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Connecting the aggregation switch and the PoE switch



Overview

This setup ensures minimal downtime by enabling other switches or servers to connect to both MC-LAG switches at once.

Key Takeaways

To connect an aggregation switch to a PoE switch, use multiple Ethernet or SFP+ links configured as a link aggregation group (LAG) with LACP for redundancy, load balancing, and increased bandwidth.Understanding the Connection

An aggregation switch consolidates traffic from multiple access or PoE switches and forwards it to the core network, improving bandwidth and reducing bottlenecks . A PoE switch provides power and data to devices like IP phones, access points, and cameras while also forwarding traffic upstream . Connecting these switches efficiently ensures high throughput, redundancy, and network stability.

Cabling and Ports
• Cabling: Use Category 5e or higher twisted-pair cables for 1 Gbps connections, or SFP+/DAC/fiber for 10 Gbps links to maximize throughput .

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• Port Selection: Choose multiple ports on both switches to form a logical aggregated link. Ports should ideally be sequential and support LACP .
Link Aggregation Configuration
• Enable LACP: Configure the ports on both the aggregation switch and PoE switch to use LACP (802.3ad). This allows dynamic negotiation, automatic failover, and load balancing .

• Port Bundling: Combine two or more physical ports into a single logical link. Traffic is distributed across these ports, increasing total bandwidth and providing redundancy .

• VLAN Consistency: Ensure that the VLAN settings on the aggregated ports match on both switches to avoid connectivity issues .

• Configuration Order: Start configuration on the downstream PoE switch first, then move upstream to the aggregation switch .
Benefits
• Increased Bandwidth: Multiple ports act as a single high-speed link.

• Redundancy: If one cable or port fails, traffic continues on remaining links.

• Load Balancing: Traffic is distributed across all aggregated ports, preventing congestion.
Practical Tips
• Verify that both switches support LACP; static aggregation is less flexible and prone to misconfiguration .

• For high-performance setups, consider 10GbE SFP+ connections between the aggregation and PoE switches .

• Monitor the aggregated link to ensure all ports are active and traffic is balanced. By following these steps, your aggregation switch and PoE switch will be connected efficiently, providing high throughput, reliability, and seamless network operation.

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Q2. How many of the 8 ports on the Aggregation switch do you plan to use? Link aggregation is supported.

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Configuring MC-LAG in UniFi Network Multi-Chassis Link Aggregation Group (MC-LAG) enables redundancy and load balancing by

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