

OFCOM PUBLIC CONSULTATION

REVIEW OF RELAY SERVICES

RESPONSE FROM SORENSON COMMUNICATIONS, INC.

OCTOBER 2011

EXECUTIVE SUMMARY

- The revised European Electronic Communications Framework has strengthened the obligations on Member States in relation to telecommunications provision for disabled end-users. In particular, it mandates that disabled end-users must be guaranteed access to telephone services equivalent to that enjoyed by other end-users (equivalence being defined in functional terms). The legislation states that equivalence means "*disabled end-users benefit from the same usability of services as other end-users, but by different means*" and BEREC has defined it as "*equal access to and choice of electronic communications services...for end-users with disabilities, albeit that this might be achieved in different ways for end-users with disabilities in comparison with other end-users.*" The EU Framework calls for greater choice for disabled end-users, so that they can access a wide range of telecommunications services from a range of providers just like non-disabled end-users.
- For over 20 years Deaf people in the UK have had to rely on a text-based relay service for their telecommunications needs (Text Relay). This service suffers from serious shortcomings which have led to declining usage and significant dissatisfaction among the Deaf community. New communications technologies that have emerged have left the Text Relay service far behind, rendering it outdated and cumbersome compared to new methods of communication. These new methods, for the first time, give Deaf people the potential to access telecommunications as easily, quickly and effectively as the rest of the population.
- Video Relay in particular has emerged in the last decade as a proven and successful technology that allows Deaf people, particularly sign language users, equivalent access to voice telephony. Video Relay is the only service that offers true equivalence for Deaf sign language users, offering a fast, natural and efficient means of communication. It has also been called for by a large number of Deaf groups and its benefits have been recognised in a number of studies, including those commissioned by Ofcom.
- We welcome Ofcom's recognition of the many benefits that Video Relay offers and its proposal to mandate Video Relay provision. However, a restricted Video Relay service would fall short of fulfilling the UK's legal obligations under the EU Framework. If Deaf end-users are truly to enjoy the same usability of basic telephony services as hearing users (as mandated by the EU Framework) they must be given access to a 24/7 unrestricted service that allows them real choice and flexibility.
- Communications services are now more vital than ever in enabling people to engage fully within society. The Government has called for greater inclusion of disabled people and for changes to be made to ensure that they have access to the same opportunities as other members of society. Communications services play a crucial

role in this vision. Ofcom recognises the importance of communications services in providing access to "*cultural and educational activities and resources, and to services and commerce*", making it "*easier to participate in civil society, to learn and develop new skills*".¹ Yet Ofcom surprisingly advocates a restricted service for the Deaf that will limit their access to telecommunications services. Without equivalent access to telecommunications, Deaf people will never have access to the services, information and opportunities necessary to allow them to fulfil their potential and to participate fully in today's communications-based society. It is vital to introduce an unrestricted Video Relay service that will allow Deaf people to more fully participate in economic, social, cultural and political life, bringing significant benefits to the Deaf community and society at large.

- The concept of equivalence is at the heart of the relevant provisions of the EU Framework, which place a strict duty on Member States to take "specific measures" to "ensure" that access to and affordability of certain basic telecommunications services for disabled end-users is "equivalent" to the level enjoyed by other end-users. From the very outset of the consultation document, it is clear that Ofcom's approach to equivalence is at odds with the requirements of the EU Framework. For Ofcom, cost control, and not equivalence, is the priority. In fact, Ofcom goes so far as to state that "*relay services can never be fully equivalent to the voice telephony service enjoyed by users with no hearing and speech impairments, due to the nature of the user groups' abilities*".² While suggesting that equivalence is a standard too high to achieve for certain disabled users, Ofcom defends the current Text Relay service as achieving "*some (basic) level of equivalence*"³ even while recognising that it "*falls short of offering an equivalent service*".⁴ This approach to equivalence displays little consistency or coherence.
- Ofcom has also adopted an erroneous approach to proportionality that has resulted in excessively restrictive proposals. The unqualified nature of the legal obligations under the EU Framework is clear. The only service able to provide equivalence for Deaf sign language users is unrestricted Video Relay. As there are no other identifiable means of ensuring equivalence for this group, proportionality does not provide a justification for not providing this service. Thus as the only service able to provide equivalence for Deaf sign language users and hence to ensure the UK's compliance with the EU Framework, Video Relay must be introduced on an unrestricted basis in order to comply with the UK's legal obligations under the revised EU Framework.
- The revised EU Framework offers a unique opportunity for significant changes to be implemented in the UK for end-users with disabilities. These changes are critical to achieving the Government's wider goals of greater inclusion of disabled people, helping them to participate fully and promoting independence and self-reliance throughout society. In order to meet both the UK's legal obligations and the needs of

¹ *Review of Relay Services*, Ofcom, July 2011, p. 4.

² *Ibid.*, p. 13.

³ *Ibid.*, p. 14.

⁴ *Ibid.*, p. 13.



Deaf people, we urge Ofcom to mandate an unrestricted Video Relay service that will empower Deaf users and facilitate their inclusion. We also urge Ofcom to move towards a model that will ensure a sustainable and effective system far into the future, based on competition, innovation and growth, that delivers high standards, continued investment and real choice and equivalence for Deaf users, providing benefits for the Deaf community, the economy and wider society.

- Sorenson is the world's largest provider of Video Relay services. We have almost a decade of experience and understanding of usage patterns for Video Relay. We would be happy to share our experience with Ofcom and provide any additional information that might prove useful in the next stages of Ofcom's work in this important area.

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1. Introduction

- 1.1 Sorenson Communications, Inc. ("**Sorenson**") is grateful for the opportunity to respond to the Ofcom consultation, "Review of Relay Services" (the "**Consultation**").
- 1.2 Founded in 2000 and based in the United States, Sorenson is the leading developer and provider of telecommunications technology for Deaf people in the world. Sorenson has particular expertise in providing Video Relay ("**VR**") services, which enable Deaf callers to conduct video relay conversations through a qualified sign language interpreter. VR is a proven technology and has been operating successfully in the United States for several years.
- 1.3 We share Ofcom's view that *"people with hearing and/or speech impairments continue to meet barriers when using voice telephony."*⁵ For Deaf and hard of hearing people, equivalent access to voice telephony is currently severely restricted. British Sign Language ("**BSL**") users are currently required to communicate through typed messages in their second language, English, when using any text-based service such as SMS or Text Relay ("**TR**").
- 1.4 Our response to the Consultation focuses on the UK's legal obligations under the revised European Electronic Communications Framework (the "**EU Framework**")⁶ in relation to telecommunications provision for disabled end-users and defining what functional equivalence means for different groups of Deaf people. The 2009 revision to the EU Framework has important implications for disabled end-users.
- 1.5 We share Ofcom's evaluation of the many shortcomings of the existing TR service. The introduction of the proposed Next Generation Text Relay ("**NGTR**") service would not, however, provide functional equivalence for all Deaf users and is, thus, not sufficient to fulfil the UK's legal obligations under the EU Framework. Moreover, Ofcom's comparison of NGTR and captioned telephony ("**CT**") is flawed. CT would provide a number of benefits to Deaf end-users over NGTR that are not recognised by Ofcom and it should be considered as part of the suite of services available to the Deaf and hard of hearing communities.
- 1.6 We welcome Ofcom's recognition that VR offers equivalence for BSL users and provides the ability to have more natural conversations. However, we disagree with Ofcom's proposal to introduce only a restricted VR service. Such a service would not provide functional equivalence for Deaf end-users as it will not provide the same "usability" of basic voice telephony services for disabled end-users as is available to other end-users. A 24/7 service is a key requirement of functional equivalence as well as something that Deaf people have repeatedly highlighted as being very important to them.⁷ Indeed, a restricted VR service would not even satisfy Ofcom's own criteria for assessing equivalence.

⁵ Consultation, p. 1.

⁶ The framework comprises the following directives (as amended): the Framework Directive 2002/21/EC; the Access Directive 2002/19/EC; the Authorisation Directive 2002/20/EC; the Universal Service Directive 2002/22/EC; and the e-Privacy Directive 2002/58/EC.

⁷ For example, it was raised in research by Opinion Leader (commissioned by Ofcom) in which 93% of profoundly Deaf respondents said that 24/7 access was important or very important to them.

- 1.7 VR should be mandated on an unrestricted basis in order to comply with the UK's legal obligations under the EU Framework in respect of BSL users. As Ofcom has failed to identify any alternative means of providing such end-users with equivalent access to basic voice telephony services, proportionality considerations are no justification for imposing restrictions on the provision of VR.

The legal framework

- 1.8 Article 7(1) of the Universal Service Directive ("USD")⁸ imposes a universal service obligation. It refers to Articles 4(3) and 5 USD (which deal with the provision of directory enquiry services and directories) and provides that:

"Unless requirements have been specified under Chapter IV which achieve the equivalent effect, Member States shall take specific measures to ensure that access to, and affordability of, the services identified in Article 4(3) and Article 5 for disabled end-users is equivalent to the level enjoyed by other end-users..."

- 1.9 Chapter IV of the USD makes general provision for "end-user interests and rights" that is distinct from the universal service obligations imposed in Chapter II, including Article 7. Article 23a of the USD (prescribed in Chapter IV) addresses the interests and rights of disabled end-users and provides as follows:

"Member States shall enable relevant national authorities to specify, where appropriate, requirements to be met by undertakings providing publicly available electronic communications services to ensure that disabled end-users:

a. have access to electronic communications services equivalent to that enjoyed by the majority of end-users; and

b. benefit from the choice of undertakings and services available to the majority of end-users."

- 1.10 Article 23a applies in respect of electronic communication services generally, not simply those in respect of which there is a universal service obligation under Chapter II. According to the Body of European Regulators for Electronic Communications ("BEREC"), the intention of Article 23a is to *"ensure that end-users with disabilities, estimated at 15% of the European population, can more fully participate in and benefit from technological advances and developments in electronic communications that are available to other end-users."*⁹

⁸ Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services as amended by Directive 2009/136/EC of the European Parliament and of the Council of 25 November 2009.

⁹ BEREC public consultation, *Electronic communications services: Ensuring equivalence in access and choice for disabled end-users*, October 2010, p. 9.

Equivalence

- 1.11 Recital 12 to Directive 2009/136/EC of 25 November 2009 (the "**Amending Directive**"), which amends the USD and prescribes the current obligation under Article 7(1) of the USD, provides an unequivocal definition of equivalence:

"Equivalence in disabled end-users' access to services should be guaranteed to the level available to other end-users. To this end, access should be functionally equivalent, such that disabled end-users benefit from the same usability of services as other end-users, but by different means."

- 1.12 A report prepared for the European Commission in 2007, "Measuring Progress of eAccessibility in Europe", uses a similar definition:

*"In the case of telephony, the basic eAccessibility yardstick is 'functional equivalence', whereby disabled people have access to the same level and quality of everyday telecommunications services (at the same price and with the same choice) as everyone else."*¹⁰

- 1.13 A BEREC consultation issued in October 2010 (the "**2010 BEREC Consultation**") proposed that "equivalent" should mean *"equal access to and choice of electronic communications services...for end-users with disabilities, albeit that this might be achieved in different ways for end-users with disabilities in comparison with other end-users."*¹¹

- 1.14 Equivalence of access is therefore to be assessed in functional terms. It is necessary to ensure the same usability of services for disabled end-users, even if this requires the introduction of different means of providing and using those services.

