

Integrity Ambulance Service Triples Coverage, Saves \$100K/year and Meets FCC Mandate with MOTOTRBO™



Integrity Ambulance Service was facing the inability to expand operations due to limited coverage provided by an aging analog radio system. At the same time, the company was looking for a solution that would comply with the FCC mandate for businesses using 25 kHz land mobile radio systems to migrate to narrowband 12.5 kHz technology. A digital MOTOTRBO radio system with IP Site Connect, and a unique relationship with a local Motorola channel partner, allowed them to expand coverage throughout 20 counties, save the cost of opening new dispatch centers, and meet the FCC mandate through a cost-effective, phased migration to 12.5 kHz.

Situation

Headquartered in Greenville, Ohio, Integrity Ambulance Service is a private company providing emergency and non-emergency transport services primarily to nursing homes. The company's 16 ambulances and 20 wheelchair vans are operated by nearly 90 EMTs and paramedics. In 2009, Integrity Ambulance responded to approximately 24,000 wheelchair-equipped van runs and nearly 17,000 ambulance runs.

Inadequate two-way radio coverage limits opportunity to expand

In August of 2009, the state of Ohio changed the reimbursement procedures for Medicaid recipients living in a nursing home. As a result, the entire state of Ohio renegotiated all of their ambulance service provider contracts. Due to the types of services Integrity Ambulance Service offered, the company received several requests to expand coverage outside its existing service area.

The possibility of expansion created a challenge for Brad Feldner, vice president and chief operating officer, because the new coverage area would extend from Dayton to Toledo, about 150 miles, and all points west. The company's two-way analog radios did not have the range capability to extend that far and Feldner would now have to deploy a new dispatch center, in addition to its existing Greenville location.

"The ability to communicate with our vans and ambulances is a critical part of the business," says Feldner. "Also essential to our business model is to dispatch and maintain operations in a central location in order to keep costs down, maintain quality, and ensure the same high level of service throughout the entire organization."

Products

- MOTOTRBO XPR™ 4550 mobile radios
- MOTOTRBO XPR™ 8300 repeater
- IP Site Connect

Benefits

- Greater coverage enabled business expansion
- FCC compliance to 12.5 kHz mandate
- \$100,000 per year in cost avoidance



"Without MOTOTRBO digital radios and IP Site Connect, we wouldn't have been able to expand into the new market areas without adding dispatch centers," says Feldner. "The system has helped us to keep costs to a minimum and maintain quality control throughout the entire organization."

- Brad Feldner, Vice President and Chief Operating Officer, Integrity Ambulance Service

Laying the foundation for compliance with FCC narrowband mandate

At the same time, Feldner was looking at how to cost effectively prepare for compliance with the FCC's mandate to migrate to narrowband 12.5 kHz technology by January 1, 2013.

"We considered deploying cellular technology with push-to-talk but we weren't convinced that it complied with the letter of the law," says Feldner. "Plus 30 drivers on the road at the same time, all utilizing the push-to-talk on the same frequency just wouldn't have worked."

Solution: MOTOTRBO digital radio system with IP Site Connect

Feldner met with Chris Hanes of P&R Communications, a local Motorola channel partner, to discuss his expansion plans and the upcoming FCC mandate. Hanes recommended a MOTOTRBO dual-mode digital radio system to facilitate a budget-friendly, phased migration to digital, while still allowing the company's analog and digital users to communicate.

"They clearly needed far more coverage than they could get from an analog radio," says Hanes. "And because they would eventually have to buy radios that operated in 12.5 kHz, which MOTOTRBO does, it made sense to begin the migration to digital now."

A unique solution for wide area coverage

In 2009, P&R Communications had deployed its own six-site MOTOTRBO IP Site Connect system, using Motorola's Point-to-Point broadband solution for the data transport ring to connect all of its towers and serve as the IP Site Connect backbone. "It's a unique, cost-effective solution we offer to our customers that allows them to significantly enhance their own coverage area," says Hanes.

