



Education

Network Infrastructure Solutions for Education

Education Network Infrastructure Challenges



Today's educators have a vision of where they want to take their institutions. It's a clear image of high-tech classrooms, cutting-edge labs and unprecedented access to information. The question for them is not where they want to go but how to get there, especially in light of other concerns such as administration, curriculum and budget constraints. As schools and universities address these challenges and overhaul their practices and teaching methods to change with the times, the right technologies, implemented correctly, will help educators deliver the skills that students need to succeed.

Right now, schools, colleges and universities throughout the world are implementing powerful network infrastructure solutions to create better learning opportunities, raise learning standards, reduce costs and improve security. Maximizing the performance of their networks, not just individual PCs, these institutions are investing in their network infrastructures from top to bottom, deploying ever-faster, higher-capacity connections for simultaneous voice, video and data.



CommScope powers wireless networks across the campus



The resulting uses range from typical classroom activities such as word processing, database and spreadsheet usage and various curriculum applications to more bandwidth-intensive applications such as online learning supplements, streaming video to the desktop, video teleconferencing for virtual field trips and facility management applications such as surveillance, security and climate control. Some schools have gone even further, implementing cutting-edge capabilities such as campus-wide wireless access, voice over IP and gigabit to the desktop.

Of course, educational institutions and IT departments are always expected to do more with less — that's a given. Fewer people to manage more equipment with tighter timelines and lower budgets — these are all serious challenges to the effective operation of a network infrastructure. Choosing the right network infrastructure physical layer solutions at the outset can help overcome these issues.

CommScope understands the vision of schools, colleges and universities and many of the challenges facing them. That's why we've developed network infrastructure solutions that are essential to meeting these objectives.

Covering the full spectrum of value and performance, our advanced technology and breadth of solutions help educational institutions around the world take advantage of learning opportunities by reliably powering high-bandwidth and emerging applications. Also, our high-performance solutions are built to surpass the future high-throughput requirements of e-learning applications such as video streaming and multimedia applications.

Education Network Infrastructure Solutions — Complete, Elegant Solutions

Through its high-performance SYSTIMAX® and Uniprise® solutions, CommScope increases the capabilities and improves the cost-effectiveness of your network while implementing converged voice, video and data. Leveraging these services in a multimedia learning environment, you'll dramatically improve your educational resources. Through additional applications such as security, surveillance, CCTV, CATV feed and climate control systems, CommScope solutions are ready to support the converged services that will power a whole new generation of learning facilities.

In addition to advantages in the classroom, CommScope infrastructure solutions will help you get the most out of your operating budget. With advanced capabilities and the flexibility to adapt to changing applications, CommScope's products will support current and future demands and guarantee performance and reliability for multiple generations of equipment. This means that you can avoid expensive infrastructure replacement and the resulting budget nightmare.



Educational facilities are equipped with more effective communication resources.



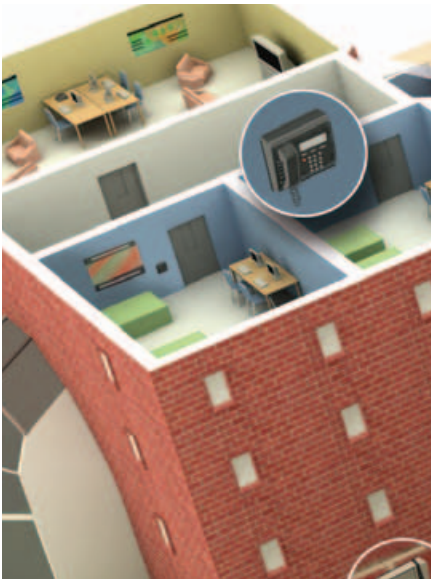
Also, just as business enterprises have discovered, educational facilities are enhancing wireless communications by using Distributed Antenna Systems (DAS) to provide ubiquitous in-building wireless access and campus-wide wireless communications. Using these systems, educational facilities are equipping their campus security and public safety first-responders with more effective communication resources. In fact, with CommScope's high-performance solutions, schools can rollout wireless access points along with IP cameras to capture video and provide greater security in common areas.

