

Optus Submission to
Regional Telecommunications Review

July 2015

Public version

Section 1. Executive summary

- 1.1 Optus acknowledges that access to reliable and affordable communications services is a priority for consumers in regional parts of Australia. Arguably these consumers have a greater reliance on their communications services because of the remoteness of many regional locations.
- 1.2 The market for regional communications services has distinct characteristics from metropolitan markets. In particular, competition is either less intense or absent. To some degree this reflects the reality that servicing remote and small regional communities may not be commercially viable without Government support. There has been, and will continue to be, a role for Government in developing policy settings that can augment the delivery of services by commercial organisations.
- 1.3 Whilst Government has historically played such a role, not all current policy initiatives have been effective in meeting the needs of regional consumers. In this submission Optus will highlight a number of areas where policy initiatives may improve the environment for competitive entry into regional Australia and facilitate improved service outcomes for regional consumers.

Universal Service Obligation

- 1.4 A key element of the current regional policy framework is the Universal Service Obligation (USO), which is designed to ensure access to basic voice services to consumers wherever they reside. This guarantees that in remote areas, that would otherwise be non-economic to serve, consumers can access infrastructure and basic voice services. However, it has long been identified that the current USO policy settings, which rely on access to the legacy Telstra copper network, are not delivering effective outcomes for regional Australia.
- 1.5 Over the next five years there will be significant investment in new state of the art communications infrastructure in regional Australia. This will include:
 - (a) The deployment of 4G Mobile technology by the leading Mobile Network Operators;
 - (b) The deployment of NBN Co's fixed wireless and satellite technologies.
- 1.6 These platforms provide clear opportunities to improve service delivery for regional consumers, including the transforming the legacy universal service arrangements. Unfortunately, current policy settings mean that the opportunity to revamp the USO by leveraging this infrastructure will be missed unless reform is implemented.
- 1.7 Agreements reached with Telstra in 2011 and revised in 2014 have effectively locked-in the legacy arrangements under a twenty year contract. These arrangements require Telstra to maintain its legacy copper network at an annual cost of some \$330 Million; or a potential total cost of around \$6.6 Billion over the contract period. Whilst network infrastructure is increasingly being tailored to meet customer demands for data and IP traffic, the USO policy appears to be frozen in a 1980s analogue paradigm

- 1.8 Optus recognises that it is beyond the scope of the Regional Telecommunications Independent Review Committee’s (RTIRC) terms of reference to make detailed reform recommendations in respect of the USO. However, Optus supports the RTIRC recommending the Government conduct a wide ranging review into the USO as a regional policy priority. The aim of such a review should be to recommend policy changes that ensure the USO delivers better outcomes and value for consumers, industry, competition and taxpayers

