

## **Broadband for the Bush Alliance**

P.O. Box 8500 Alice springs NT 0871 ABN 81 609 859 378

18 July 2016

Mr Paul Lindwall
Presiding Commissioner
Telecommunications Universal Service Obligation
Productivity Commission
GPO Box 1428
CANBERRA ACT 2601
(Lodged online
http://www.pc.gov.au/inquiries/current/telecommunications/makesubmission#lodge)

#### Re: Telecommunications Universal Service Obligation Inquiry Issues Paper

Dear Mr Lindwall

The Broadband for the Bush Alliance (B4BA) is a national not-for-profit membership based organisation committed to improving digital inclusion for remote and rural Australians. The Alliance members comprise a group of stakeholders with expertise in communications, remote service delivery and community engagement. It seeks to advance the digital capacity and capability for those who work and live in remote Australia and is dedicated to creating digitally connected and smarter remote communities, using a number of direct action initiatives. These include:

- influence government and policy makers through sustained and persuasive representation;
- publish remote digital policies supported by research;
- educate stakeholders on the digital challenges faced in the bush; and
- undertake projects to digitally advance remote Australia.

More information on the Alliance, its policies and activities can be found at www.broadbandforthebush.com.au

Our response presents information that draws directly upon the experiences of our members, most of whom live and work in the 3% of the country designated as satellite broadband delivery areas. We also draw the Commission's attention to the Alliance constituency, which is largely focused on rural and remote Australia, that part of Australia that experiences significantly different telecommunications issues than regional Australia. The low population demographic, the premium on remote digital infrastructure cost and the distances between towns present challenges radically different to other areas throughout Australia.

# B4BA

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Some Remote Australia<sup>1</sup> statistics give a view of the scope of telecommunication challenges:

- Remote Australia covers 80% of the Australian landmass, using the definition by the Australian Bureau of Statistics;
- About 2.4% of the population live in remote and very remote areas i.e. around 500,000 people (was 324,000 in remote areas and 174,000 in very remote areas<sup>2</sup>);
- About 130,000 Aboriginal and Torres Strait Islander people live in over 1,100 discrete communities across remote Australia;
- Remote areas comprise many diverse settlements, including pastoral, farming, mining, tourism and Aboriginal and Torres Strait Islander communities;
- Half of the population in remote Aboriginal and Torres Strait Islander communities is under 24 years old;
- Aboriginal and Torres Strait Islander employment rates remain low in remote communities with an employment to population ratio of about 45%;
- Around 45% of Australia's exports come from remote Australia being \$90 billion (mostly mining);
- Remote Australia makes a significant contribution to national wealth with 60% of the nation's mining platforms operating in Remote Australia;
- There are 40,000 SMEs in remote Australia; and
- 75% of remote Indigenous households have no internet connection -less than in Sudan<sup>3</sup>.

Within this context the importance of a USO in providing the framework for encouraging digital inclusion, via fixed voice, mobile and data connection, cannot be overestimated. I look forward to your continued engagement with remote Australia and the Alliance.

Please contact me directly issues.

for further discussion or clarification on

Yours sincerely, Ray Heffernan Chair, Broadband for the Bush Alliance

 $<sup>^{1}</sup>$  Remote Australia is defined here as comprising those areas identified as remote and very remote by the ABS Remoteness Structure.

<sup>&</sup>lt;sup>2</sup> Australian Bureau of Statistics 2010

<sup>&</sup>lt;sup>3</sup> http://crc-rep.com/about-remote-australia

# SUBMISSION TO THE PRODUCTIVITY COMMISSION'S TELECOMMUNICATIONS UNIVERSAL SERVICE OBLIGATIONS INQUIRY

This submission does not attempt to address all the issues raised in the Issues Paper are some relate to areas that are beyond our scope and expertise. Rather, we have focussed on particular aspects that are of most concern to our members in addition to making some preliminary remarks relating to the underlying approach.

#### **Preliminary remarks**

Broadband for the Bush believes that telecommunications services (fixed and mobile, voice and data) are an essential service and should be categorised as a fundamental right of access under a Universal Service or similar designation. Where markets fail or a financial inequity exists (e.g. low income) the government should fund service access to an appropriate level of availability and affordability.

