Education

Reliable school networks made simple
TRANSLATION TO DIGITAL LEARNING

In many ways, the connectivity and access to the internet has transformed education at all levels. The ability for students to access learning materials online as well as for instructors to share lessons and collaborate has revolutionized teaching and learning. Where education used to be concentrated in school buildings, it can now be accessed by millions of people (almost) anywhere.

58% of schools say that they are in Phase 3

96% of IT Leaders consider digital equity a priority. (CoSN: The State of Edtech Leadership in 2020)

96% of households with school-aged children do not have access to the internet. Only 49% of districts are meeting the FCC long-term goal of 1 Gbps per 1,000 students. (CoSN’s 2018–2019 Annual Infrastructure Report)

17% of students can’t finish their homework because they do not have reliable access to a computer or the internet. (Pew Research Center Fact Tank)
A FAST AND RELIABLE NETWORK IS NO LONGER OPTIONAL.

Don’t let your campus network become a roadblock. Invest in a wired & wireless network that supports future ready technologies and delivers proven performance, reliability, and scale for schools.

THE DIGITAL CLASSROOM OF TOMORROW PROMISES AN OUTSTANDING EDUCATION. IS YOUR NETWORK READY?

The classroom of tomorrow promises an outstanding education. Blended learning, digital curriculum and other modern learning models can better engage students and help educators be more effective.

With this digital transformation, lesson plans now depend on consistent, reliable connectivity to the school Wi-Fi network. Instead of leaving tools locked in the classroom, students walk in the door with their Chromebooks, tablets or other devices every morning, and take them home with them each night.

As such, there are three major concerns that IT administrators are currently facing:

1. **THE TOP PRIORITY FOR IT IS BROADBAND AND NETWORK CAPACITY.**
   - More devices are coming onto the network, stretching the limits of aging infrastructure. 65% of international schools use live video lessons while over 40% surveyed faced significant challenges delivering distance learning through technology, such as problems with bandwidth.
   - (Reference: ISC Research Specialist Market Report - August 2020)

2. **FACING THE TASK OF PROTECTING STUDENT DATA FROM MISUSE OR BREACH.**
   - The National Cyber Security Centre along with the London Grid for Learning completed research in 2019, looking into cyber security of more than 400 schools across the UK. Of the schools polled, 83% said they had experienced at least one of the types of cyber security incidents like Phishing.
   - (Reference: NCSC (National Cyber Security Centre) and LGfL (London Grid for Learning) Security Audit 2020)

3. **THE TRANSITION FROM TEXT-BASED CURRICULA TO BLENDED LEARNING.**
   - Reliable connectivity is critical for classroom and distance learning. Cloud managed networks combined with network analytics can reduce digital downtime.

4. **NETWORK AND BROADBAND SCALING**
   - FACING THE TASK OF PROTECTING STUDENT DATA FROM MISUSE OR BREACH.
   - THE TRANSITION FROM TEXT-BASED CURRICULA TO BLENDED LEARNING.

5. **SECURITY AND STUDENT DATA PRIVACY**
   - THE TRANSITION FROM TEXT-BASED CURRICULA TO BLENDED LEARNING.

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WHY CHOOSE COMMSCOPE FOR YOUR SCHOOL PROJECT

As your school continues its digital transformation to 1:1 mobile learning, RUCKUS helps you address the top three challenges of school IT: network scaling, securing student data privacy, and network reliability for digital instruction. Our goal is to help you provide a safe and reliable learning environment at an affordable price.

**WHY CHOOSE COMMSCOPE FOR YOUR SCHOOL PROJECT**

**Our passion is highlighted by 100+ RF patents that provide the strongest wireless connections and enable our access points (APs) to automatically adapt to non-ideal placement or changing conditions. Moreover, it has been independently proven that only RUCKUS can sustain 60 HD video streams with just one AP. Supporting more students with fewer APs means significant savings for your school.**

Combined with the outdoor APs, which provides not just connectivity outdoors, but also security when combined with solutions like Soter and AXIS. School Bus Wi-Fi provides a mobile hotspot solution for students on and off the bus.

Our switches support long distance stacking between closets, floors and buildings, while RUCKUS Campus Fabric allows up to 1,800 ports to be managed under a single IP address. In addition, entry-level switch uplinks can be upgraded from 1Gbe to 10Gbe with just a software license. Similarly, our high-performance access switch uplinks can be upgraded to 40Gbe or 100Gbe.

