# Submission: Sustain the National Relay Service and improve communications accessibility for people with disability: 2016 and beyond

## This submission can be published on the World Wide Web

Yes.

## Date of submission

5 May 2016

## Logo of organisation—if an organisation making this submission



## Name and contact details of person/organisation making submission

Paul Buckrell M.IPENZ  
Director

## General comments

This submission draws on knowledge of relay service environments and/or universal service and disability legislation in Canada, the USA, Norway, Sweden, Germany, Switzerland, Serbia, New Zealand, Japan and parts of the Middle East.

The submitter’s overall impression of the discussion document is that it has been written through the eyes of hearing-oral people, not through the eyes of the disabled people to whom the NRS is a vital and valued service. The usability of the NRS has increased in the last few years with the introduction of VRS, CapTel and an award winning app. All of these service improvements better meet the needs of its users so growth in use is a logical outcome. Instead of recognising and funding this increasingly successful service for Deaf, deafblind, hearing impaired and speech impaired persons, the focus of the discussion document seems to be on limiting access to and use of NRS services. This is no less acceptable than if communications services available to hearing oral persons were to be arbitrarily restricted.

## Response

### Should a specific funding allocation from the TIL available for the delivery of the NRS be removed – i.e. funding from the TIL to be used on a fully cost recovery basis, reflecting the actual level of use of the NRS in each financial year?

Yes. It is considered impossible to cap NRS funding in any way that is fair to the persons who require its services.

### Should a specific funding allocation from the TIL available for the delivery of the NRS be increased by a set amount? If so, what amount?

It should be sufficient to meet the demand for service as tested by a Request for Proposals for an NRS with adequate lead time to allow competition from overseas platform providers and NRS equivalent operators. It is extremely difficult to compete against a long term incumbent supplier on any basis other than new technology and promotional efforts to support that new technology in the community.

### Should changes to the current $20 million allocation (excluding GST) available for the delivery provision of the NRS from the TIL be allocated for specific purposes? I.e. for delivery of specific service options.

No. The NRS delivers diverse services to meet the needs of Deaf, deafblind, hard of hearing and speech impaired persons. It would be discriminatory to only fund specific service options. This question seems to disregard the Commonwealth’s obligations as a signatory to the UNCRDP.

### Should capping arrangements be put in place for one or more service access options delivered through the NRS?

No.

### Which service access options could be capped (while maintaining access to calls to emergency services on a 24/7/365 basis) for users of the NRS?

None if disabled persons are to have the access to functionally equivalent telephony service as hearing oral persons enjoy.

### Should limited hours of operation be put in place for any other service access options delivered through the NRS, apart from the current arrangements in place for video relay?

No. Video Relay service hours of operation should be expanded to provide all citizens of Australia equal access to the service in terms of hours of operation across time zones. Some expansion into evening hours so the Deaf can make social calls is highly desirable.

At present the only country known to offer VRS 24/7/365 is the USA. However, other countries are expanding VRS hours of service. On 1 July 2016 New Zealand will move from service 9:00am to 5:00pm weekdays to 8:00am to 8:00pm weekdays and have a Video Interpreting Service that combines Video Relay Service and Video Remote Interpreting. The VIS is Crown funded. Norway is expanding its VIS service hours including making access to emergency services using sign language available 24/7/365. The one year trial for this commenced 1 January 2016. Sweden is moving to 24/7 service.

### Which service access options could have limited hours of operation (while maintaining access to calls to emergency services on a 24/7/365 basis) for users of the NRS?

None if disabled persons are to have equivalent access to telecommunications as hearing oral persons enjoy.

### Should caps be considered on a per-user basis as part of ‘fair use’ controls?

No. This option would require user registration, a relational database to track use, automatic notification to the user when he/she is approaching some arbitrary threshold, and options to continue to access service. Some users are dependent on access to the NRS for their employment and the NRS, together with other initiatives such as the NBN should be enablers for more people with communications disabilities to gain entry to the workforce or to become self-employed.

### Should account or compulsory registration requirements be expanded to cover access to all service options available through the NRS?

No. Registration should be an opt-in process for the purpose of receiving updates on the NRS services.

### Should the establishment of any account or registration process require appropriate independent confirmation of the disability which requires the account holder to use the service?

No. People with communications disabilities are enraged at having to be put to the expense of demonstrating time after time to government agencies that they have a lifelong disability. Self-certification under threat of heavy penalties for abuse is considered to be effective.

