Australian Communication Exchange Submission: Productivity Commission inquiry into the Telecommunications Universal Service Obligation

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Introduction

Australia's economic, social and cultural success depends on modern information and communications technology (ICT). However, access to ICT can be limited by disability, particularly deafness or hearing loss which is one of the most commonly-reported long-term conditions in the population.

More than three million people are affected by hearing loss and by 2050 that is predicted to grow to 25 per cent of the population.[i] Additionally, approximately one per cent of the population has some form of speech disability.[ii] The prevalence of hearing and speech impairment increases with age, as such, it is not difficult to envision the communication and productivity challenges facing a swelling portion of the community[iii].

The profound individual effects of limited communication are well documented, from depression and isolation to poverty and ill health. The societal effects include greater health care costs, higher suicide rates, and less workforce participation.

The Universal Service Obligation (USO) is an international concept designed to support and safeguard equitable communication options for all. In essence, the USO is meant to ensure all Australians have reasonable access to a standard phone service, payphone, emergency call service and the National Relay Service (NRS), which was established in 1995 to help deaf, hearing and/or speech impaired people to communicate with hearing people via the prevalent telecommunication platform of the time – the standard telephone service (STS).

Its services are available 24/7 at no additional cost to the consumer, funded by a levy on eligible telecommunications carriers. Naturally, over the past decade, technological advances have moved

society well beyond the STS to a wider range of communication platforms including video and speech-to-text options which have been embraced by the NRS.

The NRS relay service is supplied, under agreement with the Commonwealth, by the non-profit organisation Australian Communication Exchange (ACE) whose vision is *Access to Communication for Everyone*.

The Australian Government should be justifiably proud of offering the most comprehensive Relay Service in the world. A number of advances to the NRS have been introduced in the past two-and-a-half years and the range of service offerings has enabled hundreds of thousands of people to lead more independent, productive, inclusive lives.

Additions such as video relay, captioned telephony and SMS relay have made dramatic improvements for not only NRS users but the wider community.

Outside the NRS, there are currently very limited options that Deaf, hearing impaired and speech impaired people have for communicating with the hearing population.

When considering the needs of people who use the NRS, it should be noted that:

- Where possible, Deaf, hearing impaired and speech impaired people will choose to communicate directly (rather than going via a relay service) if that is viable for both parties.
- There are no mainstream video services that cater for communication between Auslan and non-Auslan users.
- The widespread use of mainstream text services is likely to be moderated by:
  - wide variances in English language writing and reading skills of Deaf people
  - technology access and digital literacy issues in particular Deaf, hard of hearing or speech impaired as well as hearing sectors
  - the preparedness of hearing people to be comfortable with the more limited communication offered by text service options.

To its users, the NRS is not merely a safety net communication option. It is now and should remain at the vanguard of ensuring communication channels for Deaf, speech and hearing impaired Australians keep pace with the rapidly changing ICT landscape available to others.

Further information about the National Relay Service: http://relayservice.gov.au/media/uploads/resources/NRS_Plan_2015-16.pdf

Overview

Australian Communication Exchange (ACE) welcomes this Productivity Commission review, and the concurrent departmental review of Communications Accessibility, as an opportunity to consider ways to lift the disability community into the digital broadband era, where everyone is able to benefit from a full range of personalised and interactive ICT.

In March 2015, ACCAN's 'Rethinking the Universal Service Obligation' conference brought together a range of perspectives to discuss whether the USO is fit for purpose in the current communications landscape.

Professor of Communications at the University of Sydney, Gerard Goggin, framed the issue under communications rights (rather than universal service) and described the gulf between the safeguards for minimum standards of access in the current USO – described as the 'low bar' – and the much broader modern forms of communication that are now considered essential to daily life.

Telecommunications economist John de Ridder added: *"New technology embodied in mobiles and broadband networks provides opportunities to serve disadvantaged customers in new ways"* however*, "work needs to be done on what accessibility (including performance and reliability standards) requirements may need to be addressed in a fixed broadband and mobile voice and data context."*

Given the much broader issues at play within this review, ACE urges the Commission to focus on:

- safeguarding consumer and human rights,
- reflecting rapid changes to technology and communication habits, and
- advancing opportunities for the social and economic participation of every Australian.

