

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Structure and Practices of the Video Relay Service) CG Docket No. 10-51
)

COMMENTS IN RESPONSE TO NOTICE OF INQUIRY

Telecommunications for the Deaf and Hard of Hearing, Inc. (“TDI”), through its undersigned counsel, National Association of the Deaf (“NAD”), Association of Late-Deafened Adults, Inc. (“ALDA”) and California Coalition of Agencies Serving Deaf and Hard of Hearing, Inc. (collectively, the “Consumer Groups”), hereby respectfully submit these comments in response to the Federal Communication Commission’s (“FCC” or “Commission”) February 17, 2011 Public Notice (“*Public Notice*”) in the above-referenced proceeding.¹

The Consumer Groups again applaud the Commission’s continuing efforts to improve telecommunications services for the deaf, hard of hearing, deaf-blind and speech-disabled communities, and in particular its attention to the potential and challenges of Video Relay Services (“VRS”). The Consumer Groups have welcomed the chance to provide input throughout this proceeding on these important issues and hereby provide additional information for the Commission’s consideration in meeting these vital policy goals.

I. DISCUSSION

In the *Public Notice*, the Commission has asked commenters to provide “quantitative data and comments, based on systematic primary or secondary research, where it is available” on a

¹ *Consumer And Governmental Affairs Bureau Seeks Comment On Application Of New And Emerging Technologies For Video Relay Service Use*, Notice of Inquiry, DA 11-317 (rel. Feb. 17, 2011).

number of specified issues regarding features, functionalities, advantages, disadvantages, limitations and consumer use patterns of various VRS-related technologies. These are useful and important questions to pursue and the Commission’s desire to gain further understanding of them is appropriate. One threshold caveat, however, must be given: to date, to the Consumer Groups’ knowledge, no comprehensive, authoritative studies have been conducted of these questions. The sole research that is currently available has been developed by service providers and equipment manufacturers and represents their perspective on the usage and purchase patterns they have encountered.

In particular, this existing research does *not* represent the experiences and perspectives of the users of VRS services and equipment. Yet these experiences and perspectives are indispensable for answering the bottom-line question of whether various equipment, software and service platforms and standards will meet the fundamental statutory requirement that “telephone transmission services ... provide the ability for an individual who has a hearing impairment or speech impairment to engage in communication by wire or radio with a hearing individual in a manner that is *functionally equivalent* to the ability of an individual who does not have a hearing impairment or speech impairment to communicate using voice communications services by wire or radio.”² Functional equivalence is measured, under this governing definition, by examining the ability of *users* to engage in communication. Thus, only studies that directly address user experience can provide probative evidence that will enable the Commission to carry out its statutory responsibilities. The Consumer Groups urge the Commission to commission such a study, to be conducted by an independent organization not affiliated with any stakeholder

² Americans with Disabilities Act (“ADA”), 47 U.S.C. § 225(a)(3) (emphasis added).

in the debate, to thoroughly examine user experience and needs in light of the important questions raised by the Commission in the *Public Notice*.

While the scope of such a study should be comprehensive, a number of topics are obvious candidates for inclusion:

- the quality and reliability of the customer service experience (or lack thereof);
- a survey of communication preferences in general to understand how many users prefer ASL, sign supported English (transliteration), oral transliteration, Voice Carry Over (VCO), use with cochlear implants or hearing aids, or combinations of the above;
- the usefulness of mechanisms enabling users to permanently or temporarily establish their communication preferences (close-up, oral transliteration, signed transliteration, etc.) in order to be connected with an interpreter promptly with the appropriate skills; and
- the experience of Spanish (and other non-English) signing/speaking VRS users.

Of course, there are any number of other topics that would be appropriate and the Consumer Groups would be glad to continue to provide input into the design of such a study.

The Consumer Groups have, however, conducted an informal survey of a sample of users in an effort to provide preliminary information on user experience and needs in this area. The survey was distributed to members of the deaf and hard of hearing community via the mailing lists of two of the Consumer Groups (TDI and NAD) and using social media (Twitter, Facebook). While the survey does not possess the statistical rigor that a more comprehensive study would require, it did elicit more than 270 responses that, given the targeted respondent group, can be taken as typical of user experience in this area. A summary of the questions asked and responses received in this survey is attached as Appendix A. Among the key findings of the survey are these:

Many users have needed to avail themselves of multiple channels to meet their needs.

