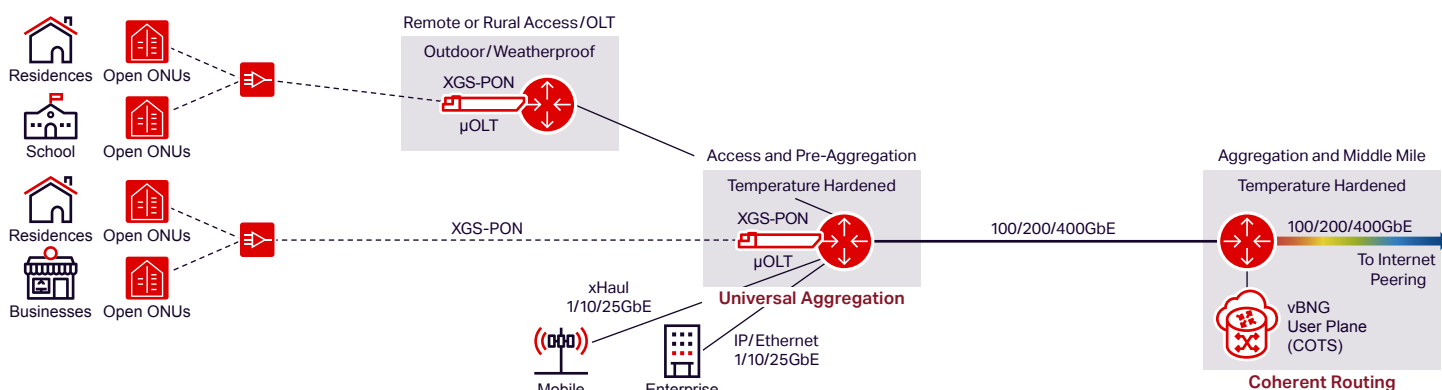# A smarter approach to broadband networks

Dare to achieve more with your broadband initiatives—make more of your investments, serve more communities, excel in service performance. Let Ciena help you navigate throughout your journey.

Explore the four pillars of the adaptive broadband architecture

Modularity

Gone are the days of bulky optical line terminals (OLTs), low fill rates, and sizing issues. No more wasting CAPEX, power, and space as you navigate take rate uncertainties.

- Start small and grow as you need, with right-sized efficiency from day one.
- Leverage pluggable µOLTs and coherent optics to add capacity on the go.
- Pick perpetual licenses to avoid OPEX traps as your customer base grows.

Scalability

As traffic continues to grow, your access and middle mile must not limit user experience or subscriber growth.

- Maximize your potential and scale traffic capacity as needed with µOLTs supporting symmetrical 10G PON access and routers supporting up to 400GbE optical plugs.
- Offer top access capacity and unconstrained user performance with a solution that is 25GS-PON ready day one and doesn't put a cap on your business success.

Openness

Keep your options open—mix and match the best technologies for each part of your network to maximize innovation, keep costs in check, and adapt your services to your market demands.

- Enjoy freedom from proprietary architectures and financial conditions of closed, single-vendor solutions across your network.
- Leverage open and standards-based designs—from wi-fi to access, middle-mile, and management platforms—to enable network evolution that fits your strategy, now and into the future.

Convergence

Build it for broadband, monetize it with other demands, drive sustainability and simplification. The routing platforms that host µOLT plugs can also provide IP services to businesses and public sector and address stringent wholesale demands—from premium last-mile access to advanced 5G xHaul.

- Converge services over a shared infrastructure.
- Monetize your broadband investments unlocking new revenues.

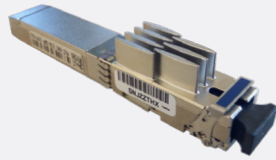# Get to know some of the components of Ciena's modular, open, scalable, and convergent broadband solutions

Pluggable XGS-PON µOLTs
Top performance with minimum footprint, maximum flexibility and efficiency
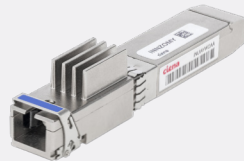
XCVR-SGPL02
Temp -40 to 75°C
Reach 1:64 @ 20 km
1:128 max

XCVR-SGPL04
Temp -40 to 85°C
Reach 1:64 @ 20 km
1:128 max

Ciena or third-party XGS-PON ONUs
Low-cost residential or business metro access that is lightning-fast and secure

3801
2.5 Gb/s user interface

3802
10 Gb/s user interface
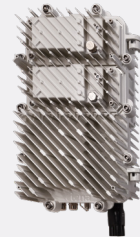
3806
Weatherized
2.5 Gb/s user interface

Routers/hosting platforms
Scalability and modularity in open and compact OLT hosting routers to fit the most diverse network scenarios

5131
Weatherized
360 Gb/s fabric
12x µOLT
12x 1/10/25 GbE
2x 100 GbE

3985
Weatherized
80 Gb/s fabric
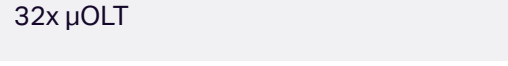5x µOLT
6x 1/10/25 GbE

5130
1RU i-temp
360 Gb/s fabric
12x µOLT

12x 1/10/25 GbE
2x 100 GbE

5164
1RU i-temp
800 Gb/s fabric
32x µOLT

32x 1/10/25 GbE
4x 100/200 GbE

Multi-layer network management
Single pane of glass for managing performance and lifecycle of all network elements: control and simplicity

Navigator
Network
Control Suite™

virtual BNG
Open, highly flexible, and agile CUPS BNG—easy to scale up or scale out, accelerating the edge

Ciena's
vBNG

ciena