Australian Government

Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Modernising universal telecommunications services: summary of feedback

Consultations on *Better delivery of universal services* and *Funding of universal telecommunications services (RBS review)*

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Abbreviations

D2D	Direct-to-device – connection between a mobile phone and satellites without needing specialised equipment
LEOSat	Low earth orbit satellite
Mbps	Megabits per second (a measure of the upload or download speeds using a broadband/internet service)
NBN	National Broadband Network
OTT	Over-the-top – refers to applications and services which are accessible over the internet, without any direct influence or control from network operators or internet service providers. Some well-known examples include Skype and WhatsApp that support voice and messaging, or Netflix, Spotify etc, which support access to video or audio content
RBS	Regional Broadband Scheme – charge designed to cover the long-term net losses of NBN Co operating its fixed wireless and satellite networks
SIP	Statutory Infrastructure Provider – regime that enables all Australian premises to access fixed high-speed broadband services
SMS	Short message service – text messages
TIL	Telecommunications Industry Levy – levy designed to collect funds to cover the costs of public interest telecommunications services including USO services
USO	Universal Service Obligation – arrangement that enables access to fixed phone services and payphones in Australia

Executive summary

This paper summarises the key views and themes from submissions made by stakeholders in response to recent consultations on Better delivery of universal services and Funding of universal telecommunications services (RBS review).

The Universal Service Obligation (USO) is an integral part of Australia's telecommunications landscape, supporting access to fixed voice services and payphones across Australia. Similarly, the more recent Statutory Infrastructure Provider (SIP) arrangements ensure that all Australian premises can access fixed broadband services.

The reviews of the USO in the past decade have consistently highlighted that the USO should be examined and modernised. The current consideration of future delivery of universal services is distinguished by the emergence of viable, efficient alternative telecommunications now entering the market. There is general optimism from industry and the public that improved capabilities of the National Broadband Network (NBN) fixed wireless network and low earth orbit satellites (LEOSats) could replace legacy technologies in providing voice and broadband services, and that in time, direct to device (D2D) LEOSat technology will further assist in improving telecommunications across Australia.

Across the two consultations, it is clear that there is a need to ensure that consumers are able to access telecommunications services that support participation in society. There was also agreement that the Government should consider changes to the delivery and funding design for universal services that would enable future arrangements to be simpler, more efficient, technology neutral, fit-for-purpose, sustainable and robust.

Delivery of services

There was a general view that reformed universal service arrangements have the potential to deliver better outcomes for consumers and to replace ageing infrastructure that is no longer fit-for-purpose with quality services.

A common theme expressed by industry and the public was that universal services need to be fit-for-purpose and reflect changing consumer needs and expectations, including in relation to resilience and redundancy. The use of copper and other legacy networks in regional and remote areas to support fixed voice services is an area of concern for some, including the cost of maintaining these networks, potential decline in reliability of these networks and lengthy repair times, and Telstra's repeated cautions about the practicality of maintaining those networks in the medium to long-term. Overwhelmingly, a technology neutral approach was supported in submissions as the best approach to delivering the service best suited to each premises and to future-proof arrangements.

Most submissions supported the view that future delivery of universal services will be more sustainable if arrangements are better able to support evolving consumer preferences and market developments.

Efficiency was a focus for government and industry submissions, with many considering the financial and service quality merits of transitioning towards contestable and evolving technologies and reducing current duplication between the roles of NBN Co and Telstra.

There was a level of consensus that terrestrial mobile services will continue to complement fixed voice and broadband services, particularly given the costs of supporting universal access to terrestrial mobile services. However, a number of submissions noted that emerging direct-to-device coverage could offer the prospect in time to support much greater outdoor mobile coverage, alongside fixed voice and broadband services.

There were calls to ensure universal service arrangement are sufficiently robust particularly in the event that LEOSats begin to provide services. Ensuring suitable future redundancy is a concern for the cohort of consumers that could become reliant on LEOSats to provide both baseline broadband and voice services.

The potential impact of adverse weather conditions on LEOSat performance was discussed in some submissions as an area of concern. Independent trials of alternative voice services now underway will assist in better quantifying LEOSat performance, alongside a growing body of information available from suppliers of LEOSat services.

