

2012 07 26

To: Mr. John Traversy  
Secretary General  
Canadian Radio-television and  
Telecommunications Commission  
Ottawa, Ontario  
K1A 0N2

Subject: **Broadcasting and Telecom Regulatory Policy CRTC 2009-430 - Accessibility of Telecommunications and Broadcasting Services (BTRP 2009-430) - Responses to Requests for Information Regarding Relay Services**

Dear Mr. Traversy,

1. Pursuant to the process set out in the Commission's letter of 22 June 2012, Bell Aliant Regional Communications, Limited Partnership (Bell Aliant), Bell Canada and Télébec, société en commandite (Télébec) (collectively, the Companies), are hereby providing their responses to the requests for information from the Commission in their letter of 25 May 2012, related to the Message Relay Service (MRS) and Internet Protocol Relay Service (IPRS) provided by the Companies.
2. Consistent with the Commission's directives in the Attachment to its letter, and with BTRP 2009-430, MRS was read to include both TTY and IPRS, and separate information for each of the two services has been provided, where applicable.
3. Certain information contained in these responses is being provided in confidence to the Commission pursuant to section 39 of the *Telecommunications Act* and the directions provided by the Commission in the Appendix to Broadcasting and Telecom Information Bulletin CRTC 2010-961, *Disclosure Guidelines*, for the reasons set out in those responses. Abridged versions of these responses are being provided for the public record.

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4. Bell Canada is also providing responses to the Commission's requests for information related to the Bell Canada (Mission Consulting) Final Report on the Feasibility of Video Relay Service for Canada pursuant to the Commission's letter of 25 May 2012.

Yours truly,

*[ Original signed by D. Henry ]*

*[ Original signed by P. Gauvin ]*

**Denis E. Henry**

Bell Aliant

Vice-President – Regulatory, Government Affairs  
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Attachments

c.c.: Distribution List as per CRTC letter dated 25 May 2012  
Kay Saicheua, CRTC ([kay.saicheua@crtc.gc.ca](mailto:kay.saicheua@crtc.gc.ca))

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**Projected number of ASL and LSQ VRS users**

**Q.** In Phase 9 of the *Final Report of the Feasibility of Video Relay Service (VRS) for Canada (Feasibility Study)*, it was projected that there are approximately 34,000 Canadian Sign language users<sup>1</sup>. The Feasibility Study then projected that of those 34,000 Sign language users, 15,345 would become consumers of VRS. The projected number of VRS users was calculated using methodology that was based on estimates "without statistical basis" (phase 9, pages 16-17).

Statistics Canada published the 2006 Participation and Activity Limitation Survey which gathers information about adults and children whose daily activities are limited by a health-related condition or problem<sup>2</sup>. The survey reveals that in 2006, 35,470 Canadian adults self-identified as both having a hearing or communication limitation and using Sign language as a means of communication. An additional 2,620 children with hearing limitations reported using Sign language to communicate. This totals 38,090 Canadian users of Sign language in 2006.

- i) Footnote 14 (phase 9, page 13) states: "Using the formula that 1 in 1,000 of those identified as profoundly deaf use Sign as their primary language". However, the footnote references an estimate found in *Table 2: Canadian demographic estimates* for the total population in Canada with some form of hearing loss. In addition, the ratio of total Sign language users to the total population identified as profoundly deaf does not match the above-mentioned ratio. Please clarify the assumptions used to derive the estimates in Table 2, phase 9, page 13 and their sources.
- ii) Given the availability of Statistics Canada data, explain why the methodology used in the Feasibility Study to forecast Canadian Sign language users was selected as the preferred methodology.
- iii) To derive the "Canadian Forecast" of ASL and LSQ VRS users (15,345 users), the Feasibility Study forecasted the number of VRS users in the United States which made use of:
  - estimates of the Deaf ASL user population in the U.S which "is without statistical basis" (phase 9, page 17) and;
  - the total number of VRS users in the U.S., which was calculated using a distribution method which had "no available statistical data to support the distribution" (phase 9, page 16).

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<sup>1</sup> Footnote number 14 states the assumption that 1 in 1000 of those identified as profoundly deaf use Sign as their primary language (phase 9, page 13).

<sup>2</sup> Refer to Statistics Canada, PALS 2006: A Profile of Assistive Technology for People with Disabilities. (Catalogue No. 89-628-x, no. 005, ISBN 978-0-662-48688-6) pages 18 and 26.

- iv) **The resulting forecasted number of VRS users in the U.S (155,748) represented 0.05% of the total U.S population. In forecasting the number of potential VRS users in Canada, the U.S ratio of VRS users to total population (0.05%) was then adjusted downwards by 10% to compensate for the effect of aggressive marketing by American VRS providers. The resulting Canadian Forecast of ASL and LSQ VRS users was 0.045% of the total population, or a projected 15,345 potential VRS users in Canada. (phase 9, pages 19-22)**
- (a) **Given the lack of statistical data, explain why the methodology used in the Feasibility Study was chosen and justify how this projection is an accurate representation of the potential number of Canadian VRS users.**
- (b) **Provide statistical data to support the 10% reduction applied, and explain how this percentage accurately quantifies the impact of aggressive marketing by VRS providers on the user base.**
- v) **Should the Feasibility Study's projections for the number of VRS users require revision, submit the revised projections highlighting the assumptions and methodology used.**
- A. i) The ratio presented in footnote number 14 is incomplete. The full text reads as follows:

Using the formula that one in ten Canadians has a hearing loss of some degree; one in 100 is profoundly deaf; and one in 1000 uses Sign as a first language.<sup>3</sup>

The assumptions used to derive the Canadian demographic estimates listed in Table 2 were based in part on information contained in the above referenced publication and the Canadian Association of the Deaf's (CAD's) position paper entitled "*Statistics on Deaf Canadians*". These estimates were also compared to data on Sign language user populations gathered from other countries to verify the practicality of the estimates.

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<sup>3</sup> Roots, James, *The Politics of Visual Language*, 1999, page 5.

- ii) As stated in the Feasibility Study<sup>4</sup>, accurate population statistics of Deaf and hard of hearing people are extremely difficult to obtain.<sup>5</sup> Much of this difficulty is due to the different ways that individuals in this diverse community choose to identify themselves. Many culturally Deaf people do not identify as disabled or as having any kind of impairment; therefore these people would not be counted in a survey that asks about deafness as a disability or limitation.

Although Mission Consulting was not made aware of the Statistics Canada PALS 2006 Assistive Technology report and did not discover it in the course of research, we were informed by members of the Feasibility Study's advisory committee that in their opinion, no valid data on the number of Deaf people or Sign language users existed for Canada, and that significant flaws existed in any surveys conducted to date.<sup>6</sup>

The CAD also expresses the opinion that there has never been a "fully credible census of Deaf, deafened, and hard of hearing people" in Canada. Variances in communication preference, cultural attitudes about deafness, and type of education received (e.g., oralism or Sign language instruction) all contribute to the difficulty in estimating the number of deaf or hard of hearing Sign language users in Canada. Further complexity emerges when trying to determine how many people use Sign language as their primary form of communication or use Sign language at a level of proficiency necessary to use interpreting services, including VRS.<sup>7</sup> To this point, the PALS data indicates that almost half of the

<sup>4</sup> See Phase 9, *Forecasts of VRS User Demand*, Section 2.1, *Challenges in Accurate Forecasting*, pages 9 to 12 and Phase 4, *VRS Models in Other Countries*, Executive Summary, pages 3 to 5 and Phase 3, *Consumer Interests and Perspectives*, Section 4.1, pages 20 and 21.

