



Higher Education - Global

Making campus networks around the world simpler, smarter and more reliable

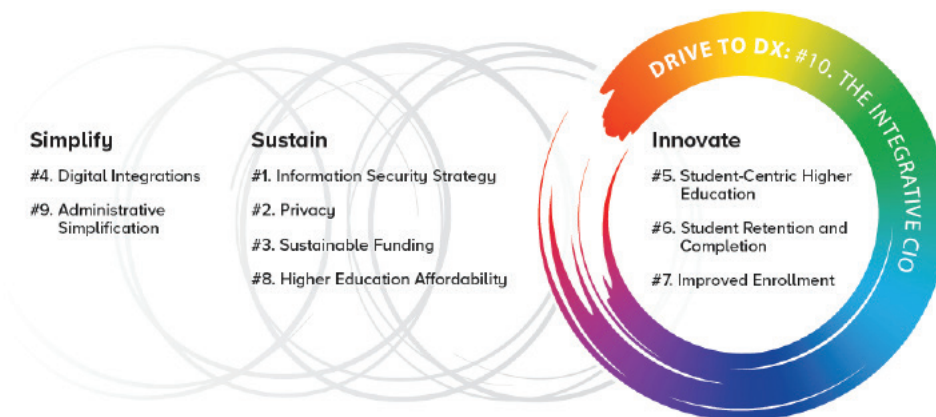
COMMScope®

RUCKUS®
SYSTIMAX®

STUDENT-CENTRIC HIGHER LEARNING

Colleges and universities are constantly looking for new, effective ways to remain competitive, increase enrollment and attract new students. A growing number are partnering with their chief information officers to put technology front and center to transform the campus experience while improving efficiency, learning and safety. They're using the campus as a platform to develop experiences and services to help their institutions stand out from the crowd.

EDUCAUSE The 2020 Top 10 IT Issues



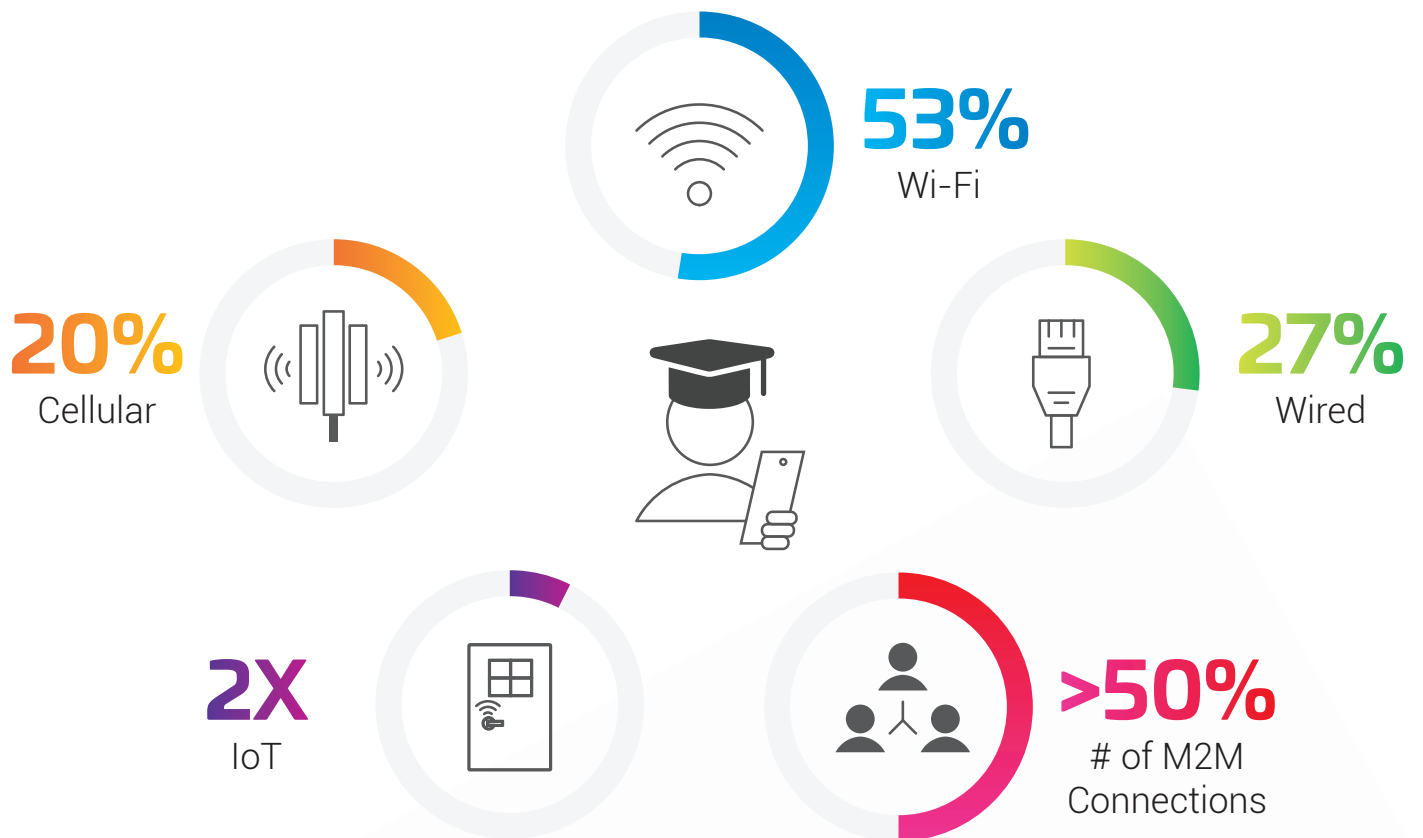
“Only 26 percent say their college met its new student enrollment goals by May 1”

