

Kenya Data Networks, Africa

First carrier to bring the advantages of WiMAX to Kenya

The development of a modern telecoms infrastructure capable of delivering voice and data services is a critical prerequisite for Kenya's economic growth.

Unfortunately, high access costs, a chronic lack of infrastructure and a restrictive regulatory framework means that out of a population of 34 million only 1.5 million have access to the Internet. However, the country's telecoms sector is undergoing liberalisation, albeit slowly.

About KDN

- A public data network operator established in January 2003 following liberalization of the Kenyan telecommunications market

The Challenge

- To take advantage of the opportunities available in Kenya's infrastructure-starved telecoms market
- To develop a reliable broadband network
- To get its service up-and-running before competitors

The Solution

- A Broadband Wireless Access network using equipment from BreezeMAX, Alvarion's WiMAX platform as well as Alvarion's BreezeACCESS OFDM and WALKair product lines

The Result

- KDN has built WiMAX networks in Kenya's three cities as well as in nine major towns
- KDN was the first new operator to provide leased line, frame relay, and IP data services in Nairobi and is the only operator to offer this service nationwide
- KDN has two revenue streams. It provides highly reliable last-mile access services direct to large institutions, banks, universities, multinational corporations, and small-to-medium-sized businesses. In addition, KDN also provides Internet connectivity for other ISPs to resell
- A network which has been, and will continue to be, quickly and easily expanded to meet ever-increasing demand

www.kdn.co.ke

Kenya Data Networks

Kenya Data Networks (KDN) was established in January 2003. It was the third company to receive a Public Data Network (PDN) operator licence in Kenya and is majority owned by the Sameer Group, one of the foremost economic entities in Kenya.

KDN's management were technology neutral, but their philosophy was clear. Subscribers do not care how they get broadband, they just want it to be reliable and cost-effective.

With a number of other PDNs also getting ready to enter the market, KDN wanted to build a network quickly to give it a headstart. KDN's extensive research clearly demonstrated that BWA would be the fastest, least expensive and most flexible way to meet broadband demand in Kenya.

After testing equipment from a variety of vendors, KDN chose to build its BWA network using equipment from Alvarion. Alvarion's products and expertise proved to be superior on many levels. In particular, quality of service (QoS) is very important to Kenyan businesses, and KDN wanted to be able to guarantee its customers 99.9% network availability.

BWA networks require low initial capital expenditures and are relatively inexpensive to operate. Costs are in proportion to the size of the customer base and their associated capacity needs. And a BWA network allows KDN to provide full broadband services without relying on Telkom Kenya's copper infrastructure or building a new wireline network or launching satellites.

Kenya, Africa

North America

Central America

Latin America

Western Europe

Eastern Europe

Asia Pacific

Northern Africa

Southern Africa

Offshore



Customer type: new operator

Country / Region: Africa

Solution: BreezeMAX™, BreezeACCESS® OFDM, WALKair™

Application: broadband



"Wireless broadband is the best economic alternative to traditional wired access, especially for areas with little existing telecoms infrastructure. BWA and WiMAX has allowed us to become the undisputed market leader in our region and to meet the commitment towards the "Universal Access Obligation" that we have with the Kenyan government. Eventually we hope to cover more than 70% of Kenya's population with affordable broadband services."

Mr. Kai Wulff,
Managing
Director of KDN

BWA also enables KDN to reach areas not covered by existing infrastructure - and the network can be easily expanded to where demand is strongest. Finally, once the BWA network is established, KDN can connect new customers quickly - within an hour in most cases.

A survey of likely sites for the base stations was completed by Alvarion and KDN in April and by July 2003 KDN's broadband wireless network was up and running in Nairobi and four other major cities in Kenya covering all the main business centres. A fantastically quick rollout in less than six months thanks to the technology of broadband wireless access and the experience and expertise of Alvarion.

KDN's Network

KDN's BWA network operates in the 3.5 GHz spectrum and uses equipment from two of Alvarion's product lines: BreezeACCESS OFDM and WALKair 1000.

KDN wanted to have two separate revenue streams; the use of two Alvarion products in an overlay fashion enabled KDN to perfectly meet the needs of the commercial community as well as the needs of the broadband internet user. This decision resulted in KDN securing a more flexible and robust business case.

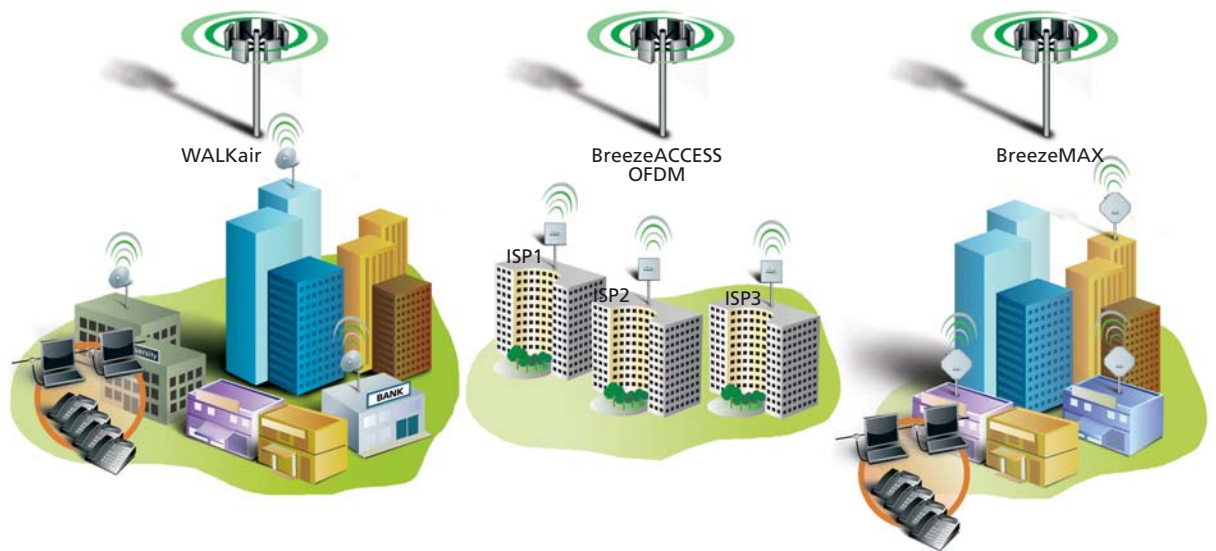
Alvarion's WALKair 1000 equipment is used by KDN to provide clear channel pipes to large institutions, banks, universities, multinational corporations, and small-to-medium-sized businesses. Whilst the deployment of BreezeACCESS OFDM equipment enables KDN to resell its bandwidth to other ISPs providing it with additional revenues at little extra cost to KDN; every ISP in Kenya is now a customer of KDN. The OFDM network is also used to connect the ATMs of numerous banks.

Network Expansion Using WiMAX

In August 2005 following successful commercial trials KDN decided to use Alvarion's WiMAX platform, BreezeMAX 3500, to bring WiMAX broadband services to businesses and ISPs in three cities as well as nine major towns.

KDN also plans to extend services to another ten towns. Upon completion of the BreezeMAX network, KDN will offer triple play services of voice, data and video to its customers.

KDN will benefit from the innovation and economies of standard-based equipment whilst its customers will enjoy broadband speeds and quality of service of a WiMAX network.



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