<sup>5</sup> For example, in the U.S: "...misunderstandings and misrepresentations of what is known about the demography of deafness and ASL use in the United States are widespread. ...there has never been a true study of ASL use in the general U.S. population... no statistics exist." From [How Many People Use ASL in the United States? Why Estimates Need Updating](http://research.gallaudet.edu/Publications/ASL_Users.pdf), Ross E. Mitchell, Travas A. Young, Bellamie Bachleda, and Michael A. Karchmer, Gallaudet Research Institute Gallaudet University at [http://research.gallaudet.edu/Publications/ASL\\_Users.pdf](http://research.gallaudet.edu/Publications/ASL_Users.pdf).

<sup>6</sup> See CAD "*Statistics on Deaf Canadians*" at [http://www.cad.ca/statistics\\_on\\_deaf\\_canadians.php](http://www.cad.ca/statistics_on_deaf_canadians.php).

<sup>7</sup> This is also the case in the U.S: "...there is no definitive estimate of the number of Americans with hearing or speech disabilities who are fluent enough in ASL to use VRS" at paragraph 12 of FCC Further Notice of Proposed Rulemaking, document 11-184 released 15 December 2011, at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-11-184A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-184A1.pdf).

respondents identified as Sign language users reported never using the services of an interpreter, thus signifying uncertainty in determining whether these individuals would be potential users of VRS.

Due to the complexity of self-identification and a limited and potentially flawed data pool, the percentage of 0.10% of the total population was selected to identify Deaf Sign language users in Canada. While we were unaware of the PALS Assistive Technology data<sup>8</sup>, we note that the percentage (0.10%) used to identify Sign language users in Canada in the Feasibility Study is within 0.01 percent of the PALS percentage (0.11%).

It is important to note that the Feasibility Study's calculation of potential VRS users in Canada was not based on the highly estimated projection of 34,000 Sign language users, but instead made use of a percentage based on the number of estimated VRS users in the U.S. For these reasons, we believe the chosen methodology to be a reasonable baseline assessment of Sign language users given the lack of data or agreement regarding statistics for this population.

iii) and iv)

a) The U.S. is the only country with fully deployed VRS, over a sufficient number of years to provide a reliable guideline for VRS usage at full saturation. Although certain data from the U.S. is lacking, such as the actual number of VRS users and associated usage, it remains the most robust source of data, particularly for the purposes of forecasting estimates for Canada.

The number of individuals who use VRS at least once a year in the U.S. is currently unknown.<sup>9</sup> However, using U.S. data identifying that

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<sup>8</sup> PALS identification of 38,090 Sign language users represents approximately 0.11% of the total population.

<sup>9</sup> In a Mission Consulting interview on October 21, 2011, FCC staff stated they did not know the number of U.S. VRS users. The FCC has implemented new regulations for certified VRS providers including required audits, detailed user information, etc. However, very little of this information is publically available; the majority of data being filed confidentially with the FCC. For example, see: <http://apps.fcc.gov/ecfs/document/view?id=7021922241>.

approximately 239,000 10-digit numbers for VRS have been issued, combined with Mission Consulting's extensive industry knowledge and experience of VRS user behavior, a reasonable attempt to quantify the distribution of multiple VRS 10-digit numbers was made; providing a more accurate estimate than would be the case without any adjustment.<sup>10</sup> In fact, we believe the reduction applied is very conservative and that the number of actual users may be even lower. For example, in recent FCC filings, provider reply comments have indicated additional reasons that users may have multiple registered phone numbers,<sup>11</sup> which would result in an even higher ratio of phone numbers per user, than was depicted in the Feasibility Study, resulting in even lower estimates of the user population.

Nonetheless, for Canadian forecasting purposes, the U.S. data was adjusted conservatively to reflect current non-quantifiable data elements. Mission Consulting chose this approach as the best available methodology,<sup>12</sup> given the lack of transparent data publically available regarding VRS users and usage.

- b) Mission Consulting's extensive experience and knowledge of VRS providers' marketing behaviors in the U.S. warranted reducing the estimated potential number of users to better reflect an environment where aggressive marketing and consumer pressure to use a particular

<sup>10</sup> The resulting 155,748 VRS users represent approximately 39% of the estimated Deaf ASL population, which was also in line with the percentages of VRS users to signing population experienced in other VRS countries.

<sup>11</sup> "Most users have been assigned multiple ten-digit VRS telephone numbers (TDNs) because they use multiple providers or because a VRS provider assigns them different TDNs to access different types of VRS products. In addition, as a result of the Commission's emphasis on streamlining the VRS registration process for users, some users have registered with a single VRS provider many times rather than attempting to keep track of prior TDNs. Consequently, neither the Commission nor the VRS providers know how many users there are." Comments of Convo Communications, LLC, a U.S. VRS provider, *In the Matter of Structure and Practices of the Video Relay Service Program*, Docket 10-51, dated 9 March 2012, at <http://apps.fcc.gov/ecfs/document/view?id=7021899658>.

<sup>12</sup> The Feasibility Study's methodology, along with almost identical U.S. data points to calculate potential VRS users in the U.K., were utilized by Ofcom in "Review of Relay Services"; 28 July 2011 at: [http://stakeholders.ofcom.org.uk/binaries/consultations/review-relay-services/summary/relay\\_services.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/review-relay-services/summary/relay_services.pdf).

provider's services may not be a factor. Although no statistical data exists to specifically quantify the effect of aggressive marketing, we believe 10% to be a very conservative reduction; representing a more accurate estimate than if no reduction was applied.

VRS usage in the U.S. has experienced substantial growth since its inception. Undoubtedly the distribution of free equipment to users with minimum usage requirements of 30 minutes per month was an instrumental factor in the significant growth of VRS usage in the first few years of implementation.<sup>13</sup> Although minimum usage requirements have since been prohibited by the FCC,<sup>14</sup> it is reasonable to assume that usage of 30 minutes or more per month, which may not have otherwise been generated, influenced the rapid growth in VRS minutes in the U.S. In addition, the for-profit VRS industry, high FCC reimbursement rates,<sup>15</sup> and the extraordinary profit potential stimulated VRS providers to aggressively find users and generate minutes, also resulting in exponential growth of VRS usage.

In reducing the number of forecasted VRS users for Canada, the goal was to present a more accurate estimate using and benefiting from the identified issues in the U.S. VRS marketplace. Mission Consulting's knowledge of these issues warranted an attempt to quantify the effect of

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<sup>13</sup> See VRS minutes of use at: <http://www.r-l-s-a.com/TRS/reports/VRSGrowth112010.pdf>. "When Sorenson Communications learned about the VRS and the FCC's federally managed reimbursement program, they created the company's own VRS network and loaned their videophones, which were originally designed for telemedicine, to deaf and hard of hearing people at no cost with the understanding that these individuals were to use their services at least 30 minutes each month." Comments of former (1987 to 1996) TDI Consumer Group Executive Director, Alfred "Sonny" Sonnenstrahl available at: <http://commerson.blogspot.com/2010/03/open-letter-from-alfred-sonnenstrahl.html>.

<sup>14</sup> "It is considered a violation of the FCC order on financial incentives if a VRS provider encourages or entices a user to make a call they would not otherwise have made but for the encouragement or enticement of the provider." of FCC Further Notice of Proposed Rulemaking, document 11-184 released 15 December 2011, at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-11-184A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-184A1.pdf). Anecdotal evidence shared with Mission Consulting indicates that some forms of provider encouragement still exist.

<sup>15</sup> The highest rate was \$17.04 and the lowest rate to date is currently the Tier 3 rate of \$5.0668. See historical rate information at: <http://www.r-l-s-a.com/TRS/RELAYRATESHISTORY.pdf>.

aggressive marketing due to high profit potential for VRS providers, and as such, very conservatively estimated only a 10% reduction in the forecasted number of VRS users for Canada.

