

From Universal Service to Universal Communications

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Abstract: The policy of universal service must change. The 1975 world of a government-owned monopoly provider obligated to provide fixed line voice telephony has been replaced by the twenty-first century reality of Australians using fixed, mobile and text communications over a range of communications equipment and services provided by competitive providers. A new universal service must reflect those changed realities, and with it, the changed environment of a national broadband network, with competitive providers offering service and equipment choice.

Introduction

Australia needs a fundamental re-think of its USO policy in view of the 10 years of experience with competition policy in telecommunications and the need to ensure equity for consumers in national broadband policy ([Barr 2007](#), 31.1)

It is a view shared by the regulator ([ACMA 2011](#), 28), the Department of Communications ([DBCDE 2010](#), 2-4), industry ([Optus 2015](#), section 3), consumer groups ([ACCAN 2011](#), particularly 4-5), academics (for example, [Goggin 2010](#)) and the Parliamentary Secretary for Communications ([Fletcher \(2015\)](#), 5)

The concept of government policy mandating the supply of communications infrastructure and services throughout Australia began in the very different world of 1975. It was a world where the basic public switched voice traffic service was provided by the Government-owned, the newly formed monopoly provider, Telecom Australia, to roughly five million telephone subscribers, out of a population of 15.8 million ([Davidson Inquiry 1982](#), 36; [Grant & Raiche 2012](#), 386-395). In today's world, there are more telecommunications services subscribed to than Australians. Over 80% have an Internet connection. Increasingly, communications services are Internet based, and accessed on a computer or mobile device ([ACMA 2014](#), particularly 34-49). They will be provided in a market where there will be a government-owned monopoly provider of transmission infrastructure to the premises, supporting the provision

of retail services to customers, alongside providers of infrastructure and services for mobile telephony.

The original policy goals for universal service were placed on Telecom Australia to make telecommunications services available throughout Australia, so far as it was, in Telecom's opinion, 'reasonably practicable to do so' (noting the special needs of Australians who 'reside or carry on business outside the cities) in ways that 'best meet the social, industrial and commercial needs' of all Australians (*Telecommunications Act 1976*, s. 6).

Those policy goals are still sound. However, the existing regulatory framework for the Universal Service Obligation (USO) must change to reflect the realities of a different legislative framework and twenty-first century communications. Specifically, the following three elements must be reconceptualised:

- The service that must be provided;
- The provider of both the infrastructure and service; and
- How the costs of providing the infrastructure and services are met.¹

Service Definition

The original universal obligation was to provide a 'fixed line standard telephone service' that provided automatic connection for local and national calls. (*Telecommunications Act 1976*, s6. See also [Raiche \(2010\)](#) p. 2 for later definitions).

The current definition is far simpler and technology neutral: it is 'carriage service for the purpose of voice telephony (or its equivalent for people with a disability) that passes the 'connectivity text' (*Telecommunications (Consumer Protection and Service Standards Act 1999* (T(CPSS)A) s. 6). Under legislation, both public mobile telecommunications services and Voice over IP (VoIP) services can be supplied in fulfilment of the USO, but only after the customer has agreed to their supply in fulfilment of that obligation (T(CPSS)A s. 6A).

The peak telecommunications consumer body ACCAN's policy position is clear:

Broadband for all: Policies need to be developed to ensure high-quality, affordable broadband can be accessed by all Australians who want it ([ACCAN \(2014\)](#), p. 2).

Former Communications Minister Turnbull, now Prime Minister, is quoted as saying:

. . . nobody is suggesting there should not be universal access to affordable broadband as well as voice, so the question then is: how do you define broadband and what is affordable ([Fell 2011](#) , p. 7).

Indeed, the Government recently established a Digital Transformation Office that **assumes** public access to broadband. Quoting the Prime Minister again:

People need to be able to transact services and access information anytime, anywhere. Like any other service industry, government should design its services in the most user-friendly way. Interacting with government should be as easy as Internet banking or ordering a taxi through an app ([Abbott & Turnbull 2015](#), 1).

The Prime Minister's question needs to be answered: in legislative terms, how should broadband – the service that should be universally accessible throughout Australia – be defined? One of the early definitions of 'broadband' was part of the 'broadband service guarantee', where a 'metro-comparable' broadband service was defined as providing download speeds of one megabit per second down load and 256 kilobits per second upload speed (Raiche 2010, 5).

