

TELSTRA CORPORATION LIMITED

Telstra's response to the Productivity Commission's Telecommunications Universal Service Obligation Issues Paper

21 July 2017



CONTENTS

EXECUTIVE SUMMARY		
01	INTRODUCTION	7
1.1.	How we meet the STS USO	7
1.1.1.	IP managed versus best efforts	8
1.1.2.	Mobile versus fixed wireless services	8
1.1.3.	Call latency	9
02	The STS USO should remain in its current form	10
2.1.	STS USO remains in demand	10
2.2.	STS remains affordable	10
2.3.	There should be no discrimination on who is eligible for a STS USO	11
03	Consideration of a universal wholesale broadband obligation on nbn co. could be considered at completion of rollout	12
3.1.	Delivery of universal broadband access is underway but not there yet	12
3.2.	Voice services over NBN Satellite (NBN SAT) today are unlikely to meet consumer expectations for a USO STS	12
3.3.	Introducing a broadband USO with NBN underway is not efficient	13
3.4.	STS USO on Telstra today, Universal Wholesale Broadband Obligation (UWBO) on nbn co. tomorrow?	14
04	Changes could be considered in how STS USO is delivered to improve customer outcomes	15
4.1.	NBN FW WBA restriction	15
4.2.	CCO restriction	15
05	A mobile-only USO undermines the technology neutrality principle of the STS and conflicts with Mobile Black Spot Program (MBSP)	17
5.1.	Delivery of voice to a residence using mobile infrastructure is already an option 17	
5.2.	Delivery of greater mobile coverage to uneconomic areas is the role of the MBSP	17
06	The Government may wish to consider the value of ongoing Payphone delivery	19
6.1.	There has been a decline in the use of the Payphone	19



6.2.	Any change to the payphone USO must be customer focussed	19	
07	The funding model should broaden its base	20	
7.1.	General taxation most efficient levy base	20	
7.2.	The Government could consider broadening base to include OTT providers	20	
08	The delivery model should remain unchanged	21	
8.1.	Contestability would need to be limited to the offer of a STS USO	21	
8.2.	Contestable arrangements are unlikely to deliver efficiencies	21	
8.3.	The impact on customers would need to be taken into consideration	22	



EXECUTIVE SUMMARY

Telstra welcomes the Productivity Commission's (**PC**) Review and the questions raised by the PC's discussion paper. As the organisation responsible for the delivery of the universal service obligation (**USO**) under the Telecommunications Universal Service Obligation Performance Agreement (**TUSOPA**) and also the highest contributor to the cost of its delivery, we are pleased to participate in consideration of the benefits of its ongoing provision, scope and funding model.

There are two discrete obligations delivered under the USO: the Standard Telephone Service (**STS**) and Payphones, which when combined ensure reasonable access to national voice connectivity; STS at the residence or place of business, and payphones outside the residence or place of business.

STS USO should remain in its current form

At this time, the STS obligation should remain in place as delivered under the TUSOPA. The obligation ensures that every Australian, regardless of their location can be confident that they can have a voice service provisioned at their residence or place of business on request to an acceptable standard. Telstra believes that consumers, communities and businesses nation-wide value the voice telephone service and would suffer personal, social and economic detriment if their basic right was revoked, no matter what other changes may be made to the obligation.

A universal wholesale broadband obligation on nbn co. could be considered at completion of rollout

We acknowledge the benefits and customer demand for a ubiquitous broadband service which can, depending on the infrastructure chosen, be used to deliver a STS. However, we note that nbn co. has been tasked with the objective of ensuring all Australians have access to very fast broadband as soon as possible, at affordable prices, and at least cost to taxpayers. It has targeted deployment of Australia's National Broadband Network (**NBN**) using the multi-technology mix (**MTM**) by 2020.

Once nbn co. has completed the NBN, a change from a USO STS to an obligation on nbn co. to deliver broadband infrastructure on demand over which a retailer can offer a quality voice service, (a Universal Wholesale Broadband Obligation (**UWBO**)) is worth considering. Such a change would require confidence within the community that nbn co. can offer a broadband service that can deliver a good quality STS:

- · over its whole network; and
- on demand nationally to an acceptable service level.

Until then, nbn co. should be allowed to focus on its primary objective of completing the NBN using the MTM.

Changes could be considered in how STS USO is delivered to improve customer outcomes

Regardless of whether there is a change at a future point in time to the obligation, there are changes to the current arrangements that would make the USO STS truly technology neutral and promote the migration of customers in areas outside the NBN fibre footprint onto newer fixed wireless broadband infrastructure. This would be delivered via a relaxation to the copper continuity obligation (**CCO**) in the TUSOPA and removal of the NBN Wholesale Broadband Agreement (**WBA**) prohibition on the use of its



fixed wireless infrastructure to deliver a service that will attract Customer Service Guarantee (**CSG**) or Priority Assistance (**PA**) obligations.

A mobile-only USO undermines the technology neutral principle of the STS

Imposing an obligation to only use mobile infrastructure to deliver the STS USO in all circumstances would go against the principle of technology neutrality and would result in less efficient delivery of the STS USO. We are open to further investigating the possibility of utilising our existing mobile infrastructure to deliver a fixed wireless product to deliver the STS USO, where it is the most efficient option, can meet regulatory obligations and will meet our customers' expectations.

The Mobile Black Spot Programme (**MBSP**) is a well-structured and successful program designed to expand mobile coverage to areas which are ordinarily uneconomic to service. It is not specifically designed to ensure STS provision to a residence or place of business on request. Our support for the MBSP and its existing settings is evidenced by our investment of an additional \$165m to the first round of the program.

The Government may wish to consider the value of ongoing Payphone delivery

The goal of the payphones obligation was to deliver to Australian consumers reasonable access to a STS when outside their residence or place of business. As mobile services can arguably deliver this outcome, consideration could be given to whether the ongoing payphone obligation is delivering the best value to Australian consumers and communities. We note that some of our regional stakeholders have also queried this.

Should the Government choose to change the payphone obligation, we would be open to negotiating the necessary changes to the TUSOPA. Any change would need to take into account that not all payphones are in areas with mobile coverage. If removal of the obligation leads to a reduction in industry funding liabilities it may enable all contributors to invest in expanding or upgrading their regional infrastructure.

The funding model should broaden its base

Telstra is the largest contributor to the cost of delivering the USO. At around \$140m p.a., our contribution is 40% higher than the Government's contribution, three times larger than Optus' contribution and nine times larger than VHA's contribution.

When it comes to the imposition of taxes or levies to support government policies, the least distortionary and most economically efficient approach is to recover the tax from as broad a base as possible. For that reason we would recommend that the USO move to a fully funded obligation on the budget rather than an implicit tax on telecommunication consumers. This would also reduce administration costs associated with the levy on both government and the telecommunications industry.

If this is not acceptable, on the basis that contributors to the USO levy are carriers and, indirectly carriage service providers who supply telecommunications services in Australia, consideration should be given to extending levy liability to Over The Top (**OTT**) providers of telecommunication services who compete with these carriers and CSPs, benefit from the availability of network infrastructure in Australia and do not currently contribute to these network costs.



The delivery model should remain unchanged

We recommend maintaining the current model of sole supply under the TUSOPA and would only support introducing contestable arrangements if there is a high level of confidence that it can be shown to be:

- demonstrably more efficient, including when administration costs are taken into account;
- · delivering a customer experience at least as good as current levels; and
- likely to generate interest from potential competitive universal service providers (USP).

The impact on our customers

We have aimed to put Australian consumers, communities and businesses first in our consideration of the PC review. Guaranteeing ongoing voice availability at the residence or place of business gives consumers confidence that, regardless of their demographic or location, they can access a service which will allow for ongoing social inclusion, economic growth and public safety. We have not proposed changes that would expose customers to discrimination in entitlement, increased cost, reduced protection or complexity in service delivery.

We acknowledge the benefits a broadband guarantee would offer to consumers, and suggest this be considered on completion of the NBN. Any change would require delivery of a broadband service on demand capable of supporting a voice service of at least the same quality as delivered today. Our customers would expect nothing less.