In essence, a new-look Universal Service Obligation (USO) should go beyond the individual's right to access a phone service and consider the broader human right to access the digital economy that is increasingly being used for health care, education, employment, government support and so forth.

It should aim to break through the various government, telecommunications and disability silos to create an environment of sharing that caters to a range of disability and disadvantaged groups within the broader community.

It should put an end to the policies and regulations that hinder new technologies and applications being introduced in the disability community, and promote flexible funding channels including cross-subsidies and private partnerships.

In the long term, this could be achieved by integrating disability broadband[iv] into health care, education, business, community and other government services (potentially linked via the National Broadband Network), although existing accessible telecommunications services must be maintained during the transition to make sure that no-one is left without an equivalent means of communication. Indeed, some people may always require a STS equivalent safety net.

Response to Issues paper

1.   Current Universal Service Obligation

Information request

What other current government policies and programs interact with the current USO or may be seen as acting as a substitute for the USO? What are their main benefits and costs? How effective are these policies and programs in achieving their objectives?

ACE response

The National Relay Service (NRS) provides a unique service to the community and, as such, deserves stand-alone consideration within this review of the Universal Service Obligation (USO). There is no other program or policy alternative and the function and offerings of the NRS are not well

understood outside the deaf and hearing/speech impaired communities, increasing the risk that its value and importance could be underplayed or considered only in terms of raw expenditure.

There are, however, quantitative and qualitative evaluations showing NRS services in the home and in the workplace increase the health and well-being of its users, and the NRS would be considered excellent value for money if it were measured against the efficiency test applied to new drugs and services under the Medicare scheme.

The NRS delivers communications accessibility that is not offered by any other provider. It caters to the needs of millions of Australians, for example:

- Nine to 12 children per 10,000 who are born with hearing loss in both ears.
- Another 23 children per 10,000 who require hearing aids through accident or illness.
- Over half the population aged between 60 and 70 has hearing loss. (This increases to more than 70 per cent of those over the age of 70 and 80 per cent of those over the age of 80.)
- 55 per cent of war veterans and war widows who report hearing loss as a medical condition.
- Almost all farmers over the age of 55 who have been exposed to loud noise suffer some degree of hearing loss.[v]

By 2050, one in four Australians is expected to have some kind of hearing loss. This increase is largely due to an ageing population and it is well documented that older people are less likely to use alternative communication options afforded by computers and the internet.

Indeed, a National Centre for Vocational Education Research report on 'Older Australians and the take up of new technologies'[vi] found:

- only eight per cent of men and three per cent of women aged over 65 used the internet on a daily basis and
- 65 per cent of men and 73 per cent of women aged over 65 years have never used the internet to read or send emails.

These figures are likely to change as younger generations age; however, the rapid growth in this current cohort is likely to create a tsunami of need for communicating via the NRS, as well as outreach programs to support the transition to new accessible communication services.

While the roll-out of the National Broadband Network (NBN) will eventually provide essential infrastructure that will make new technologies available for use and provide the opportunity for all Australians to access the same level of services and information, regardless of location, age and mobility, in the short term, information and services aimed at older Australians will have to continue to be provided by other methods.

It is ACE's position that, to advance all Australians, universal service and communications access should be woven into the very fabric of the government's health, education, economic and social policies.

By explicitly articulating and embracing the communication needs of people with disability across a range of policy settings, notably the National Digital Economy Strategy (NDES) and the National Disability Insurance Scheme (NDIS), the costs and benefits can be shared.

The Commonwealth would continue to provide a safety net but other funding sources can be accessed such as telecommunications providers, state governments, and private businesses capital.

Taking a more progressive approach, and 'unboxing' the USO, would work hand in glove with policies such as the Smart Cities Plan. By including benchmarks for communications access in this new framework, the Government would encourage a grassroots up approach to providing more progressive and integrated communications services across the country.

The Federal Government is encouraged to harness ACE's decades of experience to help the disability community transition into the digital era. ACE has the knowledge and connections to provide expert advice, facilitate partnerships, open new funding sources, and drive technological advances.

