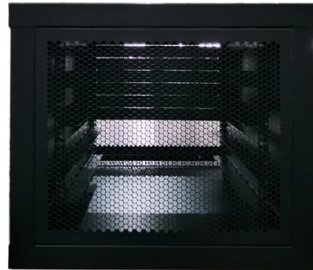


How to configure the optical ports of the core switch



Overview

Pretty simple, you just plug the optical transceiver into the switch port for that transceiver type.

Key Takeaways

Configuring optical ports involves installing the correct transceiver, connecting fiber cables, and setting the appropriate port mode and parameters on the switch.

Physical Installation of Optical Modules

- **Select the correct transceiver:** Ensure the optical module is compatible with your switch model and the fiber type (single-mode or multi-mode) you plan to use ().
- **Prepare for installation:** Wear an ESD wrist strap or gloves to prevent electrostatic discharge. Keep dust plugs on idle ports and remove them only when ready to connect ().
- **Insert the module:** Orient the optical module correctly and gently push it into the port until it clicks. If it does not fit, rotate 180 degrees and try again. Verify it is securely seated by gently pulling on the module handle ().
- **Connect fiber cables:** After module installation, connect the fiber patch cables. Avoid looking directly into the fiber ends to prevent eye damage ().

- Check optical power: Measure input optical power to ensure it is within the safe operating range to prevent module damage ().

Logical Configuration of Optical Ports

- Identify port type: Determine whether the port will function as an uplink, access, or inter-switch link. For Fibre Channel or SAN environments, configure the port as E (expansion), F (fabric), TE (trunking expansion), or SD (SPAN) mode as required ().
- Set administrative parameters: Configure speed, duplex, and VLAN or VSAN assignments according to your network design. Some switches allow auto-negotiation for speed and mode. Ensure consistency across connected devices ().
- Verify connectivity: Use switch commands to check link status, optical signal levels, and error counters. Ensure there are no loops or misconfigurations that could disrupt the network ().
- Apply SDM templates or profiles: On certain core switches (e.g., Cisco 3750G), use model-specific SDM templates to optimize port behavior for core or distribution roles ().

Best Practices

- Always use certified optical modules to ensure reliability ().
- Keep dust plugs on unused ports to prevent contamination ().
- Document port assignments and fiber connections to avoid miswiring and network loops ().
- Monitor optical power and link status regularly to detect degradation early.

By following these steps, you can safely install and configure optical ports on a core switch, ensuring high-speed, reliable connectivity across your network.

Article Content

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Figure 3. Collapsed Core Topology Extended Core-Edge Topology Extended Core-Edge Topology illustrates the

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With transceiver you mean the module that gets plugged into the switch right? This would mean I only need to get the module for

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