SSG ULTIMA™

Advanced Nurse Call Systems

Adding the **V** to **IP**

ULTIMA™

Advanced Nurse Call Systems

A VIP solution
Easily adapting to support the changing needs of hospital environments

The COVID-19 pandemic exposed the challenges that contemporary hospital environments experience when required to scale.

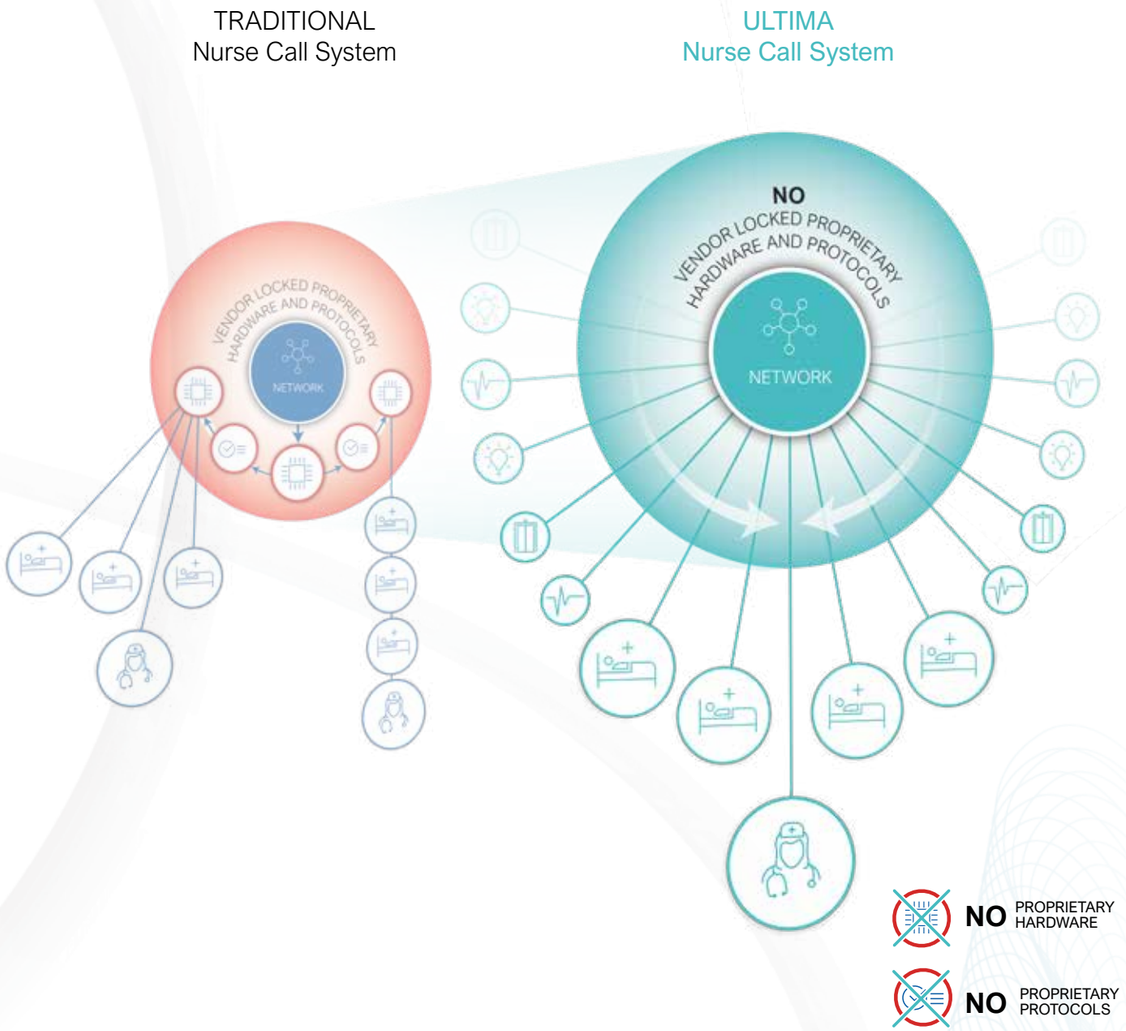
Hospitals were forced to establish temporary solutions and adapt non-clinical spaces to accommodate rising admission rates.

IP-based Nurse Call systems enable hospitals to utilise technologies that can rapidly accommodate changes in room use, or an increase in hospital beds. This will enable hospitals to become more resilient in the future.

> "Adaptability, convertibility, and scalability should be at the very core of hospital development and management strategies[1]"
>
> M Lukasik et al. 2021

The ULTIMA Difference

The ULTIMA Advanced Nurse Call system offers a unique full end-to-end IP solution which utilises industry Standard Internet Protocol (SIP)/LAN infrastructure to deliver a versatile, scalable and cost-effective scheme



Using industry standard IP technology throughout, ULTIMA eradicates the need for proprietary vendor locked hardware. Devices can instead sit directly on the IP network to enable enhanced flexibility, scalability and integration capability without unnecessary infrastructure and associated costs.