2.   Objectives and rationales of universal service policies

Information Request

Are the underlying rationales for the current USO still valid in today's evolving telecommunications market? Can the NBN be treated as an alternative (wholesale) USO service? What is the justification for funding two sets of infrastructure (the NBN and the current USO standard telephone service) in the highest cost areas? What evidence is there to support the rationales? For example, are changes in technologies reducing the costs of providing telecommunications services in regional and remote areas? To what extent are there market-based alternatives to the delivery of universal services through the current USO? What evidence is there to support social or equity based rationales? What should be the objectives of any new universal services policy? Are objectives such as universal availability, affordability and accessibility appropriate?

ACE response

While the USO has not kept pace with ICT developments, its core objectives of availability, affordability and accessibility remain appropriate.

As noted in the Ofcom (UK) Strategic Review 2015: "Without intervention, the risk of social exclusion could increase over time as communications services become ever more fundamental to our interactions with central and local government services, and public services such as healthcare."

Despite great advances in communications, many Australians do not enjoy access to the essential services required to fully participate in society and the evolution of ICT does not obviate the need to provide for and protect sections of the community who rely on telephony and are unable or unwilling to adopt or adapt to internet services.

For people who are Deaf or have a disability, the NBN may one day open the door to an alternative USO service to the NRS, however there is more investigation required to understand how a transition could happen. Currently, a third party – a relay officer who can bridge current communication gaps and technological limitations - is required.

Until all Australians acquire the necessary hardware and technical skills to use computers and the internet, removing their access to suitable services such as the standard telephone could lead to further isolation and disadvantage.

ACE submits that a modern USO should enshrine functional equivalence, with round-the-clock access, for the whole population.

It must provide a comprehensive framework that safeguards universal availability, accessibility, affordability, access to new technologies and participation in society — as well as new principles such as mobility, and access to content, applications and ideas.[vii]

It must also encourage the development of alternative accessible communication that may lead to cost savings, which would likely require Government investment to bridge the transition from old to new.

Up-front investment and collaboration (as per Smart Cities) can foster savings and efficiencies, and ACE sees many opportunities to collaborate with the private sector on ICT Research and Development, and partnering with industry to implement the innovations e.g. working with universities to combine robotics and language.

Voice-to-text (speech recognition) software is an excellent example of progress in accessible communications, however there is no international standard for accuracy, which can be crucial in captioned conversations about health, business or education.

Technology is a challenge to both the ageing and disability communities, and there is an obligation on Government to ensure that the broad transition to a digital economy does not further marginalise these people.

3. Universal services policy options

Information Request – broad policy options

What policy options should be considered in addressing universal services objectives? Is there a single policy or combination of policies that should be considered? What are their benefits and costs? Which countries should be considered in relation to any new universal services policies in Australia? What aspects of their universal services policies should be considered? Which evaluations or reviews shed light on the benefits and costs of different policies? Could the 'optimal' policy option for Australia be no USO?

ACE response

Australia's NRS has been largely successful as a social service providing vulnerable communities with access to responsive, progressive communications services.

It is a leader in its field and a long way ahead of services in Asia, the UK, the US, and Canada, which is planning to introduce video relay services later this year – some four years after Australia.

A 2015 report on the costs and benefits of accessible telecommunications in Australia[viii] confirmed that the beneficiaries of the NRS are, on average, socially disadvantaged, in poorer mental health, and have lower incomes than the general Australian population.

The report concluded that the NRS - even under the most pessimistic of assumptions - passes cost-effectiveness tests with flying colours:

> *"…the NRS would be considered excellent value for money if it were subjected to the efficiency test that is applied to new drugs and services under the Medicare scheme.*

As the Australian population ages and the prevalence of hearing loss grows, the NRS provides one mechanism for Australia to meet its targets in respect of the labour force participation of older Australians.

In previous work, Connelly (2012) showed that 87 per cent of NRS users who were working believed that captioned telephone services would help them to continue working, i.e. avoid retiring, for longer.

Other evidence also suggests that, for elderly Australians - especially those who are frail or have other chronic conditions - access to NRS services reduces the burden of care on close relatives and may contribute to their ability to live independently, in their own homes, for longer."

Retaining oversight of the NRS affords the Australian Government greater controls and transparency through regular reporting, audits and key performance indicators. These measures alleviate the likelihood of fraud, as experienced in the United States where sub-contractors have been jailed for making false claims for providing video relay services (VRS). The US Government has since taken steps to separate the provision of infrastructure and services for VRS by building a portal that all service providers must now use to provide their relay services. The portal is designed to prevent providers from using proprietary products that don't 'talk' to each other, and to have more transparency over call volumes. This is an area ACE would be interested in investigating to further add value to the NRS.

