Australia’s largest telco, the former Government-owned and former monopoly Telstra, is required to fulfil the Universal Service Obligation. This entails: ensuring that all Australians have access to a basic telephone service at standardised and in some cases subsidised prices; providing payphones throughout Australia: answering calls to the 000 and 112 emergency services numbers and ensuring that these are passed on to the appropriate emergency services. Other telcos contribute to Telstra’s costs in proportion to their ‘eligible revenues’.

The legislative system governing the USO is being changed because of radical changes in the Australian telecommunications network that make the current scheme no longer appropriate. The Australian Labor Government has committed to building a National Broadband Network (NBN) that will connect 93 percent of premises with fibre to the premises (FTTP). The legacy copper pair access network owned by Telstra will be progressively shut down in FTTP areas and services provided over that network by Telstra and others will transition to the NBN. This paper examines the history of universal service in Australia, the new USO regime developed for the NBN era, Telstra’s role in it and the criticisms the Government’s chosen approach has attracted, with a particular focus on the standard telephone service.

**INTRODUCTION**

The Australian Government has created a new body, the Telecommunications Universal Services Management Authority (TUSMA) to ensure the provision of subsidised telephone services to remote Australians and the provision of other socially necessary services such as payphones, a transcription service for the hearing impaired and the ‘triple zero’ emergency call service. These services are known collectively as the Universal Service Obligation (USO).

The former monopoly telco, Telstra, is presently required as a condition of its carrier licence to provide the USO, except for the transcription service, known as the National Relay Service (NRS), which is contracted out by the Government. The costs incurred by Telstra and the cost of providing the NRS are met by levies on all licensed telecommunications carriers and on service providers in proportion to their share of ‘eligible revenue’. (A carrier licence is required only if a service provider owns transmission infrastructure over which public communications systems are delivered).

Changes to the way these services are delivered, managed and paid for are being made because the government-owned National Broadband Network (NBN) will change the role of Telstra from being the owner of the primary terrestrial customer access network of copper wire pairs to being one of many providers on the wholesale-only NBN.

However many industry participants believe that the new regime has been developed and put in place with minimal consultation and that an opportunity has been missed for a more radical reform of the universal service regime that could have incorporated the potential of the new
NBN, recent technology developments, the popularity and reliance on mobile communications and the experience gained from the 20 year history of the current universal service regime.

This article will briefly review the history of the universal service regime and examine the issues around the new regime for the NBN era, with a particular focus on provision of the standard telephone service (STS).

**HISTORY OF THE USO IN AUSTRALIA**

The concept of a ‘universal’ telephone service in Australia – the idea that the service should be available to people living in the most isolated locations at the same rate as their city-dwelling cousins – is as old as the nation itself.

When the Postmaster General’s Department (PMG) was created in 1901 in the wake of Australia’s transition from separate British colonies to a federation of member states, the PMG’s commissioners “recognised that the country’s communication system should be treated as a complete financial proposition in which those parts of the service that made a profit should sustain and cross-fertilise those that did not” (Moyal 1984, 101).

Under the PMG’s monopoly such a system created relatively few problems: there was no danger of competitors ‘cherry-picking’ low cost areas by undercutting rates that were inflated to subsidise high-cost services in other areas. Nevertheless questions were asked about the costs of the subsidy (Moyal 1984, 223), which were never disclosed, and about just how far the subsidy should extend. For example, whether the full cost of connecting a very distant customer to the nearest telephone exchange should be met by the subsidy (Moyal 1984, 202).

When the PMG’s department was split into the Australian Post Office and The Australian Telecommunications Commission (Telecom Australia) in 1975 Telecom inherited the responsibility for universal service provision – then known as the Community Service Obligation – and in its 1979-80 report made its first public declaration as to the cost: it claimed $200m for the year (Moyal 1984, 375).

With Telecom enjoying a monopoly of all domestic telecommunications services this figure was really only of academic interest. However when in 1988 the Government moved to introduce limited competition to Telecom it was deemed necessary to define precisely what services should be subsidised and the cost of doing so (Evans 1988, 42).

