

Cisco Routed PON



Benefits

- Improve the economics of Fiber to the x (FTTx):
 - Simplify Passive Optical Network (PON) deployment by replacing the traditional chassis with a pluggable Optical Line Terminal (OLT) in your access router.
 - Benefit from flexibility of choice by selecting the Optical Network Unit Management and Control Interface (OMCI)-compliant Optical Network Terminal (ONT) that best meets your requirements.
 - Build your capabilities gradually and protect your investment with a pay-as-you-grow model that allows you to add capacity on a port-by-port basis.
- Differentiate your broadband service:
 - Streamline operations and create a consistent end-to-end network across devices with Cisco IOS® XR
 - Improve the subscriber experience by converging different access technologies with proven IOS XR capabilities like segment routing and Ethernet VPN (EVPN) for more granular control of latency and bandwidth to meet business and consumer demands.
 - Reduce complexity in the network by managing network elements with a converged architecture, automation, and open APIs.

Unite your services and your network

With Cisco® Routed PON you can deliver agile, differentiated broadband services cost-effectively through a software-defined broadband network.

Simply plug an OLT into a Cisco IOS XR router. Save space and optimize power consumption compared to traditional chassis-based deployments. In addition, reduce operational complexity by converging your PON together with other access technologies like active Ethernet and backhaul – and manage it with a single, unified network operating system (IOS XR) on your access router.

Leverage the industry-leading capabilities of IOS XR, like EVPN and segment routing, to deploy and manage your revenue-generating services more easily. And by adding Cisco's network assurance capabilities, you can deliver services with diverse performance requirements and assure customer quality of experience.

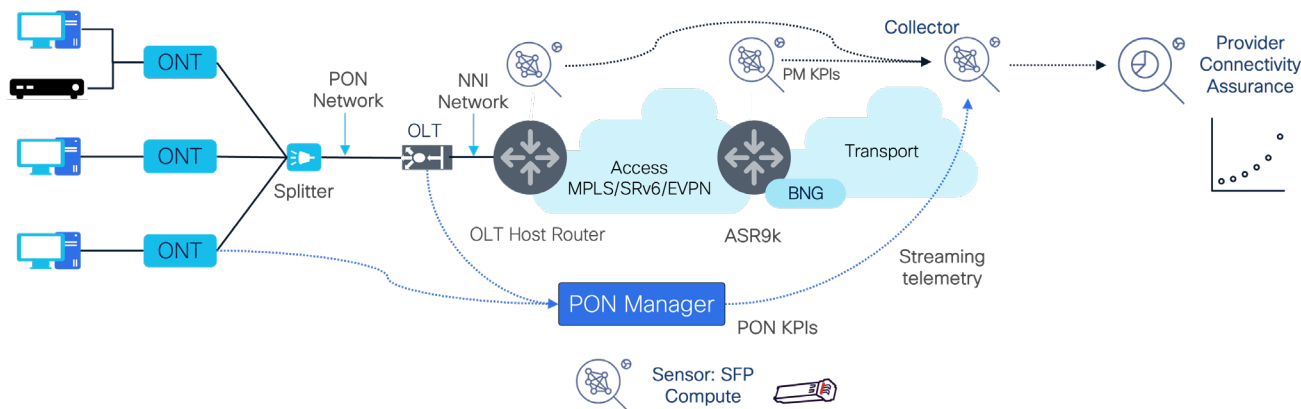


Figure 1. Cisco Routed PON

Transform your broadband access network

Combine the flexibility of a disaggregated PON solution with a software-defined end-to-end architecture based on Cisco IOS XR. Cisco Routed PON brings together the following components:

- Cisco Routed PON OLT: A Small Form-Factor Pluggable (SFP+) OLT that connects the PON to Layer 3 routing and services on a router port. Available in EML for longer distance deployments, and DML for lower power and environmentally challenging deployments. Open and compliant with the OMCI standard, it is compatible with Cisco and other ONT.
- Cisco Routed PON Controller: A stateless management controller that runs as a container on the router, configuring and monitoring endpoints in the PON.
- Cisco Routed PON Manager: A WebUI application that facilitates device and service provisioning and enables the management of users, databases, and alarms.
- Cisco Access and Aggregation Routers: Leverage industry-leading capabilities in IOS XR together with network assurance capabilities to differentiate and monetize your revenue-generating services.
- Cisco ONT: Validated XGS PON Enclosure ONT devices (including ruggedized) supporting 1/2.5/10GE, PoE, and voice.

Learn more

Reinvent your broadband access network and deliver differentiated high-quality services to residential and business customers with [Cisco Routed PON](#). As a part of Cisco Agile Services Networking, explore how it can help you monetize services with an architecture optimized for flexible service deployment, built for resilient experiences, and ready to monetize.

