



MOTOTRBO™ CAPACITY PLUS RADIO SYSTEM DELIVERS MISSION CRITICAL COMMUNICATIONS AT RUSSIA'S NATIONAL AUTOMOTIVE TESTING CENTRE

FOR FASTER EMERGENCY RESPONSE, OPTIMAL SECURITY AND RELIABLE OPERATIONAL EFFICIENCY



RESEARCH AND DEVELOPMENT CENTER OF AUTOMOTIVE TESTS FGUP "NAMI"

NAMI is Russia's largest national, modern research, development and production base for automotive testing, conducting compliance testing as specified in regulatory documents within the field of its accreditation. Engineers at its site in Moscow work tirelessly to evaluate and solve any issues or problems relating to the design and development of a wide range of vehicles, from buses, to tractors, trailers and semitrailers, motorcycles, scooters, trolleybuses, specialised vehicles, electric vehicles and internal combustion engines, as well as their components, spare parts and accessories. They also assess road and bridge rail guards and road sign mounts. Tests are conducted in compliance with all major international and national standards.

NAMI has recently upgraded its analogue radio network to a Motorola Solutions MOTOTRBO Capacity Plus system with SmartPTT PLUS for reliable, secure voice and data communications for all teams, as well as for added functionality such as GPS tracking and emergency alerts. The deployment is helping NAMI to decrease response time to incidents and increase operational efficiency and productivity.

CUSTOMER PROFILE

Organisation:
Research and Development
Centre of Automotive Tests
FGUP "NAMI"

Partners:
Radio Duplex (Platinum reseller)

Industry:
Automotive and
automotive testing

Location:
Russia (Moscow Region,
Dmitrov District)

Motorola Solutions Products:

- MOTOTRBO Capacity Plus system comprising:
- 2 x MOTOTRBO SLR 5500 Repeaters
- 50 x MOTOTRBO DP4401 Portable Two-Way Radios
- 5 x MOTOTRBO DP4601 Portable Two-Way Radios
- 1 x MOTOTRBO DP4801 Portable Two-Way Radio
- SmartPTT PLUS Control Room Solution

CASE STUDY

RESEARCH AND DEVELOPMENT CENTRE
OF AUTOMOTIVE TESTS FGUP "NAMI"

"We consider Motorola Solutions technology to be the most secure, the most advanced and the most suitable for our requirements. The MOTOTRBO Capacity Plus with SmartPTT PLUS system, that we have deployed with the assistance of Radio Duplex, fully meets our requirements in terms of security, functionality and communications."

Dolzhnikov Pavel Alekseevich, Head of the group of automotive tests control and planning,
RC NICIAMT FSUE "NAMI"



CHALLENGE

NAMI previously had a conventional analogue radio communication system from another provider, solely for use by its security service teams; other employees used mobile phones to communicate and notify each other about on-site emergencies. However, NAMI wanted to extend the use and coverage of its radio network. During an exhibition in France, NAMI learnt about the MOTOTRBO Capacity Plus technology. Having become convinced of its reliability and effectiveness, NAMI put its proposed project out to tender, a tender which was won by local, Moscow based, Motorola Solutions Platinum reseller Radio Duplex. Radio Duplex, founded in 2013, works closely with its clients throughout deployment, from initial advice on the most suitable equipment, to technical support, warranties and ongoing maintenance of the systems it installs.

NAMI was not only interested in the improved reliability, availability, manageability, security and coverage of a digital radio system, it was also interested in applications such as automated alerts, GPS positioning and lone worker, as well as the ability to remotely manage the radios and record calls; all of which the MOTOTRBO Capacity Plus system with SmartPTT PLUS offers.

SOLUTION

Radio Duplex provided a fully turn-key solution from installation, integration, programming and testing, to ongoing remote phone and email support. NAMI is using the MOTOTRBO Capacity Plus system with SmartPTT PLUS for 24/7 voice calls and data sharing, in the form of text messages, GPS location coordinate sharing and work order tickets. The network supports 4 talk and data paths, all with automatic channel allocation, between radio users and between the dispatcher and users, in the form of personal, group, general and emergency communications. There are currently approximately 100 subscribers on the system, with group call set up time of less than 0.5 second and the network easily handles all the calls being made even during peak periods. As well as instigating group and data communications, dispatchers can track individual radios on their console maps via GPS, quickly dispatch teams closest to incidents, listen in to live calls on selected radio channels, access archived recordings in case of dispute resolution and receive and react to real-time alerts or lone worker alerts. They also have the ability to connect users from different departments into a temporary single workgroup,

or a permanent group, and to remotely block or unblock user equipment. SmartPTT PLUS also enables NAMI to support interoperability of the radios with mobile phones, if needed, via its telephone interconnect feature. All the radios are supplied with IP67 rating, as they are used outdoors in all sorts of weather conditions.

NAMI's IT teams, meanwhile, can use remote diagnostics and management tools to maintain and troubleshoot all segments of the network and its functions. The system also performs continuous software and hardware self-diagnostics, raising alerts with regard to any possible malfunctions; it is configured with a back-up power supply in case of mains grid failures and to support continued operations, if any individual element should unexpectedly fail. Radio Duplex engineers are also available for site visits, whenever needed.

BENEFIT

The clear and reliable communications supported by the MOTOTRBO Capacity Plus system is enabling NAMI to manage and control tests more effectively and respond significantly faster and more efficiently to emergencies; for example, in the event of an incident, an instant sound alert appears, and the screen displays information about the coordinates, car make, and driver data.

NAMI is delighted with the solution and Petrov Alexey, Managing Director and Andrey Aksenov, Technical Director at Radio Duplex summarise: "With MOTOTRBO Capacity Plus innovative Dynamic Trunking and TDMA technology, NAMI users know that their call, alarm or information will get through to the intended user first time. And with Capacity Plus and SmartPTT PLUS, NAMI now has all the functionality and network reliability it needs to really utilise its radio communications system to its full capability. Moving forward, NAMI plans to increase the number radios and, if necessary, repeaters deployed on site."

Usage:

- Voice and data communications
- Emergency response
- GPS Tracking
- Call recording
- Lone Worker

Benefits:

- NAMI employees are benefitting from greatly improved system availability and radio coverage; all departments can now rely solely on their radios to communicate
- Response times to incidents have decreased significantly (from sixty seconds using mobile phones to just ten seconds with the MOTOTRBO system in a simulated emergency situation)
- Operators track the location of users and cars in real-time; in the event of an emergency, an instant detailed alert is triggered, so improving the quality of incident response
- The ability to listen into live and archived calls is improving dispute resolution
- The reliable radio communications are enabling enhanced process management and improving vehicle traffic safety during tests, as different departments are able to interact faster
- NAMI's IT Department appreciates the ease of ongoing management and troubleshooting of the system

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