Toowoomba Regional Council

Submission to House of Representatives Standing Committee on Infrastructure & Communications

Inquiry into the National Broadband Network

Introduction

The Toowoomba Regional Council (TRC) is situated on the Great Dividing Range strategically located at the junction of the Warrego, New England and Gore Highways. With a diverse economy and in close proximity to Brisbane and the Sunshine and Gold Coasts, it offers the best of both urban and regional environments, enjoying four distinct seasons. TRC is part of the South East Queensland region and is the gateway to both the productive Darling Downs and the resource rich Surat Basin Energy Precinct.

Technology and innovation will create economic development opportunities for the Toowoomba region and ensure that the region participates in knowledge economy growth.

Investment in high speed broadband internet services and improved telecommunications services are priorities across the region. The growth in sharing information among firms and communities is increasing rapidly - vital broadband and telecommunications infrastructure can provide businesses and communities with the connectivity they need for innovation and increased technology uptake.

The values that will guide technology and innovation investment include the following:

- Equity of access to communications and information technology (ICT) for urban and rural users.
- Using ICT to deliver information, training and other services to people and businesses in rural areas.
- Using ICT to open up the region to knowledge industry workers and firms – combining high quality lifestyle and technology access to support economic development.

Toowoomba Regional Council has worked in partnership with Ipswich, Lockyer Valley, Somerset and Scenic Rim Regional Councils to build a compelling argument for the accelerated rollout of the National Broadband Network (NBN) in the Western Corridor region of South East Queensland.

A project entitled the 'Western Corridor National Broadband Network' (WCNBN) was established to identify demand and undertake a comprehensive exercise across the five Council areas to:

- map current and proposed broadband infrastructure
- develop policy frameworks for the facilitation of fibre broadband investment
- seek multi-sector support for regional business and industry groups
- educate each Council's elected representatives and senior management of the likely impacts of the NBN, and
- produce a detailed submission / business case for accelerated NBN rollout to the State and Federal Governments and NBN Co

In July 2010, the Federal Government and NBN Co announced Toowoomba among the '2nd release' rollout sites of the NBN.

a)   Government Services

Toowoomba Regional Council has long recognised the important role ICT can play in enhancing operations and delivery of services. Today, governments around the world face a range of systemic, complex policy challenges such as climate change, an ageing population and lifestyle health challenges such as obesity and diabetes. The scale and complexity of these problems, coupled with increased service demands, changing community expectations and constrained budgets requires the development of innovative, collaborative and community-wide solutions. ICT can play a central role in understanding and addressing these challenges.

As the creators and holders of significant data and information, Council is coming under increased pressure to make these resources more accessible to businesses, citizens, researchers and other policy-makers. ICT can enable more flexible access to government data and information, giving industry and the community greater scope to develop innovative new ideas and services.

ICT can also enable greater engagement with the public and help address community expectations for government to be more transparent, accountable and to engage more frequently on key issues. The use of social media platforms allows Council to form active partnerships with business and the community in planning, priority setting and policy development. As a direct example, social media tools such as Facebook and Twitter have now been adopted by Council to provide additional online channels of engagement with ratepayers and customers.

The future shift to high capacity, ubiquitous broadband connectivity will also open up a range of transformative capabilities. Council is committed to responding to this challenge and the opportunity of providing better quality services with greater accessibility, directly to citizens at home and on the move. It will also support more widespread application of smart infrastructure systems to the management of key infrastructure and resources such as energy, water and roads.

Council has identified the following initiatives in its recently adopted ICT Strategic Plan -
- o   Customer Contact Management.
- o   Unified Communications.
- o   eBusiness Solutions for improved online accessibility of Council information.
- o   Spatial Information services for improved web mapping services.
- o   Business architecture improvements including mobile works and self service solutions.

b)   Health

The delivery of Health services in the Toowoomba region requires that the challenges of servicing a vast regional / rural area is managed effectively. Vastly improved broadband infrastructure can greatly assist the delivery of some Health services including telemedicine and remote online Health consultation services, minimising the need to travel to larger centres especially for minor Health consultation requirements.

Council supports that Health service delivery advancements (i.e. E-Health services) will be supported by the introduction of the NBN in the Toowoomba region.

Current E-Health related initiatives already underway in the Toowoomba region include -
- • Telemedicine initiatives for rural health – Toowoomba Base Hospital

c)   Education

Council supports that the NBN will likely enable the introduction of new advancements, tools and applications to support delivering better education outcomes.

For example, the University of Southern Queensland (USQ) are investigating business opportunities with K-12 and VET to deliver existing services taking advantage of the broadband connectivity currently not in place to enable it.

d)   Built & Natural Resources Management

Recent events in the Toowoomba region and other parts of Queensland indicate the requirement for enhanced natural disaster management systems and monitoring capabilities. It is envisaged that the ubiquitous connectivity of the NBN will enable the introduction of new technologies to better mitigate and provide early warning notifications in the future when natural disasters inevitably happen.

e)   Regional Economic Growth & Employment

It is Council's view that investment in high speed internet services and improved telecommunications services will attract and support business growth. As part of the Economic Development Strategy that Council is currently preparing for the Toowoomba region, it is intended that a Digital Economy Strategy will be developed to acknowledge and develop the following:

- Encouraging digital innovation and new initiatives throughout the regions business community.
- The City is a knowledge industry destination to support the Darling Downs and the emerging development of the Surat Basin
- Strong emphasis on Health and Education

f)   Small to Medium Business Impacts

Current Broadband infrastructure provides the ability now for Small to Medium Business (SME) to carry out business functions with technologies such as Voice over IP (VoIP) for cheaper phone calls and online trading and E-Commerce tools. However the widespread availability of sufficient bandwidth capacity and symmetric services at an affordable price point is hindering the wide adoption of these online business functions by SME's in the Toowoomba region.

