



# Higher education - North America

Reliable smart campus networks made simple

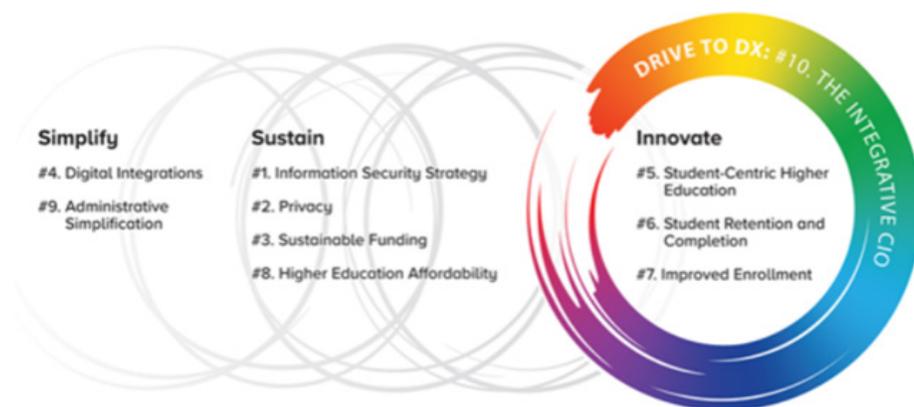
COMMSCOPE®

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



Source: Educause



## 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. Connected residence halls, lecture theaters, digital classrooms, libraries and student unions 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:



### SMART LIVING

#### CREATE A CONNECTED LIVING EXPERIENCE.

Students need lightning-fast, hassle-free connectivity indoors and out.

“Is my favorite gym equipment available right now?”