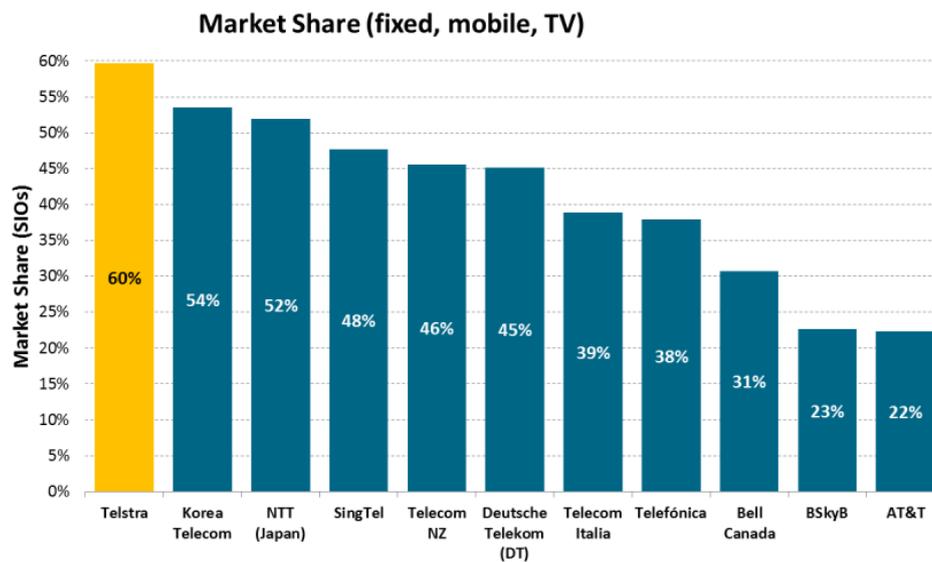
Leveraging NBN infrastructure

- 1.9 Over the next five years the Australian Government will undertake significant investment in regional communications infrastructure through the roll-out of the NBN. Whilst the NBN infrastructure will directly improve the delivery of fixed broadband and voices services to regional Australia there are opportunities to leverage this infrastructure more broadly to improve the delivery of other services, such as mobile communications. Optus encourages the RTIRC to advance policy measures that can facilitate appropriate use of NBN infrastructure to advance competitive outcomes in regional Australia. This includes;
- (a) Development of low cost backhaul services for mobile towers in regional areas where service contestability is absent; and
 - (b) Arrangements to maximise the co-operative deployment of NBN Co’s fixed wireless towers to facilitate sharing of this infrastructure by mobile operators.

Section 2. Structural barriers limit competitive entry in regional Australia

- 2.1 The communications market in Australia continues to be dominated by Telstra, which enjoys a significant market share across fixed voice, fixed broadband, mobile and Pay TV services. The following table demonstrates that Telstra has a level of market dominance that is distinct from its international peers.

Figure 1: Incumbent market share across communications markets



- 2.2 Whilst the above data provides a national snapshot of the communications markets, the position is starker when the focus is on regional Australia. Telstra's dominance is more pervasive and is buttressed by a number of structural factors that act to impede the emergence of competition.
- 2.3 The Australian mobile market provides a good example of the barriers facing competitive entry in regional areas. Competition in the provision of mobile services has been the stand-out success of telecommunications. The market is served by three national MNOs and a number of established resellers and Mobile Virtual Network Operators.
- 2.4 The mobile services market in Australia has been characterised by fast growth, with mobile penetration surpassing population levels and mobile usage surpassing fixed line usage. The latest ACMA Communications report indicates that there are twice as many mobile phones than fixed line phones.
- 2.5 Whilst demand for fixed line voices services is in decline demand for mobile services continues to grow. This is especially the case for mobile data which has seen significant growth over the past five years. This has been driven by the rollout and increased accessibility of 3G and 4G networks. At June 2014 there were some 26.52 million¹ mobile

¹ ACMA, *Communications Report 2013-14*, p.7

internet services and mobile handset internet demand increased by 97% (from 19,636 TB to 38,734 TB) over a 12 month period to June 2014.²

2.6 The benefits of competition have flowed through to consumers in the form of lower prices and improved service offerings. The ACCC's most recent Telecommunication Report (2013-14) indicates that prices for mobile services have fallen by 52.7% since 1997/8.³

2.7 However, competition in the mobile sector is not geographically uniform. Whilst all three MNO's compete on a level footing in metropolitan Australia, Telstra has a substantially greater share of the market in regional Australia. This is demonstrated by the following tables:

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2.8 The contrast in the provisions of fixed line services is even starker. Using ULLS and LSS access lines as a proxy for competitive supply, whilst 31.4% of services in metropolitan areas are delivered over ULLS and LSS lines, only 2.5% of services are delivered over such lines in regional areas.

2.9 Whilst the above picture demonstrates competition is limited in regional Australia it does not mean that regional is not important for Telstra's competitors. Optus has been a significant investor in regional services and it remains an important priority focus for Optus. **C-i-C**

2.10 Notwithstanding Optus' commitment to invest in regional Australia there structural issues exist that continue to limit the development of competition in regional areas. In particular, regional areas face relatively higher costs to serve and deliver relatively lower returns compared to the more heavily populated metropolitan areas. These circumstances tend to favour Telstra which can leverage its sunk investment in its legacy national fixed line infrastructure.

2.11 Whilst competitors can access Telstra's fixed infrastructure through regulated access services, the pricing of these services is set at levels well above the marginal costs of supply that Telstra faces to serve regional customers. The economics of competing in regional areas, therefore, remains challenging.