### Should the establishment of any account or registration process require account holders to appropriately self-declare the disability which requires them to use the service?

Self-certification under threat of heavy penalties for abuse is adequate for accessing both the NRS and national or state funded equipment distribution programmes (hardware and software).

### Should appropriate fair use policies be introduced for account holders with the NRS?

No. There will be low users, average users and power users. Usage can relate to a person’s employment and it would be inappropriate to effectively penalise a person who is successful in their job by virtue of a functionally equivalent NRS to have their access somehow limited. Hearing oral telephone users do not have their usage of the global telephone network restricted by government policy.

### Should the current follow-on call options available for some types of inbound connections to the NRS be removed?

No.

### How could the NRS outreach programme be refocussed to assist in broadening awareness of service options and aiding the sustainability of the NRS?

By contracting a National Outreach Provider that has long experience of assisting people with communications disabilities as has recently been done by the FCC in the USA. The selected organisation should also have the capability and experience to deliver what is set out in answer to Q.25. To be able to do this it needs the experience and understanding of people that have a communications disability and are NRS users.

### What sort of transition process would be appropriate in phasing out legacy proprietary technologies such as the TTY access to the NRS?

Transition people off TTY and other PSTN based services by giving e.g. 18 months’ notice that those services will be closed down. This will encourage users to migrate to internet based NRS services. In the case of hybrid CapTel, users can migrate their PSTN connection onto a digital telephone service that has a router with an Analogue Telephone Adapter (ATA) as well as a broadband port for the captioning. Users of all other services must be notified of a transition off the PSTN to internet based services that require an end-user device appropriate to the needs of the user and a software licence. The US FCC is expected to issue a Notice of Proposed Rule Making 28 April on eliminating TTY machines in favour of Real Time Text (See Communications Daily 8 April and TR Daily 8 April). Chairman Wheeler said “It’s superior to TTY in speed, latency, reliability, features and ease of use. RTT can also be built right into off-the-shelf devices, such as smart­phones, tablets, and computers that already have the ability to send, receive and display text—unlike TTYs, which are specialized assistive devices that have to be attached to phones via a coupler.”

### Are there options such as limiting inbound connections generated by specific technologies that could be introduced?

No. Next generation relay platforms generally follow ITU-T F.703 and the ‘total communications’ concept supporting audio, video and real time text, all of which have their own ITU-T Recs for audio and video codecs, SIP connectivity where the individual user’s address contains a national telephone number etc. Note that F.703 was ratified in 2000 but it is only recently that solutions have appeared thanks to ever increasing device processing power for e.g. High Definition video and the connection of multiple participants who may be any mix of NRS users of different types and audio only PSTN users into a conference call using an NRS agent PC. These conference calls support audio, video and real time Text (RTT) with the option to record the call if national policy allows it. (As an aside, the ability to record the audio, video and RTT content of emergency calls including the automatic forwarding of latitude and longitude of the caller’s GPS enabled device using RTT is valuable). The cloud-based platforms handle all the transcoding between the different standardised audio and video codecs used in different devices such as PCs, tablets and smartphones.

### What are the likely circumstances in which people may choose use the NRS over other communication options?

When there is need for voice to text conversion, text to speech conversion, interpretation and revoicing of poor speech, Auslan to English and English to Auslan interpretation, mobile text relay, to access a service such as CapTel or CaptionCall when an amplified telephone is not usable by a hearing impaired person.

When an open-standards based communications system is used that allows the user to choose the communications method(s) that best suit them is deployed. It is no longer acceptable policy to promote closed systems such as FaceTime, Skype, the plethora of proprietary messaging apps available and legacy PSTN based services as being acceptable for NRS users in the foreseeable future, i.e. from approximately 2018.

### How can reliance on the NRS as a communication option be reduced?

Realistically, it can’t if persons with communications disabilities are to have access to functionally equivalent telephone services.

### Which are the service access options to favour when providing primary access to the NRS through non-proprietary mainstream technology options?

SIP signalling. Total communications access as set out in ITU-T F.703 now available from multiple vendors.