- 1.15 Equivalence in affordability means, at the very least, that disabled end-users ought not, by reason of their disability, to have to pay more than other end-users to use basic telecommunications services.

- 1.16 Any proposals that attempt to meet the UK's obligations under the EU Framework must necessarily satisfy these requirements that are at the very heart of the legislation.

¹⁰ *Measuring Progress of eAccessibility in Europe: Assessment of the Status of eAccessibility in Europe*, European Commission, October 2007, p. 5.

¹¹ 2010 BEREC Consultation, p. 23.

2. Response to Question 1

Do you agree that NGTR would provide greater equivalence than the existing approved TR service? Do you agree that we have considered an appropriate range of improvements?

- 2.1 We welcome Ofcom's attempt to elaborate the concept of equivalence by identifying some common criteria to be used when assessing particular services. However, the essential starting point for understanding equivalence must be the EU Framework which sets out the UK's obligations in relation to telecommunications provision for disabled end-users. We have outlined these obligations in paragraphs 1.8 to 1.16 above.
- 2.2 NGTR would not provide functional equivalence for a number of reasons set out below. The service would not be accessible to those users who do not have residual hearing or speech and would be inaccessible to BSL users in particular. For the latter, NGTR can never be functionally equivalent. Even based on Ofcom's own criteria for assessing equivalence, NGTR would not be able to deliver functional equivalence. We believe that CT, which is largely dismissed in the Consultation, would be able to deliver greater functional equivalence than NGTR for a number of reasons set out below.

Ofcom's own research shows that NGTR would not provide functional equivalence

- 2.3 The Consultation proposes introducing NGTR, a new type of service which operates similarly to the existing TR service operated by British Telecommunications plc ("BT") in that it would use existing TR terminals, but allow simultaneous two-way speech. Ofcom argues that this would increase conversation speeds for users who have good/understandable speech to potentially up to 110 words per minute.¹²
- 2.4 Ofcom purports to rely on the research carried out by Opinion Leader for Ofcom¹³ (the "**Opinion Leader Report**") in drawing up its proposals. While we have serious concerns about the robustness of the research summarised in the Opinion Leader Report (outlined in Annex 1 below), we refer to that research because, even assuming it were robust, it does not provide support for Ofcom's current proposals. According to that report, the majority of those questioned (53%) did not think faster TR would be "quite useful" or "very useful".¹⁴ While some thought an improved TR service could be useful for hearing persons, the report noted that "*others disagreed, believing that the existing disadvantages of text relay, including its impersonal quality...would continue to put people off using the service*"¹⁵ and that a faster TR service "*did not appear to address problems posed by the current text relay system*".¹⁶ None of these findings are mentioned in the Consultation. Instead, the Consultation disproportionately focuses on the benefits of NGTR without considering all the deficiencies highlighted by Ofcom's own market research.

¹²Consultation, p. 14.

¹³ *Ofcom Relay Services*, Opinion Leader, February 2011.

¹⁴ *Ibid.*, p. 68.

¹⁵ *Ibid.*, p. 68.

¹⁶ *Ibid.*, p. 69.

NGTR would benefit a limited section of Deaf users

- 2.5 Ofcom admits that "*most of the benefit of NGTR would accrue to those with some residual hearing and speech*".¹⁷ On its own estimates two-thirds of current TR users do not have residual hearing or speech. Therefore, by its own admission, NGTR would exclude the majority of Deaf TR users. NGTR would be inaccessible to BSL users in particular (see paragraphs 5.5 and 5.9 for our analysis of why NGTR could never be functionally equivalent for BSL users).

CT as a viable, more effective, functionally equivalent alternative

- 2.6 CT differs from Ofcom's proposed NGTR service in that it uses voice recognition technology. On a CT call, the communications assistant hears the words being spoken by the hearing user and re-voices these words. The assistant's computer recognises the assistant's words and converts them into text, which is transmitted to the Deaf user's screen on their CT phone or Internet-connected device.
- 2.7 We disagree with Ofcom's assessment of CT and its conclusion not to introduce it in the UK. While recognising that CT will never provide functional equivalence for BSL users, CT is far more likely than NGTR to provide functional equivalence for other Deaf users. A City University report commissioned by Ofcom (the "**2008 City University Report**") found that "*a key aspect of captioned telephony is that it maintains nearly the same level of spontaneity as a typical voice-to-voice telephone call. The dialogue is closer to synchronous communication than the asynchronous methods of traditional relay*".¹⁸ As the report notes, a CT service allows users to place a call in the same way that a voice telephone user places a conventional phone call. This "*empowers the user to make calls directly and to control the content and flow of the call*",¹⁹ allowing them an experience far closer to that enjoyed by hearing users using conventional voice telephony. The experience in the US with CT certainly supports these claims, where the service is predominantly used for the hard of hearing market.
- 2.8 CT uses advanced voice recognition software which allows nearly instantaneous captions to be generated, making conversation much faster. The 2008 City University Report cites estimates that the time delay between speech and the text display is between 3 and 5 seconds.²⁰ The benefits of CT can also be enjoyed by hearing people. A second City University report for Ofcom notes that "*US captioned telephone users report that their calls are being returned from hearing people on a regular basis, something that has proved problematic with their existing text relay service. This increased responsiveness...is almost certainly chiefly a result of the faster, near-natural pace and style of captioned relay calls*".²¹

¹⁷ Consultation, p. 43, fn. 57.

¹⁸ *Captioned Telephony: Extension Of 2006 Research Report – "Feasibility Of Additional Telephone Relay Services"*, City University, 2008, p. 3.

¹⁹ *Ibid.*, p. 4.

²⁰ *Ibid.*, p. 6.

²¹ *Feasibility Of Additional Telephone Relay Services*, City University, 2006, p. 72.

- 2.9 Even using Ofcom's own criteria for assessing equivalence,²² CT is able to deliver greater functional equivalence than NGTR:
- 2.9.1 **The ability to have natural conversations.** As noted in the 2008 City University Report, CT allows "*nearly the same level of spontaneity*"²³ as a conventional voice call.
 - 2.9.2 **The ability to have private conversations.** Unlike NGTR, CT automatically connects to a captioning service without the need for any interaction with the communications assistant. This addresses what Ofcom's research indicates is a key concern of many Deaf end-users, namely the lack of privacy when using TR due to the obvious presence of the relay operator.²⁴
 - 2.9.3 **Having flexibility in the choice of communications methods and devices.** The provision of CT in addition to NGTR would better help to achieve functional equivalence for some disabled end-users. Despite strong support for CT in the Opinion Leader Report,²⁵ Ofcom fails to take account of its own commissioned research in favour of what appears to be a one-size-fits-all solution.
- 2.10 There is widespread support for CT among the UK's Deaf community. In response to the announcement in November 2010 of the reintroduction of WebCapTel in the UK, Deaf groups stated:
- "[I am] very happy to hear we now have a modern telephony system back in the UK. Now I don't have to ask an interpreter to make phone calls for me and I have my independence back."* TinaLannin, a Deaf blogger and consultant.
- "Fantastic news for me as ... it means I can now chat with my colleagues in Shanghai!"* Alan Goldsmith, a former CapTel user.
- "TAG warmly welcomes the reintroduction of WebCapTel and are confident it will be of great help to former and new users. We wish the service every success."* Ruth Myers, TAG.
- "I am so relieved and more than delighted to see this service back in the UK and I know very well that many of my former customers will certainly be over the moon! However we must continue to campaign for a 24 hour 7 day CapTel service at no cost to the user other than the cost of a standard telephone call."* Christopher Jones, former Managing Director of Teletec International who pioneered CapTel in the UK.
- 2.11 In fact, Ofcom previously showed an interest in introducing CT, stating in an interview for a report commissioned by ARCEP, the French telecommunications and postal regulator, "*we are thinking of subscribing in the years to come to IP relay and*

²² Consultation, p. 10.

²³ 2008 City University Report, p. 3.

²⁴ Consultation, p. 12.

²⁵ Opinion Leader Report, pp. 5, 65, 66, 67.

Captel as part of the universal service obligations imposed on BT. These services are demanded by the deaf and hard of hearing and will help slow down the drop in usage of text relay."²⁶ It is not clear why, after expressing such interest, Ofcom quickly dismisses CT in the Consultation, basing its decision on misplaced criticisms, as shown below.

Ofcom's misplaced criticisms of CT

2.12 Ofcom's conclusion that NGTR is preferable to CT relies on a number of false premises:

2.12.1 **Speech recognition software.** Ofcom argues that speech recognition software is not sufficiently advanced to guarantee an acceptable level of accuracy. However, the 2008 City University Report notes that "*recognition rates are high, (with short-duration voice training by the user, such as for 90 seconds)*" and cites estimates by Nuance Communications that more than 50m telephones are now equipped with speech recognition software.²⁷ US figures also show very little latency and a high level of accuracy, with latency consistently between three and five seconds and accuracy at about 95%.²⁸

2.12.2 In any event, Ofcom's criticism that CT "*does not provide an adequate service to those who do not have easily understandable speech*"²⁹ applies equally to NGTR. Indeed, Ofcom recognises that "*most of the benefit of NGTR would accrue to those with some residual hearing and speech.*"³⁰ Based on its own estimates, this means that two-thirds of current TR users would not benefit from NGTR.

2.12.3 **Flexibility.** Ofcom argues that NGTR is preferable to CT as NGTR would provide a service to three groups of Deaf users: those who are severely and profoundly Deaf, text-only users and those who have understandable speech. However, this is based on the first two groups continuing to use the current TR service which, by Ofcom's own admission, "*falls short of offering an equivalent service to voice telephony*".³¹ Given that Ofcom recognises that the current plainly deficient TR service does not provide equivalence for Deaf users, it is illogical to argue that allowing them to continue using it provides greater equivalence.

2.12.4 **Use of existing TR terminals.** The 2008 City University Report notes that "*existing "legacy" PSTN textphones cannot function with simultaneous voice*

²⁶ *Evaluation of the Needs of Deaf and Hard of Hearing People in terms of Accessibility of Telephone Services*, Advention, 1 March 2010, p. 209. We note that the version on the ARCEP website has been amended but that the original version can still be found at

http://www.handiplace.org/media/pdf/autres/etude_access_handicap_serv_tel_janv2011.pdf

²⁷ 2008 City University Report, p. 15.

²⁸ Based on Sorenson's experience of providing its CT service, CaptionCall. The Consultation also mistakenly states that there is only one provider of CT in the US. However, our research shows that there are five - Hamilton, Purple, Sorenson, Sprint and ANI (American Networks).

²⁹ Consultation, p. 18.

³⁰ *Ibid.*, p. 43, fn. 57.

