



Acadian Ambulance Service: Improving Emergency Response for a Leader in Emergency Medicine

A Sierra Wireless® Mobile Workforce Solution

CUSTOMER CRITICAL CHALLENGE

- Private analog radio network with limited capacity
- Slow dispatch communications caused slow response
- Unreliable cellular coverage in rural areas
- Cellular equipment frequently damaged in demanding environments

SOLUTION

- AirLink mobile routers provide secure, instant and reliable communications
- AirLink Mobility Manager (AMM) enables HQ staff to monitor and manage operations in real time using a virtual dashboard

BENEFITS

- Dispatches, emergency communications and patient information are transmitted and received instantaneously and reliably, even in dead zones, speeding responsetimes
- Network congestion and bandwidth limitations no longer hinder emergencycommunications
- Secure, worry-free connectivity for all the data and communications gear employed in Acadian units



BACKGROUND

Acadian Ambulance Service operates 500 ambulances and transports more than 1,800 patients every day across its vast and diverse service footprint that includes urban and suburban areas, the remote swamps of Louisiana's bayou, and offshore oil rigs in the open Gulf of Mexico. Acadian has dispatch centers in Lafayette (Louisiana), as well as Beaumont and Austin (Texas).



"Everyone at Acadian is excited about how this technology has improved the service we provide to the community. It enables our medics to focus on their mission – saving lives – and not whether our communications are going through."

Kenny Logan,
Director of Electronic Technology,
Acadian Ambulance Service

To serve one of the most disaster-prone areas of the U.S., Acadian crews must have the training and technology to deal with a variety of emergencies – ranging from routine illnesses and accidents to mass casualty incidents – and has been recognized as a leader in emergency medicine nationwide.

Business Challenge

Acadian's sprawling footprint poses many communications and management challenges for first responders. For years, Acadian relied on a private analog radio network to communicate with units in the field. But as the company grew and deployed increasingly sophisticated and bandwidth-intensive dispatch systems and on-board medical devices, Acadian needed a mobile communications solution with greater capabilities and reliability.

Dispatches and emergency communications often took two minutes to be received. This delay slowed responses, hindered operations and limited Acadian's ability to deploy the latest technologies in its fleet.

To augment its private network, the company used commercial cellular services. However, cellular coverage is unreliable in parts of rural Louisiana, and cellular air cards and modems were frequently damaged from use in demanding emergency environments.

Acadian needed a single mobile network solution that would enable:

- Use of the best available wireless network in any given area – and seamless roaming across networks as units transported patients across the Gulf Coast.
- Deployment of the latest dispatch, communications, management and patient care technologies.
- Confidence that communications gear would withstand the rigors of emergency services and disaster responses.
- Easy upgrades of on-board technology. Acadian is committed to remaining at the forefront of emergency medical technology, and a mobile communications solution that would enable deployment of the latest patient care equipment was required.

Sierra Wireless Solution

In January 2008, Acadian piloted three AirLink mobile routers. Crews saw immediate and dramatic results. Dispatches, emergency communications and patient information



were transmitted and received instantaneously and reliably. Network congestion, dead zones and bandwidth limitations no longer hindered emergency communications.

The router provided secure, worry-free connectivity for data and communications gear deployed in Acadian units, including dispatch systems by Trittech, driver and vehicle monitoring technology by Road Safety, LIFEPAK 12 monitors by Physio Control, and Panasonic Toughbooks. Soon after the trial, Acadian ordered and installed 250 routers in ambulances throughout its fleet.

Results

IMPROVED MANAGEMENT OF COMMUNICATIONS, VEHICLES AND DEVICES

To enable headquarters staff to monitor and manage operations in real time, Acadian deployed the AMM, which collects and analyzes information from each vehicle in the field to provide headquarters staff with a virtual dashboard of detailed information about networks, vehicles and devices.

LIFESAVING RESULTS

Since deploying the solution, Acadian has seen significant improvement in emergency communications and operations.

"Everyone at Acadian is excited about how this technology has improved the service we provide to the community," says Kenny Logan, Director of Electronic Technology for Acadian. "The solution enables our medics to focus on their mission – saving lives – and not whether our communications are going through."

When a router-equipped Acadian Ambulance receives a call, it receives instantaneous computer aided dispatch information through the device; it takes the fastest, satellite-guided route to and from the scene; critical driver and vehicle information is monitored in real time by operations command, and patient information is wirelessly transmitted to the ER in advance of arrival. The solution provides critical data to emergency personnel at the speed necessary to save lives.

"Although this technology has already improved our communications and operations dramatically, we are exploring a variety of other applications that it will enable us to deploy in the future," said Kenny Logan. "Acadian is exploring mobile video, VoIP, vehicle tracking and telemetry, asset and inventory tracking and other features."

About Sierra Wireless

Sierra Wireless is building the Internet of Things with intelligent wireless solutions that empower organizations to innovate in the connected world. We offer the industry's most comprehensive portfolio of 2G, 3G, and 4G embedded modules and gateways, seamlessly integrated with our secure cloud and connectivity services. OEMs and enterprises worldwide trust our innovative solutions to get their connected products and services to market faster. Sierra Wireless has more than 950 employees globally and operates R&D centers in North America, Europe, and Asia.

For more information, visit www.sierrawireless.com.