

Future-Proofing Wireless Networks for Aston University Students' Union

#01

CASE STUDY

There's nothing more frustrating than a lost, or desperately slow, internet connection. This is especially so when you're attempting to complete an important task such as a student assignment.

That's why, when Aston University Students' Union first contacted First Class Technologies in 2007, they recognised the importance of acquiring reliable wireless internet access for their students living in a unique housing project.

Developed over 30 years ago, Aston Brook Green student residence evolved

from a pocket of 52 Victorian terraced houses into a modernised collection of 60 flats comprising 170 bedrooms.



The converted terraced properties now house students in a number of 1, 3 and 4 bedroom flats that each require sufficient internet connections.

With the challenges of this housing project in mind, First Class Technologies decided on supplying a network of ruggedised external wireless access points designed to withstand not only extreme conditions but also allow access to a dedicated 10 Mbps service.

This provision served the Student Union well for over 7 years, allowing students to concentrate more on research for their thesis and less on reporting lost connections.

The Rise of the Mobile Device

By the time 2014 arrived, however, Aston University Students' Union had again turned to First Class Technologies with concerns about the increase in internet enabled mobile devices that students were now using and the demands they placed on their existing network.

This, of course, was understandable considering that the need for internet access had increased rapidly in a short space of time. In fact, statistics now show that the number of adults requiring internet access for mobile devices has more than doubled since 2006 and continues to grow.

There was no escaping the fact that an upgrade for the wireless network would be needed to future-proof this rapid adoption of smartphones and tablets.

“The need for internet access had increased rapidly in a short space of time”

As First Class Technologies works hard to stay current and informed of new developments, we were able to quickly identify the most appropriate solution to upgrade the wireless network to meet the ever increasing demand.

Providing a First Class Solution

First Class Technologies began by recommending a design that included 30 internal access points mounted in the roof space of the student buildings.

A hardwired network point would be incorporated to allow consistent access from a range of devices, including smartphones and tablets, as well as fixed devices such as laptops and desktop computers.

Arrangements were put into place to upgrade the leased line to a 100/100 Mbps service via a managed Juniper router that would provide a fast, secure

and reliable service capable of meeting the high levels of performance required by the Student Union.

Using the latest techniques to provide solid connections and cope with demand, First Class Technologies installed fibre optic links that connect access points to a central controller, allowing a secure output and signal that could effectively radiate out to each remote building.

As with all our clients, First Class Technologies aims to always design and install the most effective and efficient

I.T. systems. To meet this aim for Aston University Students' Union, each wireless access point would be located in a convenient loft space to reduce space requirements while adding a level of security by keeping the APs out of sight and reach.

Further to this, each access point would use Power over Ethernet (PoE), allowing it to receive both data connection and electrical power with one cable, thereby reducing unsightly cabling and associated costs.

Keeping Data and Connections Secure

For complete customer satisfaction, First Class Technologies provided comprehensive protection for both the wired and wireless networks via a Sonicwall NSA that utilises MAC access control lists (ACLs). This added layer of security works to protect the network by preventing unauthorised access.

Specialist applications were also put in place to filter content that students could gain access to, protecting the network and supporting the institute's guidelines and policies on appropriate internet usage.

Following the prompt install and hassle free switch to the new system, the now upgraded wireless network resulted in a faster, more reliable service. Students were relieved to discover that their treasured Wi-Fi was now capable of meeting their rising demand.

Housing Manager for Aston University Student Accommodation, Malcolm Lawrie commented:

"We are delighted with the intelligent solutions provided by First Class Technologies at Aston Brook Green.



Throughout the whole process, they kept us informed and exceeded our expectations."

With the newly installed wireless system keeping up with demand and paving the way for an increase in internet usage, Aston University Students' Union was able to move seamlessly into the new digital era and the rise of the mobile device.

If, like Aston University Students' Union, you also place a strong emphasis on providing high standards of education and would also like to benefit from using efficient and reliable technology in your establishment, then simply contact First Class Technologies and we will be happy to chat to you about your needs.

Call us on: 01543 414152
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