Ciena Services for Broadband Access

Challenge

Not just 'catching the wave', but owning it

You likely already know how important delivering broadband access is, and is going to be, to your organization. The industry is witnessing a confluence of opportunity—end-user demands for 'everything from home,' societal expectations for digital equity, and massive public and private investments. It will be transformative to communities, nations, and the organizations involved. Now is the time to either take new territory or prove dominance in established territories—it's a big wave and it won't last forever.

The challenges include how to:

- Plan and design from the network core all the way to the home or office
- Build and operate a multi-vendor solution
- Ramp up staff with technical know-how
- Roll it out to your customers

Access to great technology is just the start. Capitalizing on this unique opportunity requires people with the right experience, insights, and tools to tie those technology pieces into a cohesive solution, specific to your market's needs, then effectively promote and profitably deliver it to your customers.

Whether your organization has the breadth of skill to handle all or part of it, or whether you would benefit from a partner taking an end-to-end view—Ciena can help.

Approach

A two-prong model: Open, modular, and scalable technology—and services to enable and deliver it

Most equipment suppliers in this space, including long-established market leaders, rely on closed, legacy approaches that lock you into their ecosystem. Once locked in, they call the shots.

Broadband access represents a once-in-a-generation opportunity, with challenges just as big. Rather than recreating the wheel, you can benefit from Ciena's technical, operational, and marketing expertise to reduce risk and efficiently roll out this essential service to your customers.

What you get

- A flexible suite of tailored, integrated services to help you successfully deliver broadband access:
  - Consulting
  - Systems Integration
  - Implementation
  - Network Optimization
  - Maintenance
  - Managed Services
  - Learning
- Ciena Partner Network's Marketing-as-a-Service program (MaaS)[1], our award-winning marketing service designed to take you to market faster
- Project management

Ciena takes a deliberately different approach to help you build a sustainable broadband network without compromise. Ciena disrupts the status quo by leveraging the latest in open, modular, and scalable technologies.

Technology overview

Unmatchable scalability and flexibility

Ciena's solution leverages the power of the entire Ciena portfolio, including the Routing and Switching Platforms with XGS-Passive Optical Network (PON) pluggable technology, market-leading optical networking technology, Ciena's Manage, Control and Plan (MCP) domain controller, Blue Planet® Intelligent Automation Software, and Ciena Services. These services—coupled with a rich ecosystem of technology and vendors enabled by an open approach—provide a full suite of broadband capabilities.

This solution allows end-customers to access the high-bandwidth applications they need while enabling network operators to upgrade service portfolios when required—without ripping and replacing existing network elements.

Ciena enables the convergence of aggregation and Fiber-to-the-Home (FTTH) access functionality by integrating XGS-PON micro-Optical Line Terminal (µOLT) pluggables in Ciena's Routing and Switching Platforms, offering shared fiber broadband services for residential as well as Small and Medium Enterprises (SMEs). Ciena offers high XGS-PON port density per Rack Unit (RU) and the lowest energy consumption per port for typical deployments while allowing you to buy only the necessary XGS-PON plugs, when required. As the market evolves, our Routing and Switching Platforms are ready to support 25G PON plugs when they are available in the future.

This scalable and modular solution allows providers to sustainably go from tens to hundreds of XGS-PON ports without losing sunk platform investments, replacing existing network equipment, or needing significant upfront costs.

From the end-user side, Ciena's solution offers a family of Optical Network Units (ONUs), allowing end-users to benefit from multi-Gb/s connectivity while being open to supporting other vendors' ONUs to provide increased choice.

Ciena's solution is open by design—allowing you to create the best possible network infrastructure by choosing preferred vendors that complement Ciena's network elements. This helps you protect your competitive edge by not limiting options to a specific vendor's innovation cycle. This also allows for better control over procurement processes to minimize and outright eliminate lock-in. And if 'open' sounds like 'complex,' Ciena's System Integration Service enables you deploy a best-of-breed, multi-vendor solution in a simplified manner.