That regime was created by the *Telecommunications Act 1989* and associated legislation, but was short-lived. In 1989-90 the government moved to create full competition to Telecom by selling a second fixed and mobile telecommunications carrier licence and a third mobile carrier licence.

Optus Communications obtained the second fixed and mobile licences in late 1991 and launched services in early 1992. The third mobile licence went to UK-based Vodafone Group. Telecom was merged with the government-owned international carrier, the Overseas Telecommunications Corporation (OTC) and renamed Telstra.

The Government then instituted a regime under which the cost incurred by Telstra in meeting the USO was assessed, and met by a levy on Telstra, Optus and Vodafone in proportion to their share of traffic.

This USO regime persisted until the *Telecommunications Act 1997* that ended the era of limited carrier competition and enabled any organisation to apply for a carrier licence, roll out infrastructure and compete for customers. The 1997 legislation introduced some changes to the USO regime:

- It defined precisely the standard telephone service that had to be provided by a USO carrier, specifying that it must include voice-equivalent services for people with disabilities unable to use voice telephony;
• It made the Minister holding the communications portfolio responsible for selecting USO carriers by either geography or service type (e.g., payphones, services for the disabled).

Further changes were introduced with two additional pieces of legislation in 1999 and 2000.

**TWO DECADES OF CONTROVERSY**

Throughout its 20-year history the USO regime has been dogged by conflict and controversy: over the cost; over what exactly should be provided; and who should provide it. The regime was described recently by one intimately involved as “a quagmire of confused policy for 20 years.” (Senate Enquiry 2012, 201).

In June 2007 the Minister for Communications in the Liberal/National Party Coalition Government, Senator Helen Coonan, announced a comprehensive review of the USO regime (Coonan 2007), but shortly after the period for submissions had closed on 1 November 2007, the Coalition lost power to the Australian Labor Party in a Federal Election.

The incoming Labor Government’s first initiative on the USO front came in November 2008 when the Minister for Broadband, Communications and the Digital Economy, Senator Stephen Conroy, announced the USO subsidy for 2008-9, setting a figure of $145m similar to the previous year.

In making that announcement he said also:

“In deciding on future USO arrangements, it will be important that we take into account other developments. This includes the National Broadband Network, recommendations of the Glasson Regional Telecommunications Review and submissions to the [former Coalition Government’s] USO review.” (Conroy 2008).

Thus began a process leading to the creation of the Telecommunications Universal Service Management Authority (TUSMA), which is due to commence operation on 1 July 2012, and a new regime for managing the delivery of the USO.

**AUSTRALIA’S NATIONAL BROADBAND NETWORK**

Under the NBN plan, 93 percent of Australian premises will be served by a passive optical network delivering downstream bandwidth of 100 Mbps, initially. Four percent of the remainder will be served by a TD-LTE fixed wireless network delivering 12 Mbps downstream, and the remaining three percent by satellite, also delivering services at 12 Mbps downstream. $600m is being spent on two geostationary satellites for this purpose and ten earth stations will be built around Australia.

The NBN is being built, owned and operated by NBN Co – a company wholly owned by the Federal Government and created for this purpose. The NBN will be a wholesale-only Layer 2 network and capacity on it will be sold to wholesaling intermediaries and retail service providers who will provide services to end user customers.

Telstra will become one of many retail and wholesale providers of NBN services over all three NBN networks: FTTP, fixed wireless and satellite. In the FTTP area Telstra’s copper network will be decommissioned but it will be retained in the wireless and satellite areas for the provision of the basic USO funded telephony service.

In addition to being an NBN service provider and agreeing to decommission its copper network in favour of the NBN, Telstra will have a key role in the NBN: the ducts that carry its copper network to customers will be made available for NBN fibre and its exchange facilities will be made available for NBN infrastructure. Telstra roles in the transition to the NBN and beyond are spelt out in multiple agreements between Telstra and the Government and between Telstra and NBN Co.
In the FTTP areas the customer premises equipment – the optical network termination (ONT) – will have four Ethernet ports enabling the customer to connect to up to four retail service providers and two analogue telephone ports that will provide a service equivalent to the current standard telephone service.