IHE 2020 Survey of College and University Admission Directors





Global Internet Traffic Trends



Source: Global Internet Traffic 2021

A SMART CAMPUS RUNS ON CONNECTED CAMPUS NETWORKS

Like a smart city, a smart campus first connects people, buildings, vehicles and things to create contextual information in real time using internet of things (IoT) sensors. Campus data can power new services to improve living, learning, safety and efficiency.

Smart buildings are central to a smart campus and new operational efficiencies

Higher education institutions around the world are attracting and retaining students and engaging them in campus life. On- and off-campus networks, lecture theaters, digital classrooms and libraries are modernizing to provide automated services and real-time information to make students and faculty smarter with their time and more effective with their resources. The benefits are many, including:



STUDENT EXPERIENCE

CREATE A SIMPLER AND SMARTER CAMPUS LIFESTYLE

Students need a ubiquitous network to improve quality of life at every step.

“When is the next bus coming and can I pay with my phone?”



SMART LEARNING

TRANSFORM THE WAY STUDENTS LEARN

Embrace emerging technologies to provide new teaching and learning models.

“Using campus data, how can we reduce Monday morning parking time by 20%?”



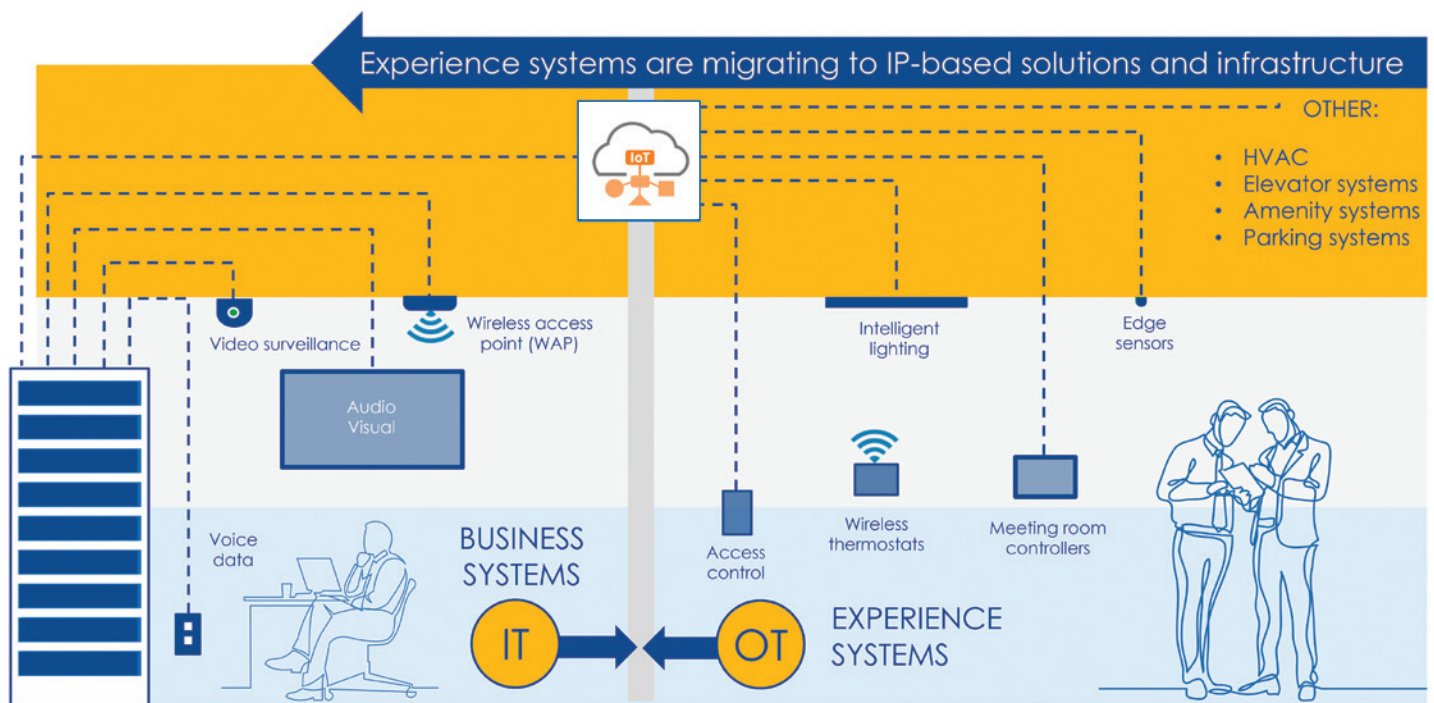
SMART CAMPUS

REDUCE COMPLEXITY FOR EFFICIENCY AND SAVINGS

A convergent network helps IT and operations technology teams work together better.

“Can we combine wired, wireless and IoT to reduce OpEx for IT and operations?”

A CommScope Smart Campus uses contextual IoT data and not personally identifiable information (PII) to deliver innovative services.



Source: Anixter

Many networks, too much complexity

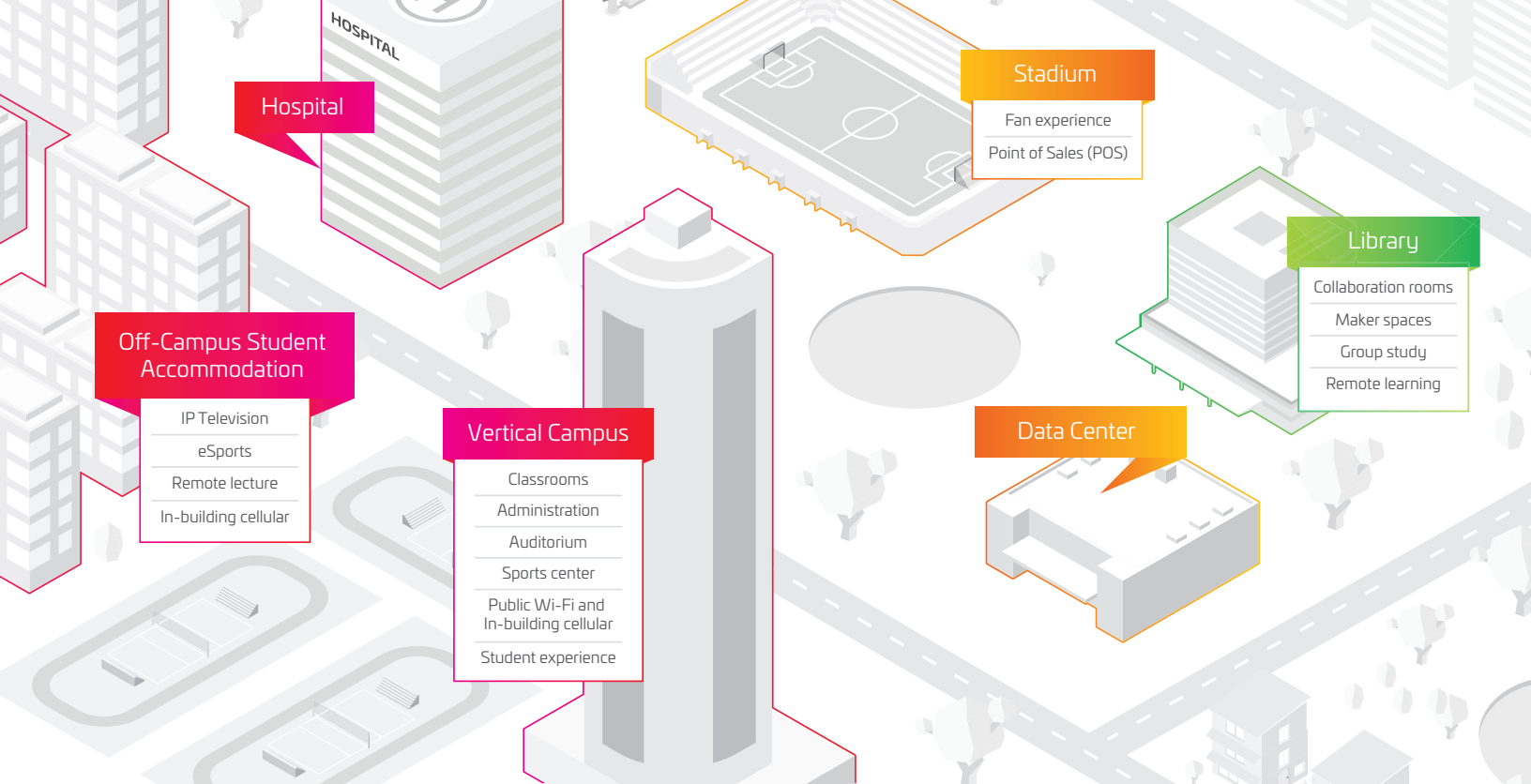
Colleges and universities typically have disparate network infrastructures and platforms that are technology silos—isolated from each other and other campus systems. Integrating these technologies within a unified system eliminates complexity and paves the way for a smart campus that’s connected, competitive and cost-efficient.