Since the introduction of the national broadband network (NBN), Governments have adopted policies for the delivery of far greater speeds for Australia. Indeed, the Coalition's election commitment was:

Our aim is that everyone in the nation should have access to broadband with download data rates of between 25 and 100 megabits per second by 2016, and between 50 and 100 megabits per second by the end of 2019 in 90 per cent of the fixed-line footprint – although it should be noted this goal in part depends on NBN Co delivering its current satellite and fixed wireless solutions on time and on budget ([Coalition 2013](#), 6).

Former Parliamentary Secretary to the Minister for Communications, The Hon Paul Fletcher's speech to an ACCAN conference adds to the discussion:

To take one example, the service that NBN delivers over the fixed wireless network is a data service. However, most service providers are also offering a voice over IP telephony service. Therefore if the USO were mandated as a data service today, it would in practical terms also mean that the end user was able to receive a voice service.

Now a key question here is cost. If you had asked this question fifteen years ago, it would have been possible to extend the USO to mobile or to data – but that would have involved considerably greater cost. Today that may very well not be true. If the USO is framed in terms of a mobile service or a data service, that conceivably could cost less – on an individual service basis and a system-wide basis – than mandating the delivery of a voice service over the traditional

copper network ([Fletcher 2015](#), p. 6).

There is already a legislative definition. The term ‘superfast carriage service’, was introduced into the section 142A of the *Telecommunications Act 1997* (the Act) and is defined as a service that:

- Enables end users to download communications;
- The download transmission speed . . . is normally more than 25 megabits per second; and
- The service is supplied using a line to the premises occupied by the end user.

If the third element – the requirement for the use of a line – were eliminated from the definition, the term should be used to redefine the service that must be accessible to the public. It is technology neutral. Its required download speed is that which the Government has already committed to providing. It obviously provides access to both voice and data services. And more recent mobile technology delivers close to if not above those speeds now.

Provision of the USO

While there is a growing consensus on the need to upgrade the ‘service’ that must be universally accessible, how to ensure its delivery in the changed regulatory environment is a more vexed question.

Since its inception, Telstra has been the provider of last resort for both infrastructure and services to the premises. The implementation of the NBN necessarily changes that arrangement.

Infrastructure Provision

Over time, the NBN will be the provider of transmission infrastructure, taking over the role that, up to now, Telstra has filled. Specifically, the ‘Definitive Agreements’ between NBN Co and Telstra provide for the transition from Telstra’s largely copper infrastructure to the premises, to NBN Co’s network. Under the Agreements, NBN Co will progressively take ownership of Telstra’s copper and networks, potentially using that infrastructure as part of its infrastructure to the premises.²

While there will be other providers of backhaul infrastructure, as well as infrastructure supporting the provision of mobile telecommunications services, in the end, it will be the NBN that provides access to broadband transmission capacity to the premises. Indeed, the Government’s stated intention is to legislate to make NBN Co the Infrastructure Provider of Last Resort on an area basis, once NBN Co has a ‘well established presence in that area

([Australian Government 2014](#), 10). At that stage, Telstra will become just another (if still large) retail provider of services to customers and the fixed network infrastructure ‘will be fundamentally broadband, not Telstra’s copper network’ ([RTIRC 2015](#), 46).

The transitional arrangements for migration to the NBN, however, complicate development of new structures for a universal service regime.

The Telecommunications Universal Service Management Agency (**TUSMA**) was established in 2012 to administer the provision of ‘public interest’ services, including the provision of a standard telephone service. In essence, TUSMA would take over oversight of the USO (and other public interest services) from the ACMA (*Telecommunications Universal Service Management Agency Act 2012 (TUSMA Act)*, ss 11-13). Three years later, TUSMA was abolished and its functions transferred directly to the Department (*Telecommunications Legislation Amendment (Deregulation) Act 2015*, Schedule 1, Part 2).

In its lifetime, however, TUSMA, on behalf of the Department, entered into a contract for Telstra to provide public services including the USO, for twenty years, at an approximate cost of \$6.4 billion over the life of the contract. Part of that contract is for the delivery of a standard telephone service over the NBN, at a current value of \$253 million a year, or over the 20 year period, \$5.06 billion. Telstra also receives funding to operate and maintain its existing copper network to provide the standard telephone service in areas where NBN will not deploy fibre ([Department of Communications 2015](#)).