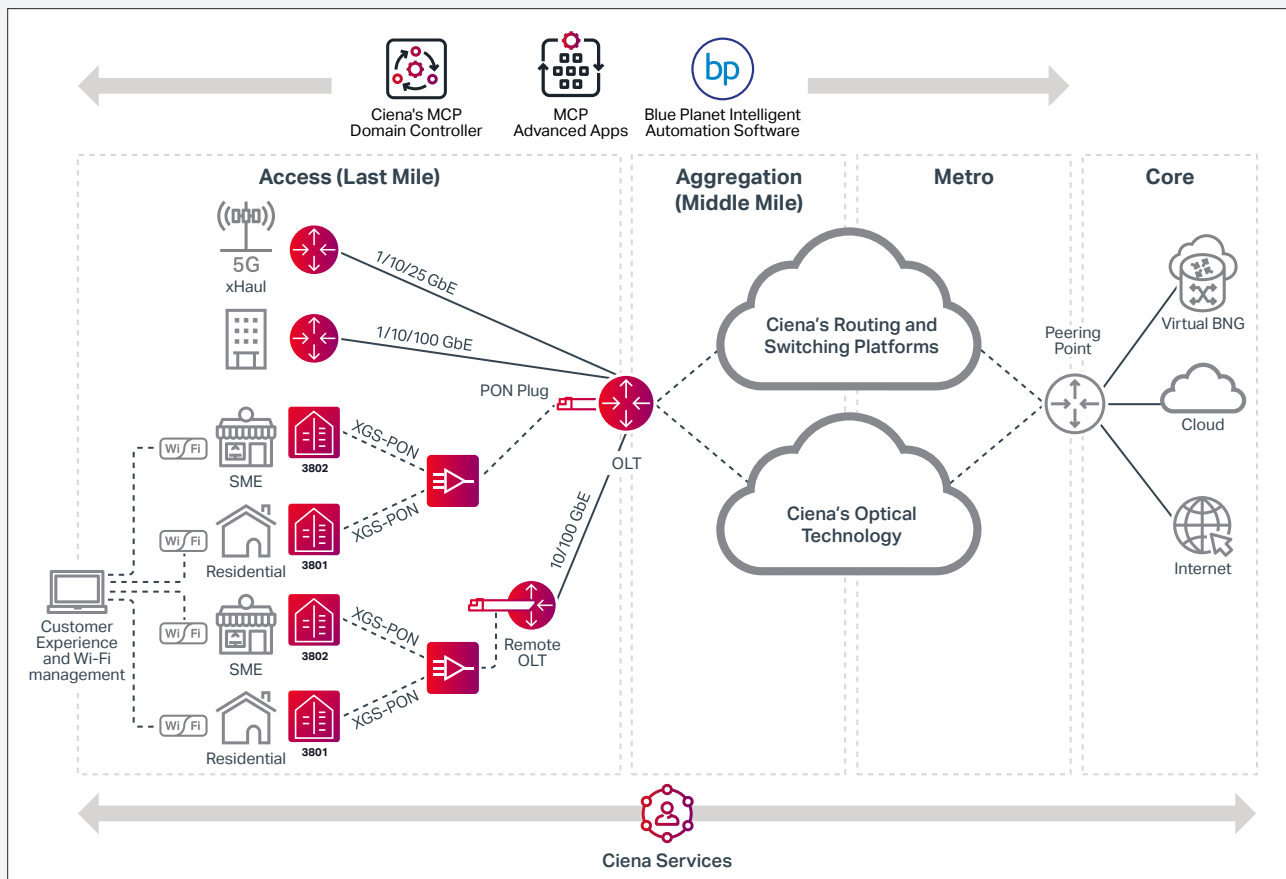> **Ciena's Residential Broadband Solution**
> Learn more

