

Cybermoor's Broadband Project Connects a Community, Creates Jobs and Increases Property Values by 25 Percent

When it came time for Cybermoor Ltd., a UK market leader in community broadband projects, to upgrade its existing Cybermoor network in the rural town of Alston Moor, Proxim's wireless broadband solutions were able to bridge the divide.

Alston Moor is both the highest market town in England as well as one of the most remote – so conventional high-speed broadband service is not available. In 2002 Cybermoor installed the UK's first wireless broadband network in a rural community and Alston Moor quickly became recognized as the "Broadband Capital of Britain" with almost 40% of households having a broadband connection, at the then-fantastic speed of 1 Mbps. The latest upgrade with Proxim equipment has enabled all members of the community in Alston Moor to receive wireless service of up to 12 Mbps.

The Cybermoor social enterprise began in 2001 with funding from the British government to investigate how digital communications and computers might help boost rural economies. The first phase used the government funding to provide over 600 computers for the residents of Alston Moor, enough to put a computer in nearly every home in the community at no cost to the residents. The next step was to provide a broadband network that all of these computers could connect to. This original 802.11b network continues to work today but equipment failures are becoming increasingly common with the age of the exposed equipment and interference with home Wi-Fi networks is a constant problem. The new Proxim network uses the 5.8 GHz frequency, so interference has been reduced.

"The distance and terrain between Alston Moor and other towns caused more than just a physical separation – it prevented the deployment of traditional broadband, which created a significant economic separation as well. As a social enterprise, we have far greater customer take up than conventional ISPs, making it easier to plan network upgrades," said Daniel Heery, Project Manager for Cybermoor. "When we were evaluating technologies that could overcome the existing problems and deliver a higher quality and higher speed service to our members in a cost-effective manner, it became clear that Proxim's wireless broadband systems were the optimal solution".

Cybermoor is utilizing Proxim's Tsunami™ MP.11 license-free WiMAX radios to distribute the wireless connection throughout the town. As a result, the entire town is now blanketed with affordable wireless broadband access, which costs only £8.99 (\$12) per month. And since the household computers were completely subsidized, residents are able to get connected to the Internet right away.

Proxim's UK partner on this project was 802 Global who, through a series of site visits, worked closely with Cybermoor to define the detailed network plan ensuring that the optimal solution was developed in order to meet end-user requirements. During the installation process, 802 Global provided comprehensive ongoing support and training to the Cybermoor team.

More than Just Internet Access

While many people debate the legitimacy of the "digital divide" and whether having broadband connectivity truly makes any difference from an economic standpoint, Alston Moor is glaring proof of the opportunities broadband brings. This was not a case of merely providing a town with broadband so that they could surf the Web – the broadband network in Alston Moor is truly changing lives via the services it has empowered and the opportunities it enables.



Challenge:

- Alston Moor is both the highest market town in England as well as one of the most remote – so conventional high-speed broadband service is not available
- The Cybermoor social enterprise began in 2001 with funding from the British government to investigate how digital communications and computers might help boost rural economies
- The first attempt at providing basic broadband via 802.11b technology resulted in a network that fails often and interferes with home Wi-Fi networks
- Cybermoor needed a more robust wireless system to provide true rural broadband to the Alston Moor community

Proxim solutions:

- A city-wide broadband wireless access (BWA) network utilizing Proxim's carrier-grade point-to-multipoint (PtMP) solutions
- Proxim's Tsunami MP.11 license-free WiMAX solutions provide high performance wireless connectivity throughout the whole town without interfering with Wi-Fi networks

Results:

- In addition to providing broadband wireless access to the whole town, the Proxim network is also enabling telemedicine applications to eliminate the need for residents to drive all the way to the next town (30 plus miles) for routine medical needs
- Wireless enables distance learning, where lessons can be downloaded at home, allowing parents to see what their children are learning and giving pupils the chance to learn at their own pace
- As the town became known for its exceptional and cost-effective broadband network, businesses began to move into the area – resulting in over 25 new jobs in the small town
- Property values in Alston Moor rose 25 percent after the wireless network was deployed



Telemedicine Makes a House Call

Whereas the people of Alston Moor were once required to drive over 30 miles just to visit the nearest big hospital, the new broadband network will pave the way for a ground-breaking e-health systems. For vulnerable or elderly members of the community, remote monitoring equipment will be placed in their homes, reducing their need to travel and enabling the health service to have a continual check on their health status. This will save residents a great deal of time and money by cutting out nurses visits that are not required.

Education Extends Beyond the Classroom

Now that nearly every home in the town has a household computer, the town's schools saw an improvement in educational attainment. Lessons can be downloaded at home, allowing parents to see what their children are learning and giving pupils the chance to learn at their own pace.

Connecting with New Businesses, and Creating New Jobs

In a perfect example of how broadband connectivity can empower people to change their economic status, one resident moved his business from the South East of England to Alston Moor. Due to the extremely low cost of office space and connectivity, he was able to cost-effectively run a global business from a refurbished farm. As the town became known for its exceptional and cost-effective broadband network, other businesses began to move into the area. As a result, over 25 new jobs have been created already – a significant number in a town of 2,500 people.

It All Adds Up

In the case of Alston Moor, the ROI of bridging the digital divide is no grey area. The improved educational system, improved public service delivery and the creation of new jobs all added up to a number of measurable benefits. In addition to the new businesses that were attracted to the town and the 25 new jobs that were created, property values in Alston Moor rose over 25 percent. Between the value of the new jobs created and the dramatic increase in property values, the ROI for the Proxim network is more than 25x the amount invested.

"The town of Alston Moor is the perfect example of what people can achieve when they are enabled with the right technologies," said Daniel Heery, Project Manager for Cybermoor. "People are connecting with others in the community, new businesses are coming into the town because of the broadband network, and new jobs have been created. Despite the fact that this is a small town of just 2,500 people, the impact of this network on the residents has been undeniable. And the overwhelming success of this program has positioned us as a national example of how to cost-effectively roll out broadband services to similar remote areas throughout the country."

ABOUT PROXIM

Proxim Wireless (OTCQX: PRXM) is a leading provider of end-to-end broadband wireless systems that deliver the quadruple play of data, voice, video and mobility to all organizations today. Proxim's portfolio of point-to-point, point-to-multipoint/WiMAX, Wi-Fi Mesh and WLAN products enable applications including wireless video surveillance, intelligent traffic systems (ITS), last-mile connectivity, enterprise WLANs, cellular backhaul and more. Proxim's wireless networks are utilized by organizations of all types, including WISPs, carriers/service providers, government organizations, enterprises, educational institutions and healthcare organizations. Proxim has shipped over 2 million units to more than 250,000 customers worldwide and is ISO-9001 certified. For information, about Proxim can be found at <http://www.proxim.com>