ZYXEL

Success Story

New cloud-managed, faster and secure school ICT managed network at Sprowston Community Academy

INDUSTRY Education

CUSTOMER Boudica Schools Trust

COUNTRY Norwich UK

SOLUTION Nebula Cloud Solution

Overview

Challenges

- Existing network comprised various brands of networking equipment and proved difficult to manage with no centralised control provision
- Performance issues were making it difficult for students to log on the network
- Problematic cabling infrastructure built on a mix of network backbone links with some fibre OM1, OM2 and OM3 using wrong patch leads, plus some Cat5 links
- All cabling running only 1Gbps and some sub-cabinets switched from previous cabinets causing bottlenecks
- Increased student and teacher demand for network connectivity resulted in the network running slowly

Solution and Benefits

- Zyxel Network Switches
- Zyxel USG210 Firewall
- Zyxel NWA1123-ACHD Access Points
- Nebula Cloud Management
- Student cloud-based web filtering

Background

The Boudica Schools Trust oversees the operational activities of several educational programmes and institutions, including the Sprowston Community Academy in north Norwich. The Trust prides itself on an ethos where pupils and staff feel secure and safe within the learning environment. This includes the responsibility to provide an effectively managed access control system to all entrances and exits to the Trust's academies.

To manage the extensive IT network comprising Chrome books, PCs, laptops, phone systems, broadband/leased line connectivity, CCTV, and automated gates, the Trust reached out to Eastern Voice and Data to carry out the installation and maintenance across more than 10 sites, including Sprowston. Soon it became apparent that the school's networking infrastructure was not living up to the expectations of both staff and pupils. Sprowston Community Academy had been struggling with a slow network and this was restricting productivity related to lessons and admin.

After conducting onsite surveys, Eastern Voice and Data identified problems with the school's cabling infrastructure as both OM1 and OM2 fibre optic cabling was in serious need of replacing. The audit found that the wrong OM patch leads were being used across the site and also multiple sub-cabinets were linked via the switch of the previous cabinet, so if the first cabinet/switch had an issue, it would take all the following cabinets offline. This was also causing a bottleneck on the network as the most densely IT populated rooms were running from sub-cabinets at the end of the chain.

Challenges

The network has become an important tool for the 1,500 pupils and the teachers looking to engage them with a first-class education. However, with increased demand for connectivity, there are now high expectations for seamless digital teaching and learning experiences. In fact, the school's network proved particularly challenging with its low speed, which subsequently resulted in disruption to classes.

ZYXEL

Solutions and Benefits

The installation of the new and improved network system took place over the summer holiday period with Eastern Voice and Data upgrading the school's network with a centralised cloud-based solution. The Zyxel Nebula cloud network can be managed remotely, minimising on-site visits from Eastern Voice and Data. Nebula helps to provide a high level of visibility of data and network usage including both wireless and hard-wired connection. Also, new 10GB switches replaced old 1GB switches and each cabinet has a direct 10Gbps fibre link to the main cabinet, helping to manage the data more efficiently and improving speeds across the network.

Andrew Mash, at Eastern Voice and Data says: "To ensure faster network speeds and high security, our solution included implementing 40 network switches, 70 Zyxel NWA 1123-AC HD PoE access points, Zyxel USG-210 firewall and Zyxel Nebula cloud network management. The new switches provide greater control and performance to ensure that data is managed more efficiently. In fact, Zyxel Nebula network solutions are easy to use and provide real-time monitoring and configuration changes via the Nebula Control Centre online web portal and accompanying smartphone app. The products are also affordable but still offer high performance for schools aiming to meet high network infrastructure demands."

Andrew Mash adds that Zyxel has given the resources to provide users with truly high-speed WiFi. "In addition to improved user satisfaction, we have also seen great progress with Sprowston Community Academy's overall network performance and we're looking forward to working with the Trust to help build a reliable and safe networking infrastructure at its other school sites."

Jonathan Lumb, IT Manager at Boudica Schools Trust says: "The network has become an important tool for both our teachers and students because technology helps us provide engaging and powerful learning experiences and content. The new network offers greater efficiency and security, especially implementing a new cloud-based web filtering software that controls the types of content that can be accessed by pupils. The new network system also creates better learning opportunities and standards, while reducing costs".

BOUDICA SCHOOLS
TRUST

ZYXEL
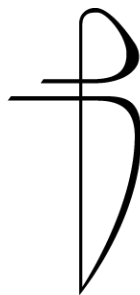
Products Used

NWA1123-ACHD

- 802.11ac Wave2 Dual-Radio PoE Access Point
- VLAN, IPv6 support, DHCP client
- Support Nebula Flex
- Premium High Power Amplifier
- Longevity Solid Capacitor
- High Performance Antenna Design
- 3G/4G Inteference Filter

USG210-10P

- 4 x LAN/DMZ, 2 x WAN, 1 x OPT
- Anti-Virus, Anti-Spam, IDP & Application Patrol, Content Filtering, SecuReporter Premium
- SSL (HTTPS) inspection, 2-Factor Authentication
- Hotspot Management
- Rack-mountable

XS3800-28

- 28-port 10GbE L2+ Managed Switch
- 10G Aggregation Switch
- Support Zyxel NebulaFlex Pro
- Powerful CPU Performance

XGS2210-52HP & XGS2210-28HP

- Agile L2 Access Switch Solution for Converged Data, Video and Voice Networking
- Stacking Capability
- High-powered PoE

About Zyxel

Focused on innovation and customer-centricity, Zyxel has been connecting people to the Internet for nearly 30 years. Our ability to adapt and innovate with networking technology places us at the forefront of creating connectivity for telcos and service providers, business and home users.
Zyxel is building the networks of tomorrow, unlocking potential, and meeting the needs of the modern workplace — powering people at work, life, and play.
Zyxel, Your Networking Ally.