01 INTRODUCTION

Telstra welcomes the Productivity Commission's (**PC**) Review and the questions raised by the PC's discussion paper. As the organisation responsible for the delivery of the universal service obligation (**USO**) under the Telecommunications Universal Service Obligation Performance Agreement (**TUSOPA**) and also the highest contributor to the cost of its delivery, we are pleased to participate in consideration of the benefits of its ongoing provision, scope and funding model.

There are two discrete obligations delivered under the USO: the Standard Telephone Service (**STS**) and Payphones, which when combined ensure reasonable access to national voice connectivity; STS at the residence or place of business, and payphones outside the residence or place of business.

Our submission has two parts. The first part shares our view on the four key questions raised by the PC, should there be change to the USO:

- STS scope;
- · Payphones scope;
- · Funding model; and
- · Delivery mechanism.

The second part at Attachment A provides answers to the specific questions raised in the discussion paper and reflects our perspective outlined in the first part of this submission.

The PC has posed three main questions in relation to STS USO scope - should there be:

- an ongoing obligation;
- a variation to the current obligation; and
- · a change to who is covered by the obligation

1.1. How we meet the STS USO

Under the *Telecommunications (Consumer Protection and Service Standards) Act 1999*, the STS objective is focussed on ensuring that all Australians have reasonable access to a voice service at their residence or place of business. Funding of \$230m p.a. ensures the delivery of the STS under the TUSOPA.

In addition to the delivery of access, there are other regulatory obligations which are linked to the delivery of a STS which define what must to be offered over the STS (e.g. emergency calling) and define the service level (e.g. the Customer Service Guarantee (**CSG**) and Priority Assistance (**PA**)).

The STS is defined in technology neutral terms. As such, we meet the STS USO primarily over five different networks:

- · Copper;
- Satellite;
- · Radio CAN;
- Telstra owned optical fibre in 'Velocity' estates; and



National Broadband Network (NBN) fibre networks (FTTN, FTTP, FTTB and soon HFC).

The obligation is in effect both a retail and an infrastructure obligation. We are required to offer a retail service to a customer and therefore to ensure there is infrastructure available to deliver the retail service. These requirements are known informally as a retailer of last resort (**ROLR**) and an infrastructure provider of last resort (**IPOLR**).

As defined, the obligation to make a service available does not delineate between USO services and non-USO services. As a result of the obligation, as a general rule, all of Telstra's fixed voice services provided over these five networks are "USO services".

The major exception to this is Telstra's offer of consumer services over NBN Fixed Wireless (**FW**) infrastructure. As the nbn co. Wholesale Broadband Agreement (**WBA**) prohibits Telstra from using NBN FW infrastructure to deliver the USO, voice services offered to customers are "non-USO" services. NBN FW customers who seek a USO service are provisioned with a service using copper infrastructure.

The regime ensures that customers:

- can access a service at the residence that allows them to connect to anyone in Australia including access to emergency services;
- are afforded statutory protections and remedies against Telstra if we do not connect or remediate services within a set timeframe regardless of where they are located; and
- can be confident that their service offers a base level of reliability.

We also take into account in the provision of the STS to a residence additional considerations which, while not explicit legal requirements if ignored could result in our customers suffering a reduction in their level of service quality. These considerations are:

- Internet Protocol (IP) voice managed versus best efforts;
- · Mobile versus fixed service; and
- Call latency.

1.1.1. IP managed versus best efforts

A voice service can be delivered over an IP network. However, there is a difference between a carrier managed IP voice service, where traffic is actively managed to ensure quality, and a best efforts over-the-top solution (**OTT**), in which the quality of the service is variable.

A good example of a carrier managed IP voice service is the voice service Telstra offers over NBN fibre infrastructure. This service provides a quality voice service to end users and is offered in fulfilment of the STS USO. While not provided in fulfilment of the USO due to WBA restrictions, Telstra also offers a high quality IP managed voice service over the NBN FW infrastructure.

A best efforts OTT voice service is unlikely to consistently meet customer expectations for a USO service. Furthermore, if the OTT service provider is not also providing the underlying retail broadband service, the OTT service provider will not be able to remediate service faults.

1.1.2. Mobile versus fixed wireless services



There is also a difference between a mobile service and a fixed wireless service provided to a residence. It is likely that many customers will be able to use a mobile service within their residence. However, due to the vagaries of signal strength and propagation of mobile signals within some buildings, it is not possible to assert that the STS USO is being met on a permanent basis by virtue of a residence or place of business sitting within an area of mobile coverage.

This does not foreclose the use of mobile infrastructure to deliver the USO. If existing mobile infrastructure is used, to guarantee the customer experience at scale on a permanent basis, a fixed wireless solution is likely to be the optimal solution. The method of delivery would depend on the customer's location. For example, in some cases it may require installation of additional infrastructure such as supporting antenna at the customer's residence to ensure reception. We would also need to make sure the product was compliant with existing regulatory obligations and reporting, compatible with new product offers and that any migration of customers on to this network was well managed.

In limited circumstances, Telstra provides customers with mobile handsets to deliver the STS on an interim basis. These are typically used in circumstances where nbn co. has accepted responsibility for delivering infrastructure to a new estate but there is a delay in its delivery. In these cases the service is provisioned over mobile for a limited period of time before reverting to a service offered over NBN fibre infrastructure.

1.1.3. Call latency

Call latency is the time delay between when the caller speaks and when the receiver of the call hears the caller's voice. Where this delay is beyond several milliseconds it results in a reduction in the perceived quality of the voice call. Our delivery of the STS is engineered to ensure that latency is minimised as much as possible. This is a key consideration of our choice of technology when offering services over satellite infrastructure.



02 The STS USO should remain in its current form

2.1. STS USO remains in demand

The ability to communicate using voice is the fundamental telecommunications service. It delivers social inclusion, public safety and productivity to the Australian community. While consumers' choice and use of communication options have diversified (in many cases over the same infrastructure the STS is delivered) customers in all demographics can choose to, and do, use voice over a fixed line service to a residence. In FY15, Telstra had 6.0 million fixed voice services over which were made:

- 1.6 billion fixed line local calls;
- 2.5 billion minutes of national long distance calls;
- 2.1 billion minutes of mobile calls; and
- 465 million minutes of international calls.

Despite the rollout of the NBN, Telstra's delivery of fixed line infrastructure to support these services on demand has continued.

As noted by the ACCC in their latest Competition in the Australian Telecommunications Sector report, while there had been a trend towards mobile only households, this trend has slowed and around 70 percent of consumers maintain a fixed line service. The ACCC concluded that many consumers are likely to consider their fixed line and mobile services as complementary.

Ensuring national connectivity also offers benefits to all Australians, not just those connected via the telephone service. For example, the delivery of an on-demand voice service to a rural small business' allows it to connect with customers and suppliers which grows their businesses. This growth in turn creates employment opportunities in the rural community, reduces requirements for government income support and increases taxation revenue.

We consider the delivery of a reliable fixed voice service to a residence is very much in demand and given the direct and indirect benefits it offers for social inclusion, public safety and productivity it should be retained as a requirement in any universal service.

2.2. STS remains affordable

The STS USO requires Telstra to make the STS reasonably accessible. Although it does not impose explicit pricing rules, to make services reasonably accessible we must price STS access at a level our customers can reasonably afford. We have delivered this through national pricing of our fixed voice product suite which has ensured that the price paid by customers in regional and remote areas is the same as that paid by customers in metro areas.

Whether or not competing retail service providers (**RSPs**) choose to compete in regional and remote areas, metropolitan competition combined with Telstra's policy of national pricing ensures that the benefits of competition are delivered to customers in regional and remote areas. The latest ACCC

.

¹ www.accc.gov.au/publications/accc-telecommunications-report/accc-telecommunications-report-2014-15



reporting has shown a reduction of over 50% in the average nominal price of fixed voice services since the ACCC began its reporting on telecommunications price changes in 1997-98.2

While prices for telecommunications services have fallen and value has increased, we acknowledge that consumers have faced price increases in other services such as housing, which in turn places pressure on all elements of consumption. This is particularly challenging for low income Australians. In recognition of this, we have had in place since 2002, a low income program. One of the elements of this program, the Pensioner Discount, has supported customers eligible for the Pensioner Concession Card with the cost of the STS.