The Alliance is very strongly of the view that a universal service —customer service guarantee arrangement should play a vital role in overcoming the digital divide that exists between the cities and "the bush". Demonstrated market failure, particularly in remote and very remote¹ areas of Australia has directly impacted upon the availability, accessibility, affordability and quality of telecommunications services in these areas and numerous examples of this were provided in many of the submissions to the 2015 Regional Telecommunications Review. Development of a new universal service — customer service guarantee should be framed to reflect the average Australian use of digital services and with appropriate acknowledgement of the likely societal digital demands. Importantly, once in place, government programs should be driven in large part by those unmet needs of groups which are in greatest need of access to a new Universal Service: Indigenous, seniors and low income consumers, people with disability, and those who live and work in regional and remote Australia.

Given the pervasive market failure in remote and very remote areas we urge the Commissioners to consider direct and indirect flow-on benefits when considering alternative models for a universal service arrangement, rather than rely on a purely economic rationalist approach. For example, although the installation of terrestrial digital infrastructure (e.g. backhaul) may be more expensive than satellite in some areas it is likely to result in future savings (e.g. greater mobile coverage, higher quality voice and faster broadband access) without issues such as latency and rain fade. A recent pilot study<sup>2</sup> of the benefits of telehealth in Katherine, Tennant Creek and Alice Springs in the Northern Territory for example, found estimated savings in the order of \$1.2M over the duration of the 15 month study simply through the reduction of travel and associated costs for patients and escorts. In Central Australia a sample was taken from January 2015 – September 2015 and it was assessed that 274 bed nights were saved from 150 appointments across a range of communities<sup>3</sup>.

Additionally, in considering business case options for funding particular policies/programs, Government services, increasingly only available on-line, should be included in the demand estimate

<sup>&</sup>lt;sup>1</sup> Our usage of the terms regional, remote and very remote is consistent with the ABS Remoteness Index. In some instances we have used remote to refer to remote and very remote areas.

<sup>&</sup>lt;sup>2</sup> Department of Health Northern Territory. 2015. Evaluation of the PATS-Telehealth Project, p40. Copy of report courtesy AMSANT.

<sup>&</sup>lt;sup>3</sup> Ibid, p41.

component because this sector is often the heaviest user of ICT broadband and telecommunications in remote areas<sup>4</sup>, but their existing and future needs are often excluded from establishing the case for ICT infrastructure investment in a local area or region.

We note that much of the discussion around a new universal service obligation has been framed around a minimalist approach. In view of the range of technologies now available including hybrid services such as VOIP, each of which has been developed according to a different set of standards and protocols, we question the appropriateness of continuing to think of a new USO from a minimalist perspective. Clearly in a modern society the consumer is demanding a range of digital services and access options.

An approach that pits one type of technology against another in order to determine a 'minimal standard', also risks locking in users to a particular technology and exacerbating the digital divide as those living in rural and remote areas can't access mobile services or high speed and reliable broadband services. It also fails to allow for the development and up-take of new technologies. A USO should not be viewed from a minimalist perspective i.e. to provide minimum entitlements, in an age where future access to government services, educational resources, economic prosperity and social wellbeing will be dependent on being "connected".

We suggest therefore that the new USO be constructed so that it provides people with choice (and flexibility), rather than a standard/basic (minimalist) service which involves no choice whatsoever. This recognises that regional, rural and remote Australia is not homogenous and across these areas different communities have different telecommunications demands and needs. Any new telecommunications universal service should not impede the ability of remote/regional/rural Australians to have improved telecommunications and specifically it should not:

- impede the capacity of remote and rural Australians to participate effectively with the digital economy;
- impede flexibility of access (e.g. mobility and low access options WiFi is one);
- lock in standards and limits that don't reflect "average" public expectations;
- limit affordability by lower income population.

Over the past seven years it has been disappointing to see telecommunications become mired in party politics to the detriment of those in the bush. Although technically it may lie outside the scope of the current Inquiry, we nevertheless urge the Commissioners to recommend that the Government seek bipartisan support for any new universal service/customer protection arrangement.