- v) Mission Consulting utilized the most robust and publically available data combined with specific VRS industry knowledge and experience to present estimates<sup>16</sup> that represent the most probable forecast for a fully deployed Canadian VRS. However, as stated in Phase 9, actual usage will be affected by numerous factors and significantly influenced by Canada's selection of a VRS model and associated components.

We do not believe that our projections require revisions, and further reiterate that verifiable and quantifiable user and usage statistics for Canada can be obtained by implementing the Feasibility Study's recommendation for an initial research phase of VRS specifically designed to verify VRS usage estimates that are currently based on inadequate and confidential data.

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<sup>16</sup> Potential variances to the estimated number of users and minutes of use are depicted in Phase 9, *Forecasts of User Demand*, Tables 7, 8, 9, and 10 on pages 27 and 28.

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**Projected Canadian VRS usage (minutes)**

**Q.** The TELUS Final Report summarizes the results of their 18-month trial<sup>1</sup>. During the course of the trial, participants used the video relay service to make an average of 21 calls per month per user. The average call lasted 5.16 minutes, revealing that monthly demand was roughly 108 minutes per user.

The Feasibility Study's forecast of Canadian VRS annual minutes is 6,820,853 for a fully deployed service. This represents an annual demand of 444.5 minutes per user under the Canadian Forecast, which equates to a monthly demand of 37 minutes per user. This forecast, in the Feasibility Study, is referred to as the "Canadian Forecast" and is used to represent "the most probable forecast for Canada for a fully deployed 24 x 7 VRS at an eventual maximum usage rate" (Phase 9, page 22).

- i)** Reconcile the difference between the Study's projections and the results of the TELUS trial. Where the Feasibility Study's projections require modification, submit any assumptions and explain your methodology and rationale.
- ii)** The forecast of Canadian VRS annual minutes was derived using a multi-step approach. First, an initial forecast of 10,826,750 Canadian VRS annual minutes was calculated using the estimated average annual VRS minutes per user in the United States (635 minutes). To derive this estimate of U.S. average annual VRS minutes per user, a number of calculations were performed, including calculations which made use of:
  - estimates of the Deaf ASL user population in the U.S which "is without statistical basis" (phase 9, page 17) and;
  - the total number of VRS users in the U.S., which was calculated using a distribution method which had "no available statistical data to support the distribution" (phase 9, page 16).

Then, using the initial forecast of 10,826,750 Canadian VRS annual minutes, the following downward adjustment was applied to account for various differences between the Canadian and U.S. markets (phase 9, pages 20-22) to derive the "Canadian Forecast" of annual VRS minutes:

- 10% to account for fraud, and;
- 30% to account for the timing of VRS availability in Canada versus the United States

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<sup>1</sup> TELUS Communication Company. Final Report.  
<[http://www.crtc.gc.ca/public/partvii/2009/8678/c12\\_200905557/1686878.zip](http://www.crtc.gc.ca/public/partvii/2009/8678/c12_200905557/1686878.zip)>

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- (a) **Given the lack of statistical data, explain why the methodology used in the Feasibility Study was chosen and justify how this projection is an accurate representation of the potential Canadian VRS usage (annual minutes).**
- (b) **Provide statistical data to support the percentage reductions used, and explain how these percentage reductions accurately quantify the impact of both fraud and the timing of VRS availability.**
- A. i) Data collected from other countries, referenced in the Feasibility Study, indicate usage rates much lower than experienced in the U.S. and the Telus VRS Trial. For example, Sweden currently reports average usage of 37 minutes per user, calculated by dividing total minutes by the number of users who use the service at least once a year. However, a more granular analysis reveals that actual monthly usage in Sweden is comprised of 1,200 people using VRS at least once a month averaging 43 minutes per user.<sup>2</sup> Therefore, a significant challenge to determining average minutes per user is due to the fact that a significant amount of VRS usage is generated by a smaller group of users (i.e., heavy users) and is then averaged over the entire VRS user base.<sup>3</sup> This results in highly averaged statistics that may not reflect unique usage patterns and associated costs.
- Typically, a heavy user is accessing VRS and generating minutes of use for employment purposes. The FCC is currently considering, among other proposals, a per-user compensation mechanism to address this industry trend that the FCC refers to as an "enterprise user". An enterprise user is defined as a VRS user *"who uses VRS in the course of their employment, and that those users may have higher monthly average usage than those who do not use VRS in the course of their employment."*<sup>4</sup> The FCC is seeking comment on this and other strategies in order to better align the cost of VRS to each user and to promote transparency in the VRS reimbursement mechanism.

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<sup>2</sup> Mission Consulting discussions with organizations involved in Sweden's VRS industry.

<sup>3</sup> Many VRS consumers only use the technology for point-to-point calling, which does not involve a relay interpreter.

<sup>4</sup> At paragraph 61 of FCC Further Notice of Proposed Rulemaking, document 11-184 released 15 December 2011, at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-11-184A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-184A1.pdf).

Mission Consulting is unaware if the Telus trial data supports the opinion that the majority of VRS minutes are generated by "heavy users".<sup>5</sup> However, it appears that many participants in the trial were under the impression that they needed to exaggerate usage in order to prove a need for the service.<sup>6</sup> Deaf organizations in Canada have advocated for VRS for a long time, and subsequently encouraged users to make VRS calls that may not have been made without such encouragement. For example, on 3 February 2011, a town hall meeting in British Columbia was held to share information with trial participants.<sup>7</sup> During the course of the presentation, several strategies to increase VRS call volume were discussed. The presenters expressed concern that the current statistics were reflecting a higher percentage of point-to-point calls and that without more VRS calls, the Commission may decide that the service is unnecessary. Interestingly, the Telus trial VRS call volume data does show highest usage occurring during the months of February and March 2011.

Due in part to the fact that advocacy leaders were making as many calls as possible and encouraging their constituents to do the same, the Telus VRS call volume is likely greatly overstated. At a minimum, the trial usage data is a statistically invalid representation of forecast demand. The ambiguity of the Telus trial call volume data, combined with the lack of transparent data from the U.S., only allows for reasonable estimates to be attempted. Therefore, Mission Consulting does not anticipate modifying the Feasibility Study's forecasts for a fully deployed 24 x 7 Canadian VRS at maximum usage saturation.

Again, we strongly believe that prior to any fully deployed implementation of VRS, an initial research phase designed specifically to gather the information needed to accurately quantify users and usage behaviors is paramount to

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<sup>5</sup> The Telus Trial Final Report does provide data on the number of active users, but no definition of an active user is provided. On average 81% of installed users were active users.

<sup>6</sup> Mission Consulting interviews and research conducted for Phase 3, *Consumer Interests and Perspectives*.

<sup>7</sup> Videos from this Town Hall event are available in ASL at: <http://vimeo.com/user5912084>.

verifying the validity of estimates made in the Feasibility Study, as well as usage data from the Telus Trial.