For functional equivalence, it should be possible for NRS users to request a call-back when encountering a telephone queue at telecommunications companies and government agencies. If SIP addressing including a national telephone number prefix is used, the caller can leave their telephone number entered through a dial pad in the app. When the call-back is made, it is made to the caller directly and the NRS is coupled into the call automatically. This service is known as ‘Call Direct” and is very popular where it has been introduced. It is important to note that a large percentage of total VRS minutes handled can be put down to interpreters simply waiting in a queue placed to e.g. welfare agencies, tax authority, utilities, banks etc. until a live agent becomes available in the called organisation. Call Direct offers greater interpreter efficiency through the call-back option (often without the caller losing their place in the queue). However, the NRS must be staffed to meet a short average speed of answer.

### Should the Telecommunications (Equipment for the Disabled) Regulations 1998 be repealed?

It should be updated to provide access to PCs, tablets, smartphones and software on an almost free or affordable basis to NRS users. It is not unreasonable to have age limits on access to hardware and software as is done in Norway. In the USA access to mass market devices such as iPad and iPhone is now provided in most states free of charge to the user.

CapTel phones are generally no longer provided to users free of charge. The reason is that many ‘free’ phones never got connected. With a change of policy to a user contribution to the cost of the phone in the USA of USD50 it was found that the user placed value on their phone and it was regularly used. In New Zealand the Crown subsidises the phone cost by 50% ($323). For their part the user gets a device for life including any maintenance required and free captioning for the rest of their life. This is a wonderful deal.

Where the user has a free choice between iOS devices and Android devices, >95% choose the iOS option because of the ease of use. From a software developer’s perspective the rigorous control imposed by Apple before an app can be offered through the Appstore means that what is offered is stable. The same rigour is not available in the Android environment.

It is noted that in Norway and Sweden the government does not provide users with a smartphone as these are now considered to be ubiquitous devices. When a relay service user is provided with a paid software licence for a PC or tablet, the vendor typically provide a free licence and with the same SIP address for the user’s smartphone. Deaf have their smartphone set to vibrate to announce an incoming call and can answer the call from either their smartphone or other device.

A progressive policy is to provide users with free or subsidised broadband for one year to aid their progression into employment and to prove to the employer that with modern communications support the communications impaired person can successfully carry out any type of job e.g. sales, marketing, engineering, accounting, policy development, management etc. and participate fully in internal meetings.

### If the regulations were repealed, would an additional safety net, beyond compliance with requirements of the Disability Discrimination Act, need to be implemented?

See previous answer.

### Can more affordable data‑rich plans be developed by restricting voice call allowances in such plans?

Yes. This has been done for many years by Sprint in the USA who offers uncapped data-only plans for Deaf. You may care to check if data-only plans are available from AT&T, Verizon and T-Mobile.

### Can such plans be provided on both a pre-paid and post-paid basis?

Yes. However, if a device is included in a plan they are post-paid on a term contract. In the submitter’s experience, communications impaired persons do not mind committing to a plan provided that they have certainty that the service will continue and that they will receive good service from the NRS.

### Should plans of this nature be generally available to all communities?

Yes.

### What level of support is necessary to encourage the take up of devices and plans of this nature by people with disability?

Not a lot. Just talk to any Deaf person about their fixed and mobile broadband needs and their frustration at having to pay for bundled speech minutes that they can never use. Many Deaf only use the smartphone features of their phone when they are in free Wi-Fi areas because of the unaffordability of mobile broadband.

### What are options to consider in how to provide necessary support?

Required support can be categorised into four broad levels:

1. Information on the relay service website. For Deaf this must be in Auslan videos with captioning. For hard of hearing, captioned videos with audio work well. For deafblind the information must be textual and be played at a rate that a Braille user can read. Speech to speech users can see and hear videos related to services for speech impaired persons.
2. Information on social media platforms such as Facebook, Instagram and Twitter informing about new features or user tips. These are important media to reach the increasing number of younger people whose hearing has been damaged by prolonged exposure to music at high volumes listening to iPods and other such devices.
3. Presentations and hands-on opportunities for potential users to experience the system at meetings of e.g. Deaf clubs, hearing associations, Probus, service groups, veterans groups, conferences for audiologists, speech therapists, ENT specialists etc.
4. In-home support for users, particularly the elderly, that are unfamiliar with modems, routers, 3G/4G, ATAs, broadband etc. so that their device is set up correctly and their required most commonly called numbers are programmed into their device.

### What skills and support are needed to encourage people to use mainstream technologies?

The beauty of modern relay services is that they use mainstream devices such as PCs, tablets and smartphones. These may be supplemented with other mainstream devices such as Bluetooth keyboards, Bluetooth connection to hearing aids, Bluetooth Braille pads for deafblind and USB alerting devices.

