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Submission to:-

**Australian Government Productivity Commission.**

Subject:-

**Telecommunications Universal Service Obligation and the Issues  
paper dated June 2016.**

**Submission in response to the above from:-**

Hugh Ralston on behalf of  
All Mod Comms Pty Ltd trading as  
Printacall Communications Technology (PCT)

**Concerning TTYs, Associated Technology and other Customer  
Premises Equipment for Sensory Disability**

20<sup>th</sup> July 2016

## 1.0 Introduction and current situation

### 1.1 The submitter

Printacall Communications Technology (PCT) is a supplier of lifestyle equipment to individuals who are deaf or hearing impaired and to organisations to assist their access obligations towards deaf and hearing impaired people. Its key areas being **Telecommunications Customer Premises Equipment**, Audio Enhancement equipment in particular Powered Audio Loops for public buildings and classroom Soundfield Systems.

**PCT is the sole supplier of TTYs to the Australian Market representing the world's leading supplier of TTYs and associated Technologies and providing technical support.**

**PCT supplies Telstra Corporation (TLS) with TTYs in the performance of their Universal Service Obligations(USO) and manages on their behalf under an evergreen contract their logistic programs in the supply, warranty, servicing, return and exchange of TTYs.** PCT has carried this work out as a primary support contractor to TLS in respect of its USO since 1998 but has been a supplier to the open market including TLS since 1984. PCT commits under the above contract to meet the timetables required of TLS in supply and replacement of the Customer Premises Equipment for profoundly deaf people (TTYs) under their USO to any location in Australia and holds inventory on behalf of TLS to assist that obligation.

PCT also supplies Optus and manages a similar small supply and service program on their behalf. PCT arranges all approvals and holds the Approval Folders for all TTYs supplied in Australia to meet ACMA Interconnectivity standards, Emission standards, and Power Safety standards.

PCT also introduced Captioned Telephony concepts into Australia before passing the technology to Australian Communications Exchange for potential development in this country and application in respect of the NRS as it was a network and call centre focussed technology.

### 1.2 Continuing Cultural and Background Issues concerning TTYS.

The "Deaf Signing Community" has over many years both in Australia and in other developed nations formed a "unique and separate culture". This separate "culture" in Australia embraces Auslan as a first language and in addition, for many deaf particularly older people, TTY as their preferred method of communications by telephone one to one or through the NRS. They have a proprietary or ownership approach to Auslan and similarly to the TTY.

### 1.3 New and Existing Factors in the situation.

**NBN** is a network backbone organisation tasked with providing high-speed modern communications to the premises not Customer Premises Terminal Equipment.

**NDIS** is tasked with organising appropriate support equipment and/or services for disabled people particularly at this time severely to profoundly disabled people. They are tasked with organising services and arranging funding and in some cases outsource contracts to meet the disabled clients own needs and requests. To the best of our knowledge they are not involved in direct supply of equipment such as Customer Premises Telephony Equipment or direct supply of services.

**Telstra** is still committed to its Universal Service Obligation by Commonwealth Government Contract until 1<sup>st</sup> July 2032 with a major review in 1<sup>st</sup> July 2022 with presumably an opportunity for all parties to completely change the arrangements at that time. It is in order to fulfil certain aspects of this contract in respect of deafness and hearing impaired customers that Telstra has set up the current arrangements with PCT for the supply TTYs and management of the program as above.

**The NRS (National Relay Service)** is contracted out by the Commonwealth Department of Communications to Australian Communications Exchange (ACE). The NRS is essentially a network and call centre operator with the status of a telecommunications provider for Deaf, Hearing Impaired and Speech Impaired People. Many of the services they provide under the NRS contract are proprietary to ACE. ACE/NRS also holds a similar position to PCT with Ultratec Inc of Madison, Wisconsin, USA in respect of the technological/IP aspects of captioned telephony patented by Ultratec. This is primarily associated with operation of the call centre and its interoperability to the PSTN and the Internet cable and wireless networks in Australia.