The Broadband for the Bush Alliance holds an annual Forum to bring together a range of stakeholders from government, industry, rural and remote residents (pastoralists, farmers, health, education, tourism) and is Australia's only conference dedicated to rural and remote digital communication issues. Delegates identified improving availability and affordability of services, setting minimum service standards and guarantees, advancing digital literacy and empowerment as key priorities to

<sup>&</sup>lt;sup>4</sup> For example, Government users comprised a third of participants in remote areas and 48% of participants in very remote areas in RDANT's 2014 NT digital workplace survey. Data courtesy of Regional Development Australia NT.

bridge the digital divide between the bush and metropolitan areas. The Forum called for the formulation of a *Remote Telecommunications Strategy* to drive policy and inform those not attuned to rural and remote realities. Without a strategy government will continue to develop policy and programs as a one-size-fit -all infrastructure and digital engagement framework which will expand the digital divide for the bush. To assist the Commission in its understanding of the issues concerning rural and remote Australian a copy of the Broadband for the Bush Alliance 2016 Forum communique is provided as **Attachment A**.

#### Scope

What should be the objectives of any new universal services policy? Are objectives such as universal availability, affordability and accessibility appropriate?

A new USO needs to address more than the simple provision voice services. In addition to availability it should include data and address accessibility, affordability, quality of service and equity, consistent with the holistic approach we advocate to addressing the digital divide. The objective should be to ensure, to the greatest degree possible, that all Australians have access to a range of digital services regardless of the business location or residence.

It should also allow for the inclusion of elements which are currently separate (e.g. the USO, Telecommunications CSG and Network Reliability Framework) to be brought under one umbrella (one document), consistent with the Government's reducing red tape agenda. This would also make it easier for consumers to access this information.

Improving remote and rural communications must recognise that both fixed and mobile services are equally important parts of the solution; any new USO must also therefore cover both fixed and mobile services, as well as voice and data, consistent with the recommendations in the Glasson review<sup>5</sup>. In order to ensure that a new USO-CSG does not leave anyone behind or worse off it should include a requirement that existing infrastructure – such as payphones in remote outstations and at isolated roadhouses along roads and highways – is retained and maintained under a "grandfather" clause. However to ensure that people reliant on this as their only form of telecommunications do not get stuck with outdated/obsolete infrastructure the new USO/CSG should also have a clause which requires that there be an additional telecommunications option made available in these areas within a particular timeframe. The latter requirement addresses choice issues and is more likely to encourage competition and investment rather than simply giving out a "free pass" to existing providers for simply maintaining the status quo in areas where the status quo is clearly inadequate for current needs.

Quality broadband can assist in overcoming vast distances from cities, reduce travel costs and open up potential goods and services options that are not otherwise available in remote areas. For example, in the health and education environs quality telecommunications enables a range of emergency services and medical services not otherwise available, but only if quality, speed and reliability of broadband and voice services is consistent with the requirement of an ever evolving range of

<sup>&</sup>lt;sup>5</sup> https://www.communications.gov.au/sites/g/files/net301/f/2008\_Glasson\_Report\_RTIRC.pdf

applications. We share ACCAN's view<sup>6</sup> that minimum network standards should be specified in relation to speed (uploads and downloads), latency, jitter, packet loss and reliability. In relation to speed, the view that there should be guaranteed average minimum speeds was repeatedly expressed at the recent Broadband for the Bush Forum in Brisbane 2016.

The Sinclair review in 2012<sup>7</sup> found that there was a lack of consumer awareness of the current protections and that consumers are particularly concerned about losing phone services. They also found that there were gaps in the consumer protections that "it is not clear what arrangements are in place for maintaining or replacing non-copper network assets in the NBN non-fibre footprint, such as HCRC. The new USO should address this matter.

Based on our experience, we believe that a new USO which is based on premise-only access as opposed to personal access, will be problematic in remote and very remote areas and particularly in predominantly Indigenous communities owing to high levels of mobility, a preference for mobile devices such as smartphones and tablets, as well as customs surrounding death (i.e. families will move out of a house and community and when (if) they return, it is usually not to the same house)<sup>8</sup>.

In order to address accessibility and affordability there should be a requirement for pre-paid options (both for mobile and internet) should be built into a new USO (similar to the pre-paid plans available for mobile).

For regional and remote businesses, access and affordability will be key to success. For example, for some agricultural "big data" applications require considerable bandwidth, which comes at a cost. In the tourism sector visitors expect free Wi-Fi to be part of the standard accommodation package regardless of location but this is expensive for operators, particularly in remote areas reliant on satellite connections with limited bandwidth. However businesses which cannot provide this are quickly identified on platforms such as Trip Advisor and suffer accordingly. Accordingly, we believe there should be options to make regulatory changes where market failure exists and price/access barriers where only a single underlining legacy infrastructure is in place.