Delivery of STS aside, further analysis could be undertaken in relation to the question of affordability of telecommunications services more generally (i.e. not just fixed voice). Such research should focus on what is the level of data consumption required to meet the needs of low income consumers. This will inform whether there should be a review of how existing government income support arrangements support low income consumers' consumption of telecommunications services.

We also consider that the current Low Income Measures Assessment Committee (LIMAC) has provided a good model to take into account the needs of low income customers when designing our products. Given the benefits that competition has delivered and diversity in service offerings in the marketplace, the government could consider extending the LIMAC model to other major carriers on an opt-in basis.

2.3. There should be no discrimination on who is eligible for a STS USO

The USO has been designed not to discriminate between people or organisations to whom it is delivered. The basic obligation ensures that everyone, including businesses, enjoy the benefits delivered by universal voice access. It also ensures that customers with a disability are supported in their access. While delivery of the connectivity that enables the STS is common to all consumers, special equipment is required to ensure that customers with a disability can use the STS to connect and communicate. Telstra delivers this special equipment via the Telstra Disability Equipment Program (DEP). We consider that this program, in combination with the National Relay Service (which is delivered under contract separate to the USO), has done a good job in delivering reasonable STS access to Australians with a disability.

Given the benefits the USO STS offers for education, public safety, productivity and social inclusion to all Australians, we do not recommend narrowing the type of consumer covered by the STS USO.





03 Consideration of a universal wholesale broadband obligation on nbn co. could be considered at completion of rollout

3.1. Delivery of universal broadband access is underway but not there yet

As voice can be delivered over a broadband service and as broadband offers greater functionality than voice alone, it has been suggested that the STS USO should be replaced by a broadband USO. While this is a well-reasoned suggestion, it must take into account the structure of the current Australian telecommunications industry and the rollout of the NBN.

The Federal Government established nbn co. with the objective of ensuring all Australians have access to very fast broadband as soon as possible, at affordable prices, and at least cost to taxpayers. Its corporate plan has targeted 2020 as the end date for its delivery.³ To date, nbn co. has been focussed on:

- the migration of existing services off our copper network onto its fixed network;
- · delivery of the FW and Satellite network; and
- rolling out infrastructure into new estates with over 100 residences.

However, at this point in time, nbn co. does not commit to the provision of infrastructure on demand outside its footprint to an agreed statutory performance level. Even within areas in which nbn co. has completed its rollout, if the residence is not in its records as a serviceable residence (e.g. small subdivisions within a rollout area), there is no unilateral right for a retail service provider (**RSP**) to take a request from a customer and have that infrastructure delivered within a set time period.

Given the complexity of nbn co.'s core mission and its focus on completing the NBN on time and on budget, this approach is understandable. Moving to an on demand model during this initial rollout period is likely to draw resources away from its core objective, potentially delaying the delivery of the NBN. For that reason we are not suggesting that the STS USO nor the Government's Fibre in New Development's (FIND) policy should be varied at this time.

While nbn co. does not have an obligation to provide a service to a residence on demand, Telstra does under the STS USO.

There may be opportunities ahead of the completion of the NBN rollout for USO policy and NBN policy to work in a complementary manner for the benefit of all customers. This is explored in our discussion below on Copper Continuity Obligation (**CCO**) and use of NBN FW to deliver a USO STS.

3.2. Voice services over NBN Satellite (NBN SAT) today are unlikely to meet consumer expectations for a USO STS

The current NBN SAT solution is designed for the provision of a quality data service. While voice can be delivered over the infrastructure, it is not optimal for delivery of the STS USO.

.

³ www.nbnco.com.au/content/dam/nbnco2/documents/nbn-corporate-plan-2016.pdf



The NBN SAT operates at the higher frequencies in the Ka band (17 Ghz -30 Ghz). At these frequencies signals broadcast over the satellite are more likely to be disrupted by rain particularly at tropical latitudes north of 23° S. On average, a user living in the tropics will experience a greater loss of their service than a user on a different system that utilises lower frequencies. While this impact may be inconsequential for typical household usage, this may have public safety consequences in the event of an emergency.

Also NBN SAT is not configured to manage voice call latency that is introduced into calls that are made between two customers on satellite. This issue is known as double hop as illustrated in the figure below.

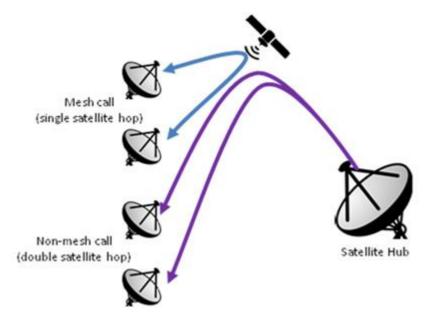


Figure 1 Comparison of single and double satellite hop

While this is not a problem for customers making voice calls via satellite to a customer on other networks where latency is more acceptable, it is unlikely that customers making calls between two satellite provided services would consider this to be acceptable. Telstra's current USO SAT solution has been designed to provide a mesh call and avoid double hop.

While there may be technical solutions or alternative technologies that may address this problem in the future, as currently provisioned, there are currently challenges to relying on NBN SAT for the provision of a USO STS.

3.3. Introducing a broadband USO with NBN underway is not efficient

Variation to the USO to include a broadband obligation on Telstra would result in Telstra having to engage in additional infrastructure expenditure on additional DSL infrastructure, which subsequently be overbuilt by nbn co., in some cases within months. This additional infrastructure would be necessary to ensure a minimum standard of broadband was available.

This additional infrastructure spend would have to be funded by an increase in the payment under the TUSOPA. While this would provide some benefit to some customers prior completion of the NBN, it would not be an efficient outcome and would divert funding from more targeted infrastructure spending that would better meet consumer demand.



We are conscious of the concerns of some communities who sit within the NBN fibre footprint who are currently without a DSL service and are concerned about when they will receive the NBN. While we cannot comment on nbn co.'s rollout, we have publicly indicated that we are increasing current ADSL broadband capacity to meet increasing customer demand in some areas. We remain open to discussions with our retail customers and regional stakeholders to identify opportunities for targeted DSL investment in advance of nbn co.'s public rollout. This can be contrasted with a broad broadband USO which would require a national rollout of additional ADSL infrastructure, without regard to nbn co.'s rollout timetable.

3.4. STS USO on Telstra today, Universal Wholesale Broadband Obligation (UWBO) on nbn co. tomorrow?

There is value in considering a change to STS USO arrangements on completion of the NBN. This would be on the basis of nbn co. having a UWBO on an on demand basis.

For nbn co. to assume this role, it will need to have:

- completed its rollout of the NBN change before this time will delay completion of the rollout;
- the ability to provision (connect and remediate) infrastructure on request to an acceptable service level – as the service levels customers will receive from RSPs will be largely dependent on timeframes offered by the wholesale service provider; and
- the ability to provide an acceptable STS to customers outside its fixed and fixed wireless footprint

 without this there will be an ongoing need for Telstra to provision a STS to these high cost customers.

A change now would be premature. At this point in time, there is no certainty on these three issues. For example, over the next 4-5 years there may be new technologies that may change the cost of voice service delivery to customers within the NBN SAT footprint – or not. Any change would also require a review of the Government's fibre in new developments (**FIND**) policy.

It is critical that current rights to a service are maintained for customers as we gain further clarity and experience on these issues and allow nbn co. to focus on its objective of completing the NBN.

-

⁴ exchange.telstra.com.au/2016/06/29/improving-network-performance



04 Changes could be considered in how STS USO is delivered to improve customer outcomes

4.1. NBN FW WBA restriction

Regardless of whether there is a change at a future point in time to reframe the obligation, there are some changes to the current arrangements that would make USO STS truly technology neutral and promote the migration of customers in areas outside the NBN fibre footprint onto newer fixed wireless broadband infrastructure.

Clause 9.3 in nbn co.'s WBA Product Description – NBN Co Ethernet Bitstream service (**NEBS**), requires the access seeker not to offer NEBS over the NBN FW network to supply a downstream CSG or PA service. As we must offer CSG and PA when delivering the USO STS, the prohibition effectively prevents us from meeting the USO over this infrastructure.

