Regional Broadband Extension Initiative

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http://www.minedu.govt.nz/goto/probe

The Minister of Finance announced in the 2002 Budget that tens of millions of dollars have been set aside over two years for a major initiative to introduce broadband technology throughout New Zealand. The initiative is funded jointly by the Ministry of Education and the Ministry of Economic Development.

The project's key objective is to roll out broadband to all schools and communities that do not have access to broadband communications. A secondary objective is to encourage competition in broadband telecommunications outside the larger metropolitan centres.

The emphasis with PROBE is on education, however, the benefits of nationwide broadband over time will also lead to improvements in the delivery of most government services – health, policing, social services, conservation. Local government services have the potential to be delivered more effectively.

Businesses will benefit from access to broadband through better access to information about markets, about competitors and the ability to stay in touch with and supply their customers. This project will bring important benefits to provincial New Zealand. It will provide the same opportunities to regional businesses and SMEs as urban businesses currently enjoy.

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So what does access to Broadband mean?

The term "broadband" describes a wide range of telecommunication technologies, based on both the present telephone copper loop and new wireless and satellite systems, which allow for two-way data transfer at much higher transmission speeds than is experienced with the dial-up modems experienced by most Internet users today.

Rural users are especially disadvantaged at present because dial-up access can be very slow over current telephone links.

Broadband technologies allow for the transfer of large amounts of data at high speeds. Such data can be converted into words, computer files, pictures, video and sound. Ordinary telephone services can be accommodated over broadband data circuits using the 'Voice over Internet Protocol" (VoIP) standard.

New Zealand metropolitan areas have been getting access to broadband but smaller provincial towns and rural areas are missing out at present. Many telecommunications companies do not see it as commercially viable to deploy the new technologies in remote areas, at an affordable price.

Why the emphasis on education?

If investment in broadband is to be commercially self-sustaining, it needs to be taken up by large numbers of people and businesses. New business applications are emerging that will see broadband used extensively and widely, however education is ready to use these technologies now. There is huge opportunity for schools to use the Internet and related technologies to support learning and ensure that New Zealand children are able to succeed in our emerging Knowledge Society.

Pilot projects have successfully demonstrated that two-way video over high speed Internet connections can allow specialist school subjects to be taught to learners at very remote locations.

High speed bandwidth will give additional access, particularly for remote and rural schools, and kura, to:

- existing digital teaching resources;
- use of ICT for administrative efficiency and teaching effectiveness;
- online communication and professional development for teachers;
- the expansion of e-learning; and
- wider curriculum choice and teacher expertise, including through two-way video-conferencing.

The tertiary sector, in particular the regional polytechnic's hub-and-spoke based e-learning developments, will also make use of broadband in rural areas. There is potential for polytechnics to work more closely with businesses in the regions to deliver on-site training and education.

How is PROBE going to work?

PROBE is intended to achieve two major objectives: ensure high speed Internet is available to schools and, to the greatest extent possible, leverage the best possible coverage for the rest of the community.

There will be trade offs between the cost and the level of population coverage. It is important that the level of population coverage be as wide as it can be for the money available.

PROBE will tender for broadband services in 14 regions around New Zealand. Tendering on a regional basis will allow community and regional needs to be recognised. It is expected that there will be trade-offs between the cost of provision of services and the coverage that can be achieved. The outcome may well be that a range of different solutions, technologies and service providers will emerge from the process.

This *Project PROBE Update* is the first in an occasional series of newsletters.

Please visit the PROBE website for the latest information about the project: www.minedu.govt.nz/goto/probe

A Local Body National Broadband Forum will be held in order to raise awareness of the importance of broadband to local authorities and their communities.

See notice on back page for details.

There will be opportunities for community organisations and others such as local government and business to contribute if they wish to see availability extend further than central government funding will allow.

This is a magnificent opportunity for existing and new suppliers of telecommunications services – there will be opportunities for joint ventures and for different technologies to come to the fore.

