AUSTRALIAN ASSOCIATION OF THE DEAF INC.

Submission to the
Draft Statement of Requirement
for the National Relay Service

Index

1. Introduction

Australian Association of the Deaf Inc (AAD) would like to thank the Hon. Helen Coonan, Minister of Communications, Information Technology and the Arts and her Department for the opportunity to respond to the Draft Statement of Requirement for the NRS.

At the end of November 2004, on Department of Communications, Information Technology and the Arts's (DCITA) invitation after a meeting of the National Relay Service Consultative Committee (NRSCC), we sent to DCITA a document *'Recommendations for the National Relay Service Tender 2006'* which was primarily intended to highlight some of the concerns AAD has with the continuation of the NRS in its present form. It was hoped that consideration would be given to the recommendations set out in this document. This document is attached as Attachment A.

We are disappointed and concerned that key recommendations set out in that document have not been adopted in the Draft Statement of Requirement for the NRS in the manner intended. Our main concern is that the recommendations for the provision of Internet Relay (IR), Video Relay Service (VRS) and SMS Relay have been classified as possible premium services at the discretion of the NRS Provider.

We respectfully request that the Minister and her Department reconsider this. We also have a number of other comments to make on the Statement of Requirement, as set out in this submission which adds further detail to our previous submission. We hope that the information contained herein will assist the Minister and her Department with the preparation of the final Statement of Requirement of the NRS for tendering.

The National Relay Service is of vital importance to the Australian Deaf community and we would welcome the opportunity of a meeting face to face with the Minister and the Department to discuss and clarify the issues. We will be in contact soon with a view to arranging a meeting.

2. Australian Association of the Deaf (AAD) & Auslan

Australian Association of the Deaf

AAD is the national peak organisation for Deaf people in Australia. It represents the views of Deaf people who use Auslan (Australian Sign Language). It is a true consumer organisation – although anyone is welcome to join, only Deaf people have the right to vote on AAD business and to be elected to the Board.

The Deaf community can be recognised by their unique sign language - Auslan. AAD is committed to promoting and preserving sign language as the official and indigenous language of the Deaf community. AAD believes that Deaf people belong to a linguistic minority group and are disadvantaged and disabled by a lack of access to communication, education and services. AAD works with and on behalf of Deaf people in seeking their rights as citizens of Australian society.

AAD was established in 1986 at the National Deafness Conference in Adelaide, South Australia to improve the quality of life of Deaf people in Australia. Since then, AAD has seen positive changes, but there is still much work to do to achieve equal opportunity and full participation and contribution to the mainstream community and the economy for Deaf people.

AAD has six state branches: New South Wales, Queensland, Victoria, Tasmania, South Australia and Western Australia and is a full member the World Federation of the Deaf (WFD).

Auslan

Australian Sign Language or Auslan as it is more commonly known, is the language used by the Deaf community of Australia. This language is unique in its presentation and structure. Auslan does not correspond to English - spoken or signed. Auslan is a visual language which makes use of space and movement and provides the Deaf person with an accessible mode of communication.

Auslan is the native language of many Deaf people who have Deaf parents and of many hearing children of Deaf parents. It is also the primary language of many Deaf people who do not have Deaf parents but have learnt Auslan later in their lives. One research study (Hyde & Power 1991) showed there were almost 16,000 Deaf users of Auslan (and a further 16,000 hearing users). A more recent study (Johnston 2003) claimed there are only about 7,000 Deaf people who use Auslan; however, AAD questions the methodology and definitions of Auslan user in this study, and until our questions can be satisfactorily answered, we continue to rely on the Hyde & Power study as giving the most reliable information on numbers of Auslan users.

Because the current early intervention and education systems do not adequately meet Deaf people's needs for early language acquisition and full access to education, many Deaf people have low level English skills. The current National Relay Service is based on English text. It may serve the needs of hearing impaired and speech impaired users but it still does not adequately meet the needs of many Deaf people.