Customers will be able to take VoIP services from many service providers or to retain their PSTN service via these ports. However the traffic will be packetised and carried over the fibre because the copper will be decommissioned. In the event that a customer does not want any service other than basic telephony the provision of this service will be part of the universal service obligation.

AUSTRALIA’S NEW UNIVERSAL SERVICE REGIME

The new USO regime is enshrined in three Acts of Parliament:

- The Telecommunications Universal Service Management Agency Act 2011. This establishes the Telecommunications Universal Service Management Agency (TUSMA) as the statutory agency that will have the responsibility for the implementation and administration of service agreements or grants that deliver universal service and other public policy telecommunications outcomes. This Act also sets out TUSMA’s corporate governance structure and reporting and accountability requirements and provides for the minister holding the communications portfolio, subject to the scrutiny of Parliament, to set the standards, rules and minimum benchmarks for TUSMA’s contracts and grants, and sets out arrangements for consolidating the two current Universal Service Obligation (USO) and National Relay Service (NRS) industry levy regimes into a single regime.

- The Telecommunications Legislation Amendment (Universal Service Reform) Act 2011. Its main purpose is to make amendments to telecommunications and related legislation (including the Telecommunications Act 1997, the Telecommunications (Consumer Protection and Service Standards) Act 1999, and the Australian Communications and Media Authority Act 2005) needed as a result of the new USO regime.

- The Telecommunications (Industry Levy) Act 2011. It imposes the industry levy that will replace the existing USO levy and NRS levy.

TELESTRA -TUSMA AGREEMENT KEY TO USO

There is also another key document. It is not public and there is no expectation that it will be made public. Telstra’s role in meeting the universal service obligation and in performing certain other public interest services is set out in an agreement between Telstra and TUSMA. It is one of four agreements signed between Telstra and the government relating to the transition to the NBN and Telstra’s role going forward. There are a further four agreements between Telstra and NBN Co. None of these agreements have been made public, and the Government has given no indication that this will change.

The thrust of the new legislation and the Telstra-TUSMA agreement is to progressively shift the legislated responsibility for provision of the USO from Telstra to TUSMA as the NBN rolls out, but to have Telstra continue to provide the USO (except for the NRS) under contract to TUSMA.

THE STANDARD TELEPHONE SERVICE UNDER THE NEW USO REGIME

To develop the new regime the Government held two rounds of public consultation. In October 2010 it issued a discussion paper ‘Implementation of Universal Service Policy for the transition to the National Broadband Network environment’ (DBCDE 2010). This was
followed by another, in June 2011 (DBCDE 2011): ‘Universal Service Obligation Legislative Reform for the Transition to the National Broadband Network’. Submissions were received from industry participants to both enquiries.

After the three USO-related bills had passed the lower house of the Federal Parliament and reached the Senate they were referred to a Senate committee of enquiry. It received further submissions and held public hearings. However it recommended passage of the bills with only a few relatively minor amendments (Senate Enquiry Report 2012, 28).

Submissions to these three processes – particularly those from the Australian Communications Consumers Action Network (ACCAN) – raised many concerns about the new USO regime. In its submission to the Senate Enquiry ACCAN said: “We continue to be frustrated that a broader conversation about the nature of universal service has been delayed until 2018 and that matters of public interest, such as the outdated definition of the Standard Telephone Service, have not been addressed in the policy processes that led to the development of these Bills.” (ACCAN 2011, 4).

If the inputs of ACCAN and others were largely ignored and an opportunity missed for a genuine and ‘back-to-basics’ review of the USO, it’s likely that USO reform was subsumed to the Government’s overarching goal of stitching up a deal with Telstra to ensure Telstra’s participation in the NBN. Certainly, without such a deal the $36 billion project would have been far more difficult, costly and uncertain. As regards the standard telephone service, there were two major concerns: that the new regime perpetuated the use of old technology with no immediate prospect of review and that there would be no opportunity for many years for any organisation other than Telstra to provide the service.