2.12 Even in mobile, Telstra is able to leverage its fixed line infrastructure to support its mobile business in Regional Australia. In particular, it can utilise its fixed line network to provide backhaul transmission capacity to mobile base stations. The cost of backhaul is a significant component in the cost of delivering mobile services. This cost is proportionally higher in regional Australia with large distances between population centres resulting in longer backhaul runs and lower traffic volumes over which these costs can be recovered. Telstra has a significant advantage as it has sunk infrastructure available to provide backhaul services. This advantage has become more pronounced with the increasing growth of data services that require higher capacity backhaul to be provisioned to mobile sites.

2.13 Further, as the legacy universal service provider Telstra has an established retail presence which gives it a greater opportunity to cross-sell services giving it a scale advantage.

² ACMA, *Communications Report 2013-14*, p.9

³ Page 83

- 2.14 In addition to these structural barriers, Telstra has also been the beneficiary of significant Government funding and industry subsidies over the years. Much of this funding has related to schemes designed to support the roll-out of infrastructure in regional areas. With the exception of the recent Mobile Blackspots programme, few of the Commonwealth schemes have sought to enhance competition or at least ensure that funds were allocated in a competitively neutral manner. Optus estimates that since 1997 Telstra has received approximately \$462M in direct Government funding⁴. In addition it continues to receive subsidies from industry under the USO arrangements that total some \$882 Million since 1997. These USO payments will increase as a result of the arrangements agreed between Telstra and the Government to secure Telstra's participation in the roll-out of the NBN.
- 2.15 Optus acknowledges that the roll-out of the NBN has the potential to address a number of these structural barriers. It will provide wholesale access on a non-discriminatory basis to all households and premises. This will provide the opportunity for competing providers to offer broadband and voice services in even the most remote locations.
- 2.16 However, Telstra's dominance is likely persist in an NBN environment, since;
- (a) Its established regional presence which will be buttressed by the current USO arrangements;
 - (b) It will receive significant compensation as the NBN is rolled out; and
 - (c) It will have significant scale advantages.
- 2.17 Optus, therefore, encourages the RTIRC to consider other policy measures to stimulate competition in regional Australia. A number of initiatives are discussed in the following sections.

⁴ This includes funding from Federal and State Governments.

Section 3. Developing a universal service policy that better meets the needs of regional consumers

- 3.1 An area of policy consideration for the RTIRC is the current universal policy which remains a corner stone of the Commonwealth's regional policy.

Recap on the USO

- 3.2 The objective of the USO is to ensure that all Australians have reasonable access to a standard telephone service (STS) on request, and that payphones are reasonably accessible to all people on an equitable basis, wherever they live or carry on business. A "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:
- (a) local, national and international calls;
 - (b) 24 hour access to the emergency call service number;
 - (c) operator assisted services;
 - (d) directory assistance; and
 - (e) itemised billing, including itemised local calls on request.⁵
- 3.3 In addition to the above requirements, an STS that is supplied in fulfilment of the USO must also include the following additional features:
- (a) Provision of customer equipment (including a handset and/or equivalent equipment for people with a disability);
 - (b) The option of untimed local calls (including for mobile telephone services); and
 - (c) Provision of the Customer Service Guarantee including service connection and repair, and meeting specified time frames (including for mobile services).⁶
- 3.4 The USO also ensures access to the standard telephone service for people who cannot communicate using voice telephony because they are deaf or have a hearing or speech impairment. The obligation requires that an equivalent means of communication be provided, including appropriate customer equipment to enable equivalent access.
- 3.5 Telstra sets out how it intends to fulfil its obligations in its Universal Service Obligation Policy Statement and its Universal Service Obligation Standard Marketing Plan. These documents cover matters such as Telstra's general approach to fulfilling the USO, as well as service availability, service description, service quality, connection and fault repair time frames, and complaint processes.