Telstra already provides voice services as part of a bundle to customers over NBN FW infrastructure. The actual service delivered is no different to other services offered in fulfilment of the USO. To date we have not received a complaint in relation to voice quality or voice service availability over NBN FW.

The current restriction results in unnecessary complexity in design, and runs counter to the technology neutrality principle of the STS. If this restriction was removed from the WBA, we would not need to offer both a voice service over copper and broadband service over the NBN FW. It would allow us to meet existing demand from customers who are already seeking a bundled service and potentially migrate customers onto newer infrastructure and ensure a better overall customer experience with existing consumer protections for a STS.

It would also address particular challenges in the delivery of services to customers in new estates that sit in areas where there is existing NBN FW infrastructure and coverage. In these circumstances where copper extension into the estate would result in a high cost option to the developer it would be useful to be able to advise the developer that we would deliver its USO services to customers within the estate over the pre-existing NBN infrastructure.

This is not to suggest that we would expect nbn co. to expand coverage to areas where there was no pre-existing coverage. However, if the NBN FW infrastructure has already been built, it would appear logical to be able to utilise the pre-existing infrastructure to deliver voice services, particularly where customers are already taking services over that infrastructure.

4.2. CCO restriction

The CCO obligation broadly requires Telstra to maintain services to customers outside of the NBN fibre footprint on copper infrastructure. This obligation was based on a perception that customers would not accept services over alternative infrastructure.

As highlighted in the previous section, the take up of services on NBN FW and the lack of complaint in relation to the voice service indicates that customers are comfortable with using voice services over this infrastructure. It would also allow for the possibility of utilising Telstra's existing mobile network to develop a fixed wireless solution to deliver services to customers who sit outside of the NBN FW



footprint. Both these outcomes would lead to improvements in service availability and reliability as customers are migrated onto newer infrastructure.



05 A mobile-only USO undermines the technology neutrality principle of the STS

There have been suggestions that the USO STS should be replaced by a "mobile-only USO". We assume this would mean that mobile coverage must be delivered at every residence or place of business in Australia (consistent with the current delivery of USO STS).

5.1. Delivery of voice to a residence using mobile infrastructure is already an option

Delivery of a STS to a residence using mobile infrastructure is already possible given the technology neutral basis of the USO. Our use of the copper network for existing and new services has been driven by our desire to use the most efficient solution.

Imposing an obligation to use mobile infrastructure in all circumstances would go against the principle of technology neutrality and would result in less efficient delivery of the STS USO. It would impose additional costs where mobile infrastructure is not the most efficient infrastructure solution for a particular residence. Delivery of the STS to every residence or place of business using mobile infrastructure would be prohibitively expensive.

Although we do not currently offer a fixed wireless service over our mobile infrastructure in fulfilment of the STS USO, we are open to further investigating the possibility of utilising existing mobile infrastructure for this purpose. As outlined in section 1.1.2. of this submission, any decision to put such a product into market is dependent on whether we have a product we can deliver at scale that will meet both our regulatory obligations and our customers' expectations.

Any supply and delivery of a fixed wireless USO STS would also have to take into account restrictions imposed by the CCO.

5.2. Delivery of greater mobile coverage to uneconomic areas is the role of the MBSP

Australian consumers benefit from an industry that is competing vigorously on service, price and customer care. Australian mobile providers offer an array of world leading products, services, pricing options and technology platforms to consumers.

Telstra's success in this market is built on product offers, network investments and customer service designed to attract new mobile customers to the company. Getting to this point took a lot of capital investment and some big judgement calls. We are proud that we have successfully built a world-class mobile network in Australia.

We're particularly proud that we were able to achieve this on a level playing field against some of the biggest multi-national telecommunications companies in the world.

In recognition of the value our customers place on coverage, Telstra has invested heavily in ensuring we can deliver the best coverage available. This competitive tension has driven our investment, and Australia is now rated first in the world for mobile connectivity by the GSMA.⁵

.

⁵ www.mobileconnectivityindex.com



Despite this investment, there are areas in which the business case to invest in mobile network infrastructure is difficult to make. It is these areas which are addressed by the MBSP which renders uneconomic coverage marginally economic.

The MBSP may be seen by some as acting as a substitute for the USO, but in Telstra's view the two are quite distinct, serving different and complementary aims. The USO ensures every residential or business premise has access to a quality voice service. The MBSP helps push mobile coverage further into areas where low and/or transitory population density make coverage economically marginal, for example highways and holiday areas. The USO delivers service on a premise-by-premise basis. The MBSP delivers incremental improvements to the national mobile footprint.

If the desire is to extend mobile coverage, the MBSP is the appropriate tool to achieve it rather than a specific USO.

The Government's MBSP has done an excellent job improving mobile coverage in areas which have been identified by the public as having in-adequate coverage. The MBSP has also been able to attract additional industry co-investment, effectively turbo charging the government contribution. This is evidenced by our investment of an additional \$165m in the first round of the program.



The Government may wish to consider the value of ongoing Payphone delivery

6.1. There has been a decline in the use of the Payphone

Telstra's delivery of Payphones is highly regulated with five instruments and the TUSOPA, covering everything from where payphones must be located, through to complaint handling. Telstra currently delivers around 17,000 payphones for which we receive funding of \$40m per annum via the TUSOPA. Of Telstra's 17,000 payphones delivered in fulfilment of the USO:

- 71% are in areas classified by the regulation as urban; and
- 29% are in areas classified by the regulation as rural or remote.

Whereas the STS USO delivers a service to a residence, the payphones USO is designed to deliver a STS to Australians when outside their residences. Payphone usage is in decline, and there are several points that suggest that this outcome can be delivered by the mobile market.

- mobile service penetration currently sits at around 130% of the total population;⁶
- our mobile network offers 99.3% population coverage;
- Australians seeking to make an emergency call can do so from any mobile network, regardless of service provider and even if they have no credit; and
- · mobile voice affordability is increasing:
 - the latest ACCC reporting has shown a reduction of over 50% in the average nominal price of mobile voice services since the ACCC began its reporting on telecommunications price changes, with a 2% reduction in the last 12 months.⁷
 - unlimited voice and SMS are increasingly standard industry offers for both post and prepaid services.

Given these trends in the market the government may wish to consider whether maintaining the payphone obligation is delivering value to Australian consumers.

6.2. Any change to the payphone USO must be customer focussed

Ultimately, it is a matter for government to determine payphone USO policy. If a decision is made to remove this obligation, given the TUSOPA, this would need to be negotiated with Telstra. Around 29% of payphones are currently delivered in rural and remote areas. If changes are proposed, consideration would need to be given to scenarios where payphones are located in an areas where there is no mobile coverage, particularly in rural and remote areas.

We are also conscious of the feedback we are receiving from our regional customers and stakeholders on the value they place on our existing regional investment and their calls for ongoing investment in mobile infrastructure and ADSL. If removal of the obligation leads to a reduction in industry funding liabilities it may enable all contributors to invest in expanding or upgrading their regional infrastructure.

⁶ ACMA Communications Report 2014-15 , ABS 3101.0 - Australian Demographic Statistics, Dec 2015 www.accc.gov.au/publications/accc-telecommunications-report/accc-telecommunications-report-2014-



07 The funding model should broaden its base

7.1. General taxation most efficient levy base

The cost of the current obligation is borne by both telecommunication carriers and the Government. Telstra's levy liability of around \$140m makes it the largest contributor - we contribute 40% more than the Government, three times more than Optus and nine times more than VHA.

The levy is essentially an industry tax, a tax which ultimately is paid by customers served by the telecommunications industry. From an efficiency perspective, taxes should look to raise revenue while minimising distortions. The current levy effectively distorts the market by changing prices in the telecommunications sector relative to other sectors.

When it comes to the imposition of taxes or levies to support government policies, the least distortionary and hence most efficient approach is to recover from as broad a base as possible. For that reason we recommend that the USO move to a fully funded obligation on the budget rather than a tax on telecommunication carriers and end-users. This would remove distortions and reduce administration costs for government and the telecommunications industry.

7.2. The Government could consider broadening base to include OTT providers

If this is not acceptable, the levy could be expanded beyond the current narrow application to include OTT providers of communication services.

