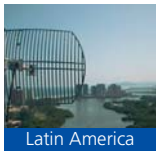

Wroughton


North America


Central America


Latin America


Western Europe


Eastern Europe


Asia Pacific


Northern Africa


Southern Africa


Offshore

Wroughton Science Museum,UK

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Intel and Alvarion Deliver a WiMAX Model for Voice and Data Services to Rural Enterprises

When it comes to rare and intriguing technology from the past, The Science Museum in Wroughton, England has it all. Today, it boasts a vast array of over 18,000 fascinating artifacts - from a Lockheed Constellation airliner to early computers, MRI scanners, and even several hovercrafts.

About the Wroughton Science Museum

- Eight buildings spread over a site measuring 15 square miles of English countryside
- Voice and data services only available in the main administrative building

The Challenge

- To provide affordable voice and data connectivity to buildings with no wired connections

The Solution

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

The Result

- One of the first WiMAX-ready networks in the UK
- For the first time, communications within and between different buildings at the museum is now a reality
- An economically compelling model for rolling out future WiMAX networks

www.sciencemuseum.org.uk/wroughton/

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Unfortunately the museum's own technology infrastructure was not only old-fashioned but outdated – with no wired networks to connect the seven massive air hangars that house the museum's exhibits. And with patchy cellular coverage across the museum's 15 square-mile radius, life for the staff and archivists was challenging to say the least.

As part of the continual cataloguing of exhibits, museum workers were forced to drive nearly a kilometre in order to access and update the museum's central database.

And so Intel, working with Alvarion, decided to lend a hand by using the museum as a test bed deployment of WiMAX in the UK.

The Network

With Intel's UK headquarters just three miles down the road, and an Alvarion WiMAX-ready base station previously installed, networking the museum was quickly achieved by deploying an Alvarion BreezeMAX 3500 CPE on each of the museum's eight buildings.

And with the Alvarion CPEs feeding six Wi-Fi access points in each building, curators were quickly able to get access to the museum's database, get answers to their questions and communicate with each other on their Wi-Fi enabled tablets and notebooks, which were equipped with Intel® Centrino™ mobile technology.

BreezeMAX is Alvarion's third-generation OFDM platform featuring exceptional non-line-of-sight (NLOS) capabilities. It is WiMAX-ready, enables operators to build economically compelling broadband networks and is designed for widespread deployment of broadband wireless access by both small and large carriers. BreezeMAX was designed for use in residential, commercial, MDU/MTU, hotspot, backhaul, and wireless home networking applications.

Customer type: Private network

Country / Region: UK, Western Europe

Solution: BreezeMAX™, Alvarion's WiMAX-ready product suite

Application: Voice and data

"WiMAX is becoming a reality for urban and rural communities around the world. Today's business model works for the vast majority of the world's population who do not today enjoy a broadband connection; the advent of mobile WiMAX will be as significant as the dawning of the Internet itself as it allows people to be connected wherever they are or go."

Gordon Graylish, Intel's director of marketing in Europe

The benefits of this simple data connection are many. The museum staff can save vast amounts of time, resources and ultimately money by having broadband connections wherever they go on the museum's grounds. Additionally, the increased functionality at their fingertips is expected to translate into significantly improved museum operations. Moreover, now they can leverage new Internet applications such as Internet telephony software that uses "voice over Internet protocol" (VoIP) to digitize voice conversations, allowing users to make telephone calls simply by using a PC connected to the Internet. Museum staff can join the information age themselves . . . even as their jobs remain focused on displaying legacy technology.

The initial proof of concept network was deployed at 3.5 GHz using a temporary license from OFCOM, the UK communications regulator. OFCOM has graciously given their permission and support for the museum's trial WiMAX network and plans are in place to make this a more permanent installation.

The Future

Building on this success, Alvarion will be deploying WiMAX networks worldwide to provide voice and data services in both rural and urban areas. But the ultimate promise of WiMAX will be when it is built into laptops and handsets the way Wi-Fi exists today. Then users will need only one connection for their laptops making broadband access simpler and more cost effective.

International Corporate Headquarters
Tel: +972 3 645 6262, Fax: +972 3 645 6222
Email: corporate-sales@alvarion.com

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