Deaf people should have the opportunity to participate in all aspects of economic, educational and social life of Australian society through their natural language, Auslan. In order to effectively accomplish this, a fully inclusive National Relay Service in both Auslan and English is necessary. The *Standard Rules on the Equalization of Opportunities for Persons with Disabilities* as produced by the United Nations draws attention to this by stating that:

> *In all societies of the world there are still obstacles preventing persons with disabilities from exercising their rights and freedoms and making it difficult for them to participate fully in the activities of their societies.*

The Australian Government has recognised the Deaf Community as a language group:

> *It is now increasingly recognised that signing deaf people constitute a group like any other non-English speaking language group in Australia, with a distinct sub-culture recognised by shared history, social life and sense of identity, united and*

> *symbolised by fluency in Auslan, the principal means of communication within the Australian Deaf Community.(Dawkins 1991:20)*

3.   Today's telecommunications and how we participate

Alexander Graham Bell is remembered as the inventor of the telephone. What is not commonly known is that he was not only a teacher of the Deaf, but was also married to a Deaf woman. It is through his interest in deafness and fascination with acoustics that the telephone was invented in 1876, with the intent of helping Deaf and hard of hearing people.

Ironically the telephone has become the most disabling device in the history of Deaf people.

Since the inception of the National Relay Service (NRS) in Australia in 1995, the NRS has grown in strength and the Australian Communication Exchange (ACE) currently provides the following services:

- Text to Voice & Voice to Text
- Hearing Carry Over (HCO)
- Voice Carry Over (VCO)
- Emergency Relay Service (106)
- Reverse Charge Calls (RCC)
- Personal Relay Service (PRS)
- Speech to Speech Relay (SSR)

The Emergency Relay Service (106) was added at the beginning of 2000, offering a world first national text-based emergency service.

Australian Association of the Deaf Inc (AAD) acknowledges the significant impact the NRS has made in Deaf, hard of hearing and speech impaired Australians' lives. Indeed, it was AAD itself who most actively and consistently lobbied over a period of some 10 years for a NRS and was most grateful when the Australian government agreed in 1994 to provide funding to establish the service.

At the time it was established in 1995 the NRS was a cutting edge service. However, if one pauses to think in terms of today's telecommunications with a rapidly growing array of telecommunications equipment and advancing technologies currently available on the market, one will find that Deaf people are falling behind in the ability to use telecommunications in ***real-time.*** In 2005 Deaf people are worse off than they were in 1995 because their real-time telecommunications access has fallen behind.

Telecommunications that Australian Deaf people are able to use today are:

- Telephone Typewriters (TTY's)
- National Relay Service
- Short Messaging Service (SMS) on mobiles
- Internet Protocol Chat (MSN Messenger, ICQ, AOL)
- Facsimile Machines

This sobering fact was pointed out at the Consumer Telecommunications Network (CTN)'s Conference in Sydney, in March 2004 and the audience (who were all hearing people) was asked to raise their hands if they thought they could manage through one week using only the above telecommunications methods at both home and work. Not one person raised their hand. This illustrates the fact that the mainstream community takes their voice telephony for granted and cannot conceive of living or doing business without a quick, effective and efficient real time telecommunications method.

Of the telecommunications methods listed above, only three actually give Deaf people the use of real time communication. However, all are much slower than voice telephony **and** all are conducted only in English, which for many Deaf people is their second language. Their first language is Auslan.

The NRS was established before the telecommunications industry was deregulated and during the infancy of digital telecommunications. Much has changed since then. It is time too for the NRS to change and to move into the modern world. To allow it to continue to operate basically as it currently is, is to further disadvantage an already disadvantaged section of the community.