The levy is currently based on a carrier's 'eligible telecommunication revenues' which are inclusive of all forms of telecommunication services not just voice or payphone revenues. It is not levied on carriage service providers (**CSP**), as the levy is implicitly passed through to CSPs in the form of wholesale charges carriers apply to CSPs.

OTT providers of telecommunications services offer services in competition to the services offered by carriers and CSPs. They utilise but do not have to purchase wholesale inputs from carriers to provision their services. Their business models have benefited from network infrastructure that was built primarily to deliver the USO, but have not contributed to the cost of its delivery.

While many OTT providers offer communications services free of charge to end-users, these free services are either offered as part of a broader product or bundle of services that are chargeable, or supported by advertising revenues. If consideration was given to include OTT providers, there may need to be a specific rules on how 'OTT eligible revenues' were calculated.

To address concerns around administrative complexities, criteria could be applied to the broader category of OTT so that its application would be extended to only the major providers of OTT services to Australian consumers. This could take the form of a minimum level of "OTT eligible revenue".



08 The delivery model should remain unchanged

8.1. Contestability would need to be limited to the offer of a STS USO

The PC review raises questions as to whether the arrangements for USO provision should be subject to contestability. USO contestability would have to be limited to the current scope of the USO STS, i.e. the offer of a retail STS and the supply of the underlying infrastructure over which the STS is offered. Contestability for the delivery of a:

- broadband USO (both retailing and wholesaling) that offered speeds greater than 25 Mbps would be prohibited under Parts 7 and 8 of the Telecommunications Act 1997 which require these networks to be offered on a wholesale only basis;
- broadband USO (both retailing and wholesaling) that offered speeds less than 25 Mbps would be an inefficient use of funding as it would be overbuilt by nbn co. within four years; and
- wholesale only broadband network would be in direct conflict with the NBN.

8.2. Contestable arrangements are unlikely to deliver efficiencies

Assuming it is limited to the USO STS, a contestable approach would be used to harness competitive tensions around the supply of the STS, so the most efficient Universal Service Provider (**USP**) could be identified. A basic pre-condition for the use of a contestable approach is the existence of more than one potential supplier. Due to a lack of national fixed infrastructure investment by other providers that would allow for service provision on request, it is not clear if this precondition could be met on a national basis.

To make up for any lack of infrastructure in a region, competing USPs would have to invest in solutions with large capital costs and ongoing operational costs to deliver a service with relatively low revenue opportunity, particularly in areas outside Telstra's existing copper footprint.

An assessment would also need to be made as to whether contestability would result in more efficient STS delivery, taking into account the administrative costs with establishing contestability arrangements.

These would include:

- designing and implementing a bidding process;
- migration of customers onto the new USP's infrastructure
- · arrangements to deal with potential failure or bankruptcy of potential providers; and
- obtaining reporting from different providers on performance.

Contestable arrangements would also take time to implement. If as we suggest consideration is given to a transition to a UWBO on nbn co. post completion of the NBN in 2020, contestable arrangements would be in place, at most, for just two years. This would require any USP to be confident that after a subsidy, they could deliver a more efficient solution than Telstra and obtain payback on any additional infrastructure build within two years. The government would also need to be confident that the benefits offered by contestability outweighed the administrative cost and complexity.

We note that the use of contestable arrangements for the provision of the USO STS was tested 14 years ago. These arrangements were unsuccessful and it is likely this outcome was largely attributable to the practical challenges outlined above.



For these reasons it seems unlikely that any efficiency benefits from introducing contestability would outweigh the additional administrative complexity to establish arrangements that would be in place, at most, for just two years.

8.3. The impact on customers would need to be taken into consideration

Contestable arrangements are in place for the delivery of infrastructure to new estates. While this has led to better cost recovery by infrastructure providers and timelier delivery of infrastructure, in some cases it has led to customers in those estates becoming confused as to who is responsible for offering them services over that third party infrastructure and their rights over that infrastructure.

We anticipate similar issues would arise in an environment that resulted in multiple USPs. Contestable arrangements would need to set up a system to explain to customers within a region who their USP was. It would also require competitively neutral performance standards to be determined and applied to all USPs.

For these reasons a contestable model would not appear to be valuable unless it can be shown to be:

- demonstrably more efficient, including when administration costs are taken into account;
- able to deliver a customer experience at least as good as currently offered; and
- genuinely likely to generate interest from potential USPs.



ATTACHMENT A

Telecommunications Universal Service Obligation – Productivity Commission Issues Paper Questions

Retaining USO

	Questions	Resnonses
1	What objectives are appropriate for a universal service obligation arrangement or its equivalent?	Responses STS USO The provision of reasonable access to a STS, on an equitable basis, to a residence or place of business, provides social inclusion, economic benefits and public safety to the Australian community. This should form the basis of any USO. We acknowledge the additional benefits that universal broadband access will deliver. The government has established nbn co. which is in the process of rolling out the NBN, a national high speed network. Once the NBN is complete, it is worth reviewing the current USO to determine whether the delivery of both voice and broadband can be delivered over the NBN on demand to Australian residences and places of business. Payphone USO The delivery of reasonable access to a voice service when outside the residence (which is essentially the goal of the payphones USO) is also an appropriate aspiration. With 99.3% population mobile coverage delivered under no regulatory obligation, declines in Payphone usage and increases in mobile accessibility, the Government may wish to consider the value of ongoing Payphone delivery.
2	What would be the scope of the services needed to be provided to achieve those objectives?	The current scope as drafted i.e. STS is sufficient to achieve this objective at this time. As drafted it also ensures that customers with a disability are supported in their access.
3	Whether particular sections of the Australian community have differing needs to which additional Government intervention should be directed e.g. low income, rural and regional?	The need for a universal voice service to the residence or place of business is common to all geographies and demographics. That is the strength of the basic obligation. We do not support changes that would begin to discriminate in the delivery of this basic obligation.



4	Who should bear cost or regulatory burdens from those interventions, if any?	Telstra is the largest contributor to the cost of delivering the USO. At around \$140m p.a., our contribution is 40% higher than the Government's contribution, three times larger than Optus' contribution and nine times larger than VHA's contribution. When it comes to the imposition of taxes or levies to support government policies, the least distortionary and most economically efficient approach is to recover the tax from as broad a base as possible. For that reason we would recommend that the USO move to a fully funded obligation on the budget rather than an implicit tax on telecommunication consumers. This would also reduce administration costs associated with the levy on both government and the telecommunications industry. If this is not acceptable, on the basis that contributors to the USO levy are carriers and, indirectly carriage service providers (CSPs) who supply telecommunications services in Australia, consideration should be given to extending levy liability to Over The Top (OTT) providers of telecommunication services who compete with these carriers and CSPs, benefit from the availability of network infrastructure in Australia and do not currently contribute to these network costs.
5	What is the optimal funding model(s)?	See Retaining the USO Q4.
6	What transitional arrangements from the current USO model will be required?	There is value in considering a change to STS USO arrangements on completion of the NBN. This would be on the basis of nbn co. having a Universal Wholesale Broadband Obligation (UWBO) on an on demand basis. For nbn co. to assume this role, it will need to have: • completed its rollout of the NBN – change before this time will delay completion of the rollout; • the ability to provision (connect and remediate) infrastructure on request to an acceptable service level – as the service levels customers will receive from RSPs will be largely dependent on timeframes offered by the wholesale service provider; and • the ability to provide an acceptable STS to customers outside its fixed and fixed wireless footprint – without this there will be an ongoing need for Telstra to provision a STS to these high cost customers.



	Regardless of whether there is a change at a future point in time to the obligation, there are changes to the current arrangements that would make the USO STS truly technology neutral and promote the migration of customers in areas outside the NBN fibre footprint onto newer fixed wireless broadband infrastructure. This would be delivered via a relaxation to the copper continuity obligation (CCO) in the TUSOPA and removal of the NBN Wholesale Broadband Agreement (WBA) prohibition on the use of its fixed wireless infrastructure to deliver a service that will attract Customer Service Guarantee (CSG) or Priority Assistance (PA) obligations.
--	--

Information Request

	Questions	Responses
	The current USO	
1	How many USO standard telephone services are currently provided and where?	The STS is defined in technology neutral terms. As such, we meet the STS USO primarily over five different networks:
		Copper;
		Satellite;
		Radio CAN;
		Telstra owned optical fibre in 'Velocity' estates; and
		NBN fibre networks (FTTN, FTTP, FTTB and soon HFC).
		As defined, the obligation to make a service available does not delineate between USO services and non-USO services. As a result of the obligation, as a general rule, all of Telstra's fixed voice services provided over these five networks are "USO services". In FY15, Telstra had 6.0 million fixed voice services.
2	Who are the main groups of users of USO standard telephone services and payphones?	See The current USO Q1.
3	What are the respective shares of these user groups?	See The current USO Q1.



