

How to use a switch for aggregation and uplink



AI Overview

To configure a switch for aggregation and uplink, create a port aggregation group using LACP or static mode, ensure consistent port settings, and connect the aggregated ports to the upstream device or firewall.

Step 1: Understand Port Aggregation Port aggregation combines multiple physical ports into a single logical link to increase bandwidth, provide redundancy, and enable load balancing. There are two main types:

- Static (ON) aggregation:** Ports are manually grouped without negotiation. Both ends must match settings.
- Dynamic aggregation (LACP):** Uses the Link Aggregation Control Protocol (802.3ad) to automatically negotiate and maintain the link, providing failover and preventing misconfigurations.

Step 2: Prepare Ports Before creating an aggregation group:

- Ensure all ports have consistent configurations: speed, duplex (full duplex only), VLAN membership, STP settings, and link type (trunk, hybrid, or access).
- Disconnect the ports from other devices during initial configuration to avoid conflicts.

Step 3: Create the Aggregation Group Enter privileged or global configuration mode on the switch. Assign a channel group ID to the aggregation (e.g., channel-group 1). Add the desired ports to the group:

- Static mode:** `on`
- LACP active mode:** `active`
- LACP passive mode:** `passive`

Verify that all ports are correctly added and synchronized.

Step 4: Configure Uplink to Upstream Device On the upstream device (firewall, core switch, or another switch), create a matching aggregation group with the same number of ports and LACP settings. For firewalls like Palo Alto, configure the interfaces as aggregated ethernet, assign them to the same aggregated group, and enable LACP with appropriate priority. Assign IP addresses and management profiles to the aggregated interface if it will handle Layer 3 traffic.

Step 5: Test and Verify Check the link status and ensure all aggregated port...

Article Content

Dual-WAN vs. Link Aggregation, Explained

Dual-WAN vs. Link Aggregation: (Almost) totally two different things Folks often treat Dual-WAN and Link Aggregation as the same thing. While you

Aggregation Switch

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 network. It enables high-bandwidth aggregation ports to be

How to enable Link Aggregation (LAG) on UniFi Switches

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

Wiley Online Library

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Port Aggregation FAQs

What are the use cases for aggregation? Switch-to-Switch Aggregation: This is useful in scenarios where you need to interconnect multiple switches to increase

HPE Aruba Networking CX 6300 Switch Series

This data sheet describes key features, supported standards and specifications for the HPE Aruba Networking CX 6300 Switch Series ideal for enterprise access

User Onboarding Guide: zkLink Nova Aggregation Parade

Learn how to participate in zkLink Nova's Aggregation Parade by following this step-by-step guide. For more information about this campaign,

48-Port 10G L3 Campus Aggregation Switch

The CX206P-48S-M-H is a 1U enterprise aggregation switch that delivers 48× 10G SFP+ ports plus 6× 100G QSFP28 (40G QSFP+ compatible) uplinks for 1.09 Tbps of switching capacity, with a

Wi-Fi 7 Mesh Backhaul and Ethernet Uplink Design

Learn how to plan Wi-Fi 7 mesh backhaul and Ethernet uplink paths, select channels, size wiring, and align QoS. Use practical frameworks to avoid bottlenecks and preserve reliability.

Understanding Switch Aggregation: A Comprehensive

Switch aggregation, also known as link aggregation or trunking, is a method used in computer networking to combine (aggregate) multiple network

Stackable UniFi switches – benefits and setup | UniHosted

But you can chain switches in a smart, efficient way, and still gain flexibility, scale, and performance. In this guide, we'll walk through what "stackable" means, why UniFi handles it differently, and how to

How to Aggregate Ports on UniFi Switch

Configuring port aggregation on a UniFi switch is straightforward using the UniFi Network Controller (or UniFi OS Console). The process involves selecting the ports you wish to combine,

Everything You Need to Know About Aggregation Switch

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

T-Mobile Frequency Bands Explained: What You Need

Whether you're shopping for a new phone, setting up a cell signal booster, or just trying to figure out why your T-Mobile coverage varies so much

Best Practice To Use Uplink Connection on Stacked Switches

The recommendation is to use uplinks on the member switches with multichassis EtherChannel (MEC), which helps with spanning multiple uplinks over the member switches.

VLAN and LAGG Setup — OPNsense documentation

VLAN and LAGG Setup Summary Connect your OPNsense Appliance successfully to a Managed Switch using OSI Layer 2 protocols like LAGG and VLAN.

Cisco Catalyst 3750 Series Switches Data Sheet

Product Overview The Cisco ® Catalyst ® 3750 Series Switches (Figures 1 through 4) are innovative switches that improve LAN operating

UniFi link aggregation: the ultimate guide | UniHosted

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

Link Aggregation and Load Balancing

You may want to set up and configure a bonded link between your Meraki MS switch and a Cisco switch. This is often referred to as link aggregation, link bonding or EtherChannel.

What is SFP Port? Everything You Need to Know

Now, let's turn back to discuss the SFP uplink port. Also called an SFP uplink port, this port usually connects with the downlink port of higher-speed

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SFP Modules and DAC Cables - Ubiquiti Help Center

SFP28 Modules SFP28 modules are used to provide high speed 25Gbps connections over a long distance using fiber cables. For example, use the UACC

Link Aggregation and Multi-layer switches

Solved: 1. Use Packet Tracer to put up the topology above. Connect the two multi-layer switches (MLS) with a Gigabit uplink 2. Configure IP addresses where appropriate. Include the

How to Choose the Best Hotspot for Gaming for Different Tasks

Learn how to choose the best hotspot for gaming by focusing on real-world performance, latency, jitter, packet loss, and uplink stability, plus WiFi bands, carrier aggregation, placement, congestion, and

Ethernet Switch Port Types Explained 2026: RJ45,

A complete engineering guide to Ethernet switch port types: RJ45, SFP, SFP+, SFP28, QSFP+, QSFP28, Combo, Stack, PoE, access/trunk/hybrid

2026 Enterprise Switching Trends: 1G to 10G/25G

The safest modernization path is usually uplink-first (aggregation/core and uplinks), then hotspot-first (upgrade the most constrained access areas) as a controlled

Contact Us

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