For example, a full 27% of respondents have four or more videophone numbers (Question 1). Moreover, of the 92% of respondents who use videophone technology of one form or another (Question 2), a number use not only videophone devices (86%) but also specialized computer videophone applications (e.g., P3, Z4, ConvoAnywhere) (51%) and/or mobile devices (e.g., iPhone, Evo, Epic) (26%) for videophone services. These users also find themselves having to make use of other, non-specialized systems, such as cell phones/text pagers (78%), off-the-shelf video communications computer software (e.g., Skype, ooVoo, Google video) (42%) and off-the-shelf mobile applications (24%) (Question 3).³

As a result, the total for all these devices and applications is 307% -- so that on average these respondents use more than three communications systems each. While this is on the one hand a testament to the number and variety of devices available, it is also troubling, in that many users have to use so many devices and numbers to avail themselves of services which, for hearing users, are much more straightforward, requiring at most two numbers and as many devices.⁴ For example, one user reports having five videophone devices at home and four more at the office to ensure that he has a seamless and interoperable experience with the full features that he needs. Hearing users require far fewer devices to meet their needs. This discrepancy bespeaks the lack of uniformity and interoperability which plague VRS users and, to say the least, render their experience less than the “functional equivalent” required by law.

³ Because of a reproduction problem, the percentage column is cut-off in Question 3 in Appendix A. The numbers and percentages of responses are:

Cell Phones/Text Pagers: 212 responses, 78%

Video Communications software on computer such as Skype, ooVoo, Google Video: 115 responses, 42%

Video Communications software on mobile devices such as Apple's FaceTime, Skype, Fring : 66 responses, 24%

I do not use any of these other systems : 37 responses, 14%

⁴ Moreover, as noted in the Consumer Groups' Comments in Response to Notice of Inquiry, filed August 18, 2010, in this proceeding, at pages 11-13, such equipment is considerably more expensive than standard telephone equipment, further multiplying the burden on our communities' users.

This need for further progress in the interoperability of relevant systems is further confirmed by the fact that nearly three-quarters of users believe that public systems for text/video should be adapted to work properly with the relay network (Question 4); and that users who experience problems making calls to other types of videophones (54%) outnumber those who do not have such problems (22%) by more than two to one (Question 9). It has been decades since hearing users have had any such issues, and if even a small fraction of hearing users encountered problems connecting their telephones with other types of phones, the outcry would be enormous. Clearly, the need to remedy these issues with regard to VRS is critical.

The need is all the more critical because of the degree to which *dependence on VRS services has grown*. A full two-thirds of respondents report that they no longer use text telephones at all, while another 12% use them less than once a month (Question 11). And a full 79% would prefer to use VRS to call 9-1-1, though many also acknowledge the need to have available other means for reaching 9-1-1, including text relay, TTY, captioned telephone, SMS/text and/or e-mail (Question 12).

A further issue of concern is that *access in the work environment to relay services is often problematic* – including not only VRS but also captioned telephone and IP relay. Of the 60% of respondents for whom this is a concern (Question 10), nearly a third (19%) report that they either cannot access such services at work or have difficulty doing so. This is a major concern and the Commission should promptly take steps to alleviate it.

Finally, several of the questions elicited information concerning *features that users find useful today, or would find useful, in making their experience more satisfactory*. Thus, 89% use various value-added services such as text alerts of incoming or missed calls, VRS interpreters or other users leaving recorded video messages on videophones or mobile devices, or e-mailed text

messages, but 11% report having no access to these services (Question 8). More than 80% believe that VRS should have the capability of showing the call recipient, the VRS interpreter and the hearing caller on screen at the same time (Question 7). And Question 5 shows the proportions of users of hearing aids or cochlear implants that use telecoil/"T" switch, Bluetooth or direct link/boot systems to connect with mobile phones. The Commission should take into account these user experiences and needs in moving forward with concrete steps, standards and requirements in the VRS area.

Finally, in response to the Commission's request that parties comment on which specific features or functions are necessary or desirable for VRS users, the Consumer Groups recommend, based on discussions among themselves and with their members, that the following features be considered necessary ones:

- Devices should be available that are designed to be extremely easy for elderly persons to operate.
- Users should be able to easily see if their intended party is actually connected (e.g., in the manner that Google Video, Skype or various chat services show availability). By the same token, users should be able to protect their privacy by toggling this indicator on and off with regard to their own availability.
- Anyone making a mobile 9-1-1 call should be able to utilize the smartphone's GPS capability to relay location information to the PSAP.
- Every effort should be made to ensure a high level of video quality without disconnecting the call or encountering highly-pixelated screen – with particular attention paid to high quality recording of motion, which is critical to the usefulness of these services.
- Users should have the ability to leave video mail messages.

In addition, users should be able to have a multiple party video call P2P, though this capability could be optional with the exception that the ability to see both video interpreter and caller in a VRS call should be required.

