LGAQ Response to RTIRC Questions

1. What are the main barriers to people in regional communities increasing their use of digital technologies and possible solutions for overcoming these barriers.

   The LGAQ's Digital Productivity Reports indicate that councils recognise the enabling value of digital technologies, however the report also identified that councils are challenged by the rate of change, unaware of which supplier to trust, not sure if they have the skills to implement new technologies and unaware if they have the capacity to connect.

   When these results have been presented at forums involving the private sector and other research organisations, the feedback has been that councils are in many ways like other organisations that aim to operate in the digital economy.

   Programs associated with awareness, understanding and training are important. The role of local government in being a leader at the local level in terms of how its conducts business and interacts with the community will drive behaviours that provide broader benefits.

   Local government has the supporting infrastructure such as public libraries where skills and awareness programs are already underway, usually with the assistance of State Libraries and the Queensland Government. The need for more programs that deliver skills, particularly around accessing technologies in a cyber-safe environment should be a key component of any commonwealth and state program.

   At the same time there is role for the Commonwealth to better promote the concept of the "blue tick" mobile phone program and to ensure that consumers have an understanding the actions they can take to maximise coverage mobile phone coverage. This could even involve the introduction of a subsidy to encourage the adoption of approved mobile phone boosters.

   In some areas of Queensland there is still a critical need to ensure towns that are local government centres have the network connectivity to ensure they can participate in the digital economy.

   While it has been extremely satisfying for towns in the Barcoo, Burke, and Diamantina Shires to have improved telecommunications – optic fibre, exchange upgrades and mobile base stations, the challenge is to ensure all local government centres can have improved connectivity for both the short and long terms.

   The need to "fix my town, fix my highway" is still relevant. At present the councils with greatest need are indigenous communities. Councils, such as Mornington Island, Mapoon, Lockhart River, Yarrabah, Hope Vale, and TSIRC all have challenges in accessing basic digital services.

   This area of the need to fix indigenous communities will be addressed later in the submission.

2. How are people in regional communities currently using their broadband service and how might they increase the benefits of using this technology.

   People in regional communities would like to use their broadband service in similar ways to those that who are not living in regional communities. However, they are limited because of the different technologies that are used to deliver services.

   The LGAQ understands that a mix of technologies must be used to deliver connectivity. However, it is the LGAQ's view that where ever possible the need to lever off terrestrial infrastructure should take priority over satellite.

   Consumer demand for data-hungry applications continues to grow in general terms as per the principles of Moore's Law – a doubling every two years. Hence the need to have infrastructure that can scale to meet future capacity should be a key component of long term strategies.

3. What data-intensive activities are occurring in regional, rural and remote Australia. What digital technologies are need for these?

   The activities occurring in rural and regional areas are probably more important in some ways than other parts of Australia particularly regarding the delivery of education and health services. Health is a key service for many communities and the opportunities to use e-health applications has social and economic benefits. For example, the need to fly rural people to a metropolitan specialist could be averted using real-time data and high-resolution video.

   Examples can be made for the delivery of other government services such as education. Business opportunities and social networks are becoming increasingly data-intensive. The need to have the networks in place to allow those digital transaction to occur becomes important to keeping families and business in regions.

4. How can regional business better utilise digital technologies to maximise economic benefits?

   Local government could be perceived as the largest "business" in many rural and regional areas. Ensuring local government is engaging in digital processes that interact with the local business sector could be a way of driving new behaviours that has broader social benefits.

5. What can be done to improve access to and uptake of telecommunication services in remote indigenous communities.

   The LGAQ believes that indigenous communities are different to those in other States because they are recognised as a level of government. All indigenous councils operate under the Local Government Act in Queensland.

   Indigenous councils in Queensland also boast large populations. On the 17 Indigenous councils in Queensland, there is an average population of 1686 people per community. The largest is TSIRC at 4871 people and the smallest is Wujal Wujal at 300 people. The average of 1686 people is bigger than the populations of Paroo, Quilpie and Winton Shire Councils. However, because this data is based on Census data, it is important to recognise the challenges in administering the census survey in these very remote areas, some

indigenous mayors have expressed opinions that the actual population in the community is significantly greater that the official data. The key point is that these communities have significant populations.

The third difference is one of location. Most of the indigenous councils are in north Queensland, the Cape York Peninsula, Torres Strait and Gulf of Carpentaria regions. The communities of Cherbourg and Woorabinda are the exceptions. The remoteness of these councils is illustrated because the Torres Shire Island Regional Council (TSIRC) shares an international border with another county, the only part of Australia that does so.

The clear majority of the indigenous communities that these councils represent receive a SkyMuster satellite services. It is recognised that the greatest advantage of satellite is its ubiquity of services, however because of its very high radio frequency that is used to deliver services, the signal is subject to attenuation and failure.

This region of northern Queensland is prone to monsoons and cyclones during the wet season. Hence it is believed that the number of outages in this part of Queensland would be higher than the national average. From a council perspective, the wet season and severe weather events reiterate the importance of telecommunications.

The traditional role of telecommunications is one of overcoming the tyranny of distance. Yet for these communities, distance and remoteness is still a tyrant, which compounds some of the challenges facing these communities.

Because of the challenges of these communities, the services are seen as expensive and volume downloads are limited. For these factors, terrestrial broadband solutions should be considered a priority.

