

Babanango Game Reserve – Smart Radio Systems Project Reference

Smart Radio Systems are proud to be associated with Babanango Game Reserve, an exclusive private game reserve situated in the heart of Zululand.

Babanango Game Reserve contracted Smart Radio Systems to conduct a full audit of their two-way radio communications network and thereafter to engineer and implement any necessary changes as deemed to be critical in order to optimize the network and get it fully operational as per the required specifications and their in-field operational requirements.

Babanango Game Reserve are a leading private game reserve located in the northern Zululand area of KwaZulu Natal encompassing 20,000 Hectares of prime bushveld within the Babanango Valley. The White Umfolozi river flows through the reserve and together with their recently acquired Big Five status, three luxury lodges and two tented camps, the reserve offers a wonderful and unparalleled African Safari getaway, catering for both local and overseas visitors with true South African hospitality. Other key functions the reserve conducts are nature conservation and the management of wild game whilst creating much needed employment and opportunities for the local communities.

The reserve invested in a Hytera wide-area DMR radio communications network a few years ago through a third party, encompassing handheld portable radios, vehicle mounted mobile radios and fixed base station radios situated at each lodge and tented camp. The network infrastructure consists of four repeaters, each situated at geographically disparate radio highsites and interlinked by means of IP protocol in order to offer seamless voice and data communications across the reserve. Due to the large and remote operational area, rock-solid and reliable wide-area radio communications are crucial to the smooth operation of various departments and safety of the workforce in the field, thereby assisting in the high level of professional service the reserve offers to its visitors and guests.

In essence, the reserve was unhappy with the set-up and performance of the radio network with the underlying feeling that they were not receiving any value on their investment.

In particular there were ongoing critical issues with wide-area communications between repeaters thereby making communications between teams and departments across the reserve impossible.

Smart Radio Systems, in conjunction with their technical partner, Connect Systems of Cape Town - both in their capacity as Hytera experts, were contracted by the reserve to conduct a site visit in order to complete a complete network audit of the radio system and to identify and document any faults in the physical infrastructure, IP networking issues and general fleet-map

programming problems related to the radio terminals and furthermore to action any remedies as necessary.

Here the technical expertise of Connect Systems was indispensable as they have a long and successful history in deploying and commissioning wide-area IP-connected radio communications networks.

Two further site visits were conducted for remedial work to be completed that consisted of:

- Fixing networking issues and enabling wide-area communications over the IP backbone between repeaters,
- Optimizing and simplifying the fleet-map and re-programming of all radio terminals in order to optimize channel usage and availability and enhance overall network capacity,
- The supply and installation of new antennas that were cut to the reserve's licensed frequencies for all game drive, security and general usage vehicles in order to gain maximum performance and communications reach from the vehicles in the field,
- The supply and installation of new antennas and mounting hardware for all the fixed base station radios at the lodges and tented camps in order to gain maximum performance and communications reach from each base radio,
- The supply and installation of a new repeater and mobile radio terminals,
- The re-programming and optimizing of the Hytera SmartDispatch system for remote management and computer-based dispatch communications with the radio fleet and GPS tracking of security and anti-poaching unit radios in the field,
- Installation and set-up of Hytera XNMS Remote Repeater Control and Diagnostics software for remote visibility and control of the wide-area repeater network,
- Training of staff on the correct usage and operation of portable and mobile radio terminals.

The Hytera radio communications network is now fully operational and functional as per specification and the desired mission-critical-communication needs of the reserve, as such their faith in Hytera as an Original Equipment Manufacturer to provide a solid and reliable radio communications network has been fully restored.

Their Hytera wide-area radio communications network now fully enables the reserve to conduct their operations in confidence and enhances the professional service levels they provide to both the community and guests alike.

Babanango Game Reserve, Smart Radio Systems & Hytera
- a winning combination!