The need for ongoing access to payphones was also highlighted, although with appropriate review of existing arrangements to ensure they are delivered efficiently and cost-effectively. There was strong agreement that the design of current USO and SIP delivery arrangements, which focus on connectivity to specific premises, do not meet the needs of First Nations communities, particularly in remote and isolated areas. In these areas pre-paid mobile services are regarded as more flexible and affordable and it was recommended that there should be further work with such communities to design and fund arrangements that will better meet community needs.

Funding arrangements

At present there are two industry funding mechanisms supporting delivery of universal services. The Telecommunications Industry Levy (TIL) that supports public interest telecommunications including the delivery of the USO, and the Regional Broadband Scheme (RBS) that was designed to support the delivery of non-commercial NBN fixed wireless and satellite broadband services.

There was general agreement in submissions that funding arrangements need to avoid duplication, be flexible to support newer and more efficient service delivery technologies and reflect developments in the market in the longer term and that current arrangements do not sufficiently achieve these objectives. A consistent theme across submissions was that funding arrangements will also be more sustainable if they are technology neutral and encourage movement to more efficient methods of delivering services over time.

There was majority support in submissions for streamlining funding arrangements, with a simpler approach to levy arrangements possibly involving a single levy charge, where the charge base is linked to a metric that is widely used in the industry. Specific carrier views on this approach depended on whether they are currently contributing to the RBS or not. Submissions noted that a change to a single levy with a widely used metric as a charge base would simplify administration for carriers and the regulator, provide a more checkable, well-understood and transparent basis for industry contributions, and improve certainty around future contributions by carriers.

A number of submissions argued that the charge base should be matched to all those parties that benefit from the delivery of non-commercial services.

There was also support for continued provision of public interest services such as Emergency Calls and payphones (although with review of payphone arrangements). A number of submissions also proposed ongoing funding arrangements be developed to better meet the telecommunications needs of First Nations communities.

Next steps

It is clear from the consultations undertaken to date that there is a common appetite for reform and for a new framework that better reflects consumers' expectations, leverages the best available technology and remains flexible. However, there were a range of views on how best to achieve this outcome. The Department of Infrastructure, Transport, Regional Development, Communications and the Arts is closely considering submissions to support Government consideration of potential reforms.

In parallel, technical trials of alternative voice services, including LEOSats, are being undertaken to test the suitability of emerging technologies in diverse, remote and climactic conditions. Recommendations from submissions to this process informed the design of the trials.

The Government's response will also take account of the outcomes of the Regional Telecommunications Review 2024 which is due to be completed later in 2024 and any further recommendations from the First Nations Digital Inclusion Advisory Group, including as it develops a longer term First Nations Digital Inclusion roadmap and consider the work of the LEOSat working group.

1. Introduction

This paper summarises the views of stakeholders who made submissions to the consultations on *Better delivery of universal services* and *Funding of universal telecommunications services (RBS review)*.

2. Background

Current universal services arrangements in Australia

The USO is a longstanding safeguard that ensures all people in Australia are able to access fixed phone services and payphones regardless of where they live or work. As the statutory primary universal service provider, Telstra is required to supply fixed voice services and payphones nationally on reasonable request. Telstra provides the majority of USO services over the NBN, however it continues to deliver USO services over copper and other networks in regional and remote areas outside NBN Co's fixed-line footprint.

Access to fixed broadband is supported by the SIP regime, which provides that NBN Co and other similar providers connect premises to their networks and supply wholesale services that allow retail providers to provide broadband services with peak download and upload speeds of at least 25/5 megabits per second (Mbps).

A range of funding mechanisms currently contribute to the funding of these services, including a $100 million annual contribution from government plus the TIL which sources support voice service provision and other public interest telecommunications services such as payphones, Triple Zero (000) and the National Relay Service. The RBS supports the anticipated long-term net losses of NBN Co's non-commercial fixed wireless and satellite networks that offer broadband under the SIP arrangements.