A converged network combines wired, wireless and IoT technologies for universal connectivity across applications, devices and locations. A common network infrastructure unlocks new operational efficiencies and capabilities that colleges and universities can’t achieve with multiple vendors, equipment and management tools.

IT and OT on the same team

Information technology (IT) and operations technology (OT) departments play a role in empowering smart campuses—not only in the handling of information, but also in campus management. A robust, future-ready network empowers IT and OT to work together for more efficient operations, lower OpEx and stronger margins and alignment on project and resource priorities.

- Convergent network infrastructure enables shared IT and OT networks to coexist on a common platform
- Smart-building capabilities streamline and economize security, HVAC and other systems
- Powerful network solutions allow campuses to offer more services at little to no extra cost
- High-bandwidth architecture supports high-demand departments and ensures reliable performance
- Stronger networks help colleges and universities recruit and retain students, faculty and research partners



WHY CHOOSE COMMSCOPE FOR YOUR SMART CAMPUS?

Reliable Wi-Fi (indoor & outdoor)

- Enjoy strong, reliable, consistent high-speed Wi-Fi access using typically 30% fewer APs than other networks require, plus the analytical insight to manage the Wi-Fi network efficiently. Add smart poles for concealed connectivity and smart lighting.

IoT converged network architecture

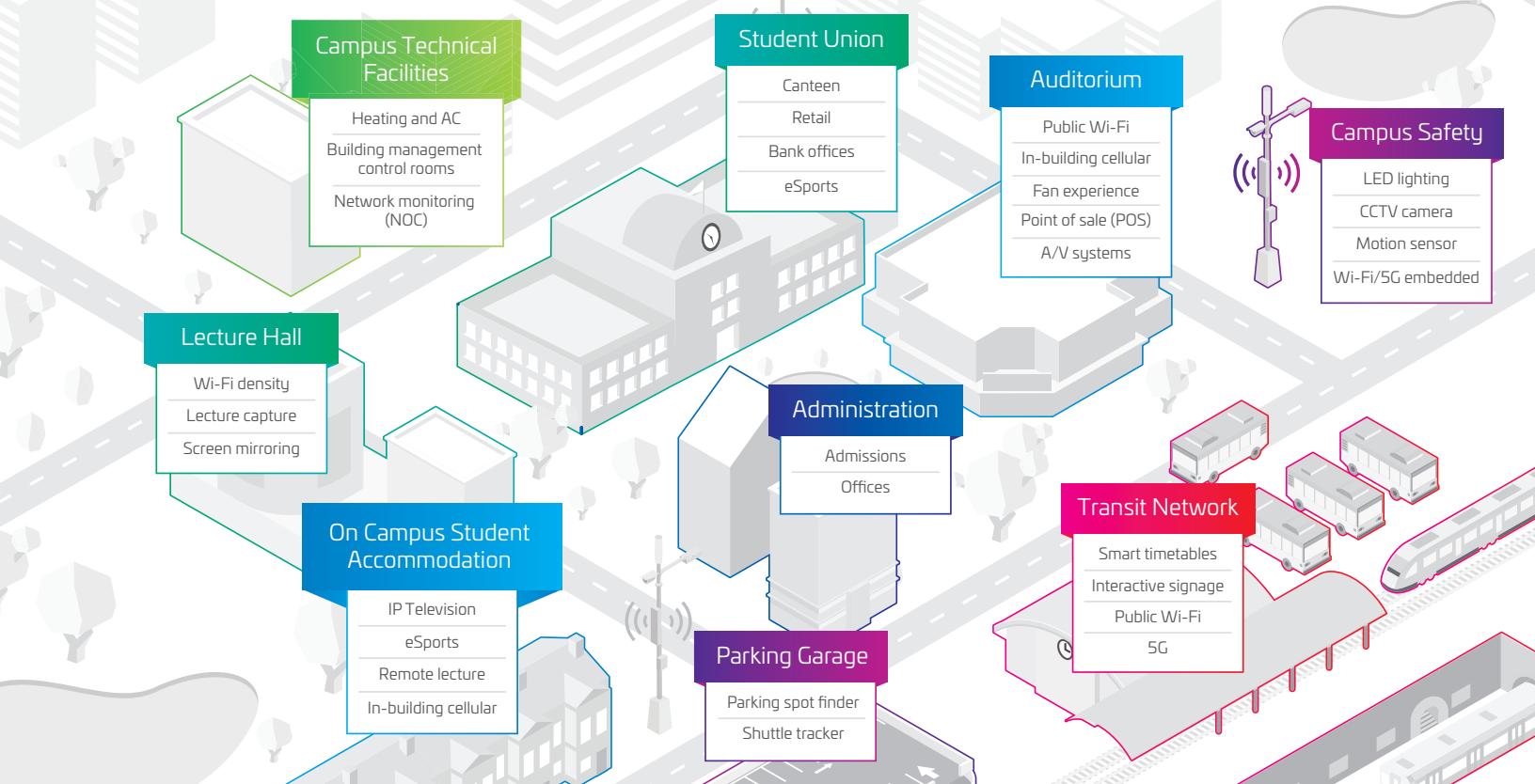
- Our open platform allows many solutions with one adaptable network, one gateway, one rules engine, one dashboard - you set the rules then see the results
- Unlock the cost-saving efficiency and campus security by connecting OT & IT systems, such as connected entry, CCTV, HVAC and lighting controls