An alternative to maintaining a stand-alone USO policy would be to embed its objectives (providing accessible, available, affordable communication services) into all relevant government policies and programs. This would reinforce the NRS position as a progressive social program, driven by consumer demand.

Perhaps, in time, the NDIS could be considered as an appropriate vehicle for funding accessible communication services for people who are deaf or hearing/speech impaired and under 65 years old. Naturally, given the vulnerability of these communities, functional equivalence must be guaranteed to allow everyone to fully participate in an inclusive society and reap the benefits of such. In this case, people over 65 years would need another funding mechanism to ensure the communication rights of this group of people.

There have been suggestions of a registration process for NRS users which, in our consultation, would be accepted by the hearing/speech impaired community if it meant retaining their equivalent communication services.

The International Telecommunication Union has a range of communications standards that provide guidance on good practice for governments around the world. There are specific standards for video relay, text relay and captioned relay that are currently under consultation and that will provide an international standard that can assist policy makers. ACE is currently involved in this consultation process.

Information Request – scope

What types of services should be included in any universal services policy? Should current USO services - the standard telephone service and payphones - continue? If not, what alternatives to these services should be considered? Given the ubiquitous nature of mobile services, should fixed line services remain the focus of the USO? Given emerging market, technological and policy developments, what areas of market failure should be targeted by any new universal services policy? Should there continue to be a voice services safety net for particular user groups and, if so, what would be the best approach to providing this? Which particular user groups (for example, Indigenous communities) and locations (for example, remote locations) should be targeted by any universal services policy? What are the telecommunications needs of these particular groups? Should telecommunications users in regional and remote locations reasonably expect exactly the same service quality and price (including usage) as those living in cities irrespective of the cost of provision? What should be the criteria for the inclusion or exclusion of particular telecommunications services, user groups and locations?

ACE response

It is broadly accepted that USO policy must be contemporary and flexible but recognise the ongoing needs of Australia's most vulnerable citizens, who are unable or unwilling to adopt new technology.

People who are Deaf, hard of hearing or speech impaired use the NRS because they require a third party – a relay officer – to convey their calls to a hearing person. While significant R&D activities have improved innate accessibility of many technologies, they have not yet reached a point where they can replace a third person.

At bare minimum, people who are disabled and ageing require a safety net voice service to ensure their participation in society is maximised and to obviate social exclusion, ill health, and poverty.

There is global experience that can be drawn on to understand how new technologies can be embraced by different groups and the process that is involved to transition users to new technologies.

In the United States, the Federal Communications Commission (FCC) is moving to replace the long-standing TTY with devices using real time text (RTT) which is designed for wireless networks.[ix] Text is sent as soon as it is typed without the need for a separate "send" command, which the FCC says lends a more conversational rhythm. In a statement, the FCC noted that RTT will "allow Americans who are deaf, hard of hearing, speech disabled, or deaf-blind to use the same wireless communications devices as their friends, relatives, and colleagues, and more seamlessly integrate into tomorrow's communications networks." RTT will also allow for partial messages to be sent in cases of emergency, when communication is key.

The United States is also the only nation where video relay (VR) services are provided 24/7 to registered users, whereas VR services in all other countries, including Australia, are only available for restricted hours of operation.

In the US, relay services including VR are mandated under Title IV of the Americans with Disabilities Act of 1990 (ADA). This requires communication providers to offer access to the telephone system that is functionally equivalent to voice telephone services. Due to scale of the VR market in the US, all VR service providers use dedicated platforms. Most users use dedicated videophones which are distributed for free by VR providers.[x]

The New Zealand Government has procured national relay services, which includes VR, from the same provider since 2004. It is funded by the Ministry of Business, Innovation & Employment.

In Norway, VR is a free weekday service provided and funded by a government department, using a dedicated platform.

Growth in the use of the NRS in Australia reflects the essential nature of the telephone, even with improvements in other types of ICT.

The reasons why consumers choose the NRS are broadly the same as the reasons why anyone chooses the phone to communicate i.e.:

- They need information immediately
- For convenience
- The conversation is detailed or complex
- The phone is the only option provided
- In an emergency
- The hearing person doesn't use Auslan or can't understand the person who is speech impaired
- To communicate with a person who prefers using the telephone.

