Submission to the Productivity Commission Issues Paper June 2016
Telecommunications Universal Service Obligation

Summary

The starting premise, for the government's consideration as to Australia's future requirements, is that the conversation should not be about *voice* services but more broadly as to what is necessary to enable access to *internet* services. Enabling access to internet services necessitates enabling access to the internet *per se.* In order to achieve appropriate access, the requisite mindset is one that, similarly to electricity and water provision, treats the provision of access to the internet as access to a *utility service*.

Acknowledging that, again similarly to the provision of water and electricity, access to the internet can be enabled by a variety of means, the focus should be on *what* is delivered (i.e. access to the internet, and thereby access to the various services, information and communications that it enables) and not on *how* it is delivered (i.e. cables, WiFi, mobile phone technologies, or something not yet invented). This also will assist with drafting the policy and related law/s, which will implement the policy, as it will enable these to be written in a technology neutral manner. In turn this will assist with future proofing both. The result being that these then will be best positioned to adapt to, and encompass, future developments.

The primary objective of a future policy should be to enable access to information and services (including VoIP) by those who want to access as, when and from where they require that access. Government's attention, while needed as to how to transition from the existing USO commitments and provider, including ensuring provision of those services; should not be distracted from the need to create a policy for the longer term. Australia should grasp the opportunity to create a policy that is future proofed and without the baggage or concerns arising with the current USO. In this regard the new policy would be better called a *universal access and service* policy as this moves Australia from the past; focuses on what it enables (rather than the obligation on the entity tasked with the enabling); and is not merely restricted to voice services.

Although lessons may be provided from the experiences of oversees jurisdictions, these are of limited assistance and should be considered with caution. It is a geographic and economic reality that, as regards internet access provision, there is in fact not one jurisdiction that replicates the Australian conditions as to smallness of its total population; its dispersed population bases and focus on coastal fringes; or its other geographic extremes. Importantly, this is likely to mean that the appropriate provider will be one entity – or the government itself – in order to ensure the economies of scale necessary for this utility service provision.

In regards to the cost of UAS provision, this is one that Australia needs to accept as a necessary burden for its future effectiveness; and social and economic prosperity. While this burden ultimately is one for consumers, it is a cost that they already have indicated they would be willing to bear. In any event, while the economic loss from a lack of access may be able to be measured, the true future benefit from enabling social inclusion cannot.

Finally, government intervention in this process is *essential* not optional. While the market and commercial interests have a role in enabling internet access and service provision, current experience evidences that in many areas and for many persons, access will not be enabled absent specific and easily enforceable legislated obligation.

Recommendation

That: Australia adopts a *universal access and service* policy, which enables access to the internet *per se.*

Rationale

Australia's needs must be considered in the context of its ever growing population and where this is, and will in the future be, located. Growth will lead to increased urbanisation, both by migration to existing cities and increased urban sprawl. Concurrently, improved telecommunications facilitated by the ongoing roll-out of the NBN will see rural and regional population bases become more significant as their residents, no longer needing to commute for work or education; will remain more engaged within their local communities.[1]

Expanding communities will need appropriate infrastructure established in new areas, and retrofitted in existing areas, to support residents in the digital economy. These are required to be provided in rural and regional areas at the same time as in urban areas. Digitally skilled citizens will be crucial for Australia's future.[2] However, these persons can be supported by ICT only if they are enabled to engage with it.[3] Issues of access to appropriate infrastructure, or rather lack of access, can have serious impacts for regions and thus for Australia as a whole.[4] The current cost of infrastructure provision in combination with an aging population base, lower incomes and other issues of social exclusion is creating a new digital divide.[5] This problem requires specific attention as a government priority. The need for a minimum level of access in rural and regional areas to essential infrastructure found more commonly in urban areas is vital for Australia's future social and economic growth.

Separate from the need to ensure access to the internet and its services, the ongoing regulatory matters that will require specific attention include ensuring privacy and data security;[6] enabling digital inclusion (including ongoing digital literacy); and maintaining effective market functioning. There is a need also to ensure integration with existing infrastructure; and to address issues of ongoing governance responsibility once implementation is completed. Ensuring that the appropriate policies are developed in an inclusive manner[7] and that these continue adequately to address ongoing issues of network governance will be vital.[8]

Noting the particular difficulties facing rural and regional Australia, metropolitan and urban areas are presented with their own problems.[9] Related infrastructure will be more effectively

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[1] Cradduck, L. (2015). *Individuals, Innovation and the Internet: Why access is essential,* Champaign, IL: Common Ground Publishing.

[2] Belanche, D., Casló, L. & Orús, C. (2016). City attachment and use of urban services: Benefits for smart cities, *Cities,* 50, 75–81.

[3] Cradduck, n1.

[4] Repko, J., & DeBroux, S. (2012). Smart Cities, *IMT 598 Spring 2012: Emerging Trends in Information Technology*, 1–18.