Watch out for a **PROBE Roadshow** near you!

Project PROBE is mounting a series of Roadshows intended to allow all interested groups to find out about how PROBE will work in their region. The first Roadshow will be in the week of 29 July and they will extend through August.

The Roadshows will be widely advertised but you are welcome to contact the Project Director for details of when the Roadshow will be in your region.

The role of local government

Supporting the government's broadband initiative is in line with the role of local government to ensure the sustainability and growth of communities and businesses, particularly in provincial and rural New Zealand.

Local Government NZ is supporting and promoting the regional groupings that are being established by the Ministry of Economic Development. These will contribute to ensuring that the needs of communities are adequately catered by assisting with decision-making on the trade-offs between the costs associated with service provision and the maximum possible coverage. They are also sponsoring the PROBE Roadshows (see side bar for details).

Frequently asked questions

Why 14 regions and can these be changed?

Regions are defined by both topography and communities of interest. The number of regions was chosen as being a manageable number for the purposes of the tender process while allowing for the possibility of a range of different solutions to emerge in line with regional needs and preferences. There have been some small changes made by mutual agreement between the affected areas and further limited adjustments are possible.

How will relationships with regions be managed?

A contact person in each region is to be identified. In addition, a regional liaison group will be formed (if one does not already exist) to provide input from each region regarding specific regional needs. The group would include representatives from local authorities, local regional development agencies, regional and community trusts, and other groups.

Numerous groups around the country are setting up, or investigating how to set up, local broadband distribution systems. It is expected that these projects will be incorporated as far as possible into the regional schemes.

What is a regional liaison group?

The formation or a regional broadband group is important to drive business and social development using broadband in a given region. A broadly based representation allows a regional consensus to be developed. Knowledge of soundly based regional

requirements and supporting demand figures provides valuable insight into the affordability thresholds of various services and relevance of the various service offerings available now, and to be provided in the future.

Local groups typically have representation and input from the regional council, all local authorities, local business development body (EDANZ or Chamber of Commerce), Community Development Trust, and representatives from the education and local business sectors.

How will the project be financed?

The Government has set aside money in the Budget for this project which will be used to underwrite uneconomic investments in order to ensure that all schools are covered together with as much of the community as possible. Some regions are planning projects now and others have already invested in projects in partnership with Telecom New Zealand and BCL.

Regional and community organisations in different regions may wish to use their resources to extend the reach of services beyond what the Government will be able to provide.

How will the tendering process work?

Tendering will be in two stages: a request for information (RFI) will be distributed in the week of 22 July with responses required by late August. This will seek to gain information about the number of possible providers of services and budgetary costs, as well as the possible range of solutions. This information will be analysed and the options categorised. Cabinet will be asked to determine the degree to which trade offs can be made between, for example, community coverage and costs. This information will be used in a round of requests for proposals (RFP) to selected service suppliers in each region out of which final selections for service provision will be made.

A fixed date for RFP release has not yet been set, however, on the current schedule successful suppliers would be announced and contractual negotiations to begin before the end of the year.

What alternative technologies are available?

The most commonly deployed broadband techologies at present are over Telecom's copper wire local loop, namely ADSL or Frame Relay. These are available from suitably equipped telephone exchanges but, in the case of ADSL, only within about 6 km of such an exchange. Wireless loop (radio) technologies are gaining in importance, mainly in urban areas at present, and are well suited to rural areas where there is limited or no radio shadow. Satellite technologies are also becoming available at reasonable costs and are expected to be suitable for very isolated or mountanous areas. It is likely that in most regions some combination of these technologies will be required in order to gain widest possible coverage.

Local Government National Forum on e-Local Government and Broadband

Wellington: Westpac Trust Stadium, 20th August 9:00am - 5:00pm.

The Forum is organised by Local Government NZ, the Society of Local Government Managers, the Association of Local Government Information Management and Local Government Online.

It is intended for both elected representatives and staff of local bodies.