Every service under the NRS requires the consumer to purchase or access equipment (e.g. tablet, computer, smartphone, TTY, captioned telephone) and the choice of equipment they use will be based on what is most comfortable for them at that point in time. Mainstream technologies are often preferred however in some cases proprietary technology offers functionality and an experience that is easier, better, more reliable or more affordable for the individual. Consumers will choose the technology that best meets their needs.

NRS consumers are also required to pay for a fixed line and/or a data plan to access these services. Without a more detailed understanding of the way people use different NRS services, and the limitations around other options, it is difficult to say whether some technologies, like the TTY, could be phased out to make way for new technologies. It is also unclear if this would provide any improvement in the costs of running the NRS, as consumers would still require access to the telephone.

Naturally, in reviewing the range of services and options available, it is paramount to prioritise individual and community safety and security. Some users of legacy technology are ageing or live in remote communities where devices such as the TTY currently provide the safest option.

Where accessibility is concerned, many businesses and service providers will only broaden their access if it leads to improved efficiencies, new customers, or improved reputation and subsequent improvements to profits.

Without a stronger, enforced Disability Discrimination Act in Australia, similar to that in the United States, businesses are not currently compelled to incur costs if they cannot see an improvement for their business that makes the exercise cost neutral.

Information Request – quality

How should the benchmark for minimum standards of quality be set for universal services?
Are existing consumer protections applicable to telecommunications services provision reasonable? Is there scope to make these measures more efficient or cost-effective?
Should consumer protection requirements be replaced or supplemented by transparent reporting by retail service providers?

ACE response

As UNSW Professor Gerard Goggin contests, "Quality of service has always been an important but overlooked part of universal service."

The current policy and regulatory measures were developed to safeguard PSTN service quality i.e. prior to the advent of services such as VoIP, mobile phones and broadband Internet, which use previously unheard of technologies, standards, protocols, and configurations.

There is now demonstrable potential for consumers to receive lower quality of service than previously expected. This is particularly problematic for the quality of emergency services.

Further, Professor Goggin points out that the new structure of markets in communications and the introduction of new wholesale entities (such as NBN) or co-ordination entities (USO Co), which involve new relationships between public and private partners, poses considerable challenges for guaranteeing service levels for universal communications.

The ITU recommends policy makers should consider setting disability communication service quality standards as such:

The national regulatory authorities (NRAs) should determine through consultation with stakeholders, including organizations of persons with disabilities, specific minimum quality requirements for audio description, [audio subtitles where relevant], closed captions and signing, as well as metrics to measure the level of performance.
Quality of service standards may include as a minimum the following requirements:

- *Standards to ensure that captions are readable, accurate and comprehensible so that they are meaningful to audiences. This will include specifications on font type, font size, contrast and use of colours to facilitate access by persons with low vision, and requirements on ensuring viewer control over these.*
- *Quality of service standards establishing maximum error rates and standards to ensure synchronization between closed captions and dialogue;*
- *Quality of service standards relating to placement and clarity of audio descriptions.*

As previously mentioned, the ITU is currently developing specific standards for a range of relay services that will provide an important global benchmark for quality.

Current USO service levels are mandated in the NRS performance framework. Answer times range from 5-10 seconds for the majority of calls and message relay accuracy must be no less than 95 per cent.

ACE advocates that the pursuit of best practice e.g. 98 per cent word accuracy provides functional equivalence (a real-time conversation) and meets the needs of most NRS users. Often the nature of captioned conversations is such that sub-standard translation is unacceptable, for instance when relaying sensitive medical or business information.

Consumer protection policies and regulations must remain the responsibility of government to promote ethical conduct and optimal market conditions.