³¹ *Ibid.*, p. 13.

and text".³² Thus, to achieve the main benefit of NGTR - two-way speech with live captions/text - new TR terminals must be bought. Ofcom does not make this clear in the Consultation. Instead, it argues that only a CT service would require users to acquire new terminals, while NGTR has the advantage of enabling existing dedicated TR terminals to continue to be used. Elsewhere, Ofcom does admit that "*using existing equipment for NGTR would only allow the existing level of functionality*".³³ This is an evidently contradictory argument; since Ofcom recognises that the current level of functionality provided by the TR service is deficient and wishes to introduce NGTR in order to increase the level of functionality available to Deaf users, it cannot advocate the use of existing TR terminals that would only allow the same restricted, deficient level of functionality.

2.12.5 **Use of a wider range of mainstream equipment.** Ofcom argues that NGTR would enable a wider range of equipment to be used to access the service than CT, including PCs and netbooks. This is inaccurate. CT can be used either with specially-designed dedicated terminals or on a mobile telephone or a computer or netbook with a high-speed Internet connection. In the UK, Significant (UK) Ltd announced in November 2010³⁴ that it was re-introducing WebCapTel, a CT service which works on any Internet-connected device (whether computer, netbook, mobile telephone or Personal Digital Assistant). In the US, the IP Captioned Telephone Service also allows users to use a computer or similar device to make CT calls.

3. **Response to Question 2**

Do you agree with the proposal to implement NGTR through the amendment to GC15? Do you agree that the criteria we propose satisfactorily embody improvements we suggest for NGTR?

- 3.1 The revised EU Framework offers a unique opportunity to implement significant changes in the UK for end-users with disabilities. Articles 7 and 23a USD recognise that disabled people should benefit from the same access to and affordability of telecommunications services as is available to other end-users.
- 3.2 In order to meet the revised USD's goal of ensuring Deaf end-users have equivalent access to telecommunications services, Ofcom has two legislative options: (i) to impose an obligation on all telecommunications providers through the General Conditions of Entitlement, or (ii) to impose an obligation on one or several designated Universal Service Providers and fund the service through, among other methods, a universal service fund. Ofcom has conducted no adequate analysis of the respective merits of the two options.

³² 2008 City University Report, p. 7.

³³ Consultation, p. 18.

³⁴ *Return of UK based WebCapTel and Remote Captioning Services*, Press Release, Significant (UK) Ltd, 8 November 2010, available at <http://www.signvideo.co.uk/documents/SignificantWebCapTelPR.pdf>

- 3.3 Ofcom should, in a transparent manner, assess both the General Conditions and Universal Service legislative options, weighing up the potential advantages and disadvantages in terms of how they would achieve the goals of the EU legislation. Ofcom should concentrate on the quality of the service that will ultimately be delivered to end-users, rather than seeking simply to limit the potential burden on telecommunications companies.
- 3.4 We have a number of concerns in relation to the General Conditions route. If the General Conditions are amended to compel communications providers to provide NGTR and Universal Service Condition 4 is revoked this would not only close off the option of setting up a universal service fund but would also produce a sub-optimal outcome for Deaf end-users because it is based on a flawed business model. In circumstances where the company paying for the NGTR service and the company required to provide the NGTR service are one and the same, the incentives are misaligned. Each minute of NGTR services used by a Deaf person will represent a cost to the communications provider so there will be no incentive or commercial imperative for the communications provider to encourage or promote use of the service. The only driver for communications providers will be cost minimisation. There would, in fact, be an incentive to discourage use. Neither would there be an incentive to improve the service by investing in new technologies or hardware. In this context, it is notable that Ofcom's consultation earlier this year recognised the dangers of this approach, noting that "*the [Universal Service Conditions] act as a 'safety net' by ensuring basic fixed line telecoms services are available at an affordable price to all citizens and customers across the UK*".³⁵
- 3.5 We note, however, that whilst the Universal Service route has the advantage of offering a means of centralised funding of the relay services, it suffers from similar inherent disadvantages in terms of quality and level of service offered to Deaf end-users. The business goal of those mandated to provide NGTR services under General Conditions or Universal Service will be to drive down costs by attempting to limit the number of customers using the service, as well as limiting their own investment, to the detriment of the UK's Deaf community.
- 3.6 This has already been the experience with regards to the TR service provided by BT. Under that service, Deaf users had no choice with regards to provider or service. Rather than having access to a wide range of communications providers as hearing users do, they were restricted to one provider, which had no competition and little incentive to improve its service, ensure customer satisfaction or invest in new technologies. The result was a service that "*...relies on technology which is 30 years old*".³⁶
- 3.7 The serious weaknesses of the TR service are also recognised in the Opinion Leader Report, which states that "*most Text Relay users who were surveyed had some experience of interruptions to the service. For 20 per cent, this was said to be a problem with all or most of their Text Relay calls. This was broadly in line with the*

³⁵ Ofcom consultation, *Changes to General Conditions and Universal Services Conditions*, February 2011, para. 2.10.

³⁶ *Voice telephony services for Deaf people: An independent report for Ofcom*, Plum Consulting, June 2009, Foreword.

qualitative findings where some participants felt that interruptions reduced the efficacy of the service... Some users also believed that the service had deteriorated in recent years and reported being cut off more frequently and experiencing more instances of a relay assistant not being available."³⁷ This is not due to lack of new technologies or opportunities to improve the service. It is a direct result of the model of provision which does not encourage competition or innovation, with the predictable result being underinvestment, low standards of quality and lack of choice.

- 3.8 Introducing NGTR, CT, VR or any relay service for Deaf users using the General Conditions or Universal Service route risks replicating the same mistakes as under the previous TR system. Rather than putting in place a system of provision that will continue to develop and improve, it would introduce a static system under which all communications providers may delegate provision to one provider who will provide the most minimal standards of service possible, potentially necessitating regulatory intervention once again when provision falls behind as new technological achievements and new demands render it outdated.
- 3.9 In circumstances where both the General Conditions and Universal Service routes could lead to disappointing outcomes for the UK's Deaf community, we would request that Ofcom consider, before deciding upon a preferred route, how the method of implementation could be devised so as to address that risk. In particular, Ofcom should assess whether implementation by means either of the General Conditions route or the Universal Service route could be structured so as to create a competitive market in the provision of relay services, which might provide incentives for investment and the raising of standards over the longer term. If necessary, and if neither the General Conditions route nor the Universal Service route could prove satisfactory, Ofcom should also aim to work with the Department for Culture, Media and Sport and industry participants in seeking an alternative solution.
- 3.10 In order to bring about the best results for the Deaf community, Sorenson would support a system that encourages competition between different providers of a relay service. Article 23a of the revised USD specifically provides that disabled end-users should "*benefit from the choice of undertakings and services available to the majority of end-users*". It is no coincidence that whenever choice is mentioned in the USD, competition is frequently mentioned alongside it, and the USD clearly states that "*more effective competition across all access and service markets will give greater choice for users*".³⁸ Therefore, we assume that the UK Government and Ofcom would also wish the UK market for relay services to be competitive. Indeed, we note the comments of the Minister for Culture, Communications and Creative Industries in relation to the revised EU Framework that "*[i]mplementing these changes should bring about better investment opportunities and encourage greater competition and innovation amongst electronic communications providers*".³⁹
- 3.11 The advantages of competition within markets are well known and would be no different when applied to services for Deaf people, bringing improved quality of

³⁷ Opinion Leader Report, p. 58.

³⁸ See also Preamble, paras. 1, 14, 26, 30 and Article 1.

³⁹ *Implementing the Revised EU Electronic Communications Framework*, Department for Business, Innovation & Skills, September 2010, p. 5.

service, increased efficiency, reduced costs and greater choice for consumers. Competition is also likely to encourage investment in research and development for specialised terminal equipment. Mechanisms could be built into the system to encourage greater efficiency by, for example, obliging providers to become more efficient year on year, thus restricting costs.

- 3.12 The competitive market for VR services established in the US for over nine years provides a ready precedent for the advantages of competition between providers of relay services. For example, the regulatory requirement for speed of answer is that 85% of calls must be answered within two minutes. As a result of competition, the average speed of answer is now 10 seconds. Competition has also resulted in the number of video phones available on the market for Deaf people growing from one to as many as eight, together with the creation of numerous software solutions for computers and applications for mobile phones and tablets.

4. **Response to Question 3**

Do you agree that a period of up to 18 months for implementation of NGTR, following an Ofcom statement, is appropriate?

- 4.1 In Sorenson's commercial experience 18 months should be sufficient for setting up this type of service. However, if a truly competitive market were established, this would commercially incentivise relay service providers who would no doubt be keen to act more rapidly.

5. **Response to Question 4**

Do you consider that the requirement to ensure equivalent services for disabled end-users would require a mandated VR service in some form for BSL users? Please indicate the basis of your response.

- 5.1 Yes. Mandated VR has been called for by UK Deaf groups and consumer groups and is long overdue.⁴⁰ VR is the only technology which provides functionally equivalent access to telecommunications services for the UK's Deaf community, as mandated by the revised EU Framework, in particular the USD, and is the only way of discharging these legal obligations.
- 5.2 As further explained at paragraphs 1.11 to 1.16, equivalence of access is to be assessed in functional terms. The duty on Member States is to provide the same usability of services for disabled end-users, even if this is by different means. Equivalence in affordability means, at the very least, that disabled end-users ought not, by reason of their disability, to have to pay more than other users to use the services.

⁴⁰ Press release: *Consumer Panel calls on Ofcom to set up a video relay service for Deaf and partially hearing consumers*, Communications Consumer Panel, 4 February 2011, available at <http://www.communicationsconsumerpanel.org.uk/Text%20relay%20comment%20final.pdf>.

TR does not provide equivalence

- 5.3 The TR service currently provided by BT as part of its obligations as Universal Service Provider does not allow Deaf end-users access to a publicly available telephone service that is functionally equivalent to that enjoyed by other end-users.
- 5.4 The adequacy of TR has been the subject of two independent reports prepared for Ofcom: the Opinion Leader Report and "Voice telephony services for Deaf people" by Plum Consulting (the "**Plum Report**").
- 5.5 These reports identify several structural weaknesses in TR, including that:
- 5.5.1 For Deaf end-users who do not have English as a first language, such as BSL users, TR is particularly challenging as it forces them to communicate in their second language. To understand the implications of that, it is critically important to appreciate the differences between written English and BSL. Not only is meaning conveyed differently in sign language than in standard English, they are in fact different languages, as recognised in the Consultation.⁴¹ The UK Government has, since March 2003, recognised BSL as a language in its own right. Thus a BSL user communicating via TR or NGTR would effectively have to communicate in a non-native, second language;
- 5.5.2 TR services are much slower than voice communication and do not take place in real time. TR provides slow conversation speeds, typically 30 words per minute, compared with average conversation speeds of around 170 words per minute for voice telephony between hearing people. The Opinion Leader Report found that the ability to have real time conversation was "*the single most important feature of a communication service for people who were Deaf or had speech difficulties*".⁴² The time it takes a Deaf TR user to type and read messages causes a delay and makes communication much more cumbersome. This was recognised in Ofcom's 2009 consultation paper, "Access and Inclusion", where reference was made to the fact that many TR users find TR "*very awkward*" and time-consuming.⁴³ The Plum Report also found that Text Relay "*does not allow natural, fluid conversation*" and "*provides slow connection speed, typically 30 words per minute, which leads to low productivity at work and frustrates many users when used for social purposes*".⁴⁴ The 2010 BEREC Consultation also recognised this, stating that, in the UK, "*because calls using the Text Relay service take longer than other calls, most providers [give] customers a rebate on these calls*".⁴⁵ Even if Ofcom's prediction that NGTR could potentially deliver conversation speeds of up to 110 words per minute is correct, this is irrelevant to BSL users as the majority of them do not have "*good/understandable speech*" required to use

⁴¹ Consultation, p. 34, fn. 44.

