



Submission in response to
Productivity Commission's
Draft Report

**Telecommunications
Universal Service
Obligation**

Public Version

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INTRODUCTION

1. The Productivity Commission's (the Commission) draft report on the USO is a significant contribution to the debate on the USO. The findings and recommendations are based on a comprehensive assessment of all aspects of the current USO policy settings. The overall conclusion that the current USO policy is not fit for purpose is compelling.
2. The policy reforms recommended by the Commission have four significant components.
 - (a) Phasing out the existing USO and establishing a new baseline universal service obligation for a basic voice and data service;
 - (b) As far as possible, using the NBN and mobile infrastructure to deliver broadband and voice services consistent with this new baseline standard;
 - (c) Where there are gaps in voice capability that cannot be delivered over the NBN, or through existing mobile infrastructure, examining the costs and benefits of meeting any needs through targeted schemes funded directly by the Government; and
 - (d) Seeking to re-negotiate the current Telstra USO agreement as a matter of priority.
3. Optus fully endorses the approach recommended by the Commission. These reforms, if implemented, will transform the USO from a costly, ill targeted scheme that delivers limited benefits into a set of meaningful obligations that are targeted to customers' real needs and which leverages market based solutions thereby reducing the cost to taxpayers and consumers.
4. Optus has examined each of the components of the reform in the main body of this submission. Commentary on the other findings and recommendations of the draft report are set out in the attached Appendix A.

ESTABLISHING A NEW BASELINE UNIVERSAL SERVICE OBLIGATION FOR A BASIC VOICE AND DATA SERVICE

5. In its draft report, the Commission has identified numerous concerns with the USO that have been echoed repeatedly in submissions to its current inquiry and in previous inquiries. This has led the Commission to conclude that the USO is an untargeted, blunt and inefficient policy instrument that lacks accountability and transparency.
6. Optus agrees with this assessment. We believe that the USO is an expensive anachronism, well past its use-by date. The decision to retain the current out-dated USO when the structural reform package associated with the NBN was developed and implemented represents a regrettable policy miss-step.
7. Optus agrees with the Commission's recommendation that the current universal service obligation should be phased out and that a new standard should be developed to provide a baseline broadband and voice service to be delivered to all premises.
8. At its core, the current USO guarantees that customers can **connect** to a network and **receive** a certain standard of voice service. This is achieved through the principle that all

Australians have reasonable access to a defined **standard telephone service** (STS) on request.

9. As discussed further below, the obligation to provide connectivity in the future will ultimately reside with NBN Co (or an alternate designated network) as its network is rolled-out.
10. The standard telephone service is defined in Section 6 of the *Telecommunications (Consumer Protection and Service Standards) Act 1999* and must meet certain basic requirements including basic voice calls and access to emergency services, directory and operator assistance. It was framed in an era when telecommunications was dominated by the “plain old telephone services” (POTS) delivered by a single supplier that faced limited competition. The “plain old telephone service” is no longer the primary means of communications. It is no longer a fundamental standard for communications. Further, competition and market forces have rendered many of the additional obligations unnecessary.
11. A new minimum safety net should be reflective of today’s technology and consumer expectations. The STS should be adjusted to reflect the widespread customer adoption of modern voice services, such as VOIP, VOLTE and over-the-top services. In terms of broadband, the standard should be set having regard to the capabilities and obligations of the NBN wholesale broadband access services. The new minimum safety net should be technology neutral and operate as a baseline not an aspirational standard, recognising that market pressures will ensure customer’s needs for additional features are met.

LEVERAGING THE NBN INFRASTRUCTURE

12. The Commission has acknowledged the significant investment the Government is making in the NBN and the opportunity this infrastructure provides to deliver lasting reform of the USO. Since NBN Co has an obligation to connect every household and business to a high-speed broadband service (which is capable of delivering quality voice services), the Commission has recommended that the Government should leverage this infrastructure to guarantee delivery of the re-based universal service. This obligation will be formalised by legislation that will designate NBN Co as the default statutory infrastructure provider. The legislation will ensure that NBN Co will continue to connect premises and supply services after the roll-out has been completed in an area within a reasonable timeframe in order to “*give end-users certainty that regardless of where they reside or operate, they will have access to underlying telecommunications infrastructure and services.*”¹
13. Given the proposed role of the NBN the Commission indicates that there should be minimal additional intervention to guarantee retail services on the NBN. These findings and recommendations are wholly consistent with the recommendations set out in Optus’ July 2016 submission to the Commission’s discussion paper. As the NBN roll-out is gathering pace it is clear that consumers have access to over 150 RSPs² for voice and broadband services across the different NBN platforms. Many of these RSPs are pricing their services on a national basis that are in line with prices available on legacy services.