We make securing every connection to your school network easy, with identity-based policies that facilitate rapid guest access on-boarding. This means an end to passwords and trouble tickets for Wi-Fi access.

RUCKUS Wi-Fi and ICX switching are now in the cloud and easier than ever to manage. Plus, our intuitive smartphone app allows you to deploy, monitor and manage APs on the go. And even when your subscription expires, the APs are still able serve your clients.

CBRS networks for private LTE allows school districts to share broadband to nearby homes without monthly data charges.

Our RUCKUS Cloudpath Chrome Extension enables simple network provisioning with a single click – and verifies which Chromebooks are school property. Moreover, only RUCKUS can sustain 60 HD video streams with just one AP. We also support CIPA compliance by allowing the restoration of content filtering for HTTPS traffic.

Our ICX access switch uplinks can be upgraded without replacing the switch. We also support stacking up to 12 switches, while Campus Fabric supports up to 36 switches with a single pane of glass. Our flexible switch deployment options include standalone, stacking and Campus Fabric (with the same switches). With RUCKUS Cloud Wi-Fi, you can easily add APs as well as in-building LTE or Internet of Things (IoT) infrastructure. For the latter two, simply plug into pre-existing APs – without ripping and replacing!

Our purpose-built multi-gigabit APs and switches are designed to work together. We offered the first entry-level multi-gigabit switch, with up to 16 multi-gigabit (2.5GbE) ports per 48-port switch, and up to 8 x 10GbE uplinks without over subscription. Our premium multi-gigabit access switch offers 24 x 1/2.5/5/10GbE ports with 40/100 GbE uplink ports. These multi-gigabit switches offer full PoE/PoE+ on all ports (up to 90W per port).

Foundational to high performance networks is the structured cabling to support your networks bandwidth, capacity and power requirements. CommScope Cat 6A copper cabling ensures your access layer foundation is ready and able with up to 10G speeds and support for High Power PoE. CommScope’s fiber solutions provide the scalable bandwidth you need for your network backbone and for high performance applications like eSports, VR and Wi-Fi 6 APs.

CBRS networks for private LTE allows school districts to share broadband to nearby homes without monthly data charges.
ETON COLLEGE

“As an independent boarding school, you have some unique demands on networks and equipment, we have an unusually large network for a school.”

JOHN SAINTHOUSE
Head of Information Technology, Eton College

As a boys’ boarding school, Eton is home to 1,300 students who join at age 13 and continue until age 18. Teaching staff also lives on campus, so school operations never stop. As Eton has moved from a completely wired network environment to wireless infrastructure and applications over the past five years, the infrastructure continually changes to stay ahead of usage demands.

CHALLENGE

Four hundred buildings, all major facilities systems, and school-provided desktop computers, laptops, and audio-visual equipment are connected over the core network. The core network also powers Eton’s RUCKUS® wireless network, which started with 100 access points. In the past three years, boys have increasingly arrived at Eton with multiple devices—at least a laptop, tablet, and smartphone—and they expect a robust wireless network. Students’ Wi-Fi requirements, coupled with a cloud-based Virtual Learning Environment, use of video in classrooms, online access to college systems, wireless classroom technology, and the IP phone system require a high-performance wireless infrastructure.

Delivering high-quality Wi-Fi across many different environments on campus is challenging. Students and teaching staff need reliable connections in the boarding houses. Because each boy has his own room, the number of rooms, walls, and doors make it difficult to deliver uniformly good coverage and high capacity.

SOLUTION

As the wireless network grew from 100 to 700 access points, growing volumes of high-speed wireless traffic taxed the existing wired infrastructure, creating a bottleneck. Eton also enhanced online security by deploying RUCKUS Cloudpath software for online security and policy management and iboss Cybersecurity for ensuring uniform protection across its network and cloud deployments. These new applications made it imperative to gain more capacity in the underlying wired network.

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 portfolio of products and services have been recognized among the best in the industry.

2020 (2020) CommScope is the IoT Sensor Company of the Year
CommScope named a Wi-Fi Alliance 2020 Industry Impact Award Recipient

2019 (2019) 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 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
**RELIABLE SCHOOL CONNECTIVITY: COMMSCOPE RUCKUS**

The CommScope RUCKUS product portfolio of Wi-Fi, switching, IoT, LTE, powered fiber, Cat 6A solutions, software and SaaS lets you deliver a great end-user connectivity experience while reducing the amount of time you spend managing the network. And because CommScope RUCKUS packs more capability into every network element, you can build that network at a lower cost per connection.