Pressures and opportunities for change

Since the USO was established, there have been significant changes in technology, the marketplace and customer preferences. There has been increasing use of data and greater uptake and use of mobile services, contrasting with generally falling use of fixed-line voice and payphone services (although a decision several years ago by Telstra to make most payphone calls free of charge has seen some increased use of payphones).

Previously the Productivity Commission, prior regional telecommunications reviews and other processes have all signalled a view that universal service arrangements should evolve and be modernised, but there have been barriers in terms of the cost, performance and suitability of replacement services.

In recent years, the Government has also made a significant investment in the NBN, and the private sector has invested heavily in terrestrial mobile infrastructure, supplemented by additional investment by government and community organisations to address mobile blackspots.

While there has been a focus on considering the best way to support universal access to fixed services, recent processes have also suggested that Government develop and implement a practical universal service obligation for mobile telecommunications service providers.[1] The First Nations Digital Inclusion Advisory Group has also raised concerns that existing universal service arrangements that focus on connectivity to homes and businesses are not well targeted in all cases, with remote First Nations people favouring mobile services over other options.

The deployment of new satellites and other technologies also shows promise for providing greater options for voice and broadband services in the most remote areas of Australia, including the prospect of supporting far greater outdoor mobile coverage harnessing emerging LEOSat capability.

Since SIP arrangements came into force in 2020, all premises have been able to request access to next-generation broadband services, with SIPs required under the legislation to support good quality voice services (those in the fixed-line and fixed wireless footprints). By the end of 2024, when the NBN Fixed Wireless and Satellite Upgrade Program is complete, more than 97% of Australian premises will have access to high-speed NBN broadband services that can support quality voice services. More than 99% of people in Australia currently have access to at least one commercial mobile network, while 96% have access to three commercial mobile networks. These networks compete with each other and other available telecommunications services to varying degrees.

A number of issues have been raised by stakeholders regarding the operation of the RBS and the TIL, including the operation of two different but related industry-based telecommunications funding mechanisms. The review of universal services delivery arrangements provided an opportunity to consult on a required review of the RBS legislation (and related matters), and also to consider funding arrangements for universal services more broadly.

3. Summary of feedback

Better delivery of universal services consultation - Key themes

Technologies and networks

There was broad agreement among submissions that the current delivery of fixed voice services under the USO is no longer fit-for-purpose and moving to more a flexible and technology neutral approach would be preferable, including to provide greater scope for competition and providing higher quality services to consumers over time. Many submissions repeated longstanding concerns about the stress that is being placed on Telstra's copper network, and other legacy networks, due to their ageing and deteriorating technology. While some consumers supported retaining Telstra's existing networks, there were counter views that the reliability and quality of services they deliver has declined and no longer meets the expectations of many regional and remote consumers. Some submissions highlighted concerns that systemic issues are causing repetitive service faults and undermining network resilience, with minimal improvements over recent years.

New opportunities have been opened up by recent investment in the expansion of NBN Co's fixed wireless network and by the widespread availability of LEOSat networks. As detailed below, submissions mostly supported adopting a range of more modern networks, subject to ensuring the suitability, performance and reliability of different technologies.

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[1] House of Representatives Standing Committee on Communications and the Arts, inquiry into co-investment in multi-carrier regional mobile infrastructure, www.aph.gov.au/Parliamentary_Business/Committees/House/Communications/Mobileco-investment

A large proportion of submissions expressed explicit support for moving to a more technology neutral approach, arguing voice services could best be delivered over a mixture of technologies. Some submissions, particularly from industry stakeholders, stated the Government should allow more flexibility for service providers to compete to provide voice services over different networks, providing they are capable of meeting required levels of service. Arguments were put that this would promote competition and allow for a more efficient delivery of services to different areas, noting that the availability of networks varies across regional and remote areas. While there was certainly some level of support for this type of model, there were also suggestions that having a default provider may help provide certainty and simplicity for consumers.

NBN Co fixed wireless

Submissions did not raise any strong concerns about the quality of NBN Co's fixed wireless network or its suitability for future voice service delivery, noting that fixed wireless services are generally seen as being able to support baseline voice services. The Government has also asked the Regional Telecommunications Independent Review Committee to consider and provide advice on the potential to fast track USO modernisation outcomes within NBN Co's fixed wireless network footprint.