# Responsibilities and funding

Can the NBN be treated as an alternative (wholesale) USO service?

The NBN could be treated as an alternative (wholesale) USO service or default USO provider for those with a fixed line nbn connection. For those on a satellite connection the NBN cannot be treated as an alternative USO voice service.

<sup>&</sup>lt;sup>6</sup> Accan. nd *The Connected Consumer: the future of consumer focussed communication services*. Available at <a href="http://accan.org.au/our-work/policy/1245-the-future-of-consumer-focused-communication-services">http://accan.org.au/our-work/policy/1245-the-future-of-consumer-focused-communication-services</a> [accessed 4/7/2016].

<sup>&</sup>lt;sup>7</sup> https://www.communications.gov.au/sites/g/files/net301/f/Government\_Response\_to\_2011-12 RTIRC report.pdf

<sup>&</sup>lt;sup>8</sup> Rennie, E., Hogan, E., Gregory, R., Crouch, A., Wright, A. and Thomas, J. 2016. *The Internet on the Outstation: the digital divide and remote communities*. Available at <a href="http://networkcultures.org/wp-content/uploads/2016/06/TOD19-Internet-on-the-Outstation-INC.pdf">http://networkcultures.org/wp-content/uploads/2016/06/TOD19-Internet-on-the-Outstation-INC.pdf</a> [accessed 4/7/2016].

Political comment for VOIP apps and services (Skype, FaceTime, WhatsApp)<sup>9</sup> as a competitive option for voice calls for rural and remote consumers is dangerous. For remote consumers on the NBN SkyMuster™ VoIP calling as a standard voice service <u>is not an option</u>. The ICPA (Qld) Inc. Position Paper, "The retention and improvement of the Telecommunications USO" gives a succinct explanation. In part it argues that "International Telecommunications Union Recommendation G.114 specifies a maximum round-trip latency threshold of 300 ms for acceptable voice services. As shown in Section 4.1.1 (of their paper), the round-trip latency for satellite signals is between 500 and 600 ms—twice the allowable threshold. With this level of latency, the quality of service leads to a poor user experience" and "Because of satellite susceptibility to these issues, the use of satellite as a replacement for traditional landline service (or terrestrial wireless) for voice communications is not desirable, especially when the service involves 911 (000) and other critical services."

It should be noted that if a voice call is between two satellite serviced numbers then the latency is doubled to 1000-1200ms. Other reasons for not using the nbn SkyMuster™ an alternative (wholesale) USO voice service include:

- nbn broadband services do not connect to payphones in remote communities; and
- Potential conflict between nbn co's commercial objectives (ROI to government) and being a supplier of last resort (a USO Obligation).

The range of technologies available, combined with the new structure of communications markets (i.e. wholesale only entities and retail service providers) involve new relationships between the public and private sector. These providers could possibly deliver USO services. However, there may be considerable challenges for guaranteeing service levels for universal communications. Unless these markets are re-structured we are of the view that responsibility for the implementation of a new universal service must be shared between Government, the nbnco, carriers and RSPs. Any new universal service document should clearly set out the relationships and responsibilities of these sectors and all should be required to adhere to transparent reporting arrangements.

For example, the Alliance supports the network provider being responsible for connection performance and for recognition of the consequences of business and consumers connectivity disruption (cut or unusable). There is a basic requirement for standards that incorporate a customer connected principle and providers to offer an equivalent acceptable alternative and interim service(s) until the service(s) are restored. The benchmark performance standard needs to be transparent, with reported data capable of analysis at regional levels and published annually. The inclusion of incentives to reward improvement should be considered.

Is it reasonable that telecommunications users in regional and remote locations do not bear more of the actual infrastructure costs of providing telecommunications services?

