



AFRICAN GAS COMPANY INCREASES SAFETY AND OPERATIONAL EFFICIENCY WITH MOTOTRBO™ IP SITE CONNECT

THE SYSTEM IS DELIVERING ROBUST MISSION-CRITICAL COMMUNICATIONS IN REMOTE AND POTENTIALLY HAZARDOUS ENVIRONMENTS



AFRICAN GAS COMPANY

This large petrochemicals company is responsible for gas processing and distribution across wide areas in Africa. It operates a large processing plant and a significant gas pipeline, which has pressure control stations located at very specific intervals along it, to eliminate the risk of gas leakages. The pipeline and plant are part of a wider programme in this area of Africa to significantly increase natural gas power generation, so reducing dependency on hydropower, whose recent capacity has been affected by recurring droughts.

CUSTOMER PROFILE

Organisation:

African Gas Company

Partners:

- Reseller: Agrovision Ltd
- Distributor: Aristel spol. s.r.o

Industry:

Utilities, Oil & Gas

Location:

Africa

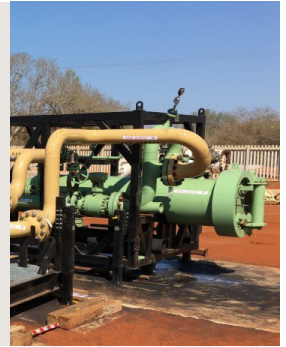
Motorola Solutions Products:

2 MOTOTRBO IP Site Connect systems, comprising:

- 23 SLR 5500 Two-Way Repeaters
- DP4801 Ex ATEX Portable Radios
- DP4401e Portable Radios
- DM4601e Mobile Radios

“Thanks to the MOTOTRBO IP Site Connect system and the SmartPTT PLUS control room software, this large oil and gas supplier now has secure, reliable communications between all their control stations and HQ, which is key for operational safety and efficiency. And, with the GPS tracking and the MOTOTRBO ATEX radios for use in potentially hazardous areas, they are keeping their workers safe too.”

Lukas Horak, Sales Manager, Agrovision Ltd



CHALLENGE

Previously, this gas company was using MOTOTRBO ATEX radios on single-site networks at its gas plants and control stations. However, in a drive to significantly improve communications, efficiency and safety along the length of the pipeline, it saw the need to equip all its pressure control stations, however remote or hard to access, with interconnected, reliable two-way radio communications. The systems had to be reliable and robust, with ATEX-certified radios for use in potentially hazardous conditions. The gas company was approached by various companies but, as it had already been working successfully with Motorola Solutions for some time, it decided to engage with Agrovision Ltd. Agrovision is a long-term Motorola Solutions partner in Africa with many years' experience in both the private and government sectors.

SOLUTION

Having closely assessed the company's requirements, specifically with regard to safety, functionality and cost, Agrovision proposed a MOTOTRBO IP Site Connect system. It worked together with its long-term partner and Motorola Solutions authorised EMEA distributor, Aristel spol. s.r.o., to draw up a suitable system design that could be deployed within the requested timeframes. Initial training and Factory Acceptance Tests (FAT) were conducted in the presence of company and Agrovision representatives at Aristel's premises in the Czech Republic, before the system was shipped to Africa; and, once the installation was completed, Aristel arranged further operational training at the company's premises. As Lukas Horak, Sales Manager at Aristel, explains: "This was a key stage of the project, as all stakeholders were able to become fully familiar and very confident with the Motorola Solutions equipment; and, together with Agrovision, who are on hand locally, we manage and support the system on an ongoing basis."

Agrovision deployed two MOTOTRBO IP Site Connect systems, including required infrastructure such as power supplies, antennas, cabling and cabinets, as well as the SLR 5500 two-way repeaters. A repeater was installed at each pressure control station, with two spare units in case of repairs or replacements. Teams working in potentially explosive environments have been equipped with DP4801 Ex ATEX portable radios, with others using

standard DP4401e portable radios and DM4601e mobile radios installed in vehicles and in the operations room.

The two MOTOTRBO IP Site Connect systems (which can each support up to 15 sites) were bridged into a single communications infrastructure using a SmartPTT PLUS IP System Bridge. This enables communications between the radios on the two networks, with permanent and dynamic bridging of both voice and data communications across all the pressure control stations and the operations centre. Operators at the control centre also use the SmartPTT PLUS dispatch solution for system-wide communications with all radios, groups of radios or individual radios. There are currently two main user groups, maintenance teams and security teams, who communicate on shared channels; however, dispatchers also have the option to communicate with each site individually, and vice versa. Operators also use SmartPTT PLUS to monitor the location of workers with GPS tracking, which is particularly useful for the operations room both in terms of safety and speed of response, especially for maintenance teams who can be in very remote locations, anywhere along the pipeline.

BENEFITS

Agrovision and Aristel invested a huge amount of time in the system design and preparation during the initial stages of this project; consequently, very few technical challenges arose during deployment stage. In fact, the main challenges came from adverse weather conditions, with heavy rains making some of the remote sites inaccessible for lengthy periods. However, now fully installed, the MOTOTRBO IP Site Connect system is providing critical communications along the length of the pipeline; and feedback has been excellent, with users particularly citing the clarity of calls, however remote their location. Moreover, the reliable communications are saving time, cutting costs and improving operational efficiency; not only can the company respond to any incident faster and with a more coordinated approach, but central security and maintenance teams can now also work more effectively with their control station counterparts, to discuss suitable courses of action. This results in an increasing number of issues being resolved remotely, so significantly reducing unnecessary, time consuming visits to site.

Applications:

- SmartPTT PLUS control room software
- SmartPTT PLUS IP System Bridge

Benefits:

- MOTOTRBO IP Site Connect provides reliable, clear, mission-critical wide-area communications between all the pressure control stations along the entire length of the gas pipeline and the company's operations room
- The SmartPTT PLUS IP System Bridge enables communications between the radios on the two networks with permanent and dynamic bridging of both voice and data communications
- The robust, reliable PTT communications ensure any pipeline safety concerns can be dealt with effectively and swiftly; day-to-day operational efficiency has also significantly improved
- The ATEX radios for use in potentially hazardous areas, coupled with enhanced security features and GPS tracking, are significantly increasing worker safety