LEOSats

There appears to be an overall view that LEOSat technology shows promise for being able to support high-quality fixed voice and broadband services, and given its availability throughout Australia, this could present a potential future solution for voice service delivery in regional and remote areas where other networks are not available. However, there are still concerns in the community about the reliability and performance of LEOSat services, particularly in a universal service context. Some consumers highlighted potential concerns about poor Starlink performance during adverse weather (particularly heavy rain) and their individual experiences of frequent service disruptions and dropouts. Some submissions indicated they were more supportive of LEOSats as a redundancy option where other terrestrial networks are available, but held concerns about remote consumers having to rely solely on a LEOSat network for both voice and broadband, particularly in areas without reliable mobile coverage.

Trials of alternative technologies, including LEOSats, to help establish a transparent and independent body of evidence on whether these networks are capable of delivering required levels of service in regional and remote areas are now rolling out. This will gather quantitative data on a range of matters to help understand how services perform in different conditions throughout Australia, including how they are impacted by location, weather, climate, topography, equipment and power supply.

Role of mobile services

A range of submissions raised issues about the importance of mobile services and made observations on the current mobile market, and offered views on if and how mobile services could form part of universal service arrangements. The importance and criticality of maintaining and expanding access to high-quality mobile services was however a common theme.

A number of submissions for example highlighted the importance of maintaining and improving access to mobile services as a safety net for consumers, noting the benefits of providing connectivity outside their home or business, or to provide redundancy in the case of fixed network outages and emergencies. Some submitters proposed the Government should continue to focus on measures to improve access to terrestrial mobile coverage, including through funding initiatives such as the Mobile Black Spot Program, support of multi-carrier outcomes and consideration of temporary mobile roaming in emergencies.

A proportion of stakeholders indicated they currently saw mobile services largely as a complement to fixed voice and broadband services supported under the existing framework. However, a number of submissions also flagged frustration about areas with limited or no mobile coverage, variable performance of mobile networks or capacity issues, or raised concern about less choice and competition between mobile providers in regional and remote areas.

There was support in a number of submissions for some consideration of bringing mobile services into the universal service framework through the introduction of a mobile USO (i.e. guaranteeing all premises access to mobile coverage), or the introduction of mobile service standards. However, this view was not consistently supported. A number of submissions flagged some current concerns about the practicality and significant investment involved in extending terrestrial mobile networks to provide coverage universally. There were also concerns raised, particularly from existing terrestrial mobile carriers, about the difficulties of legally guaranteeing access to terrestrial mobile services on a universal basis, citing various factors that can impact mobile reception.

However, looking beyond some of the historical economic barriers that to date have meant mobile services have not formally been included in universal service arrangements, there were also suggestions that the practicality and costs of including mobile services in universal service arrangements could well evolve over time. A number of carriers plan to bring to market direct-to-device (D2D) satellite services over the next few years, with the prospect of providing near ubiquitous outdoor access to support messaging, voice and limited data across a significant part of the Australian landmass that currently lacks terrestrial mobile coverage.

Consistent with broader comments about moving to a more technology neutral approach, some submitters also argued that regard should be had access to both fixed and terrestrial mobile networks, including to consider what premises in future should be eligible for any future universal service funding or subsidy.

Safeguards and standards

Most stakeholders supported retaining some level of safeguards or standards, with the Customer Service Guarantee seen as an important protection for regional and remote consumers. Some submissions recommended strengthening existing protections by implementing additional and more stringent performance requirements, particularly in relation to network resilience (discussed further below).

There was also strong support in a number of submissions from consumer groups for extending voice safeguards to cover broadband services. This recognises that broadband and data services are typically the primary form of communication at individual residences, including to support work, study and access to essential services from home, as well as a variety of Over-the-Top (OTT) applications. Many submissions noted that the implementation of retail broadband safeguards alongside existing voice protections would provide a more consistent and aligned framework, given the SIP regime is already in place to support wholesale access to both broadband and voice (although the SIP regime does not currently require voice services to be supported over satellite networks).

