COMMSCOPE®

Broadcast and Entertainment fiber and copper solutions brochure

In 2013, the sum total of technological advances developed in 2000 was occurring once every 66 minutes. By 2020, it will be compressed to every 30 seconds.

Technology's exponential growth has radically changed the trajectory of every business and industry.

From 2000 - 2020, technology will have advanced by a factor of one million.

Source: The Emerging Future

http://www.theemergingfuture.com/

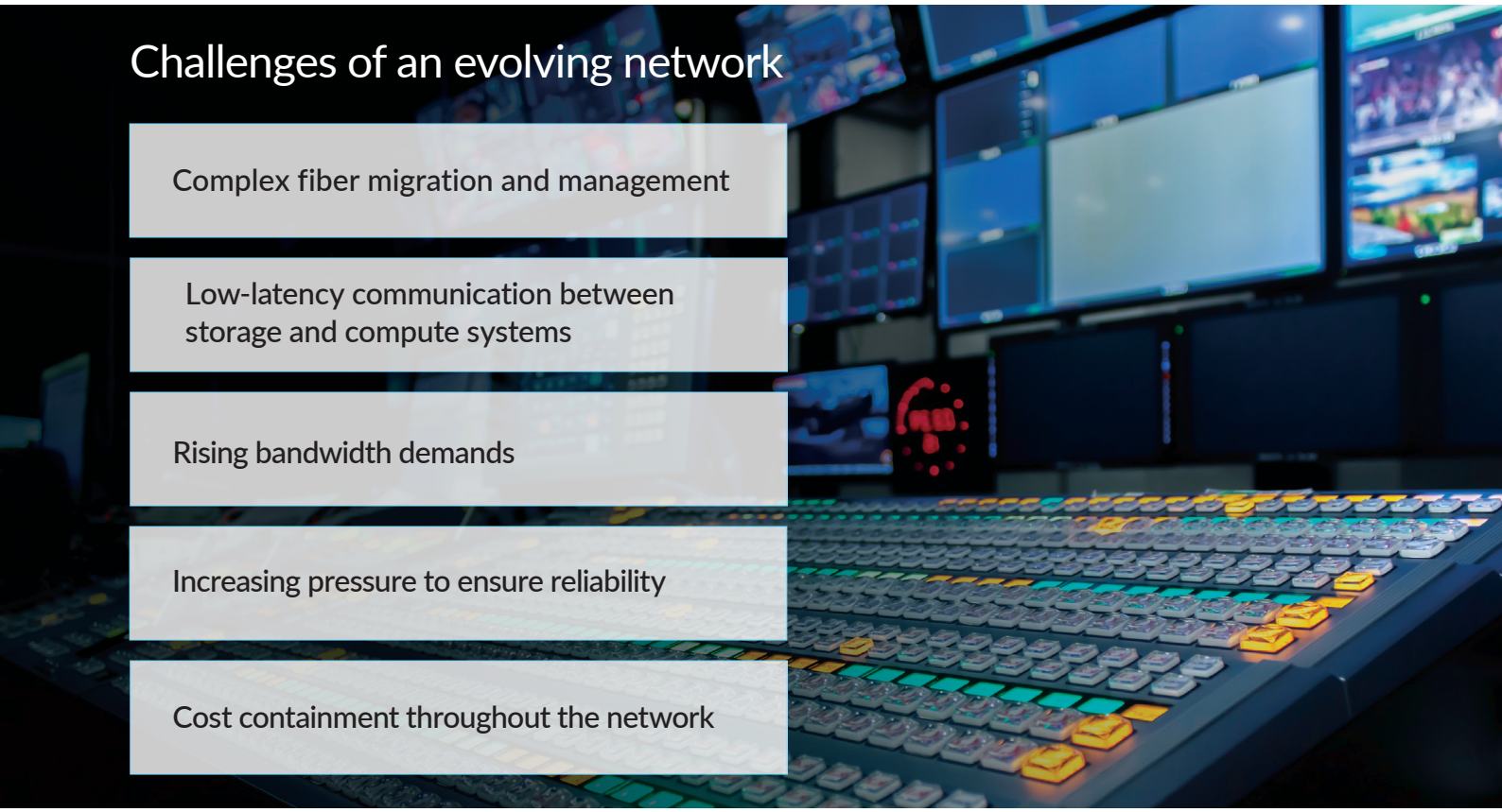
Broadcast copper and fiber and copper solutions from CommScope

