

**CASE
STUDY**

IT Perspective on Nurse Call: Leveraging a Common Information Path for Converged Communications, Improved Clinical Workflow and Better Patient Care

Nurse Call Technology Highlights:

- Highly configurable, software-based approach with no third party middleware
- All patient requests sent to a centralized operator for triage and staff assignment
- Integration of Cisco WiFi network and the Electronic Medical Record
- System serves as primary alerting and messaging platform
- Meditech integration using HL7
- CAT5/CAT6 home run wiring for room by room troubleshooting

Project Scope

When it comes to nurse call, hospital IT departments play a crucial role in system oversight, functionality and maintenance. The nurse call selection committee for Elmhurst Memorial Healthcare's new Main Campus was a multidisciplinary internal team that included IT and Nursing representatives. One of the top priorities for the new system was to meet caregivers' needs and leverage the technical infrastructure to deliver the best experience for the patient.

"We wanted to support the caregivers and make sure the nurse call business decision was sound from a technology perspective," said Matt Sterling, Director of Information Services, Elmhurst Memorial Healthcare. "Going into the selection process, we also wanted to verify that the nursing staff was comfortable with the technology and could understand how to leverage the nurse call system."

From a technology standpoint, the old system did not provide adequate reporting or management information and had staff basically "chasing lights." Sterling and his team wanted a nurse call system for the new Main Campus that would integrate into existing systems, including the Cisco WiFi network and the Electronic Medical Record.

Elmhurst's Approach

Going into the selection process, Elmhurst Memorial looked for a nurse call system that could serve as the primary common path alerting and messaging platform for the Main Campus. The new system had to be robust enough to leverage the information in the system to manage events, alarms, messages, bed exits, patient monitor alarms and all other activities central to workflow management. The Elmhurst Memorial team also wanted to minimize the number of systems used to accomplish these tasks.

"When looking at Critical Alert's solution, we were impressed that they eliminated the need for third party middleware—that makes management of the entire system easier. Their centralized call answering approach, and the technologies to support it, were what sold us on CommonPath."

Deployment Highlights

A principal factor for Elmhurst's team was the configurability of CommonPath's nurse call rules and workflows engine that expedites the fulfillment of patient requests. "It was important for us to walk through the assignment of alerts and escalations with the Critical Alert team so we could configure a nurse call system that would adapt to the requirements of the new facility," noted Sterling. "What we didn't realize until later was that this process really spearheaded much of how we were going to operate in the new Main Campus."

A primary focus was the integration with Meditech using HL7. Once the selected data was determined and the data mapping was completed, this integration was easily accomplished by Intego. The ability of nurse call to leverage Cisco wireless phones was another key IT consideration. The CommonPath messaging, shift assigner and escalation engines made delivery of the right message to the right staff seamless.

Clinical workflow management was streamlined and improved due to CommonPath ability to allow care providers to assign staff offline and then activate, without needing to access a separate system. This helps ensure that alarms are answered in a timely fashion and that staffing and workflow specifications align with shift changes and other variables.

"We also wanted a system that would be easier to troubleshoot on a room by room basis and liked the fact that the Intego system used standard CAT5/CAT6 home run wiring to meet this requirement," observed Sterling.

System Benefits Since Deployment

Critical Alert's CommonPath Centralized system was first implemented in the new Main Campus. Sterling confirms that the primary goal was achieved – to install a nurse call system that delivers on nursing's specifications and improves the patient experience. In fact, Elmhurst Memorial Hospital's Patient Care Services has reported a marked increase in patient satisfaction using the CommonPath Centralized system.

From an IT perspective, working with CommonPath's software and system since launch has also delivered on the goals to leverage information to improve clinical workflow and converge communication platforms. According to Sterling, the CommonPath system has provided the information needed to meet clinical and patient expectations and to provide accountability.

There have also been some unanticipated benefits as the Elmhurst Memorial Hospital staff began working with the CommonPath Centralized system. The new system has become a tool that the hospital now uses to improve communication between departments, as well as between patient and caregiver. But it's been the nimble, scalable nature of CommonPath's system design that has made a real impression with Sterling.

"The fact that CommonPath is software-based was not a major consideration for us in the selection process," notes Sterling. "But now that it's been implemented, we're seeing firsthand how easy and quick it can be to develop new applications and integrations. The ability of CommonPath to easily make these kinds of changes means we're going to get more value out of this purchase as time goes on."

Elmhurst Memorial Healthcare is taking full advantage of that flexibility, with in-house developers working on further integrations that use Critical Alert's CommonPath to help reduce and simplify systems without reducing services.