



MOTOTRBO™: LIFELINE FOR CRISIS CENTRE

WIELKOPOLSKA BUILDS ADVANCED DIGITAL NETWORK FOR PROVINCIAL CRISIS MANAGEMENT



The governor of Poland's second largest province, Wielkopolska, has built a sophisticated command and control network based on Motorola's MOTOTRBO™ digital two-way radio and IP Site Connect technology. The network provides vital communications for the Provincial Crisis Management Centre based in Poznań, improving the co-ordination of emergency rescue operations to protect Wielkopolska's 3.3 million inhabitants.

Delivering secure and reliable coverage across the region's 29 826 square kilometres, the MOTOTRBO network gives emergency response teams the assurance of constant communication with the command centre, even during power outages. The system has already proved to be crucial to large-scale rescue operations – for example, when people needed to be evacuated during the flash floods that hit Poland in 2010.

First responders will also benefit from a wider range of call features and intuitive functionality which improves efficiency and increases response rates. MOTOTRBO's ability to integrate with analogue two-way radio systems enabled a gradual transition to digital radio without disrupting existing services.

CUSTOMER PROFILE

Company:

Entities implementing crisis management

Partner Names:

Yagi-Fryska
Alfa Radio

Industry Name:

Public Administration /
Emergency Services

Key Benefits:

- Dual analogue/digital capability
- Reliable, secure communications across long distances
- Resistant to interference
- Enhanced functionality

Product Name:

- 50 DR 3000 repeaters
- 209 DM 3600 and DM 3601 digital mobile radios
- 144 DP 3601 portable digital handsets

“Wielkopolska is very focused on the economical use of its resources, so the cost-benefit ratio has been very important to us. As far as the implementation of MOTOTRBO is concerned, the benefits have exceeded our expectations. Also, with numerous software updates, we have been able to take advantage of new functionalities without additional financial outlays.”

Dariusz Dymek, Head of the Safety and Crisis Management Department at the Wielkopolska Provincial Governor's Office.



THE CHALLENGE

Reliable communications is essential to emergency rescue operations and as security threats continue to rise, the need to synchronise activities between multiple agencies has become more pressing. In provinces such as Wielkopolska, where there are high concentrations of people spread across a large area, co-ordinating rescue efforts between different responders requires rapid group and one-to-one communication that is both secure and robust.

The province's existing analogue radio system was unable to meet increased communication requirements. With numerous transmitters and radio networks competing for spectrum, levels of interference were high and the availability of channels was limited.

When considering alternative technologies for a state-of-the-art command and control centre, the governor of Wielkopolska sought a solution that could cope with heightened communication demands and support the co-ordination of multiple crisis response efforts throughout the province. The solution also had to be compatible with the analogue system being used throughout the country, to avoid disrupting services and to maintain collaboration with neighbouring provinces.

THE SOLUTION

MOTOTRBO's ability to operate in analogue and digital mode enabled the Provincial Crisis Management Centre to systematically replace its analogue equipment and expand its infrastructure gradually to provide digital radio communications for emergency response services across Wielkopolska's 226 municipalities and 35 districts.

Deployed by Motorola partners Yagi-Fryska and Alfa Radio, the system uses IP Site Connect to link multiple sites seamlessly and provide uninterrupted communication. There are currently 50 MOTOTRBO DR 3000 repeaters installed in remote districts, with 209 digital mobile radios and 144 portable handsets supported on the network. MOTOTRBO's high tolerance to interference enables users to communicate consistently and clearly throughout

the coverage area. The radios can be programmed to automatically select the nearest repeater while roaming, keeping users in constant contact.

The use of TDMA technology doubles the capacity of the existing licenced channel, allowing two separate voice communications to occur at the same time or splitting the channel for simultaneous voice and data transmissions. This enables users to communicate via text messages and supports group and one-to-one calls between different rescue teams around the province.

Built-in GPS plots the exact location of users on a map, improving staff safety and allowing teams to be deployed more efficiently in the event of a disaster, while 40-bit key encryption protects confidentiality and prevents eavesdropping.

Ongoing MOTOTRBO software upgrades have further enhanced the broad range of features available and added increased value to Wielkopolska's investment.

THE BENEFIT

The Wielkopolska Provincial Crisis Management Centre relies on MOTOTRBO to maintain constant contact with emergency response teams across the region. Using features such as GPS-based location services, private calls and text messaging while also being able to talk to users on analogue systems has increased the efficiency of rescue operations and improved co-ordination between multiple agencies.

MOTOTRBO's intuitive functionality ensures the system is easy to use, requiring minimal training and smoothing the transition from analogue to digital radio. The ability to double the capacity of the existing licenced channel offers attractive cost benefits and provides the scalability to cater for a growing number of users.

With the extension of the digital network to the province's National Emergency Medical Service organisation, rescue operations will be further enhanced, meeting the need for integrated communications and the ability to respond effectively to heightened security threats.



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