THE CAMPAIGN TO PROVIDE DEAF PEOPLE WITH MODERNISED ACCESS TO THE TELEPHONE NETWORK

Fully funded, accessible and real-time telephone calls 24/7/365

NB in this paper, the term "deaf" is used to refer to anyone with a hearing loss regardless of communication approach and level of hearing

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1. Introduction

This paper details the problems with current services and sets out the objectives of the Telecommunications Relay Campaign

2. Campaign Objective

To achieve a fully funded, functionally equivalent access to the telecommunications network for all deaf and deafblind people in the UK.

This includes those for whom written and spoken English is their preferred form of mode of communication and those for whom British Sign Language (BSL) is their first language

Functional equivalence requires almost live real-time communication commensurate to that enjoyed by a hearing person when communicating on the phone

3. Numbers of deaf people who are unable to use the phone

Recent population statistics suggest that around 6 million people have a severe enough hearing loss to benefit from a hearing aid. 688,000 of these are severely/profoundly deaf and cannot hear speech on the phone - around 50,000 – 70,000 of these use British Sign Language.

However evidence from overseas demonstrates that the take up for all relay services is considerably less than the numbers of people who could theoretically benefit from them.

4. What are the benefits of improved access to telecommunications for deaf people?

In a world in which technology is changing rapidly, deaf people need access to telecommunications in the same way as hearing people: at work, at home, on the road, for communicating with friends and families, for work purposes, as well as for the more mundane and practical uses of telecommunications

Fully accessible telecommunications will have the following benefits:

a) Enhanced employment opportunities :

- Utilise effectively the skills of all deaf people, thus reducing unemployment and underemployment
- Increase mobility, productivity, and employment opportunities for deaf workers
- Improve the opportunities for career progression for deaf people
- Promote the growth of deaf entrepreneurs & business owners

- Provide employment opportunities for deaf people, interpreters and communication relay assistants in the relay service industry
- Reduce the pressure on Government Access to Work budgets which are used currently to access video relay services (and will be used to cover access to captioned telephony which will be introduced shortly)

b) Greater Social Inclusion

- Provide benefits to all deaf people in terms of access to employment, health and leisure
- Reduce the numbers of deaf people on state benefits
- Improve the mental and physical health and morale of deaf people
- Facilitate better integration between deaf and hearing people as improved access to telecommunications relay services will make it significantly easier for hearing people to contact deaf people

5. What is the problem

5 a) Relay Services

Deaf people whose hearing loss is such that they cannot follow speech over the phone require the intervention of a human operator who can transpose voice conversations into other formats – such as text or sign language – which can be followed visually. As these transposition processes require the intervention of a human operator (notwithstanding improvements in technology), they are expensive to run.

5 b) Text Relay

A national text relay service has been operation in the UK since 1991/2 using technology which is 30 years old and is the only form of access universally available to speech impaired and deaf people who do not have enough hearing to use an "ordinary" phone, even with adaptations. It is funded by BT as part of the Universal Service obligation imposed on it by OfCOM. The way that the current Universal Service Order (USO) is written acts as a major barrier to innovation, prevents service development and hinders diversity and competition.

As the only provider required to fund this service there is no incentive for BT to improve, modernise or market this service and no commercial imperative for them to do so. If BT markets this service to those who could benefit from it, it will cost them more so they do not do this and usage is declining (Plum Report 2009)

Text relay enables textphone users to contact voice phone users over the public telephone network via a relay operator. It also allows deaf people to use their own voice (through Voice Carry Over – VCO) when a deaf person wants to speak to a hearing caller but receive text as the reply.

However, Text Relay is slow and cumbersome – it is virtually impossible for either the caller or the person being called to interrupt each other as is the case in a normal conversation. The text relay operators are unable to type at the speed at which the hearing speaker talks so s/he is frequently asked to slow down thereby making the conversation stilted and unnatural. In addition the 18002 prefix which has to be used for text relay calls to a text phone user is off-putting and immediately identifies the person being called as deaf which is unhelpful particularly in a business context.

People who have been deaf from birth and have BSL as their first language often do not have strong written English skills. Despite this, currently their only access to the telephone network and the services and businesses that rely on this network is through Text Relay using a medium that is barely accessible to them. As a result approximately one third of BSL users have never used the telephone network and are effectively disenfranchised from use of UK telephony services.

The current implementation of the USO only covers Public Switched Telephone Networks (PSTN) telephony. This forces deafblind Braille users to try and use antiquated and difficult to use technology to access the relay service or buy additional devices which are prohibitively expensive. If the USO was to allow direct internet access to text relay services, low cost software could be written so that deafblind Braille users could use their existing Braille-enabled computer.

In summary many deaf and hearing people dislike using Text Relay but currently, in the UK, have no alternative if they wish to speak to each other over the phone.

6. Situation in other countries

In the USA deaf people have the ability to access the telecommunications network through text relay, video relay and captioned relay which give them functionally equivalent access. The US market for the provision of relay services is competitive - for example there are nine providers of VRS alone at present.