⁵ ACMA - Your rights to a telephone service – the universal service obligation

⁶ http://www.communications.gov.au/telephone_services/voice_telephone_services/connecting_the_telephone

- 3.6 There is no regulatory requirement for Telstra to provide USO services using particular types of technology. Optus understands that whilst most USO services are provided over its copper network, Telstra does use other technologies, such as radio links (satellite and terrestrial), and wireless services.
- 3.7 In 2011, the Government introduced policy measures designed to ensure the continuity of basic universal service outcomes for customers in the transition to the NBN. In essence these policy changes sought to reform the administration of the USO (from a regulatory to a contractual model) *without* fundamentally changing the nature of the USO. The Telecommunications Universal Service Management Agency (TUSMA) was established to administer the USO and enter into contracts with third parties to ensure its ongoing provision. Whilst the current Government has taken steps to abolish TUSMA the underlying administrative model will remain in place and TUSMA's responsibilities will be undertaken by the Department of Communications.
- 3.8 In practical terms Telstra will continue to assume responsibility for delivering the USO albeit under a contract. From 1 July 2012 Telstra has entered into a contractual obligation to deliver the STS for a term of twenty years. Once the NBN is rolled out, Telstra will operate as a retail provider of last resort to deliver the STS over NBN technology within the NBN fibre footprint. Outside the NBN fibre footprint Telstra has committed to maintain its copper network to provide the STS. As will be discussed below, changes were also made to the funding that Telstra will receive to fulfil these ongoing obligations.

Current funding arrangements

- 3.9 For the vast majority of services Telstra recovers the costs of fulfilling its USO through revenues received from customers. However, this may not be the case for services provided in high cost areas, typically the more remote or difficult to reach parts of Australia. In respect of these areas Telstra argues that it incurs higher costs to service these customers than it receives in revenue.
- 3.10 The prevailing policy view is that absent its regulatory or contractual obligations Telstra may not have an incentive to services these high cost areas. Therefore, industry as a whole has been required to contribute to the net cost of fulfilling the USO through an industry levy mechanism; the precise levy on each carrier is based on its share of total industry eligible revenue.
- 3.11 Prior to 2012 the annual level of USO funding was set by the Minister based on advice from the ACMA. More recently this was set at around \$145 Million per annum. An additional amount of around \$18 Million was set to recover the costs of providing the National Relay Service. Typically industry contributed around 40% of the costs through payments that ultimately flow through to Telstra, with the balance being borne by Telstra.
- 3.12 However, the Commonwealth (in the Definitive Agreements) agreed to substantially increase the annual USO levy amount to \$330-340 million to secure Telstra's support for structural reform and its participation in the NBN.
- 3.13 In recognition of the magnitude of the increase the Government committed to contribute to the annual funding by at least \$50 million for financial years 2012-13 and 2013-14, and \$100 million per annum after that. The residual costs will continue to be funded through an industry levy scheme, with amounts based on each carrier's share of eligible revenue. The table below provides a breakdown of the funding amounts before and after the policy change.

Change in USO Payments

Liabilities	Pre-2012	Post 2012
USO voice	\$ 131.3 m	\$ 230 m
USO payphones	\$ 13.8 m	\$ 40 m
Emergency call handling	..	\$ 20 m
USO Sub-Total	\$145.1 m	\$ 290 m
National Relay Service	\$ 17.9 m	\$ 20 m
Voice-only migration	..	\$ 15 m
Public Interest Services	..	\$ 0-10 m
TUSMA administration costs	..	\$ 5 m
TOTAL	\$ 163 m	\$ 330-340 m

Source: Explanatory Memorandum to the TUSMA Bill 2011

- 3.14 As a consequence of these changes, Telstra will receive a three-fold uplift in annual USO levy contributions; it will receive \$100 million per annum from Government and contributions from third parties will increase from around \$60 Million per annum to around \$90 Million per annum. However, as indicated in the section above there are no material changes in the basic obligations or scope of services Telstra will have to fulfil, notwithstanding this significant increase in annual funding.
- 3.15 The funding provided to Telstra under the USO arrangements is very significant, especially when looked at over a period of years:
- (a) Between 1997 and 2014 Optus and Vodafone have contributed some \$839 Million to Telstra under the USO levy scheme.
 - (b) Over the next 20 years industry and Government collectively is likely to contribute \$3.7 Billion to Telstra under the current funding arrangements.

