



Customer	African Bank
Solution	Private VSAT Network
Date	August 2008

Project Profile

Satellite Network for Banking



Project Key Characteristics

- Q-KON SA was instrumental in securing an ICASA Private Telecommunication Network license for African Bank.
- Using a “spider crane” to install the 4.5m earth station antenna on top of the 3 storey building.
- Integration with fully redundant 1:1 Uplink/Downlink controller.

Overview

African Bank is a publicly listed bank-controlling company, that provides unsecured credit products to the South African domestic middle market. African Bank services approximately 1.5 million clients through 550 branches. A substantial number of these branches are situated in the rural and remote areas.

Data connectivity to these branches was provided by the incumbent telco operator either by landline or by the incumbent's own satellite network. In the case of the land line connections, these connections had a high failure rate (copper theft in some cases), and the time to repair these lines were excessive. In the case of the satellite network, the reliability was acceptable, however no possibility existed for flexible deployments, e.g. temporary deployments for e.g. 3 months to test the viability of a branch in a specific area.

The obvious answer to the problem, was for African Bank to establish their own Private VSAT Network. With their own satellite

network, the data network's reliability will improve, the service level agreement is under the bank's control, and the Bank will actually save money.

Not so simple though. In South Africa a license is required for nearly all telecommunication networks. And although the proposed network fit the requirements of a PTN (Private Telecommunication Network) perfectly, the process of obtaining the required license from ICASA (the South African regulator) took more than a year.

However, once the license was awarded, the procurement process could begin, and the Hub with the first remotes were commissioned a mere 3 months after Q-KON SA received the order. The project also included the implementation of an initial 50 remote stations, deployed country wide.

Currently the network is running at 99.995% reliability, and the bank is already considering additional services e.g. VoIP to the branches, that will further save costs, and improve the bank's service.

The Project

The VSAT network includes:

- **4.5m Earth Station Antenna.** To distribute the weight of the antenna on the roof, the Andrews antenna was mounted on a tripod mount, instead of the more commonly used pedestal mount.
- **RF Redundancy.** A fully redundant BUC and LNB configuration are controlled from a Mitec 1:1 Uplink/Downlink controller. The intelligent and highly flexible controller, can independently switch between a failed BUC or LNB and a stand-by unit with no service interruption.
- **4 Slot Hub Electronics.** The Hub electronics were based on the 12000 series 4 slot chassis manufactured by iDirect. The current network uses one M1D1 card (1 outbound and 1 inbound route) with a second M1D1 card providing redundancy. This still leaves 2 more slots for network expansion.
- **Network Scalability.** The current network capacity is 1024/512kbps. The RF sub-system will allow the network capacity to grow to more than double its current capacity without the need to change any of the hardware.



Top
The Project team at work

Bottom
Off-loading ... building the mounting ... building the antenna ... lifting the antenna ... and fitting it