- ii) a) The methodology chosen to forecast the number of Canadian users and minutes of use at full saturation utilizes data that is as accurate as is publically available at this time. While estimates of the Deaf ASL user population, without statistical basis,<sup>8</sup> were provided in the Feasibility Study, they were not used to calculate the Canadian forecast. The Canadian forecast was calculated using the number of reported VRS phone numbers registered in the U.S., reduced to conservatively account for multiple phone numbers per user, and actual U.S. VRS traffic as reported for 2010 averaged annually per user.<sup>9</sup> The distribution method used to determine the number of phone numbers per user was based on Mission Consulting's industry knowledge and experience of VRS and represents a more accurate evaluation than if no adjustment was made. Given the universal lack of publically available statistical data related to the number of VRS users or minutes of use, we believe the projections represent a reasonable best estimate for potential Canadian usage at full saturation.
- b) Statistical data supporting the percentage reductions used does not exist. Mission Consulting relied on industry knowledge and previous research in an attempt to address the unique set of circumstances present in the U.S. VRS industry. As stated in Phase 9, *Forecasts of User Demand*, Section 3.3 "Canadian VRS Forecast Using Adjusted U.S. Rates", Mission Consulting's discussions with the FCC indicate that a significant number of VRS minutes may still be attributable to fraud and misuse, and that the approximate 10% decline in 2009-2010 VRS minutes potentially

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<sup>8</sup> The Feasibility Study uses the same reference material used by the FCC and Gallaudet University when presenting estimates of Deaf ASL users in the U.S. See: <http://research.gallaudet.edu/Demographics/deaf-US.php>.

<sup>9</sup> See Phase 9, *Forecasts of User Demand*, Section 3.2, Canadian VRS Forecast Using United States Data, Pages 14 to 19.

represents only a small portion of the usage that may be inappropriate. Although it is not possible to quantify the exact percentage of VRS minutes that may currently still be illegitimate, an attempt to quantify some reduction based on the knowledge that fraud, waste, and abuse still exist is warranted. Therefore, a very conservative estimate of only 10% was used to reduce the Canadian forecast to account for the fact that the FCC believes illegitimate usage still exists in the U.S. data.<sup>10</sup>

We would like to note that the further reduction of 30% was not entirely based on the timing of VRS availability in Canada versus the U.S. as is stated in this interrogatory. The 30% reduction consisted of:

- 10% reduction in annual minutes due to an earlier calculation reducing the number of users by 10% to account for overly aggressive marketing; and
- 20% reduction in annual minutes due to the comparative effect of aggressive U.S. marketing resulting from high rates, and due to the timing of VRS.<sup>11</sup>

The high U.S. reimbursement rates motivated many providers to enter the VRS industry, which led to providers aggressively pursuing customers to use their service over another competing provider.<sup>12</sup> The effects are not quantifiable, but it is reasonable to assume that the high profitability

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<sup>10</sup> The FCC has, in recent years, attempted to eliminate the waste, fraud and abuse that has plagued the VRS program; with significant reform occurring in 2011 and continuing into 2012. See "FCC Moves Forward With Comprehensive Reforms to Eliminate Abuses and Ensure Viability of Video Relay Service" available at: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-305586A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-305586A1.pdf). While Mission Consulting has conservatively used only a 10% reduction, the actual amount of misuse may turn out to be significantly greater. However because the FCC has not yet determined what the actual amount of misuse is, we are hesitant to use a higher figure at this time.

<sup>11</sup> For a more detailed explanation of assumptions used to calculate the percentage reductions, please see Phase 9, *Forecasts of User Demand*, Section 3.3, Canadian VRS Forecast Using Adjusted U.S. Data, pages 19 to 22.

<sup>12</sup> "The popularity of VRS and the competition between the VRS providers to increase their share of the VRS market has resulted in the providers using a variety of marketing practices to gain new customers and a larger market share. These include the practice of distributing and installing VRS equipment at consumers' premises at no charge to the consumer." At paragraph 16 FCC Document 06-57A, dated 05/09/2006, available at: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-57A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-57A1.doc).

motivated providers to use any number of means to ensure use of their services.<sup>13</sup>

A reduction based on the timing of VRS is appropriate given the prevalence of alternative forms of communication that exist today versus when VRS was implemented in the U.S. Although no data to quantify how much of an effect the various other forms of communication available today will have on VRS adoption rates for Canada, countries that have implemented VRS after the availability of alternative technologies (e.g., texting, email, IP chat, *Skype*, *FaceTime*, etc.) have experienced significantly lower adoption and usage rates.

All numerical reductions presented in the Feasibility Study are estimates which endeavour to present a more reliable forecast than would otherwise have been the case if no reductions were applied. FCC documentation, historical research of the U.S. VRS program, data from other countries, combined with Mission Consulting's 20+ years of independent MRS and VRS knowledge and experience all contribute to the basis on which these estimates are derived.

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<sup>13</sup> The FCC TRS history docket at [http://transition.fcc.gov/cgb/dro/trs\\_history\\_docket.html](http://transition.fcc.gov/cgb/dro/trs_history_docket.html) has substantial filings and references for further examples of aggressive marketing geared toward generating minutes.

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**VRS operators and effect on community interpreting**

**Q. The Feasibility Study states that U.S. VRS policies will affect Canadian VRS as U.S. regulations "presently allow multiple VRS vendors to be reimbursed at relatively high per minute rates for allowable VRS traffic. Because the rates are currently high, it is cost effective for the dominant U.S. VRS vendor, Sorenson Communication, to establish multiple VRS call centers in Canada to serve U.S. VRS Consumers" (phase 11, page 10). "There are presently 599 ASL Canadian Interpreters (members of AVLIC<sup>1</sup>); however an estimated one-third of these are already employed by Sorenson providing VRS for U.S. consumers. The result is a present significant shortage of ASL interpreters. Requests for community interpreting are not being met" (phase 9, page 25). The Feasibility Study also mentions that the U.S demand for Canadian ASL interpreters has contributed to "significantly reducing the availability of ASL interpreters for work within a VRS that will service Canadian consumers" (phase 11, page 10).**

- i) Provide your understanding of why U.S. VRS providers are hiring Canadian interpreters. Indicate whether the primary trigger is limited to cost-savings, or whether there exists an interpreter shortage in the United States.**
- ii) Quantify the wage differential between Canadian and American ASL interpreters, if one exists. Include the average wage rate for both, as well as the loaded labour cost.**

**A. i)** We assume that Sorenson's decision to open VRS call centers in Canada made business sense given their current business model, regardless of what happens with VRS in Canada. Although we do not know what the primary trigger was, it is possible that the primary trigger may not have been either cost savings or a U.S. interpreter shortage.<sup>2</sup> We suggest that the Commission ask Sorenson.

Regardless of the answer, we also suggest that in the long term business interests of Sorenson, it would also make business sense for Sorenson to competitively position themselves in Canada for future Canadian VRS. In the U.S., Sorenson acquired substantial new market share by the distribution to

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<sup>1</sup> Association of Visual Language Interpreters of Canada (AVLIC).

<sup>2</sup> It appears that there is a far more acute interpreters shortage in Canada than there is in the United States.

consumers of free equipment<sup>3</sup> used for point-to-point calls<sup>4</sup> as well as VRS, by having their interpreters sign employment contracts that prevent their interpreters from working for another VRS provider within one year of employment with Sorenson, and by financially contributing to Deaf organizations. To the extent that these practices are being carried out in Canada, together with Sorenson employing a third of Canada's ASL interpreters, Sorenson or any provider would be very strongly positioned for competitive advantage for future Canadian VRS. Since the shortage of Canadian interpreters and interpreter training programs far exceeds any perceived shortage of interpreters in the U.S., and costs do not appear to be materially different,<sup>5</sup> it may be reasonable to conclude that the hiring of Canadian interpreters is not related to either significant costs savings or to a U.S. interpreter shortage.