VERSATILE

ULTIMA™ has been designed so that each bedhead unit integrates directly with the industry standard LAN, meaning the wiring is not constrained by physical ward boundaries

- Additional beds can be easily added to wards or to other spaces. Any IP point can be used to plug in bed units without additional wiring or infrastructure changes.
- Each nurse call device is independently connected to the system with its own power source, meaning units can be connected, disconnected and replaced without causing disruption.
- If one bed system fails, it will not impact the rest of the ward as traditional systems with central controlling equipment in each ward would.

The versatile design of ULTIMA allows hospitals to flex and scale in line with healthcare needs.

Case Study

North Lantau Infection Control Centre Hong Kong

This temporary infection control hospital was built in 4 months in response to the COVID-19 Pandemic

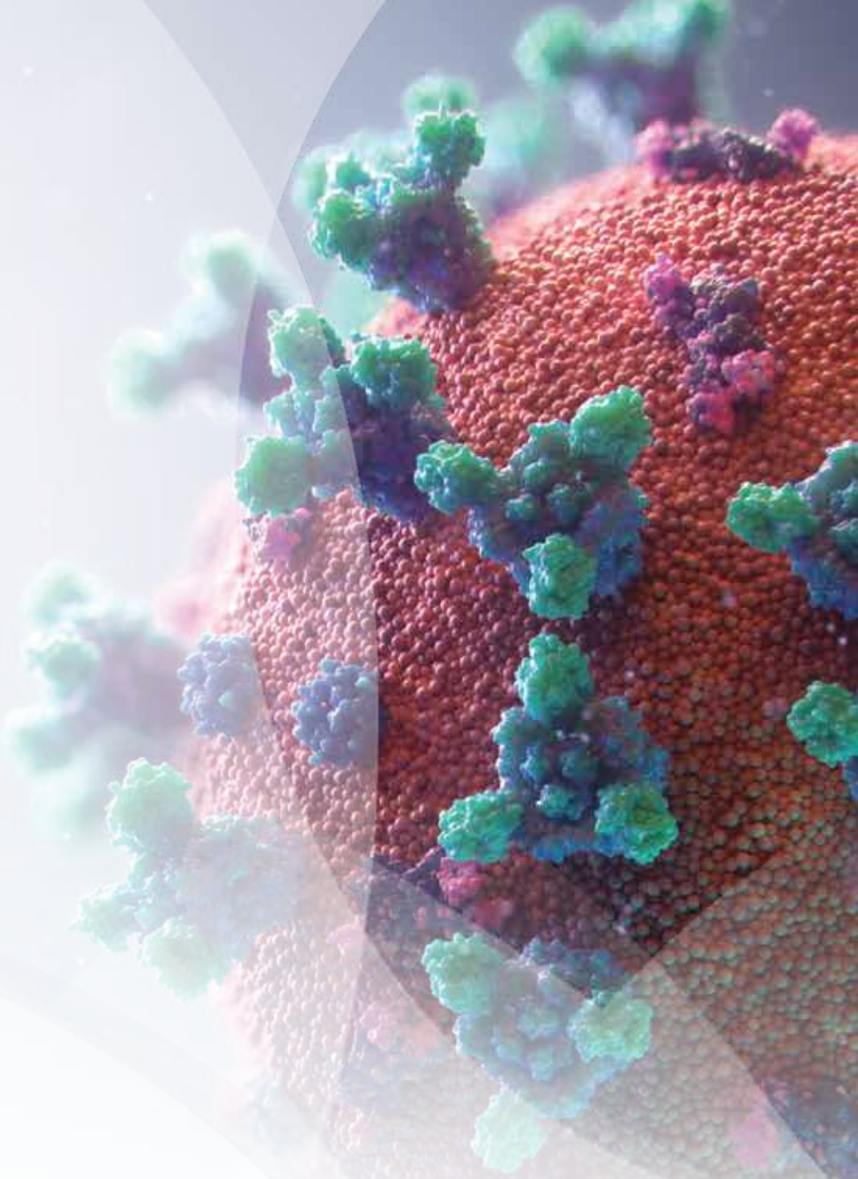
The 136 ward facility employed 816 individual negative pressure bed environments to minimise the risk of virus transmission. ULTIMA was selected because its modular IP technology allowed rapid deployment in line with the short build deadlines. Voice over Internet Protocol (VoIP) speech capability was deployed at every patient's bedside, enabling staff to communicate with patients without having to unnecessarily enter their room and compromise the negative pressure environment. The modular nature of ULTIMA ensures that the facility can easily scale or adapt in response to the changing healthcare environment.

