![NiQ HEALTH — Care Management Information Systems]

CarePlus™ providing a unified communication platform at Emerald Hospital, Emerald QLD

Executive Summary

Emerald Hospital
- Regional, public hospital in Central Queensland
- 36 beds

Challenge
- Backward compatibility to legacy nurse call system required.
- Introduction of fixed button duress system.

Solution
- CarePlus™ CCM replaced legacy nurse call system in all wards.
- Existing room controllers kept in some wards to reduce cost.
- New fixed duress system, integrated into the CarePlus™ system.

Results
- Integration of duress system and nurse call system onto same communication platform.
- Minimised initial cost by retaining room controllers from legacy nurse call system.
- Call management and call logging enabled with CarePlus™ system.

Queensland Health

Queensland Health is committed to providing quality healthcare to Queenslanders; they aim to improve the health and well-being within the state of Queensland. Queensland Health comprises a network of 17 hospital and health services, and the Mater hospitals. They deliver the services of inpatient, outpatient, emergency services, community and mental health services, aged care services, and public health and health promotion programs.

Queensland Health is a state government, public health body responsible for providing healthcare to the state of Queensland. The values of this organisation include caring for people; leadership; partnership; accountability, efficiency and effectiveness; and innovation. The objectives and strategic outcomes are dependent on the government leading Queensland Health.

Challenge

Emerald Hospital is a regional, public hospital located in Queensland. Emerald Hospital comes under the Queensland Health umbrella, in the Central Queensland region. Emerald Hospital is quite a distance away from several major referring hospitals, 275km from Rockhampton Hospital and 900km from The Royal Brisbane and Woman's Hospital.

The acute ward at Emerald Hospital, housing 36 beds, looks after acute/medical conditions, paediatrics, maternity, limited acuity care, aged care, palliative and respite care, as well as some rehabilitation for post-operative patients.

In July 2010, rural and remote infrastructure and renewal reports were conducted on rural Queensland hospitals. The Service Profile for Emerald Hospital indicated several additions needed to be made to the hospital including; a new outpatient department, an increase in recovery chairs, an increase to treatment spaces in the emergency department, additional consultation rooms, a multipurpose staff and education room, and a new child friendly waiting area.

Emerald Hospital was looking for a solution to their ageing legacy system and to install a new robust, fixed button duress system. CarePlus™ was the best nurse call solution for Emerald Hospital, as it allowed backward compatibility with their Sedco legacy nurse call system. CarePlus™ was presented as an economical solution to solve the issues that Emerald Hospital was facing, and to meet the future needs highlighted in the renewal report.

Meeting challenges of specialisation:

- Emerald Hospital required a nurse call solution that allowed them to upgrade their ageing Sedco legacy system with minimum disruption to patients and staff, and in an affordable manner.

- Emerald Hospital required a new duress system to be installed in their facility, one that connected to the nurse call system, improving workflow.

Challenges and technical considerations

A number of technical challenges were faced by Queensland distributor, HealthCare Communication Solutions (HCS) in designing a CarePlus™ solution to meet the challenges of Emerald Hospital.

- Removal of legacy Sedco nurse call equipment in Community Health, Accident and Emergency, and Theatres of Emerald Hospital.

- CarePlus™ needed to connect to an older legacy system in maternity and general wards of Emerald Hospital.

- Fixed duress system to be installed into the whole of Emerald Hospital, this duress system needed to be integrated into the nurse call system to allow for better management.

Facilities at a glance:

- 36 beds

- 24 hour Accident and Emergency services

- General Outpatient Department for non-urgent conditions

- Day, minor and general surgery

- Acute medical services

- Gastroenterology

- Specialist clinics

- Respiratory

- Diabetes education

- Pacemaker checking

- Red Cross Blood Bank

- Maternity/nursery and antenatal services

- Dental clinic

- Outreach and visiting services including a flying surgeon, cardiologist, obstetrician/gynaecologist, ear nose and throat specialist, adult psychiatrist, and paediatrician.