The broadcast and entertainment industry is no exception. As high definition (HD) evolves to UltraHD and 4K to 8K, those in production, editing and transmission are rethinking their network infrastructures. Increasing demands for capacity, bandwidth and reliability are pushing copper to its limits.

No matter where you look in the broadcast and entertainment market-on-location or in the studio, stand-alone editing suites to the largest sports venues—the transition to fiber is in full swing. As applications and broadcast standards go all-digital, the network environment is looking more like an enterprise data center. How do you design and plan accordingly?

The network infrastructure you implement today will help determine how productive, creative and responsive you will be tomorrow. Is it up to the task?

- **Is it flexible enough** to accommodate future technologies, applications and standards?
- **Does it have the intelligence** to automatically detect, diagnose and respond to issues?
- **Will it extend the value** of your legacy copper as you continue to increase fiber density?



Ready or not, the rules are changing and the speed of change is accelerating. To keep pace, you need a partner who has a thorough understanding of your network and how it is evolving; an experienced partner with the global support and comprehensive portfolio of network infrastructure solutions you need to maximize your business potential.

With so much on the line, it's no wonder so many broadcast and entertainment providers rely on CommScope.

The story behind CommScope and your network's evolution

When it comes to enabling new and emerging bandwidth-hungry applications for transmission, production and editing, fiber picks up where copper leaves off. Need to support real-time traffic and bursty file transfers of live broadcast and file-based workflows? Fiber enables speeds of 12 Gbps and more. Its high-bandwidth capabilities enable you to combine multiple signals and channels on a single fiber, so you can smoothly transition to IP video as your needs evolve.

It is also easier than copper to deploy and manage. Factory-terminated plug-and-play fiber solutions can significantly reduce labor cost, while fiber's light weight and small diameter allow for higher density and easier management.

At CommScope, we know because we've been a part of the technology evolution within the broadcast and entertainment industry for decades. Your production, post-production and transmission engineers have long trusted CommScope brands like ProPatch, ProAx® and ADC.

With a global network consisting of some of the brightest, most innovative engineers in the business, we're able to identify, recognize and respond to minor changes and major disrupters before they impact your business. Here's what we see:

- The adoption of current and emerging technologies like 4K UHD, HDR, 8K UHD, and wide color gamut display has outstripped the capabilities of existing SDI-based networks.
- Editing is moving from linear to non-linear systems, increasing the need for shared storage and low-latency cross connection between the compute and storage networks.
- Increasing video bit rate requirements are driving higher network lane speeds as 10G evolves to 25G or 40G and to 100G and beyond.
- Industry standards from organizations such as SMPTE, VSF and EBU are evolving in order to support these changes; and these, in turn, are requiring network engineers to rethink their network topologies.

CommScope has developed the industry-leading solutions that keep your network fast, flexible and ready for the future. Our broad and deep portfolio of infrastructure solutions includes:

