

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

In the Matter of)	
)	
Telecommunications Relay Services)	
and Speech-to-Speech Services for)	CC Docket No. 98-67
Individuals with Hearing and Speech)	
Disabilities)	
)	CG Docket No. 03-123
Americans with Disabilities Act of 1990)	
_____)	

COMMENTS OF SPRINT CORPORATION

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SUMMARY

The Commission's NPRM continues its "inquiry its TRS technology and various improved services and features that may further the statutory goal functional equivalency."

NPRM at ¶103. Sprint's position on each of the issues raised by the *NPRM* is as follows.

- Sprint agrees that the Commission's functional equivalency mandate requires that "TRS and TRS facilities [should] receive an NS/EP priority status commensurate with that given to LEC facilities..." *NPRM* at 105. Of course, all circuits that enable access to a given TRS center will have to be enrolled in the Telecommunications Service Priority ("TSP") system in order to establish the priority for restoration and if the LECs and other telecommunications providers pass the costs associated with such registration onto TRS facilities providers, such costs will likely have to be recovered from the Interstate TRS Fund.
- Sprint also agrees that "IP [Internet] Relay calls should be provided with the same level of security using encryption that is commonly used in commercial transactions over the Internet." *Id.* at ¶107. Sprint Relay Online (SRO) already strictly adheres to the latest industry standards on 128 data bit encryption and security and will continue to do so. Sprint believes that as long as Internet Relay providers employ such encryption and security technology, there is no need to require the use of registration profiles, sign-ins or passwords for users of Internet Relay. Adopting any of these measures will make use of Internet Relay services more cumbersome for end users and reduce the attractiveness of Internet Relay services.
- With respect to emergency wireless 911 calls, Sprint believes that the appropriate means of achieving the goal of functional equivalency for this service is to address the shortcomings associated with 911 answering points and their ability to process 911 calls dialed with TTY devices.
- Sprint's position regarding the inclusion of translation services within TRS is unchanged since the issue was first raised in *1998 TRS Notice of Proposed Rulemaking*. Thus, Sprint believed then and continues to believe now that such services should be included within the scope of TRS. Nearly 98 percent of TRS users asking for non-English TRS seek translation services, *e.g.*, Spanish-to-English. Moreover, as the Texas PUC and Sprint have repeatedly explained to the Commission, translation services provided through TRS will enable a deaf child who is away at school and who uses ASL to avail himself of TRS and/or Video Relay Service to communicate with his parents who are non-English speaking. Sprint does suggest that one of the languages in the multi-lingual TRS service must always be English or ASL.
- Sprint does not believe it necessary for the Commission to require a specified call set-up time for various types and forms of TRS calls. Not only would establishing such standards be nearly impossible but TRS providers already have a strong economic

incentive to reduce the amount of time it takes their CAs to set-up calls since the Interstate TRS Fund and several States compensate TRS providers on the basis of conversation minutes as opposed to session minutes.