A failed policy

- 3.16 Whilst the concept of a universal service obligation to ensure customer needs are met has widespread industry support, the arrangements to deliver this have been subject to widespread criticism.
- 3.17 In 2008 the RTIRC noted that:
- 'There is substantial controversy about the current USO arrangements and the Committee notes that nearly all stakeholders dislike the current arrangements. ACMA referred to the USO arrangements as a 'broken concept'.⁷*
- 3.18 The committee outlined in some detail the failings of the USO arrangements. In summary it found:

⁷ Regional Telecommunications Independent Review Committee Report 2008, page 182

- (a) Limited consumer understanding of the USO which was considered to be “vague” and subject to limited enforcement mechanisms. The committee indicated that in its consultations with the community it has found a poor awareness of the USO arrangements and an even poorer understanding of how they operate;
- (b) That the current arrangements undermine competition since they fund a single supplier. In turn this provides limited incentives for Telstra, as the universal service provider, to improve its performance in high cost areas where it faces no competition;
- (c) Funding arrangements that operate as an effective tax on consumers and as such are “*inefficient and not well structured*”; and
- (d) A cost and funding structure which discourages or even precludes the use of alternative and more efficient technologies. There is no obligation on Telstra to use the least cost technology. Further, there is no requirement to ensure that contributions received from Government and industry is invested in the provision of universal services.

3.19 The arrangements in place today are little different from those in place when the RTIRC undertook its review. As indicated in the section above, the current delivery and funding arrangements have been locked-in under contract for the next two decades as a result of the NBN related policy changes. To some extent the problems identified by the RTIRC will be magnified by the NBN related policy changes since:

- (a) The annual level of industry and taxpayer funding for the USO has been increased substantially;

3.20 A separate obligation on NBN Co to price services at uniform levels nationally means that metropolitan consumers are effectively being required to pay two subsidies towards services provided to remote customers; the traditional USO subsidy for voice services; and a contribution towards the cost of supplying broadband services over NBN Co’s Fixed Wireless and Satellite networks. This will become more transparent with current proposals being considered by the Bureau of Communications Research to identify the current cross-subsidy and establish an alternate levy mechanism;

3.21 Further, the current policy provides little or no scope to evolve as a customer requirements evolve. Optus notes that services offered over mobile and fixed broadband networks are rapidly displacing traditional voice-based services. This is being driven by the universal availability of applications and services provided by over the top retailers such as Google, Apple, Facebook, and Whatsapp etc.). **C-i-C**

3.22 Whilst network infrastructure is increasingly being tailored to meet customer demands for data and IP traffic, the USO policy appears to be frozen in a 1980s analogue paradigm.

The NBN provides a platform for effective reform

3.23 In reaching its conclusion that the present USO arrangements are not fit for purpose the 2008 RTIRC sounded a note of optimism about the future prospects under the NBN.

*“The Committee believes that the transition to the NBN presents the opportunity to fundamentally redesign the provisions that aim to deliver a universally available and affordable voice and other service of a desired quality and reliability”.*⁸

- 3.24 Optus shares this sentiment. The roll-out of the NBN provides a game-changing opportunity to reform how the USO is delivered and funded. Central to this are the requirements for NBN Co to:
- (a) To connect every premise in Australia; and
 - (b) To offer entry-level products at a nationally uniform price⁹.
- 3.25 These obligations provide a clear platform for reform of the USO as they mean that; infrastructure will be available nationally, including in the most remote locations, to connect customers; and it will be made available at uniform wholesale prices which means it will be viable for multiple RSPs to be able to provide services to customers at affordable prices wherever they reside. Such uniform national wholesale prices would remove the need for a separate industry levy because a uniform national price is essentially a cross subsidy from lower cost/higher density consumers to higher cost/lower density consumers.
- 3.26 It is unclear why the opportunity to use the NBN infrastructure as a catalyst for reform of the USO was not taken in the 2011 reforms. This could have been driven by uncertainty at that time about the technical capability of the prospective new fixed wireless and satellite technologies to deliver adequate voice capability. To the extent that such concerns existed, Optus suggests that they were overstated.
- 3.27 Optus considers that the NBN broadband infrastructure is capable of delivering a high quality voice service. Further, this infrastructure is also complimented by mobile networks which cover up to 99% of population centres.

