

# EnGenius Case Study

## Longhill School



<b>Customer</b>	Longhill High School
<b>Location</b>	Brighton, UK
<b>Requirements</b>	Updated, future proof wireless network to accommodate both students and staff
<b>Equipment</b>	Managed wireless indoor access points, managed outdoor access point and 24-Port Managed Gigabit PoE network switches

### Customer's View

*The schools existing wireless network needed a total overhaul. Working to a very limited budget was always going to prove challenging and I wanted if possible, to get the latest WiFi standard. The EnGenius solution provided by Cable Management Warehouse was able to provide WiFi 6 technology. This allows both students and faculty staff the access and site wide coverage required to both educate and learn in a consistent professional manner, in both a classroom environment and in external locations. It can also allow the network to grow as new client devices are added over time.*

James Arnold, IT Manager, Longhill High School

Longhill school is a large secondary school nestling at the foot of the South Downs near Rottingdean catering for some 1,800 pupils and staff.

The school has a warm and welcoming atmosphere which offers its students a structured approach to learning. Students' academic achievement and personal wellbeing are crucial to the school. The school's mantra is that every student will be supported in every lesson, in every classroom, by every teacher, every day.



**LONGHILL**  
HIGH SCHOOL

### The Requirement

The school had an existing WLAN solution installed throughout its site. Unfortunately, this network came with limitations, provided poor coverage and was not capable of handling the growth in client devices which was necessary for the school if it were to continue to successfully deliver a full curriculum to its student contingent.

It became apparent that a new WLAN system needed to be sourced and installed for when the school re-opened its doors for the new school year. A high performing product incorporating the latest WiFi 6 standards, that was also enterprise level and proven to work in a high density, high demand environment was a must. However, with a limited budget available, a thorough investigation of all available solutions had to take place.

## The Right Product

Following discussions with a number of secondary schools in the Brighton, Hove and the surrounding areas that currently use EnGenius, the decision was made to install products from the EnGenius range as it was a proven product in other educational sites.

EnGenius is a leading global manufacturing brand of Senao Networks, Inc. and a networking expert in wireless communications and radio (RF) technology. An award-winning company, EnGenius solutions are made in an ISO-9001 & TL-9000 certified SMT manufacturing facility.

The EnGenius portfolio of networking solutions includes a comprehensive range of Cloud managed and On Premise managed wireless solutions as well as Cloud managed Gigabit, 2.5Gigabit and 10Gigabit switches that deliver long-range connectivity and robust feature sets.

Incorporating latest standards, and without any ongoing subscription costs and licence fees, the EnGenius solution provided everything necessary and was still able to meet the available budget. Along with a Limited Lifetime warranty and free Firmware upgrades for Life, EnGenius was the obvious choice for this project.

## Design and Installation

Longhill High school is one of the largest educational sites in Brighton, therefore before a solution could be determined a full site survey had to be conducted. The EnGenius product lead at Cable Management Warehouse delivered this by utilising the EnGenius heat mapping tool and a WiFi 6 access point. Using these devices and tools, ensured real time diagnostics were obtained.

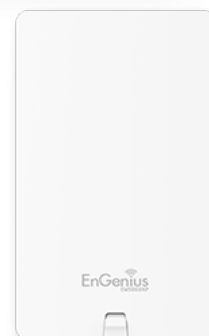
The EnGenius WiFi planner is designed for indoor area coverage and outdoor point-to-point connectivity. Algorithms intelligently calculate coverage for optimal access point placement. It will auto adjust to local Wi-Fi channel regulations of a specific project. Colour coded heat maps visualise the placement and signal strength of each access point to create a concrete plan.

62 of the EnGenius EWS357AP's which are 802.11ax 2x2 managed indoor wireless access points were positioned throughout the 3 storey indoor areas of the school. These AP's feature WiFi 6 technology, which deepens and expands the capabilities of Wi-Fi and utilises EnGenius enterprise-level management. These sleek, low-profile AP's are loaded with new hardware components to run more efficiently and consume less power.

To allow for coverage over the football pitch outdoor areas 1 EnGenius EWS660AP outdoor managed AP was installed in a central position. These AP's expand 11ac Wi-Fi to outdoor locations with dual-band concurrent connectivity. Band Steering shifts dual-band devices to 5 GHz, improving network efficiency.

Finally, 4 EnGenius EWS1200-28TFP PoE+ Managed 24 Port Gigabit switches were installed into three small comms rooms located around the school, all three were linked via a fibre Gigabit backbone.

The PoE controller switches feature simplified network configuration, monitoring and management options along with an easy-to-use web interface, making them perfect for power compatible PoE+ devices such as IP cameras, VoIP phones, and access points. The school's IT Manager can locally (or remotely) manage the new wireless network via the SkyKey which is a plug and play module that allows full management capability.



## The Result

Longhill High School can now provide its students and staff in any part of the school with access to a solution that meets the very latest WiFi standards and also increase the speeds of legacy client devices wherever users are located on the school premises. The learning environment has been significantly enhanced with room for further growth as and when the school needs to expand its density of wireless users, without impacting on the overall performance

*"The EnGenius Enterprise solution delivered everything that I needed, to the budget that was available. The Management is simple to use and provides me with the monitoring tools necessary to quickly and easily locate any problems if there is an issue with network access in a particular area of the school".*

James Arnold IT Manager, Longhill High School

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