In the US relay services are funded by each state or through the Interstate Telecommunications Relay Fund managed by the National Exchange Carrier Association (NECA). Funding is obtained through a levy of between 0.51% to 0.85% from the pre-tax income of USA telephone providers. Reimbursement rates are set each year as a price cap regime and NECA reimburses relay providers on the basis of the number of minutes of relay provision that have been undertaken. The cost of contributions is passed onto the US consumer and there is no cost to the relay user at the point of use, except for broadband costs.

In Sweden there are three relay services for deaf people which are funded by central government through taxation. The Swedish philosophy is that all their citizens should be included in society and the financing of relay services will provide better access to employment for deaf people, who will themselves become tax payers.

7. Key Principles

If deaf people are to be enabled to make the same use of telephones as the rest of the population then developments in relay services must comply with the following principles

- Be available 24/7/365
- Be real time equivalent
- Meet appropriate quality standards
- Be available to users at no cost other than the cost of a standard call.
- Meet the varying communication needs of deaf people, whether deaf with speech, BSL users, hard of hearing, deaf-blind or deafened.
- Be capable of taking advantage of new developments in technology.

- Treat Captioned Telephony, Video Relay Services (VRS) and Text Relay with equal importance to ensure that all sections of the deaf and hard of hearing community benefits from functional equivalent access to telecommunications
- Enable the full participation of all deaf users through the provision of appropriate software and terminal equipment to access different types of relay services
- Provide number portability
- Provide real choice for consumers through open competition between "same type" relay providers
- Use standard protocols to ensure interoperability across platforms and networks
- Provide equivalence to all standard telephony platforms including the provision of mobile phone solutions software communication packages

8. What services are needed?

- Modernised and effective Text Relay
- Captioned telephony (CT)
- Video relay (VRS)

All of the above need to use open standards and be equivalent to standard voice phone platforms in both the access method and price to the end user.

Currently only Text Relay is universally available to deaf people and is 4 times slower than a "normal" voice call. The advantages of Captioned Telephony and Video Relay are that they operate almost as the same speed as voice telephony.

A further advantage is that rebates, which are currently given to compensate consumers for the increased cost of Text Relay calls in comparison with voice calls, will not be necessary for these particular services.

9. Why is funding needed?

Access to the voice phone network is essential for societal and economic participation. For deaf and deafblind people however this is not possible without relay services such as those outlined above which carry an additional cost. This cost cannot be borne by the affected parties themselves and so an appropriate funding mechanism must be found. The benefits to the economy outlined above more than justify finding this funding through the legislative tools available to policy makers.

10. Costs

The necessary involvement of a human intermediary in each and every call makes relay provision expensive; costs could approach those of language translation relays, which operate on a purely commercial basis. This situation is unlikely to alter until machine transposition of speech into text and other formats has reached the stage where acceptably low error rates can be obtained, even with 'untrained' speakers.

Expressing costs in terms of price per call minute provides the easiest form of comparison but is liable to be misleading because various forms of bulk package are available for most types of relay service, as well as for simple voice calls. An approximate guide can be found in the report for OfCOM by Plum Consulting, where text relay is quoted as costing £0.76 per minute, VRS £2.5 per minute and captioned

telephony £2 per minute. However recent evidence suggests that the cost for VRS should be £3.50 per minute and Captioned Telephony £1.20 per minute in order to achieve a 24/7/365 service.

The same report suggests that a factor of 4 times should be applied to the current text relay to allow for the slower rate of information transfer in this service. In other words, the normalised cost of sending the same message content by any of these three relay modes amounts to between £2 and £3 per minute of time required in the equivalent voice call.

The impact of conversation speed on service cost can be clearly illustrated by way of example, based on the estimated costs from the Plum report. Consider a conversation of 360 words which will take 2 minutes. Using the BT Text Relay service, this conversation would take 8 minutes at a cost of £6.08 whereas the conversation would only take a little more than 2 minutes at a cost of £5.00 using video relay and £4.00 using captioned telephony.

Telecommunication companies are already obliged to comply with equality legislation to ensure their services are accessible to disabled people. This campaign seeks to ensure that money invested in access is spent in a more cost effective way that delivers access across the sector. This may deliver some economies of scale.

11. Conclusion

“I just want to talk to my grand-daughter on the phone”

“My son has just gone to university. I just want to call him and make sure he is OK”

“I have an interview for a job. I just want to call my potential employer to check the arrangements”

Functionally equivalent access to the telecommunications network for deaf people is crucial for deaf people both to improve social inclusion and provide greater access to employment. The current situation whereby deaf people in the UK are forced to rely on one unpopular and outdated relay service using technology developed 30 years ago has to cease.

The benefits of improved access will accrue not only to deaf people themselves but to the economy and to society in general, which as a result will be better able to make use of untapped talent and potential.

Such benefits more than justify finding an appropriate funding mechanism in order to meet the legitimate aspirations of deaf people to make accessible real-time telephone calls.