UHDB-Queen's Hospital & **Burton** Campus

Static Systems successfully completes 'live' nurse call upgrade ahead of schedule in a 450-bed hospital and outpatients' area.

Overview

UHDB Burton Campus includes the Queen's Hospital in Burton – an acute hospital serving around 360,000 residents of Burton upon Trent and the surrounding areas – and two community hospitals, in Lichfield and Tamworth.
The hospital incorporates an Emergency Department, a dedicated endoscopy suite, a breast care unit, a modern maternity unit, stroke facilities and a range of clinical services. The Burton campus has around 450 beds, 80% of which are in multi-bed wards, with the remaining 20% in single bed rooms.

Our Challenge

Static Systems Group was appointed by the University Hospitals of Derby and Burton NHS Trust to design, install and commission a 'live' upgrade to the nurse call system at Queen's Hospital and network the system at the two community hospitals in Lichfield and Tamworth. The hospital had over 40 existing nurse call systems, including conventionally wired Static Systems' equipment which had been in place for some 25 years, and other 'conventional' nurse call systems from different suppliers. With much of the equipment becoming obsolete, maintenance costs rising and the increasing risk of equipment failing, the Trust recognised that a complete system upgrade was required.

The Trust initially trialled a wireless solution from a different supplier before deciding that a wired system would work better for the Trust. Having spent time researching replacement systems and engaging with user requirements, the Trust then appointed Static Systems to replace every nurse call system throughout the hospital.

All upgrade work had to be undertaken in a live, fully occupied hospital environment, which is Static Systems' area of expertise.

Our Approach

Having considered various options, Static Systems advised the Trust that a Codemlon™ loop wired addressable nurse call system would be the best solution for the site wide upgrade. Codemlon™ is a tried and tested open protocol solution with an enviable track record in acute hospital wards throughout the UK and overseas.

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Using Codemlon™ for the Queen's Hospital upgrade meant that the existing containment and back boxes in most of the hospital's existing nurse call systems could be re-used; reducing replacement costs and minimising disruption during installation. Additionally, as Codemlon™ offers radio sound entertainment, the Trust could continue to provide patients with free-to-access radio, controlled through the nurse call patient hand units – one of the Trust's requirements of the new system.

A wireless nurse call system was deployed during the upgrade of the wired system to provide the staff and patients with continuity and enable Static Systems' engineers to work in a live ward, a bay at a time. In each ward Static Systems' engineers undertook the upgrade, swapped over from the existing to the new equipment and showed the ward staff how to use the new system. The wireless systems were then removed by the hospital's estates staff.

The wards were the first areas of the hospital to be upgraded, followed by the areas where access was more difficult. Most of the installation and commissioning was undertaken during normal working hours, with some out of hours work required in Outpatients and some of the hospital's clinics.

The anticipated delivery period for the upgrade project was four to five years, however the work was completed in just over three years. The new system is fully compliant with HTM 08-03.

Value-added Integration

Static Systems connected the hospital's various ward-based systems together using the Trust's own LAN. As a result, the Trust can transfer calls between adjacent wards/departments as and when required.

In order to futureproof the system, the Trust requested that provision be made for 'Fusion Analytics' to be incorporated into the system at a later date. As such, Static Systems has added an event logging server on to the Trust's LAN which, once operational, will enable all call logs to be held in a central location at the hospital. As the server is on the Trust's LAN network, authorised members of staff will be able to access this information using computers located within their own department.

The Trust will also be able to use the Fusion Analytics software to collate and analyse data to demonstrate efficiency and levels of patient care. Two satellite community hospitals, Sir Robert Peel Hospital and Samuel Johnson Hospital will also be connected to the event logging server. And, the technology will enable Static Systems to gain remote access to undertake technical support and provide advice to the hospital.

A Trusted Supplier

Steve Clark, Project Manager at Static Systems, comments: "A significant number of Static Systems' contracts are repeat business with long-standing customers, and the Queen's Hospital upgrade is a good example of this. We've looked after the Burton Campus for the past 25 years and as a result of the high level of service we've provided over this time - supported by the proven track record of our Codemlon™ nurse call solution, they appointed us for this project."

"Our engineers are highly skilled in working in live healthcare environments, and always ensure that communication with all relevant hospital staff is clear and consistent throughout each project's duration. We introduce ourselves before work starts, explain what we are going to be doing and, liaise with the ward staff daily while work is underway."

Seamless Installation of a Reliable and Effective Solution

James Chadwick, Head of Facilities & Capital Developments, Burton Campuses at the University Hospitals of Derby and Burton NHS Foundation Trust, comments: "Having worked with Static Systems for many years, we were confident that they would deliver a reliable and effective solution for this large-scale upgrade. We'd reached the point where it was becoming increasingly difficult and disruptive to undertake maintenance on the existing systems, and the costs associated with keeping the system operational were rising.

"The installation of the new system was seamless, with only very minimal disruption to ward operations. Feedback from the ward staff on the new systems has been very good, with staff finding them to be easy to operate and keep clean. The solution that Static Systems has put in place allows for future expansion of the building and plans are already in place to integrate further 'modular' buildings to the nurse call system over the coming months. This migration has saved the Trust around £24k per annum on call outs and repairs."

Ongoing support

As the Trust didn't want to have to rely on Static Systems' engineers whenever they wanted to add and delete devices from the system, change its operation or undertake routine maintenance, Static Systems provided the Trust with a full version of the Codemlon™ software and undertook training with the hospital's engineers, equipping them to do everything that Static Systems' engineers would do.

The hospital has an annual maintenance contract with Static Systems to support its own maintenance team. Static Systems will continue to undertake annual health checks of the systems as part of the ongoing contract.