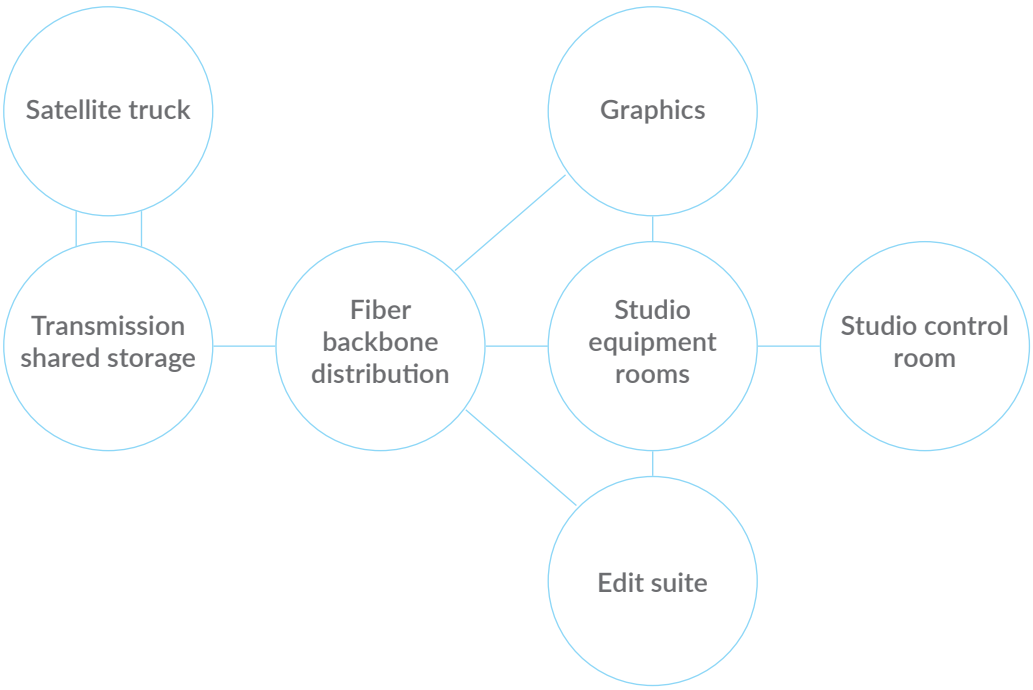
- **End-to-end cabling systems** that include legacy copper, advanced preterminated multimode and singlemode fiber, optical splitters and more
- **Connectivity solutions** including high-capacity modular optical distribution frames (ODFs) and rapid deployment patch panels
- **Cable management platforms**, like custom raceway systems and compact fiber entrance cabinets
- **Automated infrastructure management (AIM)** tools that provide the insight, command and control of your connected network environment, enabling you to assess, plan and optimize performance in real time

More importantly, we bring the experience and expertise to help you plan, design and implement an integrated infrastructure solution that is flexible, scalable, reliable and cost effective. All from a single trusted and proven partner.

Solutions across your network

IP data continues to push deeper into production, post-production and live broadcast. Large broadcast plants aren't the only enterprises affected—content creation companies of all sizes and types are trying to make the pivot to a data-centric network.

CommScope's broad and deep portfolio of connectivity solutions—along with our experience in the broadcast and entertainment environment—give you one trusted partner who can address the infrastructure challenges across your entire network.