The telecommunications industry of today continues to increase in diversity and range of services. Broadband services are fast becoming the 'norm' in home computing and telephony. Broadband phones are not far away from being mainstreamed into Australian telecommunications. 3G mobile technology is about to take off with Telstra, Optus and Vodafone entering the 3G market mid 2005. Video telephony over Internet protocol, 3G and ISDN are becoming widely available and convergences between technologies are not far off.

Internationally, National Relay Services have significantly evolved from the basic provision of text to voice & voice to text via telephone typewriters (TTYs) with more services now including Video Relay Service and IP Relay. All of these services are provided at no additional charge to the end user.

AAD through its Deaf Telecommunications Access & Networking (DTAN) project has remained active in the telecommunications environment through funding provided by the Department of Communications, IT and the Arts Consumer Grants. As part of our activities during the 2003/2004 funding year, we generated 4 discussion papers, one of which covered the area of Broadband.

Shown below is an extract from our discussion paper. A copy can be downloaded from our website http://www.aad.org.au/download/BroadbandDiscussionPaper.pdf

'Recently, in America and the United Kingdom people have started using a special device called a D-Link Broadband Videophone that can turn any TV into a broadband videophone. It does not require a computer but is connected into your TV set and it delivers up to 30 frames per second for smooth video. It is also compatible with some flashing lamp systems.

This example is one of many being introduced as videocommunication options for Deaf people around the world.

Broadband Videophone
DVC-1000

The Future is Now...

*Easily turn your TV into a
Broadband Videophone*

Feedback to date on DTAN's Broadband discussion paper shows that Deaf people are very interested in this type of new technology and would prefer this over the current TTY technology. Of the responses to this discussion paper 88% said they would use Video over IP if it was generally available. In addition, when asked whether they would use video relay interpreting more than TTY relay if video relay were introduced in Australia, 81% of respondents replied that they would.

It is known that this technology can converge successfully with 3G technology or with PC's and webcams, recently introduced in Sweden.

Auslan is a language that is not spoken **verbally** or in **written text** but through **signing in space**. The type of video over IP technology illustrated above enables Deaf people to use their signed language, in which they are most able to effectively and efficiently express and receive information. It was not available when the NRS was established in 1995. It is available now.

Can the Australian NRS of today handle it? No.

ACE, as the current NRS Provider has done research into Video Relay and SMS Relay. Both these studies show the need for both these Relay Services.

The draft Statement of Requirement for the NRS stipulates that the NRS Provider will enter into a 5 year contract with the possibility of extending it for another 3 years. Given that the draft Requirement does not stipulate either Video relay or SMS relay as required services, we are alarmed at the proposed length of the contract. Technology is fast advancing and the NRS in its present and proposed form will only lag further behind, creating even more difficulties for Deaf people to participate and contribute efficiently to the mainstream community.

4. Current barriers and how they can be resolved

TTYs and Internet Relay

The NRS has been monumental in enabling Deaf people to communicate with hearing peers in all aspects of society, however it does still create barriers in some areas of Deaf people's lives.

To be able to use the NRS, a Deaf person **must** have a TTY or computer and modem. TTYs of today are models that need to be plugged in to the mains socket. They are

not mobile. Nor can TTYs work effectively with mobile phone handsets. Therefore, one must remain static and indoors when using a TTY.

Telstra and Optus are the main telecommunication carriers that provide rental TTYs under their Disability Equipment Program (DEP). These are only available for people who have fixed telephone lines to their homes. This does not extend to Deaf people in workplaces.

As an example of the barriers that this creates for Deaf people, consider the following scenario, which vast numbers of Deaf people have experienced at least once:

Most employment vacancies ask for good communication skills and when employers discover that an interested candidate is Deaf, the first question they ask is "How can you use the telephone?" When TTYs are explained to them, they ask how much it costs. Then they baulk at the cost. The Deaf person does not get the job because "they can't use the telephone".

With **Internet Relay (IR)**, this barrier can be broken down immediately (in jobs where computers are used) as one only needs to log on to the Internet to use the IR without a TTY. With the advent of laptops & wireless and some mobile phones with Internet connectivity, IR will open doors to Deaf people who are on the move and in employment.

