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## In just six weeks and on budget, Static Systems Group designs, builds and installs nurse call system for temporary isolation hospital on Lantau Island, Hong Kong

Static Systems' unrivalled expertise and proven track-record in the region has been instrumental in the company being awarded the contract to provide advanced nurse call communication for the North Lantau Hospital Hong Kong Infection Control Centre (HKICC); a temporary isolation hospital funded by the central government for treating COVID-19 patients in the Hong Kong Special Administrative Region (HKSAR).

Built next to another treatment facility at Asia World-Expo, the hospital is capable of providing 136 wards and 816 negative pressure beds. It covers a land area of 30,000 square metres and comprises six inpatient buildings, a medical centre and other facilities. Its design is in line with the standards required for a permanent structure.

### Advanced technology makes a tight deadline possible

To build a hospital of this scale in Hong Kong would normally take four years, however, with new building technology and construction going on around the clock, the project was completed in just four months.

Recognising the urgency for project completion and the intention to provide unprecedented safety for patients and staff, Static Systems Group (SSG) recommended its Ultima™ Full IP, Power-over-Ethernet (PoE) nurse call system which is recognised world-wide for its resilience and reliability.

On this project the use of Ultima was instrumental in meeting the extremely short installation programme. Ultima is designed to be rapidly and easily deployed using industry standard LAN, with the added benefit that each system operates on the principal of distributed intelligence and is therefore capable of running independently of the network at ward level - a feature that helped with speeding up testing.

In order to assist the hospital in achieving its vision, the system included a patient-to-staff speech facility at each bedside.

The benefits of voice communication - whereby calls are responded to by way of a phone conversation - has come to the fore during the pandemic. Deploying patient-to-staff speech enables initial call assessments to take place prior to any bedside visits; negating the need for the nurse to enter the room at all or allowing any preparation to be carried out beforehand and only a single visit required for the minimal amount of time. As such, the risk of infection transmission is significantly reduced, and the amount of PPE used is far lower. Ultima is also a software

controlled, easily scalable solution that uses the latest IP protocols; allowing seamless integration with many different technologies in order to achieve site-focused functionality based around individual hospital culture. This allows for greater flexibility should there be a need to expand the system in the future, and on the HKICC project allowed the nurse call system of operation to complement the use of negative pressure systems.

### Highest standards of infection control

HKICC is the first hospital in Hong Kong to have every room equipped with a negative pressure system. As such, its construction was immensely complex. The air in the hospital rooms is refreshed 12 times per hour and 99.97% of viruses can be filtered. Every room is equipped with a delivery window that can be locked from both sides. Any items transferred through the window can be disinfected. Doors have been installed with a sensing system that allows patients and medical workers to pass through without touching the handle.

### Patient hand units with infection control in-built

Patient hand units supplied on the project contain a silver-based antimicrobial agent which is incorporated during the manufacturing process to help further strengthen the infection control measures instigated by the hospital. Importantly, the active agent will not degrade over time. Units are also sealed to IPX7 and can be immersed in a disinfectant solution or cleaned with a sterilising wipe to eliminate bio-hazards and reduce cross-infection risks between users.

### Partnership working to reduce lead time

Installation and commissioning were completed during January 2021 followed by intense cleaning ready to accept patients. As the construction plan was only 4-6 weeks from receipt of the purchase order, Static Systems Group in the UK liaised closely with its long-established partner, Static Systems Hong Kong, to arrange pre-order drawings for approval to reduce the lead time in its UK manufacturing plant. This led to a standard front plate being fitted into the Chinese-built medical supply units installed into the hospital's modular wards, and subsequently allowed the project to be completed on time and within budget.

### Remote technical support

The remote diagnostic features included with the Ultima nurse call system enabled minor commissioning issues to be quickly rectified locally by Static Systems' Hong Kong engineers with the support of Static Systems' technical support team based in the UK.

Ultima has been deployed worldwide by Static Systems Group, including recent projects in South America, Asia and the Middle East.

**For further information visit: [www.staticsystems.co.uk/ultima-wired-nurse-call](http://www.staticsystems.co.uk/ultima-wired-nurse-call) or email: [sales@staticsystems.co.uk](mailto:sales@staticsystems.co.uk).**



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