Perumalla | 10/1/17

This past week I learned about Link Aggregation in networks. Link Aggregation can take place in Layer 2 between switches combining different ports to increase load balancing and maximize throughput. This is known as an EtherChannel. For an EtherChannel to be formed there are a few things that need to match up - all the ports need to have the same speed, duplex speed, and they need to be in the same VLAN. The EtherChannel can either be formed through LACP or PAgP. PAgP is a Cisco proprietary protocol. LACP allows multiple vendor devices to communicate with each other as long as the same qualifications are met. LACP has four modes that a port can be set into: active, passive, on, and disabled. A port is required to have either and on - on, an active-active, or an active-passive connection for an EtherChannel to be enabled. PAgp has similar port statuses, it has auto, desirable, on, and disabled. It also has similar required combinations to form an EtherChannel: on - on, desirable - desirable, or desirable - auto. The main benefits of having Link Aggregation in a network comes from the ability to add load balancing, maximizing throughput, and providing redundancy. This all happens with EtherChannels ability to create a singular logical port by combining a series of physical ports.