EUROPE'S LARGEST OIL PORT MIGRATES TO MOTOTRBO™

UST-LUGA OIL OPTIMISES SAFETY AND OPERATIONS WITH STC'S CUPOL DISPATCH SOFTWARE FOR MOTOTRBO™

UST-LUGA OIL

Ust-Luga Oil owns and operates Europe's largest oil terminal. It offloads both black fuel oil and light oil products (e.g. petrol and diesel) delivered by trains, stores the product, and then supplies incoming oil tankers calling at its port on the Baltic sea. It handles around 30 million tons of oil annually.

The terminal has to coordinate the turnaround of sea tankers efficiently and quickly; reliable voice communications are therefore essential both to optimise operations and protect employees working in this demanding environment. However, the company's previous analogue system was failing to provide robust communications due to problems with capacity, coverage and call quality. With these issues in mind Ust-Luga Oil worked with Motorola Solutions partners KSS and STC to select and deploy a new radio system. KSS suggested the installation of a MOTORBO digital two-way radio system with STC's Cupol software used to provide a range of advanced dispatch features.

Built in just three months the system is providing reliable and crystal clear voice calls across the site. Moreover, the enhanced dispatch features offered by the Cupol software are helping to improve safety with the facility to track employees in real time using GPS and record all voice calls to monitor and improve incident response.

CUSTOMER PROFILE
Organisation:
Ust-Luga Oil

Location:
Russia

Industry:
Oil and gas

Partners:
STC (Application Partner)
KSS (Channel Partner)

Motorola Solutions Products:
- 2 DR 3000 repeaters
- 8 DM4400 digital mobile radios (control stations)
- 120 DP4401 Ex ATEX two-way radios
- 10 DP4801 Ex ATEX two-way radios
- 3 DM4400 digital mobile radios (dispatch table radios)
- 5 DM4401 digital mobile radios (vehicle radios)
- Capacity Plus digital trunking solution

'We work on a large, noisy and heavy industrial site where the danger of major incident is ever-present. Our people therefore must have clear and instant communications available to be warned of incidents and react fast. Reliable communications are also essential to help them quickly coordinate the turnaround of sea tankers. We're delighted to have moved to the MOTOTRBO™ digital radio system. It provides robust and crystal clear calling across the site and, with features such as GPS tracking giving us visibility over people's locations, and the option of using ATEX radios, it's purpose-built to improve performance and site safety.'

Igor Kuzmich Bondarenko, Specialist in ICS and communication systems, Ust-Luga Oil

THE CHALLENGE

The Ust-Luga Oil site presents a number of challenges for radio communications. It's a big facility, the metal holding tanks for oil disrupt radio signals, and a number of other radio networks are operating in the vicinity (e.g. in the nearby coal and container terminals). As a result, Ust-Luga Oil's analogue radio system was suffering problems with call quality, capacity and coverage; users regularly reported that they couldn't hear calls from dispatch. The company therefore looked for a more reliable and versatile radio solution.

THE SOLUTION

After consultations with radio communications specialist and Motorola Solutions partner KSS, Ust-Luga Oil decided to deploy a MOTOTRBO digital two-way radio system. KSS planned, designed and built the network. The configuration includes the installation of two high-efficiency, high-capacity DR 3000 repeaters with eight DM4400 digital mobile radios. Seven of the DM4400s are used in digital mode for dispatcher communications with one reserved for simplex analogue calls to communicate with incoming ships using the marine analogue radio channel. Given the presence of explosive vapours, Ust-Luga Oil chose DP4401 Ex and DP4801 Ex radios for users. The ATEX radios are safe to operate in potentially explosive environments and include intelligent audio to adjust volume against background noise, highly accurate GPS performance, text messaging and more. They support private, group and all user calling with eight discrete talk groups (such as security, maintenance and rail yard teams).

KSS also deployed Capacity Plus for MOTOTRBO and the Cupol dispatch solution. Capacity Plus is a smart digital trunking solution, which offers twice the capacity of a conventional MOTOTRBO system without needing to purchase dedicated controller hardware or additional frequency licences. Cupol comprises a server to manage incoming and outgoing flows of voice calls and data; radio servers which serve as gateway from software to radio network (servers can be distributed across the site); and software for PCs to create feature-rich dispatch consoles.

THE BENEFITS

MOTOTRBO is delivering the clear, instantaneous and reliable communications across the extensive Ust-Luga Oil facility that are essential to support efficient operations.

In addition, safety, a key priority for the company, is being improved. An all call option is available to send an alert to all teams on site while dispatchers now have complete visibility over the location of employees on a map displayed on their screen. So, should someone be in trouble or spot a potential problem, they can be reached quickly. Furthermore, dispatchers can help teams work more productively, e.g. maintenance crews, by sending the nearest team to deal with a potential problem. Text messages can also be sent to users so that they are not disturbed by voice calls.

The system is also helping Ust-Luga Oil improve training. Cupol's voice recording feature is used to review how teams respond to incidents. The analysis improves training to ensure that best practice is followed.

Finally, Ust-Luga Oil has plans to expand and MOTOTRBO can easily scale to add more subscribers while Cupol application can provide further functionality. For instance Ust-Luga Oil may upgrade its application using GPS to not only track but also store in a database every user's movement across the facility. The data will help Ust-Luga Oil analyse how people move across its site to improve workflows and optimise workforce efficiencies even further.

Applications:
STC's Cupol software provides a range of applications:
- **Reliable voice services:** Near instant voice communications
- **Group and Private calling:** Discrete group and private calling for 8 teams
- **Locationing:** Real-time tracking of teams with mapping for dispatchers
- **Text messaging:** For quick data messaging between users and dispatch
- **Voice recording:** To review incidents

Benefits:
- **Efficient operations:** With clear voice calls
- **Complete coverage:** Full-site coverage for voice and data
- **Improved safety:** Real-time tracking enables users to be reached quickly
- **Enhanced training:** Using voice recordings to analyse incident response and support
- **Efficient system:** Less infrastructure for simple maintenance
- **Highly scalable:** New features and radios can be easily added

For more information on how the MOTOTRBO digital two-way radio system can improve the safety, efficiency and performance of your facility, please visit us on the web at www.motorolasolutions.com/XU-EN/Product+Lines/MOTOTRBO or access our global contact directory at www.motorolasolutions.com/contactus

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