



Isolated Children's Parents' Association Qld Inc

Regional Telecommunications Submission

BACKGROUND

The Isolated Children's Parents' Association Qld Inc is concerned with the educational opportunities of children in regional and remote areas. ICPA Qld Inc. represents forty-seven branches, comprising over 1200 families scattered throughout regional and remote areas of our State.

ICPA Qld Inc. is the only community based parent group with interests in all sectors and levels of education – state schools, independent, church or boarding schools, preparatory to tertiary education and all methods used to facilitate access to that education.

Many of our member families are dependant on Schools of Distance Education for at least their primary schooling. For the effective delivery of curriculum which has elements comprising voice, data and video transmissions both the school and the home classrooms must have communications systems of sufficient capacity. At present many families struggle with systems that do not reliably meet these requirements.

Please find attached two documents. The first is a position paper our organisation compiled with regard to the proposed delivery of the National Broadband Network.

The second is a response to some of the questions from appendix 3 – Issue paper questions. Many of these questions are outside of the scope of our organisation.

APPENDIX 3: ISSUE PAPER QUESTIONS

1. THE DIGITAL ECONOMY

Question 1. How is the use of telecommunications services; and information and communication technology (ICT) evolving in different industry sectors and what is the impact of these changes in regional Australia?

ICPA (Qld) Inc.'s members reside in rural, remote and isolated Queensland. Due to the effects of distance, low population density, and poor or often non-existent service delivery, our members are highly dependant on telecommunications services. Our families' education, health and business needs have become increasingly more dependant on reliable telephones and internet services. In areas where mobile phone service is available, this is being widely used for voice and data delivery and increasingly for services such as telemetry as well as enhancing safety and convenience.

Question 2. What is needed to extend and accelerate the role of telecommunications services and ICT in delivering benefits to regional economies?

Telephone services need to be reliable. At present our members can experience long delays for fault identification and repair.

Data delivery needs to reliably support seamless video transmission, and be at an equitable price with urban areas. Subscribers whose only choice of internet availability is via satellite are discriminated against with available data plans. These can be considerably more expensive, with slower speeds and are often available as a "shaped" plan with a small percentage of their capacity available in customers' normal usage time.

Technical support and maintenance services need to be adequately available. Fault repair times need to be greatly improved.

Mobile service coverage should be extended. The education, health and business needs of the twenty-first century are increasingly being delivered by this medium, and the disparity for those who reside in areas without coverage is increasing.

Question 3. The committee would like to hear from businesses and organisations about their participation in, experiences of, and expectations about, the digital economy. Examples could relate to specific sectors such as agriculture, mining, manufacturing or retail; business-to-business activities; productivity; teleworking; and the development of new knowledge-based industries.

Question 4. The NBN will help the range of online government services to continue to expand. The committee is interested in views and experiences about engaging with government services online, whether local, state or federal.

Question 5. What are some examples of what you want to see happen to encourage greater participation in the digital economy by people living and working in regional Australia?

Those who rely on satellite internet delivery are often precluded from greater participation in the digital economy because the equipment on which they rely for service provision simply cannot deliver what is required. The expansion of effective and reliable mobile telephone service would encourage greater participation in the digital economy by those who live and work in regional Australia.

In addition, technical support needs to be readily available to keep service downtime to a minimum.

Question 6. What are the main barriers to regional communities increasing their use of information and communications technologies and do you have any ideas for ways in which regional communities could progressively overcome these barriers?

1. REGIONAL HEALTH AND EDUCATION OUTCOMES

Question 7. Do you have ideas for ways in which high-speed broadband could enhance the delivery of education and healthcare outcomes in regional communities?

High speed broadband would enhance the opportunities for education program delivery in these areas. At present some schools do not have access to sufficient data speeds (128kbs) to allow for participation in lessons such as Language Other Than English (LOTE). Optimal participation in distance education lesson delivery cannot be achieved without affordable access to high speed broadband.

Question 8. The committee would like to hear from individuals and organisations about their participation in, experiences of, and expectations about, online health and education service delivery.

Please see our attached document.

1. COMMUNICATIONS NEEDS OF INDIGENOUS PEOPLE AND COMMUNITIES

Question 9. Are there examples of the internet being used by Indigenous Australians in ways that take advantage of economic, social or cultural opportunities?

Question 10. What further initiatives should the committee consider to improve awareness within Indigenous communities of the opportunities provided by the NBN?

Question 11. What recommendations do you have for remote communities to take advantage of the progressive increase in availability of high-speed broadband?

Question 12. What more could be done to improve digital literacy amongst Indigenous Australians and within Indigenous communities?

1. DEVELOPMENTS IN THE TERRESTRIAL AND SATELLITE MOBILE PHONE SECTOR

Question 13. Have you been able to readily obtain information to improve your mobile phone coverage, such as using an external antenna or choosing particular phones that are better suited to rural or remote coverage?

