

EnGenius Case Study

Cambridge United Football Club



Customer	Cambridge United Football Club
Location	The Abbey Stadium, Cambridge, CB5 8LN
Requirements	Replace an existing unmanaged Wi-Fi system
Equipment	20 x ECW120 Cloud managed Wave 2 wireless indoor access points, 2 x ECW220 Cloud managed Wi-Fi 6 indoor access points, 4 x ECW160 cloud managed wave 2 outdoor access points, 5 x ECS1528FP Cloud managed 24 port switches

The Requirement

Cambridge United football club compete in EFL League One, the third tier of the English football league system. The club was founded in 1912 as Abbey United and took the name Cambridge United in 1951. The club is based at the Abbey Stadium on Newmarket Road, approximately 2 miles east of Cambridge city centre.



The football ground had an existing wireless network in place which was increasingly unable to cope with the extra demands placed upon it. This included Wi-Fi connectivity for its first team staff and concession stands both inside and outside the grounds. It also needed to support high levels of activity from press and media.



Coverage and performance unfortunately were not consistent. This caused frequent frustrations for the club with lost connections having a negative impact on revenue being generated for the club.

What the club needed was a reliable solution which was able to support Epos, ticketing and turnstiles, production IT and the journalists who reported on each match.

To bring the ground into the 21st Century, a series of technology upgrades was undertaken to install a robust solution.

The Right Product

GCIS based in Hertfordshire, was the installation partner that worked closely with Cambridge United to review the options available.

GCIS specialise in innovative and cost-effective IT solutions which include Cloud based services and solutions.

After experiencing frustration with several wireless networking brands, they had worked with in the past, GCIS chose the EnGenius Cloud Networks solution for this project.

The EnGenius portfolio of networking solutions provide an enterprise level Wi-Fi solution which includes internal and external access points as well as Cloud managed PoE switches. All products can be managed via an AI Cloud platform that uses FaaS Technology enabling an SLA of 99.99%.

The switch range uses 1Gb, 2.5Gb and 10Gb (including Multiport 2.5Gb and 10Gb switches) allowing clients to take advantage of increased Wi-Fi 6 speed capability and ensure that all data demands are met.

Incorporating latest standards, and without any ongoing subscription costs and licence fees, it was decided that the EnGenius solution could provide everything necessary to meet the stadium's needs. Add to that a limited lifetime warranty and free firmware upgrades for life, EnGenius was the obvious choice for this project.

EnGenius has a proven track record of providing complex solutions for stadium environments including the Madrid Arena and Belsize Park, the Irish FA home stadium.

EnGenius Cloud is really quick to install with zero touch configuration. The equipment provides reliable performance, in depth analytics, and real-time information to assess traffic flows. Making it ideal for organisations that need to manage their wireless networks in an intuitive and secure way, without providing and maintaining their own server cloud resource.

The feature rich EnGenius serverless Cloud solution enables administrators to optimise data flows across the WLAN to client level and ensure the best possible service available. All this is achieved by using the management tools within the dashboard, which allow for optimum settings of different SSID's and a customisable captive portal.

Design and Installation

This sizeable project saw the following kit installed.

20 x ECW120 11ac Wave 2 Cloud managed wireless indoor access points. These access points are 30% faster than traditional 3 x 3 APs and offer a much more reliable connection, allowing more wireless clients to experience quality Wi-Fi.

2 x ECW220 Wi-Fi 6 2x2 Cloud managed wireless indoor access points. These APs extend Wi-Fi 6 features into the 6 GHz band which doubles the available spectrum. They deliver a boost in speed, surge in capacity, and dramatic reduction in latency.

4 x ECW160 outdoor 11ac Wave 2, 2x2 Cloud managed outdoor access points. Designed to perform in harsh environments, these APs leverage advanced Wi-Fi and Beamforming technology. This maximises performance and reliability while greatly increasing network user capacities.

5 x ECS1528FP Cloud managed 410W 24 port PoE+ switches. They offer simplified network configuration, monitoring, and management options along with an easy-to-use Web interface.

A site survey was conducted to determine the best places to install the internal and external access points. Correctly positioning the APs would ensure all visitors to the grounds got excellent coverage and throughput wherever they were located.



The Result

The EnGenius Cloud solution gives GCIS the ability to fully manage and monitor what is happening on the network remotely. Something that is essential if a problem arises on a matchday or when another important function is taking place at the stadium. Problems can be identified and rectified quickly with minimal disruption.

"The wireless network installed at the Abbey provides a reliable and robust WLAN infrastructure. It has put the club in a great position to expand and accommodate more users as and when needed. Most importantly it provides a reliable platform upon which we deliver a vastly improved match day experience for our supporters."

Alex Tunbridge, Chief Executive Officer, Cambridge United Football Club

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