



# POLICE ON PATROL WITH MOTOTRBO™ AND TRACKDMR DISPATCHER

DIGITAL RADIO WITH GPS TRACKING IMPROVES DAILY OPERATIONS FOR PUBLIC SAFETY OFFICERS



To enhance the efficiency of patrols and facilitate daily operations, the Municipal Police in Poland's central city of Kutno have upgraded their communications to a MOTOTRBO digital two-way radio system integrating the application TrackDMR dispatcher.

Responsible for the protection and security of 46,000 inhabitants across the 34sqkm of Kutno, the Municipal Police had been using Motorola radios for 17 years and in December 2013 decided to upgrade their system to take advantage of a greater range of features and functionality.

Elnex, a leading Motorola Solutions' partner in Poland, deployed the MOTOTRBO system including its proprietary application TrackDMR dispatcher.

The location of police patrols can now be pinpointed on a digital map by means of GPS positioning, to improve response times, optimise the dispatch of patrol cars and enhance personnel safety. Communication is also more secure, with the ability to separate users and assign encryption keys so groups can communicate privately.

#### CUSTOMER PROFILE

##### Company

Municipal Police, Kutno, Poland

##### Partners

Elnex

##### Industry

Public Safety

##### Products

- MOTOTRBO Digital Radio system
- DP4401, DP2400 portable and DM4401 mobile radios
- Remote Speaker Microphone
- 2-wire Surveillance Kits
- TrackDMR Dispatcher

## CASE STUDY

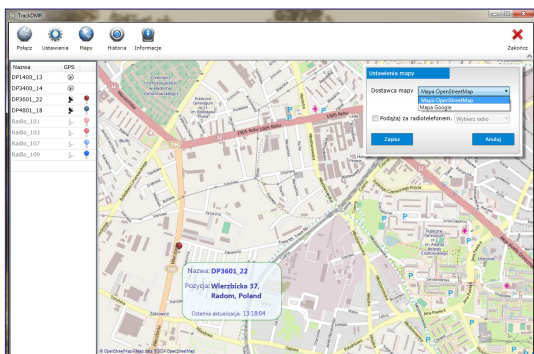
POLICE ON PATROL WITH MOTOTRBO™ AND TRACKDMR DISPATCHER

**“After the transition to digital radio technology, we experienced a significant improvement in communication and the quality of the transmitted voice. Thanks to the dispatch application, we are able to determine the position of patrols and dispatch the team closest to an event. The additional advantage of digital technology is to ensure the confidentiality of correspondence. Personal data, such as names, social security number or intervention operations are not overheard by unauthorized persons.**

Ryszard Wilanowski, Commander of Municipal Police in Kutno

## THE CHALLENGE

Kutno Municipal Police's analogue two-way radio system was not able to support their need for expanded capabilities. Krzysztof Sambor, Manager at Elnex explains: “The Municipal Police wanted an application that was simple to use, with enhanced functionality to support their daily work. GPS positioning was important for them, as well as the ability to keep a record of tracking data.” In addition, the content of communications is often highly confidential so the police required a solution that was not susceptible to interception. The critical nature of much of their communications could also be impacted by interference, which made transmissions unclear at times. MOTOTRBO uses AES 256 bit encryption to secure sensitive information and prevent it from being overheard by unauthorised listeners. This is achieved without altering the quality of the transmission and its ability to reject static noise and suppress background sounds provides crystal clear audio. MOTOTRBO dual mode capability enables communications with both analogue and digital radios. This was another important factor as it was possible for the police to migrate gradually from their analogue system, thereby minimising disruptions during the transition.



## THE SOLUTION

MOTOTRBO uses TDMA DMR technology which doubles the voice capacity in a 12.5kHz licensed channel. This makes it possible to transmit two voice calls or a voice call and data message simultaneously, using the allocated frequency more efficiently and providing expanded capacity.

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Equipped with MOTOTRBO DP4401 portable radios for their foot patrols and DM4401 mobile radios mounted in all their patrol cars, Kutno Police have the benefit of built-in GPS used to track their location in real time. The radios also have an intelligent audio feature that automatically adjusts the radio volume according to the environment's noise level, ensuring that communication remains audible at all times. DP2400 portables without display or GPS provide reliable communications for non-critical operations. Elnex's TrackDMR dispatcher software is installed on a personal computer which is connected via USB to a DM4401 mobile radio. This acts as a gateway between the PC and all the radios in the field. TrackDMR requests the GPS position of each officer and displays their location as a coloured icon on a digital map, indicating the user and address information. It also supports text messaging, so the dispatcher can send and receive text messages to and from any MOTOTRBO radio or group of radios. Messages are stored in a database for review and training purposes.

## THE BENEFIT

Kutno Municipal Police have noted a number of improvements to their communications as well as enhancements to daily operations, following their migration to MOTOTRBO. Voice transmissions are much clearer, making it easier to be heard and understood, which is vital in an emergency situation. Equally important is the ability to pinpoint the position of foot and car patrols. This ensures that the officer closest to the scene of an incident can be dispatched, improving response times while at the same time increasing the safety of personnel by identifying their exact location when back-up is required. Secure encryption protects personal data - such as the names of victims or social security numbers - which is often communicated using two-way radio and attempts at interception are prevented so that sensitive information related to tactical operations cannot be overheard by unauthorised persons. The ability to send and receive text messages further increases efficiency, enabling discrete communications when voice is not an option and for sending information such as suspect car registration numbers to officers on patrol.

## KEY BENEFITS

- Clearer voice transmission
- More secure communications
- GPS tracking of vehicle and foot patrols
- Greater dispatch efficiency
- Improved officer safety

## PRODUCTS

- MOTOTRBO Digital Radio system
- DP4401, DP2400 portable and DM4401 mobile radios
- Remote Speaker Microphone
- 2-wire Surveillance Kits
- TrackDMR Dispatcher

