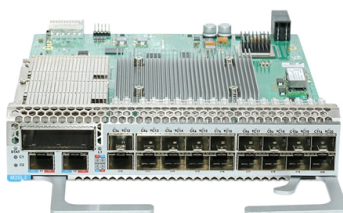


RIVO MULTITRADE OPTICAL SYSTEMS

Connect two switches to the optical port



Overview

In order to extend long distance network, it's common practical operation to use fiber optical cable to link two PoE switch.

Key Takeaways

Yes, two switches can be connected using optical ports, typically through SFP or SFP+ transceivers and fiber optic cables. How It Works

Switches with fiber ports can be directly connected using SFP (1 Gbps) or SFP+ (10 Gbps) modules along with the appropriate fiber optic cables. This connection is often referred to as a cascade or uplink connection, allowing devices on one switch to communicate with devices on the other switch. Fiber connections are ideal for long distances, high bandwidth, and secure data transmission.

Key Considerations

When connecting switches via optical ports, ensure the following:

- **Fiber Type:** Determine whether the switches require single-mode or multi-mode fiber based on distance and transceiver compatibility. Single-mode is preferred for longer distances and higher bandwidth.
- **Wavelength Compatibility:** The SFP modules on both switches must operate at the same wavelength, especially for single-fiber modules.
- **Optical Power and Sensitivity:** Ensure the transceivers' optical power and sensitivity are compatible to maintain a stable link.

- Port Speed and Duplex Mode: Both switches should support the same port rate (1 Gbps, 10 Gbps, etc.) and duplex mode .

- Distance: Verify that the fiber cable length does not exceed the maximum supported distance for the chosen fiber type and SFP module .

Practical Setup

- Insert compatible SFP or SFP+ transceivers into the fiber ports of both switches.

- Connect the switches using the appropriate LC-LC or SC-SC fiber patch cable .

- Configure the interfaces if necessary. On some switches, you may need to enable the interface (e.g., no shutdown on Cisco switches) to activate the link .

- For redundancy and higher throughput, consider using two fiber connections in an EtherChannel configuration to prevent network loops and provide failover .

Network Topology

Fiber connections can be used in star, bus, or daisy-chain topologies depending on network design. Star topology is common in campus networks, where multiple switches connect to a central switch for better performance and management .

Advantages

- Supports high-speed data transfer over long distances.

- Reduces electromagnetic interference and improves security.

- Scalable for future network upgrades. By following these guidelines, two switches can be reliably connected via optical ports, providing a high-speed, secure, and scalable network link .

Article Content

How to Connect two PoE switch with fiber optical cable

In order to extend long distance network, it's common practical operation to use fiber optical cable to link two PoE switch. PoE

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To connect multiple Ethernet switches, the best way is to use a multi-strand fiber cable. The 4-strand pre-terminated

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6. Whether the port rates and duplex modes of the optical modules of the two switches are the same. In general, the

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