The same wireless systems can support the students, educators and administrators that rely on mobile devices for both voice and data applications. Additionally, CommScope

provides solutions for secure, remote log-in for staff members on campus or at home. Multiple, bandwidth-intensive capabilities such as these require levels of quality and performance that only CommScope can provide.

As a one-stop source for managing the entire lifecycle of a wireless network infrastructure, CommScope meets the needs of traditional wireless networks, third- and fourth-generation technologies and specialized microwave communications applications. In buildings around the world, those who live, work and play in CommScope wireless environments experience better 2-way radio and cellular connections, faster downloads and reliable service.





Intelligent Infrastructure Solutions

In recent years, as communications have become more advanced, many CommScope customers have opted for the greater efficiency and performance of infrastructure solutions with built-in intelligence. This intelligence gives you the ability to “see” into your physical layer, connections and end-points, to monitor, manage and control network components in real-time to and gather knowledge intuitively.

This is remarkably helpful for maintaining general, day-to-day network operations but also for identifying and correcting mischief by any student that might want to disrupt the network at the physical layer by simply

unplugging cables or even worse by re-patching if they can gain access to restricted areas.

With an intelligent infrastructure, your physical layer can do more than provide a reliable, high-performance communications foundation. It can help you manage it.

CommScope’s latest product innovations are available either intelligence-equipped or, if you want the option of upgrading conveniently and cost-effectively later, intelligence-ready. With these new innovations, intelligence is always within your reach providing the ultimate vision, knowledge and control of the network while reducing costs and enhancing security.



Intelligent Building Infrastructure Solutions

The global trend among innovative education facilities is toward a comprehensive infrastructure, one that places multiple systems—like video surveillance, access control, voice and data communication—onto an advanced IP infrastructure network. The results are impressive, with intelligent education facilities offering enhanced efficiency, higher productivity, improved security and increased comfort.

CommScope is a leading global provider in comprehensive infrastructure solutions—what we call Intelligent Building Infrastructure Solutions (or IBIS). Converging a education facility’s many systems onto an advanced IP infrastructure network becomes effortless through our revolutionary solutions. Along with efficiency and comfort, IBIS also offers your facility significant cost-effectiveness through its cross-system performance.

Realize the advantages of the cutting edge now. Make your education facility intelligent.

Design and Management Services

A natural extension of our network infrastructure expertise, CommScope's Enterprise Global Services focuses on understanding and solving your infrastructure needs. Whether you need design and consulting services, project management or network planning and design, CommScope offers network infrastructure product knowledge, advanced services-based skills, global support and renowned reliability. Enterprise Global Services brings you a partner, helping you to optimize, manage and extend the life of your network. Our top level design and management teams will provide you with fewer worries, on-time implementation, and superior performance and quality expectations.

Our wide range of design and project services for the education market includes:

- Consulting
- Codes and standards review
- Network planning and design
- Inside and outside plant design
- Intelligent Infrastructure Solutions
- Configuration Services
- IP Network Design
- AutoCAD® Plan Drawings
- Bid/tender administration
- Construction administration
- Project management
- Design compliance

CommScope® Wired for Wireless® Solution

CommScope's Wired for Wireless® Solution is a carrier-neutral structured infrastructure solution that enables mobile communications inside buildings eliminating dead zones and spotty coverage. The Wired for Wireless Solution's unique structured design makes wireless coverage inside buildings dramatically more affordable by simplifying installation and eliminating the need for costly site surveys and custom network designs. The solution's design includes coaxial cables, connectors, antennas and cable

management apparatus connected together in such a way as to provide a blanket of wireless coverage throughout an entire building. Designed with your future in mind, the Wired for Wireless Solution will help you meet your evolving indoor wireless needs for years to come. Backed by CommScope's 20 Year Product Warranty and installed by a trained CommScope BusinessPartner, the Wired for Wireless Solution has your wireless future covered.