### 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%?”



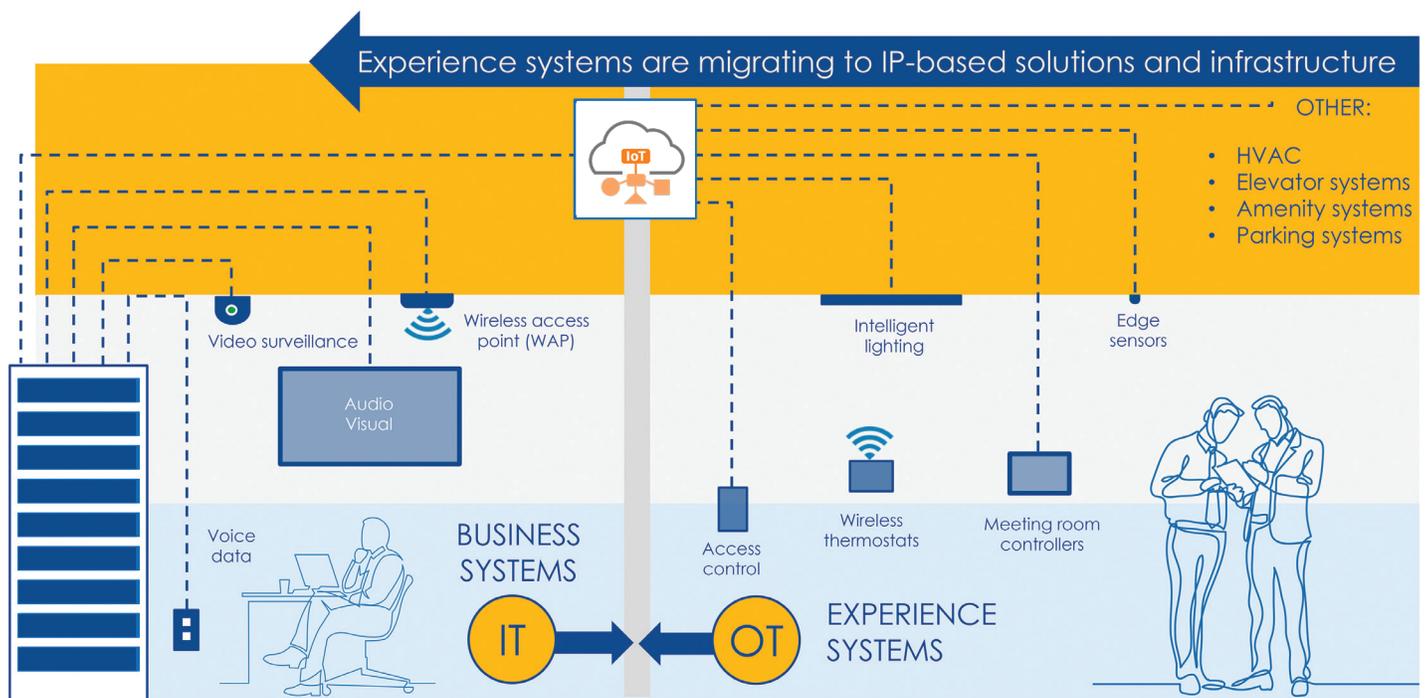
### SMART SAFETY

#### BUILD A COMPLETE CAMPUS SECURITY SYSTEM.

Keep everyone on campus safer with IoT solutions for connected entry, lighting and surveillance cameras.

“Where are my friends, so we can walk home together?”

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

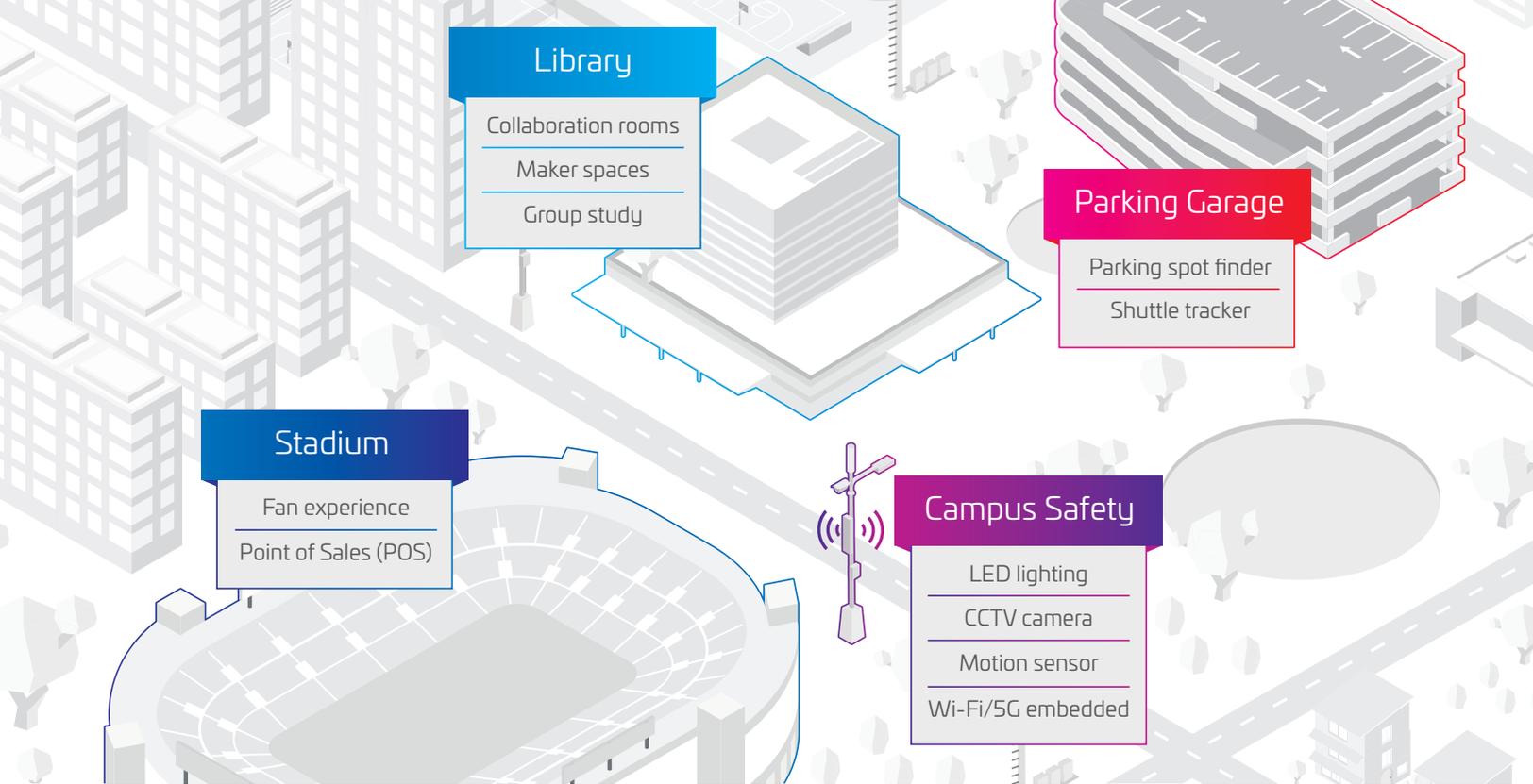
Colleges and universities typically have disparate network infrastructures and platforms that are technology silos—isolated from each other and other campus systems. Integrating these technologies within a unified system eliminates complexity and paves the way for a smart campus that’s connected, competitive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