Industry stakeholders generally shared an appetite for critically examining the safeguards currently in place. However, there were mixed views put forward on whether continued regulation is needed and, if so, how wholesale and retail regulation can best be balanced. Overall, industry submissions broadly argued that regulation could be wound back at the retail level to provide more competition for the delivery of services. Some submissions recommended that safeguards should only apply to non-commercial areas, such as within NBN Co's satellite footprint, arguing there is sufficient competitive incentives for the delivery of high-quality services elsewhere.

Service redundancy

A key theme expressed in many submissions was the importance of redundancy (i.e. having access to multiple networks) to maximise access to connectivity. Many submissions from consumer representatives and individual consumers stressed that regional and remote communities strongly value having access to at least two separate forms of connectivity on a sustainable basis. It was argued this provides people with alternative options they can use if a particular service experiences a fault, or where there might be broader outages due to power outages or during emergency situations.

While there is no formal requirement in Australia for all individual premises to have access to separate networks, competition and investment in broadband and mobile networks generally provides at least a 'dual path' option for most consumers. Given Telstra's requirement to use its own network to deliver services within NBN Co's fixed wireless and satellite footprints, many regional and remote consumers currently have the option to access baseline voice and broadband services over separate networks. There were greater concerns for the small number of premises that entirely lack existing terrestrial mobile coverage.

Network resilience and power

Stakeholder feedback indicated there are high expectations in the community about the resilience of telecommunications networks. There is an overall view that any telecommunications networks used to deliver universal services in future should as far as possible be suitably resilient, and better support regional and remote communities staying connected during power outages, natural disasters and emergency situations. There are also some concerns that any future migration of USO services to alternative technologies may further exacerbate resilience issues.

There were concerns that the reliance of telecommunications services on ongoing access to power means that areas that do not have access to mains power or have an unreliable power supply could lose the ability to communicate when the power fails. There were mixed views on whether industry should be required to provide the option for consumers to take up battery backup arrangements, with some submissions arguing that battery backup should be explicitly mandated or possibly subsidised. Conversely, others argued that given the importance of power for a range of daily activities beyond telecommunications, consumers in areas with less reliable access to power may need to consider larger-scale options such as generators or other alternative power supply options.

Many stakeholders argued that network operators should take on more responsibility for preventing and responding to power outages. Telecommunications industry stakeholders however noted that while resilience measures have been and are being implemented by telecommunications providers, that provision of power is the primary responsibility of power companies and that these organisations need to play a role in improving resiliency.

Affordability

There was strong consensus among submissions that ensuring services are reasonably affordable for consumers is an important aspect of universal service delivery. Many submissions highlighted that the existing price of services may be challenging for particular areas of the Australian population, particularly First Nations communities (as discussed below). Some stakeholders also expressed concerns about the high costs of emerging technologies, particularly Starlink LEOSat services, as well as power redundancy (such as battery backup) for regional and remote consumers.

There was less agreement on how issues of affordability should best be addressed. Some submissions recommended the Government provide targeted financial assistance to vulnerable segments of the population, such as through vouchers or subsidies. Other stakeholders supported more direct regulation of the prices of retail or wholesale services (or both), or by requiring service providers to support pre-paid options, particularly in First Nations communities.

As noted in the consultation paper, the retail pricing of telecommunications services in Australia is not currently subject to any specific price controls. Overall, the telecommunications-specific provisions within the *Competition and Consumer Act 2010* are designed to promote competition in the industry and encourage service providers to offer consumers lower prices, innovative products, and a choice of services that reflects the various needs of the community.

First Nations communities

Stakeholder views were sought on how future universal service arrangements could best support First Nations Australians. There was strong agreement across submissions that existing arrangements are not currently effective in meeting the practical connectivity and digital inclusion needs of First Nations communities. Stakeholders generally argued that First Nations communities have less availability and choice of services, particularly in extremely remote and isolated areas, and services that are available are not suitable for the local needs and preferences of most communities. As noted in the consultation paper, there are concerns that the USO and related safeguards are focused on post-paid fixed plans, which many First Nations people may not be able to access or afford, or would prefer mobile or other services (for example, community Wi-Fi). Some submissions, particularly the Government's First Nations Digital Inclusion Advisory Group, highlighted the high reliance of First Nations communities on pre-paid mobile services as well as community Wi-Fi and USO payphones.

