

CASE STUDY

HEALTH SECTOR

KING'S COLLEGE HOSPITAL



King's College Hospital (KCH) is one of London's largest and busiest teaching hospitals, with a strong profile of local services primarily serving the boroughs of Lambeth, Southwark, Lewisham and Bromley. Its specialist services are available to patients across a wider catchment area, providing nationally and internationally recognised work in liver disease and transplantation, neurosciences, haemato-oncology and foetal medicine. KCH turned to Redcentric to deliver a refresh of its legacy wireless network on the hospital's main site, whilst also taking the opportunity to introduce a new wireless infrastructure at the KCH-managed Princess Royal University Hospital (PRUH) and Orpington Hospital.

CHALLENGES

With its wireless network coming up for eight years old, KCH took the decision to undertake a significant modernisation programme at its main Denmark Hill site. At the same time, it wanted to equip its two managed hospitals in Bromley and Kent with brand new wireless capability as a foundation for better communications and clinical application mobility. As well as the physical and environmental challenges of working across a hospital estate, Redcentric also had to design a solution that would deliver maximum return at optimum cost.

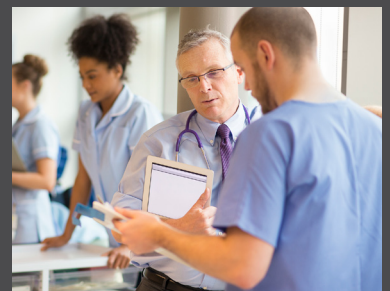
Specifically, the project needed to fulfill the following criteria:

- **Enabling platform** – The demand was for a heightened level of wireless connectivity across the whole estate to allow for the increased use of mobile clinical applications and more reliable, real-time communications whilst encouraging innovation in patient care

REALISING THE BENEFITS

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Nick Penlington
ICT Services Manager
King's College Hospital



- **High-grade performance** – The new network had to underpin the hospital’s mobile wireless telephony system, eliminating call drop-out and boosting resilience and quality of connections, even between buildings. It also had to secure an ‘always on’ experience for clinicians, hospital staff and visitors
- **Solution fit** – KCH wanted flexibility, good integration capability and refined management options. It was also keen to reduce the space taken up by the controller hardware in its data centres.

ICT Services Manager Nick Penlington comments: “This project was more than just a housekeeping refresh, it was pivotal to KCH’s on-going commitment to improve communication, efficiency and patient care across an extensive and demanding physical estate.”

TECHNICAL INFO

- Wireless Site Survey, Design, Pre-Stage, Installation, Project Management, Structured Cabling
- BoM – 1500 Cisco AIR-CAP2602I-E-K9 Access Points
- Cisco ISE
- Cisco PRIME Infrastructure
- 3 x Cisco 8510 Controllers With HA Pairs and 1 x 5508 Controller With HA Pair

HOW REDCENTRIC HELPED

Redcentric opted for Cisco Prime Infrastructure to simplify the management of both wireless and wired networks, deploying a total of 1500 wireless access points across the three sites. It also rolled out the Cisco Identity Services engine to allow for guest access and future Bring Your Own Device (BYOD) capability.

With the onus on fast, reliable connectivity, the project also introduced support for the 802.11a 5GHz frequency, which has a wider bandwidth and has enabled KCH to prioritise who shares that bandwidth.

Nick Penlington: “Big infrastructure projects in hospitals are not the simplest of things but in the quality of the solution, the efficiency of the roll-out and the very pragmatic, responsive and accountable way of dealing with issues, Redcentric made this as pain-free a process as possible. As a result, we have a very stable and fast wireless networking provision that is delivering benefit every day: medical staff can contact each other instantly wherever they are with less effort; while clinical care at the bedside can be optimised due to the ready access of Electronic Patient Records, fully mobile drugs trollies and specialist clinical applications. Indeed these highlight the main outcome of the project – our ability to continually innovate in our medical services and help those in our care, safe in the knowledge that we have a resilient, scalable and truly enabling platform.”

BUSINESS BENEFITS

Nick Penlington: “One of the advantages of having worked with Redcentric for some years is that we have built up a great degree of mutual trust, and they understand very clearly what it is we’re trying to create here. KCH is one of the most progressive, innovative hospital trusts in the country and Redcentric takes its supporting responsibilities very seriously. This latest project is an excellent example of properly understanding our technical, operational and aspirational requirements and responding with a solution and a deployment that will help drive a new era of clinical care.”

Improved performance

Staff’s ability to communicate on-the-go across devices has measurably improved, which has had the added benefit of bringing on-board staff who were previously reticent about adopting new technology.

Enhanced reach and resilience

Connectivity is nothing if it is not always available and the new network has improved site coverage and uptime, especially in relation to mobile wireless telephony, with reduced incidence of call drop-out and call quality issues.

Easier management

The use of Cisco has simplified the running of both wired and wireless networks from an admin perspective, while physically KCH has reduced its server hardware from 12 boxes to four, thanks to the capacity of the new wireless controllers.

Stronger platform

The real value of the refresh lies in its creation of a technical platform that is truly enabling, that will support the increased use of mobile clinical applications, encourage new approaches to medical care and keep staff connected to colleagues, patients and data.

Improved patient outcomes

More effective and efficient care and a better in-patient experience have made this a key frontline investment.