At a general level, affordability has been identified as a key barrier to the uptake of telecommunications<sup>10</sup>. Rural and remote consumers continue to receive services that are of lesser

<sup>&</sup>lt;sup>9</sup> For a list from Market Clarity see http://marketclarity.com.au/voip/

<sup>&</sup>lt;sup>10</sup> Wise, S. 2013. Trying to Connect: Telecommunications access and affordability among people experiencing financial hardship. Report prepared for Anglicare Victoria and ACCAN. Available at <a href="https://accan.org.au/Telecommunications%20access%20and%20affordability%20among%20people%20experiencing%20financial%20hardship.pdf">https://accan.org.au/Telecommunications%20access%20and%20affordability%20among%20people%20experiencing%20financial%20hardship.pdf</a> [accessed 18/7/2016]

quality and with far less choice (regarding technology type, retail service provider, and plans) than those in metropolitan areas. The RTIRC's 2015 Report recognised that lack of choice and restricted technology options was a significant driver of higher costs incurred by regional users and that the effective prices paid in these areas were higher despite the uniform wholesale pricing on the nbn, for example<sup>11</sup>.

The Alliance accepts the general principle that where markets fail the government has a role to fund infrastructure or service to an equitable level. In these circumstances we believe it is neither fair nor reasonable to expect these consumers to pay more for their telecommunications.

To what extent are there market-based alternatives to the delivery of universal services through the current USO? What evidence is there to support social or equity based rationales?

Remote Australians generally experience higher telecommunications costs due to lack of competition, a product of market failure. The lack of competitive digital infrastructure limits choice of telecom services and choice of retail service provider. In many locations the digital infrastructure is barely able to support basic voice services from a single supplier. Innovative suppliers such as TPG, iiNet and internode offer restricted product portfolios or do not service many remote regions. Successive government policies and intervention programs have had limited impact on building competitive digital infrastructure in remote regions. Historically Telstra secures the major funding slice with the result that there is no improvement in competition. Recent state government interventions to improve telecommunication infrastructure in their states (e.g. Royalty for Regions grants to telecommunications projects, state government funds for the Mobile Black Spot Programme<sup>1</sup>) clearly demonstrate concern by various jurisdictions that industry investment and federal government initiatives have not given Australians the digital infrastructure they need.

Telstra remains the dominant supplier of a broad range of telecommunications services and is the monopoly supplier of last resort for the domestic transmission carriage service. While co-investment may potentially lead to greater choices available, the reality is that market-based policy and procurement mechanisms have failed in regional and remote areas where there are small, dispersed populations spread over vast distances.

#### Other

The Commission references Facebook and Google investment in telecommunications infrastructure such as, high-altitude drones and helium balloons to provide aerial wireless internet access in other remote parts of the world. These activities are acknowledged but are being investigated in third world environments where terrestrial infrastructure (c.f. that deployed in Australia) is virtually non-existent. The Commission should also note that there is no evidence of interest by these organisations in the Australian market. The Alliance is aware of new developments being promoted in Australia, such as the Aerostats All Australia (AAA) project, which is essentially a floating aerial. The concept is to tether

<sup>&</sup>lt;sup>11</sup> Regional Telecommunications Independent Review Committee 2015, *Regional Telecommunications Review 2015*, p14. Available at http://www.rtirc.gov.au/wp-content/uploads/sites/2/2015/10/RTIRC-Independent-Committee-Review-2015-FINAL-Low-res-version-for-website.pdf

aerostats (lighter-than-air balloons) permanently (anchored) to an existing mobile base station where fibre-optic backhaul exists.

Continued technology developments (3G, 4G and 5G) suggest mobiles be considered as a delivery platform for a new Universal Service charter that combines voice, data and mobility. The current shift to IP mobile voice also needs consideration.

Without mobile network roaming choice by consumers in rural and remote locations access will be limited unless mobility is included in a Universal Service. Telstra, the dominant mobile network, leverages its coverage to secure customers in rural and remote regions where consumers often have no competitive option or competitor coverage is patchy hence an unreliable service (especially on transport corridors). The Commission should seek information on establishing mobile network roaming to allow greater consumer flexibility and coverage.

# **ATTACHMENT A**

Broadband for the Bush Forum V (2016): *Digital Journeys*.

**COMMUNIQUE** 



Digital Journeys

**COMMUNIQUE** 

Delegates at the fifth annual Forum of the Broadband for the Bush Alliance held in Brisbane 8 and 9 June 2016 identified improving availability and affordability of services, setting minimum service standards and guarantees, advancing digital literacy and empowerment as key priorities to bridge the digital divide between the bush and metropolitan areas. An Indigenous Focus Day, focussing on indigenous communities' digital issues was held immediately prior to the Forum and the output of that day is incorporated into this communiqué.

