Bethany School

Bethany School deploys Aerohive to support their drive in bringing digital technology to the classroom

Challenges

- Upgrade campus network to ensure comprehensive Wi-Fi access and a standardized network platform
- Procure a cloud-enabled network management solution
- Meet budget constraints without sacrificing enterprise-class features

Results

- Deployed ubiquitous Wi-Fi across school site with robust security and management features
- Enabled mobility and greater digital learning for students and staff
- Achieved simplified network management and eliminated constraints

About Bethany School

Bethany School is a co-educational independent day and boarding school set on a rural campus in the heart of the stunning Kent countryside. Occupying a 60 acre site in the Weald, the school is a genuine extension of the home, providing a safe, secure and welcoming environment.

The Challenges

Bethany School needed to upgrade their wireless to support the growing demands of the 350 students and 136 staff across the large area, many of whom live on-site. The school were also embarking on bringing digital technology into the classroom and planned for an initial roll out of 80 managed iPads, requiring a more stable, wider connection with higher bandwidth capacity.

Bethany and M-Tech Systems had a strong relationship dating back several years. M-Tech were chosen to formulate a wireless solution and selected Aerohive Networks.

The Solution

M-Tech had previously installed enterprise wireless from Aerohive at other top independent schools. Being confident in Aerohive's capabilities, M-Tech rolled out their solution once again. 72 Access Points were installed across the campus, consisting of 24 Aerohive AP130s for indoor ultra-high density areas and 48 state-of-the-art Hive AP250s.

The AP250 provides instant adaption to ever-changing capacity needs. It features 3x3:3 MU-MIMO, providing full 802.11ac technology performance with data rates up to 2.6 Gbps per access point using existing 802.3af PoE infrastructure. Software configurable radio allows dual 5GHz 802.11ac performance on both radios to provide the best coverage and capacity. Built-in Bluetooth Low Energy radio enables proximity and indoor location tracking and is necessary for Apple iBeacons.

Aerohive operate on a controller-less wireless architecture. The network is managed via the proprietary HiveManager to give visibility and control of the network and devices from a single, simple interface. Access policies based on identity, application and device type can be set from here. Each Access Point holds a copy of its own current configuration, but is fully able to run independently.

For ultimate stability of the network, the APs run from a mesh backup, whereby if one of them goes down they will automatically power up where necessary to form a wireless bridge back to the switch/server to mitigate the loss until it can be replaced.

> "M-Tech provided us with a professional, cost effective enterprise wireless solution Aerohive wireless technology. The installation all went very smoothly and we actually finished ahead of schedule!"
>
> **—Network Manager, Bethany School**

M-Tech deployed radius authentication on the 802.1X protocol, allowing BYOD (Bring Your Own Device) users to join the network using their active directory credentials. The network is able to differentiate school-owned devices and those of a BYOD nature and alter the access levels accordingly. This is done to protect the network from the vulnerabilities of personal devices, whereas the school devices are managed with high-level antivirus and firewall protection. HiveManager can also track who is using the wireless and revoke access if necessary.

Bethany School now operates on an enterprise-level fully managed wireless enterprise system that supports the increased on-site usage, enabling them to bring digital technology into the classroom.