

How to use a switch for aggregation

Article Overview

Switch aggregation combines multiple physical network links into a single logical connection to increase bandwidth, provide redundancy, and improve network performance.

Understanding Switch Aggregation

Switch aggregation, also known as link aggregation or port trunking, allows multiple network connections to operate in parallel as a single logical link. This setup provides several benefits:

- o Increased Bandwidth: Aggregating multiple links boosts total throughput beyond what a single connection can handle, improving data transfer rates .
- o Redundancy and Resilience: If one link fails, traffic automatically reroutes over the remaining links, maintaining network uptime .
- o Load Balancing: Traffic is distributed across all aggregated links, preventing bottlenecks .
- o Simplified Management: Multiple links can be managed as a single entity, reducing administrative overhead .

Prerequisites for Aggregation

Before configuring aggregation, ensure the following:

- o Protocol Support: Both the switch and connected devices must support the same aggregation protocol, typically LACP (Link Aggregation Control Protocol) for dynamic configuration or Static Link Aggregation for manual setup .
- o Available Ports: The switch must have sufficient free ports to include in the aggregation group .
- o Network Topology Planning: Proper planning prevents loops and ensures efficient traffic flow .

Steps to Configure Aggregation

- o Select Ports: Identify the physical ports on the switch that will be combined.
- o Create a Link Aggregation Group (LAG): Use the switch management interface (e.g., UniFi Network Controller or CLI) to create a new LAG and assign the selected ports .
- o Choose Aggregation Protocol: Configure the LAG to use LACP for dynamic negotiation or Static mode for fixed links .
- o Verify Configuration: Ensure the connected device also supports the aggregation and that the LAG is active. Test for increased throughput and failover functionality .
- o Optional Settings: Configure VLAN tagging, QoS, or security policies on the aggregated link if required .

Best Practices

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- o Consistency: Use the same speed and duplex settings on all aggregated ports.
- o Redundancy: Consider multiple LAGs or redundant aggregation switches to prevent single points of failure .
- o Monitoring: Regularly monitor traffic distribution and link health to ensure optimal performance .
- o Scalability: Aggregation allows adding more links to the group as network demand grows without disrupting service . By following these steps and best practices, you can effectively perform switch aggregation to enhance network bandwidth, reliability, and manageability.

An aggregation switch refers to a type of switch used to connect multiple ToR switches to a core switch/router in a cloud data center

Ideally, those switches will be connected to each other, allowing for connectivity between devices. Link aggregation,

An aggregation switch sits between access layer switches and the core network, acting as an intermediary. It collects

Port Aggregation Port aggregation allows you to group multiple physical ports into one unit. Port aggregation is useful for

Learn how to configure a Cisco Switch Link Aggregation using the command-line, by

Aggregation Switch: Increasing the Priority of Special Traffic Networking Requirements Core switches set up a CSS that functions as

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

An aggregate switch consolidates traffic from access switches, while a core switch forms the backbone of the

Link aggregation is a technique used in networking to bundle multiple physical ports on a network device to

The primary function of an aggregation switch is to aggregate and forward data from multiple network devices, such as

4. Functional management: Unlike core switches, aggregation switches can be either Layer 2 or Layer 3 switches.

Discover the role of aggregation switches. Explore differences between aggregation, access, and core switches, and

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What is an Aggregate Switch? Understanding Centralized Network Management An aggregate switch is a high

In this article, I'm going to describe how to set up Link Aggregation between two managed switches to provide connectivity,

Using Link Aggregation it is simple to have these multiple Ethernet connections to act as one logical connection,

In many network constructions, we have all heard of switches. So do you really understand

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