



Safaricom, Kenya - Providing Network Extensions to Remote Locations

CASE STUDY

Overview

In the heart of the African savannah lies 55,000 acres of private game land encompassing grasslands, wetlands and indigenous forests. Originally settled in 1922 as a cattle ranch, the Lewa Wildlife Conservancy, located 140 miles north of Nairobi in Kenya, East Africa, is now home to a number of endangered wild animals.

As a yearly event to raise money for the ecological management and operations of the park, Safaricom, Kenya's first and largest mobile network operator and a subsidiary of Vodafone, hosts the Safaricom Marathon. During the marathon, more than 450 athletes and dignitaries from over 16 countries, as well as hundreds of spectators, converge upon the Lewa Wildlife Conservancy to participate in and support the event. Internationally acclaimed, the Safaricom Marathon is the only marathon in the world occurring in a wildlife conservancy.

Problems addressed

In anticipation of thousands of marathon attendees, Safaricom wanted to have a robust and reliable communications network up and running for the event. Kenya's vast land mass, extreme climate and terrain make traditional wireline communications capabilities difficult and costly. Given the situation, it was necessary for Safaricom to augment their communications capabilities to include the wildlife conservancy.



Four weeks before the race, Safaricom received final word from the incumbent communications supplier informing them that they wouldn't be able to connect the cell site that Safaricom had built in the conservancy to the main switch in Nairobi via microwave transmission in time for the marathon.

After learning about various similar deployments throughout Africa using compressed satellite backhaul as opposed to traditional microwave, Safaricom issued the challenge to ship, install, and deploy a GSM cellular network covering the marathon's route within a three-week period of time – a daunting challenge for any telecom provider – intensified by the logistical issues presented by location and terrain of the conservancy.

As the majority of the three weeks were used in the logistics of getting the equipment into the country, the actual installation of ADC's Network-In-A-Box took place within a 24-hour time window, which extended into the middle of the night. Network installation workers had to be surrounded by armed park rangers to protect them against the park's lions, rhinos, and elephants milling about the area. On race day, July 1, 2001, the Safaricom's network was successfully turned on in record time.

ADC's Network Systems

ADC's compact, powerful and flexible UltraWAVE GSM technology made it the perfect solution for the challenging issues of the conservancy. ADC's network ensured the safety of the participants by allowing medical personnel to be in contact with each other, park rangers to maintain a certain level of safety for the animals and attendees, and enabling the eight water stations along the dirt-track route to stay fully supplied. Completely self-contained, ADC's fully-functional GSM solution allowed athletes and spectators alike to communicate with friends, family and business associates throughout the world. Due to the ability to provide a robust and reliable network in an unprecedented amount of time, Safaricom has continued to deploy ADC's solution for network build-outs in other African cities. These additional deployments reflect success and expertise in deploying efficient and cost-effective GSM networks under difficult and challenging conditions, while maintaining the highest levels of quality.

The Safaricom deployment is just one example of how ADC's revolutionary products and services provide efficient, reliable and affordable communications to millions of people in emerging countries around the world, enabling ADC to execute its vision of 'reaching the unreachable'.

ADC's Network-In-A-Box system is a fully integrated system that contains a Mobile Switching Center (MSC), Base Station Controller (BSC) and Base Transceiver Station (BTS) in a cabinet about the size of a tower PC.

RESULTS

- A once unreachable location now has full voice and data services
- Network up-and-running within 24 hours of equipment delivery
- Additional network extensions in other remote areas also deployed



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