Technical solutions

- 3.28 Both NBN Co’s fibre and fixed wireless technologies have been designed to provide voice capability. In respect of NBN Co’s fibre services, voice services can be provided through a VOIP solution (using NBN Co’s Uni-D port on the NTD) or through an analogue adaptor (using NBN Co’s Uni-V port). Similarly, voice services can be provided over NBN Co’s fixed wireless platform using VOIP technology. Optus understands that whether the voice is delivered by VOIP or analogue technology over these networks it will meet the requirements of the STS.
- 3.29 Since the fibre and fixed wireless platforms are designed to cover around 97% of the population, the delivery of the STS for the vast majority of households and businesses can be met through the NBN infrastructure. It remains unclear, therefore, why Telstra is required to keep its copper network in place within NBN Co’s fixed wireless footprint.
- 3.30 This leaves the last 3% of the population; around 300,000 households. Under the current NBN plan these households will be covered by NBN Co’s long-term satellite service, which

⁸ Regional Telecommunications Independent Review Committee Report 2008. page 194

⁹ The Coalition has indicated that this obligation will likely be amended to operate as a price cap rather than a strict requirement for uniform pricing, but this is unlikely to alter the principle that regional services will be affordable under NBN pricing.

is to be launched in 2016. As with NBN Co's fixed wireless service, it is likely that voice can be offered through a VOIP solution operating over the satellite broadband service. In fact a number of RSPs currently offer VOIP services over NBN Co's interim satellite service.¹⁰

- 3.31 However, Optus acknowledges that there may be circumstances where the technical quality of voice services over satellite may not be equivalent to that provided over other technologies. This is due to latency associated with the up and down links. That said, it remains to be determined how significant such differences are and whether there may be compensating benefits from use of satellite (such as mobility). It would be useful to understand the proportion of current NBN satellite customers that use a VOIP service.
- 3.32 In addition to the NBN infrastructure, both Telstra and Optus have extensive mobile coverage including in the remote parts of Australia. In a submission to the 2007 USO review Telstra provided an analysis which suggested that only around 137,000 of its existing USO services were outside its mobile coverage¹¹. Telstra's mobile coverage has expanded since this date, which means a greater number of existing USO services might be capable of being delivered by mobile technology. Coverage is likely to be extended in the next three years by the Government's funding of its mobile coverage programme. Again, it would be useful to understand the proportion of "universal service end-users" that have a mobile service in addition to their fixed line service. There is no rationale to subsidise fixed voice services if a household has adequate mobile voice coverage.

Proposed way forward

- 3.33 Under the current arrangements industry and government is spending \$330 Million per annum on a scheme that is flawed;
- (a) It requires Telstra to maintain a legacy network that is likely to become increasingly non-strategic and subscale as customers migrate to the NBN;
 - (b) It requires industry to make substantial payments to Telstra for services that could otherwise be invested in more productive technology;
 - (c) Metropolitan consumers face a double cross subsidy to help fund regional services;
 - (d) It is a burden on taxpayers; and
 - (e) It is unclear whether it delivers services that are as important or meaningful to customers as it was a decade ago given the advances in alternate technologies and services.
- 3.34 Notwithstanding that the current USO policy arrangements appear to be locked in under contractual arrangements there is a compelling case to review the relevance and appropriateness of the current arrangements against alternative models. The key question is whether the USO can be delivered in a more effective way: that better meets consumers' expectations and at a lower overall cost to society.

¹⁰ Refer websites of Skymesh (<https://www.skymesh.net.au/services/nbn/satellite/voip.php>) and ipstar (<http://www.ipstaraustralia.com/retail/ipstar-voip/>)

¹¹ The model to support the current USO funding assumes that there are 810,000 loss making services (clearly many of these are within mobile coverage and might be better served by mobile networks).