Language use and Video Relay Service
We also need to consider the fact that the Deaf community's language is Auslan.   But to use a TTY, one must use English. It is known that many Deaf people find English inaccessible. Because of inadequate early intervention and education services as explained earlier, the average reading age for a Deaf person is that of a nine year old, with some falling below this average. TTYs that require the use of English create barriers for these of Deaf people as they are unable to clearly convey their message and are often misunderstood.

With the advent of Video telecommunications, either via sophisticated webcams, broadband video telephone using a TV set (as illustrated earlier) and 3G mobile phone handsets it is now possible for Deaf people to use telecommunications effectively (using their language, Auslan), to a level comparable to a hearing person using English.

Research shows that hearing people speak an average of 4 to 5 words per second and sign language users sign about 2 to 3 signs per second. Signing only looks slower, however. What people convey in 'information' is about 1 or 2 'propositions' per second for **both** speaking and signing, i.e. there is no difference in the rate of information exchange in signed and spoken languages. (It just takes more words than signs to say the same thing.) *(Bellugi, U., & Fletcher, S. D. (1972). A comparision of sign language and spoken language. Cognition, 1, 173 – 198. Fischer, S. D., Delhorne, L.A., & Reed, C. M. (1999). Effects of rate of presentation on the reception of American Sign Language. Journal of Speech, Hearing and Language Research, 42(3), 568-582.)*

Australian TTYs transmit and receive at 50 baud meaning 50 bits per second. TTYs use the baudot character set which is 5 bits per character plus a 1 bit start bit plus a 1.5 bit or 2 bit stop bit thus totaling 7.5 or 8 bits per character.

At 50 bits per second the number of characters per second is 6.7 (at 7.5 bits per character) or 400 characters per minute.

If the average word is 5 letters plus a space, a total of 6 characters then the number of words per minute is around 67.

This automatically disadvantages a Deaf person; especially in the workforce because the NRS does not allow them to "speak" at anywhere near the average rate of information transfer via spoken language.

Thus the NRS in its present and proposed form still excludes a Deaf person from the ability to communicate with our hearing peers effectively as they can only 'speak' no faster than 60 words per minute. Many hearing people have informed AAD that they find communicating with us via the NRS time consuming, frustrating and cumbersome because they have to speak slowly and wait so long for our responses. This is not their fault; the problem lies with the TTY technology!

The introduction of a **Video Relay Service** and its related equipment for Deaf people will open doors for Deaf people to be able to really use telecommunications effectively. They will be able to exchange information in Auslan at the same rate as a hearing person can in spoken language. They will be able to communicate on a more level playing field and they will be able to make even more significant contributions and participate more fully in all aspects of society, including economically. Afterall a Deaf person who has a job because they "can use the telephone" is one less person on welfare.

Deaf people on the whole are capable and committed workers; the majority **want** to work. However, because of barriers imposed upon them, such as employers' attitudes and lack of equitable access to telecommunications, the unemployment rate is higher for Deaf people than for hearing people. In today's work environment where telecommunications is such a vital part of so many jobs, providing a Video Relay Service as a standard component of the NRS is a practical way for government to help remove some of the barriers and assist more Deaf people into work. It is not sufficient or equitable to provide a Video Relay Service only as a 'premium service' that the user will presumably have to pay extra for. Employers already baulk at providing Deaf employees with TTYs; they surely will baulk at having to pay extra charges for Deaf people to use a Video Relay Service.

SMS and Mobile telecommunications
The migration from the use of a TTY to the use of SMS has been phenomenal in the Deaf community and this is seen by many as having stemmed from the desire to participate and contribute in the mainstream community. Deaf employees can now send SMS to their employers in situations where they cannot use a TTY. Children whether Deaf or not can now let their parents (Deaf or not) know where they are after school. These things make a difference in people's lives and Deaf people are no different in their need to be able to do these things like anyone else.