Transmission and shared storage networks

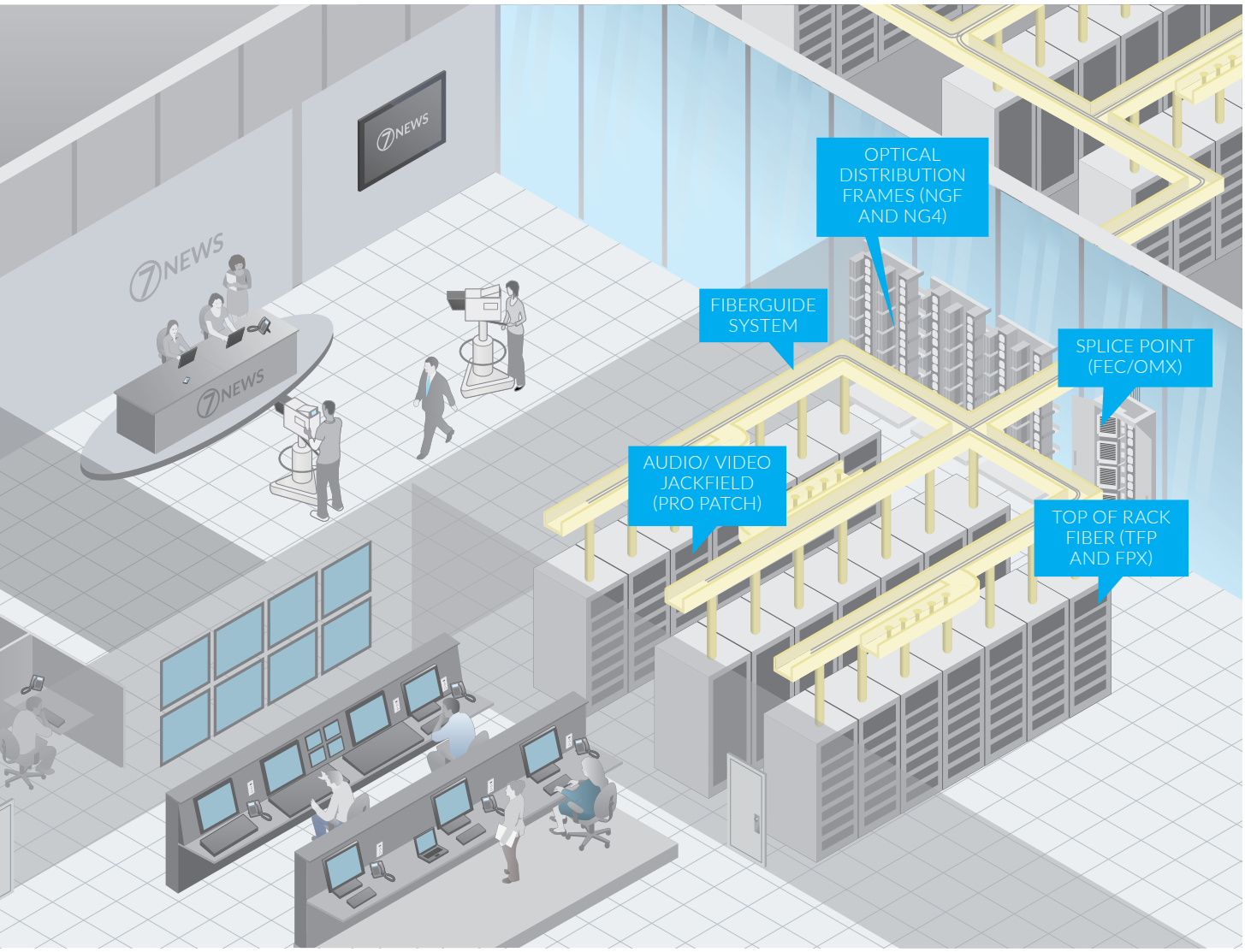
CommScope has the fiber-dense connectivity solutions to support the high-throughput, low-latency performance needed in the fiber entrance and storage network. We provide a variety of floor-mount and wall-mount fiber entrance cabinets with easy access to fiber connections that help reduce installation and maintenance costs. Our OMX, NG4 and NGF optical distribution frames address your splicing, patching and termination needs with innovative modular designs for scalable and manageable density.

To ensure optimal network and storage performance, CommScope offer a wide range of fiber cable and fiber top-of-rack "plug-and-play" patch panel solutions: FPX and SD rack-mount fiber panels, WMG wall-mount solutions, and our UD and HD high-density fiber panels.

CommScope's FiberGuide® raceway solutions help you manage, protect and distribute your fiber interconnect cabling.

Cross connect requirements

The mesh point between your studio, transmission feeds, storage and other networks is not just critical, it's crowded. CommScope helps solve the problem with modular NGF and NG4access® optical distribution frames that handle the fiber density and keep the volume of fiber cables accessible and manageable. By integrating value-added modules (VAM) to the NG4, you can add optical splitters to support passive optical networks or redundant path route protection. FiberGuide cable routing keeps the multiple runs of fiber protected and guards against over-bending.