The outcome looks to be a nonsense. The Government owned NBN Co is charged with implementing Government policy of providing broadband transmission capacity that is accessible to all Australians within a few years. Yet Telstra is charged with maintaining its copper network for twenty years.

Quoting the Optus submission:

Notwithstanding that the current USO policy arrangements appear to be locked in under contractual arrangements there is a compelling case to review the relevance and appropriateness of the current arrangements against alternative models ([Optus 2015](#), Para 5.2)

The proposed Optus solution: NBN infrastructure should become the ‘primary mechanism’ for ‘ensuring connectivity’, and that it takes over Telstra’s copper network outside of the fibre footprint, using it when other infrastructure does not provide an adequate service ([Optus 2015](#), Para 5.5).

Prof. Reg Coutts has proposed another model. The universal service to be provided should be ‘equivalent (fixed) broadband’, but include mobile service as a policy objective. Under his

Stage One of a reformed USO, NBN Co would become the wholesale provider of infrastructure, with the existing mobile 'black spots' program reviewed. The next stage would include mobile services as part of the service to be delivered, with targeted subsidies to achieve policy goals. The final stage would be a converged USO providing broadband for both fixed and mobile services. ([Coutts 2015](#), slide 5).

The RTIRC also report questioned whether the NBN solution for provision of its service to premises is always the most appropriate solution. In indigenous Aboriginal communities, for example, individual access to broadband is better provided by mobile connectivity or WiFi than by satellite services ([RTIRC 2015](#), 34).

Before the Government abolished TUSMA, section 23 of the TUSMA Act required that TUSMA's "public interest" and other related functions be reviewed. That review should proceed. One of its most important terms of reference must be the goal of only one provider of broadband infrastructure of last resort to all Australians – NBN Co, but with flexibility to provide the most appropriate broadband infrastructure for different communities in Australia.

Service Provision

NBN Co must remain a wholesale only provider of infrastructure; it cannot provide retail services to end users (*National Broadband Companies Act 2011*, s. 9). If, as suggested above, NBN Co is made the universal provider of infrastructure, the next obvious issue is whether there should also be a universal obligation in relation to service provision.

As discussed above, the transmission capacity to support 'superfast broadband' should be accessible throughout Australia. The question of whether the provision of a service should be mandated is a more difficult one. Increasingly, Australians are making different choices for their communications services; the increasing use of mobile services for voice, the use of fixed line services for broadband, or other combinations of technologies and services attest to that.

There may also be room for other categories of providers: a service provider for a specific geographic area, a provider of specialised services for people with disabilities, or a provider of high quality, low cost voice only (or broadband only) services. There should be room for a range of different categories of providers, and customer choice to meet their particular communications needs.

The fact of existing broadband infrastructure in an area does not, however, guarantee that services will be offered on a retail basis to customers there; the business case to do so may not exist.

One solution may be that a retail provider is declared by the Minister to be the universal provider of service to that area, with cost recovery possible under a modified USO levy scheme.

Another possibility would be similar to the former Australian Broadband Guarantee Scheme under which a minimum level of services is provided at a set price, meeting consumer protection requirements, as proposed by the Regional Telecommunications Review (RTIRC 2015, 47-51). It should then be eligible for Government subsidy support (see [Raiche 2010](#), 5). In either case, minimum consumer protections should apply.

Meeting the Cost(s) of the USO

Funding universal service provision (infrastructure and services) is not an issue for Governments in a monopoly provider environment. The monopoly provider (whether Government or privately owned) can cross-subsidise those areas/customers that are difficult and/or expensive to serve with its more profitable services. Once competition is introduced, however, competitors to the incumbent provider target more lucrative markets in terms both of customers and locations ([Minister for Transport and Communications 1988](#) paras 3.29-3.31). Since the introduction of competition in telecommunications in Australia, that issue has been addressed through the universal service levy scheme, with 'eligible' providers providing a proportionate share of their 'eligible' revenue to the USO provider for the provision of loss making infrastructure and service (T(CPSS)A Part 2, Divisions 13-14).

In an NBN environment, the costs of providing infrastructure and services must be considered separately: NBN Co will be the universal provider of infrastructure to premises, but cannot be the provider of services. And clearly, the costs of providing universal infrastructure will be significantly different from those for providing services over that infrastructure.

Loss-making Infrastructure

The Government has begun the process of identifying the costs involved in providing infrastructure, as well as how those costs can be met.