- ii) The range of pay for interpreters in both Canada and the U.S. varies greatly across geographical regions and is commensurate with the skill level and experience of the interpreter, as well as whether any professional certifications are held. Wages also vary depending on the type of interpreter work, with the educational sector typically paying less than business or government, and on whether an interpreter is a salaried staff member, hourly agency contractor, or freelance interpreter. These variances make it difficult to quantify a wage differential within each individual country let alone between the two. Further complicating the issue is the fact that VRS providers keep VRS interpreter salaries and wages highly confidential. The highly competitive U.S. VRS market

<sup>3</sup> The distributed equipment has not always been interoperable with other VRS providers' systems, or does not support the sharing or portability of important VRS features such as call lists, calling preferences, etcetera. Ubiquitous "portability" is one advantage of having a single national VRS platform that can serve all consumers and all VRS providers, as recommended in the *Feasibility Study Report*, Phase 11, section 7, *VRS Platform and Interoperability*, at page 26: "As individual VRS providers come and go (are awarded contracts, are authorized to provide services, or cease services), the consumers will not necessarily experience changes to their VRS interface."

<sup>4</sup> Canadians have been able to use some U.S. VRS provider's networks to make point-to-point calls as recently as August 2011 when the FCC adopted rules improving the ten-digit VRS numbering system to approximate geographically accurate numbering. See FCC document 11-123 at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-11-123A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-123A1.doc) and CAD News at [http://www.cad.ca/news\\_events\\_en.php?newsID=104](http://www.cad.ca/news_events_en.php?newsID=104).

<sup>5</sup> See the answer to the next question, 3ii).

contributes to driving up wages for interpreters as multiple providers compete within a labour pool of both certified and non-certified interpreters.

Research for the Feasibility Study identified a range of hourly rates for Canadian community interpreters of \$15 to \$60, with most averaging approximately \$25 per hour. In the U.S., average wage rates for community interpreting are similar to those of Canada.<sup>6</sup> We do not believe that a significant average wage differential exists between Canada and the U.S.

The average wage rate for VRS interpreters and the loaded labour costs<sup>7</sup> are not publically available as they are proprietary to VRS providers and interpreter agencies. In addition, the difference in salaried positions may be noteworthy due to difference in benefits (e.g., healthcare) provided to employees in the U.S. versus Canada.

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<sup>6</sup> U.S. mean hourly wage for interpreters and translators equals \$24.90 CAD. See U.S. Department of Labor; Bureau of Labor Statistics, Occupational Employment Statistics, Interpreters and Translators at: <http://www.bls.gov/oes/current/oes273091.htm>.

<sup>7</sup> For forecasting purposes only, estimates of these variables were calculated in Phase 10, *Cost Variables and Forecasts*, Section 3.2.4 Canadian cost estimates, pages 26 to 29.

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**VRS operators and effect on community interpreting**

- Q.** The Feasibility Study states that "an outsourced ASL VRS would be expected to have a higher adoption rate by Canadian ASL users since the availability of the service would not be constrained by a lack of interpreters" (Phase 10, page 4), and later presents an option whereby "ASL is outsourced to the United States where there are plenty of ASL interpreters" (Phase 11, page 21). One of the advantages to this option was: "there may be minimal VRS competition for Canadian ASL interpreters, and therefore less impact to ASL community interpreting within Canada" (phase 11, page 21).
- i)** Given that U.S. VRS policies are expected to affect Canadian VRS (phase 11, page 10) and VRS providers are currently hiring Canadian interpreters, and thus already exerting pressure on Canadian community interpreting, explain why there may be "minimal VRS competition for Canadian ASL interpreters" in the proposed outsourced option.
  - ii)** Phase 9, page 17 of the Feasibility Study highlights that there are 15,500 total identified Sign language interpreters in the U.S. Provide and justify your understanding of whether a Canadian VRS provider could set up a call center in the United States to serve Canadian consumers, and whether this would be a feasible option for a Canadian VRS, having regard to, among other things, privacy and cost considerations.
- A.** **i)** Outsourcing Canadian ASL VRS to providers located in the U.S. means that the interpreters who provide those services to Canadians would be located in the U.S., and not located in Canada. Therefore, Canadian based ASL interpreters would not compete with those U.S. based VRS interpreters for community or VRS interpreting. The fact that there presently exists significant pressure on Canadian community interpreting from U.S. VRS policies and from existing Canadian VRS call centers serving the U.S., is an independent situation that is assumed to continue in any scenario.<sup>1 2</sup>

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<sup>1</sup> While Sorenson may be willing to pledge that it would convert all of its Canadian VRS operations to serving Canadian consumers if it were awarded Canadian VRS, such a conversion would not reduce the present need for community interpreting in Canada, nor would the Sorenson call centers necessarily meet the interpreter standards, platform requirements, interoperability requirements, or other business and operational requirements of a Canadian designed VRS solution. Additionally, while approximately 200 ASL interpreters presently work within Sorenson's VRS call centers located in Canada, the forecast number of ASL interpreters needed for a fully deployed Canadian VRS is 453. Thus a Canadian based Sorenson solution would only meet about 44% of the forecast demand. (See the *VRS Feasibility Study Report's* Phase 9, section 4.2, *VRS Staffing Forecasts*, at pages 25 and 26.)

<sup>2</sup> In late 2011 Sorenson was required to close multiple large U.S. call centers in response to the FCC's requirement to eliminate VRS subcontractors. The elimination of these U.S. call centers places increased pressure on Sorenson to continue operating their Canadian call centers for U.S. VRS call traffic.

The availability of U.S. based ASL interpreters to meet Canadian demand for VRS would potentially significantly reduce the need to hire additional Canadian interpreters, as the largest portion of the VRS demand (the ASL portion) would be met by U.S. ASL call centers. A reduced need to hire Canadian ASL interpreters for VRS would correspondingly minimize any additional potential impact to community interpreting within Canada that would have resulted from Canadian based ASL VRS. This reduced need for Canadian ASL interpreters would also diminish the need to build up the interpreting labour pool and training programs in Canada.

- ii) Chapter 12 of the North American Free Trade Agreement (NAFTA) permits a "cross border trade in services."<sup>3</sup> In 2010, the FCC attempted to restrict the location of VRS call centers to within the U.S. to address issues with fraud. As demonstrated by the comments of the Government of Canada to the FCC, NAFTA permits VRS call centers to be located in either country:

It is Canada's view that Chapter 12 of the North American Free Trade Agreement (NAFTA) obliges the Government of the United States to treat Canadian-based service providers, including those providing interpretation services through a VRS call center, no less favourably than United States-based service providers. In this regard, a measure that in effect requires a service provider to be located in the United States to provide services, such as the one proposed in the 2010 VRS Reform NPRM, would appear to be in contravention of the United States' obligations under the NAFTA. With this comment, Canada seeks to ensure that the FCC's Telecommunications Relay Service Program will not impose unnecessary obstacles to international trade and that this program is implemented in a manner consistent with the international treaty obligations of the United States under the Cross-Border Trade in Services chapter of the NAFTA.<sup>4</sup>

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<sup>3</sup> <http://www.nafta-sec-alena.org/en/view.aspx?conID=590&mtpilD=143>.

<sup>4</sup> See FCC CG Docket No. 10-51; FCC 10-88 Government of Canada's Comments at <http://apps.fcc.gov/ecfs/document/view.action?id=7020916257>.

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Based on the above NAFTA interpretation, we assume that VRS companies that may be located in either the U.S. or Canada, may serve consumers in either country, and depending upon the regulations related to TSP funding of VRS and VRS provider reimbursement, may potentially be paid for those services by either country. Specifically, a Canadian VRS provider could set up a call center in the U.S. to serve Canadian consumers if the Commission's adopted VRS model and funding mechanism accommodated this arrangement.

