RICHARD CHALLONER SCHOOL
Digital learning powered by RUCKUS with reliable Wi-Fi connectivity

Customer
Richard Challoner School

Location
Surrey, UK

Richard Challoner School, located in Surrey, is known for being one of the top-performing secondary schools and Sixth Forms in the UK. It distinguishes itself by maintaining a 1:1 ratio of wireless devices per student—making reliable Wi-Fi® essential. After struggling with previous Wi-Fi solutions, the school turned to RUCKUS Networks for help. A consultative approach was adapted to address the school's specific needs and challenges.

Richard Challoner School is a Dfe designated academy with specialisations in technology and sports. It boasts 80 teachers, 1,300 students, and 282 in the Sixth Form, housed in two two-story buildings with 70 classrooms and four large hall spaces.
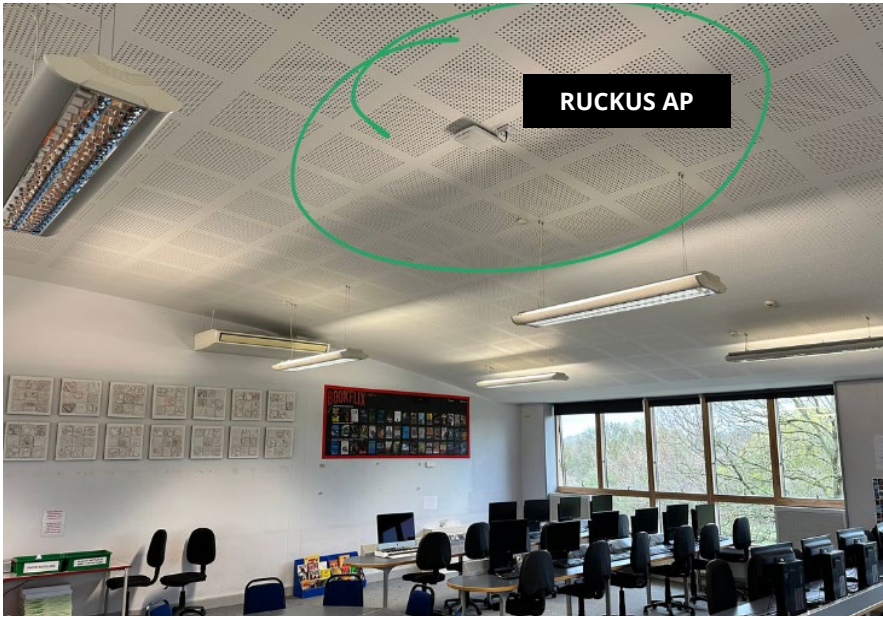
Requirements	Solution	Key outcomes
· Easy, stable and fast user experience	· RUCKUS indoor and outdoor Wi-Fi 6 access points (APs):	· Elevated classroom experience
· Reliability and high density	– 76 R550	· Strengthened security
· A solid Wi-Fi network with full coverage able to serve 1,500 devices	– 8 R650	· Easy and rapid guest access and management
· Strong site-wide signal	– 1 T350	· IT focus on technical priorities instead of Wi-Fi failures
· Improve security	· 2 ICX® switches	· Availability to collect information about lost devices (iPads)
· Easy management	· RUCKUS virtual SmartZone™ controller	· Cost-effective solution
		· Future ready

RUCKUS AP

Challenges

Digital learning offers many benefits, including enhanced student engagement, improved access to resources, interactive teaching tools and greater flexibility, among others. To make the most of these benefits, it is essential to have a trustworthy Wi-Fi network able to maximise the benefits of digital learning and ensure students and teachers have the best experience possible.

The school 1:1 digital learning scheme needs to be able to offer its students always-on connectivity at the highest possible quality. Unfortunately, the previous Wi-Fi equipment was not fit for purpose and was nearing the end of its useful life.

Frequent downtimes and poor signal were causing connectivity issues that could only be resolved by rebooting the APs. In summary, students and teachers were losing time, motivation and concentration.