¹ Regulatory Impact Statement – Introduction of a Statutory Infrastructure Provider Regime into the Telecommunications Act 1997, Explanatory Memorandum, p.4

² See: NBN Co, List of service providers, <http://www.nbnco.com.au/connect-home-or-business/information-for-home/how-to-connect/service-provider-list.html> [accessed 3/1/17]

Since the NBN wholesale services are regulated there is certainty that customers will continue to be able to access services at affordable prices.

14. Optus notes that in both the NBN fibre and fixed wireless footprint we offer both standalone telephony and bundled telephony/broadband services using VoIP technology for residential and small business customers.
15. The choice of multiple RSPs extends into NBN Co's satellite footprint. Optus notes that there are several operators offering services on the NBN satellite platform at metro-equivalent prices. The number of retail service providers is expected to grow in time as the service matures. **CiC**.
16. In addition to ubiquitous NBN infrastructure, consumers also have access to three national mobile networks that provide connectivity to 99% of households. The high quality voice and data services provided by these networks are now the primary means of communication for many customers, with mobile voice minutes exceeding fixed voice minutes by 250%³. Some 31% of households now rely on mobile networks alone, with no use of a fixed line telephone⁴.
17. In summary, there is little justification for maintaining the legacy Telstra copper network as the NBN is rolled out since customers are guaranteed access to both voice and data services over the NBN; in addition, they will also have access to high quality voice and data services from mobile operators.

ADDRESSING GAPS CAPABILITY AND/OR COVERAGE

18. Optus acknowledges that concerns have been raised with the ability of the NBN satellite network to deliver voice services that are equivalent to those on the copper technology today or which can meet the new baseline standard. However, to the extent that there are issues these are likely to relate only to a subset of calls where both end-users are on the satellite service and, thus, a double satellite hop is required.
19. Optus agrees with the Commission's finding that the existence and extent of this problem, and whether it causes real inconvenience to customers, will need to be established. Further, the majority of satellite customers will have access to reliable mobile services that will meet the new baseline standard. Therefore, as the Commission identifies, the issue will only likely apply to a small subset of customers, around 90,000 in total. This cohort may shrink further as the second and third phase of the Mobile Black Spot programme is rolled out.
20. It should not be assumed that such customers are receiving a premium quality service today. Some may be serviced through radio or legacy satellite technology that may not offer superior service capability to the NBN. Regardless, Optus agrees with the Commission that the Government should consider the costs and benefits of targeted funding schemes to meet these capability gaps, if it is established that there is a small subset of customers who cannot access the baseline service through existing NBN and mobile infrastructure.

³ ACCC Telecommunications report 2014-15.

⁴ ACMA Communications report 2015-16

21. An option which should immediately be ruled out is to maintain Telstra's full copper network in regional areas to meet this small capability gap. Potential options to consider include further extensions of the Mobile Black Spot programme.⁵ Of particular note is the funding of small cell satellite technology in the second round of the programme.⁶ Optus notes that this small cell satellite technology can provide a cost effective way of delivering voice and data services to small isolated communities. Further details on small cell satellite technology are set out in Appendix B to this submission.

TELSTRA UNIVERSAL SERVICE OBLIGATION AGREEMENTS

22. The Commission has acknowledged that a critical precursor to the much needed reform of the USO is for the existing USO agreements with Telstra to be cancelled or renegotiated. These agreements currently lock-in the legacy USO arrangements until 2032 at a cost of \$3 Billion in NPV terms.
23. The Commission has endorsed criticism of these funding arrangements from industry stakeholders noting that *"the design of the current arrangements creates a number of distortions with adverse impacts for the efficiency of the telecommunications sector more broadly"*⁷.
24. Not only is a re-negotiation of the agreements critical to implementing reform, the Commission correctly acknowledges that *"there are likely to be beneficial gains for both parties from a renegotiation of the agreement"*⁸. This view aligns with the position Optus put forward in its submission to the discussion paper. In particular, we noted that lifting the burden of the obligations from Telstra will *"enable Telstra to de-commission its copper network either in part or whole, which must represent a cost benefit to Telstra"*⁹.
25. Optus endorses the Commission's recommendation that the Government should immediately commence negotiations with Telstra to amend and ultimately abolish the current USO agreements with Telstra.

PAYPHONES

26. Optus agrees with the Commission's finding and recommendation that there is a compelling case for immediately winding back Telstra's payphone USO obligations. As the report notes, the majority of customers (up to 99% of the population) have access to adequate mobile coverage with the result that payphone usage is in dramatic decline. Optus agrees that there is a need for a more efficient and cost effective targeted community based solutions than the current broad brush obligation.