4	Aside from the rollout of the NBN, what are the major factors affecting the use of USO standard telephone services?	The decline in the use of fixed voice services has largely been the result of fixed to mobile substitution and an increase in the options available for customers to communicate (e.g. email, SMS, messaging platforms).
		As noted by the ACCC in their latest Competition in the Australian Telecommunications Sector report, while there had been a trend towards mobile only households, this trend has slowed and around 70 percent of consumers maintain a fixed line service. The ACCC concluded that many consumers are likely to consider their fixed line and mobile services as complementary.
5	What will be the impact of the NBN rollout on the provision of USO standard telephone services, particularly once the NBN rollout is completed?	The Federal Government established nbn co. with the objective of ensuring all Australians have access to very fast broadband as soon as possible, at affordable prices, and at least cost to taxpayers. Its corporate plan has targeted 2020 as the end date for its delivery. ⁸ To date, nbn co. has been focussed on:
		the migration of existing services off our copper network onto its fixed network;
		delivery of the FW and Satellite network; and
		 rolling out infrastructure into new estates with over 100 residences.
		However, at this point in time, nbn co. does not commit to the provision of infrastructure on demand outside its footprint to an agreed statutory performance level. Even within areas in which nbn co. has completed its rollout, if the residence is not in its records as a serviceable residence (e.g. small subdivisions within a rollout area), there is no unilateral right for a retail service provider (RSP) to take a request from a customer and have that infrastructure delivered within a set time period.
		While nbn co. does not have an obligation to provide a service to a residence on demand, Telstra does under the STS USO. Until nbn co. has completed this rollout, nbn co. should be allowed to focus on its primary objective of completing the NBN using the MTM.

⁸ www.nbnco.com.au/content/dam/nbnco2/documents/nbn-corporate-plan-2016.pdf



		The current NBN SAT solution is designed for the provision of a quality data service. While voice can be delivered over the infrastructure, it is not optimal for delivery of the STS USO.
		See also Retaining the USO Q6.
6	What are the major factors affecting the use of payphones?	Payphone usage is in decline, and there are several points that suggest that the Payphones USO can be delivered by the mobile market.
		mobile service penetration currently sits at around 130% of the total population;
		our mobile network offers 99.3% population coverage;
		 Australians seeking to make an emergency call can do so from any mobile network, regardless of service provider and even if they have no credit; and
		mobile voice affordability is increasing:
		 the latest ACCC reporting has shown a reduction of over 50% in the average nominal price of mobile voice services since the ACCC began its reporting on telecommunications price changes, with a 2% reduction in the last 12 months.¹⁰
		 unlimited voice and SMS are increasingly standard industry offers for both post and pre-paid services.
7	What are the main benefits and costs of the current USO?	The delivery of universal voice to a residence, ensures social inclusion, economic benefits and public safety.
8	How effective is the current USO in meeting its objective of being 'reasonably	The policy has been very successful in ensuring that voice services are available to customer residences, even in very remote areas.

⁹ ACMA Communications Report 2014-15 , ABS 3101.0 - Australian Demographic Statistics, Dec 2015 ¹⁰ www.accc.gov.au/publications/accc-telecommunications-report/accc-telecommunications-report-2014-15



	accessible' to all people in Australia on an 'equitable basis', wherever they reside or carry on business?	Whether or not competing RSPs choose to compete in regional and remote areas, metropolitan competition combined with Telstra's policy of national pricing ensures that the benefits of competition are delivered to customers in regional and remote areas. The latest ACCC reporting has shown a reduction of over 50% in the average nominal price of fixed voice services since the ACCC began its reporting on telecommunications price changes in 1997-98. ¹¹ Furthermore, the upfront cost of obtaining access remains affordable. Telstra's connection fees have remained unchanged for over a decade. For example, in-place connection prices were last increased in 2002.
9	To what extent is the current USO consistent with promoting competition and innovation in the telecommunications sector?	The USO was not designed as an instrument to deliver competition. Its objective as set out in the Act is to ensure that all people in Australia, wherever they reside or carry on business, have reasonable access, on an equitable basis, to a STS and a payphone. This has led to the rollout and ongoing provision of a national copper access network. Telecommunications competition policy is delivered through Parts XIB and XIC of the Competition and Consumer Act. Under that regime the ACCC has declared regulated access to seven access services over Telstra's copper access network. The ACCC sets wholesale prices for these services, and takes account of the USO payment in doing so.
10	Has the current USO affected competition positively or adversely?	As our whole copper network has access regulation applied to it, the STS USO has had a positive influence on competition as it has grown the total addressable market and revenue pool open for our competitors to access and compete for. Without the STS USO, the total addressable market would be significantly lower.
11	Has it discouraged innovation or created distortions that have affected the use, quality and reach of telecommunications services in Australia?	The USO has led to a national footprint of copper services. Over time, the copper network designed originally to deliver our STS USO has been utilised for a range of different services most prominently broadband services. This network has supported access to the internet which has delivered additional opportunities for productivity, entertainment and social connectedness. The STS USO has encouraged innovation and led to the provision of a national network available to all Australian's on request.
	Other current policies and programs	
1	What other current government policies and programs interact with the current	The MBSP may be seen by some as acting as a substitute for the USO, but in Telstra's view the two are quite distinct, serving different and complementary aims. The USO ensures every residential or business premise has access to a quality voice service. The MBSP helps push mobile coverage further

¹¹ ibid



	USO or may be seen as acting as a substitute for the USO?	into areas where low and/or transitory population density make coverage economically marginal, for example highways and holiday areas. The USO delivers service on a premise-by-premise basis. The MBSP delivers incremental improvements to the national mobile footprint.
2	What are their main benefits and costs?	The main benefit of the MBSP is that it identifies areas where improved coverage will provide the greatest benefit and then funds it as efficiently as possible using funding from the government budget, industry co-contribution and in some cases local investment. This approach delivers the greatest possible coverage extension to the greatest number of people at the lowest cost to the taxpayer. The MBSP has also been able to attract additional industry co-investment, effectively turbo charging the government contribution. This is evidenced by our investment of an additional \$165m in the first round of the program.
3	How effective are these policies and programs in achieving their objectives? Rationales and Objectives	See answers to Other current policies and programs Q2.
1	Are the underlying rationales for the current USO still valid in today's evolving telecommunications market?	Refer to Retaining the USO Q1.
2	Can the NBN be treated as an alternative (wholesale) USO service?	Refer to Information Request Q5.
3	What is the justification for funding two sets of infrastructure (the NBN and the current USO standard telephone service) in the highest cost areas?	Refer to Information Request Q5.
4	What evidence is there to support the rationales? For example, are changes in technologies reducing the costs of providing telecommunications service in regional and remote areas?	While there is the potential for changes in technologies to offer more reliability and lower costs, there will always be significant costs involved in the build and maintenance of telecommunications infrastructure in regional and remote areas with small populations dispersed over great distances. There will also be costs in migrating customers off existing infrastructure onto newer infrastructure.
5	To what extent are there market-based alternatives to the delivery of universal services through the current USO?	See Universal Service Providers Q1 and 2.