Due to lessons being disrupted on an hourly basis, the IT team was forced to be taken away from resolving critical helpdesk tickets and their priority tasks—having instead to fix Wi-Fi issues, creating technical team frustration.

Solution

A total of 85 RUCKUS APs were installed between the two buildings. They provide a solid foundation for a stable connectivity thanks to the BeamFlex® smart antenna system that maximises APs' performance, mitigates interferences in high-density areas and minimizes drop-out connections—eliminating lesson disruptions and improving the user's experience.

"The APs are all very professionally mounted and labelled, both at the AP end and at the cab, which allows much quicker problem solving should something go wrong—although this is a rare occurrence! Getting everything configured and ready for the staff and students to connect on their first day back of term was smooth and stress free", said Nick Carpenter, network manager, Richard Challoner School.

The network setup and management are done through the RUCKUS SmartZone controller—a cutting-edge network controller that simplifies the management and scalability of wired switches and wireless access points.

Thanks to the RUCKUS SmartZone network controller, the school now has visibility across the entire network. The

controller enhances security, minimises troubleshooting, and eases network upgrades.

The ChannelFly® technology, a feature of the SmartZone control and management architecture, is well integrated into every RUCKUS AP. In combination with RUCKUS BeamFlex solution, it maximises throughput in demanding environments like education by automating wireless channel planning to minimise interference from both Wi-Fi and non-Wi-Fi sources.

RUCKUS ICX switches, a market leader in price-performance ratio, work seamlessly with the RUCKUS wireless APs and RUCKUS SmartZone network controller—providing a unified wired and wireless network access solution. With link aggregation, ICX switches are designed to provide the ideal backhaul for RUCKUS 802.11AC Wave 2 access points for high availability and performance. The ICX new edge switches provide flexible scalability, enhance security, minimise troubleshooting, and make upgrades easy.

The implemented RUCKUS solution meets the specified security requirements, including data

protection, and is also future ready in case the number of students or devices grows in the near future.

Elevated education experience

The school depends on the Wi-Fi network as they use a 1:1 ratio with iPads and other mobile devices. Almost everyone onsite has at least one wireless device.

"Thanks to RUCKUS, the school's challenges with regards to providing a safe and reliable online learning environment, easy management and scalable network while keeping it cost-effective are fully addressed. As a result, the user experience has significantly improved in comparison to the past, and the lessons are disruption-free".

Managing the Wi-Fi network has never been easier thanks to the RUCKUS SmartZone controller. The IT team now has complete visibility and unified control over APs and switches. This has freed up a lot of time that was otherwise wasted in frequent reboots and troubleshooting issues. Moreover, security has been strengthened with better access controls.

As the demand for BYOD grows, both scalability and security become crucial factors. "We have improved network security by imposing suitable firewall restrictions on each SSID, ensuring that any connection is protected.

Students often misplace their iPads, so being able to look back in time to see where their device was last seen—even if it isn't currently on the Wi-Fi—has been a game changer.

Having technical presence on site on the first day back was very welcome. Any tiny teething issues were resolved very quickly. I couldn't be happier as a network manager—not having to worry about when the Wi-Fi is next going to fail is a huge weight off my mind", concluded Nick.

Richard Challoner School

Richard Challoner is a highly successful Catholic comprehensive school—for boys age 11-18 and girls age 16-18—which has been serving the local Catholic community since 1959. The school is named after Bishop Richard Challoner. The school is a DfE designated academy with specialisations in technology and sports. With more than 1,300 students, the school continues growing because of its reputation.

A shared vision for the school is supported by the staff, students, parents and governors. This has created a very strong, caring and cohesive community based on the Christian values of love, respect and compassion for others.

www.richardchalloner.com

About RUCKUS Networks

RUCKUS Networks designs and builds truly purpose-driven network infrastructure that meets the strictest requirements of all kinds of enterprise environments. Together with our dedicated go-to-market partners, we enable customers to deliver exceptional network experiences, making RUCKUS Networks one of the most trusted brands in the business—a loyal companion ready to help get the job done whatever it takes. RUCKUS Networks is backed by the corporate resources of CommScope, which powers many of the world's most advanced networks.

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