

How to configure uplink and aggregation switches



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

The Ultimate Guide to Installing and Configuring the Ubiquiti UniFi ...

The Ubiquiti UniFi Switch Aggregation (USW-Aggregation) is a powerful, high-capacity switch, perfect for streamlining and enhancing network performance. This guide will walk you through

An Overview of High Availability in UniFi - Ubiquiti Help Center

The Enterprise Campus Aggregation is a high-capacity 100G switch that extends redundancy to the core of your network. It features Multi-Chassis Link Aggregation (MC-LAG), which allows combining two

Ubiquiti UniFi Pro Aggregation Switch USW-PRO-AGGREGATION

The UniFi Switch, model USW-Aggregation-Pro, is a configurable 10G per Layer-3 switch. It offers 28 10G SFP+ per links to your devices and 4 25G SFP28 per uplink options to your enterprise network.

Switch Stacks

Meraki switches allow for physical stacking on select switch models so you can easily manage all of your switches and get physical redundancy in the deployments that need it.

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 Replace Legacy Cisco Switches with Catalyst 9300

Learn how to upgrade legacy Cisco switch like the 2960X, 3650, and 3850 to the modern Catalyst 9300. Explore step-by-step migration and replacement strategies.

MS Layer 3 Switching and Routing

Layer 3 routing capabilities are available on most Cisco Meraki switches. This allows the switches to route traffic between VLANs in a campus network without the need for an additional layer

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

The Ultimate Guide to IP Camera CCTV Network Switch Layout ...

Deploying 100 such cameras creates an aggregate throughput of 4 Gbps, demanding a network switch layout that prioritizes non-blocking forwarding, Power over Ethernet (PoE) budgeting, and uplink

What is an Aggregation Switch? | Features and Practical Benefits

High bandwidth aggregation ports are switched or routed to uplink ports with even greater capacity. The uplink interface cards in the case of core switches might be created to interface

Understand and Mitigate Network Loops (STP)

3. Configure STP Edge and BPDU Guarding: STP Edge will allow clients to connect to a switch port without momentarily interrupting traffic with a topology change notification (TCN). This allows STP to

Standalone AC Solution: Aggregation Switches Function as Gateways

In this example, aggregation switches set up stacks that function as gateways for wired and wireless users on the entire network and are responsible for routing and forwarding of user services.

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

Summary The 2026 enterprise "default upgrade" is no longer just faster access ports- it's a balanced plan: 10G as a common access baseline,

How to Aggregate Ports on UniFi Switch

The process involves selecting the ports you wish to combine, creating a new link aggregation group, and assigning the aggregation to the selected ports. Once configured, the switch

How to Configure UplinkFast on Cisco Switch in GNS3

Learn how to configure UplinkFast on Layer 2 Cisco Switches in GNS3 with our guide. Speed up the STP protocol switch time!

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

The Definitive Guide on how to enable Link Aggregation on your

What you should do next is to enable LAG between the two ports on the new switch as documented by Unifi: This article explains how to configure link aggregation on the UniFi Switch...

NETGEAR GSM & XSM Managed Switches - Buyer's Guide

Uplink Options SFP/SFP+ modules provide fiber uplinks for long-distance connections, stacking, and aggregation Smart Management VLAN segmentation, QoS prioritization, ACLs, and

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: Static vs Dynamic, LACP, and MLAG

This article provides a comprehensive explanation of link aggregation — covering LACP, static vs dynamic link aggregation, and MLAG

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

Best Layer 2 Switch in 2026: Tested and Reviewed

In this guide, we've tested and reviewed the best layer 2 switch to help you choose the perfect switch for your specific needs.

Layer 3 Switch Example

Configuring the Layer 3 Interfaces On the Distribution Switch, three layer 3 interfaces will be required. One for the uplink to the Firewall (which acts as the switch's default route), one for the data VLAN,

SFP+ vs SFP28 vs QSFP28 vs QSFP-DD: Switch Port

In 2026 enterprise designs, the most common "balanced" pattern is 10G/25G at the access edge + 100G uplinks-because the uplink/aggregation

The 9 Best Enterprise Network Switches for 2026

Generally speaking, enterprise-level switches are rack-mounted. When used as a backbone switch, it can support over 500 information points. According to the three-layer network

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