



CommScope FLX™ integrated next-gen PON cabinet

COMMScope®

Connecting the farthest corners of the world and closing the digital divide

Broadband connectivity is an essential utility for people worldwide today. It powers the digital economy and enables remote learning, working and healthcare. It's the foundation of next-level applications like virtual reality and augmented reality. Yet, reliable broadband remains out of reach for many, particularly those living in rural or economically disadvantaged communities.

To ensure more universal access and close this digital divide, federal, state and local governments incentivize broadband networks to extend fiber-to-the-home (FTTH) connectivity to these areas.

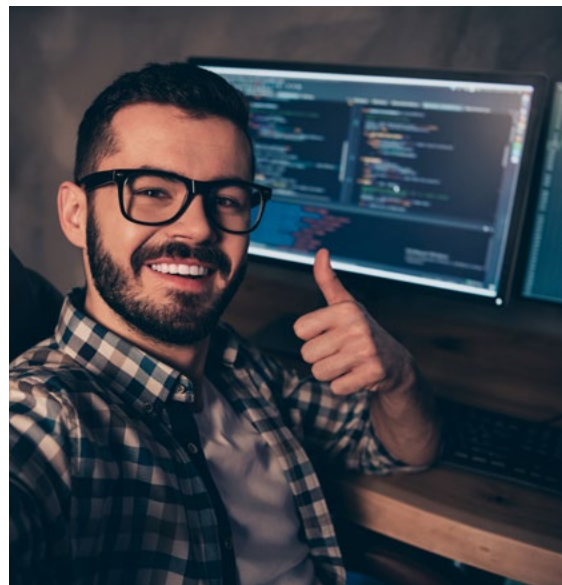
The need to take fiber farther, efficiently

Next-generation passive optical network (PON) technology is the leading choice but it comes with limits. PON's distance threshold of about 20 kilometers (12 miles) between the optical line terminal (OLT) and the farthest optical network unit (ONU) can't reach subscribers living beyond this limited range.

The solution? Relocate the PON OLT away from the headend, central office (CO) or hub and closer to subscribers while optimizing CapEx, lowering OpEx and reducing risks and complexities. This capability is at the core of CommScope's FLX integrated next-gen PON cabinet solution.

Expanded connectivity, simpler management and reduced costs

Rural FTTH networks can be costly to deploy and operate, and difficult to maintain. CommScope's remote OLTs work with our ServAssure® Domain Manager and NXT Performance Manager cloud-based management solutions. They deliver zero-touch provisioning, proactive performance management and remote update capabilities—reducing truck rolls and the costs that come with them.



The CommScope FLX integrated next-gen PON cabinet: The complete, flexible solution

With this all-in-one cabinet, customers eliminate the need for multiple separate cabinets. As an integrated solution with next-gen PON remote OLT shelves, built-in fiber distribution hub technology (FDH) and value-added modules such as optical splitters, DWDM and more, the CommScope FLX integrated next-gen PON cabinet's interior offers ample space for customizable power management, GR-487 compliant cabinet and cooling, battery backup, rectifier and more. It can connect nearby rural homes or sub-tended FDHs to further extend rural connectivity.

With up to 64 OLT ports and a 1:128 PON split ratio, a single CommScope FLX integrated next-gen PON cabinet can serve up to 8,192 subscribers via sub-tended FDHs. It also supports a variety of FTTH distribution split architectures including centralized, distributed/cascaded and TAP.

CommScope's FLX integrated next-gen PON cabinet by the numbers:

8,192 subscribers

can be connected

64 PON ports

available since the cabinet supports up to four FLX XP6164S PON OLT shelves

**48 in tall/
21 RU**

meets municipalities' height requirement while providing maximum interior capacity

1,500 W thermosiphon

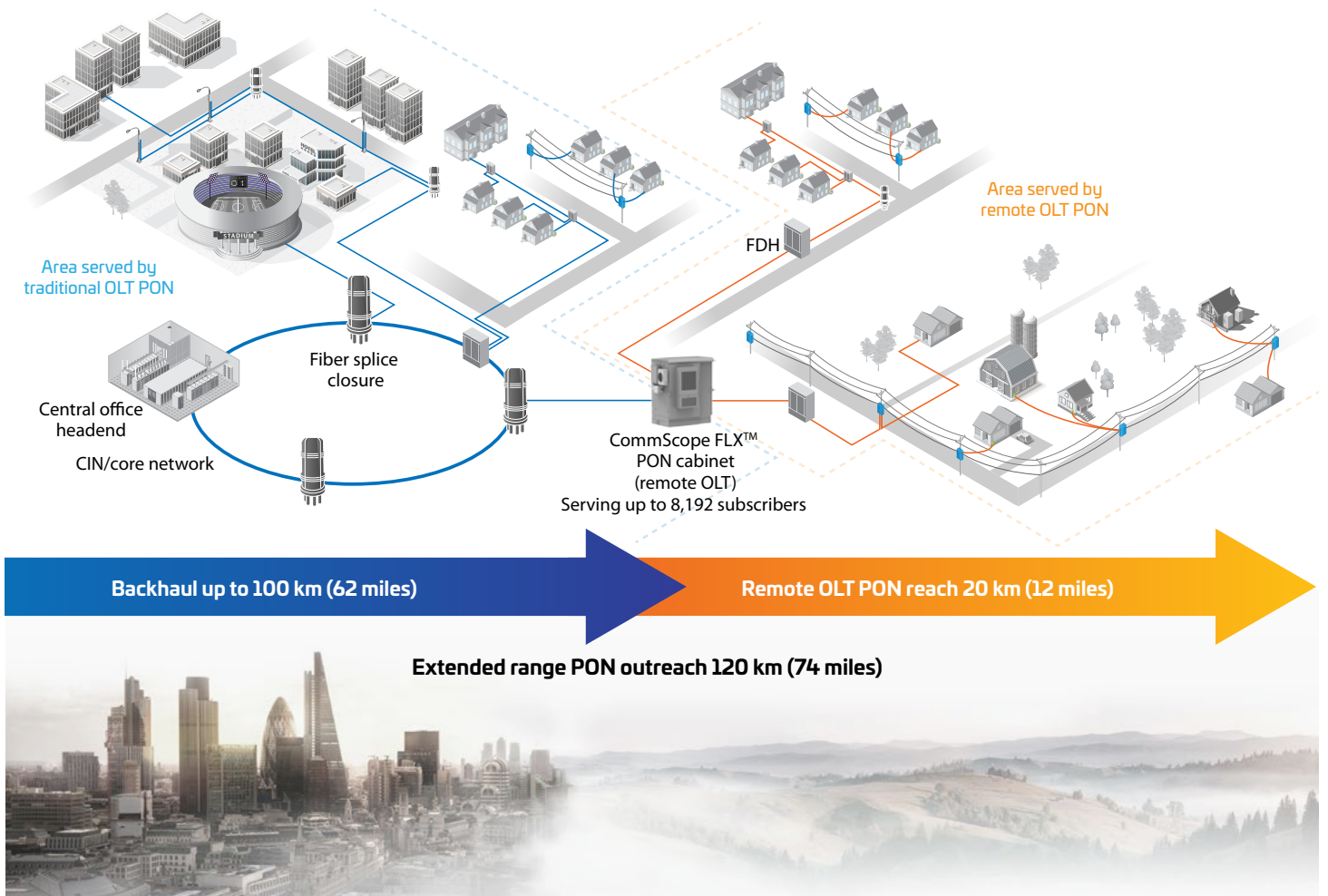
ability provides built-in cooling which is GR-487-complaint