VOICE ENABLED

ULTIMA™ provides superior speech communication through industry standard and SIP controlled VoIP to effectively connect patients and staff

- Through VoIP, patients can call and talk with staff wherever they are in the ward or department. They can then immediately assess the patient's needs, reassure them and take appropriate action.
- Routine calls can be conducted without unnecessary journeys or duplication of effort between staff.
- There is no limit to how many speech devices or patients can be contacted at any time as each device has its own extension.
- ULTIMA uses industry standard speech technology to easily connect with other VoIP telephony systems and smart devices, allowing seamless communication.

ULTIMA enables improved staff and patient communication through a range of voice enabled solutions



Case Study

COVID-19 – Reducing the Risk of Transmission During the recent global pandemic

For many SSG customers, ULTIMA provided two-way speech to reduce the risk of transmission between staff and patients

The nurse call speech facilities were enabled and connected to existing telephony systems. Regardless of their location, staff could respond to patient alerts and assess their needs through hands-free devices, meaning time spent in their rooms was minimised and PPE could be reduced. Isolated patients could be reassured by speaking with carers without risk of transmission.

VENDOR AGNOSTIC

In line with the NHS Digital Strategy, ULTIMA™ is fully interoperable and can be integrated with any IP capable device or platform

- Room light settings can be adjusted via the patient handset, or ULTIMA can automatically manage it in response to a medical event.
- ULTIMA can be integrated into Access Control Systems to reduce clutter and manage access to the ward. It can also lock or unlock doors in response to emergencies.
- Patients can control their local environment including their blinds, heating and entertainment to enhance their wellbeing.
- Integrating telephony systems and smart devices provide handset and hands-free communication between staff and patients.

ULTIMA can support management of the ward and bedside environment to enhance patient and staff wellbeing

Case Study

Musgrove Park Hospital, Taunton

The move from Nightingale style wards to single bedrooms at Musgrove Parks' Jubilee Building required a change in how staff communicated with each other and with their patients

SSG's Nurse Call was deployed and integrated with Vocera's hands-free VoIP badge across 112 patient rooms. Patients could raise a call via the ULTIMA handset, which would then communicate with the Vocera system.

Staff could quickly identify which patient had called and after accepting the call could assess their requirements. Once the conversation had ended the call could be closed and staff members could focus on dealing with the patient's request.

Staff have reported that the system has significantly improved communication, enabling them to effectively deal with emergencies and efficiently manage enquiries from patients and family members.

Studies have shown that nurse call systems integrated with hands-free communication devices reduced nurse-to-patient response time by 51% and quantitatively and qualitatively reduced 'load' on the nursing staff.[2]

VALUE FOR MONEY

Integrating directly into the hospital LAN and industry standard IP design enables multiple cost benefits.

- The modular nature of ULTIMA™ reduces the duplication of additional wiring and associated cost.
- Customers can select readily available components such as switches, cabling and racks, which can be more affordable than manufacturer specified hardware.
- ULTIMA can exist alongside other services and systems, reducing infrastructure costs and enabling easy integration with third-party devices.
- The system has been designed to be user serviceable with no specialist tools, software or third-party contractors required.
- The IP technology allows for full remote access, such as remote diagnostics, software upgrades and configuration changes, so engineers do not need to be deployed and work can be completed quicker.

Compared to SSG's Codemlon Nurse Call Systems, the whole life cost of ULTIMA over 15 years has been shown to be 12% lower

12%
Cheaper life cost

VALIDATED

ULTIMA complies with all UK standards for peace of mind in its quality and performance.

LAN/IP standards

- ISO/IEC 11801: Category 5e Class D Performance standard
- ANSI/TIA/EIA-568B.2: Balanced Twisted-Pair Cabling Components
- ANSI/TIA/EIA-568B.3: Optical Fiber Cabling Components Standard
- IEEE 802.3af: Power over Ethernet
- IEEE 802.3u: 100BASE-T
- IEEE 802.1Q: Virtual Bridged Local Area Networks

Product Safety Standards

- BS EN IEC 62368-1:2020+A11:2020
- BS EN 55032:2015+A1:2020
- BS EN 55035:2017+A11:2020

UK nurse call standard

- HTM 08-03

ULTIMA
delivers proven security, reliability and performance you can trust

SSG Limited
Heath Mill Road, Wombourne, Staffordshire, WV5 8AN, UK
01902 895 551
www.staticsystems.co.uk

1. Lukasik M, et al. Int. J. Environ. Res. Public Health 2022, 19, 6752.
2. Kuruzovich J, et al. Comput Inform Nurs 2008;26:159–66.

a Halma company

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