Advice is often misleading or conflicting. Sales staff are often poorly trained, and only used to more urban environments. Telstra Country Wide did provide an excellent service in many smaller and isolated communities by having a presence at some community events. This assistance and high level of expertise was greatly valued. However this service appears to be nearly extinct.

Question 14. Are you aware of emerging technologies or initiatives that could be used to improve mobile phone coverage in regional Australia?

Question 15. What have been your experiences with satellite mobile phones?

Personally, I have had three low-orbit satellite phones. Each has been a different brand and linked to a different service provider. While all of these have been better than no phone, performance has been unreliable and prohibitively high call charges curtail use of this service except for all but the most urgent of calls.

1. CONSUMER ISSUES

Question 16. Are there any significant consumer issues specific to rural and remote communities that you consider are not being addressed?

Question 17. Do people in regional areas, particularly those in vulnerable or disadvantaged groups, have appropriate access to information about their consumer rights and the service options available to them?

Question 18. If not, what additional strategies could be put in place to assist individuals and groups to better understand their consumer rights and responsibilities?

Question 19. Are there specific cybersafety challenges that arise from the way that communications technologies are being used by regional, rural or remote communities?

Question 20. How can education and awareness of the risks of using mobile devices, such as smartphones, be improved for consumers in regional areas?

Question 21. Are there any other issues relating to telecommunications services in regional Australia that you would like to bring to the committee's attention?



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The Implementation of the National Broadband Network in Queensland

The Queensland government released a discussion paper (Qld's Approach to the National Broadband Network) in April 2011. It was 'seeking broad input to help frame priorities related to the rollout of the NBN over the next four years'. The Isolated Children's Parents' Association Qld Inc contributed a response.

In addition, the Queensland government, including the Department of Education and Training, is developing its National Broadband Network and Fibre Connections to Schools initiatives which would seek to maximise the geographical reach of fibre services in Queensland.

After 2022, there will only be three delivery methods of data services in Australia i.e., optic fibre, wireless and satellite. The interplay of these three delivery methods plays a crucial role in the development and delivery of educational programs to rural and remote students, particularly geographically isolated students. Voice is planned to be delivered by existing systems in non Optic Fibre. We have concerns about the continuing reliability of equipment that will reach the end of its service life over the next few years.

The Isolated Children's Parents Association Qld Inc is a volunteer parent lobby group comprised of 1200 member families with 47 branches throughout remote Queensland. The aim of the association is to seek equitable access to educational opportunities for rural and remote students who are geographically isolated i.e. those students who do not have reasonable daily access to appropriate schooling at some point in their education. These students may be enrolled in Schools of Distance Education or Schools of the Air; small rural and remote primary schools or secondary schools. They may live away from home to access schooling.

Most ICPA Qld Inc members will not have access to optic fibre technologies under the NBN being in the 7% of Australian premises which will receive wireless or satellite capabilities. ICPA Qld Inc welcomes the improvements in broadband to a maximum of 12 Mbps (though in practice this is unlikely to be achieved), up from a current 4Mbps. However, compared to optic fibre broadband at up to speeds of 100Mbps, this is inequitable.

Much of what is produced digitally for the curriculum and professional development will be constructed by those with optical fibre capabilities but not all end users will have those capabilities and future programs will be based on the optic fibre 'norm'. Curriculum developers must accommodate this disparity.

Education Qld is currently developing an online curriculum program, the Curriculum into the Classroom project, for all state schools. It expands on the whole of school and year level plans available to all schooling sectors in the state to produce unit and lesson plans for P-10 as the vehicle for the Qld implementation of the new Australian Curriculum in 2012. Significant resources are being made available. It will gather up the existing curriculum development for Schools of Distance Education, hopefully speeding up the process which has been ongoing since the introduction of the Preparatory Year in 2006. The program writers and the Schools of Distance Education themselves will have optical fibre (100Mbps) but the program will be delivered into the home schoolrooms of the isolated families who enroll their students in the schools and whose premises will have satellite or wireless capabilities only (12Mbps Max).

Not only does this affect curriculum development, it also will impact on curriculum delivery. Currently Schools of Distance Education utilise a program called Elluminate to deliver online activities. This program works best within a synchronized system i.e. the same speed in and out. Latency is the time delay to deliver information; this is the major reason for dropouts. Systems need better latency to keep the line open; the alternative is to redesign software packages and systems to allow for technologies used to deliver data to geographically isolated students.

Currently video conferencing does not have quality of service (QoS) i.e. those items with QoS which have priority over all other traffic, as does voice. Consequently video conferencing traffic may experience drop outs, jittery or jumpy picture and sound quality. However trials to utilise Voice Over the Internet (VOIP) are currently being planned by some Schools of Distance Education for 2012.

This disparity also applies to small remote primary and secondary schools where elearning programs are an integral part of the curriculum. The optic fibre cable passes through many of their townships but premises will not be connected due to the low population. These schools will utilize wireless or satellite technologies which will certainly benefit those small schools currently limited by dial up internet connections but again it is inequitable.