While that would provide most of the coverage for Integrity Ambulance, it still left the company without coverage for several counties. Integrity Ambulance then purchased its own MOTOTRBO digital repeater and an IP Site Connect system for their Findlay/Toledo office. By utilizing both the P&R Communications IP Site Connect system and their own IP Site Connect system via the Internet, Integrity Ambulance now has seamless communications throughout the entire 20-county coverage area.

P&R also installed MOTOTRBO digital mobile radios into each of the company's vans and ambulances and deployed control stations into Integrity's six ambulance facilities, enabling the centralized dispatch center in Greenville to contact and dispatch drivers no matter where they are located within the expansive coverage area.

Motorola has been preparing for 12.5 kHz technology for over a decade, offering close to 60 models capable of operating in 12.5 kHz efficiency. MOTOTRBO offers a seamless path to 12.5 kHz, allowing customers to transition at their own pace.

Results: Coverage tripled, FCC compliance achieved, \$100K/year saved

Integrity Ambulance can now effectively provide service from Dayton to Toledo and from Bellefontaine to just past the Ohio/Indiana state line, which more than triples the company's previous service area. MOTOTRBO will also allow the company to comply with the FCC mandate to migrate to 12.5 kHz within the next three years with a phased migration to digital. The cost-effective transition enables the company to purchase the dual-mode digital radios as the budget allows, while still allowing communications with the remaining analog radios.

The system also enhances driver safety. "Once our analog to digital transition is complete, drivers can travel anywhere in the coverage area without manually switching from one repeater site to another," says Feldner. "MOTOTRBO IP Site Connect automatically makes that transition for them, so they never have to take their eyes off the road to reach down and switch a radio channel. That improves safety because it keeps their attention on the road."

In addition to expanded coverage, phased migration to digital, and compliance with the FCC mandate, other advantages for Integrity Ambulance include:

- **Cost savings:** The IP Site Connect feature enabled Integrity Ambulance Service to expand without having to open new dispatch centers. As a result, Integrity Ambulance had saved at least \$100,000 per year on payroll costs alone.
- **Easy to use controls:** Personnel turnover can be a challenge in the ambulatory transport industry, causing the need to provide new hire training on a regular basis. MOTOTRBO radios are intuitive and easy for new personnel to learn.
- **Increased capacity:** MOTOTRBO digital radios offer TDMA technology, which divides the existing channels into two time slots to allow double the number of users on the system without creating interference and without the need for a second repeater.
- **Priority Call:** With an average of 2,000 wheelchair van runs and 1,400 ambulance runs per month, radio traffic can stay very busy. Each run requires a call from dispatch, followed by drivers reporting enroute, on-scene, enroute to destination, at destination, then back in-service, amounting to nearly 500,000 radio transmissions per year. "In an emergency situation, every second counts," says Feldner. "MOTOTRBO allows dispatch to override non-emergency traffic to dispatch emergency calls."



Motorola MOTOTRBO XPR Digital Radios



About P&R Communications

Since 1961, P&R has been a communications stronghold in the Dayton area and a Motorola Authorized Service Center. Today, P&R employs over 50 people with a diversified portfolio that offers customers one source for their wireless communications needs. In 2009, P&R was awarded the MOTOSTAR Excellence Award, the highest recognition for Motorola channel partners. The award is granted to those demonstrating unwavering commitment to high performance business practices and extraordinary customer support.

Integrity Ambulance does not have a station in Cleveland, however they are called upon occasionally to make a run to that city. "It's out of our radio coverage area," says Feldner. "But the MOTOTRBO Radio Check feature allows dispatchers to ping the mobiles to confirm when drivers are back in the coverage area." Eventually, Feldner plans to install location tracking software to work with the already integrated GPS modules in MOTOTRBO radios to allow dispatchers to track driver location in order to dispatch the closest driver to a call.

The ability to communicate is an integral part of any business, but especially so for those whose customers depend on them for emergency and ambulatory transport. "Without MOTOTRBO digital radios and IP Site Connect, we wouldn't have been able to expand into the new market areas without adding dispatch centers," says Feldner. "The system has helped us to keep costs to a minimum and maintain quality control throughout the entire organization."

To learn how MOTOTRBO can help your business

www.motorola.com/mototrbo

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