⁴² Opinion Leader Report, p. 40.

⁴³ *Access and Inclusion: Digital communications for all*, Ofcom, March 2009, p. 77.

⁴⁴ *Voice telephony services for Deaf people: An independent report for Ofcom*, Plum Consulting, June 2009, p.1.

⁴⁵ 2010 BEREC Consultation, p. 26.

NGTR (see further paragraph 2.5). For this group, conversation speeds would remain at the unacceptably low level provided by the current TR service;

- 5.5.3 TR does not allow natural or fluid conversation allowing participants to interrupt one another, unlike voice telephony between hearing people;
 - 5.5.4 TR suffers from high hang-up rates, TR calls are sometimes rejected and Deaf users report that hearing users do not like taking TR calls; and
 - 5.5.5 TR does not permit nuanced expression which is important for conveying emotion (particularly important for sign language users).
- 5.6 These inherent structural weaknesses illustrate the failings of TR and that it cannot be regarded as providing Deaf end-users with functionally equivalent access to telephony services. This finding is endorsed by the Plum Report which concluded that Text Relay "*does not provide functional equivalence to a telephone call between two hearing people*".⁴⁶ It is notable that many of the structural weaknesses identified above apply equally to the proposed NGTR service.
- 5.7 In light of the above, if the UK were to maintain the status quo and only continue to mandate TR (or to only introduce NGTR) for Deaf end-users, the UK would be in breach of its obligations under the revised USD. For that reason, we welcome Ofcom's proposal to mandate VR.

Benefits of VR

- 5.8 VR has a number of significant benefits over TR, as recognised by the findings of the reports referred to above. It also remedies many of the flaws of TR, including:
- 5.8.1 Crucially, allowing Deaf end-users whose first language is BSL the ability to communicate in their first language. When using VR, Deaf individuals are able to express themselves more fully and naturally, using the facial expressions, gestures and body language that are integral components of BSL;
 - 5.8.2 Allowing typical conversation speeds of 150 words per minute, very near to that achieved by voice telephony between hearing people. The Plum Report found that VR is three to four times faster than basic TR and "*offer[s] substantial improvements in terms of natural, fluid conversation and nuanced expression that conveys emotions and helps clarify the intention behind words*".⁴⁷ Thus, VR provides the only means to enable Deaf users to enjoy "real-time" communication, an essential element of functionally equivalent access to telecommunications; and
 - 5.8.3 Permitting nuanced expression.
- 5.9 Providing Deaf end-users who have BSL as their first language with functionally equivalent access to telephony services means allowing them to be able to communicate in that language. VR is the only technology which allows a BSL user to

⁴⁶ Plum Report, p. 27.

⁴⁷ Ibid., p. 20.

communicate using BSL, allowing them access to telephone services that is functionally equivalent to that enjoyed by the majority of end-users. There is no alternative means of meeting the UK's obligation under the USD for this group of end-users. Relay services other than VR force BSL users to communicate in English and consequently they will not be able to benefit from any possible enhanced conversation speeds or to participate in a more fluid conversation and ultimately will not be provided with functionally equivalent access.

- 5.10 This conclusion is supported by a statement by the Communications Consumer Panel calling on Ofcom "*to set up a video relay service for Deaf and partially hearing consumers*".⁴⁸
- 5.11 In addition, VR provides a number of social and economic benefits which are outlined in the Plum Report and the Opinion Leader Report. Research by the Royal National Institute of Deaf (RNID, now known as Action on Hearing Loss) shows that one in five Deaf or hard of hearing people are unemployed and looking for work, compared to one in 20 in the UK labour market.⁴⁹ The costs of unemployment in the UK due to unaided hearing loss have been estimated at £13.5 billion per year.⁵⁰ The Plum Report notes that access to relay services that are functionally equivalent to voice telephony could lower the Deaf unemployment rate and enable Deaf workers to be more productive.⁵¹ Research by Europe Economics (the "**Europe Economics Report**")⁵² has shown that the introduction of universal, unrestricted VR would create over 2,500 new jobs for Deaf people, BSL interpreters and the wider UK workforce. Given the serious challenge of unemployment among the Deaf community, it is vital to quantify the economic benefits of addressing this problem, in order more accurately to reflect the overall economic impact of mandating VR provision.
- 5.12 While we welcome Ofcom's proposal to mandate some form of VR provision in the UK as a step towards meeting the needs of Deaf end-users, the only mandated service that would fulfil the requirements under EU law is an unrestricted VR service, that is available 24 hours a day, seven days a week. As explained in our response to question 5, a restricted service would not be functionally equivalent, and thus would not meet the UK's obligations under the EU Framework, nor the criteria for assessing equivalence set out by Ofcom in the Consultation.

The Importance of a Sustainable VR System

- 5.13 We believe that a mandated VR service must be introduced with a sustainable funding model which will allow VR providers to invest, driving innovation and creating an effective, sustainable and high-quality VR system that meets the needs of Deaf users.

⁴⁸ Press release: *Consumer Panel calls on Ofcom to set up a video relay service for Deaf and partially hearing consumers*, Communications Consumer Panel, 4 February 2011, available at <http://www.communicationsconsumerpanel.org.uk/Text%20relay%20comment%20final.pdf>.

⁴⁹ *Opportunity blocked: The employment experiences of deaf and hard of hearing people*, Royal National Institute for Deaf People, 2007.

⁵⁰ *Evaluation of the Social and Economic Costs of Hearing Impairment*, Shield, B., October 2006, for Hear-It AISBL.

⁵¹ Plum Report, pp. 25-26.

⁵² *Video Relay Services in the UK*, Europe Economics, 2011.

- 5.14 In order to bring about the best results for the Deaf community, Sorenson would support a system that encourages competition between different providers of a relay service. Particularly in light of the emphasis on providing a choice of undertakings to disabled end-users in the revised USD, we assume that the UK Government and Ofcom would wish the UK market for relay services to be competitive. The advantages of competition within markets are outlined above at paragraphs 3.10 to 3.12.
- 5.15 There is a widespread preference for a competitive market among the Deaf community and among VR service providers in the UK, as demonstrated by TAG's comments at a UK Council on Deafness conference in November 2010: "*Competition in the field of all telephone relay services is badly needed and would undoubtedly help to improve quality of service*".⁵³
- 5.16 The creation of a competitive market for unrestricted VR services in the UK would drive significant investment by existing UK providers, as well as attract new entrants to further stimulate competition and improve the experience of Deaf end-users.

6. Response to Question 5

Do you agree that a restricted service would be more proportionate in providing equivalence for BSL users than an unrestricted service?

- 6.1 Only an **unrestricted** VR service can satisfy the UK's obligations under the EU Framework and provide functional equivalence for Deaf end-users. Indeed, this is recognised by BEREC, which notes in its report on equivalence that "*a restriction of usage of services that are designed to promote equivalent access could limit their ability to ensure equivalence*".⁵⁴
- 6.2 Ofcom's proposal to introduce a restricted service is based on the assumption that the UK is under an obligation merely to improve functional equivalence in access, and then only so long as this can be achieved at what is considered to be an acceptable cost. In adopting this approach, Ofcom has fundamentally misconstrued the obligation under Article 7(1) USD to guarantee equivalent access, which obligation is absolute and in terms unqualified. For the reasons set out below, the provision of a restricted VR service is incapable of satisfying that obligation. Furthermore, it is no answer for Ofcom to rely on considerations of proportionality as a reason for refusing to introduce an unrestricted VR service. In any event, there are broader considerations of the public interest that require the provision of an unrestricted VR service.

A restricted VR service is inadequate

- 6.3 Article 7(1) of the USD requires Member States to ensure equivalent access to basic voice telephony services for disabled end-users. Recital 12 of the Amending

⁵³ <http://www.Deafcouncil.org.uk/docs/Ruth%20Myers%203.11.10.pdf>

⁵⁴ *Electronic communications services: Ensuring equivalence in access and choice for disabled end-users*, BEREC, February 2011, p. 42.

Directive clarifies that "*access should be functionally equivalent, such that disabled end-users benefit from the same usability of services as other end users, but by different means*". In order to comply with Article 7(1), the measures taken by Member States, including the provision of VR, must result in disabled end-users having access to basic telephone services at the same level as other end-users, and on a functionally equivalent basis, such that they benefit from the same usability of services.

- 6.4 In the Consultation, Ofcom correctly accepts that the provision of VR is necessary to provide access to basic telephone services on a functionally equivalent basis for disabled end-users who are BSL users. That is essentially because NGTR and TR would not provide BSL users, experiencing difficulty with English and having BSL as a first language, the ability to have natural conversations. As explained at paragraph 5.9 above, VR is the only technology which provides functionally equivalent access to telecommunications services for BSL users. This is explicitly recognised in the Consultation, "*in the present context, VR services are likely to offer greater equivalence for BSL users than TR or NGTR. BSL users, particularly for those who find written English difficult, are more dependent on their ability to communicate in their first language. Even for those with higher levels of literacy that could use TR or NGTR, VR offers the ability to have more natural conversations*".⁵⁵
- 6.5 In those circumstances, given that non-disabled end-users have access to basic telephone services on an unrestricted basis, 24 hours a day and seven days a week, the provision of VR on only significantly restricted terms is incapable of satisfying the obligation under Article 7(1) USD. If VR is provided only on restricted terms, access for BSL users would plainly not be "*guaranteed to the level available for other end-users*" and they would not "*benefit from the same usability of services as other end-users*". Ofcom argues that restricted VRS would mean users could "*make their most important calls (i.e. those which deliver the highest value but would forgo making their less important (and therefore less valuable) calls)*".⁵⁶ The proposal for a restricted VR service effectively forces disabled end-users to prioritise their calls according to "value", an artificial process that is not required of hearing users who are able to make calls naturally and without the need for careful rationing. Accordingly, restricted VR is incapable in principle of achieving functional equivalence for Deaf end-users.
- 6.6 Moreover, the proposal for restricted VR services would not even meet Ofcom's own criteria for assessing equivalence. At the outset of the Consultation, Ofcom identifies the ability to have access to these services "*whenever they are required*" as an essential criterion for assessing whether a service is functionally equivalent or not.⁵⁷ This feature is also identified in the Opinion Leader Report as the second most important feature of a communication service for people who are Deaf or have speech difficulties, with 85% of participants saying it was important or very important to them. As the report notes, "*participants widely believed that 24/7 availability was necessary to ensure that those who were Deaf or had speech difficulties had the same*

⁵⁵ Consultation, p. 39.