- Sprint believes that consistent with the Commission's mandate under §225(d) (2), the Commission should refrain from prescribing the use of CART or CART-type technologies which are simply designed to increase the typing speed of CAs. With the increasing advances in voice recognition technology, stenographer-based CART and CART-type technologies may well become obsolete.
- The difficulty with prescribing interrupt functionality as a minimum mandatory standard is that, to Sprint's knowledge, there are no non-proprietary TTY protocols in the market today that would enable relay providers to offer interrupt functionality.
- Sprint believes that certain custom calling features offered by LECs to their voice customers should be made available to TRS users. To offer such features, however, TRS providers would have to obtain certain information from the LECs. Sprint cannot predict whether any LEC would be willing to cooperate or provide information. The provision of automatic call-back and a busy line-monitoring service cannot be justified under a cost-benefit analysis.
- Although Sprint agrees with the Commission that the use of speech recognition technology has the potential to greatly enhance the efficient provision of TRS service, it does not believe that the Commission should mandate its use. The technology is not inexpensive and consistent with its Section 225(d) ((2) mandates, the Commission leave it to TRS providers and the market to experiment with and develop technologies that they believe will enable them to provide a more efficacious TRS product.
- The v.18 and v.21 protocols have not been incorporated by manufactures into their product offerings.
- Sprint supports a national outreach program funded by the Interstate TRS Fund. Despite the fact that TRS services have been provided for over a decade now, it has been Sprint's experience that outside of the TRS user community, little is known about TRS. Such unfamiliarity often results in "hang-ups" by the called party who mistakenly believes that a call from a CA on behalf of an end user is a telemarketing call. Sprint believes that a national public awareness campaign should help to mitigate this problem.
- Sprint believes that the creation of a federal certification program could severely strain the Commission's already thin resources. Indeed, if the Commission wanted to ensure that it had not certified another Publix Network Corporation -- the entity that is under investigation for allegedly obtaining compensation from the Interstate TRS Fund for TRS services that allegedly did not comply with the Commission's TRS rules, *see NPRM* at fn. 391 -- it would have to continually monitor the entities that it had certified to ensure that they were providing a compensable TRS service.

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COMMENTS OF SPRINT CORPORATION

Sprint Corporation ("Sprint"), on behalf of the Telecommunications Relay Services ("TRS") operations of its subsidiary, Sprint Communications Company L.P., hereby respectfully submits its comments on the *Notice of Proposed Rulemaking (NPRM)* in CG Docket No. 03-123. Sprint addresses the issues raised *seriatim*.

A. National Security/Emergency Preparedness for TRS Facilities and Services.

Sprint agrees that "TRS and TRS facilities [should] receive an NS/EP priority status commensurate with that given to LEC facilities..." *NPRM* at 105. As the Commission points out, the "functional equivalency mandate" set forth in Section 225 of the Act as well as "the critical importance of telecommunications for all persons in the time of an emergency" requires the assignment of "at least the same NS/EP priority to TRS that applies to LECs or other telecommunications services available to the general public." *Id.* Sprint would note, however, that TRS users do not need to call a TRS center to access 911 in an emergency.

All circuits that enable access to a given TRS center will, of course, have to be enrolled in the Telecommunications Service Priority ("TSP") system in order to establish the priority for

restoration. To the extent that the LECs and other telecommunications providers pass the costs associated with such registration onto TRS facilities providers, such costs will likely have to be recovered from the Interstate TRS Fund.

B. Mandatory Minimum Standards

1. Operational Standards

a. Security of IP Relay Calls

Sprint also agrees that “IP [Internet] Relay calls should be provided with the same level of security using encryption that is commonly used in commercial transactions over the Internet.” *Id.* at ¶107. Indeed, Sprint’s provision of its Internet Relay service -- Sprint Relay Online (SRO) -- already strictly adheres to the latest industry standards on 128 data bit encryption and security.¹ Moreover, Sprint provision of SRO will continue to do so. Thus, as improvements are made in the SSL technology to provide even better encryption and security, Sprint will upgrade its own SSL technology accordingly.

Sprint believes that as long as Internet Relay providers employ such encryption and security technology, there is no need to require the use of registration profiles, sign-ins or passwords for users of Internet Relay. *Id.* at ¶107. Adopting any of these measures will make use of Internet Relay services more cumbersome for end users and reduce the attractiveness of Internet Relay services. In fact, end users may be reluctant to establish a profile since they may regard the profile as diminishing their privacy. Of equal importance, the use of profiles is simply not needed to provide for the confidentiality of an Internet Relay call as long as the TRS provider is, like Sprint, employing technology that meets current industry standards for encryption and

¹ SRO employs the transport level technology, Service Sockets Layer (“SSL”) “Java App,” for authentication and security of messages between the Web service and Web browser.

security. One does not need to establish a customer profile to conduct a commercial transaction over the Internet and Sprint sees no justification for requiring the establishment of such profiles for Internet Relay users.