**The telecommunications network operators, including Telstra,** are primarily concerned with data and broadband connection and mobile solutions including through all channels content provision. It is significant that other than Telstra and a minimal degree Optus other carriers such as Vodafone, TPG, NRS, M2 etc do not participate in the supply of mainstream CPE or the current disability programs for Disability CPEs involving TTY, large button and/or amplified telephones for any CPE aspects within USO or general market programs. This approach may be due to having no role in fixed line to premises, and/or no equivalent of a Telstra shop and/or online arrangements for sale and distribution of Customer Premises Equipment, but most likely all of the above. In particular in the case of TTY they have no role in the USO.

Telstra in particular has considerable a very significant number of legacy voice clients whilst Optus has some through its Hybrid ADSL network. In general the majority of telecommunications network providers will supply modems, router modems or in some cases set top boxes. They have little interest in voice or the CPE necessary to communicate with voice and hence likewise one of the alternates for deaf and hearing impaired, namely TTYs.

#### **1.4 TTY usage.**

As described in 1.1 above there are still a significant number of TTYs in circulation and being utilised. PCT is without quantitative evidence but does have 30 years experience as the supplier of TTYs and engagement with telecommunications providers, deaf organisations and their TTY client/users in respect of most matters TTY. From this qualitative background PCT considers it is likely call numbers and call minutes between members of the deaf community (TTY to TTY), particularly those over 50, are likely to be at least equal to the call numbers and call minutes through the NRS but probably higher. PCT does have evidence of the flow to and from consumers of TTYs for repair, replacement or refurbishment; as almost all these transactions flow through PCT's office, workshop and storage. These statistics also indicate a long term slow decline but not a precipitous drop off of activity in fact some levelling in line with fixed line connections referred to in the issues paper or less.

#### **2.0 The Future**

##### **2.1 Potential future process of distribution of TTYs.**

If all Telecommunications Network Providers are in the future excluded from the USO in favour of an independent authority; PCT is equally able to continue to contract to such other parties be it direct to the Department of Communications or other independent body such as the former independent contracting body TUSMA.

The current process for supply of TTYs is that the initial enquiry for a TTY or other device to give the sensory disabled person access to the Telstra network goes to Telstra as the contracted USO operator. To validate eligibility Telstra arranges for the deaf/hearing impaired client to complete an application including certification by an audiologist or similar qualified professional as to the client's hearing or speech status. This completed application form is authorised by Telstra. It is now a voucher which can be utilised at a Telstra retail store to obtain a volume and frequency controlled telephone. Similarly in appropriate cases the authorised voucher is sent to PCT who complete the process of ascertaining with the client which TTY model is suitable for the client and then proceeds to supply the directly to the client's premises wherever that may be in Australia. Supply includes information on installation and use but if necessary PCT will arrange further on site support.

It is an accepted fact that younger deaf and hearing impaired people will more readily embrace new technologies such as tablets, smart phones, social networks and those such as video relay available through the NRS. However it may be that the status quo suits the elderly profoundly deaf who prefer to continue to use a traditional TTY. Overseas experience based on informal discussions with Ultratec Inc over many years would indicate that people with mature age onset of hearing impairment will embrace captioned telephony for example but not as rapidly as younger people.

#### 2.11 TTY in the current and new network technology mix

TTYs are fully interoperable with the NBN or through any cable or legacy copper connection to or within premises. TTY has been tested by TLS with NBN Wireless satellite. There are at this stage some unknowns in TTY though NBN fixed wireless.

2.2 Advocacy and information circulation by PCT as an independent organisation separated from the telecommunications service providers in the past has proved very effective. **PCT was largely responsible for the successful promulgation of the availability of TTYs over the last 30 years and the servicing of the Telstra Contract over the last 18 years. TTYs were available and distributed to the whole market very quickly between 1998 and 2002 (at that stage about 10,000 units)** (source PCT internal records). This separation is possibly not suitable for captioned telephony where much of the IP lies in the interoperability of the relay, the network and the CPE and it's relationship to the call centre IP and equipment.

PCT considers arrangements similar to those in place today for the supply of TTYs would be suitable for large button, volume and frequency controlled CPE (telephonic equipment) for connection to fixed lines. That is a unique supplier with specialist understanding of deafness and other sensory disability issues to handle the USO commitment for these equipments.

#### 3.0 Some specific comments related to the June 2016 issues paper.

We only received the issues paper (indirectly) on 4<sup>th</sup> July with a response time of 21<sup>st</sup> July, which has made it difficult to adequately respond. However within the limited time we hereby respond to some other specific aspects of the issues paper.