⁵ To date, the Mobile Black Spots programme has attracted substantial carrier and state government co-investment, with Rounds 1 and 2 of the program contributing *"almost \$600 million invested in regional mobile networks, delivering handheld coverage to 86,300 square kilometres of Australia's landmass."* See: Minister for Communications, ACCC inquiry into domestic mobile roaming, Letter to the ACCC, 2 December 2016, p.2

⁶ In Round 2 of the Mobile Black Spots Programme, 49 small cell sites were awarded funding in both remote and very remote areas. This is in addition to the 250 small cells which Telstra committed to install in selected areas following the announcement of funding in Round 1 of the Mobile Black Spots Programme.

⁷ Productivity Commission, Telecommunications Universal Service Obligation, Draft Report, December 2015, p.260

⁸ Ibid, p.259

⁹ Optus, Submission in response to Productivity Commission Issues Paper – Telecommunications Universal Service Obligation, July 2016, p.31

APPENDIX A DRAFT FINDINGS AND RECOMMENDATIONS

A1. The following table restates the Commission's list of findings and recommendations set out in the Draft Report.

An evolving telecommunications landscape		
F 2.1	Technological progress is transforming the way in which people access and use telecommunications services. Individuals, businesses, governments and the community at large are benefiting from these developments. Prices of telecommunications services are falling, while service quality is improving across both fixed and mobile platforms. Moreover, these services are converging, allowing users to readily choose between fixed and mobile access, and generating additional competitive pressure on service providers.	<p><u>Agree.</u></p> <p>Setting universal service policy based solely on the provision of access to fixed platforms ignores the fact that there is a growing shift from fixed-only to converged households. The least cost outcome for the delivery of the USO would come from allowing service providers to choose between fixed and mobile platforms.</p>
The TUSO lacks transparency and is overdue for reform		
F 3.1	<p>There is a dearth of data on the number of premises covered by the telecommunications universal service obligation (TUSO). Telstra (the universal service provider) is not required to, and has advised that it does not collect information on the number of non-commercial telephone services, or on the costs of any telephone service it supplies under the TUSO. As such, the evidence base for assessing whether the TUSO is providing value for money is inadequate.</p> <p>Commission estimates suggest that the TUSO could imply a standard telephone service annual subsidy ranging anywhere between \$250 to \$2,800 per 'TUSO' service, and an annual average payphone subsidy of between \$2,500 to \$50,000</p>	<p><u>Agree.</u></p> <p>Greater transparency is required to ensure that both the universal service obligations are being met <i>and</i> that the service being provided under the USO is supplied through efficient means. This information has neither been collected nor publicly reported – yet at the same time, the quantum of funding continues to increase. As acknowledged by the Commission <i>"The larger the funding envelope, the larger the potential distortions and costs to the community."</i>¹⁰</p>

¹⁰ Productivity Commission, Telecommunications Universal Service Obligation, Draft Report, December 2015, p.15

F 3.2	Evidence of the declining relevance of services covered by the telecommunications universal service obligation – the standard telephone service and payphones – is unequivocal. Over the past decade, Telstra’s active retail fixed-line services have declined by about one quarter (from over 8 million to just under 6 million services), while the number of Telstra payphones has almost halved (from over 31,000 to around 17,500). One third of Australian adults now rely solely on mobile phones for voice services.	<u>Agree.</u> The relevance of services covered by the USO should be reassessed (see also comments to Finding 2.1).
F 3.3	In addition to its declining relevance, the telecommunications universal service obligation (TUSO) has a number of deficiencies. It is a blunt instrument with a one-size-fits-all approach to universal service provision. Telstra’s contractual obligations under the TUSO lack transparency and accountability. The basis for TUSO funding (a total of around \$3 billion in net present value terms over 20 years to 2032) is unclear and disputed.	<u>Agree.</u> The funding arrangement to support the delivery of USO is deficient and lacks transparency. Given the NBN rollout target completion is expected in 2020, there appears little basis for the TUSO funding to be locked-in to 2032.
R 3.1	The Australian Government should phase out the existing telecommunications universal service obligation as soon as practicable.	<u>Agree.</u> Optus supports the recommendation to phase out of the existing USO.
A lack of policy coordination		
F 4.2	In addition to the telecommunications universal service obligation, there is a plethora of policies and programs that subsidise the provision and use of telecommunications services across Australia and across different cohorts of users. Conservatively (and excluding the NBN), at least \$1 billion per year is allocated to telecommunications programs broadly associated with supporting universal service objectives. There would be benefits from removing duplication and moving towards a more integrated approach to meeting universal service objectives.	<u>Agree.</u> Greater transparency in the supply and provision of services covered under these policies would allow for greater assessment of the effectiveness of services delivered. This would also highlight any cases of duplication across policies and programmes.

