INMOTION TECHNOLOGY

Richmond Ambulance Authority Case Study

INCREASE RESPONSE TIME OBJECTIVES

BACKGROUND

The City of Richmond, Virginia created the Richmond Ambulance Authority (RAA) to oversee all emergency and nonemergency transport in the city. In 2001, the National Academy of Emergency Dispatch named RAA's Communications Center an Accredited Center of Excellence (ACE). In 2004, RAA realized the emergency response industry was about to experience a shift away from simple transportation towards mobile information technology (IT). RAA's ability to extend their "headquarters" IT resources and the intelligence of its customers' emergency room to the paramedics in the field would significantly improve operational effectiveness. Not only would this increase productivity and effectiveness, but it would also shift the industry's "state of the art". As RAA worked through strategic IT planning it identified nearly a dozen applications that would be part of this "mobile IT" transformation and quickly realized that traditional "remote access" solutions were not going to be adequate for their mission critical communications requirements.

RAA's needs are indicative of a trend in mobile-centric enterprises and government agencies. These organizations are struggling to provide reliable information and communications to their "in motion" professionals. State and local governments are increasing their expenditures on mobile data communications by over 75% per year through 2008 (INPUT). Increasingly, these organizations and the IT executives are recognizing that remote access architectures are not appropriate, and that no single wireless technology is going to be right for all applications and all situations. A different approach to mobile data communications is required.

THE CHALLENGE

- Improve response times and level of patient care
- Reduce exposure to potentially costly future hardware upgrades.
- Populate clinical database to more effectively measure patient outcomes.
- Communicate real-time data to corresponding software to measure driving performance.

In order to tackle the response time objectives, RAA had an immediate need to better understand where its ambulances were – in real time. Dispatchers were communicating with their ambulances by radio to determine their locations and this process was taking 30-45 seconds. It was taking as long as a minute for drivers to look up the incident location on a paper map in their vehicles. The City of Richmond stipulates response times of less than nine minutes, 90% of the time. Failure to meet this commitment results in costly penalties.

Knowing the exact location of ambulances would enable RAA to quickly determine which ambulance should be dispatched to the scene. They began to investigate an Automatic Vehicle Location (AVL) system, but recognized that the communications infrastructure needed to support such an application and future applications like electronic patient care records would involve costly hardware installations and upgrades, as well as lengthy vehicle downtime.

RAA Richmond Ambulance Authority

QUICK FACTS

Formed: 1991

Average Response Times: 8 minutes, 59 seconds

RAA's dispatch center receives over 50,000 calls

Jurisdiction: 62.5 sq. miles

Serving: 200,000 people

To date, RAA is one of only 11 EMS agencies in the United States and 4 in the world accredited by both CAAS and the National Academies of Emergency Medical Dispatch. These accreditations are considered the "gold standard" for ambulance services. RAA is also a Commonwealth of Virginia accredited dispatch center.

Richmond Ambulance Authority

CASE STUDY

THE SOLUTION

Richmond Ambulance Authority chose In Motion Technology's onBoard™ Mobile Gateway to meet their requirements. The onBoard Mobile Gateway provides a mobile communications solution that enables enterprises and government agencies to seamlessly extend their information management resources to the "in motion" workforces using next generation wireless LAN and WAN technologies.

RAA has deployed EMS industry specific dispatch, vehicle location and navigation Road Safety software, and are planning to deploy electronic patient care records software in the coming months. By deploying In Motion Technology's solution, RAA no longer has to worry about modems, modem interfaces, call management protocols, inter-application contention for the modem, or modem call drops.

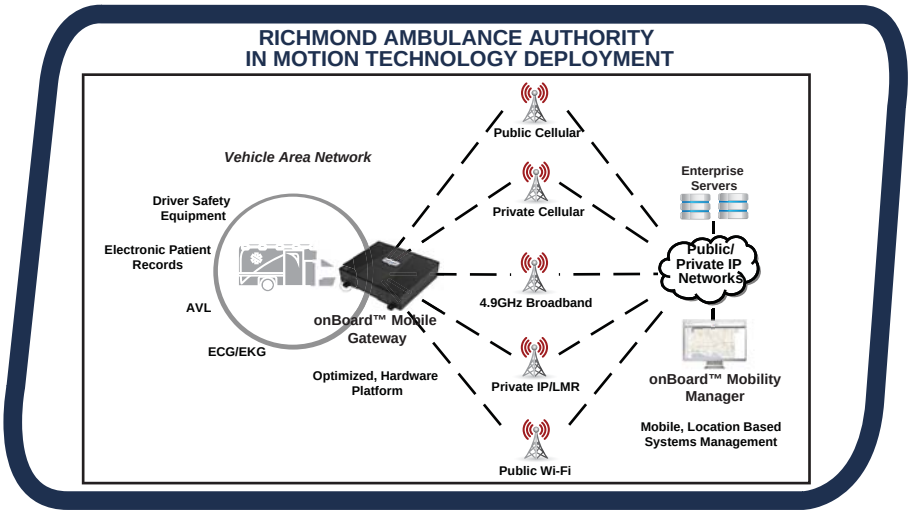
Deployment of the onBoard Mobile Gateway was a straightforward exercise requiring approximately 1-2 hours per vehicle. The majority of this time was spent running power and antenna cables, and installing one or more wireless interface cards. Depending on the network selected, the onBoard Mobile Gateway automatically connects to In Motion Technology's onBoard™ Mobility Manager, and all future configuration changes can be handled remotely – wirelessly, with no impact to EMS teams.

CRITICAL RESULTS

The Richmond deployment has been a huge success. RAA has dramatically improved it's communications infrastructure, and greatly reduced the need for end user intervention. At the same time, it has improved the visibility into the health of the mobile data communications network.

"With In Motion Technology's solution in our fleet, we have seen dramatic improvements in overall response times. We now have a communications platform that will allow us to quickly and easily deploy future technology solutions to our EMTs that improve patient outcomes, driver safety, and overall organizational efficiency, without the need for costly and time-consuming upgrades," says Jerry Overton, Executive Director of Richmond Ambulance Authority. "Our EMTs no longer need to be worrying about IT issues, and can get on with the task of saving lives."

In addition to data plan savings, customers derive total cost of ownership improvements through reduced training costs, simplified network upgrades, and flexibility in applications. RAA has experienced the benefits of simple, cost-effective, and timely updates which have resulted in workforce productivity gains as well as comprehensive visibility and control of their vehicle fleet through the onBoard Mobility Manager. By creating a local area network in each vehicle and sharing the WAN connection among multiple devices, the onBoard Mobile Gateway has reduced mobile data communications costs by 50-90%.



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