

OLT devices can be aggregated via a switch and then connected to BRAS



Overview

An OLT consists of three major parts: 1. Service port interface function - Provides translation between service interfaces and the TC frame interface of the PON section. 2. Cross-connect function - Provides a communication path between th. An OLT consists of three major parts: 1. Service port interface function - Provides translation between service interfaces and the TC frame interface of the PON section. 2. Cross-connect function - Provides a communication path between the PON shell and the Service shell, as well as cross-connect functionality. 3. Optical Distribution Network (ODN). Functional blocks are similar to the OLT. In the scenario that the ONU/OLT operates with a single PON interface (max 2 for protection purposes), the cross-connect function is omitted. Instead of this function, the service MUX and DEMUX are now responsible for traffic. ONU Management and Control Interface (OMCI) messages are used to discover ONT/ONUs for management and control.



Article Content

Dec 15, 2025

The Comprehensive Guide to PON Architecture: Mastering OLT, ...

Comprehensive guide to Passive Optical Networks (PON), covering OLT, ODN, ONU/ONT, GPON/XGS-PON/NG-PON2 standards, deployment strategies, and FTTH network ...

Aug 05, 2025

PON Network Components Overview: OLT, ONU, ONT, and ODN

OLT stands for Optical Line Terminal, a device that connects optical fibers and converts signals. This component plays a vital role in PON, as the PON OLT is the starting point of the entire ...

Jul 21, 2026

EPON, GPON, 10G EPON, 10G GPON OLT: How do ...

This article explains the basic concept and functions of OLT in EPON, GPON, 10G EPON, and 10G GPON networks.

May 27, 2026

All You Need To Know About OLT Equipment

What Is OLT? OLT (Optical Line Terminal), PON network consists of three parts: OLT, ODN and ONU. OLT belongs to the business node side of the access network equipment, connected ...

Sep 16, 2025

GPON OLT Configuration Guide V1.1

The document provides an overview and instructions for configuring a GPON OLT system. It describes the system components, including the OLT, ONTs, and optical passives.

May 05, 2026

Understand GPON Technology

Optical Line Terminal (OLT) - Device that aggregates all optical signals from ONTs into a single multiplexed beam of light which is then converted into an electrical signal, formatted to ...

Jan 19, 2026

How to configure Optical Line Terminal (OLT) and Omada Switch with ...

1) The switches with XM60A are deployed in each region and connected to the GPON network. After registration, the switches should be able to communicate with the OLT via the GPON network. 2) ...

Aug 03, 2025

How to Configure a BDCOM OLT

Configuring a BDCOM OLT might seem complicated, but with the right guidance, anyone can do it. This guide will walk you through the process, step-by-step, in a way that's easy to ...

Nov 24, 2025

Decoding OLT, ONU, ONT, and ODN in PON Network

The OLT device is connected to the management switch and ONU, with a splitter positioned between the OLT and ONU. The entire PON infrastructure can deliver multiple services ...

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