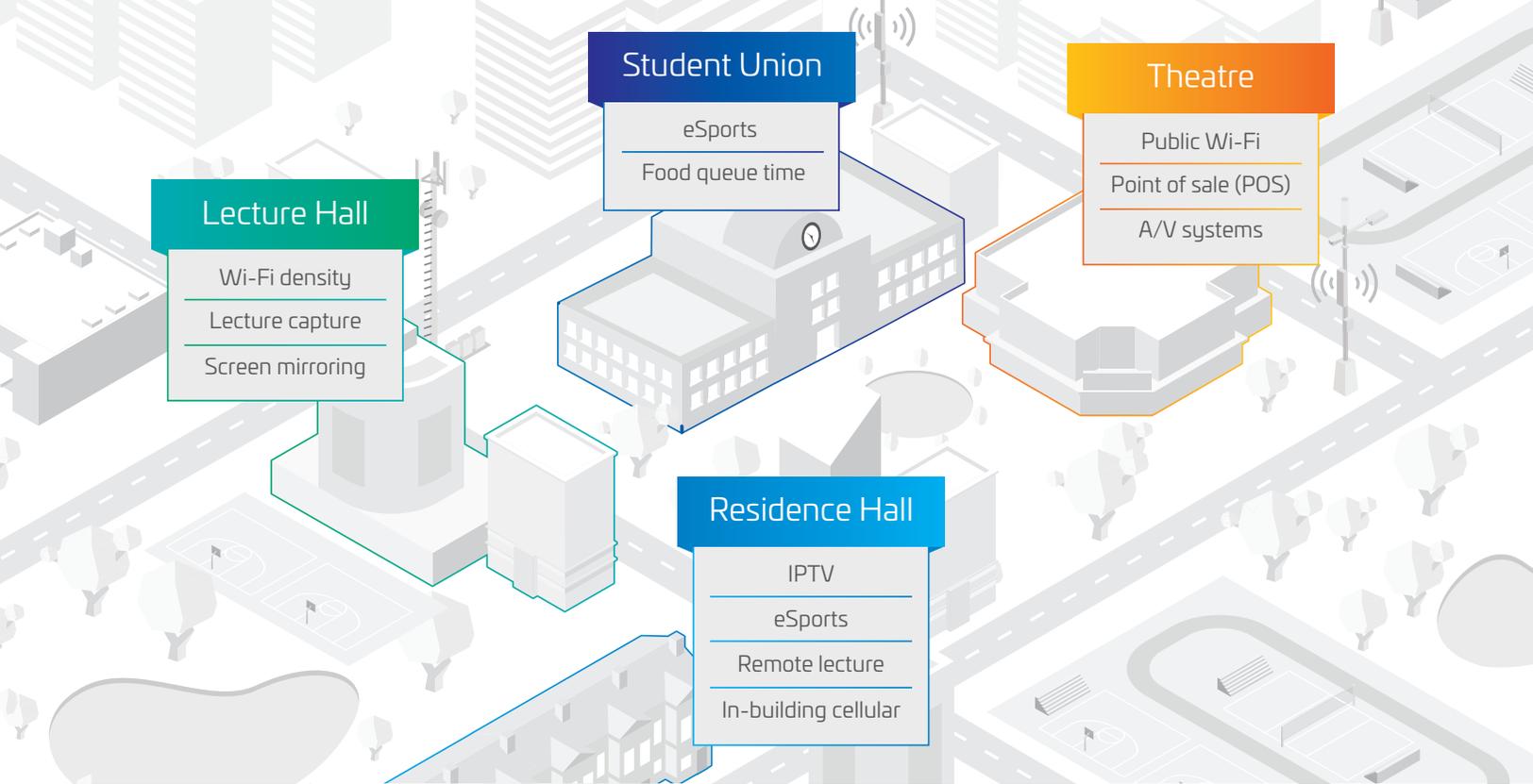
- Our open platform allows many solutions with one adaptable network, one gateway, one rules engine, one dashboard - you set the rules then see the results
- Unlock the cost-saving efficiency and campus security by connecting OT & IT systems, such as connected entry, CCTV, HVAC and lighting controls

## 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 with CBRS

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

# ALBERTUS MAGNUS COLLEGE

## A Great Network Is Essential for Meeting Enrollment Goals

“We have a small IT staff, and the old network sucked up a lot of our time. So, manageability was important. And we also wanted a network that would support demands five years into the future.”