- 3.35 Optus supports the Committee recommending the Government conduct a wide ranging review into the USO as a key policy priority. The goal should be to recommend policy changes that ensure the USO delivers better outcomes and value for consumers, industry, competition and taxpayers. Optus recognises that any reform measure will need to ensure that Telstra is not disadvantaged.
- 3.36 Issues that should be considered in such a review include:
- (a) An audit of USO designated premises to determine the precise number and the current technologies used at those premises;
 - (b) The relevance of the current scope of the STS and payphone obligations to consumers given the significant advances in technologies and service options;
 - (c) The technical capabilities of alternate technologies and the extent to which these may be delivering USO equivalent services today;
 - (d) The coverage of all alternate technologies and the costs of infilling any perceived coverage gaps;
 - (e) Alternate funding and investment models and their implications in terms of cost, impacts on competition and end-user prices;
 - (f) Structural options for the delivery of the USO (including whether NBN Co should assume ownership of the Telstra copper outside its fibre footprint).

Potential model for reform

- 3.37 To aid this discussion Optus has put forward the following arrangements that could be considered as a basis for reform:
- (a) NBN infrastructure should be the primary mechanism for ensuring customer connectivity. This should apply to each of the NBN platforms: fibre; fixed wireless and satellite;
 - (b) To ensure that the STS is delivered over the NBN infrastructure an RSP could be designated as a retail provider of last resort (this could be any national reseller of the NBN);
 - (c) To the extent that NBN infrastructure cannot provide an adequate voice capability to a customer then the service could be provided over copper or mobile networks (if available);
 - (d) NBN Co could take ownership of the Telstra copper outside the fibre footprint. This will ensure that copper is available to help meet the USO in the short term. More importantly NBN Co will likely have stronger set of incentives than Telstra to ensure that the USO can be delivered through more cost effective alternate technology, enabling it to decommission the copper more quickly and reduce its costs to serve;
 - (e) Separate industry funding for the USO would not be required as the costs of supply will be included in access charges (or recovered through a non-commercial service levy); and

- (f) Current Government funding for the USO (\$100M p/a) could be used to improve mobile coverage within the more remote areas of Australia under an extended Mobile Blackspot programme, thereby providing additional options for delivering voice services to customers.

Section 4. Role of NBN infrastructure in promoting regional competition

- 4.1 Over the next few years the Australian Government will undertake significant investment in regional communications infrastructure through the roll-out of the NBN. Whilst the NBN infrastructure will directly improve the delivery of fixed broadband and voices services to regional Australia there are opportunities to leverage this infrastructure more broadly to improve the delivery of other services, such as mobile communications, where there is evidence of market failure today.
- 4.2 Optus encourages the RTIRC to advance policy measures that can facilitate appropriate use of NBN infrastructure to advance competitive outcomes in regional Australia. This includes;
- (a) Arrangements to maximise the co-operative deployment of NBN Co's fixed wireless towers to facilitate sharing of this infrastructure by mobile operators.
 - (b) Development of low cost backhaul services for mobile towers;

Infrastructure sharing

- 4.3 The Telecommunications Act sets out a facilities access regime. Part 5 of Schedule 1 of the Act contains access provisions that specifically apply to telecommunications towers and sites of towers. It essentially requires a carrier to provide access to the facilities if requested to do so by a third party carrier. A carrier is not required to comply with this obligation only if it is not technically feasible to provide such access.
- 4.4 The Act also empowers the ACCC to make a Facilities Access Code to govern how access to eligible telecommunications facilities is provided. The ACCC first published such a code in 1999, and it recently updated the Code in September 2013. The Facilities Access Code sets out a number of obligations and procedures that are designed to assist carriers in gaining access to eligible facilities, including mobile towers and sites.
- 4.5 These regulations have positively assisted carriers in obtaining access to each other's facilities. It is often more effective for an MNO to seek to co-locate on an existing facility than to build a separate facility. As a result there is a reasonable level of co-location of mobile facilities across the country.
- 4.6 However, the existing arrangements are somewhat static since they focus on existing facilities, i.e. they assist access seekers gain access to towers that are already built. Whilst co-location can drive efficiencies and cost savings, co-location still requires a significant investment by an MNO to establish access at an existing site. It is often involves significant cost duplication.
- 4.7 Establishing access to an existing site involves duplication of certain infrastructure and activities. Planning and design work will have to be repeated to assess the feasibility and practicalities of locating new equipment at a site. In some cases a tower or site might require augmentation, such as strengthening of the structure, the construction of additional support facilities to house equipment and to upgrade the power supply to the site. This means that a number of the costs incurred when the site was first established have to be re-incurred to provide co-location by a second or third MNO. In addition to

these upfront costs a co-locating MNO will also face ongoing access fees. Although it will still be cheaper to co-locate than build a new site the costs of co-location are still relatively high. The costs can be prohibitive if the traffic generated by a site is modest, which is often the case for more remote locations.

