

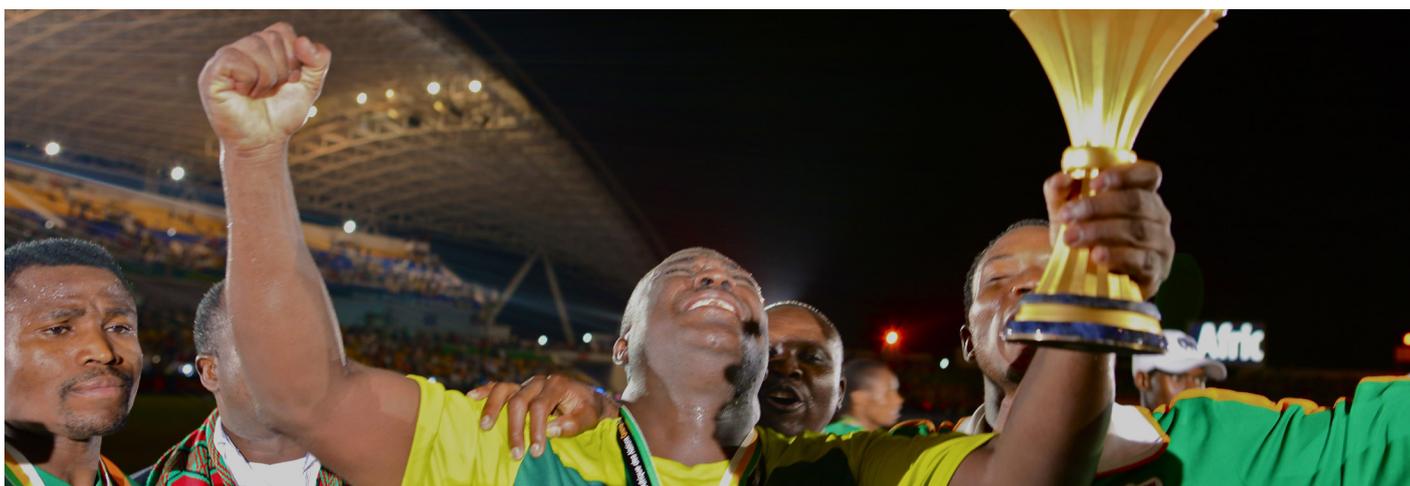
CASE STUDY

THE AFRICAN CUP OF NATIONS: THE GABONESE REPUBLIC 2012



RELIABLE SCALABLE COMMUNICATIONS: THE DECIDING GOAL

IP SITE CONNECT AND CAPACITY PLUS MULTISITE DEPLOYMENT FOR THE AFRICAN CUP OF NATIONS



THE AFRICAN CUP OF NATIONS ORGANISATIONAL COMMITTEE (COCAN)

Taking place every two years the African Cup of Nations (CAN) is the most important international football competition in Africa (4th world event). It is organised by The African Football Confederation (CAF). In 2012 The Gabonese Republic and Equatorial Guinea co-hosted the event.

There was no professional radio system in place across any of the Gabonese stadiums or venues selected to host the competition. During some earlier competitions in other countries analogue systems had been used; however these did not provide sufficient capacity or coverage for the 2012 event. Moreover local IP links, which mostly use VSAT throughout the region, are prone to instability and overloading. COCAN therefore wanted to set up an autonomous radio network.

After various meetings between the reseller Luwak International, the distributor Radiotrans and COCAN, the decision was taken to install various MOTOTRBO™ systems. The radios were used by operational teams, including transport, logistics, health, accommodation, catering, protocol and competition personnel. Security teams, the army and police force also used the radios. The deployment ensured the success of the competition off the pitch.

And the winner on the pitch? Zambia.

CUSTOMER PROFILE

Organisation

The African Cup of Nations
Organisational Committee
(COCAN)

Industry

Sports and leisure

Partner

- Luwak International, Paris and Libreville
- Radiotrans, HQ Madrid, various sites in Africa

Applications

- Communications for operations teams
- Communications for security teams
- Individual, group or emergency calls and SMS



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“The MOTOTRBO, Capacity Plus and IP Site Connect solution was integral to the smooth operational running of the 2012 Africa Cup of Nations. It was tailored to our needs, provided coverage across a wide area, was reliable and easy to use. Our teams always had access to instantaneous communications and appreciated the extensive programmable features of the radios. The audio quality was excellent too while the radios were robust and battery life outstanding. We would happily recommend MOTOTRBO to any future CAN organisational committees.”

Cheichk Aworet – Head of ICT Project /CTL Transport and Logistics Commission, COCAN 2012

CHALLENGE

To host a well organised, safe competition, COCAN needed a secure, reliable communication system. It needed to cover the two towns where the matches would take place, Libreville and Franceville. Coverage was also required across Nguouni, Bongoville and Moanda, three towns in the south-east of the country hosting delegations and team training sessions.

