

MOTOTRBO™ Digital Radios Provide Ideal Solution for Large Manufacturer's Emergency Response Team



When a large manufacturer acquired a new product line, the decision was made to upgrade its Emergency Response Team's (ERT) radios to MOTOTRBO digital technology to improve collaboration and facilitate enhanced response. MOTOTRBO not only meets the manufacturer's stringent safety specifications required for its factory, the radios have helped ERT's distributed staff members partner better and respond quicker. The dual mode radios also enable ERT to easily communicate with non-ERT analog radio users throughout the plant and allow the customer to cost effectively migrate all radios to full digital capability as the analog units reach end of life.

"The MOTOTRBO radios have been a great value to this customer. Not only are they designed to withstand the physical environment of a busy, noisy plant, but the digital features also help this customer's safety and security team to coordinate emergency response quickly, safely and more effectively."

- Motorola channel partner

Situation: New assembly line puts added pressure on emergency response team

For the past 15 years, a large manufacturer of laundry detergents and household cleaning products had relied on its two-way analog conventional radio system to keep workers productive and to speed response for its Emergency Response Team (ERT). The aging system, built in the mid 1990s, was a collection of radios that had been acquired as the company merged some of its other facilities across the country. Most of the radios were more than ten years old and out of warranty. Serviceability was becoming more challenging; batteries and replacement parts were hard to find; and the cost of repair had grown significantly more expensive over the years.

In 2009 the company purchased a new product line, which involved a major overhaul of its manufacturing plant. While acquisitions can create significant opportunities for businesses, they can also create challenges as facilities change, processes merge and plants are upgraded to accommodate the new business. And although the acquisition did not require a physical expansion of the plant, the new equipment and different chemical processing required put added pressure on the already vigilant ERT.

Products

- MOTOTRBO XPR™ 6550 Portables
- MOTOTRBO XPR™ 8300 Repeater
- Motorola hands-free microphones
- Motorola fixed IMPRES™ chargers

Benefits

- Enables greater collaboration with ERT staff
- Facilitates faster emergency response time
- Meets standards for safety in a manufacturing environment



Radio must meet all safety standards for operation in a manufacturing facility

Manufacturing operations can present challenging environments, especially when chemicals are present. Chemical spills can cause burns; flammable liquid can generate vapor that can accidentally ignite; and if a benign chemical makes contact with incompatible material, it could generate toxic chemicals or gas. While the company strictly followed the safety policy and procedure guidelines generated by OSHA, they wanted to go a step further and upgrade ERT's communication system to further enhance emergency response.

With funding available as part of the expansion, the manufacturer began looking for a solution that would not only keep its workers safe but would also allow them to migrate the rest of the plant to the new communications system in phases. With these goals identified, they contacted a local Motorola channel partner.

"The customer's ERT is comprised of employees whose primary job might be assembly, distribution or even one of the yard jockeys who move the product on trucks from the floor to the dock where the 18 wheelers are loaded," says the Motorola channel partner. "All are trained in emergency rescue but because they are spread throughout the facility, instant and reliable two-way radio communications were absolutely critical to the team's ability to collaborate and coordinate a rapid response."

Solution: MOTOTRBO digital radios

The manufacturer wanted to learn about the latest digital radio technology and told the channel partner that the radios would need to meet the following criteria:

- FM approved as intrinsically safe; and waterproof for safe, reliable operation anywhere in the plant
- Digital features that would allow ERT to collaborate and communicate with team members and speed response to emergency situations throughout the facility

The channel partner recommended MOTOTRBO digital portable display radios with full keypad, hands-free accessories and fixed unit chargers. The MOTOTRBO radios would meet all of the manufacturer's requirements and offer even greater value through the advanced features of digital technology.

"They already had adequate coverage with the analog radios and were primarily interested in the digital features of MOTOTRBO," says the channel partner. "When we tested the radios throughout the plant, we found that even without a repeater, the digital radios gave them coverage equal to or better than the analog radios with a repeater. This saved them money on infrastructure costs."