⁵⁶ *Ibid.*, p. 51.

⁵⁷ *Ibid.*, p. 10.

access to services as others in the community".⁵⁸ Put simply, "those who have difficulty hearing or speaking want to communicate at the same times and in the same ways as others".⁵⁹ As a participant in the research stated,

"After all we are human and want to communicate when we want to or need to – and not when someone else tells us it is OK." Deafblind, London⁶⁰

Proportionality provides no answer

- 6.7 It appears that Ofcom's proposal for a restricted service stems from considerations of proportionality. However, in the context of achieving functional equivalence, purported concerns about proportionality should not lead to a finding that VR should be provided on a restricted basis.
- 6.8 Article 7(1) USD imposes a strict duty on the UK to take "specific measures" to "ensure" that access to and affordability of certain basic services for disabled end-users is "equivalent" to the level enjoyed by other end-users. That duty is unqualified, permitting no exceptions, whether on the grounds of the cost of compliance or otherwise. The only circumstance where specific measures are not required under Article 7(1) is where requirements having the same effect have already been specified under Chapter IV USD (in particular Article 23a).
- 6.9 The unqualified nature of the duty is reinforced by the fact that:
- 6.9.1 Had the EU intended that the obligation under Article 7(1) be qualified by considerations of proportionality it could easily have made provision to that effect. No such provision has been made;
- 6.9.2 Article 7(1) has been amended precisely to disallow the possibility of such qualification. Thus, prior to amendment by the Amending Directive, Article 7(1) of the USD had provided in relevant part that "*Member States shall, where appropriate, take specific measures for disabled end-users...*"⁶¹ This conferred upon Member States a discretion as to whether to take specific measures, such discretion allowing for considerations of proportionality to be taken into account. The EU legislature has now chosen specifically to deny Member States such discretion, and to prevent considerations of proportionality from being used as a justification to derogate from the substantive obligation under Article 7(1). Ofcom is simply wrong to state that, "*as regards measures for disabled end-users, the amended Directive did not change the substantive obligation on Member States to ensure provision of equivalent services*".⁶² The new legislative intention is confirmed by Recital 3 to the Amending Directive which refers to "*the reinforcement of provisions for end-users with disabilities*";

⁵⁸ Opinion Leader Report, p. 39.

⁵⁹ *Ibid.*, p. 39.

⁶⁰ *Ibid.*, p. 37.

⁶¹ Emphasis added.

⁶² Consultation, Annex 5, para. A5.2.

- 6.9.3 A relevant qualification cannot be derived from other provisions of the USD, which further supports the above construction. Article 3(2) of the USD requires Member States to "*determine the most efficient and appropriate approach for ensuring the implementation of universal service whilst respecting the principles of objectivity, transparency, non-discrimination and proportionality*". Whilst this provision applies to that aspect of universal service prescribed under Article 7(1), its effect is not to qualify that obligation. Rather, it is only where two or more means of satisfying the obligation under Article 7(1) are available, thereby ensuring the implementation of universal service, that Article 3(2) becomes relevant. It is in those circumstances that Member States are required to determine the most efficient and appropriate approach, having regard to considerations of proportionality, in selecting the means by which Article 7(1) is to be satisfied;
- 6.9.4 Nor can such a qualification be derived from Directive 2002/21/EC of 7 March 2002, as amended (the "**Framework Directive**"). In particular, Article 8 of the Framework Directive, to which Ofcom refers in passing, only provides for the prescription of general policy objectives for national regulatory authorities (Article 8(1)), and sets out certain general regulatory principles to be applied in pursuit of those objectives (Article 8(5)). Article 8 simply does not operate to excuse a Member State from complying with the unqualified obligation under Article 7(1) of the USD; and
- 6.9.5 It was wholly appropriate and proportionate for the EU legislature to prescribe an unqualified obligation under Article 7(1) as a means of protecting the interests of disabled end-users and fulfilling important social objectives. That is because the obligation extends only to the most basic telephone services, and not all electronic communication services (publicly available telephone services available over a network connection at a fixed location, and directory enquiry services and directories). By framing the scope of Article 7(1) narrowly, the EU legislature has already taken account of the potential costs of complying with an unqualified obligation. Contrast the much weaker obligation under Article 23a, in respect of electronic communication services more generally. Given the speed of development in the telecommunications sector, justice for disabled end-users requires that they be provided access to the most basic telephone services on an equivalent basis, irrespective of the cost.
- 6.10 Accordingly, Member States may not refuse to take a specific measure that is necessary to satisfy Article 7(1) USD merely because they consider it might prove too costly. It is only where there are available a range of measures for satisfying the obligation under Article 7(1) that considerations of proportionality become relevant. As Ofcom has not identified any alternative means of providing BSL end-users with equivalent access to basic voice telephony services, considerations of proportionality do not arise, and provide no justification for imposing restrictions on the provision of VR.
- 6.11 Sorenson notes that whilst Ofcom has purported to rely on considerations of proportionality as justifying the non-provision of unrestricted VR, Ofcom has provided no explanation in the Consultation of how a requirement of proportionality operates to qualify the substantive obligation under Article 7(1) of the USD in

circumstances where there is identified no other means of fulfilling that obligation for BSL end-users. If, in these circumstances, Ofcom continues to maintain that it is not obliged to introduce an unrestricted VR service, then Sorenson requires Ofcom, as part of this consultation exercise, to please **explain its position on the law in detail**. Sorenson would expect Ofcom to address each of the reasons given above for why considerations of proportionality do not justify the non-provision of an unrestricted VR service.

Broader considerations of the public interest

6.12 Moreover, there are broader considerations than solely the correct interpretation of the USD that support the provision of true functionally equivalent access to basic voice telephony services for disabled end-users, including BSL users:

6.12.1 There are compelling considerations of fairness in favour of providing disabled end-users equivalent access at least to the most basic of voice telephony services. Disabled end-users should share in the benefits of developments in the telecommunications sector and should not be disadvantaged merely because of their disabilities. Equality of access is an end in itself, independent of any economic rationale for such provision;

6.12.2 Ensuring equivalent access is a matter of great public importance. The ability of disabled end-users to access the emergency services provides a case in point. In the absence of unrestricted VR being provided, BSL users who have difficulty with spoken and written English are unlikely to be able to access the emergency services on an equivalent basis to other end-users. This is demonstrated by the possibility of an emergency arising when the VR service is not available. The availability of a free SMS service, upon which Ofcom relies as, in part, justifying the non-provision of unrestricted VR,⁶³ provides no answer. Effective use of SMS requires an ability to communicate in written English. Ofcom recognises that written English and BSL are entirely different languages. Accordingly, SMS would not allow a disabled BSL user to explain a problem to the emergency services as quickly, accurately, or in as much detail as an able-bodied end-user utilising a basic voice telephony service. The emergency services are likely to encounter significant difficulties in communicating urgent advice to the disabled BSL user using the same service. Furthermore, use of the SMS service requires pre-registration, which means that should a Deaf user require access in an emergency situation in circumstances where they have not yet registered, the service will not be available. Providing equivalent access to the most basic voice telephony services for disabled-end users is therefore not only right in principle but is also of the utmost public importance; and

6.12.3 Ofcom itself recognises that "*communications services may be even more important for people who may already suffer isolation and exclusion due to*

⁶³ *Ibid.*, p. 50.

their disability",⁶⁴ yet a restricted system would continue to restrict Deaf people's access to vital services that hearing people take for granted.

Case study: VR access to emergency services

At midnight on 10 June 2011, an American Sign Language user and customer of Sorenson's VR service in the United States had a serious heart attack in Wichita and called Sorenson's 911 service. An emergency services team arrived immediately. The individual received a thrombolytic drug to stop clotting in the ambulance on his way to hospital. He had quadruple bypass heart surgery. His outcome could have been much worse, if not for the emergency VR service. Communicating via a text relay service would have taken much longer. It would also have made it more difficult for the individual to explain his condition. He said, "I'm very lucky."

7. Response to Question 6

Please provide your views on methods 1 – 5 for a restricted VR service. Are there any other methods that are not mentioned that we should consider? In making your response, please provide any information on implementation costs for these solutions which you believe is relevant.

- 7.1 Given that Ofcom is seeking views on whether or not it is obliged to make provision for an unrestricted VR service, it ought not, prior to considering responses to that question, to be consulting on the methods by which a VR service might be restricted. Sorenson considers that Ofcom is obliged to implement an unrestricted VR service and would expect Ofcom to address each of the points it has raised in that respect in the current consultation exercise.
- 7.2 A restricted VR service would do nothing to achieve functional equivalence, as it does not fulfil the obligation to guarantee access that is equal "*to the level available to other end-users*", as required under the USD. A restricted VR service would not even meet the criteria for assessing equivalence outlined by Ofcom itself. Our reasoning is set out above in the response to question 5.
- 7.3 Ofcom should seek to fulfil the legal obligation to provide functionally equivalent access for disabled end-users. Instead, Ofcom appears concerned with the quite different question of whether seeking to provide equivalent access for BSL users has a sufficient economic rationale and is therefore an objective that ought to be pursued in the first place. This approach is flawed.
- 7.4 We are disappointed that Ofcom has chosen to apply a different logic and approach to NGTR and VR services. It is proposed that NGTR would be provided on a 24 hour basis, seven days a week. Yet an unrestricted VR service is dismissed without any real effort to examine how it could potentially be achieved. Throughout its review,

⁶⁴ *Ibid.*, p. 4.

Ofcom demonstrates an interest in a restricted service only, soliciting feedback on various options for restricting VR and calling for comments on the "*specifics of...rationing options*".⁶⁵

- 7.5 Ofcom's proposals require Deaf end-users to make only those calls "*which deliver the highest value*",⁶⁶ subjecting them to a process of prioritisation and a series of limitations to which no hearing end-user is subject. This may discourage some Deaf end-users from registering for the service altogether. Furthermore, it treats all Deaf end-users as having identical communications needs and patterns of use. In reality, some Deaf people would choose to use VR for less than 30 minutes per month while some would use it for longer. Ofcom's proposal to cap their allowance would effectively penalise the very users who have the most to gain from an unrestricted VR service.

Ofcom's estimates of costs are inaccurate

- 7.6 Ofcom's estimates of the costs of an unrestricted service are based on incorrect calculations and projections. When calculating per minute costs, Ofcom fails to observe that this will inevitably decrease over time. This has clearly been the experience in the US as providers have become more efficient. In the early years VR service rates in the US were \$17 per minute; currently, the per-minute compensation rates for VR are between \$5.0668 and \$6.2390.⁶⁷ Meanwhile, the benefits of VR services to Deaf and hearing end-users have increased over time as end-users become more accustomed to the service and as Deaf end-users become more integrated into society. By failing properly to quantify benefits and focusing only on a snapshot of costs and benefits, Ofcom produces a distorted and inaccurate analysis of the costs of an unrestricted service.
- 7.7 Ofcom does not accurately allow for a fall in the costs of providing TR services as BSL users switch to VR. Ofcom assumes that at least a third of current TR service users are BSL users.⁶⁸ It also assumes that 2.5m TR minutes could be substituted for VR.⁶⁹ In fact, it would be unreasonable for any fewer minutes to be substituted given that under unrestricted provision the cost per minute of VR to the user (the cost of a local call) would be the same as for TR but would be five times more efficient. All BSL users would rationally choose to use VR instead of TR. Therefore, TR minutes, and subsequent operating costs, would fall by a third. Given the quoted ongoing yearly cost to BT of £4.4m, this equates to approximately £1.5m a year.
- 7.8 This figure should be deducted from Ofcom's medium scenario total cost, as this scenario represents the most likely levels of demand based on current demand in the US. The deductions should be adjusted downwards and upwards for the low and high demand scenarios, reflecting the fact that levels of demand for VR services would be closely related to levels of demand for TR services, as they are both services enabling

⁶⁵ *Ibid.*, p. 59.

