

By the end of 2007 broadband coverage will have exceeded 96% coverage in what must be one of the most geographically challenging regions in New Zealand, the South Island's West Coast. Since Project Probe ended, this region has enabled 38 more communities with broadband and has achieved a number of fibre optic extensions and network upgrades. Jackie Gurden who has managed Project Probe and the subsequent extension projects tells how this success was achieved.

The West Coast with its stunning rugged coastline and alpine valleys stretches the distance of Wellington to Auckland (550kms). Many valleys, while sparse in population, contain multi-million dollar dairy settlements critical to the West Coast economy. Similarly, townships like Punakaiki and Haast are important to both the West Coast and New Zealand's tourism industry.

“The need for broadband is just as important, if not more so, to the people who live and work in rural communities and to their ability to do business into the future” says Gurden.

The issue for the West Coast, like many isolated areas, is that the market isn't large enough to drive broadband infrastructure investment. Capital and maintenance costs are high and scale simply doesn't exist.

“If these communities are to have broadband they must drive the development, nobody else will. That is what we recognised early on in this project.”

Jackie believes there were several factors in the West Coast's success. Leadership, development of solid partnerships particularly with Telecom and government, and development of a comprehensive business case are all the ingredients behind this story.

Project Probe was a catalyst. It saw a West Coast Broadband Taskforce established that developed a vision and a plan. It also provided the means to get around the table with government and the incumbent telco, Telecom.

The taskforce contained volunteers from industry, education, health, iwi, and the Development West Coast with support from community leaders. Importantly, the Taskforce also contracted a former Telecom network designer, now an independent consultant, who had a thorough knowledge of the West Coast telecommunications network to provide advice.

“Bringing together a group of people with a need and commitment for broadband to drive the project is very powerful. I personally knew very little about technology and when we started there were huge gaps in all our knowledge but collectively we worked out what we needed to know and found the answers. It was a greenfields project, there were no templates or models and we didn't need to be techno savvy.”

Identifying the pockets of population where it was viable to extend the network into was the first task.

Given that the main rural industry is dairying (390 farms across the Coast) dairy farms became an indicator of population. A confidentiality agreement was signed with the region's dairy company, Westland Milk Products, and their milk tanker collection maps of milking shed locations were digitised into a regional map. Tourism growth and priority areas were identified and the number of businesses and accommodation outlets determined. Council planning staff supplied information or mapped known proposed subdivisions. The existing telecommunications network was matched against this and the pockets of population not served with broadband emerged.

Telecom was then asked to provide a price to install broadband into these areas, the benefit to the company and any upgrades already planned deducted.

Identifying the customers and measuring demand followed. This involved going out into these communities, talking to residents, identifying households, businesses and other potential users who wanted broadband. Analysis of tourism businesses and likely customer use of broadband was also estimated. Developments planned, for example Ngati Waewae's new marae, were also included.

“The local rural postie was also consulted to estimate how many houses up the Coast Road were occupied by residents and how many were holiday homes.”

Negotiations then followed with Telecom where it was believed there was greater benefit to Telecom or different options worth exploring in provision, for example laying fibre instead of cheaper cabinet upgrades. Where it was recognised that the investment was too great for the number of customers areas were withdrawn. Those remaining locations were put into the business case for funding consideration by government. In several cases Telecom made the major investment particularly fibre optic installations and network upgrades. In two cases the business case saw Telecom fully fund the work.

Telecom was not the only provider considered however there were not an abundance of companies wanting to enter the West Coast market. In the initial stages prices from other providers were sought and the eventual solution also includes satellite provision and a partnership with the Gloriavale Christian Community's network.

“We realised early on that, in most cases, the best and most cost effective solution was to develop the partnership with Telecom and extend the existing network. The thinly spread population and challenging geography limits the options available. Perhaps the West Coast is different here to some regions where our geography doesn't give us a number of existing affordable alternate solutions such as the line-of-site WIFI networks. We also gave consideration to a range of other things such as the risk of introducing a new provider which would be expensive and money we didn't have, splitting an already thin market and reducing with it the viability for all telcos to invest further.”

As the current extensions are completed feedback from customers shows why this project is so valuable. Murray and Gaye Coates' are dry stock farmers in the remote Haupiri valley. They have been waiting for broadband and battling to run their business on slow interrupted dial-up. This from their email is reward for the effort:

"It is truly amazing!!! Last weekend it took 3.5 hrs to download the latest antivirus update via dial up. This last week it was going to take 25 mins but once we were connected it took less than 10 secs. The BNZ financial report that we get each week and usually crash out of at least 5 times before finally managing to get it via the xtra homepage, took a couple of sec's to come through."

The work of the Taskforce is not over. The ultimate solution sought for the West Coast is a fibre backbone running the length of the region and picking up important growth tourist townships like Haast.

"This would 'future proof' the West Coast's communication network, give capacity, assists with cellular coverage and future technologies. With changes to Transit regulations for laying cables and the ever increasing legislation we can see the day approaching when these types of projects will become too difficult and expensive to undertake. They need to be advanced now."

The taskforce has already forwarded submissions to the Minister for considerations of such an installation.

"For rural regions looking at entering broadband infrastructure projects and looking at the West Coast as a model, the approach taken on the West Coast has worked well for us. The key ingredients are getting a small team of enthusiastic committed people together, doing the homework, developing the business case and getting the right people around the table."

Sharing what went wrong and what could be done differently is important however there appears little in the way the West Coast project developed that would be changed.

"One exception is possibly not basing a case on whether current residents in an area will purchase broadband if it was available. While uptake is important for Telecom and in most cases people said 'yes' they wanted broadband, when you haven't got broadband, don't know what it can do or its role in the future, measuring demand on this in hindsight is not wise and can deprive future communities of much needed infrastructure. If there is reasonable population in an area broadband should happen. We don't want to short change future communities."

And to the future, the project doesn't stop at infrastructure. Uptake and utilisation of broadband enabled technologies was behind the formation of a West Coast ICT Strategy (www.wcdt.org.nz). The ICT Strategy has goals to create partnerships between education institutions around IT and assess community and business needs, to provide professional support to the education sector, across business and with the West Coast's

youth. This project dovetailed into the Digital Strategy's Community Partnership Fund and the region is about to see implemented a number of community technology initiatives. These range from 'getting started in broadband workshops' in places just enabled to film and digital story workshops and computer boot camps for youth – but these outcomes are a future case study.