b. Emergency Call Handling Over Wireless Networks

The Commission seeks comment on whether TRS facilities should be exempt from the requirement to route wireless 711 emergency calls to the same Public Safety Answering Point (PSAP) that would have received the call if the caller had directly dialed 911 on a wireless phone. *NPRM* at ¶109. It is neither technically feasible for wireless carriers to provide such information to TRS centers nor are TRS centers equipped to perform such a function. The Commission should exempt TRS centers from any such requirement on emergency wireless 911 calls. The appropriate means of achieving the goal of functional equivalency for this service is to address the shortcomings associated with 911 answering points and their ability to process 911 calls dialed with TTY devices.

- (i) It is not technically feasible for wireless carriers to provide wireless location information on 711 or other direct dialed TRS calls.**

Current rules require wireless service providers to “transmit all wireless 911 calls without respect to their call validation process to a Public Safety Answering Point.” 47 C.F.R. §20.18(b). Wireless carriers must further be capable of transmitting 911 calls from TTY devices. 47 C.F.R. §20.18(c). Where a PSAP has made a request for enhanced 911 service and is capable of receiving and utilizing the information, a wireless carrier is required to transmit a call back number and the location of the cell site receiving the call (Phase I) or the latitude and longitude of the caller within certain parameters (Phase II). 47 C.F.R. §20.18(d) & (e). All of these services are premised on the customer dialing 911, indicating to the network that an emergency

call is being made and that it must be given special treatment. *See*, 47 C.F.R. §20.18(b), defining “wireless 911 calls” as “any call initiated by a wireless user *dialing 911* on a phone using a compliant radio frequency protocol of the serving carrier” (emphasis added).

Wireless Carriers have constructed their 911 services, including their 911 enhanced location services, based upon this fundamental construct. When a customer dials 911 the network knows that an emergency call is being placed and a complex set of actions are set in motion, including a determination regarding the appropriate PSAP to which to route the call. When a customer dials a number *other than* 911, the call is routed to the destination chosen by the caller and the network does not trigger the complex platforms and signaling protocols required to calculate location.

This network design exists for at least two practical reasons. First, emergency calls represent an extremely small fraction of all traffic. If the network was modified to send every call to the Mobile Positioning Center (MPC), the system would be immediately overloaded. It would be both impractical and economically prohibitive to attempt to build platforms that would perform location calculations on every call attempt. Second, and perhaps more importantly, one of the primary functions of the current wireless E911 network architecture is to ensure that 911 calls are routed to the appropriate PSAP. If 711 calls were redirected to the existing MPC for purposes of beginning the location identification process, the call would also be routed to the corresponding PSAP. This would mean that all 711 calls would be treated as emergency calls to public safety. Because it is not possible for the network to divine the intent of the caller, the switch must be preprogrammed to choose a call path. Either the call is directed to a TRS center or to the MPC; it cannot be routed to both.

In order to understand the complexity of the suggestion that location information be transmitted with 711 calls, it may be useful to provide a description of 911 call processing. When a 911 call is placed on the Sprint network, the switch does not immediately route the call through the Public Switched Telephone Network (PSTN) but rather holds the call until it contacts one of the MPCs constructed to perform location calculation. The MPC begins a complex series of signaling exchanges between the network, the handset and global positioning satellites to calculate location. Data regarding the calling cell site is compared against preloaded tables that identify PSAP jurisdictional boundaries. A Pseudo-ANI or ESRK used for routing purposes is assigned to the call and SS7 connectivity is established to a national ALI database maintained by one of Sprint's vendors. The MPC gives routing instructions to the switch to ensure that the call is delivered to the most appropriate PSAP.

