

Switch Multi-line Aggregation Settings



Overview

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Key Takeaways

Multi-line aggregation allows multiple physical switch ports to function as a single logical link, providing higher bandwidth, redundancy, and load balancing. Overview of Multi-line Aggregation

Multi-line aggregation, also called Link Aggregation or Port Aggregation, combines multiple Ethernet ports into a single logical link, known as a Link Aggregation Group (LAG). This setup increases bandwidth beyond a single port, improves reliability by providing automatic failover, and allows traffic to be distributed across member ports .

Aggregation Modes

- Static (ON) Mode
- Ports are manually grouped into a LAG.
- No negotiation protocol is required.
- All ports must have consistent configurations (speed, duplex, VLANs, STP settings).
- Supports up to eight ports per group on most switches .

- Dynamic Mode (LACP)
- Uses Link Aggregation Control Protocol (LACP, IEEE 802.3ad) to automatically negotiate aggregation between devices.
- Two sub-modes:
 - Active: Port initiates LACP negotiation.
 - Passive: Port responds to LACP negotiation but does not initiate.
- Provides automatic failover and prevents misconfigurations by ensuring both ends agree on aggregation settings .

Configuration Best Practices

- Consistency Across Ports: Ensure all member ports have the same speed, duplex, VLAN membership, and STP settings .
- Upstream to Downstream Order: Configure aggregation starting from the most downstream switch and move upstream toward the network controller or core switch .
- VLAN and Trunk Settings: Trunk, hybrid, or access link types are supported, but all ports in the aggregation must match the link type .
- MC-LAG for Redundancy: Multi-Chassis Link Aggregation (MC-LAG) allows two switches to act as a single logical unit, providing load balancing and minimal downtime for connected devices .

Verification and Management

- Check LAG membership and port status using switch CLI commands or web GUI.
- Monitor traffic distribution and failover behavior to ensure proper load balancing.
- Save configuration changes to prevent loss after reboot .

Summary

Multi-line aggregation enhances network performance and reliability by combining multiple physical links into a single logical interface. Choosing between static and dynamic (LACP) aggregation depends on device support and network requirements. Proper configuration, consistent port settings, and verification are essential for a stable and efficient aggregation setup.

Article Content

Link Aggregation and Ethernet Bonding Feature Overview and ...

What is Ethernet bonding? In the networking industry, link aggregation and Ethernet bonding are terms often used interchangeably

Unlock Speed with Ethernet Port Aggregation Guide

Ethernet Port Aggregation bonds multiple Ethernet ports into one logical link for more speed and redundancy using

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Contact Us

Continue your research online:

Website: <https://rivomultitrade.co.za>

Technical inquiry: <https://rivomultitrade.co.za/contact.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