However, the question of feasibility is another matter. For example, while it has always been possible for a Canadian VRS provider to set up in the U.S. to serve U.S. consumers, we note that, to date, no Canadian company has done so, even though U.S. reimbursement rates are relatively high and interpreters are available. For a Canadian VRS provider to set up in the U.S. to serve Canadian VRS consumers, to be paid by and contracted or administered by a Canadian regulatory body, there would likely be additional complications that may be problematic, including but not limited to administrative transparency, platform issues, service standards and costs, and the disparity in service availability between ASL consumers over LSQ consumers.<sup>5</sup>

Privacy issues could, in part, be mitigated if privacy requirements were included within contract documents between the VRS provider and the funding entity, and between the VRS provider and all interpreter employees and contractors.<sup>6</sup> Such contract terms could include appropriate measurements and penalties.<sup>7</sup> Additional privacy mitigation can be achieved if the interpreters are all required to

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<sup>5</sup> See the *VRS Feasibility Study Report's* Phase 11, *Potential Canadian VRS Models*, Section 6, *Location of Providers*, pages 20-23 for more detail regarding the advantages and disadvantages associated with locating VRS call centers in the U.S.

<sup>6</sup> This is the approach recommended by the Office of the Privacy Commissioner of Canada (OPC) in response to how the *Personal Information Protection and Electronic Documents Act* (PIPEDA) applies to transfers of personal information to a third party, including a third party operating outside of Canada, for processing. See *Guidelines for Processing Personal Data Across Borders* at [http://www.priv.gc.ca/information/guide/2009/gl\\_dab\\_090127\\_e.asp](http://www.priv.gc.ca/information/guide/2009/gl_dab_090127_e.asp).

<sup>7</sup> While the OPC states that organizations are held accountable for the protection of personal information transfers under outsourcing arrangements, and that the OPC can investigate complaints and audit the personal information handling practices of organizations, footnote 37 on page 25 of the *Feasibility Study Report's* Phase 10, *Cost Variables and Forecasts*, states that in the United States the FCC has been unable to successfully audit U.S. VRS firms.

be members of professional interpreter organizations with an ethical standards, such as AVLIC, RID, State certifications, and etcetera.<sup>8</sup> Other privacy mitigations can include requirements for appropriate consumer feedback and other associated quality factors discussed in *The Feasibility Study Report's Phase 7, Quality of Service*. Privacy and related considerations should be defined in a specific VRS program design for Canada.

Depending on the reimbursement mechanism established for Canada, significant cost considerations will exist for a Canadian VRS provider located in the U.S. It would be reasonable to assume that a Canadian VRS provider located in the U.S. would also relay VRS calls from U.S. consumers and be reimbursed by the FCC for such calls. If the U.S. reimbursement is significantly higher than the reimbursement rate chosen by Canada (as is forecast by the *VRS Feasibility Study Report*), service levels for Canadian callers may suffer. The provider will be incented to provide better quality of service (take calls first, provide the most skilled interpreters, etcetera) for U.S. VRS calls compared to calls from Canadian consumers. Lower Canadian reimbursement rates could result in lower wages for lower skilled interpreters assigned to Canadian VRS calls.

Other considerations include significant potential difficulties associated with lack of administrative transparency experienced by the FCC for U.S. based VRS firms. The resulting fraud and waste could be replicated for Canadian VRS if proprietary VRS platforms without automated data access are implemented. While the FCC has attempted to mitigate this via new regulations, workable solutions are not yet apparent, as indicated by the FCC's further notices seeking solutions.

Overall, outsourcing VRS to providers located in other countries will likely result in significant administrative management challenges.

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<sup>8</sup> If no contract is required and if ethical standards are nominal, as is the case for FCC reimbursement, there is little that the regulatory body can achieve short of denying payment or following up on specific consumer complaints; which are both reactive instead of proactive.

### **Estimated Cost of a Canadian VRS**

- Q.** The cost analysis contained in the Feasibility Study uses the current U.S. Federal Communications Commission (FCC) VRS reimbursement rates, which are then adjusted to represent applicable Canadian per-minute reimbursement rates. These Canadian per-minute rates are then applied to the "Canadian Forecast" of usage to generate a "Canadian Forecast" of VRS provider costs.

We note that there are a number of existing VRS models internationally, revealing numerous service provision models and service provider-compensation models. We also note that providers may be reimbursed for service provision (e.g. an unlimited 24 /7 service-provision model similar to that in the United States) in different ways, such as compensation per-minute of relayed called, compensation per hour of operator time, or funding a set number of operator positions to name a few.

The Feasibility Study identifies one disadvantage of a per conversation-minute reimbursement option to be:

"without carefully defined requirements, accountability and monitoring, payment based on minutes can lead to provider abuse and fraud, whereby the VRS provider makes and bills for disallowed calls, pays consumers or others to make VRS calls, or pays consumers to make calls to toll-free numbers known to have unusually long hold times" (phase 11, page 28).

These aforementioned sources of fraud have proven to be a significant problem in the United States, as recognized in the Feasibility Study, where VRS providers are reimbursed on a per minute basis. We also note that the FCC is currently undergoing a VRS Reform where the way VRS providers are compensated could be changed from per-minute reimbursement to per-user reimbursement.

- i)** Provide the status of the FCC VRS Reform.
- ii)** Indicate whether a per conversation-minute compensation model is a prerequisite to implementing a 24/7 service provision model.
- iii)** Indicate why, given the aforementioned disadvantages of the per conversation-minute reimbursement option, the Feasibility Study has chosen to forecast the cost of a Canadian VRS using this reimbursement option over a different model such as reimbursement per video interpreter hour which has the advantage of "Eliminat[ing] almost all potential vendor fraud by removing incentives for inappropriately increasing the number of minutes, number of calls, or number of users" (phase 11, page 31).

**iv) The Canadian Forecast of VRS provider cost was based on the following elements:**

- **The "Canadian Forecast" of usage, previously discussed in question 2.**
  - **The Canadian per-minute reimbursement rate, which was based on the current FCC VRS per-minute reimbursement rate.**
  - **The assumption of a 25% operator efficiency rate, which implies that for each hour worked the operator would relay 15 minutes of conversation.**
- (a) Justify why a 25% operator efficiency rate was chosen. Indicate the advantages and disadvantages of implementing this operator efficiency rate for a Canadian VRS.**
- (b) We note that an increase in the operator efficiency rate would significantly decrease costs, decrease the number of operators required for VRS, hence minimizing the impact on community interpreting. Indicate what measures, if any, aimed to increase operator efficiency rates should be considered. Justify your response.**

A.<sup>1</sup> i) In 2011, the FCC implemented several rules reforming the VRS program including:<sup>2</sup>

- Requiring all VRS providers to be certified and the prohibition of any non-certified third party from holding itself out to the public as a provider of VRS.
- Prohibiting the use of subcontractors for any core VRS functions; requiring certified VRS providers to employ their own interpreters and operate the core facilities necessary to provide VRS.
- Prohibiting interpreters from working at home, using visual privacy screens, or receiving compensation/bonuses based on number of minutes or calls relayed.
- Requirement that automatic call distribution (ACD) platform leases be in

<sup>1</sup> Question 5 incorrectly states that the Canadian per-minute reimbursement rate was derived from an adjustment to the U.S. (FCC) VRS reimbursement rates. See the response to Commission question 5 iv).

<sup>2</sup> See FCC Second Report and Order dated 28 July 2011 at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-11-118A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-118A1.pdf).

