

# EAST BATON ROUGE PARISH EMS

## Replacing VPN Paves Way for New Initiatives

In the healthcare field, technology never stops advancing. As the emergency medical provider for East Baton Rouge Parish, East Baton Rouge EMS is always looking for ways to better serve its citizens. But connection problems were standing in the way – problems caused by a mobile VPN that wasn't up to the task. Switching to NetMotion Wireless Mobility XE Mobile VPN solved these problems by delivering persistent connections for the paramedics and clinical systems in the ambulances and also giving them the connectivity platform to support medical advances to come.

### Innovative Patient Information Deployment

The mobile deployment is part of a major technology upgrade that allows ambulances to exchange real-time patient information with receiving Emergency Departments. To the computer-assisted dispatch (CAD) system already in place, East Baton Rouge EMS added an electronic patient care report system (ePCR) and the ability to transmit EKG data. Each ambulance is equipped with a Panasonic Toughbook CF19 for accessing the CAD and ePCR software, as well as for transmitting EKG data from a Zoll heart monitor which connects to the Toughbook via a serial link.

A Sierra Wireless AirLink Router provides a Wi-Fi connection to the Toughbook and an uplink to the cellular data network. To make all the new technology work seamlessly for the paramedics, the Mobility XE Mobile VPN establishes, persists and secures the entire multi-network connection between the Toughbook and the parish government's network.

### Replacing a Mobile IP-Based Solution

While planning the technology upgrade, it was apparent that their existing Radio IP VPN software wasn't up to the job.

"It didn't work very well, or very consistently," according to Darryl Beard, EMS Technology Manager.

Because of Radio IP's architecture, "we needed to jump through six or seven servers to make the previous system function. You had to wonder how it ever worked because there were so many pieces in the puzzle. Our AVL system was often unavailable so we couldn't map where our ambulances were. There would be glitches or dropped data connections, forcing users to log back in. From the end-user standpoint it just didn't work."

“ [We] did a lot of internal testing and ultimately decided that Mobility XE was the best option. Mobility XE has been a fantastic improvement.

– Darryl Beard, EMS Technology Manager ”



#### ORGANIZATION

Baton Rouge EMS

#### INDUSTRY

Healthcare

#### OBJECTIVES

- Replace existing Radio IP VPN to support new clinical initiatives
- Implement ePCR and EKG transmission capability
- Give paramedics reliable, consistent connectivity

#### SOLUTION

- Mobility XE Mobile VPN
- Panasonic CF19 Toughbooks
- Cellular network connectivity
- Sierra Wireless AirLink MP in-vehicle access points
- Legacy CAD dispatch system
- ImageTrend ePCR software
- Zoll heart monitors

#### RESULTS

- Real-time patient data communicated to ED
- Enhanced support for care-improvement initiatives
- Stable communications platform for future advances

“We researched companies that were using Mobility XE and similar products, did a lot of internal testing and ultimately decided that Mobility XE was the best option. Mobility XE has been a fantastic improvement. Now we have a stable, consistent and locked-in connection for our data communications.”

## More Work Completed in the Field

“Our call volume is high relative to the vehicles and crew we have on the street, and there’s not a lot of downtime,” declares Beard. “We serve seven hospitals, four incorporated municipalities and have lot of rural area to cover. We serve that territory from twelve stations scattered throughout the parish. Often, as soon as a crew delivers one patient to a receiving facility, we dispatch them immediately on another call. It’s common for crews to be out for three or four hours at a time, so they’re doing their paperwork from the field. Coverage gets spotty in some of the more rural areas, but the Mobility XE software keeps them tied into our network so they can pull down their shift notes, fill out incident reports and timesheets. Those options were not available before we had deployed Mobility XE.”

“ Mobility XE gives us a much more stable platform, and it’s the platform on which we’ll be doing more and more and asking more of our personnel.

– Darryl Beard, EMS Technology Manager ”

## Supporting the New Role of EMS Service

As Beard explains, new technology has changed the role of an ambulance service. “We used to focus on our dispatch-to-hospital delivery time; now our focus is what we can do in the field to enhance patient outcome and speed the flow of vital health information to the hospital. We import data from our heart monitors directly into the ePCR, and stream those heart rhythms to a secure terminal in the hospital, where a physician can make determinations and prepare treatments before the patient arrives.”

And the persistent connections through Mobility XE play a role in the agency’s quality improvement efforts as well. “Our shift supervisors and unit commanders audit reports as they’re posted during the day. They can call the paramedics with questions, and potentially fix problems while everything’s still fresh in everybody’s mind. And now that we have a solid connection back to our network, the shift supervisors are helping out and mentoring some of the new staff by using remote access software to monitor what they’re doing in the field, while they’re doing it.”

## A Platform for Future Advances

“Technology is leading the way and we knew the Radio IP solution we had in place was inadequate,” Beard summarizes. “Mobility XE gives us a much more stable platform, and it’s the platform on which we’ll be doing much more with technology and asking more of our personnel. We’re about to deploy a medical supply and inventory program. We have successfully tested some high definition video equipment that allows a physician in a remote hospital to observe, question and evaluate a patient that’s traveling down the interstate in the ambulance, potentially speeding their care.”

Above all, having Mobility XE helps Beard follow his own rule: “I’m not going to put any technology into service that’s going to interfere with patient care. Paramedics are focused on patients. When it comes to computer equipment and communications and networking, they want something that just works. Mobility XE does just that, and it does it well.”



## LEARN MORE

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