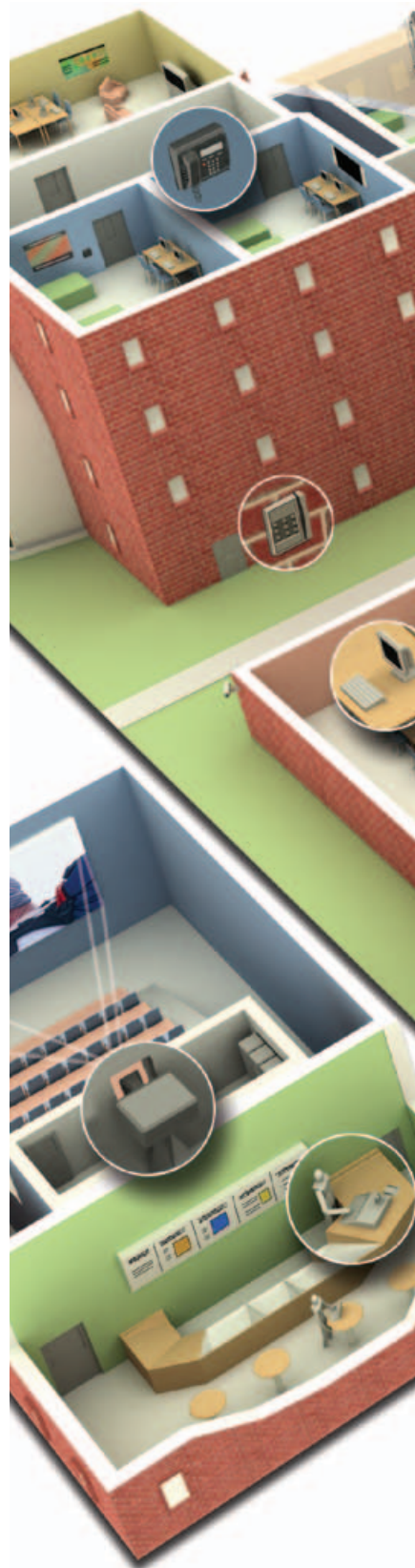
Network Infrastructure Education

Boasting a comprehensive range of learning resources, the CommScope Infrastructure Academy is designed to help organizations achieve top-quality infrastructure design and installation. Backed by CommScope's proven expertise and insight, the Academy's online format offers flexibility for learners at any level. Courses on network infrastructure solutions include twisted pair, fiber optic, coax and wireless technology, while a variety of specialist courses address the latest in network infrastructure solutions. Learn at your own pace and convenience — CommScope Infrastructure Academy is training on demand.

Stewardship and Sustainability

Profitable growth and innovation are essential for a corporation who wants to succeed. Here at CommScope, we believe success also means doing what is right for our planet and future generations.

CommScope is focused on environmental stewardship—one of the company's long-time fundamental values. CommScope's solutions can help customers in education facilities minimize energy consumption and long-term waste throughout the network as part of a larger concern for the impact of enterprise technology on the environment. Manufacturing products that last more than 20 years, offering integrated solutions that run on one network, and providing unparalleled vision and control to more efficiently manage existing resources are all ways the CommScope's solutions contribute to a positive impact on the environment.



Pine Lake Preparatory, USA



Pine Lake was launched as a kindergarten through second grade charter school with 245 students attending class in two locations. The program's initial success and the increased demand for enrollment led to the plan for construction of a new K-12 school. The end result were three 90,000 sq ft buildings to handle the needs of 1,250+ students. The goal was to create one of the most technologically advanced schools in the region, a place where teachers could infuse new and future educational applications into the curriculum without worrying if they had the technological resources to make it work. Pine Lake Preparatory, the largest start up Charter School in North Carolina (USA), was looking for a network of the future and they chose Commscope to accomplish this.

Pine Lake's network design features a technical center and six telecom rooms. After careful consideration, the school chose CommScope's category 6 copper cabling solution with angled patch panels, a single-mode and multimode fiber cabling solution and coaxial cable for the network. Additionally, CommScope Enclosures provide the physical structure and protection essential to making the infrastructure solution secure and complete.

Utilizing the CommScope's Design Services and local BusinessPartners to complete a project, CommScope was able to meet Pine Lake's immediate network and budgetary needs. Pine Lake now has a physical layer that can handle systems like security, HVAC, access control, Wi-Fi and VoIP – not to mention all of the educational applications the school adds to the network. This infrastructure offers the school a network with a perfect combination of quality, performance and reliability that will take them far into the future without making any changes to their physical infrastructure.

