Connecting the switch s optical port to the OLT s uplink port

Overview

Add the port connected to OLT as a tagged port (Here is port 9), and add the port connected to the IPTV as an untagged port (Here is port 4).

Key Takeaways

To connect a switch's optical port to an OLT's uplink port, use compatible SFP/SFP+ modules, ensure proper fiber cabling, and configure VLANs and service profiles on both devices. Physical ConnectionSFP/SFP+ Modules: Insert a GPON-compatible SFP module (e.g., UF-GP-B+ / UF-GP-C+) into the OLT uplink port and a matching SFP/SFP+ module into the switch's optical port. Ensure both modules support the same speed (1G or 10G) and fiber type (single-mode or multi-mode).

Fiber Cabling: Use SC/UPC or SC/APC fiber cables to connect the OLT uplink port to the switch optical port. For short distances, DAC cables may be used if supported. Optical Splitters: If connecting multiple ONUs downstream, ensure the OLT is connected to the distribution network via a PLC splitter, but for direct uplink to a switch, a single fiber link suffices.

Configuration StepsVLAN Setup: Configure service VLANs on the OLT uplink interface and the switch port to separate traffic types (e.g., Internet, VoIP, IPTV). Tag the uplink port on the switch and OLT with the corresponding VLANs. Port Mode: Set the switch optical port as a tagged port for all service VLANs.

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On the OL

T, ensure the uplink port is configured to forward GEM frames as Ethernet packets to the switch. Bandwidth Allocation: Assign DBA profiles on the OLT to manage upstream traffic efficiently. This ensures proper bandwidth distribution for multiple services.

Service Verification: After connecting, verify the link status and service operation. Check that ONTs/ONUs are registered and receiving the correct VLANs and bandwidth allocations.

Best Practices

Compatibility Check: Ensure the SFP/SFP+ modules on both devices are compatible in terms of wavelength, speed, and connector type. Distance Consideration: Verify the fiber length does not exceed the supported distance for the modules used (typically 20–30 km for GPON),.

Management VLA

N: Keep a separate management VLAN for monitoring and configuration access to avoid service disruption. Testing: Use optical power meters or switch diagnostics to confirm signal integrity and link stability. By following these steps, the switch's optical port can reliably connect to the OLT's uplink port, enabling proper traffic flow for Internet, VoIP, and IPTV services while maintaining network segmentation and performance.

Article Content

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The uplink port on a network switch is designed to connect the switch to a higher-level network device, like a router, core switch, or another network switch. This connection helps to

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depending on the specific model . ZTE ZXA10 C650 and C69E-15 OLT platforms similarly support redundant supplies, m in control and switching boards, uplink ports, and fans, support for multiple

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