Scalable switching

- RUCKUS Campus Fabric allows up to 1,800 ports managed under a single IP address, with long distance stacking between closets, floors or buildings - up to 10 km
- ICX switches' high PoE budgets and support for PoE+ and PoH will power the new generations of wireless APs, surveillance cameras, video displays and other devices for years to come

Comprehensive security

- CommScope addresses campus information security from cable to cloud.
- We offer secure client onboarding with identity, secure IoT end-to-end, WPA3 for Wi-Fi, private LTE with SIMs for secure comms, and secure fiber and copper solutions for physical network security.



DAS and in-building wireless

- Create fan experiences with stadium-wide coverage using ERA® DAS
- Augment in-building cellular with small cell coverage so students can phone home
- Bring cellular into your vertical campus

Data center networks and infrastructure

- SYSTIMAX copper and fiber solutions to connect your campus backbone
- Powerful and simple to manage stackable switching, integrated with imVision automated infrastructure management to connect and manage OT and IT networks and structured cabling
- IoT as a platform for data center environmental and security monitoring solutions

High-performance network cabling

- CommScope designs and manufactures the gold standard for structured cabling. From twisted-pair copper cabling to multimode and singlemode fiber optics, our cables meet or exceed all published standards.
- Hybrid fiber (PoF) solutions enable up to 3 km of powered fiber connectivity without a local switch, perfect for outdoor CCTV and AP deployments

Analytics for success

- RUCKUS® Analytics provide proactive network health checks, and insights to resolve issues before students notice
- Service assurance allows you to test connections before deployments are signed-off, while resources are on-site.