⁶⁶ *Ibid.*, p. 51.

⁶⁷ *Order by the Federal Communications Commission*, FCC 11-104, 30 June 2011, p. 2, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-104A1.pdf

⁶⁸ Consultation, p. 26.

⁶⁹ *Ibid.*, p. 45.

the same objective – communication. If we assume that the proportion of total VR minutes that arise as a result of switching from TR remains the same in each scenario then there would be a reduction of 0.8m TR minutes in the low demand scenario and 7.2m minutes in the high demand scenario. Using a per minute TR cost of £0.59⁷⁰ this equates to £0.5m for the low demand and £4.2m for the high demand scenarios. Thus, the incremental costs should be the following:

Demand scenario	Total incremental cost (£m)	Incremental cost per user (£)
Low	12.1	1100
Medium	40.1	1823
High	109.2	3640

- 7.9 Furthermore, Ofcom states that VR in the US is "*costly to provide*"⁷¹ but without referring to any of the latest data available nor examining how this service is paid for and whether these costs are considered burdensome for telecommunications providers. US telecommunications providers contribute to a US fund and pass on the cost to their customers. This works out as between \$0.15 and \$0.20 per person per month in the US.
- 7.10 Ofcom also dramatically underestimates US uptake of VR by dividing Deaf households by the total Deaf population instead of accounting for the fact that there are often multiple Deaf individuals per household.
- 7.11 Ofcom also quotes the wrong compensation rate for VR in the US when assessing the likely cost of VR to the UK Government, resulting in inaccurate estimates. It reports that the current compensation rate in the US is between \$6.2372 and \$6.7025 per minute,⁷² which overstates the amount actually paid out from the fund. The Federal Communications Commission states that the per-minute compensation rates for VR are between \$5.0668 and \$6.2390.⁷³

Ofcom disregards the important benefits of an unrestricted VR service

- 7.12 VR provides a number of social and economic benefits. This has been publicly acknowledged by the Government, which has spoken of how "*the economic and social situation of many Deaf and hearing impaired people could be improved*"⁷⁴ if VR was available in the UK. The Consultation outlines these benefits but fails to quantify them, despite the availability of data. For example, the Consultation

⁷⁰ Using BT's costing information at para. 4.54 of the Consultation – £4.4m divided by 7.4m minutes.

⁷¹ *Ibid.*, p. 37.

⁷² *Ibid.*, p. 41.

⁷³ *Order by the Federal Communications Commission*, FCC 11-104, 30 June 2011, p. 2, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-104A1.pdf

⁷⁴ Statement by the Parliamentary Under-Secretary of State, Department for Work and Pensions, Lord Freud, House of Lords Written Answers 21 June 2011, Hansard.

mentions "increased employment opportunities".⁷⁵ Government guidance is available on how to quantify these benefits.⁷⁶ Despite this, Ofcom states that it does not view increased employment opportunities as a quantifiable benefit and largely disregards it in its analysis.

- 7.13 The rate of unemployment amongst Deaf people in the UK is four times higher than amongst the rest of the UK population.⁷⁷ The Europe Economics Report has shown that the introduction of universal unrestricted VR would directly create over 2,500 new jobs for Deaf people, BSL interpreters, and for the wider UK workforce, who would be necessary for the operation of VR. Many of these would be part time but this would be equivalent to over 1,000 full time posts. Given the serious rates of unemployment among the Deaf community and their disproportionate reliance on state support, it is unreasonable not to attempt to quantify the benefits of improving the social and economic situation of Deaf people, not only for the Deaf community but for wider society, Government and the economy.
- 7.14 The Europe Economics Report applied well established techniques to put a value on this additional employment. This approach is widely used in Government to assess the impact of policy interventions and it is entirely appropriate for evaluating the proposed introduction of VR as an obligation on telecommunications providers. It would be wrong for Ofcom to ignore such economic benefits in its appraisal. A significant proportion of new jobs could be taken by Deaf people and, given high levels of unemployment in this group, there should be little displacement from other employment. In fact, Europe Economics' estimates must be treated as lower bounds, for they do not include benefits related to increased wages for existing workers, nor the benefits relating to lower crime rates, reduced need for vocational programmes and improved public morale.
- 7.15 The economic benefits are estimated as follows:⁷⁸
- 7.15.1 The direct economic benefit from increased employment would, when VR is fully operational, be between £29m and £34m per annum; and
- 7.15.2 The multiplier impacts would be between £20m and £24m per annum.⁷⁹
- 7.16 It must also be remembered that these benefits relate to the expected level of demand based on Sorenson's US experience. This relates, therefore, to Ofcom's medium demand scenario which is also based on US experience. It must be recognised that in the low demand scenario, fewer resources would be needed to provide the services required, so the corresponding benefits would be lower. Conversely, in the high

⁷⁵ Consultation, p. 28.

⁷⁶ *Valuing the Benefits of Regeneration, Communities and Local Government, Volume I, 2010.* Available at <http://www.communities.gov.uk/publications/regeneration/valuingbenefitsregen>; *Additionality Guide*, English Partnerships, 2004, p. 24 ;

⁷⁷ *Opportunity blocked: The employment experiences of deaf and hard of hearing people*, Royal National Institute for Deaf People, 2007.

⁷⁸ Additional posts valued at earnings in the £25,000 to £30,000 range.

⁷⁹ A multiplier of 1.7 is taken, i.e. for each £1 of direct benefit there would be £0.7 of benefits associated with multiplier effects. This is consistent with guidance in the Treasury Green Book and associated guidance from English Partnerships (*Additionality Guide*, English Partnerships, 2004, p. 24).

demand scenario, more resources would be required to deliver the higher level of minutes demanded, thus leading to higher levels of income and job creation.

- 7.17 Consistent with Ofcom’s assumption of constant returns to scale,⁸⁰ we can therefore assume that the resources required, and therefore employment generation benefits, would vary in proportion to the demand for VR minutes. In the medium scenario, 13.2m minutes are associated with £29-34m of direct and £20-24m of indirect benefits. Thus, in the low demand scenario 4m minutes would be associated with £9-10m of direct and £6-7m of indirect benefits, while in the high demand scenario, 36m minutes would be associated with £79-92m of direct benefits and £55-64m of indirect benefits. The benefits associated with employment generation may thus be summarised as follows:

Demand scenario	Direct benefit (£m)	Indirect benefit (£m)	Total benefit (£)	Per user benefit (£)
Low	9-10	6-7	15-17	1354-1579
Medium	29-34	20-24	49-58	2234-2605
High	79-92	55-64	134-156	4467-5210

- 7.18 Even if a lower valuation is taken, to allow for greater displacement effects, these benefits are substantial in relation to the net costs of introducing VR. Also, greater displacement effects would be associated with higher benefits arising from wage increases, which have not been included in the estimates above.
- 7.19 With respect to improved workplace productivity resulting from VR, Ofcom questions whether VR will actually result in the time savings that the Europe Economics Report identifies. Ofcom argues that BSL users will already have access to VR through the Access to Work scheme. However, it is unrealistic to equate this managed scheme with the use that would be made of a full on-demand VR service. Ofcom presents its own analysis of time savings but seriously understates such savings by only considering savings of leisure time and savings of time from reduced use of TR. If only a quarter of the time saving from reduced use of TR is valued as work time, then the benefit rises from Ofcom’s estimate of £200,000 to around £450,000.⁸¹
- 7.20 Moreover, Ofcom’s time saving of 2m minutes annually is almost certainly an underestimate. Ofcom assumes that 2.5m TR minutes could shift to VR, and as VR is five times more efficient, this would give rise to 0.5m VR minutes. However, even Ofcom’s low demand scenario involves 4m VR minutes. The question must be asked as to whether the remainder of VR minutes all represent new demand, or whether they also arise from switching from other non-TR modes of communication such as SMS, internet instant messaging and email. Note that any such switching would involve an

⁸⁰ Consultation, p. 42.

⁸¹ Ofcom has used a value of leisure time of £6.09/hour based on updated values estimated by Department of Transport. The equivalent updated value of time for people in work is £36.48.

associated time saving.⁸² The extent of this switching is difficult to predict but given the projected growth in use of VR, only a small part of which is expected to come from reduced use of TR, switching from other text media could well be significant. The time savings from this switching should also be valued.

- 7.21 To make a very conservative estimate, we assume that only a quarter of non-TR related VR minutes in each scenario arise as a result of switching from other text based communication (with maximum communication speeds of 30 words per minute). Then a minute of VR (at 150 words per minute) would mean 4 minutes of saving. The time savings in addition to TR related time savings that arise in each of the demand scenarios are set out below:

Demand scenario	Time saving (m minutes)	Total value if all savings are leisure time (£m)	Per user benefit if all savings are leisure time (£)	Total value if quarter of savings are work time (£m)	Per user benefit if quarter of savings are work time (£)
Low	3.5	0.4	32	0.8	73
Medium	12.7	1.3	58	2.9	132
High	35.5	3.6	120	8.1	270

- 7.22 In addition, Ofcom should recognise that saving time is only one component of improved productivity. In fact, VR will make Deaf end-users more willing to engage in communications with hearing end-users and vice versa. In other words, the availability of VR would not result in productivity gains merely because it may replace older TR technology for some end-users; rather, it is likely to encourage productivity through communications that would not have taken place at all using the current TR service.