F 4.1	The Australian Government, in consultation with state and territory governments, should conduct a stocktake (by the end of 2017) of all telecommunications programs that share universal service objectives to rationalise and improve their efficacy and cost-effectiveness. The Australian Government should also provide a forum for agencies and jurisdictions to promote program evaluation and share best practice.	<p><u>Agree.</u></p> <p>Any review of the existing USO arrangement should include a stocktake of all current and recently awarded government and/or industry funded telecommunications programs.</p>
An updated universal service framework		
R 5.1	The Australian Government should reframe the objective for universal telecommunications services to provide a baseline broadband (including voice) service to all premises in Australia, having regard to its accessibility and affordability, once NBN infrastructure is fully rolled out.	<p><u>Agree.</u></p> <p>Given the decline in voice-only services, greater priority should be given to establishing a baseline broadband (including voice) service to all premises. The baseline should be based on a broader range of delivery mechanisms.</p>
Leveraging off the NBN		
F 6.1	After the full rollout of NBN infrastructure and in the absence of the telecommunications universal service obligation, retail broadband (including voice) services are likely to be available to all premises across Australia.	<p><u>Agree.</u></p>

F 6.2	<p>The quality of the broadband service supplied by NBN infrastructure will be superior to the quality of service previously available across all Australian premises.</p> <p>However, as is the case under the existing telecommunications universal obligation (TUSO), the quality of voice services will vary across technologies.</p> <ul style="list-style-type: none"> • Voice services offered to premises in the NBN fixed-line and fixed wireless footprints will be of a high quality and equivalent to the standard offered under the TUSO. • Voice services offered to premises in the NBN satellite footprint will be of an adequate quality for most purposes, but will fall short of the quality of those offered under the current TUSO in terms of latency and service repair timeframes. Up to 90,000 premises may be solely dependent on nbn's Sky Muster satellites for voice calls. <p>Whether further government support for some alternative voice service for these premises is warranted is contingent on whether the quality of nbn's services is below the baseline that the broader community would regard as acceptable for a universal service.</p>	<u>Agree.</u>
R 7.1	<p>The Australian Government should introduce legislation as soon as possible to make explicit the role of nbn as a universal service provider of wholesale broadband services. The legislation should be in place before any decision by the Australian Government to privatise nbn.</p>	<u>Agree.</u>
R 7.2	<p>The Australian Government should ensure that any further intervention with respect to guaranteeing retail service provision over NBN infrastructure is minimal. This should involve monitoring by the Australian Government of retail presence on NBN infrastructure and, if necessary, contracting one or more retail service providers to service geographic areas lacking retail presence.</p>	<p><u>Agree.</u></p> <p>Although there is little likelihood of there being insufficient RSPs to offer retail services. As the NBN roll-out is gathering pace it is clear that consumers have access to over 150 RSPs for voice and broadband services across the different NBN platforms. Since the NBN wholesale services are regulated there is certainty that customers will continue to be able to access services and at affordable prices</p>

Addressing market gaps and particular user needs

R 9.3	<p>The Australian Government should proceed with its intended review of the telecommunications consumer safeguards framework as a matter of priority. The review should include an assessment of:</p> <ul style="list-style-type: none"> • what, if any, future safeguards are necessary • what changes should be made to Telstra's carrier licence conditions • the future role of accessibility and affordability measures, including the Telephone Allowance, the National Relay Service and relevant elements of the National Disability Insurance Scheme • the consumer protection roles of various bodies including: the Australian Competition and Consumer Commission; the Australian Communications and Media Authority; and the Telecommunications Industry Ombudsman <p>the delineation of responsibilities for service quality (including fault repair) on the NBN.</p>	<p><u>Agree.</u></p>
R 7.4	<p>Before proceeding to the next round of funding under the Mobile Black Spot Programme, the Australian Government should implement the Australian National Audit Office's recommendations relating to that program. It should also: target the program only to areas where funding is highly likely to yield significant additional coverage; revise its infrastructure-sharing requirements to be consistent with the Australian Competition and Consumer Commission's findings in the ongoing Domestic Mobile Roaming Declaration Inquiry; and prioritise areas for funding based on community input — rather than nominations from Members of Parliament.</p>	<p>Optus supports the Mobile Black Spot Programme. Optus recognises the improvements in the second stage of the programme and supports the continual review and improvements of the scheme following learnings as the roll-out progresses.</p> <p>Optus does not support any pre-determined recommendation with regards to the ongoing Domestic Mobile Roaming Declaration Inquiry.</p>