There was support for the Government continuing to examine and fund place-based solutions targeted to the particular needs of individual communities. It was recommended that solutions be designed through detailed consultation and engagement with individual communities to ensure measures meet specific needs and achieve the greatest outcomes. However, there was less agreement on whether future universal service arrangements should explicitly address First Nations connectivity requirements, or whether it would be better to target improvement through separate funding programs and initiatives.

Payphones

Submissions set out a range of feedback on the role of payphones, which are currently provided by Telstra under the USO. Most submissions supported payphone arrangements being retained as part of future universal service arrangements. There is an overall view that, while widespread community use of payphones may have declined, they can continue to be a vital source of communication for vulnerable and isolated individuals in the community and during emergency situations.

However, there was some support for the Government reviewing existing payphone arrangements to make sure they continue to best meet the needs of the community. Some submissions recommended Government critically examine the existing number and locations of payphones, noting that use of individual payphone services may vary widely. For instance, there were arguments that payphone locations should be more directly or only targeted to areas of need, such as where mobile coverage is less available or in First Nations communities. There were also some queries about the functionality of existing payphones, with suggestions that other solutions, such as community Wi-Fi, may be more preferable given modern community demands for broadband connectivity.

Some industry submissions argued that the Government needs to be more transparent about payphones and how they continue to best represent value-for-money.

Funding of universal telecommunications services consultation – Key themes

As a background to input, there was general acknowledgement in submissions that access to broadband and voice services is an ongoing necessity to enable Australians to fully participate in society.

Principles supported – sustainability, transparency, certainty and flexibility

There was general agreement among stakeholders that any funding arrangements needs to be sustainable, although views on the method to achieve this varied. There was general support for simplification of future funding arrangements and that funding should be directed as much as possible on a technology neutral basis and targeted to areas with market failure.

There were proposals that funding for universal services would most sustainably be Budget funded and some suggestion that where a competitive market exists that a voucher scheme could be used. With respect to levy arrangements, there was a general acceptance that a move to a single funding stream would be appropriate. Where this was supported, it was generally proposed that services funded by the TIL and RBS could in future be funded by a mechanism largely based on the design of the TIL, with the RBS repealed. Carriers with large 4G/5G fixed wireless and/or mobile networks were generally opposed to such a move as they do not currently contribute towards the RBS for these services. One of the large mobile carriers commented, however, that a move to a single funding stream would be appropriate in the event that universal service fixed voice and broadband delivery obligations are also reconfigured to become the responsibility of a single entity.

There was general agreement that transparency, certainty and flexibility are necessary principles. For transparency, the requirements suggested could include a robust methodology used by an independent organisation to regularly calculate any non-commercial costs to be recouped, that there is transparent reporting required, that there is periodic review of the overall design of funding arrangements with the ability to make adjustments and that grant funding separately provided to funding recipients from all levels of government not be counted among costs to be recovered.

For certainty overall, it was argued that arrangements need to be clear, simple and predictable. It was acknowledged that in order for any carrier to invest in a non-commercial network that it would not do so if a return could not be guaranteed. NBN Co argued strongly for ongoing support for its historic non-commercial losses although most other submissions that mentioned it noted that economic efficiency dictates that such costs should not be included in any calculation.

There was a general view that certainty would best be supported by determining individual contributions to a levy using a set percentage or set amount applied to a well-known metric and this would assist carriers in estimating their likely liability with greater confidence on an ongoing basis.

Submissions generally agreed that greater flexibility is required in any future funding arrangements to enable support for innovation and adaptation to changing market conditions. Specifically, arrangements should allow funding support to move to newer and more efficient services as technology evolves.

Competition, competitive neutrality, contestability and economic efficiency

A number of submissions drew attention to competition, competitive neutrality, contestability and economic efficiency as principles that need to be supported by any revised funding arrangements.

It was acknowledged however, that design of funding arrangements would require some trade-offs between all the principles outlined above.