Solution

CarePlus™ was presented as an economical solution to replace all aging legacy equipment. All Sedco equipment in Community Health, Accident and Emergency and Theatres were replaced with CarePlus™.
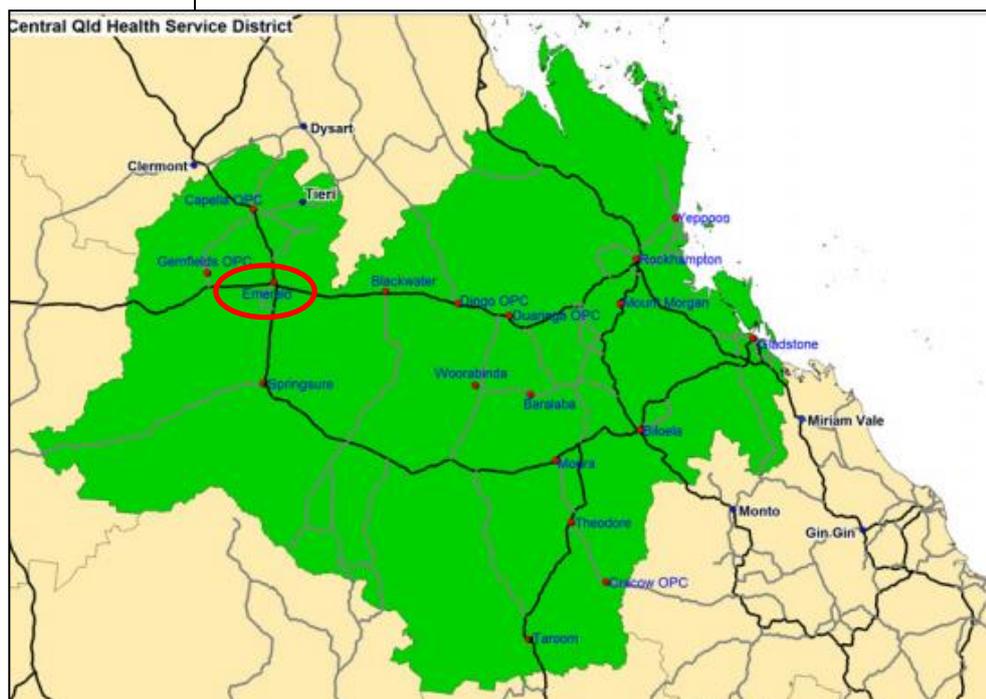
However, in other parts of the hospital a head end upgrade was completed to provide a more economical and affordable solution. CarePlus™ Central Control Modules were installed, but old room controllers were kept in these wards.

