



RIGHT NOW WE'RE HELPING FIREFIGHTERS TO BE THEIR BEST

MOTOTRBO™ DELIVERS COMMUNICATIONS TO WEST COAST DISTRICT MUNICIPALITY FIRE SERVICE



WEST COAST DISTRICT MUNICIPALITY FIRE BRIGADE

South Africa's West Coast District Municipality's (WCDM) disaster management services facility is based in the rural town of Moorreesburg. From here, WCDM provides firefighting services to a scattered population across a diverse and rugged territory stretching over 32,000 km². Covering such an extensive landscape presents a huge challenge with wildfires a frequent occurrence.

WCDM previously used the cell phone network to coordinate operations. But cellular services were often unavailable in remote areas. Also, mobile phones were prone to breaking down in the demanding environment in which firefighters work. WCDM thus released a tender for a professional, secure and reliable digital radio network to improve incident response and help firefighters better safeguard themselves and their colleagues.

A Motorola Solutions MOTOTRBO digital radio network has now been installed across the region providing continuous, reliable, secure and rugged communications. The system is delivering a range of advantages. The fire brigade's response time has improved – dispatchers can send a single call to multiple firefighters to alert them to an incident. Costs are reduced as mobile call charges have been eradicated. Firefighters' radios are more robust and reliable, ensuring they have continuous access to the lifeline of communications. And with the ability to track teams using GPS technology built into their radios, dispatchers can quickly send help if a firefighter encounters a problem.

CUSTOMER PROFILE

Organisation
West Coast District Municipality Fire Service

Location
South Africa

Industry
Public Safety

Partner
R&S Communications

Product Name

- 6 DR 3000 repeaters
- 50 DM 3601 digital in-vehicle radios
- 50 DP 3601 digital portable radios
- TRBOnet software from Neocom Ltd.

Benefits

- **Widespread coverage:** Coverage is provided across 32,000 km²
- **Cost-efficiency:** Call charges for mobile phone use have been eradicated
- **Training:** Voice recording enables teams to review incident response and improve operations
- **Improved Safety:** GPS services enable teams to be tracked
- **Rugged accessories:** Convenient operation through clip-on microphones

CASE STUDY

WEST COAST DISTRICT MUNICIPALITY

“As a fire brigade operating across a vast and geographically diverse region, we need a reliable network and robust devices to effectively manage our operations. Motorola Solutions MOTOTRBO network delivers. It has eliminated network black spots and provides instant and continuous voice and data communications with GPS tracking. Now, instead of making individual calls to firefighters to alert them to an emergency, we can send out group messages; this makes our disaster response more effective and efficient. The equipment has earned the trust of users too: our communications are a lifeline and the radios have become trusted companions with not one single instance of breakage.”

Bertus Senekal, Fire Chief, West Coast District Municipality



CHALLENGE

WCDM's fire brigade used commercial cell phones to coordinate its emergency responses. The mobile phones used by teams were not suited to the demanding environment; battery life was short and devices were prone to breaking with repairs taking considerable time. With these issues in mind, WCDM's newly instated fire chief, Bertus Senekal, put out a tender for the commissioning of a digital radio network for the region. Mr Senekal set two key objectives: a reliable network that would function in the country's most remote and rugged areas and robust hardware that could withstand the rigours of emergency situations.

SOLUTION

Motorola Solutions, in conjunction with its partner R&S Communications, presented WCDM with a turnkey solution, providing both the network coverage and robust end-user equipment. The performance of the proposed network saw WCDM select the system ahead of competing systems.

To build and optimise the network, R&S Communications conducted intensive testing to determine network coverage levels in each area and advise on where best to situate repeaters. Six MOTOTRBO DR 3000 repeaters were placed throughout the region to cover the 32,000 km² area. These are linked back to the control room in Mooresburg using a wireless broadband network. Integrated in the system is TRBOnet dispatch software developed by Motorola Application Partner Neocom Ltd. TRBOnet software allows fleet management with real-time tracking of personnel and vehicles, which greatly improves the firefighters' safety and efficiency. The solution provides WCDM with dedicated voice and data channels, GPS functionality, an emergency SMS feature and full voice recording capabilities.

Fifty DM 3601 digital in-vehicle radios and fifty DP 3601 digital portable radios, run on Windows-based

TRBOnet software, are used by firefighters. The devices are designed to prevent water, dust and smoke ingress. WCDM also uses a range of Motorola Solutions accessories such as microphones which clip onto firefighters' clothing for hands-free operation.

Offering a truly bespoke solution, R&S Communications disabled some of the hardware's normal features to prioritise its emergency services' capacity. The individual, one-to-one voice calling was disabled so the network wouldn't become overloaded. Earthing protection was also installed to insulate the repeater sites against South Africa's notorious lightning storms.

BUSINESS BENEFITS

Moving from a commercial cell phone network to MOTOTRBO has resulted in huge savings for WCDM – call charges and the cost of frequently replacing damaged and broken devices are eliminated. With a service-level agreement and warranty on equipment in place, the only running cost is the maintenance of the system.

The control room can now contact firefighters dealing with disasters in remote locations where there is no cell phone coverage. Thanks to the group calling function, dispatch can speak to a number of emergency workers at once, saving time in contacting firefighters individually to speed up response time. Dispatchers and users also value the safety offered by the GPS capability – workers who drop out of contact can be easily tracked and help sent if required.

The MOTOTRBO network is also highly scalable; preparations are already under way to extend the use of the system, so deriving more value from it. In future, road traffic and emergency medical services may use the MOTOTRBO network to allow ambulance and fire teams to be contacted simultaneously in case of emergency.

For more information on how the MOTOTRBO network can improve your field operations, please visit us on the web at www.motorolasolutions.com or access our global contact directory at Motorola.com/Business/XU-EN/Contact_Us

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