Services that should be subsidised

There was a general view that funding should only be provided where there is market failure and overlap between funding mechanisms should be avoided

The current arrangements for universal voice and broadband services broadly mean that consumers can order a service and that such a service is provided within a reasonable time, and that consumers are provided with technical support during connection and in addressing any faults in the service.

More than one submission noted that services will require a subsidy where there is a gap between what is commercially available and the required availability, accessibility or affordability for baseline communications services. However, there are also views from industry that existing subsidy amounts could be reduced significantly, including because LEOSat services are now theoretically available across Australia, that is, there is a commercial network available for consumers to order a service. However, there is currently no guarantee that a commercial LEOSat provider would offer a service to anyone who

would like to order, or that the network would be able to take on all voice and broadband users in regional areas and would be subject to existing service requirements.

Further, current LEOSat services commercially available in Australia do not offer technical support during connection and in addressing faults, and currently the upfront connection and ongoing costs to consumers can be well above current universal baseline voice and broadband services offered by Telstra through the USO and NBN Co through its obligation as the default SIP.

So, while there is for the first time a commercial network capable of offering services to all locations in Australia, there is currently no commercial service offering the combination of characteristics that matches existing universal service arrangements in Australia.

Many submissions argued that not all NBN fixed wireless and satellite services are necessarily uncommercial and that any future subsidy could be considered on a more granular level. However, we note that would come with higher administrative costs to determine, and then to periodically re-assess at a more granular level.

A number of submissions also discussed delivery of public interest services, with support for ongoing funding of Emergency Call services particularly emphasised. While the ongoing provision of payphones was also supported, it was noted that the funding provided should be reviewed taking account of any benefits Telstra obtains from the operation of this network.

A number of submissions called for funding arrangements to more directly support the needs of more vulnerable Australians, in particular First Nations people living in remote areas. These submissions noted that highly mobile and price sensitive consumers require flexible, transportable, affordable and pre-paid services, and that the current linking of universal service obligations to premises based services is not suitable for all consumers. These submissions noted that specific funding to meet the needs of First Nations consumers should be considered. This would include ongoing funding for successful infrastructure and programs already in place to ensure they are properly maintained and that capacity is increased over time to reflect growth in demand. Such funding support should however also support adoption of newer technologies.

Telstra noted that even if it were able to stop using copper for voice services, its Consumer Service Guarantee and Priority Assistance obligations would still require funding support.

Carriers and ACCAN do not support funding being provided through levy arrangements to support resilience. Carriers argued that mandated resilience is unlikely to deliver anything on top of what a competitive market requires in any case. Many submissions noted that longer term outages are generally associated with mains power outages, so while carriers are able to add batteries and generators, there is a limit in terms of sensible investment at any individual site to improve resilience. ACCAN argued that carriers should fund resilience requirements themselves in commercial areas, with government's role limited to support for non-commercial services.

Charge base

Most of the discussion in submissions regarding an appropriate charge base focused on the current charge base for the RBS, and the issue of whether the RBS charge base should remain narrowly focussed or be broadened. The majority of submissions argued that any charge base should reflect current market conditions and that the funding base should be broad so that all parties benefiting from telecommunications infrastructure are contributing to its upkeep and replacement over time.

While some submissions argued that the current RBS charge base is appropriate, a wider range of stakeholders noted that they consider the current charge base is distortionary and a broader charge base would minimise market distortions and promote economic efficiency. A number of submissions argued that all carriers and carriage service providers should contribute, with some also indicating support for

charges to apply to all digital communications service providers (with a few specific mentions of OTT providers).

With respect to a broader charge base than that currently used in the RBS, submissions variously proposed revenue, profit and services in operation as alternative charge bases to the complex definition of 'chargeable premises' used in the RBS. The advantages of using a well understood and widely used metric for the charge base would include increased certainty and transparency for contributors and ease of administration for contributors and the regulator.

A small number of submissions argued that the current CPI indexing of the RBS charge provides significant uncertainty for carriers on likely future charge amounts.

Thresholds and exemptions

Most submissions supported some kind of threshold in order to support new market entrants and smaller providers. It was noted that this also reduces the administrative burden on both smaller providers and the regulator that collects charges. There were also proposals that any levy only apply to the first unit after the threshold, as this would provide a fairer approach between those paying and not paying the levy.