The legislation specifically gave TUSMA the option to look to other providers to fulfil the USO contracts, but the Telstra-TUSMA agreement ensured that Telstra would remain the sole provider for the next 20 years.

The Universal Service Reform Act specifically acknowledges the importance of opening the USO to competition in the NBN era, and the possibility of providing the service over the NBN rather than legacy copper.

“In an environment where all retail service providers are able, via the NBN, to offer high quality voice and high speed broadband services nationally, it is appropriate that the model for delivering universal service and other public policy telecommunications outcomes be reformed to facilitate the competitive supply of universal service and other public policy telecommunications outcomes. A regime that enables competitive supply arrangements will be of benefit to consumers and industry as it promotes more innovative, effective and efficient service delivery arrangements.” (Universal Reform Bill Explanatory Memorandum 2011, 3).

However the summary of the agreement between Telstra and TUSMA that Telstra has released makes clear that this contracting will be with Telstra alone:

“From 1 July 2012, for a term of 20 years, Telstra will have a contractual obligation to supply the STS nationwide, as necessary, to fulfil the STS USO such that: in areas where the regulatory obligation has transferred to TUSMA, Telstra has a contractual obligation to fulfil the USO for TUSMA; and in areas where Telstra is the primary universal service provider, Telstra has a contractual commitment to comply with its regulatory obligation.” (Telstra – Definitive Agreements 2011, 18).

Furthermore the new regime has also been developed without canvassing any alternative to using the current technology – largely Telstra copper – to deliver the standard telephone service. The Telstra-TUSMA agreement does make provision for a review, but only 10 years down the track:

“There is a mandatory 10 year review to be undertaken by an independent expert of the technologies and systems used by Telstra to provide the USO STS and payphones services, with a view to determining if the use of alternative technologies or systems (including by an alternative provider of the USO) would result in cost savings to
Telstra (therefore reducing the amount that TUSMA pays to Telstra).” (Telstra—Definitive Agreements 2011, 20).

The outcomes of this review process are binding.

This approach eschews the use of NBN infrastructure and the NBN pricing policy that delivers wholesale Layer 2 connectivity to all premises at averaged prices – which, if were to be used, should greatly reduce the cost of delivering a telephone service.

As Optus argued in its submission to the Senate enquiry:

“As a brand new, world-class network, the NBN will be employing the latest in wireless and satellite technology. There is no doubt that such technologies will be appropriate and reliable for universal service provision and will render any remaining copper connection obsolete.” (Optus 2011, 6)

Furthermore as more customers choose to use these new technologies rather than relying on the PSTN-delivered STS the cost per subscriber of serving the remainder will increase - think maintaining a remote telephone exchange for just one customer!

Only in the areas served by satellite are there likely to be real problems. Geostationary satellites brings with them latency which could be significant if one remote customer wanted to call another remote customer – a very likely scenario. Such a call would require two satellite hops.

However it is hard to make a convincing argument against supporting a USO telephone service with the NBN fixed wireless network that will serve over half the seven percent of premises beyond the reach of NBN’s FTTP network. As Optus pointed out in its submission, Telstra already uses wireless – a fixed terminal operating on its cellular network – to deliver the STS to some remote customers.

Macquarie Telecom’s submission to the Senate Committee was particularly scathing:

“Nowhere in the Policy, the Agreement and the Reform Bills are [to be found] the services that have emerged in the past 20 years which now comprise basic mainstream public communication services, ie mobile services and access to the Internet...Macquarie submits that it is not appropriate...to anchor future universal service arrangements to services which are no longer sought by consumers now let alone in 20 years’ time...There is a very real prospect that the Policy, the Agreement and the Reform Bills will require the Government to pay Telstra $290 million for each of the next 20 years to ensure that services which no-one wants remain available.” (Macquarie Telecom 2011, 4).

