

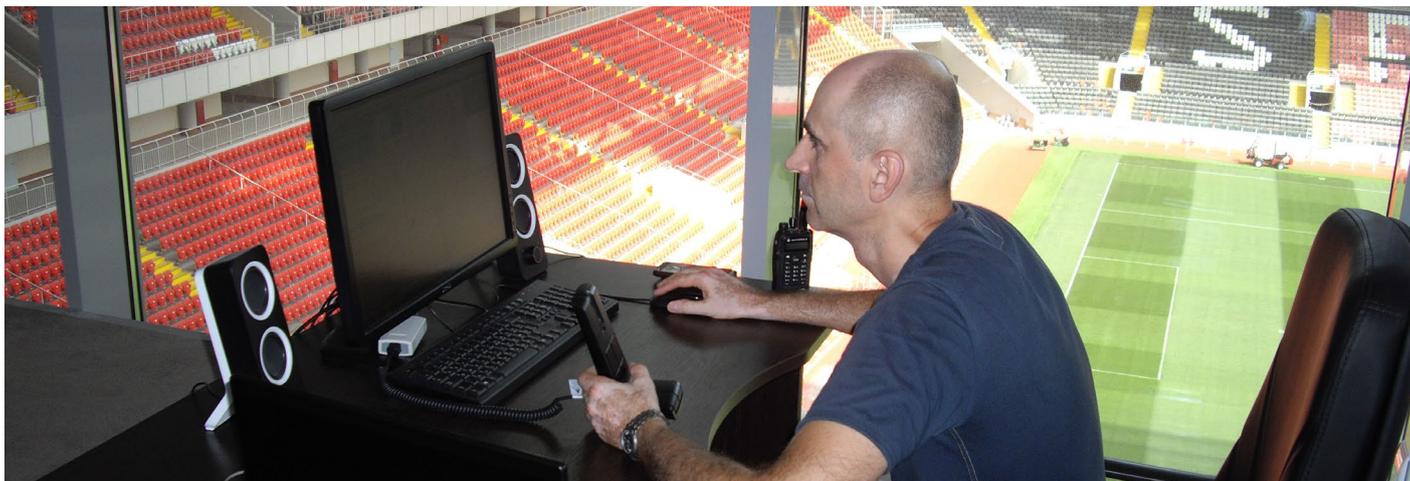
## CASE STUDY

RUSSIAN INTERNATIONAL FOOTBALL STADIUM IMPLEMENTS MOTOROLA SOLUTIONS' TWO-WAY RADIOS



# SPARTAK STADIUM IN MOSCOW GETS IN THE GAME WITH MOTOTRBO™

INTERNATIONAL FOOTBALL STADIUM ADOPTS MOTOROLA SOLUTIONS' DIGITAL RADIOS FOR RELIABLE AND SMOOTH COMMUNICATION



## SPARTAK STADIUM

Spartak Stadium, also known as the Otkritie Arena, is owned by FC Spartak Moscow, one of the most successful football teams in Russia. The team's new stadium, which was completed in September 2014, has capacity for 42,000 people and will be used as a venue in the 2018 World Cup.

The stadium required a radio communication system for its security and operational staff, who needed to be able to make private calls between individuals and calls to larger groups.

Motorola Solutions partner Saga Telecom implemented a radio dispatch communication system for the stadium that included 350 MOTOTRBO digital portable two-way radios with headsets.

The system uses SmartPTT Enterprise dispatch software, developed by Motorola Solutions' application partner Elcomplus. The software application provides managers and controllers with an easy-to-use interface to the radio system for dispatch, as well as advanced functionality for managing the radio fleet. A voice logging module records all events and voice calls. These recordings can be analysed to check information such as response times and whether tasks have been carried out properly – contributing to the efficiency and maintenance of the stadium's services.

Large sporting events can only be managed effectively with the collaboration of many different parties: dispatchers, managers, stewards, engineers and security staff. By adopting MOTOTRBO handsets, staff on site have been able to communicate quickly and easily with each other and with management, making the process smoother and more efficient. The system has been designed with sufficient capacity to double the number of radios if needed.