There was varying support on whether to increase the RBS threshold from the current 2,000 chargeable premises to 12,000 chargeable premises in line with exemptions elsewhere in telecommunications legislation. A small number of submissions argued that transitional concessions in the RBS should be made permanent although a number of submissions also argued that the definitions in the transitional concessions in the RBS were confusing.

There was also one suggestion to exempt brownfields premises that are not currently meeting high-speed broadband requirements to promote investment in upgrades.

Administrative issues

There was general support to design funding arrangements to be as simple as possible to minimise the administrative burden. As noted previously, this includes having a simple and clear charge base to reduce the regulatory burden on contributors and the regulator and to better enable contributors to more accurately estimate and plan for likely future contributions.

Comments on other funding available

There were a number of comments in submissions on current program-based funding mechanisms supporting improvement of telecommunications services. These included the need to reduce red tape to enable smaller players to more easily participate and to adapt mobile grants to enable smaller mobile carriers to invest in expansion of contiguous coverage rather than creating islands of coverage.

Appendix: Stakeholder submissions

Better delivery of universal services consultation

A discussion paper and 58 public submissions received in response from a range of stakeholders are available from www.infrastructure.gov.au/have-your-say/better-delivery-universal-services

1. AccessComm
2. AgForce
3. Amazon Kuiper
4. Anonymous
5. Australian Communications Consumer Action Network
6. Australian Competition and Consumer Commission
7. Better Internet for Rural and Regional Australia
8. Broome Circle
9. Christy and Scott Bredhauer
10. City of Sydney
11. Commpete
12. Comms Alliance
13. Cotton Australia
14. East Gippsland Shire Council
15. Eurobodalla Shire Council
16. Field Solutions Group
17. First Nations Digital Inclusion Advisory Group
18. Gary McLaren
19. Gippsland Regional Executive Forum (Champions of the Bush)
20. Internet Association of Australia
21. Internet Australia
22. Isolated Children's Parents' Association of Australia
23. Isolated Children's Parents' Association of Queensland
24. Jordan Wolrige
25. Kristin Garcia
26. Local Government Association of Queensland
27. National Farmers Federation
28. National Rural Health Alliance
29. NBN Co
30. NSW Government
31. NT Government
32. OBE Organic
33. Optus
34. Pivotel
35. Primary Producers SA
36. Regional Chambers of Commerce and Industry of WA
37. Regional Development Australia (RDA) Barwon, South West
38. Regional Development Australia (RDA) Grampians
39. Regional Development Australia (RDA) Logan and Redlands
40. Regional Development Australia (RDA) Southern Inland
41. Regional, Rural and Remote Communications Coalition
42. Ricegrowers' Association
43. Roger Plant
44. Ryan Rigg
45. Sonia Spurdle
46. South Australian Forest Products Association

47. Starlink
48. Straddie Chamber of Commerce
49. TasICT
50. Tasmanian Chamber of Commerce and Industry
51. Telecommunications Industry Ombudsman (TIO)
52. Telstra
53. TPG
54. Victorian Farmers Federation
55. Vocus
56. WA Farmers
57. Western Downs Regional Council
58. Western Roads Federation

Funding of universal telecommunications services consultation

The Government received submissions from industry, individual consumers, consumer representatives, regulators and state/territory governments. A discussion paper and 21 public submissions received in response are available from www.infrastructure.gov.au/have-your-say/funding-universal-telecommunications-services-rbs-review

1. Anonymous
2. Australian Communications Consumer Action Network (ACCAN)
3. Australian Competition and Consumer Commission (ACCC)
4. Christine Foott
5. Deborah Avery
6. First Nation Digital Inclusion Advisory Group (FNDIAG)
7. Field Solutions Group
8. NBN Co
9. NSW Government
10. NT Government
11. Optus
12. Smart Urban Properties Australia (SUPA)
13. Superloop
14. Telecommunications Industry Ombudsman (TIO)
15. Telstra
16. TPG Telecom
17. Uniti Group
18. University of Technology Sydney – Dr. Justin Lipman
19. Vocus
20. WaveConn
21. We are not heard