The Broadband for the Bush Alliance: unlocking the digital potential of the bush

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Abstract

Access to reliable, functional broadband and 3G/4G mobile services is the norm for most Australians. Remote Australia, however, has not been able to fully engage and participate in the digital revolution. This is because of inadequate or unavailable telecommunications infrastructure; affordability issues; and, for many, poor digital literacy. Given issues of distance and isolation, broadband has an elevated potential to positively impact service delivery and socioeconomic conditions in remote Australia.

The Broadband for the Bush Alliance was formed in 2012 with the aim of advancing the digital capacity and capability of remote Australians. It does so through a range of activities including policy formulation, lobbying activities and the sharing of knowledge. It actively builds expertise through an annual forum, research projects and networking. Originally set up by six organisations, the Alliance's expanding membership brings together a range of stakeholders with expertise in communications, remote service delivery and community engagement.

This paper seeks to give an overview of key policy recommendations developed by the Alliance and identified at the last Broadband for the Bush forum. These include:

- The need for a dedicated communications strategy for remote and outer rural Australia. This should encompass:

    – the expansion of mobile coverage;

    – improving digital infrastructure;

    – developing smart Last Mile solutions for small towns and communities;

    – developing affordable pricing for mobile calls in remote and rural Australia,;

    – improving digital literacy; and

    – improving Indigenous communications programs.

- The expansion of mobile coverage and Extended Zones program should include all calls originating from users registered in remote areas.

- The need for a range of billing models, such as one for pre-paid NBN satellite billing, in order to meet the needs of Indigenous remote communities.

- IT training and support programs for remote areas to be delivered by community organisations. Today, 3.7 million Australians do not access the internet regularly, and the number of those people living in remote Australia is disproportionately high.

- Prioritisation of planning for the transition from the Interim Satellite Solution to the Long Term Satellite Solution.

- The establishment of an innovation budget for the development of infrastructure development. A one-size-fits-all approach fails in the bush: remote areas often require tailored telecommunications and broadband solutions. Last Mile connectivity is a primary example of this.

Introduction

Broadband can no longer be viewed as just another infrastructure. Today it is a powerful force for change. Worldwide, mass connectivity with broadband is improving lives in many ways. For example, it provides online clinical health delivery; enriches education through online delivery and access to massive resources, drives economic growth improves social inclusion and encourages active citizenship. At current growth rates, half of the world's population will be online by 2017.[1] Today, the

number of mobile phone users globally is around 3.4 billion people.[2] Mobile broadband offers greater connectivity for more people than ever.

In Australia, access to reliable digital communication technology is the norm and mobile broadband subscriptions have now outnumbered fixed one by a ratio of 3:1. Australians have enthusiastically embraced the use of broadband in their professional and personal lives. Indeed, more than three quarters (77%) of Australian households have access to the internet via a broadband connection.[3] The National Broadband Network has been promoted as providing affordable and ubiquitous broadband services to 100% of Australians. However, remote Australia remains largely disconnected from the broader digital revolution due to a lack of adequate infrastructure, affordable and reliable services, and, for most, poor digital literacy.

It is well documented that residents of rural and remote communities continue to show poorer health outcomes, have lower incomes, employment rates, and education attainment than residents in metropolitan centres. These trends are exacerbated in the Aboriginal and Torres Islander population. The lack of suitable and reliable telecommunications in most parts of remote Australia impacts on delivery of government and health services and access to educational resources that most Australians take for granted. It is also a major barrier for economic development. The digital exclusion of remote Australians will inevitably contribute to the widening of inequalities between remote and non-remote Australians if we don't act now. This is why the Broadband for the Bush Alliance (the Alliance) was formed in 2012 and has a growing membership of organisations that are committed to greater digital inclusion of remote and rural Australia.

The Alliance brings together a range of stakeholders with expertise in communications, remote service delivery and community engagement. The Alliance seeks practical outcomes that promote digital inclusion, using both fixed and mobile technologies. The Alliance has developed a set of key policy recommendations aimed at unlocking the digital potential of the bush. Policy and position papers cover issues related to infrastructure needs, affordability and digital training.

Part 1 Infrastructure

Expansion of mobile coverage

The findings of the 2011-2012 Regional Telecommunications Review (RTR)[4] show that mobile communications is the most important issue for remote and rural Australians. Indeed, access to broadband through mobile devices has become the medium of choice for all Australians. Currently there is a very low penetration of cellular mobile coverage in rural and remote areas of Australia. Despite high demand, market failure means that service providers will not independently invest in further terrestrial coverage. A key inhibitor for remote areas is that mobile delivery is currently not part of the NBN business plan, limiting the option of satellite backhaul for mobile services.