[5] Park, S. (2016). Digital inequalities in rural Australia: A double jeopardy of remoteness and social exclusion, *Journal of Rural Studies*, Available online 13 January 2016, ISSN 0743-0167, http://dx.doi.org/10.1016/j.jrurstud.2015.12.018.

[6] Almeida, V., Doneda, D. & Monteiro, M. (2015). Governance Challenges for the Internet of Things. *IEEE Internet Computing,* 10(2), 56–59.

[7] Althaus C., Bridgman, P. & Davis, G. (2013). *Australian Policy Handbook,* 5th ed. Crows Nest: Allen & Unwin. World Economic Forum (2016).

[8] The Global Information Technology Report 2016, xii –*"Key Finding 4: A new economy is shaping, requiring urgent innovations in governance and regulation."*

[9] As a resident of the Sunshine Coast, the message I would receive from the NBN Co website (most recently on 24th June at 1:53 pm) was: *"The rollout of the nbn™ network has not started in this area."* Today (20th July 2016) the message I received at 1:38 pm is *"Good news, construction of the **nbn™** network started in your area using fixed line technology. Construction takes approximately 12 months, on average, to complete."* Fixed line technology is hyperlinked, which takes the reader to the following:

> *What is fixed line technology?*
>
> *Fibre optic cable is inherently capable of supporting high bandwidth, and will replace some of the existing copper wire and HFC networks which use electricity to transfer data to run telecommunications services in Australia.* Faster, reliable broadband can bring a wealth of benefits including; multiple users being online at the same time and at the same fast speeds, short download time, quick upload time and a smooth online experience**.*
>
> *The fibre may run to the premises, or to nodes/pillars in neighbourhoods.*

established within a considered urban planning environment;[10] however, it will be necessary both to manage and use existing infrastructures; and support individuals in their use. Successful implementation of any development is achieved more easily in a greenfield area, without the constraints of dealing with existing infrastructure and systems.[11] Nonetheless, by necessity, infrastructure will need to be retrofitted into established areas.[12] This requires government-community coordination supported by appropriate policy and regulation.

Enacted to benefit consumers by affording users a 'provider of last resort' for telephony services, the current USO arguably is of limited assistance to the individual in the digital economy.[13] Despite the ongoing rollout of high speed broadband and the accompanying debates, (for example those of cost and infrastructure construction) the USO continues to apply *only* to *voice* (or voice equivalent) telephony services and does not extend to impose upon any party similar obligations with regard to broadband (or any other means of accessing the internet) or access to the internet *per se*. It is submitted that this is short-sighted as it fails to appreciate that in order to have a fully functioning digital economy, the maximum number of individuals must be enabled to – and in fact – operate in that economy.[14]

The ability to access internet content and services is essential for work, play and everyday life. For those with disabilities or located in remote areas appropriate internet access enables a level of engagement with information, friends and government that otherwise is not possible. It is through use of internet services therefore that fundamental human rights are enabled. However, in order for the internet to be an enabler of those rights, access to the internet first must be enabled. It is important that all members of Australian society are enabled to participate in and with the increasing number of services that are more easily enabled via the internet. Those with appropriate access may engage with government, business, family and friends more easily, which can lead to an improved standard of living. However, for those with limited or no access to the internet, this can be socially isolating.[15] In the circumstances when everyday more communications, and government and business activities and services are moving online,[16] existing regulatory frameworks are inadequate.[17]

> ****nbn** is replacing most of the traditional landline networks for phone and internet services, including copper and the vast majority of HFC networks. Services provided over existing fibre networks (including in-building, health and education networks) and some special and business services may not be affected. To find out if your services will be affected, please contact your current phone or internet provider. For more information, visit www.nbn.com.au/switch or call 1800 687 626*
>
> *** Your experience including the speeds actually achieved over the **nbn™** network depends on the technology over which services are delivered to your premises and some factors outside our control like your equipment quality, software, broadband plans and how your service provider designs its network.*

Considering how long it took to be able to access ADSL2, I am not holding my breath to connect any time soon.

[10] Bakıer, T., Almirall, E., & Wareham, J. (2013). A Smart City Initiative: The Case of Barcelona, *J Knowledge Economy.* 4(2), 135–148.

[11] Angelidou, M. (2014). Smart city policies: A spatial approach, *Cities,* 41, S3-S11.

[12] Edwards, L. (2016). Privacy, Security and Data Protection in Smart Cities: A Critical EU Law Perspective. *European Data Protection Law Review* (Lexxion) Forthcoming. http://dx.doi.org/10.2139/ssrn.2711290

[13] See – DCITA 'Review of the operation of the Universal Service Obligation 2004 – Terms of Reference', *http://www.archive.dcita.gov.au/2009/june/review_of_the_operation_of_the_universal_service_obligation_2004/review_of_the_operation_of_the_universal_service_obligation_-_terms_of_reference* (accessed 24/06/2009). It was previously accepted that *"the Regional Telecommunications Inquiry (RTI) finding 7.3* [is] *that the USO 'is not an effective mechanism to provide broad consumer access to an increased range of services into the future'."*

[14] Cradduck, L. (2011). *The Future of the Internet Economy: Addressing Challenges Facing the Implementation of the Australian National Broadband Network*, Professional Doctorate thesis (SJD), Faculty of Law, QUT.

