



COMMSCOPE®

# Next-gen PON solutions for new network providers

Reduce the risks of FTTH investments with cloud-to-edge solutions and deep expertise



# Accelerate, simplify, and de-risk next-gen PON deployments

With consumer demand for increased broadband throughput and a new wave of public funding entering the market, the opportunity for service providers to architect and deploy advanced PON networks is now. But rolling out PON can be challenging when in-house experience and skilled technicians are scarce. That's why new entrants to the service provider market are partnering with seasoned consultants and system integrators who can help design and deploy their next-gen PON networks—and de-risking their investments in PON with the help of a trusted partner like CommScope.

CommScope is here to help new service providers and their partners architect and construct PON networks quickly, consistently, and cost-effectively—reducing the risks that often come with new infrastructure builds. Driven by a long history in FTTH, CommScope has the innovations, insights, and in-house subject matter experts to help new service providers and their partners make informed decisions that accelerate time to revenue and maximize ROI.



## A 360 degree solutions approach

Our cloud-to-edge portfolio spans from central facilities to the customer premises and includes hardware, software, actives, and passives that provide the flexibility you need to deploy PON—using the topologies and configurations that make sense for your markets and your business.



## Capital efficiency

Our solutions are designed to help service providers start small and scale economically—with OLTs that can be deployed with low port counts and expanded incrementally and remote shelf solutions that eliminate the time and costs of constructing new brick-and-mortar facilities.



## Optimized architectures

When you and your partners are ready to make the key topology decisions that will shape your network's performance, efficiency, and economics for years to come—we're here to help with the tools, templates, and best practices you need to architect for success.



## Rapid time to revenue

CommScope's next-gen PON solutions are built to streamline deployment and reduce network operating expenses. This allows our service provider customers to get their networks up and running quickly, reducing the time it takes to reach subscribers and achieve revenues—and improve the returns on their PON investments.



## Innovative connectivity

Our fiber indexing and optical tap technologies are designed to make FTTH network construction a highly efficient, scalable, and repeatable process—providing a standardized set of plug-and-play components that reduce the time and skill required to deploy fiber.



## Open, software-defined systems

We are pioneering the shift from legacy, hardware-defined PON solutions to next-gen systems that are truly open and standards-based—moving network management and control from OLT devices onto COTS and cloud-based servers to streamline deployment, operations, and growth.

# Your partner for PON success

CommScope offers the support and guidance service providers need to deploy advanced FTTH networks with confidence—regardless of their existing architecture or service environment. Throughout every stage of the network lifecycle, from planning to design to implementation, CommScope works in lockstep with our customers and their consultants to get their next-gen

PON projects up and running quickly, economically, and successfully. Our end-to-end solutions and global team of professionals make CommScope a comprehensive resource that can help service providers minimize issues, maximize performance, and optimize ROI.



Plan	Design	Implement	Operate
<p>We play an active role in helping get you ready for success, working with your team and consultants to develop templates and requests for proposal that streamline network architecture, construction, and permitting while standardizing deployment processes across your PON service area.</p>	<p>We bring deep experience and an end-to-end view to PON architecture, guiding decisions on topologies, technologies, and best practices that can save you time, reduce expenses, and minimize issues in the implementation and operation phases of your network lifecycle.</p>	<p>We're here to help make PON network rollouts successful for our customers, assisting with system installation and configuration, construction, integration, hardware and software testing, materials management, quality assurance, I&amp;C services, and logistical support.</p>	<p>We provide the ongoing services you need to keep your network running at its full potential. That's why we're here to help with migrations, support, staffing, call center consulting, and NOC services.</p>

# Our cloud-to-edge next-gen PON solution suite



## CommScope FLX™ portfolio

The CommScope FLX portfolio allows service providers to choose their own path to PON while optimizing capital spending. Our suite of physical and virtual OLTs can be deployed in both central and remote locations, and our innovative portfolio of ONUs and optical devices supports a variety of applications and environments. The CommScope FLX portfolio is designed to give network operators the agility they need to launch highly competitive services quickly and economically.