The Forum called for the formulation of a *Remote Telecommunications Strategy* that identifies the unique characteristics faced by rural and remote people. Without the *strategy* to drive policy and inform those not attuned to rural and remote realities the result is a one-size-fit -all infrastructure and digital engagement framework the digital divide for the bush will expand.

Delegates grouped their call for action under four key areas — availability, affordability, service standards, digital literacy and empowerment. The Broadband for the Bush Alliance was tasked with leading the creation of the Remote Telecommunications Strategy with all organisations and individuals committing resources and intelligence to assist the process. The strategy will be delivered to politicians, policy makers, infrastructure providers and major stakeholders to influence future developments.

The Forum brought together decision makers and representatives from across regional and remote Australia, including residents, community groups, public and private sector organisations, technical experts and various parties with an interest in remote communications and services.

Delegates heard from nbn co on the recently available SkyMuster™ service, the government's satellite broadband services for up to 400,000 premises in rural, remote and regional regions. Organisations such as ICPA and BIRRR gave practical input into early connection issues. In 2015 the Forum called for unmetered education access and the recent availability of an education port for registered distant education schoolchildren was welcomed. However, the data allowances, peak to off-peak data split and the relative cost of retail plans highlighted the inequity that still remains for those in the bush.

Presentations from experts on the four Forum streams, digital adoption in business, future services, digital inclusion and policy for better outcomes and delegate contributions showed that the key factors of availability, service delivery and digital inclusion can be improved through a number of initiatives such as better government programs (e.g. greater penetration of nbn terrestrial infrastructure in rural & remote areas, redesigned mobile black spot program), seeking alternative service delivery technologies, and unmetered (but not unlimited) data allowance for key on-line government services.

A keynote presentation from Helen Milner from the UK organisation Tinder Foundation, painted a picture of how a rethink of the digital inclusion away from a cost basis to the economic impact and social advantage would benefit Australians. The savings government gains from its service delivery responsibilities was inspiring and an example federal and state governments can embrace.

The Productivity Commission enquiry into the Universal Service Obligation (USO) could impact the service delivered to the bush for several generations. The double hop voice over internet protocol, public phones and inclusion of broadband and mobiles into the USO (as recommended by two Regional Telecommunications Reviews) are major issues affecting future digital services.

# Our Thanks

We acknowledge the Forum Ambassador Brad Howarth who moderated the event and provided guidance to the Forum Committee. We also acknowledge the leadership of the Forum coordinator, Apolline Kohen in developing the program and managing the event.

## Recommendations

In light of the Forum, the Broadband for the Bush Alliance makes a number of recommendations regarding broadband policy and action for remote and regional Australia grouped under four major headings.

#### 1. Availability of digital infrastructure and services.

- Recommendation: To reduce mobile network infrastructure providers' costs to the limited markets in remote regions the Australian Government grant at no cost 700MHZ digital dividend spectrum to mobile infrastructure providers.
- Recommendation: That there is expanded penetration of NBN fibre and wireless infrastructure into remote and regional Australia to reduce SkyMuster™ congestion, a satellite phenome common to satellite solutions.
- Recommendation: That the government allocates mobile backhaul from the nbn satellite (or other government satellite bandwidth) so as to increase mobile base stations in remote Australia.
- Recommendation: That there is bipartisan support for continuation of the mobile black spot programme, and
  that the program criteria not be restricted by economic viability or technology when assessed for remote mobile
  base station funding.
- Recommendation: That the government immediately initiate research and investigation into long-range mobile
  coverage solutions and alternative solutions offered by new technologies that offer lower cost mobile
  infrastructure to remote regions.
- Recommendation: That telecommunications be included as a key component of the government's Northern
  Australia Development policy as digital engagement using multiple digital platforms underpins economic and
  social development.
- Recommendation: That government increases the fibre network within northern Australia in order to mitigate the impact of extreme climatic events.

