Satellite technology offered by Baycity Farmside was on display at the TUANZ Education Conference in Hamilton

Rural abundance

BY DAVID MAIDA

When a six-tonne satellite launched from French Guiana on 11 August 2005, broadband Internet access became an achievable reality for every farmer in New Zealand. David Maida investigates the range of broadband options available to our farming community.

Internet access has often been a joke for farmers and rural dwellers who've struggled with simple dial-up sabotaged by dodgy connections and interference from electric fences. And the fact that only seven per cent of New Zealanders are out of reach of fixed-line broadband (DSL) meant that ISPs had to hedge their bets and not invest more in infrastructure than they could recoup in profits.

However, a combination of public and private initiatives means broadband is now available to even the most remote communities.

Project Probe (Provincial Broadband Extension) was a government-funded initiative in 2002 for broadband infrastructure development in rural areas where industry was reluctant to invest.

The project brought broadband to schools and some provincial communities and established a trunk line down the country from which broadband providers could then branch off. Completed in mid-2005 at a cost of $48.3 million, Project Probe bridged the massive divide between urban and rural broadband availability.

Commercially, Baycity is one ISP taking the lead through its broadband network Farmside. The company offers all three options for broadband access – wired, wireless and satellite - to rural New Zealanders. Through alliances with Telecom, BCL (a division of TVNZ), and IPSTAR, Baycity Farmside is able to supply the right broadband access for individual farmers.

Farmside chief executive Andrew Plimmer said price is dependent on a number of factors; however their standard monthly package for wireless and satellite includes the cost all necessary equipment.

"When a customer rings in enquiring about broadband, the price depends on their respective situation – location, typography, and whether or not they belong to one of the major rural co-operatives."

The first step to gaining broadband access is to determine how far away the nearest DSL broadband-enabled telephone exchange is. This is the preferred choice for most people seeking broadband in a rural setting. It is simple and less expensive than having to install radio transmitters or satellite transceivers.

What constitutes broadband is considered a moving target, but the minimum standard of 256 Kbps offered by ISPs such as Farmside is a significant improvement on dial-up Internet access.

For anyone within 6 km in cable length from a DSL exchange, 256 Kbps is generally achievable although the installation of broadband modems and filters will still be required.

DSL now reaches 93 per cent of New Zealand and is available for as little as $29.95 per month through Telecom's Xtra broadband. Telecom also wholesales its DSL service to a number of other ISPs whose prices vary. Rural areas on DSL are now enjoying the same service and pricing as their urban counterparts.

Outside the DSL coverage area, the next option is to go wireless. This is suitable for those located within a 65 km line-of-sight distance from an enabled 'BCL Extend' broadband tower. BCL has around 29 transmission towers located around New Zealand. These towers, which originally provided television and radio coverage, now provide broadband access to over 700,000 customer locations. Of those, about 100,000 are outside the DSL coverage zone.

BCL managing director and THL Group CEO Geoff Hunt said the company targets the more densely populated rural areas.

"BCL provides national coverage and has focused on an 'outside in' strategy, in that we have deployed wireless services in areas that are not well served by DSL. Due to simple economics, we cannot afford to cover the entire country but have targeted rural areas that have enough population within a coverage area to make economic sense. We therefore provide coverage to much of the more intensively farmed areas of New Zealand such as the dairy and horticultural areas."

Hunt says BCL is adding coverage to its network in Napier/Hastings, Rotorua, Taupo and any other areas where demand justifies the addition of a new tower.

Several different ISPs retail BCL Extend broadband services nationwide. They include Baycity Farmside, Telecom, ICONZ, Inspire, Compass, and Traffic Control Systems. Wireless is available from around $60 per month for 256 Kbps service and up to $100 for 512 Kbps service. Installation and equipment can be an additional cost, depending on which ISP you choose.

For those in the more remote areas of the country there is less choice. Without DSL or wireless access, the next option is satellite. The $500 million IPSTAR broadband satellite is the heaviest commercial satellite ever delivered to geosynchronous orbit and provides high-speed Internet access from Invercargill to India and beyond. It is the first purpose-built satellite which handles nothing but broadband Internet access.

IPSTAR merely requires a clear line of site to the Western sky which is a much easier ask for remote regions than proximity to a telephone exchange or broadcast tower.

After its launch early last year, IPSTAR began offering broadband coverage to 100 per cent of the country with retail speeds at up to 2 Mbps for heavy users. The IPSTAR product is offered through Baycity Farmside, ICONZ and NATCOM. A 256Kbps connection costs from $89 per month, but the satellite dish can be an additional cost, depending on both the ISP and your location. ■

For farmers, broadband Internet access is not just a quick and convenient way to access the Web. It's a lifeline, not only for the advancement of their industry, but for their families as well. From distance learning to video-conferencing and podcasting, new technology, research and innovations require a high-speed data connection.

Out on the farm, Integrated Farm Management Systems (IFMS) allow farmers to make sure their goods meet international standards. Such devices allow for a product to be fully traceable through the food chain and tracked back through marketing, processing and production back to the original animal. From detection devices in the stomachs of cows to GPS transceivers on sheep, IFMS have unlimited applications to give farmers an edge and improve margins. But to be used effectively, or at all in many circumstances, a 'big pipe' is needed.

A report, commissioned by New Zealand Trade and Enterprise in 2003, found that the country was world-class in a number of areas crucial to the development of IFMS.

"If New Zealand is to remain the world leader in pasture-based production, farmers will need to ensure that they have access to quality information and analysis on their business on which to base their commercial decisions," it said.

The newer and cheaper broadband options might just provide the opportunities which will help to get them there. ■