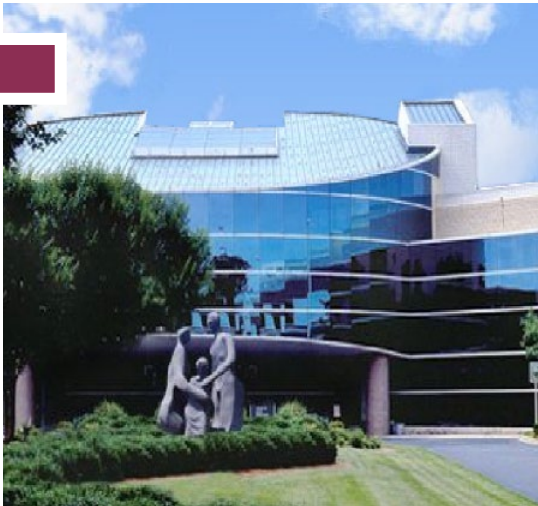


[CASE STUDY]

Customer: Alamance Regional Medical Center

Solution: Purpose-built, clinical grade handsets and professional integrated messaging



ALAMANCE REGIONAL MEDICAL CASE STUDY ASCOM WIRELESS COMMUNICATIONS SAVE TIME AND IMPROVE PATIENT SATISFACTION

Alamance Regional Medical Center (ARMC) in Burlington, NC is a healthcare organization with more than 2,026 employees. Specialized services include a Heart and Vascular Center, a Level II/III Special Care Neonatal Nursery, a fully accredited Cancer Center and complete Rehabilitation Services. Recognized as one of the nation's leading hospitals in adopting new technologies, ARMC was one of the first hospitals in the USA to implement a computerized physician order entry system.

The Challenge

Bill Payne, Director of Facility Engineering and Safety, was part of a hospital-wide committee tasked with choosing an on-site wireless system that would meet the hospital's current needs and future vision of a fully integrated mobile workforce. The committee was specifically looking for a system that not only provided reliable voice but also delivered automated event-generated text messages and alerts immediately to the mobile workers.

Prior to the project, ARMC was highly reliant on USA Mobility wide area pagers for communicating to mobile clinical and operations staff. The pagers worked well for those workers who were moving between facilities every day; however, messages were not received in a timely fashion. In fact, it took up to two minutes for a message to appear on a pager once an alarm was generated. This delay was unacceptable for most care providers. Since the goal was to integrate the on-site wireless system with clinical systems to obtain real time critical communications, quicker alert delivery was essential.

With a vision of the ultimate on-site wireless system for ARMC, the committee evaluated several of the industry leaders. Payne said, "the team looked at SpectraLink, Vocera and Ascom to make an informed decision. We found that the Ascom handsets were more robust and felt they would hold up much better in a hospital environment. We also determined that there would be huge HIPAA concerns with the Vocera badge because we couldn't control what people would be saying over the speaker."

[CASE STUDY]



The Ascom Solution

ARMC chose the Ascom solution because Ascom provided a portfolio of purpose-built handsets for healthcare and also provided the software for integration to numerous clinical systems. With its global headquarters in Gothenburg, Sweden and US headquarters in Research Triangle, NC, Ascom is the world's largest on-site wireless solutions provider. Ascom has over 75,000 installations worldwide and specializes in the healthcare market.

ARMC started by deploying the Ascom FreeNET VoWiFi i75 handsets in a portion of the hospital to leverage existing 802.11 WLAN Alcatel infrastructure. The FreeNET system worked well but there was some concern over having all of the hospital's applications residing on a single network. There were questions regarding Quality of Service (QoS) as well as having a disaster recovery plan that maintained voice communications even if the WLAN went down. In addition, the IT department was very focused on data applications over the WiFi network and did not want to share this network with voice.