- 4.8 However, where co-location requirements can be established before a site is constructed then MNO's can undertake joint build and deployment activities, thereby reducing the amount of duplication and enabling a greater proportion of costs of deploying and maintaining a site to be shared. As an example, for a co-build site design and planning activities only need to be undertaken once. Similarly, common support structures including a shelter can be built so reducing the build cost. Through a "co-build" approach it will be possible to drive significant costs efficiencies.
- 4.9 To improve mobile coverage in regional areas existing regulations could be amended to positively promote opportunities for infrastructure sharing. One immediate initiative that Government could take in this respect is to adopt co-build principles as part of the roll-out of the NBN Fixed Wireless network. Prior to NBN Co deploying a tower, it could undertake a short and targeted consultation with industry to gauge interest in an MNO deploying equipment on such a site. If there is interest then NBN Co and the MNO could undertake joint design and deployment of the site thereby reducing the costs for both parties and helping to facilitate improved regional services.

Mobile backhaul

- 4.10 In addition to increased sharing of NBN infrastructure by MNO's, the NBN infrastructure could also be leveraged to assist regional mobile coverage and competition by NBN Co developing a mobile backhaul service.
- 4.11 It is likely that services offered over NBN Co's fixed wireless, and possibly some of its fibre footprint, will be in areas where there is little if any competition to the existing Telstra backhaul services. There is merit in NBN Co opening up these areas to alternate competitive supply of backhaul where this can be done cost effectively and would not interfere with existing competitive wholesale supply arrangements.
- 4.12 Optus understands that NBN Co is developing a "Cell Site Access Service" and has undertaken initial industry consultation on such a product. To make a real difference this service would need to provide a quality of service that is comparable with existing backhaul services but at a lower price point.
- 4.13 Again, Optus encourages the RTIRC to recommend that Government seeks opportunities to leverage its NBN infrastructure to improve competitive outcomes in regional areas when there is evidence of market failure.

Satellite

- 4.14 The launch of the NBN satellite will have an important impact on the delivery of services to some of the more remote parts of Australia. Optus will watch with interest after the launch and commissioning of the NBN long term satellite service, as NBN Co considers offering corporate and government services, in addition to their primary consumer internet services. Getting the mix between capacity, contention ratios, service levels, fair-use policies and pricing correct when offering services to both consumers and corporates will be critical to ensuring satisfactory customer experience.

4.15 Optus welcomes competition in the corporate and government space, but expects that any NBN corporate service would be offered on a commercial basis, and will not compete in the market-place by offering tax-payer subsidised capacity. Further, any offers must remain consistent with NBN Co's wholesale-only status and should not be delivered direct to market.

Section 5. Mobile Black Spot policy

- 5.1 Whilst Optus was not successful in its bid for funding under the recent Mobile Black Spot programme, we nevertheless acknowledge that the programme was developed with the objective of improving competitive outcomes in regional Australia. A central component of the policy was the “open access and co-location” obligations attached to Government funding.
- 5.2 These obligations effectively require a successful bidder to seek interests from other MNO’s for co-location at a site prior to undertaking design and build work. The aim is to improve the efficiency of co-location by enabling joint design and deployment where there is an interest in such co-location. Optus supports this pro-competitive approach and suggests that as a model it should be used for future programmes that involve tax-payer investment in communications infrastructure.
- 5.3 Optus notes that emerging new technologies in Satellite may provide cost effective solutions to provide services to remote and rural communities across Australia including for “black spot communities.” This technology could be deployed to provide coverage and support multiple carriers and be deployed in remote areas to provide coverage where previously there has been no terrestrial solution.