COMMSCOPE®

A new campus creates a new opportunity to build a unified connectivity infrastructure, powered by CommScope cabling solutions

Customer:
Beijing University of Chemical Technology

Country:
China

When BUCT built an all-new campus, a unified connectivity infrastructure was a must. CommScope delivered a comprehensive cabling solution that connects students, faculty and resources—and sets the stage for an all-digital future.

Beijing University of Chemical Technology (BUCT) is an elite, internationally-known university that trains chemical engineering talent to advance science and technology in modern China. As a key university under the Ministry of Education and part of the nation's Project 211 and 985 Innovative Platforms for Key Disciplines Project, BUCT is focused on high-level talent training, fundamental and advanced scientific research, and the development of original advanced technology.

Founded in 1958 as Beijing Chemical Engineering Institute, BUCT has evolved into a leading multidisciplinary university. Its robust scientific research and engineering programs are complemented by programs in management, economics, law, literature, education, philosophy, medicine and other academic fields. The university offers programs for undergraduates, master's and PhD degree candidates, post-doctoral researchers, and foreign students, and has educated more than 100,000 graduates since its founding.

Moving up to a new, state-of-the-art campus

To expand and modernize the university and relieve China's capital city from non-core functions, BUCT began relocating to a new campus in Nankou Township, Changping, Beijing, in 2012. Incorporating green building standards and advanced technology, the new campus construction is being executed in several phases.

Phase one—on track to be completed and open for students by September 2017—comprises 32 buildings and 22 major landscape elements, including the main education building, laboratories, dormitories and a sports hall.

CommScope delivers a unified cabling solution

When construction of the campus got underway in 2013, BUCT had not adopted a standardized wiring system or an overall management system. Many different brands of products were introduced with variable quality and inconsistent performance. Eventually, the decision was made to move to a unified technical standard with unified branding and consistent quality and performance standards.

The customer selected CommScope to provide the cabling infrastructure for the entire new campus, providing connectivity to more than 60 buildings with 903,000 square meters of space, more than 20,000 information points and more than 10,000 faculty and student users.

BUCT had become familiar with CommScope through our marketing efforts and was impressed with the quality of our solutions as proven in other high-profile deployments across China. Even with a higher price in comparison with competitors, CommScope was able to keep the cost within the project's budget limits.

For the campus's main internet system, CommScope provided a comprehensive cabling solution that not only meets high-speed transmission requirements for education information but also takes into account environmental and user-experience considerations.

- The trunk cable utilizes CommScope LazrSPEED series indoor OM3 multimode optical cable and TeraSPEED series outdoor OS2 mono-mode optical cable, meeting gigabit requirements while providing additional space for future internet upgrades.

- The level twisted-pair (UTP) cable utilizes CommScope AP6N series 6-type low-smoke, halogen-free cross skeleton 23-gauge cable, meeting gigabit requirements.
- CommScope LSZH cable sheathing meets IEC 60332-3 requirements and is both environmentally friendly and flame retardant.

In addition, CommScope's powerful online basic distributed system supports the Safe Campus System, which will monitor and manage the campus environment to enhance student safety and improve their study. Sensors can be set up at a building's entrance to automatically record when students enter and leave, or in a specific zone to provide real-time data on students' on-campus activities and activity orbits within a given period of time. The system can also enable parents to look up the times students enter or leave campus online or via SMS, or check on students' on-campus study and rest habits.

As students begin moving into the new BUCT campus in September, they will be connected to faculty and educational resources via a CommScope cabling infrastructure designed and built to a unified technical standard, a unified operational standard, and unified management and applications that improve the functionality of the university's internet foundation and delivers a better user experience.

Enabling all-digital future campus connectivity

The deployment of a unified cabling infrastructure represents a major step toward BUCT's goal of a connected all-digital campus. With the basic network in place, the university will accelerate digital campus applications to achieve a fully-digitized campus network that connects the campus intranet, campus video on demand, a digital multimedia education website, and a distance education resources website.

The campus's digital future includes multimedia interactive classrooms, computer classrooms, multifunction presentation rooms, electronic course preparation rooms, and information centers – all connected to information points in dormitories, offices, classrooms and multipurpose halls. The result is a fully integrated, all-digital campus-wide network that connects the work of the university's administration and faculty with the education of its students—a network enabled by CommScope cabling.

Deployed by CommScope PartnerPRO® Network installers

The BUCT project was divided into two parts, each deployed by a CommScope PartnerPRO® Network provider. Beijing Timeloit Technology Co., Ltd. handled the integrated cabling and building automation system, and Beijing Sinonet handled the Safe Campus System.

As PartnerPRO Network members, both companies are certified by CommScope and are very familiar with our products, ensuring high-quality, efficient and timely installations.

PartnerPRO®
N E T W O R K

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.

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