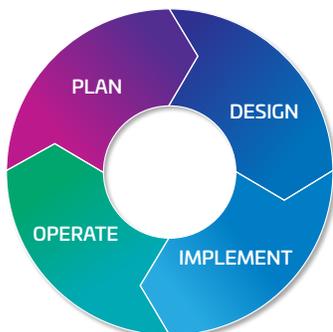


## ServAssure® solutions

CommScope's powerful Domain and Performance Management software suite, ServAssure, gives service providers the intelligence they need to accelerate PON deployments, streamline operations, improve service velocity, and proactively resolve network issues. ServAssure combines software-defined networking, machine learning, and artificial intelligence with an intuitive UI to enable these advanced management capabilities, while simplifying operations.

## FTTH passive solutions

CommScope has over 40 years of experience delivering passive optical networking solutions. We offer a comprehensive portfolio of cabling, connectors, and connectivity that's designed to meet virtually every deployment need. Our combined experience in active and passive FTTH solutions gives us a unique ability to guide service providers on the right architectures and topologies for their environments, while helping them optimize performance system-wide.



## Professional Services

The CommScope Professional Services organization and our partner network are here to help service providers plan, design, and deploy PON networks that are optimized for their unique business needs—without the risks that often come with new technology rollouts. Our expert team is here to guide service providers and their consultants as they architect their networks and define the operational best practices that can help them grow quickly, efficiently, and economically.

# Solving the unique PON challenges of rural deployment

In rural environments, where housing density is low, deploying PON in a traditional centralized architecture can be a challenge due to the need for acquiring land, permitting, and facility construction. Here, the long distances between subscribers can diminish the returns service providers can achieve on their PON investments while slowing network rollouts. But moving the PON launch point deeper into the network using existing feeder fiber and replacing traditional walk-in facilities with CommScope's FLX R-OLT solutions in cabinets can improve both the time and costs of rural PON deployment. These benefits are revealed in detail when we review the key takeaways from a recent study conducted in an area with an average of 7.6 homes per mile (4.7 homes per kilometer).



**Reduced facilities costs and deployment time**

Constructing a traditional walk-in facility can cost hundreds of thousands of dollars per site and take several months to complete. But deploying an environmentally hardened R-OLT demonstrated a 40 to 80 percent savings. These savings stem from the reuse of existing housings, enclosures and fiber, the ability to scale ports incrementally, and the R-OLT's smaller R-power footprint. We also found deployment time to be reduced by 70 to 80 percent when compared to the construction of traditional facilities, due to the reduction or elimination of costly and time-consuming permitting requirements.



**Increased hardware utilization**

Many of today's existing OLTs have been designed for high-density environments, which leads to inefficiencies in hardware utilization when they are deployed in rural markets. In our study, the use of R-OLTs delivered significantly higher hardware utilization due to their ability to be deployed with low initial port counts and scaled through the addition of ports and the transition from a 1:128 split ratio to a 1:64 split ratio when more bandwidth capacity is required.



**Improved management and service efficiency**

In rural environments, it is critical to control the costs of network maintenance and management. We discovered that R-OLTs contributed to a reduction in the volume and complexity of truck rolls in low-density environments. These savings are derived from several features of CommScope's R-OLT and ServAssure solutions, which include cloud-based management, zero-touch provisioning, proactive performance management, and the ability to deliver updates and new features over the network.



**Optimized outside plant investments**

Covering long distances with fiber to reach relatively few homes can strain the finances of rural service providers. But the fiber-efficient nature of R-OLTs combined with sound topology choices were shown to help. By placing the last active device deeper in the network, fiber counts and their associated costs were reduced substantially in the feeder network. Passive connectivity costs were driven even lower thanks to deploying R-OLTs deeper in the network. This allows CommScope's cascaded, tap, and indexing technologies—which benefit from the increased optical budget—to be used, creating up to a 33 percent savings in labor costs.





## Why CommScope?

CommScope not only offers a comprehensive portfolio of solutions that spans multiple network architectures, but we also offer the expertise it takes to bring them all together in a 360-degree view. With CommScope on your team, you can anticipate and solve tomorrow's challenges as you evolve for what is next.



We transform  
what's next in PON

### More expertise

CommScope has been building FTTH networks longer than anyone else, with end-to-end experience that spans active and passive solutions, centralized and distributed architectures, and large- and small-scale deployments.

### Less risk

We're here to help service providers deploy PON quickly and efficiently, while optimizing their capital investments and reducing the likelihood of network and service issues that can threaten their success.

### Better partners

CommScope goes a step beyond positioning our service provider customers for success. We also work closely with the consultants and integrators that help them execute their network projects successfully.

CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement. We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow. Discover more at [commscope.com](https://commscope.com).



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