This was a challenging brief with the 1000 users spread across a wide geographical area. The timeframes were also short with the system needing to be selected, tested and deployed within a three-month period.

SOLUTION

COCAN partnered with Luwak International and Radiotrans. Their first task was to carry out a detailed site audit, including understanding areas where there could be RF challenges and predicting end user and talk group needs. Thereafter they had to organise simultaneous and rapid multi-site installation and programming, followed by network testing.

Once the antennas, duplexers and, where relevant, combiners, were in place, Luwak International installed a varying number of DR 3000 repeaters. The repeater requirements were based on the area to be covered and the number of communication channels needed at any one venue. The MOTOTRBO DR 3000 successfully eliminated any poor areas of reception, for example in team changing rooms that tend to be deep within stadiums, and provided two communication channels per repeater. In all, 22 talk groups were set up on the system to support efficient communications between teams.

MOTOTRBO's digital trunking solution Capacity Plus was also installed in Libreville and Franceville. This connected users in the two towns, 450 miles apart, on a single network. Capacity Plus was easy to integrate, via a simple software upgrade. It allowed COCAN to further expand and optimize its MOTOTRBO system in these two key venues without the cost and inconvenience of purchasing additional infrastructure or adding new frequencies. The dynamic channel allocation feature

was also vital to ensure that users immediately had a channel available, even during periods of high demand. In addition MOTOTRBO enabled emergency calls to be simultaneously broadcast to all users. For instance, when there was a power cut during one of the test games, emergency protocols were communicated instantly by MOTOTRBO to ensure that engineers were quickly able to resolve the issue. The autonomous power supply system installed by Luwak International then came into its own, allowing the continued function of MOTOTRBO to successfully manage the crisis.

COCAN selected the DP 3400, the DP 3601 and the DM 3601 from the MOTOTRBO range. A key reason behind this decision was that, following the tournament, the system was to be reassigned to the Gabonese National Agency for Digital Infrastructures and Frequencies. Therefore it was imperative that the system was easily reprogrammable and future-proof to meet the needs of other events where the agency would deploy the radios and where a wider range of applications such as GPS remote monitoring and location could be required.

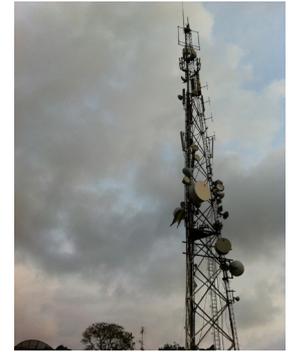
A similar MOTOTRBO network was also successfully deployed in the two stadiums at Bata and Malabo in Equatorial Guinea for CAN 2012.

BUSINESS BENEFITS

MOTOTRBO enabled operations and security teams to communicate with whoever they needed to, instantly, clearly and continuously. The efficient communications ensured speedier response times, increased security and helped the 1,000 users deliver a successful tournament.

The system was affordable in its cost of installation and deployment and easy to maintain. Installation times were exceptionally fast with Luwak International and Radiotrans working closely together to deliver this successful solution.

End users were very satisfied with the radios, appreciating their robustness, reliability, ease of use, long battery life and exceptional audio quality, even during the noisiest of games.



Product Name

Network

- **Libreville Stadium:** 5 DR 3000 UHF Repeaters with Capacity Plus and IP Site Connect, combiner, 0dB antennas, duplexers
- **Libreville Town:** 4 DR 3000 UHF Repeaters with Capacity Plus and IP Site Connect, combiner, 5dB and 8.5dB antennas, duplexers
- **Franceville Stadium and Town:** 5 DR 3000 UHF Repeaters with Capacity Plus and IP Site Connect, combiner, 5dB and 8.5dB antennas, duplexers
- **Bongoville:** 1 DR 3000 UHF Repeater, 5 dB antenna, duplexer
- **Nguouni:** 1 DR 3000 UHF Repeater, 5 dB antenna, duplexer
- **Moanda:** 1 DR 3000 UHF Repeater, 5 dB antenna, duplexer

Radios & Accessories

- 530 DP 3400 UHF Portable Two-Way Radios
- 347 DP 3601 UHF Portable Two-Way Radios
- 26 DM 3601 UHF Mobile Two-Way Radios
- 270 Discreet Earpieces
- 18 Multiple Chargers

Key Benefits

- **Enhanced operations:** with reliable, easy to use two-way communications throughout venues
- **Faster response times:** for increased security, safety and team collaboration
- **Extensive, scalable capacity:** the system supports 22 talk groups, 1000 users, 32 channels and dynamic channel allocation
- **Affordable:** with efficient deployment and maintenance
- **Crisp, clear audio:** even during the noisiest of matches
- **Superior visitor experience:** excellent communications ensure efficient tournament management

www.motorolasolutions.com/mototrbo

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