First in Class: Northumberland Schools Major Wi-Fi Upgrade

THE EDUCATION SECTOR HAS SOME OF THE MOST DIVERSE REQUIREMENTS OF THE connectivity that influences every aspect of contemporary life. Modern schools employ Internet access for a huge variety of tasks, from simple browsing for research purposes to the administration of complex platforms for online payments and data management. Effective connectivity brings a wide range of benefits to schools, keeping them secure and up to date with the latest information and resources at their disposal.

For a school to run effectively in 2017, a high-quality, reliable Internet connection capable of handling heavy traffic on-site is required. Given the numbers of people and their various needs that require Wi-Fi on school premises, Internet access must be fast, consistent, and responsive to fluctuations in usage.

Challenge

NORTHUMBERLAND IS ONE OF BRITAIN'S LARGEST AND MOST RURAL COUNTIES – AMONG the UK's least accessible areas when it comes to providing broadband that meets the high expectations of today's end-users.

While the county's schools have had Wi-Fi since 2008, increasing user density has exposed growing gaps in the original system's capabilities. Northumberland's schools found themselves needing a higher capacity and much faster connection than ever before.

The local councils began to encourage the schools to update their Wi-Fi infrastructures, offering an incentive of ongoing support in the future to increase the numbers participating.

A list of schools was drawn up, and Northumberland-based Internet Service Provider KBR, installers of the original system, again brought its expertise and working knowledge of the area to bear on the next phase of the county's Wi-Fi development.

Solution

THE SUCCESS OF THE NETWORK UPGRADE would rely on the equipment used, so to deliver the necessary products, KBR required a trusted supplier. Cambium Networks was an obvious choice of partner following a previous collaboration, and supplied KBR with cnPilot™ Indoor 802.11ac APs to equip 31 schools.

WI-FI ACCESS

cnPilot Indoor **802.11ac** Enterprise Wi-Fi Access Point
802.11ac dual band access point with MIMO
16 SSIDs supporting 256 concurrent users
Cloud-managed via cnMaestro. On-site controller option available

"We chose Cambium Networks, as we knew from working with them previously that they could give us the best performance to cost ratio for the project. We were more than happy to trust them to provide the quality of products we were looking for, with an online support department is second to none."

- GARETH TOMLIN, TECHNICAL DIRECTOR AT KBR

In total, 167 high-density, gigabit Wi-Fi, 802.11ac dual band access points were installed, providing high performance and simple management with Cambium Networks' cnMaestro™ cloud controller that features zero touch onboarding, inventory tracking, monitoring, mass configuration and upgrade, troubleshooting, and hierarchical device organisation.

"We were delighted to work with KBR to bring the Northumberland schools up to date with their Wi-Fi and we know the project will deliver the increased connectivity speed and capacity required."

- DAN MCCARTHY, UK SALES MANAGER F AT CAMBIUM NETWORKS

Outcome

THE WI-FI UPDATES TO NORTHUMBERLAND'S SCHOOLS RAN SMOOTHLY, WITH CAMBIUM NETWORKS BEING able to offer exactly what was required at each location to dramatically improve the Internet speed and capacity of each school.

cnPilot's built-in cnMaestro™ controller enables KBR to manage the schools' networks remotely via the cloud, meet Service Level Agreements for performance, and react quickly to deliver support or maintenance. This feature also empowers KBR to expand the networks further by adding additional access points as desired – for example to a new department or building extension – without a major overhaul.

Furthermore, if a school's Wide Area Network (WAN) fails, any Cambium Networks access point in the total solution can be configured to become the local manager, protecting access to vital services.

These new capabilities are ideal for Northumberland's size and rural landscape, saving both the time and expense of on-site maintenance visits.