less than 60 dB

of noise for low sound level



Remote PON OLT: strategy to increase network reach



CommScope's FLX XP6164S PON OLT shelf

Ideally suited for installation into CommScope's FLX PON cabinet, the standard 1 RU 19-in rack-mounted hardened multi-protocol OLT enables centralized and distributed access PON deployment strategies.



- Equipped with 16 10G PON ports, with each supporting standard GPON at 2.5/1.25 Gbps and XGS-PON at 10/10 Gbps or 10/2.5 Gbps
- Full IPv4/IPv6 traffic management and PON MAC/PHY capabilities enable network operators to add high-bandwidth GPON and XGS-PON-based services, as the number of connected subscribers increases.
- Extends distances beyond the typical central office headend-based centralized PON limits with 100GE transport backhaul uplink optics connecting S-Leaf switch/router in the Converged Interconnect Network (CIN) or core transport network to support deployment of PON services deeper in the existing plant infrastructure.

CommScope's trusted fiber management

The CommScope FLX integrated next-gen PON cabinet features CommScope's premium fiber management system, trusted in fiber access networks worldwide for its ease of use and reliability.

- Fiber bend radius protection
- Intuitive cable routing
- Easy fiber and connector access
- Physical protection
- Parking lot for splitter pigtail management
- Supports DWDM and CWDM passive modules
- Mounts up to 24 optical splitter modules with 1:2, 2:2 1:4, 1:8, 1:16, 1:32 and 1:64 configurations
- Distribution field terminates 576 fibers on LC/APC connectors on two 288-fiber cable stubs
- Feeder field terminates 48 fibers on LC/APC connector on a 48-fiber cable stub



ServAssure Domain Manager

This powerful platform manages network elements in today's distributed network architectures with onboarding, policy, license/firmware management and telemetry.

- Low/no-touch onboarding to control the activation process
- Alarm Manager and Dashboard aggregates alarms from all managed devices—correlating multiple events into new alarms for increased value and prioritization
- Intuitive, centralized license management system
- Advanced firmware management campaigns for up/downgrades, image downloads and activation for individual or groups of devices, on demand or on a schedule

ServAssure NXT Performance Manager

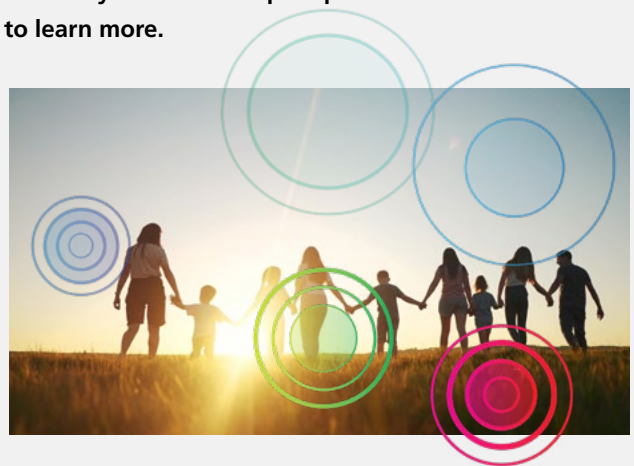
This AI-powered network analysis software solution monitors your network over longer periods of time and identifies problems before they become serious.

- Increase customer satisfaction and reduce call center traffic
- Discover and resolve plant issues before subscribers are impacted
- Reduce number of truck rolls and improve MTR

The CommScope difference

Only CommScope has the expertise and internal capabilities to offer service providers such a complete and comprehensive solution as the CommScope FLX integrated next-gen PON cabinet and everything that goes into it. We even help you design the future-ready FTTH network your subscribers need with our FTTH Network ePlanner. Between CommScope's insights and innovative solutions, your rural PON network can go farther, do more and help deliver on the promise of broadband for everyone.

Contact your CommScope representative to learn more.



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.

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