The hospital made a strategic decision to continue with Ascom but to switch to the Freeset IP-DECT technology at the main hospital location while continuing to use the Ascom FreeNET VoWiFi solution at the other outlying facilities. The Ascom IP-DECT solution provided ARMC a way to keep its voice application on a separate dedicated network which alleviated the concerns over QoS issues while providing a disaster recovery plan that allows the Ascom handsets to remain operational even if the WLAN and the PBX are taken out of service.

ARMC has over 300 Ascom wireless handsets currently in use throughout the entire hospital. Ascom handsets are an important tool for nurses in many departments including Orthopedics and Labor & Delivery as well as for staff in other departments such as Rehab Services, Care Management and Environmental Services. Hospital staff have used the Ascom handsets for over a year now and have continually developed new clinical systems integrations to help improve work flow.



Ascom d62 and i75 handsets, with the UNITE Messaging Suite, are the only healthcare-specific devices capable of smart integration with clinical and nurse call systems.



“The Ascom handset provides a single mobile device that allows voice conversations, text messaging and alerts from clinical systems. Once the Ascom handsets were introduced, nurses started turning in their pagers.”

— James Waite, Systems Engineering Manager

James Waite, Systems Engineering Manager, is the person responsible for making sure that all of the clinical systems at ARMC are working correctly and providing clinicians with diagnostic information that is both easy to use and available at the point of care. “The Ascom handset provides a single mobile device that allows voice conversations, text messaging and alerts from clinical systems,” said Waite. “Once the Ascom phones were introduced, nurses started turning in their pagers.”

ARMC utilizes a Siemens MedSeries4 for its Hospital Information System (HIS) and Eclipsys Sunrise Clinical Manager as the hospital’s Clinical Information System (CIS) with an embedded Clinical Decision Support (CDS) module. The CDS module has been programmed with over 150 “triggering events”. ARMC utilizes the CDS to quickly identify certain pre-conditions such as Methicillin-Resistant Staphylococcus aureus (MRSA) and Acute Myocardial Infarction (AMI) when patients arrive at the hospital.

When any of these “triggering events” occur, they can now be sent immediately and automatically to the mobile workers carrying an Ascom handset. ARMC staff program the system to look for key words and then automatically generate a text message that can be transmitted to one or several Ascom handsets. This helps inform the proper staff and provides quicker medical care for the patient. The hospital also sends automated text messages directly to Charge Nurses on the units and in the Emergency Department regarding critical values from their Quality Software System’s Laboratory Information System (LIS).

Sending automated critical values directly from the LIS to Ascom handsets significantly reduces the time a patient has to wait for diagnosis and treatment. This process has also helped ARMC meet the Joint Commission’s new requirement for notifying physicians of critical values within one hour while maintaining a documented audit trail to prove compliance. Several other integrations are also being tested or are in the planning stages including sending critical value alerts from the Radiology Information System (RIS).

The Labor and Delivery area of the hospital has also integrated Ascom phones with the Rauland-Borg Responder 5 nurse call system. This integration allows patients to press their pillow speaker button and speak directly with their nurse on an Ascom handset. Once the patient has asked for medication or any other type of assistance, the nurse can quickly respond directly to the request or pass it on to a Certified Nursing Assistant (CNA). This of course leads to a quicker response to patient needs which translates into an increase in patient satisfaction.

[CASE STUDY]



Results & Benefits

Every department within the hospital has its own reasons why the Ascom handsets have improved safety and satisfaction for patients and employees. The nurses have stated that the Ascom handsets allow them to spend more time with patients. They no longer have to walk back and forth to a nurse’s station to speak with doctors or other hospital departments on a wired desk phone. They also enjoy getting text messages, which are less obtrusive than overhead paging, from the Charge Nurse while they are busy in a patient’s room. Some of the supervisors like being able to call in from outside the hospital to directly contact their Shift Coordinator who is using an Ascom phone. They are able to reach the Shift Coordinator quickly to determine if they need additional staffing help or to follow up on a specific patient.



