

How to connect an OLT to a core switch



AI Overview

An OLT connects to a core switch via fiber or Ethernet uplink ports, with proper VLAN and service profile configuration to manage traffic efficiently.

Physical Connection

Identify Uplink Ports: Most OLTs have dedicated uplink ports for connecting to the core switch. These can be SFP fiber ports or 10/1 Gbps Ethernet ports depending on your OLT model and core switch capabilities.

Choose Cabling: Use single-mode fiber for long-distance connections or Cat6/Cat6a Ethernet for shorter distances. Ensure the connectors match the SFP modules on both the OLT and the core switch.

Connect the OLT to the Core Switch: Plug the fiber or Ethernet cable into the OLT uplink port and the corresponding port on the core switch. Verify link lights to confirm physical connectivity.

Network Configuration

Assign Management IP: Configure a fixed management IP on the OLT to allow remote access and monitoring from the core network.

Configure VLANs: Define VLANs on the OLT to separate traffic types such as Internet, VOIP, and IPTV. For example, VLAN 10 for Internet, VLAN 20 for VOIP, VLAN 30 for IPTV.

Set Uplink Mode: Decide whether the uplink port will operate in trunk mode (carrying multiple VLANs) or access mode (single VLAN). Trunk mode is recommended for core switch connections to handle multiple services.

Service Profiles and Mapping: Create service profiles on the OLT to control bandwidth and map each service to the appropriate VLAN. Bind ONUs/ONTs to these profiles to ensure traffic is correctly routed to the core switch.

Verify Connectivity: After configuration, test connectivity by pinging the core switch from the OLT and checking that traffic from ONUs/ONTs is correctly tagged and routed through the core switch.

Best Practices

Use Redundant Links: If possible, connect multiple uplinks to the core switch for redundancy and load balancing.

Enable Auto-Authentication for ONUs: Simplifies registration and ensures ONUs communicate with the OLT without manual intervention.

Monitor Bandwidth: Use DBA (Dynamic Bandwidth Allocation) profiles t...

Article Content

Optical Line Terminal (OLT) Configuration Principle

This comprehensive guide will delve into the fundamental principles of OLT configuration, covering key aspects such as hardware setup, software configuration, service provisioning, and

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Core Switch & Control Slots (Slots 9 and 10): These slots house the main control and switching boards (e.g., HSWA, HSWB, or HSWD). They are responsible for system management, protocol processing,

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How to connect the core switch and the OLT

This Article Applies to All GPON OLT Products and all Omada Switches with optical ports. They have the following demands in this example. Each GEM port is identified by a unique ID called port ID. The

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Before you begin configuring the OLT setup, you need to prepare a few things: Make sure the OLT is powered on and connected properly. Prepare a minimum of one ONT or ONU device for

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OLT Network Configuration, Cisco Catalyst PON Series Switches

The algorithm calculates the best loop-free path through a switched Layer 2 network by assigning a role to each port based on the role of the port in the active topology:

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What Is ONT? Understand Optical Network Terminal in

Understand what an ONT is, how it works in fiber networks, and explore its types and benefits to support your FTTH and enterprise deployments.

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Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Made OLT Configuration Simple: What You Should

Before you begin configuring the OLT setup, you need to prepare a few things: Make sure the OLT is powered on and connected properly. Prepare a

AshwinD24's gists · GitHub

GitHub Gist: star and fork AshwinD24's gists by creating an account on GitHub.

Contact Us

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