



CASE STUDY

Naval Medical Center Portsmouth, VA.

American Messaging configured and implemented a robust, scalable system for extremely fast and reliable Code Blue notifications. In life and death situations flawless emergency communications are needed. American Messaging offered the only solution that matched Naval Medical Center Portsmouth's stringent requirements.

BACKGROUND

Naval Medical Center Portsmouth, Virginia (NMCP) has proudly served the military and their families since 1830, making it the Navy's oldest continuously operating hospital. This patient driven TRICARE facility is entrusted with the health readiness of the United States armed forces. The main campus of NMCPs home to 5,000 men and women providing healthcare services to all our armed forces. NMCP is one of many regional commands that constitute the largest military concentration in the world.

CHALLENGE

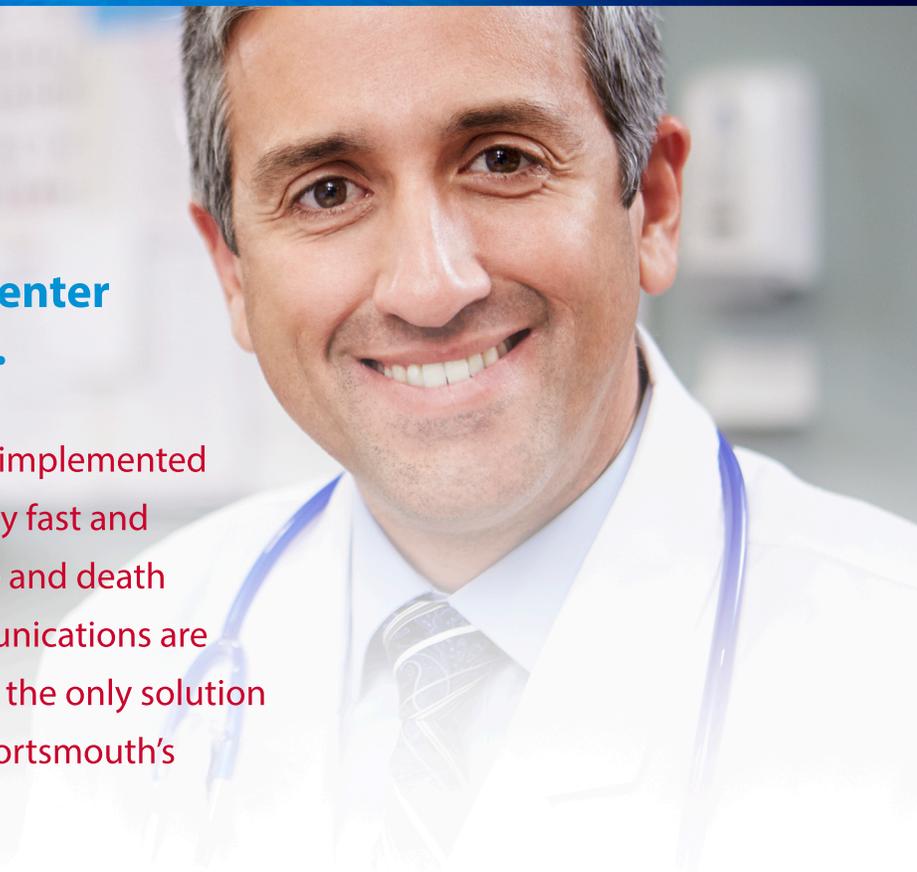
NMCP needed to develop a private critical communication system to deliver their most critical communications... "Code Blue" notifications. Code Blue notifications are critical communications to the Drs, nurses and care coordinators responsible for emergency situations on campus. Due to the life and death nature of these notices the message must be deployed ubiquitously and immediately. The Code Blue notification system could not rely on public carrier networks due to their inherent delays.

CRITICAL FACTORS

The Code Blue communication system needed to be easily accessed and cover a large area with near immediate notification capability. The system had to penetrate 100% of the campus buildings including all sub levels. The system also needed to avoid public infrastructure with no external networking. Dispatch methods were to be limited to secure locations with appropriate security privileges as well as have redundancy and stand alone input methods. The device form factor needed to be small with extended battery life and messages had to be sent to ONE-to-MANY simultaneously and in seconds. Lastly, the system needed to be un-breachably, cost effective and easily deployed.

QUICK FACTS

- ★ Critical Messaging System for Code Blue notifications
- ★ Private and secure
- ★ Immediate notification
- ★ 100% Penetration
- ★ Simultaneous message receipt
- ★ Cost-effective and easily deployed





PROCESS

NMCP began meeting with vendors, solution providers, consultants and internal teams to come up with a solution that met all the criteria. It quickly became evident that much of the available technology was going to be too costly or would not satisfy all the critical factors for such a comprehensive notification system. NMCP also initiated an RFP in which only one vendor, American Messaging, was able to respond accordingly.

SOLUTION ALTERNATIVES

Cellular/PCS **Cons:** Public, network congestion in emergencies, expensive, unattainable frequencies.

WiFi **Cons:** Lack of ubiquitous coverage, lack of one-to-many capability, lack of personal devices, expensive infrastructure for wide area.

Mobile Radio **Cons:** Device form factor, battery life, expensive devices, frequency availability.

SOLUTION

American Messaging built a private critical messaging system on a dedicated frequency employing an American Messaging IT Messaging Server and a self-contained network. The system employs individually addressable messaging units as well as a mass unit notification capability. The system is known as a Critical Messaging System. This system accommodates the desired critical factors as well as conforms to NMCP's budgetary requirements. American Messaging engineers designed a system to fully propagate the NMCP campus and ensure 100% coverage. This was accomplished by using propagation analysis software and placing two high powered transmitters strategically on NMCP's campus. The transmitters connected to an American Messaging IT Messaging Server which housed NMCP's user database. Three stand alone PC dispatch stations and a Canamax input terminal were installed for message dispatch. Further, a connection to the PBX was implemented for emergency dialing purposes. This allows quick dissemination of the Code Blue messages.

RESULTS

Members of the Code Blue team were given messaging devices which were individually addressable or addressable simultaneously with the rest of the Code Blue team. Being that this was a private network with a private frequency the device thru-put times are in seconds. Further, the system has no outside network connections nor is it connected to the internet so the system cannot be compromised from outside attacks. NMCP is now able to send Code Blue critical messages to **one-to-many** throughout the entire campus **simultaneously** within seconds. The American Messaging Critical Messaging System successfully met the stringent communication criteria while staying within budget guidelines.

