Fiber Solutions for Building, Data Center and Campus Networks
Fiber alone isn’t enough

As reliance on data networks grows, so does the infrastructure complexity needed to support applications like AI (artificial intelligence), AR (augmented reality), ML (machine learning), Industry 4.0 and 5G. As data centers and enterprise networks attempt to keep pace, fiber plays an increasingly critical role.

But the challenges confronting CTOs and network managers go far beyond the quality of their optical fiber. Design flexibility, interoperability, deployment speed, product availability, Day 2 adaptability and more are every bit as important as optical performance.

To effectively solve the challenges and complexities of today’s networks, CTOs and network managers need more than a fiber supplier; they need an experienced global fiber systems partner who can help optimize all aspects of their fiber network performance.

“CommScope’s ability to manage their own manufacturing process, instead of relying on partners, eliminates bottlenecks in the manufacturing process. No one is held hostage by logistics, which can add time and cost to projects.”

Greg Rudnicki, Vice President of Sales, Linx

CommScope provides the singlemode and multimode fiber cabling, ultra-high density connectivity and global support that CTOs and network managers need to design, deploy and manage their evolving fiber network. Our breakthroughs in fiber R&D—intelligent infrastructure, wideband multimode, fiber raceway, etc.—have paved the way for the standards and solutions that enable today’s complex network applications.

Trusted fiber partner for your building, data center and campus networks

With 40+ years of networking expertise and experience and a comprehensive fiber portfolio, CommScope provides data center and enterprise networks the agile, end-to-end fiber solutions that power tomorrow’s most demanding applications—easily and sustainably.

“We needed an infrastructure that would allow our customers and ISP partners to plan for today’s networks and allow for growth into future network speeds, so as not to limit our customers’ potential. CommScope gives us the peace of mind that we can bring customer equipment online quickly and efficiently.”

Jeffrey Gardner, Director of Operations, AUBix
End-to-end fiber solutions for any environment

At CommScope, we see every building, campus and data center as coexisting in an environment that is both interconnected and increasingly hyperconnected. You can’t fully understand the needs and requirement of a single location without understanding how it interacts with the whole. Therefore, we have aligned our fiber solutions and services with all three environments: enterprise buildings, campuses and data centers.

**Enterprise buildings.** The demands on your enterprise network have never been higher or more varied. Your network infrastructure has to be up to the task. CommScope enterprise fiber solutions can help.

Our fiber solutions for the enterprise cover every connection and cable, core to edge—from powered fiber cabling that extends your traditional structured cabling network to the backbone fiber and splice enclosures that support ever higher demands for throughput speed, latency and capacity.

**Campus environments.** Today’s smart campus network is built on a foundation of connectivity designed to increase productivity, efficiency, learning, and safety. Reliable high-speed outdoor fiber, inside plant fiber, and powered fiber create a solid infrastructure for Wi-Fi, cellular and IoT network coverage—inside and out.

More than a vital IT asset, the campus network—and all it enables—reflects the vision and values of the organization. Whether you’re building a smart university campus, smart medical campus or smart corporate campus, CommScope helps you shape and transform the future.

**Data center networks.** Data centers are evolving faster than ever before, not just technologically, but also strategically. New business models emerge from data centers’ growing role in all areas of commerce and industry, empowering them to leverage cloud architectures, embrace low-latency edge computing, migrate to ever-higher lane speeds, and more.

CommScope prepares and enables network managers to respond to any change and challenge. Adaptable and future-ready, our solutions include innovative fiber cabling and ultra-high density patch panels. We develop the fiber architectures and MPO strategies to leverage today’s higher switching speeds and make the best use of your available white space—all the while decreasing the effort and cost to upgrade and maintain your network infrastructure.
Our guiding principles

While CommScope is known for our depth and breadth of industry experience, technical expertise and unique solutions, the philosophy that guides our efforts comes down to four core commitments:

- Simplify your network’s complexity
- Support you with a global supply chain and locally responsive service
- Develop the fiber innovations that keep you ahead
- Help create a greener, more sustainable future for us all

Every decision we make, every task we undertake and every idea we consider is informed and guided by these four unshakeable pillars.

Network complexity simplified

With more than four decades of fiber experience and a holistic network approach, nobody understands and solves network complexity like CommScope. Every day, we help customers navigate the challenges of advancing architectures and topologies, higher-speed migration, fiber density and more. With solutions like our Propel™ modular platform and Constellation™ edge-based infrastructure, we enable you to streamline your network and support multiple upgrade cycles with a single, adaptable solution.

Propel

Propel is a modular, ultra-low loss, end-to-end fiber platform capable of supporting your data center’s growth through multiple upgrades and migration cycles. With a universal high-density fiber panel and interchangeable modules and adapter packs that can be mixed and matched on the same blade, it is uniquely designed to streamline your network infrastructure. With a range of MPO configurations (8-, 12-, 16-, and 24-fiber cabling) and connectivity, one platform enables you to seamlessly migrate to more efficient 400G/800G deployments while fully supporting your legacy 8-, 4- and 2-fiber applications.