- 7.23 The Europe Economics Report estimated that the "*health benefits*" of VR, which might be better called improvements in the quality of life for Deaf people, could be worth £3,600 per user per annum. The report acknowledged the difficulty of making this sort of estimate and the limited amount of research available but used established techniques which are widely applied in the appraisal of health sector policies. Ofcom appears to have misinterpreted the comparison made between research on the benefits of hearing aids and VR and did not accept this as providing "*robust evidence*". Ofcom argues that "*we have seen no other evidence to support the assertion that having access to VR for 68 minutes per month yields the same benefit as having a hearing aid*

⁸² Time saving would not arise if conversations between two BSL users moved from other video-based communication channels to VR. However, the only such available tool is the use of webcams over the internet (such as Skype), and these services are completely free. So, there would be no such switching as even the unrestricted VR service would be more expensive (charged at a local call rate). Thus, we can be sure that any switching is associated with a time saving.

that enables the user to hear 24 hours per day".⁸³ This confuses access to a facility and use of it. The point at issue here is that VR should be a service with 24 hour access in the same way as a hearing aid. Yet, while making this criticism, Ofcom offers no alternative approach to valuing this key aspect of VR but still feels able to conclude that costs "could significantly outweigh the potential benefits which might accrue to users of a VR service and society more generally."⁸⁴

- 7.24 Ofcom has announced that it intends to consult on the costs and benefits of VR again in the first half of 2012. Based on its clear unwillingness to fully quantify the benefits of VR in the current Consultation, it is unclear how Ofcom will be able to conduct an accurate and thorough cost-benefit analysis in this forthcoming review. However, the analysis presented here indicates that when benefits from employment, time saving and health are taken into account the benefits per user are significantly greater than the cost even in the higher cost scenario.⁸⁵

Ofcom overstates the potential obstacles to an unrestricted VR service

- 7.25 While downplaying the benefits of VR, the Consultation emphasises obstacles to unrestricted VR, such as shortage of interpreters, without any real consideration of potential solutions, despite the availability of experience of VR provision in other countries. The figure of 519 interpreters quoted by Ofcom⁸⁶ is incorrect. According to Signature, which administers the National Registers of Communication Professionals working with Deaf and Deafblind People, there are approximately 1000 registered interpreters in the UK. This level of interpreter registration reflects the fact that there are currently very few jobs for registered BSL interpreters in the UK, so relatively few people register. That would change, of course, after the launch of VR and if a sustainable funding model is agreed.
- 7.26 Ofcom also makes claims about the costs of providing overnight interpreters as part of a 24/7 service without looking at how US providers have managed that expense while providing competitive, high-quality and differentiated services to Deaf end-users. As the leading provider of VR in the US, Sorenson has invested millions in the development and training of interpreters and a broader employee base, which has grown significantly over recent years. For example, the number of registered interpreters in the US was approximately 5,000 when VRS began; now there are 15,000. If a sustainable platform for investment is created in the UK, the shortage of interpreters could easily be addressed as Sorenson and other VR providers would be able to make proportionate investments in the UK.

Methods for restricting provision

- 7.27 Ofcom has suggested various methods for restricting the provision of VR. In summary, while restricted VR may fulfil certain financial or practical considerations

⁸³ Consultation, Annex 9, para. A9.30.

⁸⁴ Consultation, p. 49.

⁸⁵ The comparisons of costs and benefits given here are for costs and benefits in a single year. This allows comparison to be made using the values in Ofcom's report. A full cost benefit analysis should compare net present values of costs and benefits over a period of years.

⁸⁶ Consultation, p. 46.

Ofcom has set itself, it clearly does not fulfil the obligation to ensure equivalence in access for disabled end-users, as mandated under the EU Framework.

- 7.28 Further, Ofcom's purported economic rationale for justifying restrictions on the provision of VR is inadequate. Ofcom suggests that providing VR on a restricted basis would reflect the decreasing value that Deaf users place on incremental minutes of service. This analysis misses two key points:
- 7.28.1 The core reasoning behind providing any subsidised service is that it generates benefits in addition to those accruing solely to the user (externalities), and so if the service was made available unsubsidised there would be a lower than efficient uptake. Restricted provision would only be efficient if these additional benefits applied only to those units of use that satisfied the restrictions. This is clearly not the case with any sort of restriction. For example, it would be incorrect to think that calls made at night generate no externalities while those made during the day do, or that the first 30 minutes of calls are associated with externalities but not subsequent minutes.
- 7.28.2 Ofcom assumes that users would be able to plan ahead so that their most essential usage satisfies the restrictions necessary to take advantage of the subsidised rate. However, this would only hold if users could plan their usage. In reality, usage is unpredictable – it is affected by demands at work, or emergencies in general. In the face of this uncertainty users will not be able to plan adequately and there will be several instances of "valuable" communication taking place which does not satisfy the restrictions imposed.
- 7.29 None of the methods for rationing put forward by Ofcom overcome these legal and economic objections.

Method 1: Time of day restrictions

- 7.30 At the outset of the Consultation, Ofcom identifies the ability to have access to new services "*whenever they are required*" as an essential criterion for assessing whether a service is functionally equivalent or not.⁸⁷ The Opinion Leader Report also identifies this as the second most important feature of a communication service for people who are Deaf or have speech difficulties, with 85% of participants saying it was important or very important to them. As the report notes, "*participants widely believed that 24/7 availability was necessary to ensure that those who were Deaf or had speech difficulties had the same access to services as others in the community*".⁸⁸ Put simply, "*those who have difficulty hearing or speaking want to communicate at the same times and in the same ways as others*".⁸⁹
- 7.31 This element of availability is central to the concept of functional equivalence. As explained at paragraph 1.11 of our response, functional equivalence requires that "*equivalence in disabled end-users' access to services should be guaranteed to the level available to other end-users*".⁹⁰ It is difficult to imagine how equivalence in

⁸⁷ *Ibid.*, p. 10.

⁸⁸ Opinion Leader Report, p. 39.

⁸⁹ *Ibid.*, p. 39.

⁹⁰ Recital 12, USD.

access "to the level available to other end-users" can be said to be provided when access for disabled end-users is limited to certain days and certain times of the day while it is unlimited for other end-users.

- 7.32 Ofcom argues that time of day restrictions are justified on the grounds that "*most benefit to BSL users would be likely to come from increased ability to contact businesses and public bodies*".⁹¹ It is unclear what evidence this statement is based on. It also ignores the many other needs of Deaf end-users. Deaf people wish to communicate for much the same reasons as hearing people, such as contacting friends and family, ordering a taxi or pizza delivery.
- 7.33 Moreover, time of day restrictions do not take account of the fact that the number of calls to emergency services often increase at night time. NHS data shows that in 2009-10, 2,065,146 A&E attendances by ambulances or helicopter took place between 6pm and 8.59am, as compared with 1,859,773 between 9am and 5.59pm.⁹² NHS figures also show that, in 2007/8, 8.6m calls were made to out of hours GP services.⁹³ These statistics clearly illustrate the importance of access to emergency services outside working hours. As the VR service provider handling the largest number of emergency calls for the Deaf in the US, Sorenson confirms that the timing of emergency calls for the Deaf mirrors that of the hearing, with a significant number of calls being placed late at night and in the early hours of the morning.
- 7.34 This trend is not restricted to NHS emergency services. For example, in 2008, 46% of accidental dwelling fires and 65% of deliberate dwelling fires in the UK occurred between 6pm and 5.59am.⁹⁴ Casualty rates are also significantly higher during the night - most casualties in accidental dwelling fires occurred between 6pm and 5.59am (55%) while over two thirds of casualties in deliberate dwelling fires occurred between 6pm and 5.59am (70%).⁹⁵ Official statistics also show that 43% of accidental fires in road vehicles started between 6pm and 5.59am.⁹⁶
- 7.35 Ofcom justifies the time of day restrictions partly on the basis of experience in other countries in which a restricted service has been introduced. However, one of the countries relied on – New Zealand – is not subject to the same legislation mandating functional equivalence as the UK is, and its model should not be imported simply because it is expedient to do so (in its apparent support for Ofcom's cost efficiency arguments).⁹⁷ Furthermore, there is no examination of the experience of Deaf users in those countries, to understand whether their communication needs are, in fact, being met under a restricted system.

⁹¹ Consultation, p. 50.

⁹² *Accident and Emergency Attendances in England (Experimental Statistics) 2009-10*, National Health Service, Health and Social Care Information Centre, Hospital Episode Statistics, 19 January 2011, p. 16.

⁹³ *Guidance for commissioning integrated Urgent And Emergency Care, A 'whole system' approach*, Royal College of General Practitioners Centre for Commissioning, August 2011, p. 21.

⁹⁴ *Fire Statistics, United Kingdom, 2008*, Department for Communities and Local Government, November 2010, para. 2.39.

⁹⁵ *Ibid.*, para. 2.39.

⁹⁶ *Ibid.*, para. 4.7.

⁹⁷ It is also best to exercise caution when referring to current provision in other EU Member States, as those practices were developed under the old qualified form of Article 7(1) USD. The new Article 7(1) USD imposes a different obligation.

- 7.36 Ofcom also states, in relation to the UK, that "*commercial VR is not available 24 hours a day, 7 days a week...owing to the high costs of running the service overnight and the costs associated with hiring BSL interpreters*".⁹⁸ This misses the point for two reasons: (i) there is not a 24/7 service in the UK because there is not a sustainable funding model for relay services, and (ii) there is now an obligation to introduce a functionally equivalent service as outlined at paragraphs 1.8 to 1.16. Indeed, the observation that there is currently no 24/7 service in the UK demonstrates precisely why a funding mechanism is needed in order to support such a service.

Method 2: Financial cap

- 7.37 Ofcom argues that a financial cap is one method of preventing the "*unreasonable accelerating costs*" of providing VR services.⁹⁹ This is an assumption that is not borne out by the experience of other countries in which unrestricted VR services have been implemented. While VR usage in the US in the early years of provision was high, the average is now between 60 and 65 minutes of VR per month across all customers (including those who do not use VR minutes, but merely use the equipment to make Deaf-to-Deaf calls).
- 7.38 In the UK, there are a finite number of BSL users and a finite number of hours in the day. The number of users and minutes of usage are likely to increase in the first few years of the service and then level off as has happened in the US. This is both predictable and manageable.
- 7.39 This proposal is another example of Ofcom's focus on controlling costs for communications providers rather than seeking to meet the UK's obligations under the revised EU Framework. A restricted system based on a financial cap cannot meet the requirement for a functionally equivalent service for disabled end-users.

Method 3: Monthly allocation of minutes

- 7.40 This proposal again conflicts with the concept of equivalence. Ofcom argues that restrictions would mean users could "*make their most important calls (i.e. those which deliver the highest value) but would forgo making their less important (and therefore less valuable) calls*".¹⁰⁰ However, functional equivalence in access requires allowing disabled end-users to enjoy the same level of usability of services as hearing people. The proposal to restrict the level of usage would not fulfil this definition. As outlined at paragraph 6.5 above, restricting the level of use forces disabled end-users to prioritise their calls according to "value", an artificial process that is not required of hearing users who are able to make calls naturally and without the need for careful rationing.
- 7.41 It also goes against one of the six key conditions identified by participants in the Opinion Leader Report as being the most important to achieving barrier-free communication – the principle that "*access should be free at the point of use*", since

⁹⁸ Consultation, p. 38.

⁹⁹ *Ibid.*, p. 51.

¹⁰⁰ *Ibid.*, p. 51.