Information Request – Universal service providers

> *How should universal service providers be determined? Should there be competitive tendering for the provision of services? Should a provider of last resort be designated and if so, on what basis? What incentives are required to ensure that a provider of last resort operates at minimum cost? Is imposing reporting requirements on universal service providers as to who uses the services technically feasible? What, if any, requirements should apply to all service providers?*

ACE response

As a non-profit organisation, ACE supports competitive tendering for the provision of communication services to people with disabilities; however, we would argue that there is little obvious commercial imperative from this market sector and it is unlikely to attract broad corporate interest. The tender process would be more likely to attract interest from people/organisations with particular interest in servicing and supporting the deaf and hearing/speech impaired communities and it is important that service providers (like ACE) understand and have the ability to cater to the specific needs and challenges of this user-group. Underservicing, neglecting or abandoning people who are deaf and hearing/speech impaired is likely to stir an unfavourable public response. As with the provision of NRS services, cost should be incentivised through contract KPIs (including service and quality). The transition to more cost-effective alternatives should be funded by government and supported by the inclusion of communications accessibility within broader Government policies. This would facilitate ACE to work with industry and other organisations to create value for money in service provision, and to identify other funding opportunities.

The international experience of having a provider of last resort is that it leads to a situation where new technologies that would greatly improve the social policy outcomes of services under a USO, like video relay, are slow to be adopted and implemented because of the associated costs.

Reporting on NRS users is technically feasible via a self-assessed registration process.
NRS users have offered feedback to ACE that registration could be acceptable, depending on how onerous or costly. The method of eligibility declaration would likely be something the Government would need to consult widely with the Deaf, hard of hearing and speech impaired community.

Groups such as Australian Hearing currently offer formalised testing that requires Audiologist confirmation (which incurs a fee). Self-declaration is the preferred option in many international jurisdictions and ACE believes this would be sufficient in Australia. In the US, legislative changes in 2014 required captioned telephony users to register for the service. In New Zealand, a self-declaration model is successfully operating.

The broader question is whether a registration requirement would work against Australia's commitment under the United Nations Convention on the Rights of Persons with Disabilities to '*promote the availability and use of new technologies, including information and communications*

technologies, mobility aids, devices and assistive technologies, suitable for persons with disabilities, giving priority to technologies at an affordable cost'.

Information Request – other policy issues

How might technological neutrality be implemented under any new universal services policy? How frequently should any universal services policy be reviewed, particularly given rapid changes in technology? What other issues should be considered with respect to universal services policies?

ACE response

ACE supports the principle of technological neutrality and promoting inter-operable proprietary products wherever available. It is important that the most useful and user-friendly products are available and affordable to encourage the deaf and hearing/speech impaired community's transition to new ICT.

Australia now operates a more streamlined NRS system with ACE providing product and services as stipulated under government contract. The current captioned telephony product (CapTel) is proprietary product but is also the only product offering functional equivalence. That is likely to change over time and alternative fit-for-purpose products should be considered if/when there is an open source provider.

ACE supports a five-yearly review cycle for the USO. Its provisions need to be both robust and flexible enough to stand up for that period. Five years allows adequate time to assess how the provisions are performing and to build evidence that any technological changes are *a. being adopted by the community* and *b. permanent developments.*

4. Funding

Information Request – funding

How should the costs of delivering universal services be determined or benchmarked, and by whom? Who should pay for the costs (and wear the regulatory burden) of delivering universal services? Is it reasonable that telecommunications users in regional and remote locations do not bear more of the actual infrastructure costs of providing telecommunications services? What should be the main mechanisms used for funding the delivery of universal services? What is the role of government in funding social policy objectives? What should be the basis for determining any industry levy? How should any user co-payment for services be determined? Should there be means testing for users to access universal services? Should a universal service fund be established, particularly, to address new or future changes in technology and in consumer needs and preferences?

ACE response

The annual cost of delivering the NRS varies, as the relay service component is based on the number of call minutes relayed during the financial year. The cost of providing the NRS is funded from the telecommunications industry levy paid by eligible telecommunications carriers. The annual funding allocation for the provision of the NRS is currently $22 million (including GST).

Table 1. Cost of delivering the NRS

	Quarter1	Quarter2	Quarter3	Quarter4	Total YTD
Relay service	$5,152,548	$5,246,979	$5,593,155		$15,992,682
Outreach service	$1,047,549	$1,047,549	$1,047,549		$3,142,647
Total	$6,200,097	$6,294,528	$6,640,704		$19,135,329

Source: NRS Quarterly Performance Report Q3 2015-16

Funding for accessible communications should meet demand, not vice versa, to support the goals of an inclusive society. Any cost-benefit analysis of the NRS must consider the impact of effective phone communication on:

- the labour force participation of people with hearing loss
- the ability of older Australians to live in their own homes, and avoid supported living
- improved access to telehealth, especially in rural and remote regions and especially for Australians with chronic conditions.

