



Pluggable OLT Abstraction (pOLTA)

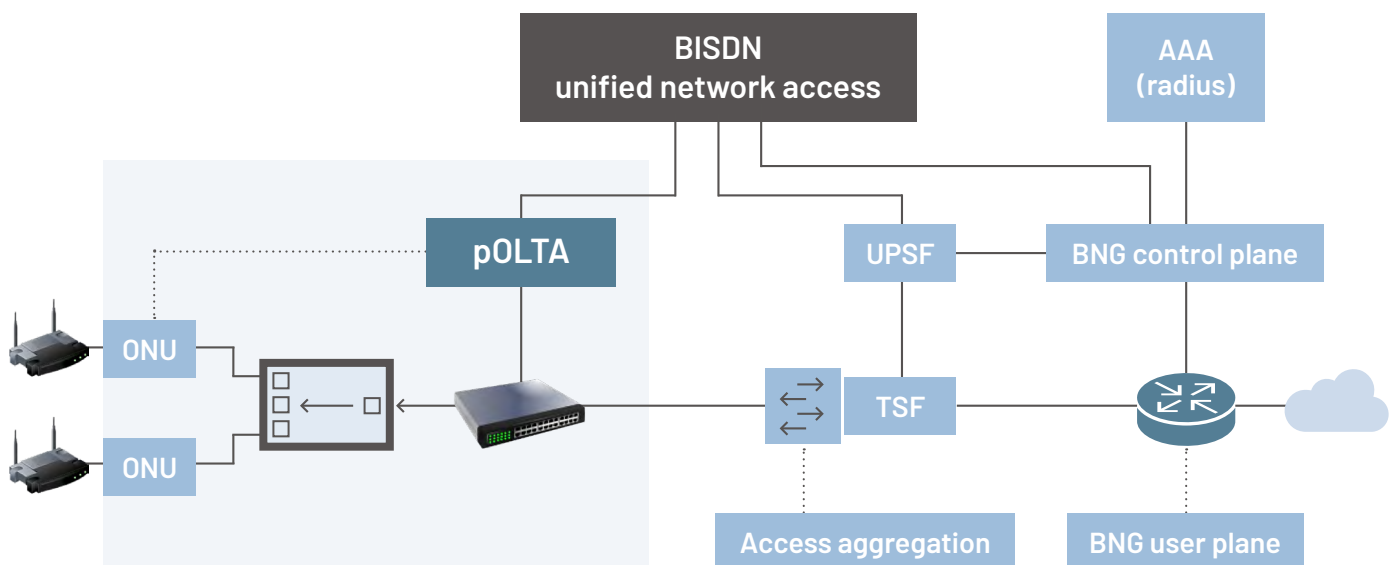
Network providers must deal with high customer expectations, steadily increasing bandwidth demand and internal requirements. They are requested to integrate new technologies into their management infrastructure and processes with as little cost and effort as possible.

BISDN offers the pOLTA software stack for an easy and cloud-based management of TiBiT communications' pluggable XGS-PON OLTs. pOLTA provides a standardised NETCONF/YANG interface per device and can be integrated with third-party switch hardware.

TiBiT communications' XGSG-PON pluggable OLT (Optical Line

Terminal) modules can be used in SFP+ ports and integrated into Ethernet switches. This will help network operators to achieve their goals for access networks. In addition to delivering the XGS-PON management software, BISDN ensures professional software maintenance in the form of regular updates and provides industry-leading consultancy services.

pOLTA with pluggable XGS-PON OLT



UPSF: User plane steering function (WT-474)
TSF: Traffic steering function (WT-474)

BNG: Broadband network gateway (TR-459)
ONU: Optical networking unit (also: ONT)

pOLTA software stack details

BISDN pOLTA is a flexible, scalable software stack that controls pluggable XGS-PON OLTs and switch hardware and exposes this as a conventional "chassis/frame/port" OLT system. It creates a topology abstraction into a single virtual multi-port OLT exposing a BBF TR-383/385 NETCONF/YANG interface.

The solution supports flexible deployment options. The entire stack can be run on the switch as an integrated OLT solution or, alternatively, the pOLTA stack can be deployed in a public or private cloud and manage the OLTs remotely.

Advantages



COST-EFFICIENCY

Cost-efficient and smooth integration by using standardised interfaces and Open Source software frameworks.



DEPLOYMENT FLEXIBILITY

Deployable in private and public clouds.



SCALABILITY

Scalable and flexible software for different types of switches: from externally managed devices to fully integrated next generation platforms, from low to high number of ports.



HARDWARE FLEXIBILITY

The software flexibly runs on multiple devices from various hardware vendors.



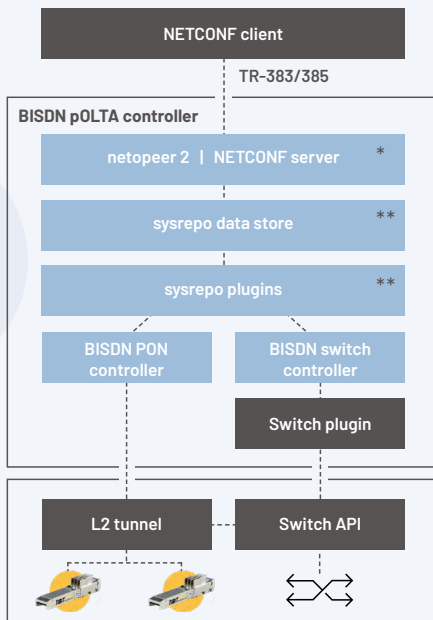
SERVICE-ORIENTATION

Professional, ongoing consultancy, maintenance and customisation.

Deployment and integration options

pOLTA can be used with externally managed switches (e.g. remote-OLT) or with fully integrated whitebox switches (virtual multi-port, multi-frame OLT).

Remote OLT control (cloud-based)



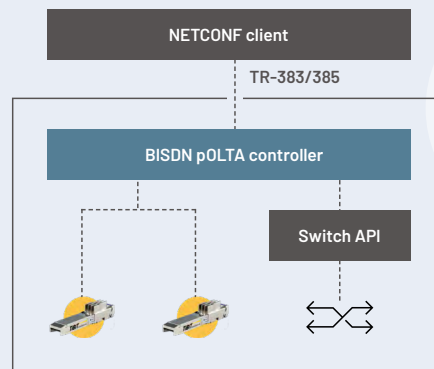
Remote OLT

Field deployable OLT, up to 8 ports, external pOLTA controller in private or public cloud, adapted to customer use case.

* netopeer2: <https://github.com/CESNET/Netopeer2>

** sysrepo: <https://github.com/sysrepo>

Integrated OLT



Integrated OLT

48-port reference platform, fully integrated OLT consisting of whitebox switch, whitebox network operating system BISDN Linux and BISDN pOLTA controller

ABOUT US

BISDN was founded in Berlin, Germany, in 2012, and set out to develop the software needed in the rapidly changing world of software-defined networking. Based on longstanding experience in the area of telecommunication as well as data center networking, BISDN focusses on high-performance whitebox switching

and open network software solutions. With BISDN Linux as the core of most of their products, BISDN aims to build the free and open SDN solutions needed for the future world of networking.

For more information, visit <https://www.bisdn.de>