EMS Organization Improves Patient Transport with Sierra Wireless®

CUSTOMER CRITICAL CHALLENGE:
- Fleet management solution for private transportation ambulances and passenger vans
- Required reliable 3G cellular and Wi-Fi connectivity, AVL and ability to integrate with third party applications

SOLUTION:
- FleetEyes fleet management solution and AirLink® gateways provide real-time vehicle tracking data to dispatch and accurate location info to drivers in the field

BENEFITS:
- Secure, reliable connectivity for access to real-time vehicle tracking data
- Simplified integration with third party applications
- Streamlined data for ultra-efficient throughput
- Unmatched product and partner support

BACKGROUND
Based in Lakewood, New Jersey, Gem Ambulance is a private medical transportation company servicing more than 100 nursing homes and nursing facilities throughout New Jersey and Eastern Pennsylvania. Founded in 2007, Gem has quickly grown from just 12 employees and three trucks to close to 300 employees and 100 vehicles with five locations.
Gem operates a modern fleet of state licensed ambulances, Mobility Assistance Vehicles, Specialty Care Transports, Special Bariatric Transports Units and wheelchair accessible buses making between 250 – 300 around-the-clock trips each day, seven days a week. Gem strives to deploy cutting edge communications technology, including computer-aided dispatch (CAD) systems and state-of-the-art global positioning systems, to ensure rapid and efficient dispatch of vehicles and crews.

**Business Challenge**

To improve fleet management, Gem originally employed a well-known third party dispatch tool, but soon found the solution's features to be insufficient. In particular, the program did not provide Gem with a live data feed for tracking vehicle location.

“We are a customer service company,” explained Alaine O’Brien, operations manager at Gem. “Our main job is to get there, and get there safely.”

In order to improve the accuracy of their vehicle tracking data and dispatch assistance capabilities, Gem Ambulance turned to trusted partner FleetEyes to provide a more comprehensive fleet management solution to upgrade its CAD, vehicle tracking and remote diagnostics.

**Sierra Wireless AirLink® Solution**

Working with FleetEyes, provider of fleet management solutions to the healthcare and public safety industries, Gem Ambulance was introduced to an advanced front and back-end fleet management solution powered by Sierra Wireless® AirLink gateways.

The FleetEyes fleet management solution for Gem Ambulance uses the AirLink gateway in fleet passenger vans with Wi-Fi hotspot for fleet ambulances. The gateway provides accurate GPS tracking and a reliable data connection, while the Wi-Fi allows for the operation of in-vehicle laptops and driver cameras. The rugged, intelligent AirLink gateways are ideal for mission critical applications requiring two-way data and location tracking.

“Every morning I get a speed report delivered to my Blackberry so I can see who was going over the speed limit, which is a great tool to monitor driver behavior,” said O’Brien. “Having notifications delivered to my Blackberry is so convenient; even when I am not in the office I can keep track of what is going on.”
The FleetEyes application is fully integrated with Gem Ambulance’s current CAD system, while the AirLink devices provide the cellular and Wi-Fi connectivity for critical two-way data transfer of information, such as vehicle location and speed. By allowing centralized dispatch personnel to run transportation instructions through the AirLink devices, which in turn delivers the information to in-vehicle Garmin navigation devices, any data entry errors are corrected to eliminate the possibility of bad location information reaching drivers in the field.

“At any moment we can see calls pending, vehicles on the road and who’s driving,” said O’Brien. “Dispatchers can improve efficiency by dispatching vehicles based on their location to incoming calls and locate vehicles on a map to provide directions if a driver is lost or uncertain of an address.”

“Using GPS terminals has become a huge issue with driver safety,” said Bill Ryan, Director of FleetEyes. “It’s like texting and driving. The ability for dispatchers to feed accurate addresses directly to a driver’s GPS handset or dashboard is critical for road safety.”

As a second phase of this project, Gem Ambulance plans to leverage Sierra Wireless’ integration with a predictive data analytics tool to deliver vehicle diagnostics information back to dispatch for evaluation and response. Once implemented, this feature will notify dispatch of specific manufacturer fault codes describing the nature of the problem, allowing Gem operations to decide whether the issue warrants immediate action or can be addressed by taking the vehicle out of service at a later time.

Results

“As a business you always want to keep your costs down. As we analyzed our purchase decision, we weighed the up-front costs versus the total cost of ownership,” explained O’Brien of Gem Ambulance’s decision to go with the FleetEyes / Sierra Wireless solution. “With this solution, we could see the long-term benefit, and we knew we had found the product we were looking for.”

Initially launched as a CAD service to improve dispatchers’ ability to track vehicles, Gem Ambulance has since integrated the FleetEyes / Sierra Wireless solution into all aspects of its operations, making features available to dispatchers, supervisors, operations and drivers.
"In the beginning, we were on a trial basis; we just wanted to see if the solution would work and if it would be beneficial," explained O’Brien. "Now we rely on it so heavily, that in the rare case that the system is down because of internal issues, our dispatchers go crazy."

Gem Ambulance has installed AirLink devices in every fleet vehicle and continues to integrate the solution with every new vehicle purchase. O’Brien simply alerts FleetEyes of Gem’s latest order, and FleetEyes is prepped and ready to install the in-vehicle gateways when the new ambulances or vans arrive.

“At first we only used bits and pieces of the solution,” said O’Brien. “But as we continue using the system, we are consistently pleased with new features that we are exposed to; it’s just so sophisticated.”

In addition to being able to improve service and operational efficiency in real-time, the data captured through the FleetEyes / Sierra Wireless fleet management solution allows Gem Ambulance to resolve customer complaints by reviewing routes and timing to view actual event information and improve performance moving forward.

“Our main business is transportation and helping people get to where they need to go, so this fleet management system is something that’s hugely beneficial,” said O’Brien. “I highly recommend it.”