

# Altitude Telecom, France

## French CLEC uses WiMAX to build a nationwide network

When Altitude started life as a telecom consultancy based in Normandy, one of the recurring questions it could never answer was why the bandwidth requirements of the local business community - including itself - were not being met by the incumbent operator.

Following the deregulation of the telecommunications market in France in 1996, Altitude decided to diversify and become an operator itself to exploit the lucrative opportunities it had identified. Its research showed that BWA would be the fastest, most cost-effective way of rolling out a regional broadband network.

### About Altitude

- The only operator with a licence to build and operate broadband wireless access (BWA) networks in the 3.5 GHz spectrum in France
- An ambitious company established in 1995 which plans to be publicly listed and launch overseas operations by the end of 2005

The company was granted a licence to operate in the 26GHz spectrum and soon built BWA networks in three of France's 95 départements (counties) including Normandy. Altitude then used this network to provide high-speed data services over short distances to large companies and regional governments.

### The Challenge

- To be among the top five French operators
- To build its own nationwide broadband network to directly compete with the incumbent operator

### Using WiMAX to build a nationwide network

Altitude's first experience with BWA had been a good one and the company wanted to expand its network further. They knew that they would have a stronger, and more profitable, business case if they used a lower spectrum than 26GHz.

### The Solution

- A WiMAX network built using BreezeMAX, Alvarion's WiMAX-ready platform

In December 2003, Altitude applied for and was granted the only French licence to build a nationwide BWA network in the 3.5 GHz band. After a one-year trial and evaluation period, Altitude teamed up with Intel and Alvarion and decided to build its network using BreezeMAX, Alvarion's WiMAX-ready platform.

### The Result

- The first WiMAX-ready network in France - serving businesses large and small
- A strong business model with plans to extend broadband services to residential customers

BreezeMAX is Alvarion's third-generation OFDM platform with superb non-line-of-sight (NLOS) capabilities. It enables operators to build economically compelling broadband networks and is designed to take BWA to widespread deployment by both small and large carriers serving residential, business, MDU/MTU, hotspot, backhaul, and wireless home networking applications.

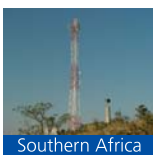
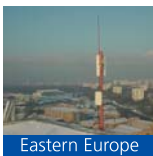
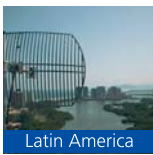
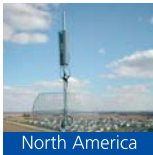
[www.altitudetelecom.fr](http://www.altitudetelecom.fr)

**Customer type:** CLEC

**Country / Region:** France / Western Europe

**Solution:** BreezeMAX™ 3500

**Application:** Nationwide WiMAX network for homes and businesses



“WiMAX is essential to our future success and has provided us with a strong and profitable business model. BreezeMAX provides operators like us with the flexibility to serve a variety of business and residential customers, cost-effectively - and profitably.”

Jean-Paul Riviere,  
Altitude's  
Chairman and  
CEO

By using BreezeMAX in the 3.5GHz spectrum, Altitude can now

- Reach more customers with fewer base stations
- Service customers situated in NLOS conditions
- Offer high QoS to serve voice and data applications
- Offer speeds of up to 10Mbps

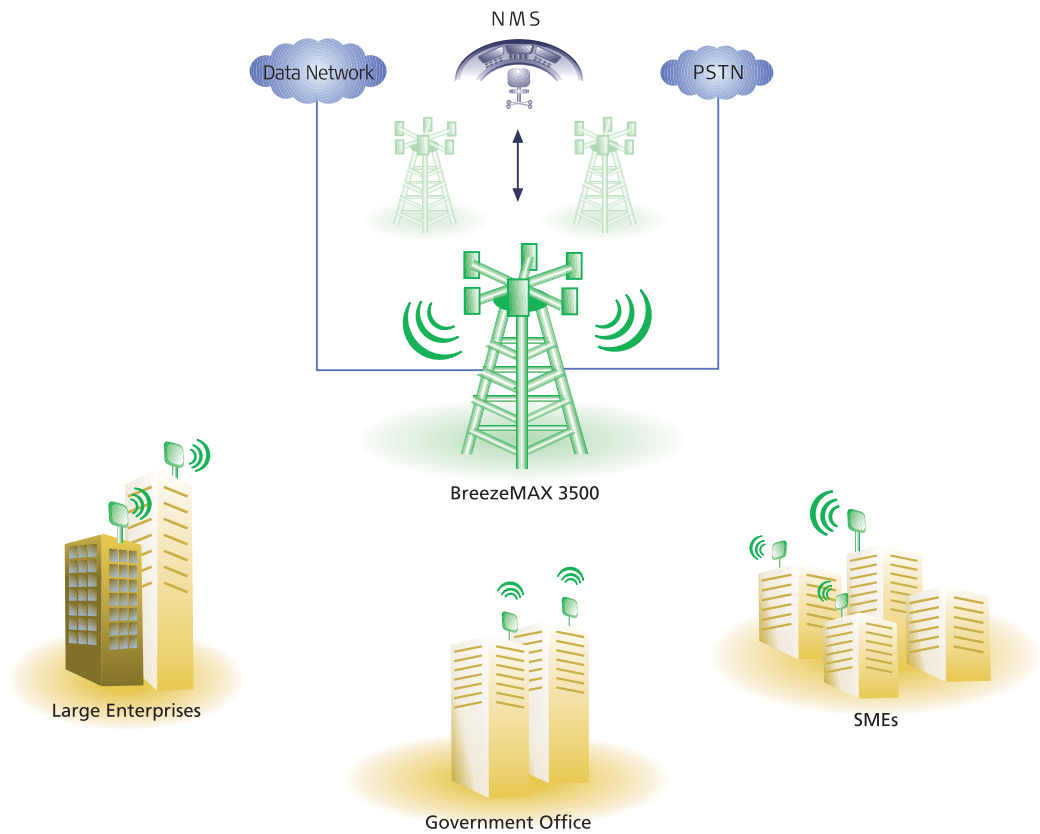
Altitude decided to initially build its WiMAX network in areas where the incumbent was not offering broadband services. Consequently, by the end of 2004 the network was operational in the départements of Vendee and Eure, providing broadband connectivity to SMEs, and LAN and VoIP services to businesses.

## The Future

Altitude has ambitious plans and aims to be able to provide broadband services using its WiMAX network to 95% of the population within 18 months. Although it will be then be competing directly against major telecoms, Altitude is confident of success given that its WiMAX network offers a higher QoS than SDSL.

It will not be investing further in its 26GHz network and is focusing exclusively on building WiMAX networks using BreezeMAX - a far more profitable and flexible platform.

Once Alvarion's low-cost indoor customer premises equipment (CPE) is available, Altitude will target residential customers.



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