CONCLUSION - THE USO REVIEW WE SHOULD HAVE HAD

When he announced plans to develop a USO regime for the transition to the NBN and beyond, Minister Conroy said it would also take into account “…the recommendations of the Glasson Regional Telecommunications Review and submissions to the [former Coalition Government’s] USO review.”

The 47 submissions to that review were not made public, but the issues paper (USO Review Issues Paper 2007) raised precisely the questions – 47 in total – that any wide-ranging review of the USO regime should have considered. Those that are particularly germane to the issues discussed in this article were:

“What types of network technologies are suitable for the delivery of basic phone services? For example, could universal service be delivered by mobile networks or over a broadband data network using VoIP?”

“In what ways does the existing regulatory framework constrain technologically feasible options for the delivery of basic phone services?”
“Should the USO continue to operate as an obligation on service providers to serve all customers, or should it be recast as a consumer right or guarantee (in tandem with commercial service delivery)?”

“Is it still appropriate to have a single provider solely responsible for providing all Australians with a safety net voice service?”

“What would make competitive delivery of the universal service regime attractive to service providers?”

None of these questions were addressed in the development of the Labor Government’s new USO regime.

The executive summary of the Glasson Committee’s report (Glasson Report 2008), neatly summed up all the things that could have been looked at in developing the new USO regime, but were not. It concluded:

“With the significant changes likely to occur from the Australian Government’s proposed National Broadband Network (NBN) there is now an opportunity to revolutionise the availability and quality of telecommunications services in this country, including all of regional Australia. Our proposals are based on the belief that competitive markets are best able to deliver telecommunications services. Government interventions should be limited to where this is necessary to ensure service availability.”

The report also recommended that the Federal Government involve all other levels of government – state/territory and local – to help achieve many of its recommendations.

Yet the outcome of the Government’s review is to create another body and another layer of bureaucracy in the form of TUSMA, to lock in for the next ten years the analogue telephone service over copper wire to deliver the standard telephone service to most USO recipients, and to lock in for 20 years the organisation that, in one form or another, has provided this universal service for over a century as the sole USO provider.

In the Government’s defence it has to be said that the USO arrangements are only part of a much bigger picture: Telstra’s role in the transition to the NBN and beyond.

The NBN was conceived without a role for Telstra, in part out of the Government’s frustration at its inability to persuade Telstra to upgrade its copper network to a fibre to the node network and provide access to other players on acceptable terms. Yet it was clear from the outset that the NBN would hardly be viable if it could not rely on Telstra infrastructure and on the NBN being used by Telstra to serve Telstra’s customers.

On 23 June 2011 Telstra signed the Definitive Agreements with NBN Co and with the Government for its role in the transition to the NBN and beyond. The agreements followed two years of intensive negotiations and would, Telstra said, deliver it a net present value of $11 billion over their 30-year life.

Announcing this milestone, Telstra CEO David Thodey said:

“The Government will achieve its desired industry structure and the arrangements for the USO and associated social obligations will be reformed to ensure that funding for these public interest services is secured...The Definitive Agreements are subject to a number of conditions being satisfied, including...arrangements being in place for the appropriate reform of the USO.”

That is ‘appropriate’ from Telstra’s perspective. In other words wider reform of the USO regime was sacrificed for the ‘greater good’ of the overall agreements with Telstra to ensure the success of the NBN.

As Coalition senators put it in their dissenting comments to the Senate Committee’s report on the USO legislation:
“Telstra will receive $2.7 billion over 10 years for delivering the USO for standard telephone services and payphones, significantly more than it would have received in the pre-NBN environment. This windfall assisted in obtaining Telstra’s agreement to the broader NBN deal. It was clearly not in the Government’s interests to permit third party scrutiny or invite industry input as the USO agreement was negotiated and settled.”

And windfall it is almost certain to be. However the figure was calculated, there is little doubt that the necessity for being connected to the Internet will increase. Anyone taking data services over the NBN will be presented with VoIP offerings by multiple providers. These will almost certainly offer more functionality, and at less cost, than the standard telephone service provided under the USO. Thus it is inevitable that demand for the STS will decline and along with it the cost to Telstra of delivering the USO.

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