Ofcom suggests that users would have to pay for extra minutes should they wish to go over their monthly allocation.¹⁰¹

7.42 The allocation proposed by Ofcom, 30 minutes per month, is also flawed in a number of respects:

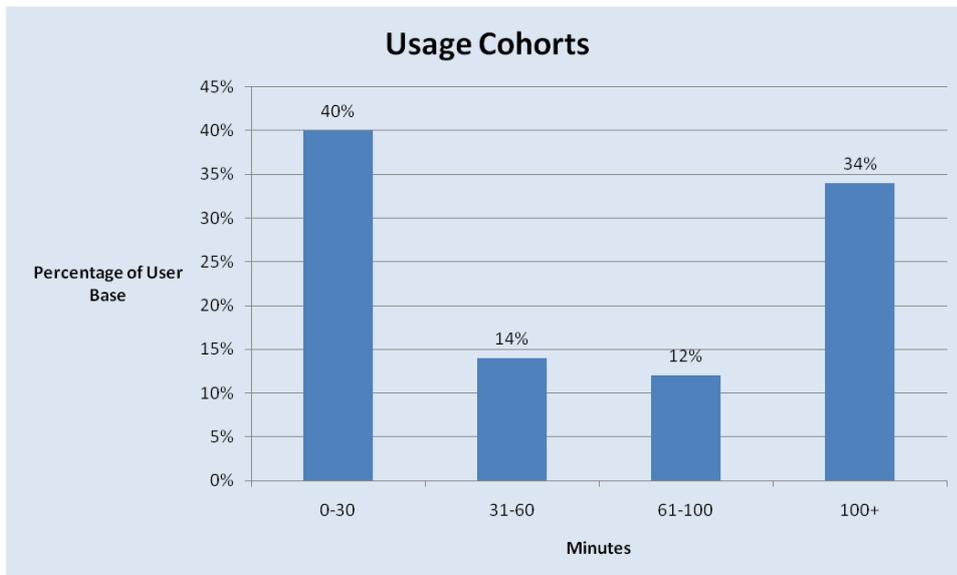
7.42.1 This amount is calculated on the basis of usage in countries in which VR services are provided on a restricted basis only, which does not allow a true reflection of how much users need it;

7.42.2 The references to US usage are misleading. Many US VR customers have very low usage per month. If Ofcom removed those people who do not use VR minutes at all but merely use VR equipment for Deaf-to-Deaf calls, then the average minutes per user would be much greater. US data shows that average use of VR across all customers is approximately 63 minutes per month but when this figure is refined to only those customers who use VR minutes, the average usage jumps to 120 per month. Thus, 30 minutes would be far too low to fulfil the needs of an average user who uses VR minutes;

7.42.3 Limiting usage to 30 minutes is inefficient as it disadvantages heavy users while leaving low users with unused minutes; and

7.42.4 If each allocation includes incoming as well as outgoing calls the proposed 30 minutes are even more restrictive than they first appear. Users would be left with no means of controlling their usage. Their 30-minute allocation could be used without them ever having placed an outgoing call.

7.43 As the chart below, based on experience of VR usage in the US, shows, 60% of VR users would be underserved by Ofcom’s restriction of 30 minutes. This treatment of all Deaf users as having identical communications needs and patterns of usage effectively penalises the users who have the biggest need for the service.



¹⁰¹ Opinion Leader Report, p. 4.

- 7.44 This model also suffers from the two key economic inefficiencies identified above; it implies that usage beyond 30 minutes generates no social benefit when this is clearly not true and it assumes that users have prior knowledge of their usage requirements. Moreover, it is hard to see how the cost-benefit analysis for this model would be more favourable than for the unrestricted case:
- 7.44.1 Given that only part of the service would be subsidised, there would be lower uptake. However, given constant returns to scale, the per minute costs of provision would be the same;
 - 7.44.2 For the part that is subsidised, the cost-benefit analysis would work in exactly the same way as for the unrestricted case; the benefits in terms of employment, time saving and improved quality of life would be of a smaller magnitude, relating to only the subsidised minutes. The operating costs would also be smaller by the same proportion, as a 24-hour service would still be required under this option; and
 - 7.44.3 However, the additional costs of administering the system (creating accounts and policing) would need to be taken into account for this option. Therefore, if this option is deemed to have a positive cost-benefit comparison, the unrestricted case would have a more desirable comparison as it does not include the additional costs of rationing.

Method 4: Differentiating between work place and private use

- 7.45 As outlined above at paragraphs 1.11 to 1.16, functional equivalence in access requires allowing disabled end-users to enjoy the same level of usability of services as hearing people. Hearing users and users of NGTR or even TR would not be subject to these restrictions and neither should users of VR.

Method 5: Call booking system

- 7.46 This proposed restriction again conflicts with the concept of equivalence. Ofcom argues that requiring users to book could "*reduce demand...as users would be required to plan and prepare in advance for long calls, which may not be convenient for them and make the service less attractive to them*".¹⁰² As the aim of any proposals should be to guarantee functional equivalence for disabled users, introducing a service that is likely to be inconvenient and unattractive to them should not be viewed as any form of advantage. Functional equivalence requires enabling disabled users to enjoy the same level of usability as hearing people. This method of restricting usage forces disabled users to plan and schedule their calls in advance, a process that is not required of hearing users who are able to make calls naturally and without the need for planning.
- 7.47 It is of some concern that, in considering the advantages and disadvantages of this method, Ofcom gives greater consideration and weight to the mechanics of the system – whether it would help control demand and costs, whether it would allow more efficient deployment of interpreters – while giving little consideration to whether such

¹⁰² Consultation, p. 53.

a proposal would actually meet the needs of Deaf users and deliver functional equivalence, the key obligation in the EU Framework.

- 7.48 Apart from suffering from the two key economic inefficiencies identified above of any rationing model (see paragraph 7.28 above), this model suffers from a further inefficiency. It fails to recognise a key insight from economic literature; that the timing of consumption is an integral defining characteristic of a good or service that affects the utility the consumer derives from it. The role of timing is heightened when it comes to communication; communication about a certain issue often needs to take place at a certain time as other actions may depend on that conversation. Coupled with the fact that the need to communicate may arise without warning, a booking system may mean a real delay in communication, which can drastically reduce the value of that communication.

8. **Response to Question 7**

Do you agree that a monthly allocation of minutes combined with a weekday/business hours service would be the most appropriate means to restricting the service?

- 8.1 The combination of restrictions proposed by Ofcom certainly represents the most restrictive option which could be introduced to limit access to a mandated VR service. Once again, this misses the point and fails to discharge the UK's legal obligations. The purpose of the changes to telecommunications provision is not to restrict access and minimise costs. Rather, the aim is to guarantee equal access to electronic communications services for end-users with disabilities. It appears that Ofcom's proposals to provide a restricted VR service are motivated by considerations of proportionality. However, such an approach ignores the fact that the substantive obligation under Article 7 USD to provide equivalence in access and affordability is unqualified by a requirement of proportionality. Considerations of proportionality can only become relevant if there is available more than one means of discharging that obligation. Given that only the provision of VR on an unrestricted basis could satisfy Article 7 in respect of BSL users, no considerations of proportionality can justify imposing restrictions on the provision of VR.
- 8.2 While restricted VR may fulfil certain financial or practical considerations Ofcom has prioritised, the methods set out in Ofcom's proposal do not fulfil the obligation to ensure equivalence in access to and affordability of telecommunications services for disabled end-users, as mandated under the EU Framework.
- 8.3 Please refer to our responses to questions 5 and 6 for a detailed analysis of why unrestricted VR is mandated by the EU Framework and why any restrictions on the provision of VR will inherently conflict with the obligation to provide functional equivalence.
- 8.4 While we believe that the introduction of unrestricted VR is vital to meet the UK's obligations, it is to be expected that a 24/7 service will take some time to be developed and implemented. Investment and business planning are required in order to build a sustainable and reliable service. However, Ofcom's proposals would



effectively prevent this from developing and would introduce a service that would not only fail to fulfil the UK's obligations under the EU Framework, but would also serve to perpetuate the disadvantages and discrimination Deaf end-users currently face. We therefore strongly recommend the introduction of unrestricted VR as the only technology which provides functionally equivalent access to telecommunications services for the UK's Deaf community.

- 8.5 We are happy to share our experience and provide any additional information that might prove useful in the next stages of Ofcom's work in this area.

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ANNEX 1

OPINION LEADER REPORT

- Ofcom's conclusions on VR services appear to be largely based on market research conducted by Opinion Leader over the course of 2010. Of 323 participants who took part in the quantitative research, 53 were BSL users. 319 of the 323 participants responded online while the remaining four completed a paper questionnaire. Given that Ofcom recognises that BSL is an entirely separate language and that BSL users may have difficulties with written English, it is disappointing that these methods were chosen. This raises serious questions as to the reliability of the findings and the credibility of the research, and displays a disregard for the needs of a significant constituent of the target audience. Ofcom explicitly recognises this, noting that "*the results of the research...do not appear to be reliable enough to estimate the benefits of relay services robustly in quantitative terms*".¹⁰³ Ofcom should not be issuing recommendations on the basis of information that it acknowledges is unreliable.
- While recognising the shortcomings of the Opinion Leader Report, Ofcom repeatedly draws on it quantitatively and relies on it to draw many of its conclusions. However, a comparison of the Consultation's sections on NGTR, CT and VR shows glaring inconsistencies in Ofcom's approach. While emphasis is placed on the benefits of NGTR and wide use of the Opinion Leader Report is made to support this, reference to the disadvantages of faster TR mentioned by participants in that research are markedly absent. In contrast, the Consultation's section on CT focuses disproportionately on the criticisms made of CT in the Opinion Leader Report, while omitting to mention "*the strong levels of support that this service received in the qualitative research*"¹⁰⁴ and the finding that "*the most important benefit offered by captioned telephony was the possibility it offered of a communications experience that was very close to that experienced by hearing people*".¹⁰⁵ This latter finding, it would appear, should be of direct relevance to Ofcom's assessment of which of NGTR and CT can best fulfil the standard of functional equivalence, yet it is not mentioned anywhere in the Consultation.
- Similar inconsistencies are also found in Ofcom's use of the Opinion Leader Report's findings on VR in the Consultation. While 68% of BSL users questioned said that VR would be very useful or quite useful to them,¹⁰⁶ this is not mentioned in the Consultation. Furthermore, Ofcom uses the Opinion Leader Report's findings to estimate average usage of NGTR services per month. However, when it comes to estimating average usage of VR services per month, it does not take into account or even mention the findings in the Opinion Leader Report that 38% of BSL users questioned said they would use VRS at least once a day.¹⁰⁷ This finding indicates that average monthly VR usage by BSL users is likely to exceed the 30 minutes allocation Ofcom proposes.

¹⁰³ Consultation, p. 26.

¹⁰⁴ Opinion Leader Report, p. 69.

¹⁰⁵ *Ibid.*, p. 70.

¹⁰⁶ *Ibid.*, p. 73.

¹⁰⁷ *Ibid.*, p. 80.

- Furthermore, the qualitative research from which Ofcom draws a number of negative conclusions regarding VR involved only 94 respondents. Only 9 of these were BSL users, representing less than 0.02% of the UK BSL population.¹⁰⁸ It is unclear how many of these had experience of VR prior to the research. Ofcom states that "*some participants had used VR services before*" but in a response to a Freedom of Information request regarding the research Ofcom states that they have no information of whether any of the participants had any VR experience.¹⁰⁹

¹⁰⁸ *Ofcom Response to Freedom of Information: Right to know request 1-184962747*, 3 August 2011.

¹⁰⁹ *Ibid.*