The MOTOTRBO dual-mode feature also allowed ERT to scan the analog channels used by departments within the plant who were still using analog radios. This enabled ongoing communications with the entire facility and allowed the manufacturer to implement a smooth, phased migration to all-digital on the plant's own timeline.

The channel partner deployed the MOTOTRBO portable radios in April 2010 and worked with the customer to program the radios on-site per their unique specifications.

“The customer was aware of the FCC mandate for narrowbanding coming up in 2013. Since they would have to upgrade their radios for that anyway, they made the decision to deploy the MOTOTRBO system, which would not only give them all the features and capabilities of digital technology, but would also allow them to comply with the mandate.”

– Motorola Channel Partner

Results: Advantages that help ERT enhance safety and security

“The MOTOTRBO radios have been a great value to this customer,” says the channel partner. Not only are they designed to withstand the physical environment of a busy, noisy plant, the features help this customer’s safety and security team to coordinate an emergency response quickly, safely and more effectively.”

Specific benefits to the plant’s emergency response team include:

- **Clear audio:** MOTOTRBO radios virtually eliminate background noise and static to ensure ERT users are able to clearly hear and understand messages.
- **Text messaging:** ERT can quickly and discreetly send information through pre-programmed emergency notifications or short, free-form messages when it’s preferable not to be overheard.
- **Push to Talk ID:** With PTT ID, other radio users can clearly identify who is calling as soon as the caller keys the radio.
- **Individual call and all call:** With the ability to make unit-to-unit private calls or quickly send an emergency alert to “all hands,” ERT increases speed and efficiency of emergency response.
- **Transmit interrupt:** The emergency voice interrupt feature allows ERT to override lower priority messages in order to prioritize critical communications in the event of an emergency.
- **Reliable operations:** MOTOTRBO’s digital technology allows radios to operate up to 40% longer than analog radios between recharges for communications that last through extended shifts. And with Motorola’s state-of-the-art IMPRES™ technology, battery maintenance is automated to help prolong battery life and maximize talk time.

A rugged radio for a rugged environment

The MOTOTRBO radios are an ideal solution in a manufacturing environment. The radios meet the most demanding specifications, including IP57 for submersibility in water (portable models), as well as U.S. Military and Motorola standards for durability and reliability. In the presence of hazardous chemicals, MOTOTRBO radios are rated intrinsically safe, when purchased and equipped with an FM battery, for use in locations where flammable gas, vapors or combustible dust may be present.

Effecting a cost-effective, phased migration to digital

The manufacturer’s first priority was to provide digital technology to its safety team. However, because MOTOTRBO operates in both analog and digital mode, ERT can still easily communicate with other departments that are still using analog radios. As funds become available and the older analog radios begin to fail, the manufacturer will replace them with MOTOTRBO digital radios. This phased migration provides an easy, cost effective method of eventually moving the entire plant from analog conventional to digital technology with the ability to operate in both analog and digital modes.

Meets FCC mandate for narrowbanding

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Motorola MOTOTRBO XPR Digital Radios



Motorola IMPRES chargers



Next steps

As the manufacturer begins to migrate to all-digital, the GPS-capable MOTOTRBO provides the ability to integrate location software to identify the location of its vehicles. “This will further enhance safety in the event of an emergency, as the ERT captain will be able to locate the ambulance nearest to the event and dispatch the driver to the scene,” says the channel partner. In addition, the MOTOTRBO is capable of integrating workforce applications that increase productivity and efficiency throughout the plant. Workforce applications can assign, manage and close out work tickets. Telemetry applications can automate various functions within the plant, such as turning irrigation systems on and off, sending alerts when an emergency door is open and remotely opening a warehouse gate.

To learn how MOTOTRBO can help your business

www.motorola.com/mototrbo

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