### STEVEN GSTALDER

Vice President for Information Technology Services for Albertus Magnus



**ALBERTUS  
MAGNUS  
COLLEGE**

*We have faith in your future.*

Albertus Magnus College embraces student-centric learning, by allowing students the flexibility to attend class how it suits them best, either on-campus or online.

Albertus Magnus is a private liberal arts college with an enrollment of about 1,500 students. The new president of the college wanted to increase the enrollment of students living on campus, which required meeting student expectations for a great Wi-Fi experience. He also wanted to see greater flexibility in the delivery of courses, so that education could be more accessible to the community. The IT team implemented a new wired and wireless network infrastructure capable of supporting all of these goals.

### CHALLENGE

- Many campus buildings, including student residence halls, are historic mansions that posed significant interference problems for existing Wi-Fi equipment
- The small IT team spent an inordinate amount of time troubleshooting Wi-Fi problems and onboarding new student devices
- The school wanted to implement more flexible course delivery for adult education, which required a faster, higher-capacity wired network

### SOLUTION

- 120 high-performance RUCKUS® indoor and outdoor access points (APs)
- 30 RUCKUS ICX switches with multigigabit connections to APs and computers over 10 GbE fiber backbone across the campus
- Unified management of campuswide APs with SmartZone WLAN controllers

### BENEFITS

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## 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.

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- 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 CBRS

- 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



# GET IN THE GAME WITH eSPORTS

## Is your campus ready for the eSports revolution?

eSports are fast outpacing the growth of traditional athletics in college and university settings, and eSport athletes can be just as picky about where they bring their talents. eSports can help your campus attract and retain tech-savvy students by showing you have a state-of-the-art digital environment. With hundreds of millions spent on eSports sponsorships and events, it can even generate revenue.

None of that's possible if you can't deliver a great eSports experience. Wow them—and win them—with a multigigabit network.

There's a new game in town at colleges and universities, and you don't have to be a top athlete to play it. In fact, you don't have to be an athlete at all.

CommScope's RUCKUS network portfolio can help you bring a fully immersive, state-of-the-art eSports experience to your campus. We're longtime leaders in wired and wireless networking for colleges and universities around the world. And we've been providing ultra-fast, reliable connectivity at the world's premier sporting venues for years. We're already a top choice for eSports venues—from high schools to pro sports arenas. We even sponsor the Philadelphia Fusion, a professional eSports team that Comcast owns.

[Watch video](#)

[Download brochure](#)



# PRIVATE LTE WITH CBRS

With so many students on campus, Wi-Fi and other cellular networks can become congested quickly. Colleges and universities can now deploy their own private, secure CBRS LTE networks to ensure coverage whenever it's needed. CBRS LTE bridges Wi-Fi and cellular for uninterrupted connectivity and the ability to handle heavy traffic loads, such as data coming from IoT devices.

CBRS LTE promises campus IT and facilities teams more visibility and control of their networks. It also offers a better student experience, improves campus safety and reduces operational costs.

CommScope offers a complete CBRS network portfolio, including full cloud-based management, centralized control and analytics, and a range of RUCKUS CBRS LTE APs for indoor and outdoor coverage. The OnGo™ brand ensures compatibility and interoperability across more than 100 CBRS supporters and vendors, much like the Wi-Fi brand did nearly two decades ago.

[Download application note](#)

Ruckus CBRS LTE offers a new alternative that is ideally suited for use cases requiring highly reliable connections with strong mobility, coverage and security capabilities.

# COMMSCOPE KEEPS GOOD COMPANY

CommScope is proud to contribute to many associations that serve the education community.





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://commscope.com).

**COMMSCOPE®**

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

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BR-114632.1-EN (04/21)