After the voice path of the call is established with the PSAP, the MPC delivers location information to the national Automatic Location Information (ALI) database maintained by Sprint's vendor in Colorado. The national ALI, using existing connections with all local or regional ALI databases, sends the location to the ALI database serving the PSAP which has received the call. The PSAP's CPE then queries the regional ALI for the location information. The entire process is automated and takes place in a few seconds. There is simply no practical way for TRS call centers to be tied into this complex arrangement of interlocking databases and call paths.

- (ii) **Even if location information could be passed to TRS centers, such information would be unusable.**

As outlined above, it is not technically feasible for Sprint's current wireless network to provide wireless location data to TRS centers. Even if these technical hurdles could be overcome, however, the information would be largely unusable. Location information takes two

primary forms in the wireless context. In Phase I, the wireless carrier sends the address of the cell site receiving the call or in some cases a description of the coverage area of the cell site receiving the call (*e.g.*, I-35 near exit 215). In Phase II, the coordinates of latitude and longitude are provided to the PSAP. In either circumstance, this information would be largely meaningless to a TRS center serving large geographic areas, frequently covering multiple states.

In the case of Phase I information, the data transmitted is formatted to accommodate the wishes of the serving PSAP. Thus, address information and descriptions of serving areas are based on the assumption that the PSAP already knows what territory it is serving. There are more than 6,000 PSAPs in the United States, however, and a TRS center would not know with which PSAP the information should be associated. In the case of Phase II information, the TRS center would receive a latitude and longitude which would be meaningless to a TRS call taker. In order to use this information, the TRS center would be required to install PSAP-style CPE containing mapping software and the supporting data being employed by PSAPs to map location. The scale of this system, however, would be required to be multiple times the size of a typical PSAP answering point given that the TRS center would be required to map entire states, not just the limited boundaries of a single PSAP.

Assuming the TRS center was able to translate the location data, it would then be required to determine to which PSAP the call should be routed, contact that PSAP and provide location information over the phone. The TRS center would not have the connectivity required to automatically update a PSAP display, nor would the TRS center be connected to the circuits that ordinarily terminate 911 wireless calls.

TRS Centers would need to be equipped with databases containing the locations of all cell sites of all wireless carriers in their service territories along with mapping software that

could convert latitude and longitude to a specific location. All TRS personnel would need to be trained in managing and communicating information on emergency calls. In effect, the TRS Center would become a national PSAP and wireless carriers would be required to duplicate the existing deployment efforts currently underway for the existing PSAP infrastructure.

- (iii) **The appropriate means of achieving functionally equivalent service for deaf and hard-of-hearing individuals is to ensure that PSAPs have the equipment necessary to receive 911 TTY calls.**

As noted in the *NPRM* (§ 37), “[t]he Americans with Disabilities Act (ADA) requires that all Public Safety Answering Points (“PSAPs) reached via a 911 call provide direct, equal access to their services for people with disabilities who use TTYs.” Likewise, wireless carriers were required to modify their systems to permit TTY users to access 911 over their mobile phones. 47 C.F.R. §20.18(c). While this requirement presented a technological challenge for wireless carriers using new digital technology, most wireless carriers have made the appropriate modifications and most wireless phones can now be used in conjunction with TTYs to complete 911 calls. Based upon these facts, there would appear to be no reason that TTY users should not be able to use 911 services to the same extent, and with the same enhanced features, as any other telephone subscriber.

Nonetheless, as wireless carriers and the Commission are well aware, PSAP TTY devices are not able to process calls from mobile telephones without creating an unacceptable error rate.² While this is unfortunate, the appropriate remedy is not to require wireless carriers to attempt to

² See, Federal Communications Commission Consumer Alert, Use of TTY Devices with Digital Wireless Phones, released July 2, 2002.

build a duplicate 911 system for 711 calls. Rather, the appropriate solution is to require PSAPs to comply with their obligations under the ADA.

c. Non-English Language TRS.

