

**CASE STUDY**

Campus-wide Wireless Initiative puts 17,000 Students and Staff at the Forefront of Information Technology Usage



The University has three colleges catering for students from all over the world and maintains the highest level of infrastructure. It has the strategic objective of continually improving the physical environment in order to add value to its core activities, and provide a pleasant, safe, healthy, accessible and fit-for purpose environment for all staff and students.

**Objective**

The objective of the University in building a state of the art wireless network was to ensure the highest levels of infrastructure available in order to add value to its core activities and provide a safe, healthy and accessible environment for all staff and students. At the same time as improving the communications network the university was conscious of minimizing its carbon footprint.

With budgets under pressure at all academic establishments, the University of Aberdeen was looking for new ways of doing more with less. Wireless technology provided the University with the opportunity of maximizing the communications for both staff and students and they have deployed over 900 wireless access points to ensure every student will have 24/7 internet access in every bedroom, at every hall of residence. Research shows that prospective students rate internet access highly when selecting a university.

The whole campus and all the halls of residence had to be wireless enabled ready for the new academic year September 2007. Three different services will run over the wireless network: a) ResNet (a service for students while at their halls of residence), this will allow social networking across campus and allows access to sites like Facebook, Bebo and IM tools which would not be allowed on a university site; b) Eduroam the standard academic network for the campus will include guest access and c) UOA Corporate (an enhanced service for certain admin and teaching staff).

The university recognized the benefits of wireless technology and determined to roll out a campus based Wireless LAN across campus not only to give students more flexibility when working but also to allow academics to develop many new ways of designing material and courses and new ways for students to access them. The wireless network will be free of charge to all members of the university.

Having identified the need for a stable, reliable and secure wireless solution they also wanted to ensure it was future proofed for all sorts of applications. However ease of use through centralized management and the option to extend the system were among the key criteria for the University.

**“RingMaster is ideal for our needs as it allows centralized management of the system at the touch of a button.”**

—Colin Shaw  
Project Manager for the Wireless Network  
University of Aberdeen

## DESCRIPTION

Founded in 1495 this is Scotland's third oldest university and the fifth oldest in the UK. Aberdeen is an international university built on serving one of the most dynamic regions of Europe. With over 13,900 students, and over 3000 staff, it is at the forefront of teaching and research in medicine, the humanities and sciences.

## OBJECTIVE

- Create an IT environment that enables staff and students to maximize opportunities to incorporate cutting edge technologies into their learning and research.
- A stable, reliable and secure wireless solution for its for multiple sites to ensure every student has internet access in their bedroom.
- Rapid deployment and ease of use through centralized WLAN management.
- Seamless integration in the existing wired network and the ability to extend the coverage without major upgrade procedures.

## SOLUTION

- 900 MP-422 Mobility Point access points provide wireless LAN access across the campus.
- Eight Trapeze MX-400 WLAN controllers to deliver reliable Wi-Fi service for large numbers of users and support 802.11a, 802.11b and 802.11g.
- Latest version of RingMaster Planning and RingMaster Management suite.

## RESULT

- Internet Access while mobile to all students and staff 24/7.
- Easy management through the design of the wireless network itself.
- Enormous increase in scope of reliability and quality of the wireless LAN network.

## University of Aberdeen (continued)

### Solution

The University of Aberdeen decided to use Trapeze Networks SmartMobile technology and the deployment they chose is state-of-the-art wireless technology. The Trapeze solution allows the University to easily and securely centrally manage the three independent services efficiently on one management platform covering the entire University Campus. The secure wireless network will have additional applications roll out over its infrastructure for many years to come.

"We have raised the base-line for internet access at academic establishments by providing a freely available service to all members of the university" said Iain Cameron Manager of IT Training and Documentation within the Directorate of IT services for the University.



"We chose to work with Trapeze Networks because of their technology which allows us to manage all three services centrally," said Colin Shaw Project Manager for the Wireless network.

### Result

"With the increase of student owned laptops and the demand for wireless access in bedrooms at the halls of residence – we have gone that extra mile to deliver a service that is second to none." Said Iain Cameron "We have seen student laptop ownership at the University go from 60% to 84% in one year – providing laptop users with a fully mobile service is now essential."

The University of Aberdeen will roll out multiple applications over the wireless infrastructure in the future.