#### 2. Better affordability for those living in rural and remote Australia.

- Recommendation: That nbn co remains a publicly owned utility operating the core broadband infrastructure.
- Recommendation: That the government creates universal unmetered (but not unlimited) online access to
  health, government services, education services and banking for remote residents and NGOs to address tyranny
  of distance (conceptually similar to extended zones charging).
- Recommendation: development of an affordability strategy to target measures for rural and remote communities (for Indigenous communities to be included as a Closing the Gap indicator).
- Recommendation: That there are standards and a coordinated approach to Wi-Fi in remote communities building on public phones and Public Internet Premises model (joint government WiFi strategy) and use of mobile VoIP service via WiFi.

#### 3. Service standards and guarantees.

- Recommendation: The establishment of an independent remote and rural telecommunications advisory body
  to advise government and other stakeholders on appropriate programmes that deliver real outcomes for the
  bush.
- Recommendation: The establishment of a remote-targeted customer service and helpdesk support to give priority assistance and advice on service difficulties and remedies.
- Recommendation: The development of appropriate (content and data file size) on-line consumer guide for nbn satellite products.
- Recommendation: That the Broadband for the Bush Alliance contribute to USO Review to include mobile, data and pre-paid.
- Recommendation: That the Broadband for the Bush Alliance contribute to reforming the Customer Service Guarantee to include data services and reliability measures, as per RTIRC recommendations.
- Recommendation: That remote digital infrastructure is created by government and that data is regularly updated and made publically available.
- Recommendation: That the Broadband for the Bush Alliance advocates for SkyMuster™ higher peak period data limits.

#### 4. Advancement of digital literacy and empowerment.

- Recommendation: The establishment of a single advocacy body for Digital Literacy.
- Recommendation: That the Broadband for the Bush Alliance advocate for co-designed and appropriate remote-focussed Digital Literacy programs.
- Recommendation: That the Broadband for the Bush Alliance encourages the design and promotion of digital Mentors/Champions programs.

# Moving forward

Delegates committed resources (materials and expert knowledge) to the Broadband for the Bush Alliance in order to contribute to the formulation of a *Remote Telecommunications Strategy*. The strategy will be a comprehensive document for all stakeholders to better inform on digital infrastructure and digital literacy in rural and remote Australia. Without a *Remote Telecommunications Strategy*, the digital divide between cities and country will surely increase.

#### **Key Outcomes Summary**

- A Remote Telecommunications Strategy to drive policy and inform those not attuned to rural and remote realities
  ensure digital inclusion of the most excluded group in Australia and dump the one-size-fits-all policy model that
  clearly does not address the unique characteristics faced by rural and remote peoples;
- Creation of a digital literacy action plan (to educate and inform) co-designed and appropriate to remote communities and homesteads;
- nbn policy changes to expand nbn co infrastructure into remote regions thereby delivering advantages across multiple fronts;
- Unmetered satellite data for specific purposes and WiFi centric solutions for greater services penetration;
- A rural & remote independent advisory body to advise on issues such as customer service, help desk support, USO reviews, statistical collection of data inputs for digital engagement and SkyMuster™ peak data limits.

# About the Broadband for the Bush Forum V

The fifth Broadband for the Bush Forum: Digital Journeys took place on 8th and 9th June 2016, at the State Library Queensland, Southbank campus, Brisbane.

The Forum offered a unique opportunity to give voice to residents of remote and regional Australia, examining the problems they face stemming from poor access to digital infrastructure (voice, data and mobile) and the possibilities an educated digital literate remote Australians offers for digital inclusion in terms of economic participation, social advancement and community sustainability.

Presenters delivered a diverse range of firsthand accounts of digital adoption and empowerment. Across the two-days, the Forum focused on four themes that enlightened the audience and demonstrated to delegates positive examples of digital journeys. The four Forum themes were: digital adoption in business, future services, digital inclusion and policy for better outcomes.

The Forum program emphasised the role of broadband communications as a critical enabler and for better digital literacy and an enabler for innovation and economic empowerment for rural and remote Australia.

The Forum was attended by more than 110 delegates, and featured presentations from government, academia, Indigenous groups, research organisations, telecommunications companies, technology innovators, not-for-profit organisations and the broader commercial sector.

A special mention to our sponsor, without whom the annual Broadband for the Bush Forum would not be possible. The Forum is the only national annual conference dedicated to exploring and highlighting digital issues to rural and remote Australians. The Alliance, a member organisation, faces financial challenges to stage the event and sincerely acknowledges the generous contribution of our sponsors in supporting rural and remote regions.

#### Principal





#### Silver





#### **Bronze**