Research[xi] has found that, even under very pessimistic assumptions about the effect of the NRS on users' quality of life, the NRS would pass the cost-effectiveness test that is applied to assess the efficiency of new and extant listings on the Pharmaceutical Benefits Scheme (PBS) and Medicare Benefits Schedule (MBS).

Under conservative assumptions, the cost per quality-adjusted life-year (QALY) of NRS services is likely to be $16,667 or less, which falls far below the rule-of-thumb threshold that is typically applied by panels such as the Medical Services Advisory Committee and Pharmaceutical Advisory Committee (a common rule-of thumb that is applied is that a cost of $50,000 per QALY or less represents good value for money).

Considering a user-pays system would be both unfair and counter-productive. Many Australian government policies and programs are geared towards population decentralisation (i.e. regionalisation) and it would be nonsensical to charge more for people in rural / remote areas to access an equivalent communication service. That would be akin to asking rural residents to pay more tax because their roads cost more to build.

However, there is potential to broaden the NRS funding base by, for example, empowering NBN Co, as the broadband wholesaler, to collect a universal levy from all retailers and not limiting the levy to traditional providers of voice phone services. This would provide a pool of money through which funding for R&D, transitioning costs, Outreach, Disability Equipment Program and Relay Services, could be funded to meet the social outcomes desired for people with a disability under the current USO.

In the United States, all telecom carriers, including VoIP and cable companies, must contribute to a relay service fund (calculated by revenue) but the carriers pass on this cost to customers via a 'TRS charge' on each customer bill (mobile, fixed line and internet). The fund is also topped up by the Federal Communications Commission.

In Australia, the cost of transitioning to new ICT services could also be cross-subsidised if Government departments were encouraged to contribute to disability communications initiatives relevant to their portfolios.

The cost of delivering the NRS is closely linked to Australian industrial law which benchmarks wages. No doubt, technological advances will allow for some cost saving but these must not be made at the expense of providing equivalent service or at the risk of disenfranchising people who are hearing or speech impaired.

5.   Implementation and transition

Information Request – implementation and transition

How will agreements relating to the current USO affect the implementation of, and transition to, any new universal services policy? What impact will the timing of the NBN rollout have? Is there a need to review current governance arrangements? What should be the role of state and territory governments? What other matters should be considered in relation to implementing and transitioning to any new universal services policy?

ACE response

We should always push the boundaries that new technologies offer by way of providing more cost-effective and functionally equivalent services. It is also essential that no one gets left behind.

Today in Australia, ACE relays over 66,000 minutes per month for TTY users. It would seem that the majority of TTY users who are willing and able to use other, superior technologies already have. The remaining users of TTY belong to Australia's older generation and have been using this service for decades. Despite the fact new and improved technology exists and is available to them, for many older Australians, TTY represents a communication lifeline.

It is widely acknowledged that broadband is an essential service in today's society and there is a strong argument for taking broadband availability and access to be the benchmark and minimum standard for universal communications in Australia. However, until broadband is accessible and affordable to all, particularly the disability community, it cannot be relied on as a safety net communications service.

Accessibility is a core principle of universal communications and should be stated in whatever policy and mechanisms government creates in pursuit of this goal.

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[i] Australian Network on Disability
[ii] AIHW Disability Prevalence and Trends 2003
[iii] http://demographics.treasury.gov.au/content/_download/australias_demographic_challenges/html/adc-04.asp
[iv] 'Disability broadband' is a concept coined by telecommunications consultant Paul Budde to describe the developments in communication technologies including both fixed and mobile broadband-based internet access, smartphones, tablets and wearable devices which make new (often less expensive) services and facilities available to people with disabilities. http://www.budde.com.au/Research/Australia-Disability-Broadband.html
[v] Australian Hearing 2013
[vi] https://www.ncver.edu.au/publications/publications/all-publications/older-australians-and-the-take-up-of-new-technologies
[vii] *Realising Universal Communications*, Professor Gerard Goggin, University of New South Wales

[viii] *A Report on the Costs and Benefits of Accessible Telecommunications in Australia 2015*, Professor Luke Connelly, The University of Queensland

[ix] https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-53A1.pdf

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