




CASE STUDY

West Lothian Council

Maintel deployed Extreme Wireless and ExtremeCloud IQ across 13 secondary schools and 70+ education sites, enabling high-performance connectivity, equal access, enhanced digital learning, and simplified network management.



West Lothian Council (WLC) is the local authority for the West Lothian area in Scotland. Like all Scottish councils, WLC is responsible for the coordination and provision of essential public services such as education, social work, housing, highway maintenance, and much, much more. Within the region, the Council is responsible for almost **100 primary and secondary schools, serving over 25,000 students.**

At a glance

The issue

The region's wireless deployment in 2010 for its schools had become outdated and since then there has been significant growth in the quantity and variety of technology being used by students and education staff. There was therefore a need to update and refresh the wireless network to meet the rapidly increasing demands and maintain a good standard of provision to support effective learning and teaching.

The project

West Lothian Council needed a new wireless deployment with enhanced performance and capacity for its evolving Wi-Fi and bandwidth-hungry environments and services. With the constantly changing nature of technology in academic settings, the new solution would need to be futureproof – scalable, flexible, and cost effective. The large number of schools within the region included in the deployment would require a consolidated, centralised management solution to optimise operational efficiency and address any issues at-scale.

The outcome

Deployment by Maintel of an Extreme Wireless and ExtremeCloud IQ across 13 secondary schools, and over 70 other primary, early years and additional support needs education sites, delivering high performance connectivity, equal access and enhanced digital learning, as well as a simplified network management system.

Their Background

Following the recommendation of Maintel, West Lothian Council opted for an Extreme Networks solution to deploy wireless connectivity in order to deliver an equal access and enhanced digital learning experience to students and faculty across the West Lothian educational estate.

ExtremeCloud IQ provided insight to the IT team around the disbursement and usage of the wireless network's bandwidth to optimise performance and user experience, as well as simplify management. As a result of the deployment Extreme Wireless has delivered reliable, robust connectivity to thousands of students and their devices, and faculty to support digital learning experiences.

As of now, Maintel has rolled out Extreme Wireless and ExtremeCloud IQ across 12 secondary schools for West Lothian Council, with plans to extend the deployment to the remaining 80+ secondary and primary schools in their catchment area.

The Challenge

The region's wireless deployment in 2010 for its schools had become outdated – relying on only a small number of access points in hallways. Since the initial deployment, the numbers and complexity of technologies that students used, the schools invested in, and classroom expectations had evolved tremendously.

Following COVID, when hybrid learning came about, video streaming and digital learning entered West Lothian's classrooms and the demand on the few, dated APs became overwhelming.

With the growing hinderance on the wireless network, teachers began to experience unintended countereffects in their classrooms; rather than technology supporting and enabling teaching, network downtime began to negatively impact engagement and eat away at teachers' already limited class time.

The requirement from WLC was therefore three fold:

- **Increased network capacity for growing number of devices and services used by students and faculty**
- **Improved wireless connectivity to eliminate downtime in classrooms and enable teachers to maximize class time**
- **Scalable, futureproof solution that will grow with the schools and their needs as education and technology continue to evolve and advance**

The Solution

Delivery of an Extreme Networks Wireless solution that has provided for reliable, robust connectivity to thousands of students and their devices, and the faculty alike to support digital learning experiences. As of now, Maintel has rolled out Extreme Wireless and ExtremeCloud IQ across 13 secondary schools and over 70 other primary, early years and additional support needs education sites for West Lothian Council.

Extreme Solution Components used included:

- **ExtremeCloud IQ**
- **Extreme Wireless**

What are the benefits?

High-performance connectivity

- Increased network capacity and enhanced performance guarantees connectivity for students and faculty regardless of location or number of devices online

Equal Access and Enhanced Digital Learning

- Created, effectively, a completely online learning environment with 30 to 1 student to AP ratio
- Stable infrastructure to support the on-going use of technology for effective learning.

Simplified Network Management

- Consolidated network management into a single pane of glass view solution simplifies maintenance and oversight of entire school district
- Optimised operation efficiency and foresight into network health relieves burden on IT department and frees up time to focus on critical tasks and projects



With ExtremeCloud IQ, the digital learning team already has significant insight around the applications that the students are using, the bandwidth, and numbers or differences between our individual learning sites. The management information and insight can be used to evolve the digital learning process and perhaps introduce more standardised methods and practices across the West Lothian teaching estate.

Matthew Clarke, IT Network Technical Team Lead, West Lothian Council Students



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