Graphics suite

Inside the graphics suite, every square foot of floor space has a premium cost. CommScope enables you to maximize your available floor space while providing the low-loss connectivity and throughput speed needed to handle the most demanding applications. Our lineup of fiber entrance cabinets and fiber panels give you more splicing options at the fiber entrance.

Studio equipment room

Chances are your studio equipment room houses more than just secure media servers and networking components. Equipment room racks quickly become congested and hard to manage. CommScope solutions help ensure your ITC network and connectivity remain well ordered, accessible and protected. Our plug-and-play fiber solutions—in concert with our FiberGuide management solutions—bring organization and protection to the critical physical layer of your network. Our traditional broadcast ProPatch video and audio jack field solutions offer best-in-class performance and unmatched reliability when patching video and audio signals (analog and digital) in production, post-production and studio applications.

Edit suites

In the editing suites, where low-latency response and fast access to shared storage are critical, CommScope has you covered. Highly configurable fiber cable management solutions and panels with splice options enable you to easily adapt to changes in the backbone network. CommScope's full range of top-of-rack, plug-and-play connectivity solutions give you the flexibility and scalability needed to integrate new applications without having to rip and replace. We designed our ProPatch video and audio jack fields with an extensive selection of jacks, panel sizes, normalling options, and rear terminations, so they adapt to you—not the other way around.

Studio control room

From large studio control rooms staffed by teams of engineers and directors, to remote production trucks handling broadcasts in the field, CommScope provides network support for all environments. Our ProPatch video and audio jack fields provide exceptional performance and reliability for graphics, shared storage, archive, editorial, playout server and other network applications.

Engineers in the studio and control room rely on our ProAx brand of triax camera connectors and BNC®-branded coaxial connectors for uncompromising signal clarity and continuity. Wherever content comes together, chances are CommScope is there.

Rely on our reach and experience

CommScope provides the connectivity that powers content providers, editors and distributors across the industry.

- Motion picture studios
- Television and cable networks
- Post-production facilities
- News and information creators
- Outside Broadcast (OB) units

We help bring some of the largest and most visible sporting events to the world and enable fans at the best-known sports venues to connect and share their passion for the game.

- 2010 FIFA World Cup (South Africa)
- 2008 Summer Olympics (Beijing)
- 2006 Winter Olympics (Turin, Italy)
- AT&T Stadium, home to the Dallas Cowboys (Texas)
- Daytona International Speedway (Florida)
- Golden 1 Center, home to the Sacramento Kings (California)
- Fiber and copper (video/audio) deployment at major broadcast networks

Our global network of manufacturing and distribution facilities and sales and service centers ensures we're there for you, wherever you are and whatever you need.

CommScope—your go-to infrastructure partner

When it comes to entertainment production and broadcasting, every department within the process has to be coordinated. Your facility's network is no different. From your outside plant to the shared storage and access networks, in the graphics and editing suites, and out on location—having a coordinated and seamless network infrastructure is critical. At CommScope, we're large enough to provide all the solutions you need—and flexible enough to keep you future-ready.

Learn more at commscope.com.

Everyone communicates. It's the essence of the human experience. How we communicate is evolving. Technology is reshaping the way we live, learn and thrive. The epicenter of this transformation is the network—our passion. Our experts are rethinking the purpose, role and usage of networks to help our customers increase bandwidth, expand capacity, enhance efficiency, speed deployment and simplify migration. From remote cell sites to massive sports arenas, from busy airports to state-of-the-art data centers—we provide the essential expertise and vital infrastructure your business needs to succeed. The world's most advanced networks rely on CommScope connectivity.

COMMSCOPE®

commscope.com

Visit our website or contact your local CommScope representative for more information.

BR-111002.1-EN (4/17)