Constellation

The Constellation infrastructure platform is a streamlined, modular and adaptable power/data solution specifically designed for today’s hyperconnected, edge-based enterprise networks. It combines fault-managed power, hybrid power/data fiber, and ceiling-based “Constellation Points” in an easy-to-deploy star topology. The result is a simplified, scalable network that can dramatically reduce the time, cost and complexity of supporting connected devices, in-building and across campus.
CommScope designs, builds, tests and ships our fiber solutions from six continents, so your enterprise, campus or data center can evolve fast. All solutions are designed, manufactured and tested to meet or exceed current fiber standards—giving you consistent quality you can count on.

With a global network of 55 supply chain locations in 46 countries, we ensure you have the solutions and service you need—when and where you need them.

CommScope’s global Partner ecosystem features more than 10,000 CommScope-certified service experts: distributors, installers, integrators and consultants. In addition, we maintain regional and local sales and solution centers with the expertise you need, on-call or on on-site.

For high-priority troubleshooting and system turn-up, CommScope's select team of more than 100 systems engineers and Technical Assistance Center personnel can mobilize and be on-site virtually anywhere around the world.

### Strength in numbers

In 2022, CommScope:
- Sold 383 million meters of fiber-optic cable
- Sold 20,512 million meters of fiber-optic glass
- Produced 100 million terminated fiber connectors

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**Global manufacturing footprint**

**Fiber and copper**

- Claremont and Catawba, North Carolina, USA
- Tijuana, Bermudez, Reynosa, Delicias, Mexico
- Praderas, Mexico
- North Wales, United Kingdom
- Suzhou, China
- Goa, India
- Bray, Ireland
- Brno, Czech Republic
- Bermudez, Reynosa, Delicias, Mexico

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**Global strength, local service**
Since the early days of commercial fiber deployments, CommScope has been at the forefront of fiber development. For more than 40 years, we’ve used our holistic understanding of network connectivity to solve our customers’ most complex infrastructure challenges—innovating end-to-end fiber solutions for all areas of their networks. As an active participant on the major standards bodies, we help shape and drive the industry forward. As a result, CommScope is widely seen as an established and trusted advisor, industry expert and thought leader.

**TIMELINE OF INNOVATION**

- **1989**: InstaPATCH was ahead of the curve: Method B alpha/beta polarity wasn’t developed until 2006
- **1998**: TeraSPEED was ahead of the curve: The OS2 standard wasn’t developed until 2006
- **2000**: FiberGuide®
- **2001**: DMD and LazrSPEED® 300 enabled 2x the patching density of the SC connector
- **2002**: DMD and LazrSPEED 300 were ahead of the curve: The OM3 standard wasn’t developed until 2006
- **2003**: LazrSPEED® 550
- **2005**: InstaPATCH® 360
- **2006**: TeraSPEED®
- **2009**: First fiber platform to support all application sizes/options without modifying panels in the field
- **2015**: Wideband multimode fiber was ahead of the curve: The OM5 standard wasn’t developed until 2016
- **2016**: imVision® was ahead of the curve: Automated infrastructure management (AIM) standard developed (2016)
- **2021**: Propel™ fiber platform

Significantly simplified installation of overhead raceways
Environmental commitment

If we are to avert the worst effects of climate change, we must rethink business as usual, including how we design, deploy and maintain enterprise and data center networks.

Therefore, CommScope has strengthened and expanded our existing sustainability agenda. This new multidiscipline, multiphase plan aligns our core competencies in network architecture, material science and technological innovation with critical environmental needs—energy reduction, waste reduction, and decarbonization. It’s built on three pillars:

- **Transparency and optimization**
  We’re developing life cycle assessments (LCAs) to quantify the potential environmental impacts of our products and environmental product declarations (EPDs) that document what each product is made of and how it impacts the environment across its entire life cycle. We’re also phasing out single-use plastics in all our products, including fiber.

- **Architecture and technology**
  Using our expertise in material science and network development, we’re working to reduce the number of network components needed, extend the network’s life cycle, incorporate more modular components and leverage and identify the network models with the best decarbonizing potential. Current examples include our Propel and Constellation infrastructure platforms as well as our Powered Fiber to the Edge solution.

- **Carbon counterbalancing**
  Finally, CommScope is pursuing activities and solutions that counterbalance the carbon footprint of our products and move us closer to a carbon-neutral position. This includes procuring renewable energy credits. It also means supporting the industry’s ongoing research into the carbon-offsetting potential of building and data center networks.

More than fiber, we’re fiber solutions

With more than four decades of fiber experience and a holistic network approach, nobody understands and solves network complexity like CommScope. Our advances in fiber-optic technologies have been the catalyst for many of the industry’s significant milestones.

Today, we’re proud to partner with some of the world’s most forward-thinking building and campus owners and data center managers, helping them navigate the challenges of advancing architectures and topologies, higher-speed migration, fiber density, climate change and more.

Globally positioned, locally focused and with clear insight of what’s next, CommScope stands ready to put it all on the line to help you evaluate, evolve and advance. Let’s get started.

For more information on CommScope’s fiber solutions for building, data center and campus networks, visit commscope.com.
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.