### CUSTOMER PROFILE

**Organisation:**  
Spartak Stadium

**Location:**  
Russia

**Industry:**  
Facilities management,  
Events management

**Partners:**

- Saga Telecom (Distribution partner)
- Elcomplus (Application partner)

### Motorola Solutions Products:

- 250 DP2400 handsets
- 80 DP4800 handsets
- 20 SL4000 handsets
- 2 DR 3000 repeaters
- 4 MTR3000 repeaters
- 320 IMPRES 2-wire surveillance kits
- 10 lightweight headsets
- 20 Surveillance earpiece with Mic and PTT combined

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**“The MOTOTRBO system is reliable, robust and easy to use. It has made the day-to-day running of the stadium smooth and efficient. We are delighted with the technology and will roll the same system out at our new training facility, as soon as it is completed.”**

Kamaykin Alexey, Deputy Head of Information Technology, Spartak Stadium



## THE CHALLENGE

Managing the operation of a large, modern football stadium is a complex job that requires lots of people to work together. The activities of workers on the ground need to be coordinated, and tasks have to be allocated in the most efficient way possible. When issues occur, managers need to be able to identify the right person and whether they are available to tackle it. Sometimes workers in different parts of the stadium have to talk as a group to discuss a particular problem and high noise from crowds can make it difficult to be heard.

Spartak needed a radio communications system that would enable managers to communicate instantly with any worker on site, to hold group calls and to track performance. It also had to allow all workers on site to communicate with each other.

Clarity of sound was extremely important – the ability of workers to do their job could be compromised if external noise was interfering with on-site communication.

## THE SOLUTION

Saga implemented a radio control room based on Motorola Solutions' MOTOTRBO equipment integrated with Elcomplus' SmartPTT Enterprise dispatch software.

The MOTOTRBO system is compliant with ETSI's DMR Standard, making it possible to double the calling capacity of a radio frequency channel. The Spartak implementation included capacity for 12 channels.

The handsets have a simple design and are easy to use, and the headsets are comfortable to wear. When the user receives an incoming call or text message, they can choose to pick up the call, postpone the call or send a text message. The rugged nature of the handsets means they can withstand the wear and tear of outside use.

The solution also includes a radio antenna system, which enables users within a 2km radius – including a nearby sports complex – to pick up the signal. As well as making and receiving calls anywhere in the stadium, staff can make and receive calls with colleagues outside the stadium.

SmartPTT software provides the dispatcher with the ability to identify where individuals are, assign tasks, and log calls and text messages on the system. It is used to communicate to staff across the stadium but also as a tool to control and coordinate the security and services teams. The Telephone Interconnect function allows the radio system to be integrated into the stadium's telephone network so that radio users can call fixed or mobile phones, and vice versa.

## BENEFIT

The MOTOTRBO system contributes to the efficiency and smooth running of the stadium.

Full coverage throughout the stadium means that staff are able to communicate with others quickly and easily wherever they are, either by voice or by text. Group calls enable joint decisions to be made speedily in response to any issues that arise. Each employee is assigned a different area of the stadium, so managers can contact staff and allocate tasks as soon as possible when needed.

The use of digital signal processing allows MOTOTRBO to cut out all the extraneous noise during voice calls, giving excellent clarity. This means that radio audio is never disrupted or muffled by external sounds, such as the noise of a crowd, and the headsets make it easier for users to hear calls.

The SmartPTT dispatch software allows the dispatcher to communicate efficiently with staff across the stadium through voice or text messages. The advanced fleet management and work co-ordination functionality ensure that the security and services teams across the stadium are managed effectively.

Spartak has plans to expand the system by installing another base station in a training facility, due to be completed in 2015, which is housed close to the same sports complex where the stadium is based.

## Applications:

SmartPTT Enterprise:

- Individual voice calls
- Group voice calls
- System-wide voice calls
- Text messaging
- Remote listening
- Call logging and recording

## Benefits:

- Workers can call or text anyone else on site
- Group calls are available when more than two parties need to consult on an issue
- Communication between different members of staff is quick and easy
- Operational efficiency is improved

To discover the advantages Motorola Solutions two-way radios can bring to your business, please visit [www.motorolasolutions.com/mototrbo](http://www.motorolasolutions.com/mototrbo)

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