



Executive Summary

Industry

- Education

Environment

- 2,500+ simultaneously connected devices
- 30+ devices per classroom throughout the entire school

Technology Needs

- A robust, resilient, and reliable network that elevates the student experience
- A centralized management portal that streamlines service delivery and network maintenance

Extreme Solution Components

- ExtremeCloud™ IQ
- ExtremeWireless™ AP 305C/CX
- ExtremeWireless™ AP 510C/CX

Results

- Progressive 1:1 learning approach enabled for students and staff
- Staff and students can access resources within 30 seconds of entering a classroom
- Eliminated network access issues and delays, freeing up time for the IT team
- Anytime, anywhere access to a centralized network management portal
- Reduced maintenance and upgrade costs



Extreme Powers the Connected Classroom and 1:1 Learning for Harrogate Grammar School

Harrogate Grammar School, based in North Yorkshire, is a non-selective school of 2,000 pupils. It is part of the Red Kite Learning Trust, a group of 13 schools on a mission to offer students the best learning experience possible. As part of this vision, the school has adopted a progressive 1:1 learning approach, which provides each pupil with an iPad to use as their core learning tool, both inside and outside of the classroom. This technology-focused approach to teaching, provides pupils with a more engaged learning experience and reduces the workload for its teachers.

Realizing their vision required a network infrastructure capable of hosting thousands of simultaneously-connected devices. But the connectivity needs of Harrogate Grammar School were at the point of outgrowing the capabilities of its existing network. So, Harrogate Grammar School, NETprotocol and Extreme Networks worked closely to upgrade the school's network infrastructure accordingly to enable seamless and reliable connectivity for all connected devices.

An additional challenge Harrogate Grammar School was facing was the growing number of IT support requests that came as a result of the network struggling to cope with demand. With the team facing tight budgets and minimal resources, managing the school's network was becoming ever-more challenging. To resolve this, the IT staff needed a more robust, resilient, and reliable network infrastructure that was simple to manage and able to autonomously optimize its performance.

"Providing a 1:1 learning environment, inclusive to all, that helps optimize student potential is integral to what we do. We needed a consistent and reliable network connection to provide continuous access to education resources. Unfortunately, with our existing network, staff and students started to face disruption to their learning due to connectivity issues. Using Extreme Networks and NETprotocol has allowed us to completely upend our solution and deliver a seamless learning experience."

**Iain Hails, Network Services Manager,
Harrogate Grammar School**

"At Harrogate Grammar School, we wanted students and staff to be able to effortlessly access any given resource within 30 seconds of entering a classroom, anywhere on the site and at any time - no mean feat within a densely populated wireless environment. But, with the deployment of ExtremeCloud IQ, from Extreme Networks and NETprotocol, we have achieved this. Our advanced network is now capable of coping with anything we throw at it, with lessons now delivered uninterrupted and without falter, and support requests have reduced to zero, saving valuable IT time and resources."

David Burns, Trust IT Manager, Red Kite Learning Trust

The Cloud Networking Solution

To deliver Harrogate Grammar School's connected classroom aspirations, NETprotocol and Extreme Networks partnered to provide a cloud networking solution capable of the connectivity required. The deployment of ExtremeCloud IQ offered end-to-end network management and operations from one centralized portal that is accessible from anywhere - enabling a step change in distributed connectivity, security, and flexibility - equipping this school for the requirements of today, and beyond.

ExtremeCloud IQ ensured that staff, students, and guests could seamlessly operate. It allowed for more than 2,500 devices to connect at any one time, throughout the campus, including BYOD, guest on-boarding, and internal mobile devices. In addition, with 30+ devices per classroom, access points were added to create coverage cells for specific classrooms, minimizing cross-channel interference with other rooms.

Not only has this cloud-networking solution transformed the daily experience of students and staff but it has also impacted how the IT team at the school now operates. ExtremeCloud IQ was designed to streamline networking from deployment through to maintenance and it has achieved just that. The cloud-driven network technology has provided the IT team with a centralized network management protocol, a highly secure infrastructure, and enabled it to move its access points and routers seamlessly and securely without a drop in network uptime. Furthermore, with the usual budget constrictions in education, Extreme's flexible solution has adapted to the organization's needs to keep costs down while offering peak performance.

As a result, the Red Kite Learning Trust has decided to use this project as a blueprint for rolling out the solution to other schools. Before the end of 2020, the Trust is looking to implement the same approach at three further sites, and to the remaining nine schools over the next two years. By encompassing all schools, the rollout will enable 1:1 learning to be delivered without limitations, but will also deliver economies of scale, maximize staff time productivity, and increase technology ROI.

"Having supported Academic Trusts and Education clients for many years, we were delighted when the Red Kite Learning Trust contacted us to resolve their networking challenges. Harrogate Grammar School has led the way from a digital learning and technology perspective for many years, which gradually brought them ongoing frustrations with regards network access and reliability. Our focus was to initially understand the layout of the building so we could design a solution that would effortlessly meet future needs and they could continue to uphold their reputation for providing the world-class educational environment they are recognized for. Extreme's Cloud IQ technology was by far the most simple, cost effective and reliable way of doing this."

Paul Rylett, Technical Lead, NETprotocol
