



## UCLH – Sauter’s Latest Super Hospital.

London’s newest hospital, the £420 million University College London Hospital, opened its doors to patients in June of this year. This complex project serves as a great example of the Private Finance Initiative (PFI) by being completed on time and within budget. The 18-floor teaching hospital is one of the NHS’s biggest Private Finance Initiatives. It has 700 beds and one of the largest intensive care departments in Europe.

It is designed to minimise the spread of infection, with widely spaced beds, more hygiene stations and general ventilation systems of a standard suitable for isolation wards.

Sauter was selected to provide the complete BMS installation – including a fully integrated, PLC-based, fire-and-smoke-damper control and monitoring system – by BCJV, a joint venture between Balfour Beatty, AMEC and Haden Young.

### EY3600: flexible, reliable, open

The open architecture of Sauter’s EY3600 novaPro Open system was a perfect platform for the project. Its flexibility enabled the realisation of the complex network requirements and its proven long-term reliability will ensure an excellent return on capital investment for the client – a particularly important issue with PFI projects.

Out of a total of 97 control panels, the system has 14 single-section A-station panels controlling the wet systems, dirty extract fans, staircase pressurisation fans, radioactive waste system etc. It also includes 26 A-station panels which control the individual air-handling units, motive power being de-

rived from local distribution boards directly to variable-speed drives located adjacent to motors. This philosophy of distributed control and monitoring – for the pumps, fans etc. – further strengthens the overall resilience of the mechanical services, thus ensuring availability of plant. Full monitoring and control of the system is via workstations utilising a standard browser connected to the BMS IT infrastructure.

### Sauter touch-screen: clear and concise

Another feature of the system is the use of the Sauter EYT 250 colour touch-screen to provide local indication of status and alarm conditions for single-bed isolation rooms. The patients being treated in these areas require specialist care, so the control of their environment, maintaining either a positive or negative pressure regime, is crucial. Nineteen such units were installed, integrated into local nurses’ bases, each one monitoring a number of rooms. Status conditions are clearly displayed and alarms clearly enunciated. This user friendliness meant that the units proved ideal for use by clinical, non-engineering staff.

### Fully integrated fire/smoke-damper control

In addition to the features detailed above, the open system architecture allowed seamless integration of the fire/smoke-damper control and monitoring system with the BMS. This specialist system, supplied and installed by Sauter, includes in excess of 500 intelligent modules connected to eleven separate data networks, thus ensuring system integrity and resilience. The system controls not only fire/smoke dampers but also automatic windows and doors, isolating the ventilation in specific areas on receipt of alarm signals from the fire-alarm system. Windows and doors are opened for smoke clearance and emergency access and all alarms and status information is transmitted to the novaPro Open server.

All of this and the HVAC data may be accessed by the e-workstations connected to the BMS IT infrastructure.

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### Project data

- EY3600 novaPro Open BMS
- HVAC: 12,500 points
- Nineteen EYT 250 colour touch-screens
- Fire/smoke-damper system: 1,600 points
- 97 A-station control panels
- 350 ecos unitary controllers