In terms of the software application and aspects of it that can be very valuable to user sub-groups, a video rich website is helpful. Demonstrations at Deaf clubs, hearing associations, speech therapy clinics and the like are useful for hands-on practice and confidence building in people that have been isolated for an extended period and who have lost confidence as a result of not being able to use a telephone.

### Are there existing industry, government or community programmes which could be utilised?

The submitter is not familiar enough with the Australian environment to answer this question.

### How can the broadening of the availability and promotion of mainstream text- and video‑based communication options by businesses and service providers be encouraged?

The key is to encourage the use of open systems based on international standards and get away from proprietary closed services such as FaceTime, Google Hangouts, Skype, Skype for Business and the like. Vendors that offer systems using SIP for connectivity such as Tandberg (now a part of Cisco), Cisco and Polycom video conferencing using H.264 are useful but it must be recognised that their systems have been developed for the hearing oral world and do not contain specially developed features for Deaf and other communications disabled groups. For that one needs to look at specialist software companies such as T-Meeting in Sweden ([www.tmeeting.com](http://www.tmeeting.com) ) that have purpose built applications for persons with communications disabilities as well as a complete cloud based solution including PSTN gateway and reporting package for relay centres. The availability of the T-Meeting supplied platform for Norway as measured in 2015 was 99.99997% equating to an unavailability of 1 minute per month. A system reboot takes 3 seconds.

The introduction of WebRTC technology into specialised platforms and apps is currently in progress mainly for the US market. However, the large enterprises requesting it perhaps do not realise that the user experience will be greatly inferior to the purpose designed multi-media solutions now available due to low quality video of WebRTC and the added processing burden that places on sign interpreters for example.

### How can Australians with disability be supported to increase their use of direct text and video communication options?

This question misses the point as to why relay services exist, which is to provide interpretation between voice and text, sign language and voice, to interpret poor speech and revoice it to a hearing party or indeed another communications disabled person. The NRS is not there just to provide service between disabled users and hearing oral persons it also provides communications between disabled groups. Today, even CapTel requires a revoicer in the conversation to achieve high accuracy in the speech to text conversion, although it is generally thought that over the course of the next decade the revoicer may be able to be dispensed with as technology advances. The typical hearing person who states that Apple’s Siri is able to answer their questions is not acknowledging that conversational English is currently beyond the capability of any voice recognition system that is not trained into the speaker’s voice. Hence the 8 week training period for a CapTel revoicer before they can process live traffic and deliver captioning with a high accuracy.

When considering Deaf, policymakers must remember that the English literacy of a person Deaf since birth is typically that of a 7-8 year old hearing person. Hence Auslan should be recognised as an official language of Australia as New Zealand Sign Language is in New Zealand and has been for the past decade.

Rather than trying to find ways to diminish the use of the NRS, policy makers should be focussing on how to make the NRS services better using the opportunity that internet based services and access to fixed and mobile broadband offers together with modern mainstream end-point hardware technologies running a purpose built software application that meets the needs of not only Deaf, deafblind, hard of hearing and speech impaired persons but also the myriad of sub-groups that exist in the community and to effectively promote the services to the communities. In this way all of the communications disabled citizens and residents of The Lucky Country will be able to fully participate in workplace, community and family aspects of their lives to the best of their abilities.

### Omissions in Consultation Document Attachment C: Overseas relay service programmes

New Zealand offers:

* Deafblind relay and its Crown funded equipment distribution programme includes access to free telebraillers. TTYs, VCO phones, lamp flashers and wireless vibrator alert devices are also distributed free of charge. Consumers no longer want TTY and VCO phones can no longer be sourced. 75% of conventional TRS traffic is now Internet Relay and mobile Text Relay.
* A Video Relay Service as well as a Video Remote Interpreting Service. From 1 July 2016 these two services will amalgamate into a Video Interpreting Service as per the Nordic model. This model does not differentiate between the needs of people geographically separated or in the same room, there is still a need for interpretation between visual and spoken language. The Crown currently funds VRS and VRI and will fund the new VIS.
* A TXT111 SMS service that was introduced initially for Deaf but has been expanded to allow hard of hearing and speech impaired persons to register to use it. All TXT111 emergency calls are processed directly by NZ Police.