ICPA Qld Inc is supportive of the approaches of remote shire councils to state and federal governments to enter shared funding relationships which would see optic fibre technologies available in those smaller communities with the optic fibre cable within reach.

Following the announcement that, in 2015, Qld Year 7 students will be in secondary school, there is even further critical need for high speed broadband which will deliver these online intensive secondary courses.

In ICPA Qld Inc's view, the medium to long term future of telephony in remote areas is troublesome.

TUSMA has entered an agreement with Telstra to be paid to maintain its copper network i.e. telephone in the satellite and wireless areas for at least twenty years but this is being hotly debated as a waste of public monies by other telecommunication providers. Whatever is decided, the life of the copper wire is limited. We are concerned about the funding levels to maintain these services as the existing delivery technology is ageing and

that VOIP services over the NBN satellite are not a suitable replacement as it does not have a telephony handling platform and calls would double hop. The number of trained service personnel available to maintain the rural and remote telephony network within Customer Service Guarantee timeframe is also of concern.

As well as those rural and remote families on copper wire telephone networks, there are many isolated families who utilize various forms of High Capacity Radio Concentrator for telephone. ICPA Qld Inc has been led to believe that Telstra aims to use its existing infrastructure to service its USO commitments under its contract with TUSMA. They believe there is sufficient life left in the HCRC network to serve its customers in the mid to long term. They have not yet considered what technology would replace HCRC when it does reach its end of life, but they have no plans at this stage to use satellite services as a replacement technology.

ICPA Qld Inc is unaware of any other technologies under the NBN which could be made available in the most isolated areas other than satellite. While it is noted that, under the Universal Service Obligation, telephone carriers are not directed to use any particular technology, it is reasonable that they will take geography, population density and cost into account when making their decision. The USO can be satisfied by using satellite and has been in use in small numbers in very remote areas for many years using satellites with a dedicated telephony platform which minimizes latency to a maximum of one hop even between two satellite Customers.

ICPA Qld Inc therefore envisages that, eventually those receiving satellite broadband, will have pressure applied by their Carriers to switch to satellite telephony. If satellite is implemented in the volumes indicated by those areas to be covered by satellite, this will have the potential to heavily impact services in these areas. Satellite services can be degraded with normal Bush weather conditions e.g. heavy rain, dust, thunderstorms, heat.

There is strong evidence that any moves to telephony using the NBN Satellite platforms which do not have a telephony platform built in which could result in double hopping will have significant technical considerations for the online delivery of the Schools of Distance Education or Schools of the Air program. Currently these schools utilize telephone to conduct daily lessons with students in their home schoolroom. These schools will be using optic fibre telephony. The students will be mostly using their existing voice technology but any move to satellite telephony will have negative impacts.

ICPA Qld Inc believes that it is essential for the state government to conduct a trial using the NBN technologies to ensure that curriculum development and delivery for Schools of Distance Education students in their home schoolrooms will not adversely impacted but rather enhanced by the implementation of NBN before the current technologies are no longer maintained.

In summary, as a response to ICPA Qld Inc's concerns regarding NBN broadband and the provision of telephony in those areas not receiving the optic fibre but wireless or satellite, ICPA Qld Inc would recommend the following course of action:

- 1) That state and federal governments enter shared funding relationships with regional shire councils which would see optic fibre technologies available in those smaller communities with the optic fibre cable within reach.
- 2) That the state government conduct a trial using the NBN technologies to ensure that curriculum development and delivery for Schools of Distance Education students in their home schoolrooms will not adversely impacted but rather enhanced by the implementation of NBN services.

Compiled by ICPA Qld Inc Andrew Pegler (President), Lorraine McGinnis (Immediate Past President), Wendy Hick (Vice President), and Jeff Little (ICPA Information and Communication Technology advisor).

Here are some useful links as background information

- a) <http://www.nbnco.com.au/wps/wcm/connect/main/site-base/main-areas/our-network/fibre-wireless-and-satellite/> (NBN Co Ltd Home page)
- b) http://accan.org.au/files/NBN_A_Guide_for_Consumers_FINAL.doc (Information Doco on NBN)
- c) <http://www.nbnco.com.au/wps/wcm/connect/982c9480439fdd788af6fec5166da634/Coverage+-+Queensland.pdf?MOD=AJPERES> (Map of Optical Fibre, Wireless and Satellite areas in Qld)
- d) <http://www.nbnco.com.au/wps/wcm/connect/7c4b3900439fe1528b36ffc5166da634/NBN+QLD+and+NT+-+List.pdf?MOD=AJPERES> (List of Towns who will likely get Optical Fibre and Wireless)
- e) <http://www.news.com.au/technology/this-is-what-the-internet-looks-like-meet-the-nbn-box/story-e6frfo0-1226038357458> (Article on NBN Box which ALL homes will have for Optical Fibre, Wireless and Satellite)
- f) http://www.dbcde.gov.au/telephone_services/voice_telephone_services/connecting_the_telephone (Universal Service Obligations)