Last month, an AAD staff member drove to Sydney from Melbourne after attending the Deaflympics and a tyre burst while he was on the freeway. He was able to get roadside assistance through SMS. A TTY was of no help in this situation because a TTY is not mobile.

An SMS Relay allows people who are Deaf, or have a hearing or speech / communication impairment, to use text messages (also known as Short Message Service or SMS) via mobile phones, to communicate with others who have a standard telephone or telephone typewriter (TTY).

SMS Relay will be quite different to regular NRS Relay. SMS Relay is a "messaging service" and does not offer real-time communication. With the NRS, two people can have a conversation at the same time. An SMS Relay service will not facilitate a conversation back and forth. SMS Relay only passes on a short message and sends a reply as an SMS message. SMS relay breaks down barriers for Deaf people when they are away from their home or office (and therefore their TTY or video relay equipment) and need to call someone on a fixed line voice telephone.

Mobile telecommunications for Deaf people is a significant issue and much work needs to be done to ensure that equipment and pricing (equivalent to a standard telephone service) is available to the Deaf community. It cannot continue to be ignored and AAD requests that the Minister and her Department give due consideration to this issue.

Various Government inquiries have already highlighted the need for change:

- **Commonwealth of Australia, House of Representatives Committee – Inquiry into Wireless Broadband Technologies, 2002:**
  Recommendation 12 states that in relation to wireless broadband services for hearing impaired people, the Commonwealth develop the means to provide hearing impaired people with mobile telephones compatible with hearing aids, portable wireless devices that can communicate through the NRS, and appropriately adapted video compression and transmission technology for video communication using sign language.

- **Commonwealth of Australia, Senate Committee Report, 2004, The Australian Telecommunications Network**
  Recommendation 14
  The Government should fund the establishment of an independent disabilities equipment program using funding from the Universal Service Levy.

  Recommendation 15
  The Government should require carriers to engage in extensive consultations with representatives of people with disabilities at an early stage in the planning process for the introduction of new telecommunications technology to ensure that appropriate disability equipment will be available in conjunction with the introduction of new technology

- **Commonwealth of Australia, The Report of the Regional Telecommunications Inquiry, 2002, Connecting Regional Australia**
  Recommendation 2.1
  The Government should consider any national policy issues raised with the Inquiry, relating to access to telecommunications for people with disabilities

- **William Jolley, 2003, When the Tide Comes In: Towards Accessible Telecommunications for People with Disabilities in Australia, A**

Discussion Paper Commissioned by the Human Rights and Equal Opportunity Commission
Recommendation 21:
That HREOC should discuss with DCITA the need for research to develop costing models and funding arrangements that would ensure affordability of videotelephony for Deaf people using Auslan.

These recommendations show support for the VRS, IP and SMS Relay. We would be pleased to have an opportunity to discuss innovative solutions and how we can work with Government and industry to achieve appropriate outcomes, effectively and economically.

5.   **Section by section response to Statement of Requirement for the NRS**

   3.1   **General Requirements for the NRS including the Outreach Program**

   Section 3.1.2

   AAD endorses that the NRS Provider must not subcontract the call relay operator component of the Relay Service.

   Section 3.1.4

   Who decides that a prospective NRS Provider demonstrates the ability to deal with stakeholders? How will this be assessed? People who are Deaf, hard of hearing and speech impaired need to be consulted on this and to have input into the final decision.

   We are concerned about the wording for *'These stakeholders may include, but are not limited to, these organisations/persons that may need to know about and participate in some way in the service, such as relevant disability and community groups'*. We question the use of 'stakeholders **may** include'.

   AAD feels strongly that all peak disability organisations representing users of the NRS must be consulted on a regular basis to ensure that the service is appropriately provided and promoted to the community. This consultation should be on a collaborative basis with DCITA, ACA and ACIF.

