

How to connect the inlet port of the aggregation switch



Overview

Link aggregation, also called trunking, is an optional feature available on the Ethernet switch and is used with Layer 2 Bridging.

Key Takeaways

To connect the inlet port of an aggregation switch, physically link multiple ports with Ethernet cables and configure them as a Link Aggregation Group (LAG) using either static or LACP mode.

Step 1: Plan Your Aggregation

- Select ports on the aggregation switch that will form the LAG. Ensure all ports have the same speed, duplex mode (full duplex), and link type (trunk, hybrid, or access) to maintain consistency .

- Decide whether to use static aggregation (manual configuration) or dynamic aggregation with LACP (automatic negotiation and failover), .

Step 2: Physical Connection

- Connect the selected ports on the aggregation switch to the corresponding ports on the upstream switch or server using Ethernet cables or SFP modules if using fiber .

- Ensure that the cables are properly seated and that the ports are not members of any conflicting VLANs before aggregation .

Step 3: Configure the Aggregation

- Static Mode (ON): Add the ports to a static aggregation group. No LACP negotiation is required. This is suitable when both ends are manually configured .

- Dynamic Mode (Active/Passive): Enable LACP on the ports. Active mode initiates negotiation, while passive mode responds to negotiation. Both ends must support LACP for proper operation .

- Assign an aggregation ID or LAG ID to the group. This can be done globally or automatically when adding ports to the group .

Step 4: Configure VLANs and Load Balancing

- Set the VLAN membership for the aggregated port. For trunk links, ensure all required VLANs are permitted and the PVID is consistent .

- Configure load balancing based on source MAC, destination MAC, or IP addresses, depending on your switch capabilities .

Step 5: Verify and Test

- Check the status of the LAG on both switches to ensure all member ports are active and forwarding traffic .

- Test redundancy by disconnecting one link and confirming that traffic continues over the remaining links.

- Optionally, use tools like iperf to verify that the aggregated bandwidth exceeds that of a single physical link . By following these steps, the inlet port of your aggregation switch will function as a single logical link, providing increased bandwidth, redundancy, and load balancing across multiple physical connections.

Article Content

Layer-2 Link Aggregation Configuration

Link aggregation, also called trunking, is an optional feature available on the Ethernet switch and is used with Layer 2 Bridging. Link

Ubiquiti Aggregation switch connecting to the network

The Aggregation switch works just like any switch, the main difference is the use of SFP+ connections instead of Ethernet, which

What is Switch Aggregation, Its Role and Selection Advice

For example, if the aggregation switch needs to connect to access switches with SFP fiber ports, it is advisable to

What is Aggregation Switch? Role in Network Connection

For example, if the aggregation switch needs to connect to an access switch with SFP optical ports, an aggregation

Link Aggregation and Ethernet Bonding Feature Overview and ...

With static link aggregation, there is not a great deal to understand—the switch treats the aggregation as effectively a single port, and

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