- writing and terms between lessor and lessee may not include compensation related to minutes of use or revenue sharing agreements.
- Requirement that VRS providers report staffing and location of all call centers biannually. Provide 30 days' notice of any change in the location of a call center.
  - Disallow compensation for VRS calls that:
    - Originate from international locations unless a U.S. consumer provides and registers their plans before leaving the country.
    - For costs related to marketing and outreach performed through the use of VRS.
    - Remote training calls where the VRS provider is involved with the training.
  - Require all VRS providers to submit to annual or at any time deemed necessary, audits and unannounced on-site visits to ensure compliance.
  - Retention of all call records and supporting records related to claims for payment or used to validate cost and expense data for a minimum of five years.
  - Require senior executives to certify under penalty of perjury that all data submitted to the FCC or Fund Administrator is truthful and complete.

On 15 December 2011, the FCC released a Further Notice of Proposed Rulemaking (FNPRM) with several proposed initiatives to improve the current VRS program.<sup>3</sup> A summary of the FNPRM with salient points is provided below without analysis of stakeholder comments.

Despite the new rules and improved oversight of providers, several structural issues with the current VRS program exist and threaten the future sustainability of the program. Identified structural issues with the current VRS program include:

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<sup>3</sup> FCC document 11-184 available at: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-11-184A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-184A1.pdf).

- The availability of VRS may be affected by broadband affordability:
  - FCC requests data to identify whether broadband affordability creates a gap between potential users of VRS and current users.
- Insufficiently developed VRS access technologies:<sup>4</sup>
  - Despite previous rules requiring interoperability and portability, issues persist, which discourage the program's technology goals and possibly result in inappropriate "lock in" of consumers.
    - Dominant provider's legacy base of subscribers may not retain all features when porting to another provider, therefore "locking in" customers who wish to switch providers but want to retain enhanced features (e.g., address books, speed dial lists, call handling preferences, etc).
    - FCC is considering bidding contracts for a limited number of providers and seeks comment on the impact to consumer choice and loss of innovation.
  - Commercially available off-the-shelf technology may be less expensive and better capable of staying current with improvements in technology than the proprietary devices solely supplied by VRS providers.<sup>5</sup>
- Current compensation mechanism is unpredictable and potentially inefficient:
  - Disagreements between FCC and providers over what constitutes allowable costs have led to uncertainty in determining rates and

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<sup>4</sup> VRS Access Technology is interchangeable with Customer Premise Equipment (CPE) and is defined as "any equipment, software, or other technology issued, leased, or provided by an Internet-based TRS provider that can be used to make or receive an Internet-based TRS call." Ibid.

<sup>5</sup> "...the installed base of VRS access technology may be (or may soon become) inferior to "off-the-shelf" offerings. In 2006 the industry migrated to a standard for transmitting real-time voice and video over packet-based networks called H.323, but has failed to make progress on the standardization needed to transition to the Session Initiation Protocol (SIP) family of standards, which has subsequently become the default for mass market Internet-based voice and video devices." Ibid.

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fund contribution.

- Structure of VRS industry is potentially suboptimal and inconsistent with the *Telecommunications Act*:
  - Sorenson has "vast majority" of VRS market and consequently the FCC seeks comment on whether the current market structure is an appropriate balance between customer choice and efficiency.
- Current compensation mechanism has proven vulnerable to waste, fraud, and abuse:
  - Incentive to generate minutes rather than provide service, therefore changing the structural incentives of providers to reduce abuse and increase FCC oversight and detection of fraudulent behaviors is preferred.

As a result of the identified structural issues with the current program, the FCC proposes detailed reforms, summarized below, to address these issues and seeks comment on these proposals.

- Establishment of "TRS Broadband Pilot Program" to subsidize broadband Internet access for low income users of ASL.
- Ways to incentivize providers to acquire "new to category" users.
- Addressing "lock in" by defining and standardizing VRS access technology to include "off-the-shelf" technologies<sup>6</sup> without the loss of enhanced features when switching providers by withholding compensation for minutes generated on a non-compliant device.
- Funding VRS access technology directly from the fund.<sup>7</sup>
- Setting mandatory minimum operational, technical, and functional standards including:

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<sup>6</sup> See Appendix B of FCC 11-184: "detailed proposal for developing and maintaining VRS access technology standards based primarily on SIP...designed to facilitate interoperability, portability, affordability, supportability, and compatibility goals that the Commission has long pursued and consumers have requested." Ibid.

<sup>7</sup> Due to providers continued practice of distributing equipment and installing it at no charge and the fact that the TRS fund may be their only source of revenue, the FCC notes that they are in effect "implicitly and indirectly funding iTRS access technology costs." Ibid.

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- Higher qualification requirements for interpreters (i.e., national certification)
  - Alternative compensation mechanisms, specifically a per-user or single at scale per-minute rate:
    - Transitioning from per-minute to per-user is proposed to occur in phases.
    - Possible use of service contracts between providers and users.
    - Implementation of a VRS user database to assist in setting the per-user rate and promote transparency.
    - Separate rates for "enterprise users<sup>8</sup>" and regular users.
    - If per-user is not implemented, FCC proposes replacing the tiered rate structure with a single rate, which would be based on "weighted average actual per-minute provider costs for the most recently completed fund year."<sup>9</sup>

The FCC notes that fraud, abuse, and waste have flourished in a per-minute compensation and although they propose a per-user compensation, they also seek comment to the extent that providers will simply change their fraudulent behaviors to adding users to generate additional revenue instead of minutes. The FNPRM also makes a number of observations regarding economies of scale in providing VRS, and particularly that, other than the cost of the interpreter, no significant costs vary directly with minutes of use.

Comments on the record are typically made by VRS providers and some consumer groups, with the majority of comments filed to date in opposition to the

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<sup>8</sup> Enterprise users primarily utilize VRS during the course of their employment and therefore tend to have more minutes of VRS use than average use.

<sup>9</sup> In FCC 11-184 the Commission states: "Although we have, during this interim period, allowed providers to recover their costs at rates well above those based on actual cost data so as to avoid 'a significant and sudden cut to providers' compensation,' in the event that broader structural reform is not possible at this time, we find it reasonable to move to a rate based entirely on provider's actual costs." Ibid. Per the *2010 TRS Rate Methodology Order*, this rate would be \$3.8963 for Tier III. Sorenson has stated that any rate below \$5.14 will force all providers to "go out of business or bankruptcy." Some other providers disagree, see <http://apps.fcc.gov/ecfs/document/view?id=7021912151>.

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per-user compensation model.<sup>10</sup> In addition, significant comment has been made by the dominant provider's interpreter work force in opposition to higher interpreter qualifications.

- ii) A per conversation-minute compensation model is not a prerequisite to implementing a 24/7 service provision model. A 24/7 service provision model may be accomplished through a variety of other compensation mechanisms, including per-user, per interpreter-hour, and hybrid models. We believe an appropriate prerequisite to a fully deployed service (24/7 or restricted) is to initially adopt a payment methodology that uses a fixed amount for a specific time period through a grant process as described in the *VRS Feasibility Study Report*.<sup>11</sup> Because there is no currently valid data on demand and adoption rates in Canada, the Research Phase can analyze usage, cost and other data in order to determine an optimal and transparent compensation mechanism for the long term deployment of VRS.<sup>12</sup>
- iii) We would like to note that the per-minute methodology was selected for forecast purposes only and is different from selecting a cost reimbursement methodology for actual implementation. However, the per-minute Canadian rate was developed from estimates of interpreter labour, efficiency, overhead, and profit specific to Canada; and then converted into a per-minute rate. Those costs could have just as easily been converted into a rate of per-interpreter hour instead of per-relayed conversation minute, and the forecast cost would have been the same. A per-minute rate was used for cost forecasting purposes only simply

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<sup>10</sup> Consumer groups oppose a per-user model, while the majority of providers, other than Sorenson, propose different models including hybrid models that separate access technology and interpretation, and multi-vendor bidding with share caps.

