



Building a Critical Communications Network

A Des Moines Case Study with Pulsara and FirstNet®

How EMS and hospitals teams united to build a secure regional system of care for time-sensitive patient emergencies.

CONNECTING CARE TEAMS WITH ONE CHANNEL

Des Moines metro-area EMS agencies and hospital teams wanted to streamline communication and improve care coordination for emergent patient cases, such as heart attack and stroke. They previously used a legacy system when preparing a patient for critical care, making multiple phone calls to alert the appropriate personnel and relay important patient information.



The Central Iowa EMS Director's Association (CIEMSD) recognized a need to connect all caregivers, regardless of department or discipline, with a regional communication platform. They found a solution in Pulsara—a mobile technology that simplifies patient care and coordination.

Implementation of the technology began in November 2017, integrating all of the metro-area hospitals and approximately 30 partner EMS agencies. This enabled all patient care coordination to occur on a single channel vs. multiple outdated means of communication.

ACCELERATING TIME-TO-TREATMENT

This innovative approach allowed EMS to communicate seamlessly with the hospitals by transmitting real-time patient data and updates. In turn, emergency department teams and specialists could quickly prepare for patient arrival and determine the appropriate intervention.

Early results included improved communication and increased efficiencies in patient care and coordination. For example, taking possible stroke patients straight to a CT scan upon arrival, or alerting the cardiologist of an incoming heart attack patient and preparing them for the Cath Lab—bypassing the emergency department entirely.

Most impressively, one of the regional hospital's door-to-CT time improved by 21%, decreasing from 14 to 11 minutes; the door-to-lab time also improved by 13 percent, decreasing from 38 to 33 minutes.



MOVING TO A DEDICATED PUBLIC SAFETY NETWORK

This success motivated Des Moines metro-area agencies to manage all mission critical communication with mobile technology. To further security and priority connectivity, numerous EMS and Fire departments recently started joining FirstNet—a dedicated broadband communication platform for public safety, including hospitals, established by the federal government and being built with AT&T.

"FirstNet gives us always-on priority and preemption, equipping us with a more rapid connection for critical communications," said Dave Edgar, EMS Assistant Chief and CIEMSD Operations Committee Chair. "It is a vital tool that puts EMS in the express lane for sharing important data with regional hospitals, furthering pre-patient prep capabilities."

Over the last year, several of the metro-area agencies have been equipping their apparatus with mobile data systems that support FirstNet, to strengthen connectivity and open all lanes to this protected network designed for first responders. To further improve response in the field, the agencies are transitioning to FirstNet as their primary cell and data service provider.

"Clearing the pathway and eliminating barriers for delayed communication is the true advantage of FirstNet," said Edgar. Metro-region Des Moines healthcare organizations will continue to leverage these technologies to advance critical patient care and response for their communities.





