University of Bedfordshire

University of Bedfordshire Selects Aerohive's WLAN to Support Additional Demand from Tech-Savvy Students

WLAN Network Challenges

- Huge year-on-year growth in mobile device related traffic
- Support seamless connectivity across five different sites
- Fulfil student demand for university Wi-Fi and expectations of coverage and speed

Aerohive Wi-Fi Solution Benefits

- Aerohive supports 24,000 staff and students, using two to three devices each
- The network provides better coverage, with improved reliability of device connectivity
- HiveManager allows the University network team to manage the network through a simple web based interface

The University of Bedfordshire, located near London, has won numerous awards in recent years including the Queen's Anniversary Prize for Research 2013. It has a growing global reputation for high quality research and teaching in a supportive, multi-cultural environment.

The University was created by the merger of the University of Luton and the Bedford campus of De Montfort University in August 2006. Today, it has over 24,000 students and 1,400 members of staff based across five campuses. The University of Bedfordshire has ambitious growth plans and is currently investing £115m in new facilities across multiple campuses. As part of this, it has turned to Aerohive to increase bandwidth and ensure it can support the ever-increasing number of devices entering the network.

> "Aerohive was the perfect strategic choice as a long term technology partner. The Aerohive solution gives us the scalability we need to support tens of thousands of devices across multiple sites."
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> **—Minesh Chikniwala**
> Deputy CIO, University of Bedfordshire

WLAN Network Challenges

The ICT department has seen a huge year-on-year growth in mobile device related traffic, driven by students using an increasing number of devices, such as smartphones and tablets, to access lecture material as well as personal social media and email accounts.

Analysis of the previous wireless solution showed that this caused capacity and connectivity issues, resulting in insufficient service at peak times. The University network team wanted an architecture that put layer 3 switching at the edge of the network and avoided these bottlenecks, making it easier to support the bandwidth students demand and expect, allowing them to watch videos and load multimedia applications.

The network also had to allow seamless connectivity across its five different sites, and provide support for 'Eduroam'. This is a higher education wireless network which allows users, staff and students from within the University as well as visitors from other institutions to connect and gain access to services relevant to them. The 'Eduroam' system also allows students from the University of Bedfordshire to instantly access internet services while they visit other universities across Europe. It is essential that it works in the right way.

"Wireless connectivity has become an essential part of University life as it aids the teaching and social environment which enhances the user's experience. Good coverage, reliability, speed, connectivity and compatibility are important factors to sustaining student satisfaction while at the University," said Minesh Chikniwala, Deputy CIO, University of Bedfordshire.
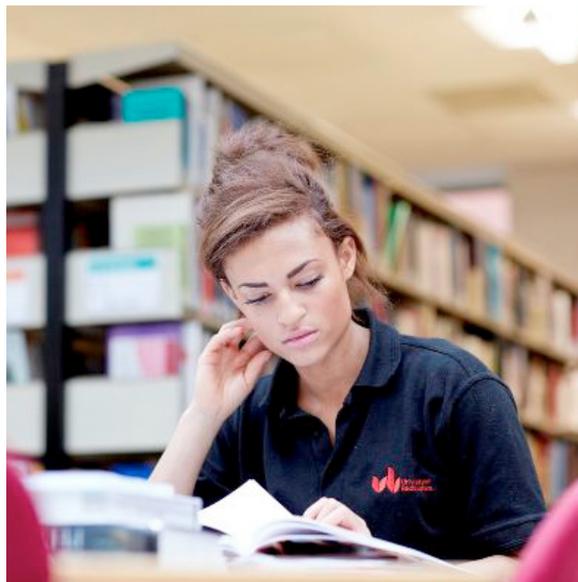
The Aerohive Wi-Fi Solution

The University of Bedfordshire chose a controller-less solution from Aerohive. This is managed on the edge of the network which eliminates the capacity and bottleneck issues of the previous Wi-Fi solution. By providing a single management interface, Aerohive enables the set-up of various security policies while allowing the network team to control user access to the network.

Aerohive WLAN Solution Benefits

The updated wireless network is already supporting the 24,000 staff and students at the University of Bedfordshire, wherever they want to connect. The network provides better coverage, with improved reliability of device connectivity, higher bandwidth for users and improved troubleshooting tools for network staff should issues occur. Other improvements include future proofing 802.11ac for 5GHZ connectivity, self-service guest access and simplified user setup, saving the ICT service desk time which they can spend on more proactive service support for end users.

The 500 802.11ac access points were implemented across the five main sites in Luton, Aylsebury, Butterfield, Putteridge Bury and Milton Keynes by data centre and secure networking technical services specialists, AIT. The solution runs from a single Aerohive HiveManager console which allows the University network team to manage the network through a simple web based interface, which is especially useful for a university with 24,000 students, using two to three devices each, across multiple campuses.

"Aerohive was the perfect strategic choice as a long term technology partner. The Aerohive solution gives us the scalability we need to support tens of thousands of devices across multiple sites," continued Minesh. "Aerohive's architecture is particularly suited to large deployments like ours as each access point can be deployed independently, yet is managed by a centralised management interface. The implementation was a smooth and simple process. Aerohive worked in conjunction with AIT, who had the skills to install and configure the wireless network in a short space of time. This meant minimal disruption to student learning and maximum benefit in the quickest possible time. They have been a very professional partner / vendor combination throughout the project, and we will continue to work closely together on future projects."