



# Oxford Brookes University

## Aerohive Addresses Runaway Growth of Student and Staff Wireless Devices

### WLAN Network Challenges

- Replace existing Cisco 'hot spot' WLAN infrastructure with campus Wi-Fi
- Support 100% year-on-year growth in mobile Internet devices on the network
- Fulfill student demand for university Wi-Fi and expectations of coverage and speed

### Aerohive Wi-Fi Solution Benefits

- Aerohive solution supports 10,000 devices, concurrently, on the network
- HiveManager Virtual Appliance provides a central view of all network activity across the entire estate
- University gains blanket wireless coverage, with scope to layer applications and services in the future

Oxford Brookes University, located in the South East of England, is the only UK modern university to have achieved 24 subjects rated as excellent for teaching. It has a longstanding reputation for employability, and is host to two national centres of excellence in teaching and learning.

The University can trace its history back as far as 1865 with the foundation of the Oxford School of Art, which over the centuries merged and grew to become today's university. It was in 1992 that

the then Oxford Polytechnic became Oxford Brookes University, naming itself after John Henry Brookes, first Principal of the Schools of Technology, Art and Commerce. Today, Oxford Brookes has over 18,000 students and 2,500 members of staff.

### WLAN Network Challenges

During the past three years, Oxford Brookes has seen a 100% year-on-year growth in mobile internet devices on the network, driven by a greater influx of smartphones, tablets and changing working and studying practices.

Though an existing Cisco WLAN already provided hotspot wireless coverage in libraries and large teaching rooms, there was little intelligence in the network and no central management capability.

The extent and quality of WLAN access is seen as a key differentiator for UK universities in attracting students, hence Oxford Brookes was keen to achieve an optimum WLAN quickly, cost-effectively and with minimal management overhead.

"Like other large universities, we are seeing demand for wireless connectivity increasing, but then so are expectations around coverage and speed. It has become so important for attracting new students

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—Robin Breathe, Chief Technology Officer at Oxford Brookes University

each year: if you don't have wireless, you won't have students," explains Robin Breathe, Chief Technology Officer at Oxford Brookes University.

### The Aerohive Wi-Fi Solution

During the procurement process, Oxford Brookes compared leading solutions from Aerohive, Aruba, Cisco, Meru and Trapeze. None met the technical brief as well as Aerohive.

During the tender Oxford Brookes also sought objective recommendations to aid the decision making process, referring to Gartner's Magic Quadrant and reviewing WLAN deployments at other universities.

Breathe comments, "Evaluating technical specifications and running small pilot deployments fulfils a checklist tender process, but doesn't answer our questions about niggles in the deployment process, long-term operational demands or compatibility with new devices or applications. Speaking with Aerohive's customers, and reviewing Gartner's own research, provided an additional layer of confidence."

Aerohive's superior scalability and cost model were major factors in being selected by Oxford Brookes. These are enabled by Aerohive's simple licensing approach, and unique controller-less WLAN architecture, which support a linear scale and pricing model.

### Aerohive WLAN Solution Benefits

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The Aerohive deployment has the capacity to support 10,000 devices, concurrently, on the network, whilst a HiveManager Virtual Appliance provides a central view of all network activity across the entire estate.

The latter is especially useful for a university with five campuses, 10 halls of residence and over 20 research and administrative buildings.

Aerohive's HiveManager allows Breathe and his team to monitor real-time topology, performance, and client information to simplify troubleshooting, capacity planning, and security remediation. Because it is not essential to the flow of traffic, losing connectivity to HiveManager will not affect any control or data forwarding features of the WLAN.

Moreover, with no pre-staging or configuration necessary to connect HiveAPs in any location to their HiveManager, it is ideal for distributed deployments.

On average, 1000-2000 mobile internet devices are accessing the university WLAN every day and exponential growth is expected to continue. In 2012, the university intends to provide blanket wireless coverage, and later incorporate voice over Wi-Fi services and manage a higher proportion of latency-sensitive video and other application traffic.

"In five years time, it's possible that all our network access will be wireless," added Breathe. "To sustain the tens of thousands of concurrent devices such a system would have to support in an environment like ours, Aerohive's architecture is the only way we could foresee achieving this."

Oxford Brookes is now also part of the JANET Roaming Service (eduroam), a secure, world-wide roaming access service. Using 802.1x authentication, visitors, staff and students can securely access the wireless network of any HE institution that subscribes to eduroam, using their own log-in details.



Contact us today to learn how your organization can benefit from an Aerohive network architecture.

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