II. CONCLUSION

The Consumer Groups welcome the opportunity to provide the Commission with additional information regarding VRS users' experience and needs. The information provided by the Consumer Groups shows that the experience of the deaf, hard of hearing, deaf-blind and speech-disabled communities with telecommunications services still has a way to go to become functionally equivalent to that of hearing users. The Consumer Groups urge the Commission to commission a comprehensive independent study of the needs and experiences of the deaf, hard of hearing, deaf-blind and speech-disabled communities and to continue to act expeditiously to meet the objectives of the ADA.

Respectfully submitted,

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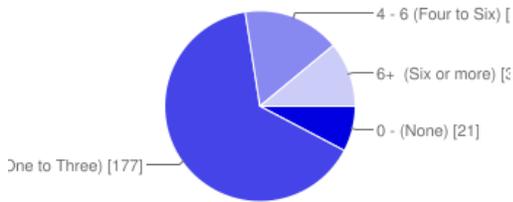
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APPENDIX A
SUMMARY OF SURVEY RESULTS

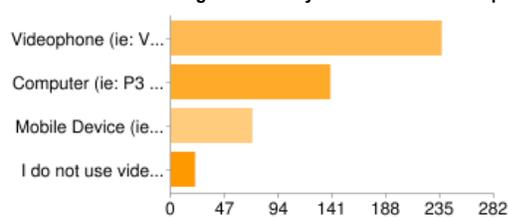
Summary [See complete responses](#)

1. How many different videophone numbers do you have?



0 - (None)	21	8%
1 - 3 (One to Three)	177	65%
4 - 6 (Four to Six)	45	16%
6+ (Six or more)	30	11%

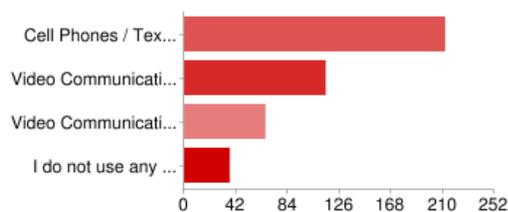
2. Which of the following devices do you use to make videophone calls?



Videophone (ie: VP200, ZVRS-340, SnapVRS Ojo, Purple MVP)	236	86%
Computer (ie: P3 software, Z4 software, ConvoAnywhere)	139	51%
Mobile Device (ie: iPhone, Evo, Epic, etc.)	71	26%
I do not use videophones	21	8%

People may select more than one checkbox, so percentages may add up to more than 100%.

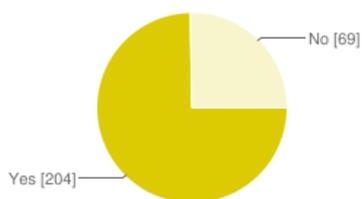
3. What other types of electronic communication systems do you use? (Instant messaging, e-mail, voice chats, etc.)



Cell Phones / Text Pagers	212	77%
Video Communications software on computer such as Skype, ooVoo, Google Video	115	42%
Video Communications software on mobile devices such as Apple's FaceTime, Skype, Fring	66	24%
I do not use any of these other systems	37	13%

People may select more than one checkbox, so percentages may add up to more than 100%.

4. VRS uses many different technologies which sometimes does not work with popular messaging systems for text/video. Should such public systems be adapted to access the relay network?

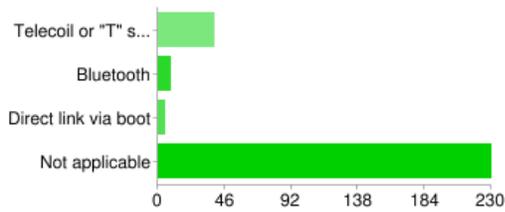


Yes	204	74%
No	69	25%

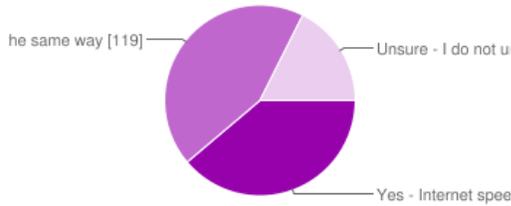
5. If applicable, how do you connect your hearing aid or cochlear implant with your mobile phone?

Telecoil or "T" switch	39	14%
Bluetooth	9	3%
Direct link via boot	5	2%
Not applicable	230	84%

People may select more than one checkbox, so percentages may add up to more than 100%.