The Commission is once again asking for comments on whether the provision of translation services to TRS users, *e.g.*, English to Spanish or Spanish to English, should be eligible for reimbursement from the Interstate TRS Fund. Although the Commission first raised the issue in its *1998 TRS Notice of Proposed Rulemaking* in CC Docket 98-67, 13 FCC 14187 (1998), it did not address the matter in its *Report and Order* on the *1998 NPRM. Improved TRS Order*, 15 FCC Rcd 5140 (2000). The lack of a decision led the Public Utilities Commission of Texas to seek reconsideration and to renew its request that such translation services be reimbursed from the TRS Fund.

Sprint has always supported the position of the Texas PUC regarding the inclusion of translation services within TRS. Thus, in its comments and reply comments in the *1998 TRS Notice of Proposed Rulemaking*, Sprint explained that translation services through TRS would enable deaf and hard-of-hearing children who are away at school and whose primary language is English or American Sign Language (ASL) to communicate with their foreign language-speaking parents. Moreover, Sprint pointed out that the costs of providing translation services would not have any appreciable impact on the size of the TRS Fund or on the payments by carriers to the Fund. *See* Sprint Comments filed July 20, 1998 at 9-10 and Reply Comments filed September 14, 1998 at 4-5. *See also* Sprint's Comments and Opposition filed August 22, 2000 at 4, where Sprint explained that the Commission's finding that Section 225 of the Act does not prohibit the provision of reimbursable enhanced or information services to TRS users

provided even further justification for including translation services, which, are clearly enhanced, within the scope of TRS.

The passage of time has only served to strengthen Sprint's belief that the inclusion of translation services within TRS will enable family members to utilize the PSTN to communicate with one another.³ Nearly 98 percent of TRS users asking for non-English TRS seek translation services, *e.g.*, Spanish-to-English. Moreover, as the Texas PUC and Sprint have repeatedly explained to the Commission, translation services provided through TRS will enable a deaf child who is away at school and who uses ASL to avail himself of TRS and/or Video Relay Service to communicate with his parents who are non-English speaking.

Sprint does suggest that the service be limited in one respect. Specifically, Sprint believes that one of the languages in the multi-lingual TRS service must always be English or ASL. Such limitation is necessary so as to ensure that TRS is not used simply as a translation service between individuals speaking different foreign languages. Moreover, it would be difficult, if not impossible, to find multilingual individuals capable of providing such translation services who may willing to work as Communications Assistants ("CA") for the salaries that CAs are paid.⁴

³ Translation services would be funded the same way that other relay services are funded. For example, all interstate minutes from translation services provided through traditional TRS would be funded by the Interstate TRS Fund while all intrastate minutes from translation services provided through traditional TRS would be funded by the States.

⁴ As in the case of foreign language TRS service, *e.g.*, Spanish-to-Spanish, each State would be responsible for selecting the languages that would be included in the translation services, if any, offered by the TRS provider in the State. *See Improved TRS Order*, 15 FCC Rcd at 5155.

2. Technical Standards

a. Speed of Answer and Call Set-Up Time

The Commission also asks the parties to address the question of whether “it should require a specified call set-up time for various types and forms of TRS calls and, if so, how such set-up time should be measured.” *NPRM* at ¶117. The short answer to this question is no.

Apparently, the Commission has raised the issue because of “some commenters have expressed frustration with the length of time it takes to set up certain forms of TRS, such as STS and VRS, and certain types of non-traditional TRS calls such as one and two-line VCO and one and two-line HCO.” *Id.* at ¶116. Yet, as the Commission readily acknowledges, setting up these types of calls is not simply of matter of determining the number the end user wants to call and dialing the digits. Rather they require that the CA undertake a number of steps before the call can be placed. Thus, if the Commission were to prescribe the call-set up times for these types of calls, it would first have to undertake time and motion studies to determine the amount of time that an efficient CA would need to perform these additional tasks.