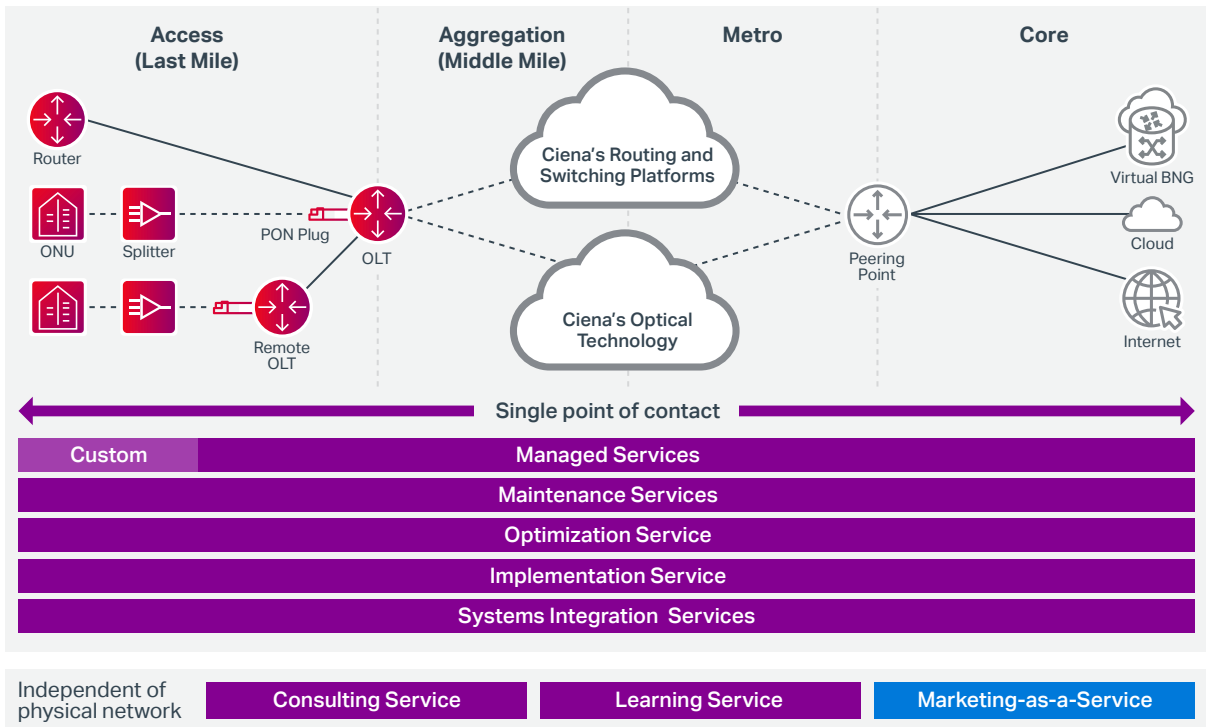*Figure 1. Where Ciena fits in the overall broadband network*

Figure 2. Ciena Services address end-to-end broadband access networks

Services Overview

A full, flexible suite of professional services tailored to help you successfully deliver broadband access

The scope and focus of the organizations delivering broadband access is highly diverse. It is a wide-open market for national, regional, and rural Communications Service Providers (CSPs), Multiple System Operators (MSOs), Internet Service Providers (ISPs), utilities, universities and colleges, and state and local governments. Within these are equally varying capabilities to roll out a complex IT service to a large audience.

With such diverse market players, finding a teammate with services both comprehensive enough to address all your needs and flexible enough to allow you to tailor them to your requirements is key. That is where Ciena Services comes in.

Is your organization's IT team technically sophisticated with deep skillsets? Is it a 'lean-and-mean' shop that focuses on driving other mission-critical initiatives while leaving day-to-day network issues to third parties? Or is yours a strategic partner model, working hand-in-glove with trusted advisors? Whatever your team's operational model, and whatever their strengths, Ciena's broadband services are both robust and flexible to help you reach your objectives.

- **Consulting–**Executive-level collaborative engagement to develop the two-to-five-year view of the business, operations, and design of your broadband access network and operations. Through key stakeholder workshops, we focus on network and technology planning and operational excellence to develop use cases to support a roadmap.

- **Systems Integration and Implementation–**Two services with distinct roles to address the details, execute on the complexity, and program manage the roll-out of multi-vendor, best-of-breed broadband networks to your customers.

