



# DUBLIN CITY UNIVERSITY EXPANDS STUDENT EXPERIENCE WITH SECURE MOBILE ACCESS

MAKING LEARNING MORE DYNAMIC



Students of Dublin City University, Ireland's University of Enterprise will have access to a wide range of interactive, multimedia learning applications from anywhere on campus, by simply opening their laptops.

The enhanced learning experience offered by this vibrant university is underpinned by Motorola's WiNG 5 Wireless LAN - a next-generation, intelligent wireless architecture based on 802.11n technology. The robust network supports high-bandwidth applications such as mobile video, voice and data, allowing multiple users to access the information they need seamlessly and instantly.

Over 11 000 staff, students and researchers from partnering institutions can connect to the university network from anywhere across the 85-acre campus and while visiting other education institutions, by using the secure roaming and authentication access service, eduroam.

Dimension Network Systems are providing the university with configuration and integration services, and will also deliver system training to IT personnel.

**CUSTOMER PROFILE**  
Dublin City University

**Technology Partner**  
Dimension Network Systems

**Industry**  
Education

**Key Benefits**  
Greater capacity and mobility  
Support for high-bandwidth applications  
Resilient and secure  
Easily scalable

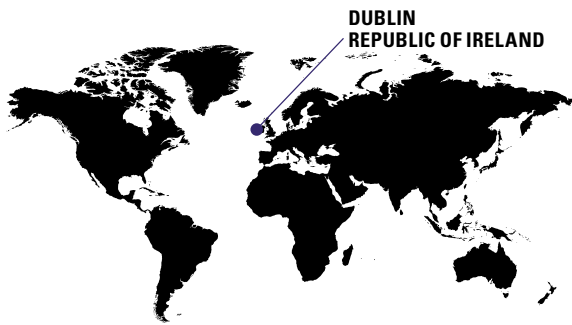
**Product Name**  
WiNG 5 WLAN  
RFS 7000 Wireless LAN Controller  
AP 650 Thin 802.11n Access Point  
Service from the Start



**Dimension**  
Network Systems

## CASE STUDY

### DUBLIN CITY UNIVERSITY



## THE CHALLENGE

Dublin City University's focus on creating a stimulating social and learning environment and its holistic approach to student development has attracted a growing number of scholars. The increasing student population, combined with the move towards more interactive education that uses multimedia applications to enhance the learning experience, required a resilient infrastructure that was capable of handling simultaneous demands from multiple users and could scale to meet future needs.

Their existing wireless broadband network was unable to handle the additional traffic as more users logged on and bottlenecks were occurring in popular working areas such as the library and the canteens.

In addition, the university wanted to be able to support the education roaming network facility, eduroam, which allows students and staff to access the Internet and interact with international research and educational communities. The software requires each user to be authenticated by Dublin City University's own network before the visited network will authorise access.

Furthermore, the upgrade needed to accommodate a phased switch over without any disruption to services.

## THE SOLUTION

Having assessed solutions from several leading vendors, the university chose Motorola's WiNG 5 WLAN architecture, which combines the high throughput and speed of the 802.11n networking standard with a portfolio of intelligent Access Points and wireless controllers to prevent congestion when several users access bandwidth-intensive applications.

The university is implementing 165 of Motorola's AP 650 multi-purpose Access Points which communicate directly with one another and determine the most efficient network traffic routes for fast, secure roaming. The ability to balance the load enhances

application performance so that users don't experience bottlenecks or downtime.

Collaboration between the access points also makes the network more resilient, and allows IT administrators to remotely troubleshoot network performance issues from any location, further optimising availability.

Security and configuration policies can be enforced consistently across the network, as the access points can monitor and track users, providing 24x7 wireless protection.

Motorola's RFS7000 Wireless LAN controller supports carrier-grade voice and data for up to 16,484 users, providing a future-proof and cost-effective platform that can easily scale to meet changing needs. Its ability to control the university's legacy access points allows a seamless and phased roll-out of the old network.

"Our decision to implement this next-generation network provides us with a solid infrastructure for integrated services and allows us to take advantage of the latest applications to deliver interactive and advanced learning materials to students in a stimulating way, as well as giving us the scope to progress education even further in the future."

**James Healy,**

Dublin City University, Network Manager,  
Information Systems & Services.

## THE BENEFIT

Students and staff will be able to retrieve data, browse the Internet and download their email while on the move across campus. Visiting lecturers can be given guest access without compromising security, due to the ability to control network and application access via the AP650s. This also prevents users from accessing undesirable sites, abusing the services offered or exposing the network to malicious attacks.

The increased capacity of the network allows staff and students to access electronic teaching and learning materials, such as lecture notes, discussion forums, group assignments, podcasts and screencasting, providing an enriched education experience.

Its intelligent, dynamic routing enables bandwidth-intensive applications to run smoothly, even on multiple machines and during peak periods, so that all students have the same high quality of service.

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For more information on Motorola's WiNG 5 WLAN architecture please visit us on:  
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