Recent partnerships between the Western Australia and Northern Territory governments and Telstra have enabled expansion of mobile coverage to additional remote communities where existing fibre optic backhaul permitted. However, more is needed. The high importance of implementing new initiatives for the extension to cellular mobile coverage in remote Australia has been emphasised at previous Broadband for the Bush forums[5] and ACCAN conferences. Therefore, the Alliance recommends dedicated funding to expand mobile coverage in remote areas and importantly, the rational use of existing infrastructure and micro-cell technology (or similar technology) to lower the capital and operational costs.

Indeed, the remote landscape is littered with massive Telstra towers constructed to deliver voice services (HCRC) and microwave links. A collaborative approach and commitment to corporate responsibility to remote Australia would unlock these assets in order to realise better connectivity to remote towns and communities.

Getting the digital infrastructure right

Government must be congratulated for developing a national broadband policy. However, while it addresses fixed broadband, societal needs have progressed way beyond this. Government has largely ignored policy and program advancements outside the national broadband infrastructure. The

need for continued upgrade and to expand remote telecommunications infrastructure is evident. The NBN implementation fails to connect remote towns and communities in proximity to existing fibre-optic infrastructure to the terrestrial NBN network. The NBN technology choice policy offers communities (and individuals) the opportunity to change the government's policy choice for their premises. However, it places a financial burden on communities wishing to connect to NBN by way of terrestrial infrastructure. Furthermore, it is yet to be fully tested in terms of its affordability, flexibility and competitive pricing structure. The Alliance recommends the Australian Government commits to funding the connection of remote towns and communities to the NBN terrestrial infrastructure where existing legacy fibre-optic routes exists in close proximity.

The current $100 million Mobile Black Spots initiative of the Australian Government, aimed at improving mobile coverage and competition in regional Australia was welcomed. However $100M for an expected 300 sites is well short of the 8,000 nominated sites seeking funding. Additionally, the program is designed to provide in-fill and cover large population areas with sustainable markets such as transport corridors and tourist destinations, limiting the eligibility of small remote centres and low socio-economic areas. Government needs to invest in **remote** region black spot programs to address the provision of telecommunication infrastructure where commercial telecommunication companies require incentives to invest in priority new infrastructure.

The availability of modern telecommunications services affects the sustainability and economic growth of remote towns. Recruiting staff and staffing essential functions challenges many remote towns. For instance at Bedourie (Qld) a nurse upon alighting from the plane and discovering the town had no mobile service immediately declined to take up the clinic position and returned to her normal work place.

Long Term Satellite Solution

The Long Term Satellite Solution (LTSS) service has been marketed as the optimum solution for the 3% of remote Australians to access broadband services. Its success can only occur if end-user expectations match the reality of a fully loaded and utilised operational satellite service. However, to date, implementation remains unknown. Will the implementation program and processes learn from the digital TV implementation? Two examples are referenced. Staff contract terms are often short in remote communities,which means an LTSS service contract of two years presents a huge hurdle. Ownership of the LTSS satellite dish and the network termination device is contentious when a local council owns the residence to which it is connected and staff tends to reside there for no more than six months. It is difficult for an LTSS service contract to be appropriate if its term exceeds the employment term of its users.

Stakeholders need to be consulted in the design of services. Many issues need addressing: the details of a connection schedule; determining the order of connection; consideration of those on ISS/NSS plans; and the consistency of the cost of connections across all classes of user. We understand installation will be free; however, a number of charges may apply for other services (such as repair) and for travel to limited access locations depending on the location classification.

A NBN fair use policy based on the type of data (e.g. VoIP), peak and off-peak usage measured on a four week rolling period as well as a maximum usage over this four week period will be imposed. Will clinic and schools gain the bandwidth and service costs necessary? Service providers will not be allowed to offer plans that exceed the maximum usage allowance. Will premises with larger family numbers or students studying by distance education be penalised because they are likely to quickly reach the cap? Public Interest Premises (PIP), such as schools and health clinics, may have exemptions from this restriction, but the price structure is unknown.

Metropolitan Australians are now being offered online television and movies such as Netflix, Stan and Presto. Will the LTSS offer these services or will data restrictions deny access to these types of services? Consumers should be provided with information on these issues now. Broadband for the Bush is calling for better information to be made available to consumers.