#### 3.10 Funding

PCT has no argument with the alternatives of Direct Government funding for disability services or equipment providers versus the creation of a trust through an industry levy on volume. We trust the Government will make the right choice based on equity and efficiency.

Our only concern is that the funding for TTY allows for both supply and management of the program which model has proved reliable and efficient. Further the specialist skills of PCT have allowed a small but significant nationwide service to be delivered with excellent effect for the sensorial disabled clients and the USO contractor Telstra. It is significant that the issues paper floats the possibility of more than one USO provider which suggests both competitive solutions and segregated solutions. Competitive solutions may be very relevant in the supply of NBN mobile and cable services to rural and other areas of lower population density. This paper suggest that such separation in the provision of disability solutions may not be easily divided between multiple competitors whether not for profit as the NRS or otherwise.

### 3.20 Distribution of CPE

PCT considers there it is a reasonable argument to suggest that the decline but not yet exit of TTYs from the product range in the disability mix would indicate that grandfathering of the present arrangement with PCT supply to Telstra should continue at least until 2022. Similarly we consider Telstra due to its many "Telstra Shops" are most suited to continue distribution of large button, volume controlled and or frequency controlled handsets. The only alternative might be Australian Hearing. Mainstream technology shops are not the environment for signing clients, very hard of hearing or frail elderly to seek appropriate equipment.

### 3.3 The USO Issues paper focus is on Equal Access related to distance or remoteness

The primary focus of the USO and the issues paper is on issues of equal access for people outside major centres of population and the need to update it in line with new technologies. There is only a small emphasis on disability and **almost no emphasis on the elderly**. There are multiple issues for the elderly.

a) With age and hence growing disability, sight, hearing and dexterity are all declining. Hence small screens such as smart phones are not always simple to operate to type on, or to even see the screen. *(The author of this submission continually hits more than one key on a full desk top QWERTY keyboard) He does not have arthritis nor does he have a shaky hand, many elderly do have these difficulties.*

b) Elderly people do not like change. They are set in their ways and find changes in technology very challenging. From personal experience many friends will not change from a fixed line phone or even move to a cordless home landline phone. Those who do embrace the latter do not want to change to a new model even when in some cases they have been offered it free.

c) In many suburban areas mobile phones do not function well within a house or apartment. How often do we see people speaking on a mobile phone on the balcony, in the garden or in the street? Mobile technologies are not necessarily a solution for the elderly. They may not have easy outside access to the outside or mobility issues people may cause difficulties. They may be physically disabled with arthritis and hence may have difficulty in getting outside with a mobile device. For many, including but not exclusively the elderly and disabled, going outside may not be a solution in inclement weather. For these amongst many reasons mobile solutions may not be optimum alternative to a fixed line phone on a table beside their chair or on a table and in doors within the premises. Emergency applications are just one of the reasons that the ubiquitous mobile technologies may not be appropriate for the elderly or disabled.

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#### Summary

Printacall Communications Technology is the sole supplier of TTYs to the Australian market and has 30 years experience as a specialist in this field and in other areas of Deafness and Hearing Impairment and equipment to aid telecommunications access.

As the incumbent contractor through Telstra Corporation USO for the supply and servicing of TTYs throughout Australia it is well informed on all issues related to the topic.

TTY technology is still relevant and compatible with NBN and most new technologies. TTYs are still required by many deaf and severely hearing or speech impaired people.

The issues paper does not adequately address either the complexities and variability of sensory disability requirements for access or the needs of the elderly.

Fragmentation of disability friendly telecommunications access services for the sake of competition may not be relevant due to the need for specialist skills and the difficulty of interactions in mainstream environments.

In many situations and not only for the disabled or elderly hard wired telephone systems are still very relevant due to frequently poor reception indoors and immobility of the user.

Supply of equipment such as volume controlled phones to the sensory challenged client often elderly and frequently with some other physical impairment needs to be carefully arranged to ensure the locations are widespread and that each appropriate environments and staff trained to engage with such clients and understand their needs.

H.Ralston

Printacall Communications Technology

20<sup>th</sup> July 2016