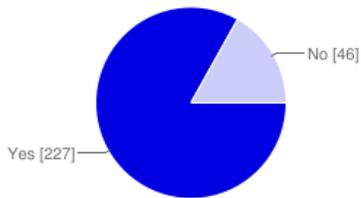


6. Would you be comfortable with your Internet Service Provider speeding up your relay call and slowing down other traffic? Or should all internet traffic be treated the same?



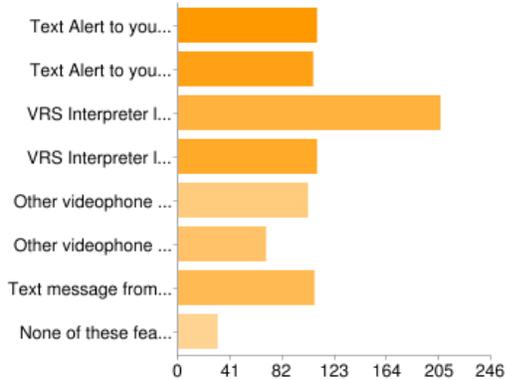
Yes - Internet speeds should be regulated	106	39%
No - All internet traffic should be treated in the same way	119	43%
Unsure - I do not understand	48	18%

7. Should Video Relay Services have the capability of showing yourself, the video interpreter AND the hearing caller onscreen at the same time?



Yes	227	83%
No	46	17%

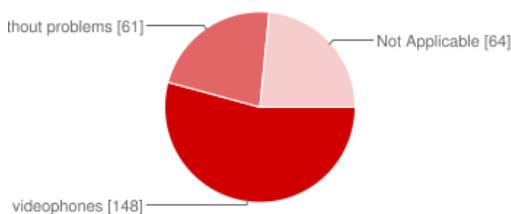
8. What "value-added" relay service features do you use most often?



Text Alert to your mobile device of incoming calls	109	40%
Text Alert to your mobile device of missed calls	106	39%
VRS Interpreter leaving a recorded video message on your videophone	206	75%
VRS Interpreter leaving a recorded video message on your mobile device	109	40%
Other videophone user leaving a recorded video message on your videophone	102	37%
Other videophone user leaving a recorded video message on your device	69	25%
Text message from the Relay Service is emailed to me	107	39%
None of these features are available to me	31	11%

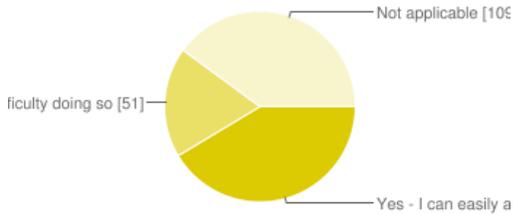
People may select more than one checkbox, so percentages may add up to more than 100%.

9. Do you frequently have difficulty making calls to people using videophones different from yours?



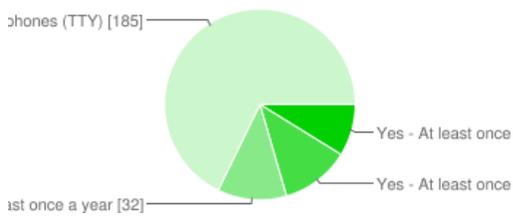
Yes - I often have problems making calls to other types of videophones	148	54%
No - I can make calls without problems	61	22%
Not Applicable	64	23%

10. At work, are you easily able to access relay services such as Captioned Telephone, Video Relay Service and/or IP Relay?



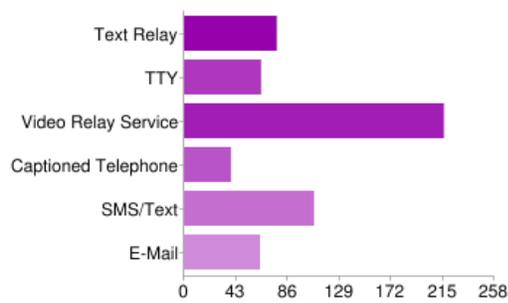
Yes - I can easily access these services	113	41%
No - I cannot access them or I have difficulty doing so	51	19%
Not applicable	109	40%

11. Do you still use text telephones (TTY/TDD) on a regular basis? If so, how often?



Yes - At least once a day	24	9%
Yes - At least once a month	32	12%
Yes - At least once a year	32	12%
No - I no longer use text telephones (TTY)	185	68%

12. In an emergency situation, which methods would you prefer to use to call 9-1-1?



Text Relay	77	28%
TTY	64	23%
Video Relay Service	216	79%
Captioned Telephone	39	14%
SMS/Text	108	40%
E-Mail	63	23%

People may select more than one checkbox, so percentages may add up to more than 100%.

Number of daily responses



Number of responses without dates: 1