

Article Overview

Port aggregation combines multiple physical switch ports into a single logical channel to increase bandwidth, provide redundancy, and enable load balancing.

Key Concepts

Port aggregation, also known as link aggregation or EtherChannel, allows multiple physical ports to act as a single logical interface. This improves network performance and provides failover if one port fails. Aggregation can be static (manual configuration) or dynamic using LACP (Link Aggregation Control Protocol), which negotiates the aggregation automatically between devices .

Prerequisites for Aggregation

Before configuring aggregation, ensure the following attributes are consistent across all member ports:

- o STP settings: Enable/disable status, priority, and cost .
- o VLAN configuration: Port VLAN ID (PVID) and permitted VLANs .
- o Port attributes: Speed, duplex mode (full duplex only), and link type (trunk, hybrid, or access), .
- o Physical connectivity: Ports should not be connected to other devices during initial configuration .

Configuration Steps

1. Enable Privileged EXEC Mode

Access the switch CLI and enter privileged EXEC mode, providing the password if prompted .

2. Create an Aggregation Group

Enter global configuration mode and assign a channel group ID (range 0-5). Example:

```
interface range GigabitEthernet1/0/1 - 2channel-group 1 mode on
```

- o on: Static aggregation, no LACP required.
- o active: LACP active mode, initiates negotiation.
- o passive: LACP passive mode, responds to negotiation .

3. Add Ports to the Aggregation Group

Enter interface configuration mode for each port and assign it to the aggregation group using the chosen mode.



How to configure switch aggregation

Ensure all ports share the same VLAN and speed/duplex settings .

4. Configure Load Balancing

Set the load balance policy to distribute traffic across member ports. Common options include source MAC, destination MAC, or IP-based hashing . Example:

```
port-channel load-balance src-mac
```

5. Verify Configuration

Check the aggregation status and member ports:

```
show etherchannel summaryshow running-config
```

Ensure all ports are active and participating in the aggregation group .

Best Practices

- o Configure the downstream switch first, then move upstream to avoid stranded ports .
- o Use ports with similar characteristics (speed, duplex, media type) to prevent mismatches .
- o For redundancy across switches, consider MC-LAG (Multi-Chassis Link Aggregation) to allow two switches to act as a single logical unit .
- o Avoid mixing static and dynamic LACP modes on the same aggregation group .

By following these steps, you can successfully configure an aggregation switch to improve network performance, provide redundancy, and enable efficient load balancing across multiple physical links.

Understand how link aggregation (LACP, MLAG, static vs dynamic) improves bandwidth

Link Aggregation Group and Link Aggregation Control Protocol Configuration Procedures Cost savings resulting from use of existing

Manual Etherchannel Configuration - Without using any negotiation protocol listed above Link Aggregation Control Protocol (LACP)

This guide covers what port aggregation / link aggregation (LAG) is and how to enable and use it within UniFi. We'll

I'm going to set up Link Aggregation between two gigabit switches: an 8 port Linksys SRW2008; and a 16

How to configure switch aggregation

port Netgear GS716GT,

How to install and set up Aggregation; Set up your USW-Aggregation for the first time.

1. Port Aggregation Protocol (PAgP) Port Aggregation Protocol is a Cisco proprietary

Learn how to use Link Aggregation between UniFi switches or clients to increase bandwidth and redundancy.

What are Link Aggregation Groups (LAGs) and how do they work with my managed switch?

Link aggregation interfaces have names like "po1" and "sa1" depending on the aggregation method in use. Ethernet bonding is used to

Setting up a LAG on my two switches was a simple task. You have to connect Ethernet cables to ports 1 and 2 on

Need more bandwidth or failover on UniFi switches? What LACP link aggregation does, which devices support it, setup and

This document provides a sample configuration for the configuration of cross-stack EtherChannel on a Cisco Catalyst

The objective of this document is to show you how to configure LAGs on the SG350XG and SG550XG.

Link Aggregation and Load Balancing Last updated Jun 16, 2026 Save as PDF Table of contents Link bonding Load

The article explains how to set up Link Aggregation (LAG) on a switch, detailing the differences between Static LAG and LACP (Link

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