But even such studies would not produce a standard that should be or could be reasonably prescribed. The length of time it takes to set-up a call will vary from call to call even if the calls are placed by the same end user. This is so because an end user often instructs the CA on how to handle a given call before the CA is able to place the call, and such instructions invariably depend on the party the end user wishes to reach. For example, the end user may want the CA to dispense with informing the called party that he or she is receiving a relay call; ask whether the party is familiar with relay calls; and if not, provide some brief instruction. Another call from the same end user -- even a call that is immediately placed after a completed one -- could involve a wholly different set of instructions. Sprint believes that it would be next to impossible to arrive

at a call-set up time standard that could reasonably take into account the variances in calling behaviors not only among various end users but also by the same end user.

In any event, there is simply no need to prescribe specific call-set up times for TRS calls. TRS providers already have a strong economic incentive to reduce the amount of time it takes their CAs to set-up calls. Because the Interstate TRS Fund and several States compensate TRS providers on the basis of conversation minutes as opposed to session minutes, such providers want to minimize the amount of time involved in call set-up for which they receive no compensation. Sprint, for instance, which already employs such time-saving measures, *e.g.*, shorter greetings and macros, and also utilizes technology that increases the speed of transmission, is constantly seeking ways to reduce call set-up times. In short, since the marketplace provides the necessary incentive for TRS providers to minimize call-set times, there is simply no reason for the Commission to provide such incentive through regulation.

b. TRS Facilities

(i) Communications Real-time Translation

The Commission has also requested for comments on how to increase the speed of a TRS call. In particular, it has asked for comments on the use of communication access real-time translation (CART) which enables a stenographer to type speech “verbatim at a significantly higher word per minute than is possible with typing on a standard keyboard.” *NPRM* at ¶118. Apparently, Maryland Relay offers CART to TRS users who are making a three-way call or participating in a conference call, and the Commission asks whether the use of CART or “CART-type services” should be offered by all relay providers. *Id.*

One of the Commission’s responsibilities under Section 225 of the Act is to ensure that its implementing regulations “do not discourage or impair the development of improved

technology.” 47 USC §225((d)(2). In order to satisfy its responsibility here, the Commission should refrain from prescribing the use of any particular technology in order to increase the speed of TRS calls. In particular the Commission should refrain from prescribing the use of CART or CART-type technologies which are simply designed to increase the typing speed of CAs. With the increasing advances in voice recognition technology, stenographer-based CART and CART-type technologies may well become obsolete.⁵ And, given the fact that a stenographer-based CART technology is expensive to implement and to provide, requiring that TRS providers utilize the CART technology, even in the short run, cannot be justified under a traditional cost/benefit analysis.⁶

Nor should the Commission require that relay providers offer a CART-based service by adopting CART as a minimum mandatory standard since the Commission would presumably have to specify the performance levels for a CART-based technology as well as CART stenographer training and minimum standards. Rather, the Commission should leave it to the relay providers and the marketplace to determine whether CART-based services are viable.

(ii) Interrupt Functionality

The Commission has asked for comments on the feasibility of providing interrupt functionality to TRS users. Currently, a TTY user cannot respond to a TTY message until the sending party completely stops typing on his TTY. However, interrupt functionality allows “a TTY user to interrupt incoming text messages in order to convey a message back to the CA.” Thus, according to the Commission, the conversation “is more like a conventional telephone

⁵ At present, voice recognition software has about a 92 percent accuracy rate.

⁶ Sprint would note that skilled CART-stenographers are already in short-supply. If TRS providers were required to provide CART services, the demand for such stenographers would necessarily drive up the salaries that these stenographers could command.

conversation in which each party can begin speaking before the other party has finished speaking.” *NPRM* at ¶120.

The difficulty with prescribing such functionality as a minimum mandatory standard is that, to Sprint’s knowledge, there are no non-proprietary TTY protocols in the market today that would enable relay providers to offer interrupt functionality. Moreover, although there are some ASCII modem protocols, *e.g.* Bell 103, V.22bis, V.29, V.32, that may enable the provision of interrupt functionality, these protocols cannot be used with VCO and HCO calls. This is so because ASCII modem protocols require that the carrier maintains the connection. If modem detects that the connection is broken it will disconnect the call. Thus, since HCO and VCO calling involves the switching of a text-based modem protocol to voice, when the switch is made the ASCII modem will determine that the carrier has terminated the call and will disconnect.