For some time, the LGAQ has focussed on the need to upgrade core and access infrastructure to these remote communities. The need for robust and scalable optic fibre in the core as well as access infrastructure in exchanges so meet short-term and future demand of broadband services is critical.

At present several indigenous communities in Queensland suffer from poor telecommunications infrastructure. This cuts to the fundamental delivery of services, opportunities for business and social interaction. Councils have advised that because broadband is limited it is difficult or impossible to access on-line training and e-learning materials. The problem of poor services also

The most disadvantaged communities, in terms of scalable and robust telecommunications are, Mornington Island, Mapoon, Lockhart River, Yarrabah, Wujal Wujal, TSIRC, and Hope Vale. It should be recognised that Hope Vale and TSIRC currently have applications before the Building Better Regions Fund to improve telecommunications.

The LGAQ seeks on-going investment to upgrade terrestrial telecommunication networks to these communities.

6. Are there practical examples of how communications services can improve the well-being of people in remote indigenous communities?

   The LGAQ has been proactive in several strategies that have led to meaningful outcomes that have aimed to improve the wellbeing of communities.

   The solutions that have been adopted by remote indigenous communities tend to involve those communities that have scalable and reliable telecommunications. These projects include:

   Broadband services (enterprise/government)– ability to improve the delivery of health and education services (Aurukun, Porpumrraw exchange upgrades)

   Broadband services (consumer/small business) - ability to allow small business to transact online (Aurukun)

   Smart Lighting and CCTV – as means to reduce anti-social behaviour such as vandalism and graffiti. (Cherbourg, Palm Island, Aurukun)

   Vehicle tracking – resulting in better utilisation of vehicle fleet and operation cost savings (15-20% - fuel, servicing costs) (Kowanyama)

   Noise Sensors – identification of unacceptable levels of noise which provides immutable proof for councils or other compliance officers to take action.

7. What skills people need to get the most from their digital technologies and where can they learn these skills?

   The need for skills range with the individual's level of competency. The concept of "digital touches everything" results in people having the need to ensure they have a level of competency to participate either in work or socially. Those jobs that were once purely blue collar, now require some level of digital expertise. Somewhere in the process there is a PC or screen which requires user input. People need to have some skills to do that, but also have the life skills to transact in ways that are safe. The whole cyber-security threat of phishing is based on people unwittingly opening digital links. A better awareness as to what to look out for could prevent a significant amount of fraudulent activity.

   Councils do have assets that could underpin the delivery of training including new training delivery models at the local level could be hosted in buildings such as libraries.

8. Have you had ongoing issues affecting your satellite of fixed wireless broadband service? If so, how have you overcome these issues?

   The LGAQ is aware of anecdotal evidence concerning some issues with satellite sky muster services at the technical level where attenuation has affected service delivery.

   The fixed wireless appears to perform much better which is not surprising.

   The nbn decision to provide additional download capacity for families on properties, who rely on sky muster for education, is to be congratulated.

9. If you are in an area with access to the SkyMuster satellite service and you have not taken it up, why not?

   Does not apply.

10. What economic or social indicators could be used to guide investment to further improve mobile coverage?

    The LGAQ has written to the Minister for rural telecommunications suggesting two possible options to improve mobile phone coverage in rural and remote areas. The first involves working closer with councils to identify sites that could contribute to local or regional economic benefit. For example, camping grounds, national parks, strategic cross-roads, or even silos where improved coverage could lead directly or indirectly to furthering the local economy.

    The second point recognises that technology continues to evolve. The use of satellite backhaul low-powered base stations could be used in areas where there is no coverage. This could include national parks, outstations, or other remote areas. This solution which was considered too expensive years ago has undergone significant change in terms of cost inputs and is worth consideration in the most isolated areas.

11. Is information readily available regarding how to use devices to improve mobile reception in areas with poor coverage? Eg information about external antenna equipment?

    A program that helps to understand how to maximise mobile phone coverage and improve the performance of mobile devices needs to be developed. This could include the use of external aerials (for buildings and vehicles) and the promotion of “blue tick” phones.

    Also, an awareness program or subsidy that allows rural residents to install approved boosters could also provide benefits to extend coverage.

12. What emerging digital services are people using other than those available through the nbn

    Emerging digital services could involve the use of realities – Augmented, Virtual and Hybrid. While still in early days of development, the fact that more 13 million app developers have downloaded the Apple ARKit will ensure there will a wave of development.

    Augmented Reality, which in a crude sense is similar to the Pokemon Go phenomenon a few years ago, will result in a range of applications involving business and social applications. This would include training, wayfaring, tourism and development applications.

13. How can more competition be encouraged in the provision of broadband services in regional Australia.

    The issue with telecommunications is that user services continues to decrease in price, yet the supporting infrastructure need to be continually improved. The nature of telecommunication infrastructure requires a five times capital investment every five years results in very few sustainable business models.

    All more phone carriers claim they deliver services to more than 97 % of the population. Hence there will be some communities that have no choice in regard to the carrier they use. This may not be an issue as long as there is a competitive market and national pricing. That is, because of the strong competition in the capital cities, people in rural and regional benefit from aggressive pricing and values ads because all carriers provide national pricing to consumers. So, while you may live in Muttaburra, call costs and services packages are the same as living in Melbourne.

    To take the competition model further, would be possible through artificial means that are neither long-term or sustainable.