Private LTE and dynamic spectrum sharing

- Provide your own indoor or outdoor cellular coverage for secure mobility with QoS, starting with CBRS deployments in North America
- CommScope offers the infrastructure you need, including the EPC, SIM cards, access points, cloud management, and SAS services for spectrum allocation

AL QASIMIA UNIVERSITY

Rapid Expansion and High Expectations Demand More from Wi-Fi

“Students expect to access educational material and submit assignments wherever they are on campus using the campus Wi-Fi. We want to provide optimal connectivity and bandwidth to ensure the best possible service.”



ALI AL AGHA
IT Director for Al Qasimia University

A strong commitment to meeting student and staff expectations for rich educational content and learning management applications delivered wirelessly.

Al Qasimia University, located in Sharjah's University City in the United Arab Emirates, has grown steadily since its founding in 2014. The private university already has about 1,200 students enrolled and is undergoing a major facilities expansion program across its 1.4 km² campus, including a new academic building and student residences. But as enrollment increased, the university recognized that its Wi-Fi wasn't capable of keeping up with demand.

CHALLENGE

- Connectivity for hundreds of simultaneous users in busiest locations
- Consistent, high quality user experience
- Expandability and new features that can be added as required

SOLUTION

- 1,000 indoor and outdoor 802.11ac access points
- 2 Ruckus SmartZone Controllers

BENEFITS

- Increased the number of concurrent users
- Reliable and seamless coverage throughout the campus
- Future-proof network

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

Mountain-top University Connects With Peak Performance

A uniquely powerful, comprehensive solution combining fiber and Wi-Fi to provide the connection speed and network security vital to a diverse landscape.



At northern India's Jaypee University of Information Technology (JUIT), advanced fiber-optic networking is integral to a world-class learning environment.

Founded in 2000, JUIT's sprawling three-tiered Wagnaghat campus encompasses over 7,000 sq meters of challenging terrain in need of a robust network to support campus venues and users. The campus ranges from student classrooms and laboratories to dormitories and a sports center—from administrative offices, auditoriums and a library to faculty residences and a large civil engineering department

CHALLENGE

- The rugged topography underlying the extensive school grounds resulted in spotty connectivity at many locations across the campus.
- Mobile network performance and quality were chronically inadequate for users attempting to access educational material and submit assignments wirelessly while on and off campus.
- To build a new benchmark in emerging technologies like IT and biotechnology, the campus community required a future-proof network that could easily scale almost without limit.

SOLUTION

- Over 160 RUCKUS indoor APs
- ICX 7650/ 7150/ 7250 switches
- SmartZone network controller
- 4 kilometers of fiber-optic cable

BENEFITS

- The fiber network combines with wireless connectivity to deliver ubiquitous accessibility and reliable performance for more than 5,000 students and faculty.
- With the growing prevalence of multimedia, the network can seamlessly scale to support the university's growing data and voice traffic, IP camera transmissions, wireless devices and other connected services.
- The cost-effective, scalable infrastructure enables an automated ERP system that has transformed operational efficiency across the university's 18 major functions.



COMMSCOPE INDUSTRY RECOGNITION

CommScope has long been an active participant of leading standards committees and alliance organizations. Participating in these groups has allowed CommScope to develop solutions that drive benefits to our customers today while ensuring the same solutions are a sound investment for tomorrow. By upholding these values and commitments, CommScope's products and services have received recognition as being among the best in the industry.