(iii) TRS consumers’ LEC offerings

The Commission has proposed that certain custom calling features offered by LECs to their voice customers be made available to TRS users. Specifically, the Commission has tentatively concluded that “anonymous call rejection,” “call screening” and “preferred call-forwarding” be offered by TRS providers if “they are offered by the subscribing TRS customer’s local carrier *and* if the TRS facility can send Caller ID to the local carrier. *NPRM* at 122, emphasis in original.

The provision of anonymous call rejection, call screening and selective call screening requires that the originating LEC populate the “privacy bit” on the originating call record that is sent to the TRS provider. If the privacy bit is populated in the call record Sprint currently would be able to provide the information to the terminating LEC to enable the terminating LEC to provide such functionality to the called party. Of course, the terminating LEC must have the

capability to provide such features and the end user would have to subscribe to those services. As for anonymous call rejection functionality, Sprint will be able to provide this function through its TRS platform once it has upgraded such platforms to include SS7 technology. Sprint currently plans to have SS7 installed throughout its TRS network by the end of 2004. But to repeat, the provision of any of these features will require the cooperation of the LECs. Sprint cannot predict whether any LEC would be willing to cooperate or provide such access unless required by the FCC to do so.⁷

The Commission also asks whether the TRS provider should be required to offer a form of the “automatic call-back,” *i.e.*, *69, to TRS users. The service envisioned by the Commission would require that the TRS provider furnish the TRS user upon request the last number dialed to the end user through the TRS center. *NPRM* at ¶124. The offering of such feature by a TRS provider would be cost-prohibitive. The TRS provider would have to build and operate a large database that would capture and store the last called number for each and every call placed through its TRS platform. Sprint is unaware of any demand within the deaf and hard-of-hearing community for this type of functionality. Certainly, Sprint’s TRS operations have not had any requests for the feature. Thus to require that TRS providers expend resources to develop the database in order to provide this function simply cannot be justified under a cost/benefit analysis.⁸

⁷ Preferred call-forwarding is a service available from the terminating LEC and there is nothing unique about the feature that would require that a TRS provider also offer it.

⁸ Given the resource constraints that currently exist in the telecommunications industry, Sprint doubts that any TRS provider would be willing to expend the resources to provide this feature on the theory that “if you build it, they will come.”

The Commission also queries whether the TRS provider should be required to monitor a busy called line and once it becomes idle to inform the TRS user of the fact that the number is now available to receive the TRS user's call. Again, the costs of providing this feature would outweigh any benefit that deaf and hard-of-hearing community would realize. To implement the service, the TRS provider would have to undertake an extensive network build-out. This is so because the TRS provider would have to have a separate line to monitor the busy line. And given that such "monitoring lines" would not be used for the provision of other TRS services, they would be underutilized, thereby increasing the costs of providing TRS services. Monitoring services are already made available by the LECs, and there would appear to be no need for the TRS provider to duplicate this offering.

c. Technology

(i) Speech Recognition Technology

The Commission believes that "speech recognition technology may be a promising technology that can be incorporated into TRS to reduce the time it takes for a voice caller's message to be converted into text." *NPRM* at ¶125. However, the Commission states that it does not have sufficient information to determine whether to require speech recognition technology as a mandatory minimum standard and requests comments "on the current status" of the technology's development.

Sprint agrees with the Commission that speech recognition technology is a promising technology that has the potential to greatly enhance the efficient provision of TRS service.⁹

⁹ Sprint's position here is based on tests using UltraTec's proprietary speech recognition technology called Fastran at Sprint's Missouri Relay Center. Sprint does not have any

Footnote continues on next page.