6	What evidence is there to support social or equity based rationales?	Ensuring national connectivity offers benefits to all Australians, not just those connected via the telephone service. For example, the delivery of an on-demand voice service to a rural small business' allows that business to connect with customers and suppliers which helps grow their businesses. This growth in turn creates employment opportunities in the rural community, reduces requirements for government income support and increases taxation revenue.
7	What should be the objectives of any new universal services policy?	See Retaining the USO Q1.
8	Are objectives such as universal availability, affordability and accessibility appropriate?	See Retaining the USO Q1.
	Broad Policy Options	
1	What policy options should be considered in addressing universal services	The Broad policy options that could be considered are a Broadband USO and a Mobile USO.
	objectives?	Broadband USO The policy option that could be considered is the introduction of a universal broadband obligation.
		Our views on this option are outlined in Retaining the USO Q6 and Information request Q5.
		A variation to the USO to include a broadband obligation on Telstra would result in Telstra having to engage in additional infrastructure expenditure on additional DSL infrastructure, which subsequently be overbuilt by nbn co., in some cases within months. This additional infrastructure would be necessary to ensure a minimum standard of broadband was available.
		This additional infrastructure spend would have to be funded by an increase in the payment under the TUSOPA. While this would provide some benefit to some customers prior completion of the NBN, it would not be an efficient outcome and would divert funding from more targeted infrastructure spending that would better meet consumer demand.
		We are conscious of the concerns of some communities who sit within the NBN fibre footprint who are currently without a DSL service and are concerned about when they will receive the NBN. While we cannot comment on nbn co.'s rollout, we have publicly indicated that we are increasing current ADSL



broadband capacity to meet increasing customer demand in some areas. ¹² We remain open to discussions with our retail customers and regional stakeholders to identify opportunities for targeted DSL investment in advance of nbn co.'s public rollout. This can be contrasted with a broad broadband USO which would require a national rollout of additional ADSL infrastructure, without regard to nbn co.'s rollout timetable.

A mobile-only USO

This obligation could potentially take two forms:

- delivery of voice to a residence using mobile infrastructure; or
- ensuring greater coverage to areas in which a residence is located, regardless of whether or not the customer can in fact access the service inside their residence.

Delivery of voice to a residence using mobile infrastructure is already an option

Delivery of a STS to a residence using mobile infrastructure is already possible given the technology neutral basis of the USO. Our use of the copper network for existing and new services has been driven by our desire to use the most efficient solution.

Imposing an obligation to use mobile infrastructure in all circumstances would go against the principle of technology neutrality and would result in less efficient delivery of the STS USO. It could impose additional costs where mobile infrastructure is not the most efficient infrastructure solution for a particular residence. Delivery of the STS to every premise or place of business using mobile infrastructure would be prohibitively expensive.

Although we do not currently offer a fixed wireless service over our mobile infrastructure in fulfilment of the STS USO, we are open to further investigating the possibility of utilising existing mobile infrastructure for this purpose. Any decision to put such a product into market is dependent on whether we have a product we can deliver at scale that will meet both our regulatory obligations and our customers' expectations.

_

¹² exchange.telstra.com.au/2016/06/29/improving-network-performance



Any supply and delivery of a fixed wireless USO STS would also have to take into account restrictions from the CCO.

Delivery of greater mobile coverage to uneconomic areas is the role of the MBSP

Australian consumers benefit from an industry that is competing vigorously on service, price and customer care. Australian mobile providers offer an array of world leading products, services, pricing options and technology platforms to consumers.

Telstra's success in this market it built on product offers, network investments and customer service designed to attract new mobile customers to the company. Getting to this point took a lot of capital investment and some big judgement calls. We are proud that we have successfully built a world-class mobile network in Australia.

We're particularly proud that we were able to achieve this on a level playing field against some of the biggest multi-national telecommunications companies in the world.

In recognition of the value our customers place on coverage, Telstra has invested heavily in ensuring we can deliver the best coverage available. This competitive tension has driven our investment, and Australia is now rated first in the world for mobile connectivity by the GSMA.¹³

Despite this investment, there are areas in which the business case to invest in mobile network infrastructure is difficult to make. It is these areas which are addressed by the MBSP which renders uneconomic coverage marginally economic.

The MBSP may be seen by some as acting as a substitute for the USO, but in Telstra's view the two are quite distinct, serving different and complementary aims. The USO ensures every residential or business premise has access to a quality voice service. The MBSP helps push mobile coverage further into areas where low and/or transitory population density make coverage economically marginal, for example highways and holiday areas. The USO delivers service on a premise-by-premise basis. The MBSP delivers incremental improvements to the national mobile footprint.

_

¹³ www.mobileconnectivityindex.com



		If the desire is to extend mobile coverage to all such residences, regardless of whether or not the customer can receive coverage in their premise, the MBSP is the appropriate tool to achieve it rather than a specific USO. The Government's MBSP has done an excellent job improving mobile coverage in areas which have been identified by the public as having in-adequate coverage. The MBSP has also been able to attract additional industry co-investment, effectively turbo charging the government contribution. This is evidenced by our investment of an additional \$165m in the first round of the program.
2	Is there a single policy or combination of policies that should be considered? What are their benefits and costs?	See Retaining the USO Q1 and Q6.
3	Which countries should be considered in relation to any new universal services policies in Australia? What aspects of their universal services policies should be considered? Which evaluations or reviews shed light on the benefits and costs of different policies?	Australia is unique to many other countries due to the overlay of the NBN. The current USO currently being discussed in the UK remains an aspirational policy goal set by the Labor Government in 1999 with no specific mechanisms to oblige infrastructure providers to deliver on this outcome. This can be contrasted with Australia where Telstra has a regulatory and contractual obligation.
4	Could the 'optimal' policy option for Australia be no USO?	We do not think this would be optimal. If there was no STS USO, costs would substantially exceed benefits of supply of new fixed voice services to residences in areas outside the NBN fibre footprint and existing fixed voice services in high cost areas. There could be no guarantee of ongoing fixed voice services in these circumstances. We consider that the delivery of a reliable fixed voice service to a residence is very much still in demand and valued by our customers and delivers benefits to the whole economy. Given the direct and indirect benefit it offers for social inclusion, public safety and productivity it should be retained as a requirement in any USO.
	Scope	in any coo.
1	What types of services should be included in any universal services policy?	See Retaining the USO Q1.
2	Should current USO services — the standard telephone service and payphones — continue?	See Retaining the USO Q1. In relation to payphones, given trends in the market the government may wish to consider whether maintaining the payphone obligation is delivering value to Australian consumers.



3	If not, what alternatives to these services should be considered?	If changes are proposed to payphones, consideration may need to be given to scenarios where
	Should be Considered?	payphones are located in an areas where there is no mobile coverage, particularly in rural and remote areas.
4	Given the ubiquitous nature of mobile services, should fixed line services remain the focus of the USO?	The delivery of a STS to a residence should remain the focus of the USO. As noted by the ACCC in their latest Telecommunications Competitive Safeguards for 2014–15, while there had been a trend towards mobile only households, this trend has slowed and around 70 percent of consumers maintain a fixed line service. Their conclusion being that many consumers are likely to consider the fixed line and mobile services as complementary. There is a difference between a mobile service and a fixed wireless service provided to a residence. It is likely that many customers will be able to use a mobile service within their residence. However, due to the vagaries of signal strength and propagation of mobile signals within some buildings, it is not possible to assert that the STS USO is being met on a permanent basis by virtue of a residence or place of business sitting within an area of mobile coverage. This does not foreclose the use of mobile infrastructure to deliver the USO. To guarantee the customer experience at scale on a permanent basis, using existing mobile infrastructure, we would aim to deliver the STS via a fixed wireless solution. The method of delivery would depend on the customer's location. For example, in some cases it may require installation of additional infrastructure such as supporting antenna at the customer's residence to ensure reception. We would also need to make sure the product was compliant with existing regulatory reporting, compatible with new product offers and that any migration of customers on to this network was well managed.
5	Given emerging market, technological and policy developments, what areas of market failure should be targeted by any new universal services policy?	See Retaining the USO Q6.
6	Should there continue to be a voice services safety net for particular user groups and, if so, what would be the best approach to providing this?	The USO has been designed not to discriminate between people or organisations to whom it is delivered. The basic obligation ensures that everyone, including businesses, enjoy the benefits delivered by universal voice access. It also ensures that customers with a disability are supported in their access.