Part 2 Access equity

Affordability is critical for the sustained take up of telecommunications services by vulnerable groups generally. Indeed, there are still a very significant number of households in Australia that do not have a home internet connection (17%).[6] This level is much greater among certain consumer segments, for example, Indigenous Australians living in remote areas, people with a disability, seniors and single parent families. In remote Australia, 75% of Indigenous households do not have an internet connection, a lower penetration than a country like Sudan.[7]

Mobile services affordability in the bush

A research study among low income families across metropolitan and nonmetropolitan Victoria showed that 66.0% of mobile phone users had difficulty paying their account and 61.7% of clients with a pre-paid account ran out of credit sooner than expected.[8] In remote Australia, pre-paid mobile and internet services are the preferred option for Indigenous and low-income people where coverage is available, as they enable people to manage usage costs. However, pre-paid mobile calls and data usage rates are significantly higher than for billed services. Mobile, data and pre-paid services are not covered under the Universal Service Obligation, which only provides cost equalisation for fixed line services and public phones. Indeed, the existing Extended Zones scheme assists by reducing the cost of fixed line voice calls within the caller's zone to the cost of a local call. The Alliance recommends that the Government introduce a subsidised structure equivalent to the extended zones scheme for voice calls originating from mobile services registered at remote locations.

Billing options and models for fixed broadband services

The NBN satellite products now being designed currently have no pre-paid broadband options. Given that pre-paid services are the preferred option for the majority of remote Indigenous households, the Alliance recommends that the Government and NBN work with satellite Retail Service Providers to introduce pre-paid broadband tariff models within the NBN Long Term Satellite service.

Part 3 Capability

The challenges and costs associated with accessing digital training programs and engaging with experts for remote Australians cannot be underestimated. The fact that many existing digital programs are targeted exclusively at NBN early release sites, explicitly precluding towns and local governments not in these areas, is further impending access to training for most remote Australians. There is a need to develop specific programs for remote Australians to ensure they have the opportunities to gain the skills to participate in the global digital economy. For example, 34% of SMEs in Australia do not have a website and a majority are located in remote Australia.[9] Programs to improve online presence and strategies for remote micro and small businesses should be given priority.

There is also a need for targeted Indigenous programs as high levels of digital inequality still exist in many remote Indigenous communities around Australia. The Indigenous Remote Communications Association (IRCA) highlights this point, saying, 'most remote Indigenous people currently have limited access and usage of ICTs', and further that, 'limited access to IT facilities, training, relevant on-line content and service delivery and affordable broadband services will increase the digital divide '.[10] There is an opportunity, through appropriate use of the NBN and targeted programs, to build digital literacy and engagement and significantly improve remote Indigenous communications and capacity.

Conclusion: the need for a Remote Telecommunications Strategy (RTS)

It is critical that remote Australians have equitable access to broadband infrastructure, mobile services and digital literacy programs, as do other Australians, to enable participation in the digital economy. Policies and strategies aimed at the majority of Australians who live in major cities are not appropriate for remote and rural Australia where there is market failure and very different circumstances. Therefore, in order to tackle the challenges and issues described in this paper, the Alliance believes there is a need for a dedicated strategy for unlocking the digital potential of the bush. It is time to act and commit the resources necessary to develop and implement a Remote Telecommunications Strategy (RTS), which will ensure that remote Australians are not left behind. A RTS requires a multi-pronged approach that addresses mobile coverage, appropriate infrastructure, pricing and digital literacy issues. A successful RTS needs to be developed through a partnership approach. This would

involve active collaboration between the Australian Government, NBN, telecom companies, businesses and service providers, regulators, state and local governments, community stakeholders and the Alliance. The Alliance is keen to actively assist with the design and rollout of appropriate programs to ensure that remote Australians are able to fully reap the benefits of the worldwide digital revolution.

Telecommunications infrastructure in remote Australia should receive government support under frameworks similar to those for roads, essential services. Market failures in meeting remote user expectations are a reality. Remote Australia contributes substantially to Australia's GDP through mining, cattle production, agriculture and tourism. We should be in the business of encouraging people to move to the outback and not be complacent about shrinking remote populations.

References

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9.   Source: ACCAN presentation 2015

10.   Indigenous Remote Communications Association submission to 2011-12 Regional Telecommunications Review, p12

Presenters

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Ray Heffernan established Aston House Consulting Services to provide strategic advice to government and industry on the digital economy and on telecommunications matters. This followed a career in Telstra spaning technical, administrative marketing and sales roles. When the Commercial Manager with CYDN he undertook the development of managed internet and IT service to Indigenous communities in Cape York. Ray also has served as a Board member of a vocational education institution guiding its commercialisation framework and practices. Ray is a Director of ESU (QLD) and is a member of the GoDigitalQld business collaboration group that is working to the government's vision for a most digitally-interactive state and to be a digital innovative hub.