The Bureau of Communications Research (BCR) has issued initial and final consultation papers, seeking input on the costs of providing loss-making infrastructure in regional Australia and on cost recovery methodology for recovery of those costs ([BCR 2015](#), 7). Specifically, the paper looks at the cost issues for the provision of fixed wireless and satellite services to regional and remote Australia.

The fixed wireless and satellite NBN networks are non-commercial largely as a result of the high cost needed to achieve successive government requirements for high-speed broadband to be delivered across Australia. Meeting the required coverage and performance standards requires significant capital investment. Revenue opportunities are limited given the small number of

customers served, current pricing arrangements and infrastructure competition
([BCR 2015](#), 15)³

The RTIRC Report also raised the issue of funding loss making infrastructure and services. Its recommendation was for a new 'Consumer Communications Fund' that would:

... replace the current USO levy scheme and support 'loss making regional infrastructure and services with scope to include subsidy arrangement for the non-commercial NBN services (Satellite and Fixed Wireless) as well as social equity elements that merit funding...(RTIRC 2015, Recommendation 9 p. 54)

Even confining the BCR's examination of 'loss making areas' to regional Australia, there are significant issues to be decided including the methodology of determining 'loss', the granularity of the loss making areas, the period over to which to determine loss, etc. ([Bureau of Communications Research 2015](#), Chapters 2-5). After the BCR reports to Government in 2016, Government will need time to consider the Report's recommendations as well as recommendations from the RTIRC report and other relevant findings. It will therefore be some time before there is clarity in whether and to what extent NBN's provision of infrastructure will cost, how that cost is determined, and how it is paid for.

Loss-Making Services

Until now, the calculation for determining loss-making services under the USO has included the provision of both the underlying infrastructure and the service. In the NBN regulatory framework, the two must be disaggregated.

The BCR's study is looking at the costs of providing infrastructure and the underlying access services that NBN Co will supply to retail service providers. While clearly those access costs will be a significant component of the overall cost to retail providers of providing services, there will be other costs involved, depending on the services on offer.

As argued above, a minimum level of broadband **service** should be accessible from all Australian premises. It can then be left up to each customer as to the choice of service(s) they subscribe to, including whether the service includes voice, voice and text, or text only, and at speeds that address their particular circumstances.

There may still be areas where service provision is uneconomic. For those areas, there could be a subsidy scheme, similar to the Broadband Service Guarantee scheme. Specifically, providers of broadband services (at a minimum quality level and affordable price) could be subsidised for the provision of the minimum service to areas where it is otherwise not economic to do so.

The Way Forward?

There is no question that the 1997 version of the USO does not reflect the way people communicate, the technology they use or the new regulatory framework.

At the least, a newly imagined universal service obligation must reflect the reality that people make very different choices in the communications equipment and services they use. It must reflect the reality of an NBN world where the provider of last resort for infrastructure is, at law, different from a service provider or providers of last resort. And compensation (a levy scheme, or government subsidy, for example) for the infrastructure provider of last resort must be very different to any assistance given to service providers.

Quoting Fletcher:

We will not find the answers overnight – and we are keen to hear the perspectives of stakeholders including of course those who will speak at today's conference.

The government does not have a concluded view about what changes, if any, we would like to make to the USO. But we are certainly open to asking the question of whether the USO arrangements could be varied to do a better job of achieving their underlying policy intention: providing Australians reasonable access on an equitable basis to telecommunications services wherever they live. ([Fletcher 2015](#), 5)

The questions have been posed for some time. It is time to develop the answers.

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Endnotes

¹ There are other important issues that must be addressed to ensure the service is truly 'accessible' to all Australians, such as service quality, disability access and affordability. See, for example, [Goggin 2010](#). This paper will, however, only deal with the three issues listed above.

² [NBN Co Limited 2011](#), 1. A summary of the agreements are included in the release and cover NBN Co's use of Telstra's infrastructure, access arrangements, switchover provisions, and NBN's progressive payment to Telstra, expected to total approximately \$9 billion. The definitive agreements were updated in 2014 to implement the new Government's policy of an NBN that is a multi-technology mix of fibre, copper and HFC cable to the premises. See [Turnbull and Cormann 2014](#), 1.

³ The paper notes comments made by NBN Co that the BCR study has limited its inquiry to fixed wireless and satellite services, ignoring the cross subsidies 'likely to be inherent within the fixed line footprint due to geographic pockets of non-commerciality' ([BCR 2015](#), 15).