R 7.5	The Australian Government should establish a funding program for a form of community telecommunications service (such as payphones) that targets locations where premises do not currently have a satisfactory alternative voice service, such as a mobile service. This program should target particular needs and be flexible for delivery to such communities. This program should involve a competitive tendering process to allocate funding.	<p><u>Agree.</u></p> <p>Optus agrees with the Commission's finding and recommendation that the case for immediately winding back Telstra's payphone USO obligations is clear. Optus agrees that there is a need for a more efficient and cost effective targeted community based solutions than the current broad brush obligation.</p>
How much funding and who should pay?		
F 8.1	The amount of funding required for universal service programs following the full rollout of NBN infrastructure is likely to be smaller than the current funding amount for the telecommunications universal service obligation.	<u>Agree.</u>
F 8.2	Whether funded from general government revenue, an industry levy or a combination of both, all funding models can distort investment and consumption decisions and involve administrative costs. An 'optimal' funding model should seek to minimise these costs, which will vary with the nature and size of the program to be funded, as well as broader market dynamics.	<u>Agree.</u>
F 8.3	<p>Small programs do not justify the design and administrative costs associated with a broad-based industry levy. Funding these through general government revenue is likely to be simpler and less costly to administer.</p> <ul style="list-style-type: none"> This would imply the ultimate removal of the Telecommunications Industry Levy. 	<u>Agree.</u>

R 8.1	<p>The Australian Government should use competitive tendering wherever feasible to deliver telecommunications universal service programs. As a first step, the Government should test the depth of relevant market segments.</p> <p>Where there is no market depth and a competitive tendering process is not feasible, the Government should, at a minimum, subject all proposed program costings to an independent and transparent validation process. Where relevant performance comparators are available across programs, these should be used as a basis for benchmarking.</p>	<u>Agree.</u>
R 8.2	<p>The Australian Government should fund targeted measures to meet telecommunications universal service objectives principally through general government revenue rather than an industry levy. The Australian Government should seek to minimise the risks of cost-padding and gold-plating through contestable and transparent processes.</p>	<u>Agree.</u>
Transitional matters		
R 9.1	<p>The Australian Government should immediately commence negotiations with Telstra to amend, and ultimately abolish, module B (Standard Telephone Service USO) and module C (Payphones USO) of the Telstra USO Performance Agreement (in line with draft recommendation 3.1).</p>	<u>Agree.</u>
R 9.2	<p>In negotiating changes to the Telstra USO Performance Agreement (draft recommendation 9.1), the Australian Government should seek an early termination of module C (Payphones USO) of the Agreement. These negotiations should be complemented by the required legislative amendments to also remove Telstra's statutory requirements in relation to the payphones universal service obligation.</p>	<u>Agree.</u>

- B1. Satellite technology has a long association with the delivery of communication services to remote parts Australia. This association will be extended and deepen with the deployment of the NBN long term satellite service that will be used to deliver mass market high speed broadband technology to fixed locations.
- B2. In respect of mass market mobile communications satellite has played an important role enabling mobile operators to provide connectivity where other technologies have not been viable. Recent developments in small cell infrastructure and satellite technology have made the delivery of 3G data and voice services over satellite commercially viable.
- B3. These advances open up new opportunities for mobile technology to be deployed to target smaller pockets of population in remote areas using small cell technology rather than traditional mobile base stations. Where previously the requirement to deploy a macro cell in these areas made the delivery of voice and data service uneconomic, it is now possible to install a small cell to deliver full smartphone services at multi-megabit speeds.
- B4. Inevitably there are some trade-offs with the small cell technology. For example, the coverage area of a small cell is limited to around 2-3 km compared to around 10 to 30 km range provided from a more traditional mobile base station. However, there are significant positive benefits in the cost and time to deploy a small cell technology. There is no need for a large tower and site to support the mobile equipment and house the supporting infrastructure. This solution typically consists of an antenna which can be deployed on a roof with power provided through the general power supply or by roof mounted solar panels. Batteries can provide back-up capability so that a cell can be in operation 24 hours a day.
- B5. The following diagram provides an example of typical small cell site as compared to a more traditional mobile facility.

Typical small cell site vs traditional mobile facility



B6. C-i-C

- B7. These are not theoretical capabilities. Optus has deployed and tested its small cell technology at the Pink Roadhouse in Oodnadatta. Further, we are set to roll-out 49 small cell satellites in West Australia and the Northern Territory under phase 2 of the Mobile Black Spot Programme.