		Given the benefits the USO STS offers for education, public safety, productivity and social inclusion to
		all Australians, we do not recommend narrowing the type of consumer or location the USO STS is
		delivered to.
7	Which particular user groups (e.g. indigenous communities) and locations (e.g. remote locations) should be targeted by any universal services policy?	See Scope Q6.
8	What are the telecommunications needs of these particular groups?	We do not support introducing rules that might lead to discrimination between customers in the delivery of a universal service.
		However, the government may wish to consider targeting particular stakeholder groups with programs outside the broader goal of the USO. Further analysis could be undertaken in relation to the question of affordability of telecommunications services more generally (i.e. not just fixed voice). Such research should focus on what is the level of data consumption required to meet the needs of low income consumers. This will inform whether there should be a review of how existing government income support arrangements support low income consumers' consumption of telecommunications services.
9	Should telecommunications users in regional and remote locations reasonably expect exactly the same service quality and price (including usage) as those living in cities irrespective of the cost of provision?	The STS USO requires Telstra to make the STS reasonably accessible. Although it does not impose explicit pricing rules, to make services reasonably accessible we must price STS access at a level our customers can reasonably afford. We have delivered this through national pricing of our fixed voice product suite which has ensured that the price paid by customers in regional and remote areas is the same as that paid by customers in metro areas.
	previolen.	Whether or not competing RSPs choose to compete in regional and remote areas, metropolitan competition combined with Telstra's policy of national pricing ensures that the benefits of competition are delivered to customers in regional and remote areas.
		Due to differences in technology there are challenges in delivering exactly the same service quality to customers in remote areas and metro areas. However, service providers should seek to maximise the quality of service to the customers when operating within the constraints of the available technology. This approach has informed our choice of the USO satellite platform to deliver voice services to customers in remote areas.



_		
		There are also inherent challenges in delivering identical service assurance levels where populations
		are dispersed over large distances. This challenge is well understood by government and is explicitly
		taken into account in the CSG's different performance levels between urban, rural and remote areas.
10	What should be the criteria for the	See Scope Q6.
	inclusion or exclusion of particular	
	telecommunications services, user	
	groups and locations?	
	Quality	
1	How should the benchmark for minimum	The Government is committed to a review of existing consumer protection requirements and the issue
	standards of quality be set for universal	of minimum service standards in an NBN environment should be addressed as part of that broader
	services?	review. Where consumers have a choice of RSP, it will be important to ensure RSPs have the ability
		and incentive to compete via differentiated service offerings. To the extent service quality remains
		mandated by regulation, its impact on costs and technology choice will need to be recognised.
2	Are existing consumer protections	The community should be confident that basic requirements, such as access to E000, ease of choice
	applicable to telecommunications	via portability arrangements, privacy protection, and timely complaint resolution are maintained.
	services provision reasonable?	
		A key retail consumer protection is the CSG. As timeframes offered to customers for service connection
		and remediation will be dependent on nbn co., a key question for the Government consumer safeguard
		review is how minimum service standards will apply in an NBN environment.
3	Is there scope to make these measures	Yes, we would expect the Government review of safeguards would have effective and efficient delivery
	more efficient or cost-effective?	of consumer safeguards, to the extent that regulated safeguards remain necessary, as a primary
		objective. Ensuring that all RSP in an NBN environment are required to deliver the basic requirements
		noted in Quality Q1 will be an important consideration for consumers.
4	Should consumer protection	Transparent reporting at an RSP level is not seen as an efficient or effective solution given the size and
	requirements be replaced or	scope of the industry. There are other preferred options – e.g. Critical Information Summaries - currently
	supplemented by transparent reporting	used and working very effectively at a Retail level to assist consumers to make an informed choice
	by retail service providers?	between RSP offerings.
	Universal Service Providers	
1	How should universal service providers	USP should be determined on its ability to deliver a service nationally on request to an acceptable
	be determined?	service level that delivers a good customer experience.
2	Should there be competitive tendering for	We recommend maintaining the current model of sole supply under the TUSOPA and would only
	the provision of services?	support introducing contestable arrangements if there is a high level of confidence that it can be shown
		to be:



		demonstrably more efficient, including when administration costs are taken into account;
		delivering a customer experience at least as good as current levels; and
		likely to generate interest from potential competitive USPs.
	Ole Heave Heave Heave Heave	Ver Over Harington I Over in a Presidence Od
3	Should a provider of last resort be designated and if so, on what basis?	Yes. See Universal Service Providers Q1.
4	What incentives are required to ensure that a provider of last resort operates at minimum cost?	We are already incentivised to provide the most efficient solution.
5	Is imposing reporting requirement on universal service providers as to who uses the services technically feasible?	This would have significant practical and customer impacts. Depending on the scope, could require very intrusive disclosure requirements to be imposed on customers to gather this information. For example, information might need to be collected on the customer's age, income, education level, profession. This would have to be recorded, validated and reported, imposing financial and time costs on the USP and customers.
6	What, if any, requirements should apply to all service providers?	The application of regulations that are designed to deliver consumer protections should be applied on a competitively neutral basis.
	Other Policy Issues	
1	How might technological neutrality be implemented under any new universal services policy?	We are not advocating change to current policy. As long as the infrastructure supported can deliver the service and its associated service level obligations, the service should be defined in a manner that is technology neutral.
2	How frequently should any universal services policy be reviewed, particularly given rapid changes in technology?	The next logical point to review of the policy may be at completion of the NBN. At this point in time, it is not possible to make an informed judgement as to the frequency of reviews after NBN completion.
3	What other issues should be considered with respect to universal services policies?	We do not think that any other matters should be called out beyond the basic obligation of ensuring the universal service as defined is deliverable on request.
	Funding	
1	How should the costs of delivering universal services be determined or benchmarked, and by whom?	Telstra is under a commercial agreement for the delivery of USO and STS. We remain open to renegotiation of these arrangements. Noting that increasing the scope of the obligation is likely to lead to an increase in the cost of delivery.



2	Who should pay for the costs (and wear the regulatory burden) of delivering universal services?	The cost of the current obligation is borne by both telecommunication carriers and the Government. Telstra's levy liability of around \$140m makes it is the largest contributor to its cost. We contribute 40% more than the Government, three times more than Optus and nine times more than VHA. When it comes to the imposition of taxes or levies to support government policies, the least distortionary and hence most efficient approach is to recover from as broad a base as possible i.e. government budget. The current levy is based on a carrier's 'eligible telecommunication revenues' which are inclusive of all forms of communication services not just fixed voice or payphone revenues.
		This basis of eligibility could be expanded to include OTT providers of communication services.
3	Is it reasonable that telecommunications users in regional and remote locations do not bear more of the actual infrastructure costs of providing telecommunications services?	Yes. Given the economy wide benefits offered by universal connectivity, and on the current contractual arrangements that underpin its delivery, Telstra supports national pricing of universal services.
4	What should be the main mechanisms used for funding the delivery of universal services?	See Funding Q2.
5	What is the role of government in funding social policy objectives?	See Funding Q2.
6	What should be the basis for determining any industry levy?	See Funding Q2.
7	How should new user co-payment for services be determined?	We are not promoting the use of user co-payment for universal service provision. This would not benefit our customers - it would add complexity to the offer of the service, require an assessment on what the quantum of the co-payment should be (which would vary by region) and consequently increase the retail cost of service provision.
8	Should there be means testing for users to access universal services?	No. See Funding Q7.
9	Should a universal service fund be established, particularly, to address new or future changes in technology and in consumer needs and preferences?	We do not support a change from the current goal of the USO around the delivery of STS and payphones into a more generic "future changes in technology and consumer needs and preferences".
	Implementation and Transition	



1	How will agreements relating to the current USO affect the implementation of, and transition to, any new universal services policy?	The delivery of the USO is performed under contract. Any change to the USO or to the terms of the TUSOPA will need to be negotiated with Telstra.
2	What impact will the timing of the NBN rollout have?	The timing of the NBN rollout is critical to consideration of reviewing these arrangements. See Information Request Q5 .
3	Is there a need to review current governance arrangements?	The current governance arrangements are managed jointly between the ACMA and DOCA. We would support a streamlining of these arrangements under which compliance would be managed solely under the contract. Beyond streamlining this we do not see any need to vary current governance arrangements.
4	What should be the role of state and territory governments?	State and Territory Governments have role in ensuring planning rules promote the efficient delivery of telecommunications infrastructure to new estates.
5	What other matters should be considered in relation to implementing and transitioning to any new universal services policy?	See Retaining the USO Q6.