- 2020** CommScope is the IoT Sensor Company of the Year
CommScope named a Wi-Fi Alliance 2020 Industry Impact Award Recipient
- 2019** For the 3rd consecutive year, CommScope achieved a Gold level Corporate Social Responsibility (CSR) rating from EcoVadis
RUCKUS Wi-Fi 6 R730 AP scores WBA Award 2019
CommScope's RUCKUS ICX 7850 switch wins CRN's "2019 Product of the Year" award
- 2018** Top 100 Global Tech Leader by Thomson Reuters
- 2017** CommScope receives AT&T 2017 Supplier Diversity Crystal Award
- 2016** RUCKUS Wireless recognized as a Best-in-Class Channel Provider on CRN's 2016 Annual Report Card

A SMART CAMPUS DEPENDS ON COMMSCOPE'S COMPREHENSIVE PORTFOLIO OF NETWORK SOLUTIONS



RUCKUS® CLOUDPATH® SOFTWARE

- Pre-boarding for 'Move-in Day'
- No password tyranny
- 24/7 self-service portal
- Personal student network
- eduroam made easier



RUCKUS® IOT SUITE

- A platform for campus innovation
- Converges networks to save money
- Single gateway, rules engine and dashboard views
- BLE, Zigbee and LoraWAN
- 'Detect something, do something'



RUCKUS® ANALYTICS

- AI and machine learning
- Proactive network health helps catch issues before users notice
- "Do I need 2.4GHz?"



PRIVATE LTE WITH DYNAMIC SPECTRUM ACCESS

- Augment in-building cellular
- Emergency communications
- Video camera backhaul
- PTT and staff phone replacement



SMALL CELL/ERA® DAS

- In-building carrier coverage
- Licensed spectrum capacity, bandwidth and QoS
- Stadium coverage with outdoor DAS
- Concealment solutions with Smart Poles



RUCKUS® WI-FI ACCESS POINTS

- Wi-Fi 6 Certified portfolio
- Residence wall plate AP for IPTV and gaming
- RUCKUS Beamflex+ creates longer and stronger connections with fewer APs required per deployment
- Outdoor APs for all needs



RUCKUS® ICX SWITCHES

- Best performance value
- Campus Fabric is easy to manage
- 100G Campus data centers
- Long distance stackable
- Easy to migrate from Cisco



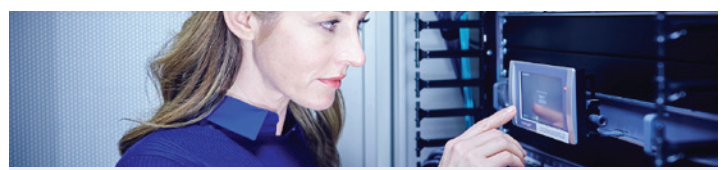
RUCKUS® SMARTZONE NETWORK CONTROLLERS

- Visual connection diagnostics means no more wireless captures
- Wired and wireless management in one OS
- Deploy new APs alongside old APs using multi-zone feature



SYSTEMAX® STRUCTURED CABLING

- Converges wired, wireless and IoT networks onto a single infrastructure
- Comprehensive Category 6A and Category 6 solutions
- High-performance multimode and singlemode fiber-optic cables
- 25-year warranty



IMVISION® AUTOMATED INFRASTRUCTURE MANAGEMENT

- Accurately documents end-to-end physical layer connectivity
- Discovers network-connected devices and tracks any connectivity changes
- Generates alerts to unauthorized or unplanned changes
- Issues alerts when changes occur on critical circuits



STUDENT PARTICIPATION IS BUILT ON CONNECTIVITY

Is your institution ahead of the digital curve?

Learning methods are continuing their digital evolution, and shifts towards a learn-anywhere model are becoming ever more prevalent. Engagement and participation increasingly require stronger omnipresent connectivity, whether you're enabling new recreational activities such as eSports, or new learning methods such as virtual rooms, collaborative digital spaces, flexible classroom spaces, lecture capture or remote participation tools.

eSports are fast outpacing the growth of traditional university athletics, and a state-of-the-art digital environment can help attract and retain talent

[Watch video](#) [Download brochure](#)

Facilitating these experiences is crucial to improving enrollement and retention, and enables faculty and students to dramatically shift the educational landscape.

CommScope's RUCKUS and SYSTIMAX network portfolios can help bring fully immersive, state-of-the-art connectivity to your campus.

We're longtime leaders in wired and wireless networking for colleges and universities around the world, and our solutions help support the advanced computing devices and digital spaces that redefine how students connect, collaborate and participate.

COMMSCOPE KEEPS GOOD COMPANY

CommScope is proud to partner with our customers to make communication faster, easier and more efficient for students, today and tomorrow.



PennState



UNIVERSITY OF
Southampton



AUS
American
University
of Sharjah



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](https://www.commscope.com).

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BR-115535-EN (07/21)