[15] McLaren, J., & Zappala, G. (2002). "The New Economy Revisited: An Initial Analysis of the Digital Divide among Financially Disadvantaged Families." *The Smith Family,* Background Paper No. 5. http://www.orfeusresearch.com.au/web_images/Background_Paper_5_TSF.pdf; Wise, S. (2013). "Trying to connect: Telecommunications access and affordability among people experiencing financial hardship." Report, Anglicare Victoria and ACCAN, September 2013.

[16] Cunningham, S. (2011), 'Broadband, the NBN and screen futures', *Media International Australia,* vol. 140, pp. 16-21; Smart, W. (2012). 'Bring on the Broadband – Regional Australia', *Australian Quarterly*, vol. 83, no. 1, Jan/Mar 2012, pp. 4-10.

The level of individuals' access to the internet is directly relevant to the health of the Australian digital economy, which in turn is directly relevant to its 'real world' economy.[18] However, while more and different types of services are becoming available online, the same information / services are less readily available offline. In order for Australia's economy to function properly it will require an increase in the number of Australians who have the necessary skills to participate in its *digital economy*[19] and who have the necessary financial capacity so to do. To achieve this goals some consumers will require more active and realistic assistance that is currently available.[20]

Some jurisdictions have taken the initiative to extend their USO to the internet – Brazil is one example.[21] Several countries also have separate broadband USO policies. These include Chile and India;[22] Jordan, Malaysia and Pakistan;[23] the United States[24] and Spain.[25] It is suggest that, with an appropriate transition period, this is something that Australia could be achieved within the term of the current (and newly re-elected) federal government. While establishing UAS would, undoubtedly, be at a cost, this is one cost that many Australians would support.[26]

If the Australian government wants a fully functioning digital economy then they must take very basic measures to make this a reality. In the digital economy, restrictions on access to the internet are not justified. The establishment of a UAS for internet access *per se*, and not merely as a means of using voice telephony services, will mean that all individuals, irrespective of location, will be able to attain and maintain a level of physical access to the internet and that the financial cost of that access will not inhibit their future access and use.

Quite simply – the internet now is merely an *"essential service"* and as such *"should be treated as any other utility service"*.[27] It is for this reason and the reasons detailed above that Australia should adopt a *universal access and service* policy, which enables access to the internet *per se.*

Dr Lucy Cradduck
Buderim

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[17] Kariyawasm, R. (2007). *International Economic Law and the Digital Divide: A New Silk Road*. Cheltenham: Edward Elgar Publishing Limited.
[18] Cradduck, n14.
[19] Buckingham, D. (2007). 'Digital Media Literacies: Rethinking media education in the age of the Internet, *Research in Comparative and International Education,* vol. 2, no. 1, pp. 43-55.
[20] Cradduck, n1.
[21] Rauen, C., Hirtuka, C. & Fracalanza. P. (2011). "Universalization of telecommunications services: Public policies in the OECD and in Brazil." *International Journal of Development Issues* 10(2):108-122.
[22] Prasad, R. (2013). "Universal Service Obligation in the Age of Broadband." *The Information Society: An International Journal* 29(4):227-233.
[23] International Telecommunications Union (2012). "Trends in Telecommunication Reform: Smart Regulation for a Broadband World." Report, May 2012.
[24] Kruger, L., & Gilroy, A. (2013). "Broadband Internet Access and the Digital Divide: Federal Assistance Programs." CRS Report for Congress RL30719. July 17, 2013.
[25] Síndic de Greuges de Catalunya. (2013). "Broadband Internet Access as a Universal Service: Digital Equality." Report by The Catalan Ombudsman. Accessed August 12, 2014. http://www.sindic.cat/site/unitFiles/3461/Broadband%20internet%20access%20as%20a%20univesal%20service%20complete.pdf.
[26] BBC News (2010). 'Internet access is 'a fundamental right', 8 March 2010 – *"Australian respondents are among the most firmly convinced that internet access should be a fundamental right, with 85 per cent agreeing that this is the case."* http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/08_03_10_BBC_internet_poll.pdf
[27] House of Lords (2015). "Make or Break: The UK's Digital Future", *House of Lords Select Committee on Digital Skills,* Report of Session 2014-15, HL Paper 111, 17 February 2015, p.29 at Paragraph 43:

> ***We agree with our witnesses who urged that the Government should define the internet as a utility service that is available for all to access and use. This is the bedrock of digital competitiveness.***

Also see p.95 at Paragraphs 305-306:

> *305. Objective 1: The population as a whole has unimpeded access to digital technology.*
> *306. This includes:*
> *(a) facilitation of universal internet access: the internet is viewed as a utility; and*
> *(b) removal of 'not-spots' in urban areas.*

20 July 2016