  - **Solution design–**Reduces Time to Market (TTM) and risk through Ciena's deep bench of expertise to design these intricate solutions.

  - **Solution validation–**Tests and verifies multi-vendor hardware and software scenarios before deployment, mitigating complexity and increasing service quality— ultimately lowering the cost to launch the service.

  - **Solution deployment–**Avoids disrupting day-to-day business by taking advantage of Ciena's proven processes and experience to quickly and successfully deploy broadband access.
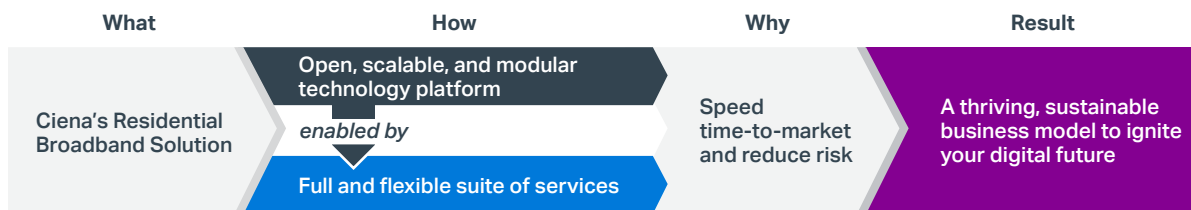
What	How	Why	Result
Ciena's Residential Broadband Solution	Open, scalable, and modular technology platform *enabled by* Full and flexible suite of services	Speed time-to-market and reduce risk	A thriving, sustainable business model to ignite your digital future

Figure 3. A two-prong strategy—Market-leading technology enabled by robust services

- **Network Optimization–**Built to leverage Ciena's skills and analytical tools to assure broadband networks operate at peak performance to maximize business impact, avoid outages, and minimize subscriber churn.

- **Maintenance–**Ciena's support capabilities assure network issues are resolved quickly so your customers can maintain a consistently high Quality of Experience (QoE). Ciena supplements these with robust options for managed spares, resident engineer, circular economy support, and much more— so your network continues to run seamlessly.

- **Managed Services–**Ciena keeps your network operating smoothly with carrier-grade managed Network Operation Center (NOC) services for Ciena and third-party devices, providing streamlined network assurance to full management and options for additional services, creating a comprehensive 360° offering.

- **Learning Service–**Grow your team's broadband knowledge— from core to access networks—through self-paced online courses, virtual hands-on labs, and traditional instructor-led classroom training.

Marketing as a Service program–Get to market faster by leveraging Ciena's marketing expertise to win business through collaborative engagement, funding, and dedicated marketing professionals to help you execute on proven strategies and tactics.

Summary

Introducing broadband access to your customers—both residential and SME—is about satisfying a market demand successfully, profitably, and with minimum interruption to existing services. Ciena's goal is to help you achieve that with an integrated two-pronged approach that combines open, scalable, and modular technology enabled by a full and flexible suite of services. Together, they form the foundation for a thriving, sustainable business model that speeds TTM while reducing risk. Whether to selectively supplement your team or to comprehensively deliver a full solution, Ciena can help take broadband access from an idea to market reality.

The Adaptive Network™ connection

The Adaptive Network enables network providers to optimize their existing frameworks while incorporating new technologies and ways of working. It is built upon four foundational elements: Programmable Infrastructure, Analytics and Intelligence, Software Control and Automation, and Services. Running underneath these components is an architecture rooted in openness, scalability, and security.

The Ciena Services team ensures that your broadband network is properly planned, designed, implemented, optimized, maintained, and managed—all underpinned by the principals of the Adaptive Network—allowing you focus on your core business.

Ciena Services

We enable your success by ensuring your network keeps pace with your business. Our regional teams partner closely with you in a shared mission to understand your priorities and deliver the exceptional digital experiences your customers expect. We help you build, operate, improve, and transform your network, your way. We leverage our robust portfolio, proven processes and tools, and nearly 30 years' experience in creating the world's largest networks—all to power your successful journey to the Adaptive Network. Together, we've got this.

Learn more about Ciena Services →

? Was this content useful?   Yes   No

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