This successful installation allowed Emerald Hospital to run on a universal CarePlus™ platform, improving workflow and efficiency within the hospital. This universal platform also allowed the new duress points to be migrated into the upgrade. The zoning capabilities between CarePlus™ display zones were able to be utilised.
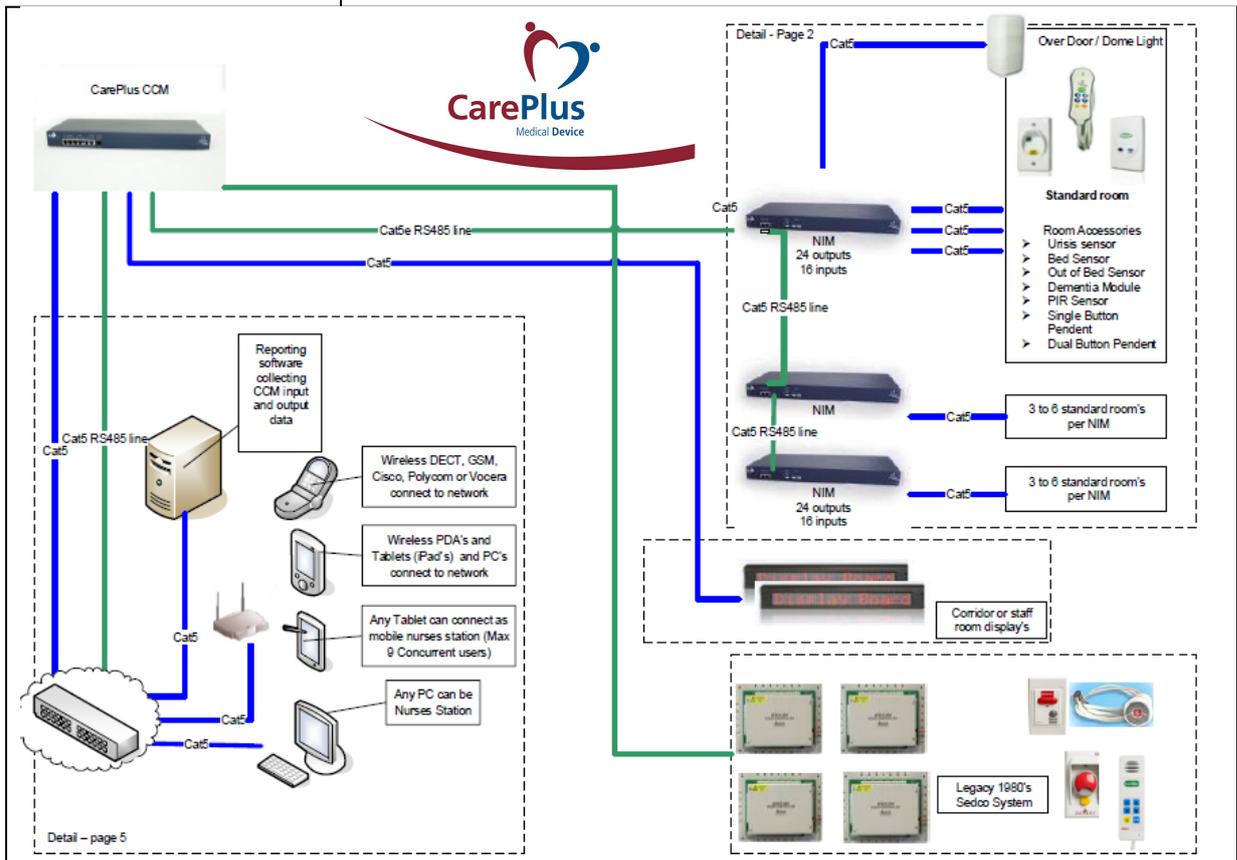
Technical Solution

- Removed Sedco legacy system and replaced with CarePlus™ Central Control Module (CCM).

- Room controllers in some wards were kept, reducing initial cost. Where they were removed, those room controllers were then able to be kept as spares for other wards.

- All CCMs are pointed back to a central CarePlus™ call logging server. This allows the new duress call points, along with all existing nurse call, to be comprehensively logged.

- Significant communications wall space was reclaimed for Community Health, Accident and Emergency, and Theatres when the ageing legacy system was removed and replaced with the CarePlus™ system.

Map showing Emerald

Unified CarePlus™ Communication Platform

Mr Aaron Patterson, Project Manager at HCS said;

"CarePlus™ was a natural fit for Emerald Hospital leveraging their previous investment in cable infrastructure, providing Queensland Health with a high return on investment".

Basic Ward Configuration

RESULTS

- Improved the nurse call solution for Emerald Hospital by integrating a new duress system, and upgrading the nurse call system onto a universal CarePlus™ platform.

- Installed the CarePlus™ nurse call system while still retaining some existing parts of the legacy Sedco system. This minimised cost for the hospital, disruption to staff and patients, and the need for staff retraining.

- This upgrade allowed for space to be reclaimed in the communications room when the Sedco legacy system was replaced with CarePlus™ CCMs.

- Comprehensive call logging enabled and call management processes were improved with the introduction of the CarePlus™ nurse call solution into Emerald Hospital.

- CarePlus™ allowed for remote access into the system to be enabled. This allows HCS to maintain and service this rurally located hospital, without long delays.