### CloudPath Software
- Easy Chromebook on-boarding
- HTTPS inspection for CIPA
- Prevents password lockouts
- BYOD and 1:1 policies
- Dynamic PSK
- Granular policy guest access

### SmartZone Network Controller
- Wired/Wireless management
- Visual connection diagnostics
- Powerful new mapping tool
- COE as service provider
- Customization with Open APIs

### Cloud Solutions
- Easy management saves time
- Scales with 1:1 deployments
- High reliability for digital learning
- Can manage from smartphone
- RUCKUS APs, now in the cloud
- Long distance stackable

### Access Points (Indoor & Outdoor)
- All students connect reliably
- Fewer APs needed per school
- Non-stop VR, gaming and video streaming Network
- Multi-gigabit (2.5GbE) uplink
- Outdoor AP stats

### ICX Switches
- Silent classroom switches
- Leading power density (up to 90W)
- Uplink scaling 1/10/40/100GbE
- Hitless failover & ISSU
- Multi-gigabit (1/2.5/5/10 GbE)
- Long distance stackable

### CommScope Structured Cabling
- Comprehensive Category 6A & Category 6 Solutions
- High performance Multimode and Singlemode fiber optic cables in various constructions
- Standard and high density fibre optic connecting hardware
- 25 Year Warranty
- Highly Skilled Certified Installer Network

### CBRS Solutions
- Secure, wide-area, high-definition video surveillance
- More secure connectivity than Wi-Fi and at high speeds and quality of an LTE wireless network
- Utilizing the 3.5 GHz radio band, districts can build a highly reliability wireless network that offers cost-effective fixed wireless access with low latency and delivers real-time communications to all their sensors, cameras, and industrial IoT

### RUCKUS IoT Suite
- Add IoT during or after install
- Keep your AP investment
- Reduce IoT complexity and cost
- Great for STEM learning
- Go green, save green

### School Bus Wi-Fi Solutions
- Superior in-bus or outdoor Wi-Fi performance up to 1,200 feet
- Centralized management to extend the school network
- LTE backhaul access point creates a mobile hotspot
STUDENT SAFETY AND WELLNESS

Vaping Detection and IP Video Indexing on CommScope’s RUCKUS WLAN Infrastructure

Push back against the youth E-cigarette epidemic

Vaping is a difficult behavior to target. Its odor is easily overlooked, it’s easy to conceal visually, and it’s often done in private areas like bathrooms and locker rooms where human and electronic monitoring is weakest.

The Soter Technologies FlySense detector

This IoT device detects vaping mist in the air and also flags raised voices in a room without actually recording them—all in real time. It can quickly alert administrators and hall monitors with customized alerts sent to their mobile devices if illicit vaping or bully confrontations are detected where video surveillance is not used, such as bathrooms, locker rooms or anywhere else conditions prohibit video.

Riding on CommScope’s RUCKUS portfolio of Wi-Fi solutions, it’s a school’s best defense against vaping by students.

A CLOUD WI-FI EXPERIENCE? IT’S AS EASY AS 1, 2, 3...

LET’S GET YOUR TRIAL STARTED

We told you that RUCKUS Cloud Wi-Fi simplifies WLAN management. Try it for yourself. No obligation, no credit card required. See how easy it is to set up, monitor and manage.

Free Trial Includes:
- Free RUCKUS 802.11ac Wi-Fi access point
- Up to 10 Wi-Fi AP management licenses for 60 days
- Up to 20 RUCKUS Analytics licenses for 60 days
- RUCKUS Cloud mobile app for anywhere management

* FREE TRIAL AND AP TERMS AND CONDITIONS APPLY. SEE URL PROVIDED BELOW.

WANT TO TALK TO SOMEONE?

Contact us:
www.commscope.com/contact-us/

Or Visit:
www.commscope.com/cloud-trial/

Axis Communications networked cameras

This powerful, flexible, IoT-driven camera provides exceptional image quality, panoramic views, remote zoom, and low-light performance. Combined with FlySense sensors, they can capture actionable, time-stamped footage around vape detection locations.

Axis Communications products:

Axis Communications products:

Axis Communications products:

RUCKUS Cloud Wi-Fi Dashboard

Application by traffic
GOOD STUDENTS TAKE GOOD NOTES:

- Call CommScope RUCKUS for reliable school networks made simple

* * *

EDUCATION

Dell EMC

COSN

CITE

FETC Future of Education Technology Conference

MISA/ASIM Canada

ISTE Inclusive Learning Network

EDUCATION
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.