Nonetheless Sprint strongly recommends that the Commission not mandate the use of such technology by TRS providers by adding it to the minimum standards that TRS providers are required to meet. The technology is not inexpensive and its implementation would require TRS providers to expend significant capital, that, even assuming *arguendo* TRS providers would be able to raise, could perhaps be put to better use elsewhere. Moreover, consistent with its Section 225(d)((2) mandate, the Commission should refrain from prescribing the use of any particular technology and instead leave it to TRS providers and the market to experiment with and develop technologies that they believe will enable them to provide a more efficacious TRS product and thereby enhance their competitive position in the market.

(ii) TTY Protocols

The Commission has requested additional information on the efficacy of new transmission TTY protocols that “might improve the interconnection of TRS facilities or TTYs with wireless devices.” *NPRM* at ¶127. In particular, the Commission requests additional information on the v.18 protocol and the v.21 protocol. Unfortunately nothing has changed since Sprint filed its previous comments on this issue. Thus, while Sprint agrees that the v.18 protocol would better enable TTY-to-TTY communications through ASCII modems, no U.S. modem manufacturer has adopted the v.18 standard. As for v.21, Sprint is aware that such protocol has been developed. However, it has no knowledge as to whether there is any demand for the protocol or whether any manufacturer has adopted such standard.

knowledge as to whether any non-proprietary speech recognition technologies are currently available on the market.

C. Public Access to Information and Outreach

Sprint believes that its outreach efforts more than meet the Commission's mandatory minimum standard in this regard. Indeed, Sprint recognizes outreach is the best way to grow its TRS business.

Sprint also believes that a national outreach program funded by the Interstate TRS Fund should be authorized by the Commission. As Sprint explained in its Comments filed May 5, 2000 in response to the *Further Notice of Proposed Rulemaking* in this proceeding, 15 FCC Rcd 5140 (2000), a national outreach campaign is necessary to increase awareness of TRS among the general public. Sprint's May 5 Comments at 7. Despite the fact that TRS services have been provided for over a decade now, it has been Sprint's experience that outside of the TRS user community, little is known about TRS. Such unfamiliarity often results in "hang-ups" by the called party who mistakenly believes that a call from a CA on behalf of an end user is a telemarketing call. Sprint believes that a national public awareness campaign should help to mitigate this problem.

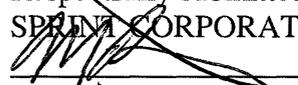
D. Procedures for Determining TRS Providers' Eligibility for Receiving Payments from the Interstate TRS Fund.

The Commission has asked for comments on whether it should establish a certification process for enabling entities that seek to provide only TRS services funded by the Interstate TRS Fund such as VRS and Internet Relay to receive compensation for such services. Currently an entity that provides a TRS service must participate in a state-certified program as an approved TRS provider in order to receive compensation from the Interstate TRS Fund. *NPRM* at ¶136. To accommodate those entities that do not want to seek state approval to participate in the state's certified TRS program and simply want to provide TRS services reimbursable by the Interstate

TRS Fund, the Commission appears to be considering the creation of a federal certification process.

Sprint believes that the creation of a federal certification program could severely strain the Commission's already thin resources. Indeed, if the Commission wanted to ensure that it had not certified another Publix Network Corporation -- the entity that is under investigation for allegedly obtaining compensation from the Interstate TRS Fund for TRS services that allegedly did not comply with the Commission's TRS rules, *see NPRM* at fn. 391 -- it would have to continually monitor the entities that it had certified to ensure that they were providing a compensable TRS service. The states seek to ensure that those entities that they have approved are providing quality TRS services and presumably the Commission would have to do the same for the entities that it has certified.¹⁰

Respectfully submitted,
~~SPRINT CORPORATION~~


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¹⁰ Given such state monitoring, it should not be necessary for entities that have been approved by a state to participate in the state's certified TRS program also to obtain a federal certification.