   The need for this was highlighted by the recently proposed legislative changes to the TCPSS Act, to allow for the delivery of the NRS by more than one provider. AAD was not consulted or informed of the proposed changes until after it went to Parliament. While AAD does not object to the proposed change per se, and can see some benefit in it, we do have some concerns about it and would have appreciated the opportunity to discuss the changes with the Department before they were formally proposed. Our concerns about the proposed changes are in relation to the possibility that the efficiency and uniformity of community outreach programs could be compromised. Such changes and concerns make it all the more imperative that continued consultation and collaboration with peak disability organisations is included in the Statement of Requirement.

3.2 Operational and Technical Requirements – Relay Service

The description under 3.2 states that the NRS must be available 24/7 to communicate in English between parties. As explained earlier, Deaf people's language is Auslan and English is their second language. We request that this be amended to ensure that it is a bilingual service i.e. delivered in either Auslan or English.

Section 3.2.2

(a) operate the following NRS Services 24 hours a day, every day (covering items (i-vi)

In the light of our comments earlier in this document, we would like to encourage the Minister and the Department to add Video Relay Service, Internet Relay and SMS Relay to the list of items that are to be included as **required standard services** in the Statement of Requirement for the NRS. We understand that it may not be feasible or realistic for these services to commence from day one of the new NRS contract, but given the period of time that the contract is likely to cover, we believe it is necessary to include them in the Statement of Requirements and in the contract with the NRS provider. They can be rolled out during the term of the contract rather than be expected to start from day one. We are happy to work with the Department to identify the best ways for the introduction of these services.

Section 3.2.4

We would like to see all aspects of the Text Server as developed by ACIF's Any to Any Working Group (http://www.acif.org.au/current_activities/industry_facilitation/any_to_any) and presented to DCITA in 2004 as a recommendation for funding and implementation, be incorporated in this section, to ensure convergence of all equipment whether text or video based.

Section 3.2.9

We strongly oppose the idea of any potential NRS provider delivering 'premium' services, on the grounds that the Standard Telephone Service does not necessarily refer to TTYs only. Now that technologies are in place that enable Deaf people to communicate more efficiently and effectively in their own language than they are able to in English text, these more efficient and therefore cost-effective technologies should become the standard for those who need them.

The TCPSS Act clause (1)(b)(i) which refers to *'another form of communication that is equivalent to voice telephony (for example communication by means of a TTY)'* does not stipulate that only TTYs are to be considered. It gives room for other equipment to be used, in whatever form is equivalent to voice telephony. Given that the NRS in today's form, and in the form proposed in the draft Statement of Requirement, is only conducted in English it does not enable Deaf people to use voice telephony to the equivalent of an English speaking person. The inclusion of a Video Relay Service will enable us to use voice

telephony in a manner that is more equivalent to voice telephony than is TTY/English.

3.3   Specific Requirements – Outreach Program

Section 3.3.1

We would like to encourage that a requirement be included whereby information about the NRS is to be provided to the Deaf community through face to face community consultations in Auslan and 'written'/recorded information in Auslan (on DVD or on websites) in place of or in addition to written material.

6.   Recommendations

1. That the Statement of Requirement for the NRS include Video Relay Service, IP Relay and SMS Relay as standard requirements of the NRS.
2. That the Statement of Requirement ensure that peak disability organisations representing consumers directly affected by the NRS be able to:
    a) Meet with the NRS Provider, DCITA and ACA on a regular basis to oversee the NRS quality of service in both NRS and community outreach programs; and
    b) have the opportunity to work closely with the NRS provider, DCITA and ACA to ensure that the NRS is able to cope with the rapidly changing telecommunications arena.
3. With reference to Statement of Requirement for the NRS, Section 3.1.4 and our response (page 11) AAD recommends that DCITA, ACIF, ACA and peak organisations for disability groups directly affected by the NRS be involved in having a direct input into the tender selection process.