<sup>11</sup> See section 7.1.2, *Initial Research Phase*; and section 7.3.3, *Provider Costs - Initial Research Phase Costs*.

<sup>12</sup> Per Phase 11, section 8.3, "The decision to continue payment based on the number of contracted interpreter hours, or based on per relayed conversation minutes, can be made by the VRS administrative authority as part of its design and RFP for fully deployed services that follow an initial research phase (see section 16, *Implementation*). This decision can be supported by information gained from the research, including consumer usage rates, average answer times, differences in availability and costs of interpreters in different cities or regions, the effect of the then current U.S. VRS reimbursement rates on Canadian VRS operations, and etcetera."

because most other data from other countries including the United States, which has the most comparable data and which was exhaustively analyzed in the report, is available in the per-minute format. This provides both consistency of analysis as well as the ability to more easily compare rates to the U.S. FCC rates.

The selection of a reimbursement methodology for a fully deployed VRS can be further supported by information gathered in the recommended initial research phase, including but not limited to consumer usage rates, average answer times, required interpreter skill levels, differences in availability and costs of interpreters in different cities or regions or at different skill levels, and interpreter efficiency. All of this type of information can help to determine an appropriate and transparent cost reimbursement mechanism for Canadian VRS.<sup>13</sup>

Also, in using the approach of forecasting costs based on estimated Canadian VRS operational costs, we were able to assume that the Canadian model selected for reimbursement and administration would effectively preclude fraud and misuse.<sup>14</sup> Therefore, the per-minute rate used for forecasting did not need to be further adjusted for potential fraud, and in effect would result in the same cost forecast whether the forecasts used a per-minute or a per-interpreter hour method of computation.

Detailed design of the program can also be further developed to ensure the avoidance of fraud and misuse as a result of the data gathered in a well designed research phase prior to full deployment and the selection of a corresponding reimbursement methodology.

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<sup>13</sup> For more detail regarding the effect of VRS model selection on costs see Phase 10, *Cost variables and Forecasts*, Section 5.6, *VRS Model Cost Considerations*, pages 68 and 69.

<sup>14</sup> This assumption is based on the adoption of the various recommendations for model components contained in phase 11, *Potential Canadian VRS Models*, such as a single VRS platform used by all providers and managed by a third party administrator, and etcetera.

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- iv) a) A 25% operator efficiency rate was chosen for forecasting purposes only, and as stated in the Feasibility Study, all ratios and assumptions used to forecast costs are conservatively estimated, meaning that actual costs could potentially be somewhat lower. Primarily, data from the U.S.<sup>15</sup> indicates an average efficiency rate of 25% that includes the absorption of overnight hours of VRS, which due to low call volumes produce an interpreter efficiency rate of less than 10%.

However, a determination of whether or not to adopt a 25% efficiency rate for implementation will be in part dependent upon what reimbursement model is chosen. For example, if a per-minute rate is selected, then it should be up to the providers to determine their own efficiency, as long as sufficient interpreter labour protections are met, such as maximum duration of interpreting without a break, etcetera. If a per-interpreter hour reimbursement rate is selected, then establishing a minimum rate of efficiency, i.e., minimum number of minutes of interpreting per-hour, would be warranted as long as the amount of traffic supports the required minimum.

If the final VRS design for full deployment will require the establishment of an interpreter efficient rate (or potential multiple rates for different levels of efficiency), these determinations can best be addressed as a result of statistically valid data gathered during the research phase based on actual user demand and interpreting time logged in a common VRS platform that measures such data. This is the type of analysis envisioned for the research phase as recommended in the *VRS Feasibility Report* so that the most cost effective approach can be obtained for full VRS deployment.

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<sup>15</sup> Sorenson's U.S. experience as referenced in the U.K. Ofcom report and the Sorenson sponsored economic report, referenced in Phase 10, section 3.2.4, *Canadian Cost Estimates*; as well as unpublished confidential data of U.S. providers obtained by Mission Consulting.

In responding to this question we would like to point out that the Commission's second bullet is incorrect. This bullet states "**The Canadian per-minute reimbursement rate, which was based on the current FCC VRS per-minute reimbursement rate.**" While the report went into great detail regarding the basis of the FCC's VRS per-minute reimbursement rates, the report ultimately concluded that the flaws of the U.S. rate setting methodology were so pervasive that the U.S. rates could not be used as an accurate basis for forecasting a Canadian VRS rate:

Based on the record presented it is reasonable to conclude that the current U.S. VRS rates are not supportable and should not be applied to Canada for cost forecasting purposes. While the various alternative rates suggested by NECA and the FCC are instructive and are offered by knowledgeable subject matter experts, by themselves these alternative rates are also deeply flawed by missing inaccurate or inappropriate source data. Therefore while these U.S. rate alternatives may be useful for comparative purposes, another analysis based on average Canadian interpreter costs, reasonable call center overhead and profit margins is warranted.<sup>16</sup>

The *VRS Feasibility Study Report's* Phase 10 sections 3.2.4, *Canadian cost estimates*, and 3.2.5, *Canadian Forecast rates*, therefore established Canadian rates for cost forecasting purposes that are solely based on estimated costs to operate VRS in Canada, rather than based on an adjustment to the U.S. rates.<sup>17</sup>

- b) Interpreter efficiency rates may be increased through careful analysis of interpreter performance information obtained through a research phase specifically designed to gather this information. Additionally, the elimination of overnight coverage or directing all overnight coverage to

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<sup>16</sup> *VRS Feasibility Study Report*, Phase 10, section 3.2.3, *U.S. rate alternatives*, page 26.

<sup>17</sup> For clarity purposes we note that item 2 on the top of Phase 10's page 30 should have said, "...based on the adjustments to the U.S. tiers..." instead of "...based on the adjustments to the U.S. rates...". We apologize for causing any misinterpretation.

one call center would significantly improve efficiency. Other strategies to increase operator efficiency include:

- Variances in setting the average speed of answer requirement.
- Augmentation of real-time text to the VRS platform<sup>18</sup> to reduce fingerspelling and set-up time.
- Using skilled and properly trained interpreters:
  - Prevention of interpreter burnout through teaming, mentoring, and proper breaks.
  - Allowing interpreters to focus on effective interpretation rather than billable time.
  - Skill based routing of calls including regional dialects.
- Assessment of the role of the very small percentage of VRS consumers that use an exceptionally high number of VRS minutes per month compared to the vast majority of consumers. The potential that these calls, which greatly increase the total program costs, may be as a result of employers inappropriately using VRS for VRI calls in lieu of providing on-site interpreters, should be measured.<sup>19</sup>

It should be noted that due in part to the U.S. practice of setting rates based on operational costs as self-reported by the VRS providers, U.S. VRS providers are motivated to keep their efficiency rates low and operational costs high. (Rate setting is "cost plus" without competitive bidding.) Since VRS providers have an instrumental position in how the U.S. rates for reimbursement are determined, it benefits providers to demonstrate low efficiency rates,<sup>20</sup> which in turn helps keeps reimbursement rates high.

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<sup>18</sup> For example, using a VRS platform that supports the Total Conversation standard, which includes real-time text capability.

<sup>19</sup> Instances of this can be measured and researched during an initial research phase so that appropriate policies and procedures can be implemented to prevent such occurrences.

<sup>20</sup> One way providers keep efficiency rates low is through the hiring of non-certified or less skilled interpreters. The more skilled interpreters provide guidance to the trainee taking calls, instead of taking calls and having the trainee watch and learn.

With carefully defined requirements and cost transparency of VRS model components, a Canadian national VRS program can be designed that encourages an appropriate efficiency rate without manipulations of productivity to inflate costs.

\*\*\* End of Document \*\*\*