

CASE STUDY

MOTOTRBO CAPACITY PLUS AND SMARTPTT PLUS FOR KAZAKHSTAN'S FIRST DRY PORT



DRY PORT OPTIMISES LOGISTICS OPERATIONS WITH MOTOTRBO™ CAPACITY PLUS

KTZE-KHORGOS GATEWAY DEPLOYS MOTOTRBO AND SMARTPTT PLUS FOR SECURE AND RELIABLE COMMUNICATIONS AND OPERATIONAL EFFICIENCY



KTZE-KHORGOS GATEWAY

KTZE-Khorgos Gateway began operations in August 2015 and is Kazakhstan's first in-land dry port and Central Asia's largest logistics park. Positioned on the Kazakh-Chinese border, and seen as a key cargo hub on what is being dubbed the new Silk Road, KTZE-Khorgos Gateway has been given status of a Special Economic Zone (SEZ) to ease movement of goods between the countries.

The site consists of a 140-hectare dry port, combined with a logistics park of 198 hectares and an industrial zone exceeding 200 hectares. KTZE-Khorgos Gateway needed to get a radio communication system in place in line with its opening. It required a scalable, universal communications solution, which would also offer enhanced functionality such as the ability to record voice conversations, locate and monitor the movement of personnel, both indoors and outdoors and over a very wide area, and worker dispatch. Remote monitoring and management of the radio fleet was also a must-have.

KTZE-Khorgos Gateway decided to deploy a MOTOTRBO™ Capacity Plus network: the first time such a solution has been deployed to manage logistical operations in Kazakhstan. The system provides secure, reliable communications with groups or individuals across the site and allows site managers to quickly locate personnel through GPS and communicate last-minute changes to schedules, or advise if a cargo is delayed, for example. The MOTOTRBO radios and repeaters are robust and suited to the harsh environment and the wide range of temperatures that the region experiences. And, looking forward, there are plans in place to further extend the radio fleet as utilisation of the dry port increases; it is currently only working at approximately 15% of its potential capacity.

CUSTOMER PROFILE

Organisation:

KTZE-Khorgos Gateway

Industry:

Logistics

Location:

Kazakhstan, Almaty region, Panfilov district

Partner:

OTC Ltd

Motorola Solutions Products:

- MOTOTRBO Capacity Plus – 8 channels
- 4 DR 3000 repeaters
- 4 DM2600 mobile radios for office teams
- 40 DP4401 portable radios for workers on foot
- 23 DM2600 mobile radios for heavy machinery operators
- Various accessories including vehicle cradles, pedal switches and microphones for hands-free transmission
- IMPRES™ batteries and chargers

Applications:

- SmartPTT PLUS

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“Every day we accept, dispatch, handle and store hundreds of containers, some requiring temperature and humidity control. Our workers use a lot of heavy machinery, such as Rail Mounted Gantries, Rubber Tyre Gantries, Reach Stackers and Forklift trucks. To be able to ensure the efficient movement of containers and loose bulk through the dry port, facilitate cargo inspection checks by customs and other authorities and ensure the safety of our workers, we need clear, reliable communications across our facility. Motorola Solutions MOTOTRBO Capacity Plus network and radios deliver just that. They are essential for safety and for the smooth running of operations at the dry port.”

Karl Gheysen, Chief Executive Officer, KTZE-Khorgos Gateway



CHALLENGE

KTZE-Khorgos Gateway's management team wanted to deploy a reliable, robust network for critical radio communications to ensure optimal operations and business continuity; it also wanted to benefit from working with a partner who could offer remote technical support if needed. KTZE-Khorgos Gateway turned to OTC Ltd, who has been a Motorola Solutions partner for over 20 years. OTC Ltd's principal business activity is the design and supply of professional radio systems and equipment to businesses throughout Kazakhstan.

Following detailed site inspections, discussions relating to KTZE-Khorgos Gateway's requirements and a successful trial, OTC installed a MOTOTRBO Capacity Plus Network at the dry port in time for its opening.

SOLUTION

Workers and managers on foot carry a DP4401 Portable Radio to communicate with other mobile staff and office-based operational and dispatch teams equipped with the DM2600 Mobile Radios. Workers operating the heavy machinery, such as the gantries and forklift trucks, have further DM2600 Mobile Radios and use a variety of accessories that allow hands-free communications whilst they are at the wheel. All the radios have Intelligent Audio, which means they monitor background noise and automatically adjust their volume; this is indispensable in the high-noise environment of the dry port, especially for heavy machinery drivers.

Voice communications are relayed across eight channels, with radios set to automatically scan through the channels until the first available one is found; emergency calls are set to override other calls if no other channel is available. Various user groups have been set up, including site managers, inbound and outbound goods and customs.

The office-based dispatchers use the SmartPTT PLUS application to make broadcast, group, private, remote monitor or emergency calls to the mobile teams. The app also lets them log all system events, including voice calls, text messages and container status changes, as well as record all calls, with playback options for analysis, reporting or training purposes. Dispatchers use the Lone Worker and GPS tracking features to track workers and vehicles around the port, to ensure maximum safety, productivity and best use of staff and assets.

And finally, via the app, they can efficiently manage fleet operations and remotely control radios; for any technical issues they cannot resolve, OTC offers advice and support.

BENEFIT

KTZE-Khorgos Gateway dispatchers and mobile teams can communicate reliably via data and voice, to individuals or groups, anywhere across the dry port. They can consequently work efficiently, productively and safely, with the risk of accidents and damage to equipment and resulting operational downtime minimised. Container turnaround times are very swift, so ensuring KTZE-Khorgos Gateway meets and exceeds SLAs and its customers' expectations.

Users have been very satisfied, especially with the clarity of the voice communications and the robust, reliable nature of the radios; moreover, the IMPRES batteries ensure that the radios always last a full shift, and longer.

The enhanced functionality of the MOTOTRBO Capacity Plus system combined with the SmartPTT PLUS application has improved lone worker safety, visibility and traceability. However and perhaps most importantly, the MOTOTRBO solution is fully scalable; therefore once KTZE-Khorgos Gateway ramps up its operations to full capacity, it will be quick and easy to extend the system to meet future requirements.

Usage:

- Voice and data communications
- Recording of conversations
- Geolocalisation
- Event logging
- Radio fleet monitoring

Benefits:

- Excellent, secure radio coverage across a very wide area
- Extensive radio functionality
- Increased channel availability with DMR TDMA technology
- Long-term scalability of the solution as the dry port increases operations to full capacity
- Easy-to-use robust radios, suited to the logistics environment
- Ability to easily locate workers and log calls and data allows dispatchers to manage operations efficiently
- Reduction in chance of accidents and damage to equipment and subsequent operational downtime

For more information on MOTOTRBO, please visit us on the web at www.motorolasolutions.com/MOTOTRBO

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