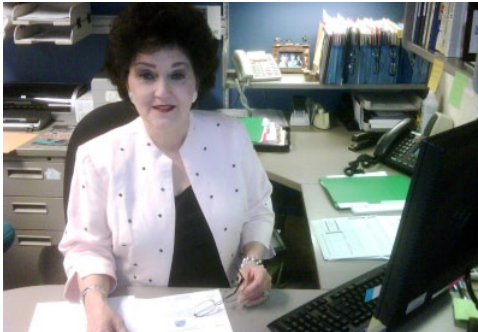
“The team looked at SpectraLink, Vocera and Ascom to make an informed decision. We found that the Ascom handsets were more robust and felt they would hold up much better in a hospital environment. We also determined that there would be huge HIPAA concerns with the Vocera badge because we couldn’t control what people would be saying over the speaker.”

— Bill Payne, Director of Facility Engineering and Safety

The nurses have all stated that even though they do drop their Ascom phones frequently, the handsets hold up very well and continue to work. Nurses also noted that because the Ascom handsets are water resistant, they can be disinfected after every shift then returned to the rack charger. Other preferred features of the Ascom handsets are the backlit display for use in rooms when a patient is trying to rest and the inverted text option. The inverted text feature allows users to quickly read a text message without removing the phone from their scrubs.

Staff also like the large font option which allows them to review the text without reading glasses. Other departments such as Rehabilitation Services, Care Management and Environmental Services liked the fact that they could be reached anywhere within the hospital, allowing them to do their jobs more efficiently. The Ascom phones have dramatically cut down on the number of missed calls and voice mail messages that busy employees need to follow up on at the end of each day.

[CASE STUDY]



“Ascom has been a true partner throughout the design and implementation of our system. They have a complete portfolio of handsets from a low end to a high end so that we can save money while providing the best device for each individual based on their needs.”

— Malinda Mansfield, Director of Telcom

Systems Engineering, Facility Engineering and Telecom all agree that Ascom is the right choice. Malinda Mansfield, Director of Telcom, stated that, “Ascom has been a true partner throughout the design and implementation of our system. They have a complete portfolio of handsets from a low end to a high end so that we can save money while providing the best device for each individual based on their needs.” Mansfield noted that another big benefit of the Ascom system is that it incorporates a centralized management system where every handset throughout all of ARMC’s facilities can be managed remotely through a web interface. This feature allows the hospital to change features, update corporate directories and upload new software to the handsets without having to find and update each one individually.

James Waite stated that he likes the Ascom solution because it delivers critical messages so much faster than the pagers. The average time for a page to reach a pager is currently 22 seconds with some taking as long as 2 minutes. With the Ascom system they all seem to arrive within 5 seconds and each second counts when you are sending critical information. James also likes the fact that the Ascom system is so easy to use. He comments, “I can easily format messages so that they send exactly what I want the user to see which makes messages clearer and easier to understand. And now that we have the interface completed, it is a breeze to add on any other new alerts and messages from any other systems throughout the hospital”.

Bill Payne noted that after having Ascom installed for over a year, the hospital knows they made the right decision. He is glad they decided to install Freetel IP-DECT as a dedicated system at the main campus and install the FreeNET VoWiFi system at their outlying facilities. Ascom was the only vendor that could provide this type of flexibility. Payne stated, “as healthcare becomes more and more automated and computerized and communication becomes electronic then this is a critical piece of our infrastructure plan. We need a system that is reliable and works quickly and so far Ascom has done just that”.

Summary

Alamance Regional Medical Center has found that enabling mobile voice communication and delivering critical messages to the right people at the right time are key factors in improving response time for patients and staff thereby improving overall care. Mobile voice and messaging is more critical than ever to delivering increased patient satisfaction and staff effectiveness. To find out how Ascom communication solutions can improve operations at your facility please call 877-71ASCOM or visit www.ascom.us.