As the capacity of bandwidth increases and ubiquity of access is available, other business management opportunities will emerge, including:

- Simplified remote backups of business data
- Cloud Computing where business software and data are, in their entirety, hosted and stored offsite
- High Definition Video Conferencing
- Richer collaboration tools

The key issues facing SME acceptance and future usage of the NBN will be services pricing and increased knowledge and education of the business benefits that the NBN will support as we move into a digital economic future.

g)   Research & Development / Innovation

The Toowoomba region is home to the University of Southern Queensland (USQ). A specific local innovation research and development initiative is the Australian Digital Futures Institute (ADFI). ADFI is a cross-institutional, multidisciplinary Institute with two work-streams - one pertaining to eLearning and the other to eResearch. It aims to contribute both to the Learning and Teaching agenda (through support of USQ's teaching and learning technology requirements), and to the Research agenda (through contributing to the eResearch requirements of USQ research centres).

ADFI was established in 2008 and has two physical environments: the Software Research and Development Laboratory (SRDL), which accommodates the software research and development team and provides some access to software and hardware for trial purposes, and the Technology Enhanced Learning Laboratory (TELL), which provides a facility for staff and students to investigate technology-enhanced learning innovations. A critical part of innovation is the harnessing of new technologies of all kinds in the service of learning innovation., including exploring the opportunities that the NBN will enable.

h)   Community and Social Benefits

The social and cultural needs of the Toowoomba region rely on good quality facilities and services to foster the wellbeing of all residents. As identified in Toowoomba Regional Council's Community Plan, the following outcomes are sought for the Toowoomba Region:

- Education Excellence
- Learning Communities
- Creative Expression
- Health Services
- Healthy Lifestyles
- Public Safety
- Social Capital
- Cultural Diversity & Heritage
- Aboriginal & Torres Strait Islander Engagement
- Social Justice & Equity

It is Council's view that the NBN will provide the ubiquitous, high speed connectivity to enable a number of the initiatives above to be realised. Examples may include supporting advanced education services, supporting enhanced public safety infrastructure and the introduction of interactive social tools and applications to increase social capital.

i)   Optimal Capacity and Technological Requirements

To support the rapid growth of the Toowoomba region over the next 20 years, it is imperative that the NBN is designed and implemented in a scalable manner. With this in mind, the Council supports that the NBN is designed to cater for the following:

- NBN passive plant (i.e. cables, splitters, connectors) with capacity to support future growth
- The installation of spare cables and extra duct (or sub-ducts)
- Appropriate design approach for NBN active infrastructure in anticipation of future growth in connected premises, subscribers and 'non-premises' devices (i.e. traffic lights and surveillance cameras etc)

The design and architecture of the NBN should also minimise future impacts of natural disasters such as flooding as much as possible. In the aftermath of natural disasters, the ability to utilise telecommunications networks is vitally important. Therefore a robust and redundant NBN is required to provide as much network availability as possible in times of crisis.

Toowoomba Regional Council contains many regional and rural communities that are unlikely to receive the fibre rollout component of the NBN. The provision of next generation wireless and satellite services will be vitally important to these areas, as well as significant improvements to the existing Mobile Phone / Mobile Broadband networks operated by telecommunications Carriers that will be separate to the NBN.

Council is aware that mechanisms may be established whereby communities can fully or partially fund an extension of the NBN Fibre Network to cover additional locations. Council is seeking to actively work with the Federal Government and NBN Co regarding the role local government can play in facilitating the proposed initiative and have the opportunity to provide input to any operational guidelines that may be developed.

Council would seek to explore the potential future opportunities with NBN Co to utilise the NBN for internal private telecommunication network purposes, such as inter-site private connectivity, traffic light management, security camera private network connectivity, fixed mobile library site locations and servicing library kiosks.

Aerial and Underground NBN Fibre deployment

It is the Council's understanding that NBN Co will be seeking to utilise existing infrastructure, both above ground and under ground to deliver the fibre component of the NBN to premises. Where there is no existing infrastructure, it is understood NBN Co will be seeking to construct new infrastructure. Council's preference is that all new NBN fibre deployment be constructed underground. However it is acknowledged that a project of the size and scale of the NBN and the ability to utilise existing infrastructure for cost effective deployment will result in the likely aerial deployment of some fibre infrastructure. Prior to finalising local deployment options, Council will be seeking detailed consultation with NBN Co and / or its Construction Partners. Where overhead deployment is the agreed feasible fibre deployment solution, Council is seeking to work with NBN Co and / or its Construction Partners to expedite timely deployment. In addition, Council is also interested in the possibility of community funding for areas identified by NBN Co for aerial fibre deployment to be transferred to new underground facilities.

The Toowoomba City area contains many heritage listed and zoned areas. The impact of the NBN construction and design must be handled carefully and Council is seeking early input into NBN infrastructure components such as aerial fibre cabling and the placement of fibre distribution hubs in these areas.

As the NBN is being constructed, the 'as constructed' details of the fibre and pit and pipe network should be provided to each Council in a geospatial format. This flow of information will allow each Council to know where the assets are located and plan accordingly for future Council projects such as Road rehabilitation / redesign, street / footpath beautification and other capital works.

In summary, there is an urgent requirement for additional detailed information regarding the NBN rollout schedule, geographical footprint and timing to be released. This detailed information will allow Toowoomba Regional Council to better plan at a detailed local level for the rollout of improved broadband connectivity.

Toowoomba Regional Council hopes that these comments are of assistance to the Inquiry.