

# CASE STUDY

## DEFENCE SECTOR

### MINISTRY OF DEFENCE / SERCO



The Defence Academy of the United Kingdom is responsible for post-graduate education and the majority of command, staff, leadership, defence management, acquisition and technology training for members of the UK Armed Forces and MOD Civil Servants.

Its mission is to become the UK's preferred provider of education, training and research in the fields of defence and security, delivering high quality, relevant and progressive education and training that is underpinned by research and current doctrine. Core to that mission is the development of a Technology Enhanced Learning (TEL) strategy – signalling a radical overhaul of the Academy's wireless network to facilitate its roll-out.

## CHALLENGE

The Defence Academy's brief to Redcentric and partner Serco was very clear: to provide a high-speed wireless LAN configured to meet the population, capacity and latency needs of the current and future staff and student body whilst meeting MOD security accreditation standards. This would underpin a new TEL-based learning culture as well as provide a better online experience for students, staff and visitors while on-site.

## REALISING THE BENEFITS

The collaboration between the Defence Academy CIO's office, my team and Redcentric was extremely efficient.



Iain Hay,  
ICT Service Manager for Serco



Defence Academy  
of the United Kingdom

**serco**

However, three factors combined to make this project a unique challenge:

**Physical environment** – This was a 640 acre site encompassing 170 buildings of differing construction types with wireless signal-impacting elements such as heavy artillery and wooden wind tunnels.

**Security** – All work had to be fully certified to meet the Defence Academy network accreditation, a mandatory requirement for all MOD data networks.

**Operational site** – The project needed to fit round the demands of a live educational institution. Classes and lectures had been planned a full 12 months in advance and work needed to be scheduled to ensure minimum disruption to the curriculum.

## HOW REDCENTRIC HELPED

With the overall requirement set, the fundamental needs had to be established, and Redcentric liaised closely with Serco to effect a comprehensive scoping and surveying programme that then directed all subsequent works.

The surveying of buildings, many involving complicated asbestos investigations, the identification of the optimum locations for 500 wireless access points, and the factoring in of a uniquely bizarre environment, featuring metal buildings, wooden structures and tanks and artillery, was meticulous. It was also done to a standard that could be signed off by the MOD cabling and

security authorities. All the physical restraints and technical requirements were noted, locations duly selected and with that theoretical certainty behind them, teams were ordered onto the ground to make it happen within a 12-week timeframe.

Redcentric and the cabling sub-contractor managed a very flexible work schedule with updates often happening on a daily basis. This close working relationship enabled them to make changes to the schedule in order to work around obstacles that would often arise at short notice. Multiple cabling teams were used with up to six teams working at one point around the campus, while installation engineers often started work early, worked on through the night and on occasion over the weekend.

Weekly review meetings, weekly highlight reports and daily briefings ensured work remained on schedule and that any issues were resolved promptly, allowing the project to not just come in on time, but 7% under budget too.

## BUSINESS BENEFITS

The Defence Academy now has the requisite infrastructure for delivering the robust, slick learning experience it sees as core to its preferred provider ambitions. Iain Hay, ICT Service Manager for Serco, summarises: "The collaboration between the Defence Academy CIO's office, my team and Redcentric was extremely efficient. To bring in a complex project with minimal disruption to business output, on-time and under budget speaks volumes for the dedication and professionalism of all involved."

It's been a benefit-rich deployment, with key gains including:

### Superior wireless access and performance

Thanks to 25 kilometres of optical fibre and over 500 wireless access points the Defence Academy now enjoys 90% coverage across the site. The open access Wi-Fi facility, with direct access to the public Internet, is seeing between 3,000 and 6,000 logons each month.

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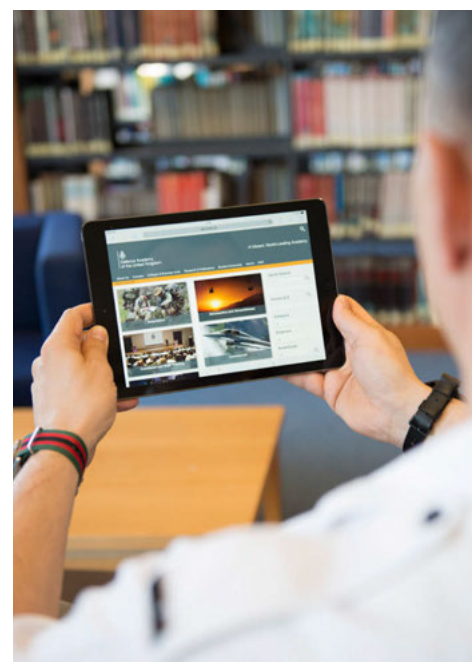
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### Strategic enabler

The new infrastructure has catalysed the acceleration of the TEL strategy, with a number of new techniques being assessed for implementation. These include lecture capture technology, content sharing through a second screen and other collaborative technologies.

### Increased user satisfaction

Staff and students are now able to access both rich course content and off-site resources readily whenever they need to. All Defence Academy laptops and tablets automatically connect to the Wi-Fi service providing secure access to all services and systems onsite.



## TECHNICAL INFO

- Brocade LAN hardware
- Brocade wireless
- Maintenance
- Project management
- Design consultancy
- Installation consultancy
- Copper and fibre cabling infrastructure
- Fortinet authentication hardware