Birdville Independent School District, USA



Birdville Independent School District (BISD) is a prestigious district in Texas. The district's 32 campuses stretch across 40 square miles northeast of Fort Worth, Texas, with elementary and secondary schools in Haltom City, North Richland Hills, Watauga, Richland Hills and Hurst, Texas. It was obvious BISD needed to create a strong technology platform that students, faculty, and parents could utilize to communicate and gather information.

When BISD's new education network infrastructure called for more than 1.5 million feet of copper cabling, they called on CommScope. All of the 32 BISD campuses are controlled by a centralized Network Operations Center managed by IT personnel. With the new CommScope network BISD increased its network speed by 300 percent and upgraded network storage from one terabyte to 15 terabytes.

The new network also strengthened network reliability and IT service requests dropped 40 percent. BISD now relies on a high-performance converged network that controls voice, video and data, HVAC systems, lighting and CCTV, reducing energy costs at all 32 campuses. With CommScope, BISD transformed from an "archaic" network to a physical infrastructure that exceeds all of the demands to support their educational needs.

To hear what BISD has to say visit:

http://www.commscope.com/systimax/eng/support_document/video/1216004_15933.html

Victoria University, New Zealand

With 22,000 students and 2,000 staff on four major sites, Victoria University demands for bandwidth in the network backbone was growing relentlessly as staff and students make more use of on-line systems. Efficient access to knowledge resources, administrative systems and educational applications all depend on reliable, high speed data connections throughout the campus. To meet the high standards it sets for speed and reliability in its network physical layer, the University chose CommScope's Fiber and Copper Solutions.

The new infrastructure included a fiber ring that was integrated into the main Victoria University data center. It now uses advanced, single-mode fiber optics that delivers higher bandwidth and faster communication. The data center is linked, via the campus ring, to an extensive CommScope copper cabling infrastructure connecting over 15,000 information outlets in the faculty buildings. Now, with CommScope Victoria University is guaranteed to have the most high performing, highly reliable network infrastructures that ensures efficient information flow, giving students fast access to the resources they need.



Mercedes College, Australia

Mercedes College in Springfield, South Australia, is a Catholic co-educational school with 1,250 students. Through its progressive and internationally focused approach, it has grown steadily since opening in 1954. The latest phase of expansion at the College campus is the addition of a new wing that sets the standard in educational facilities. For this expansion they chose CommScope.

The College wanted speed and reliability that would support high bandwidth educational systems - including powerful new systems that will be developed in the future. For the new wing, the college chose 10 Gb/s connectivity that fully conformed to Category 6A/Class E_A cabling standards.

Another factor was information technology as it is central to the design of the new building, allowing a flexible approach that delivers learning resources wherever students need them. To achieve this, a high performance CommScope network infrastructure was installed throughout the classroom and administrative areas. As well as data and Voice-over-IP connections, the new infrastructure supports analogue video, audio and CCTV. The choice of physical layer connectivity was vital in meeting the network performance requirements. The CommScope installation at Mercedes College illustrates how CommScope can deliver - and guarantee - the highest levels of end-to-end performance in an educational environment.



Dankook University, Korea

Dankook University has been one of Korea's leading academic establishments since it was founded in 1947. Its new Suji campus was to replace the existing Seoul campus and provide state-of-the-art facilities for a full range of disciplines, including information technology. With the new campus the University wanted to create an advance information communications system to strengthen its position as a world class leader for higher education. To support these systems, Dankook installed CommScope fiber and copper solutions for a 10Gb/s structured cabling system.

Reliability was a key requirement on the Suji campus, and the new CommScope cabling infrastructure played a central role in achieving this. It now connects applications ranging from voice and data to building control and security via more than 9,300 outlets located throughout 19 buildings. This installation will serve as a model for other large campuses and industrial sites and provide optimized cabling to cross-campus network connections, backbones and horizontal links. Dankook can now guarantee a campus with the highest connectivity, performance and reliability.





www.commscope.com

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06/11