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Federal Communications Commission

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Before the
Federal Communications Commission
Washington, D.C. 20554

DISPATCHED BY

In the Matter of)

Telecommunications Relay Services)
and Speech-to-Speech Services for)
Individuals with Hearing and Speech)
Disabilities)

CC Docket No. 98-67

NOTICE OF PROPOSED RULEMAKING

Adopted: May 14, 1998

Released: May 20, 1998

Comment Date: July 20, 1998
Reply Comment Date: September 14, 1998

By the Commission:

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I. INTRODUCTION

1. On January 14, 1997, the Commission released a *Notice of Inquiry (NOI)* seeking comment on ways in which Telecommunications Relay **Services** (TRS) for persons with hearing and speech disabilities can be improved.¹ The Commission sought comment on technological advances that could improve the level and quality of service provided through TRS for the benefit of the community of TRS users, and inquired about the effectiveness of the current TRS regulation. The Commission also sought comment on the impact of competition in telecommunications markets on TRS and whether competition in the provision of TRS might have a positive impact on the quality of that service. The Commission received 49 comments and 34 reply comments in response to the *Notice of Inquiry*?

2. After reviewing the record developed in the *NOI*, we propose rule amendments in *this Notice of Proposed Rulemaking (Notice)* that we believe will enhance the quality of

¹ Telecommunications Relay Services, the Americans with Disabilities Act of 1990, and the Telecommunications Act of 1996, Notice **of Inquiry** CC Docket No. **90-571**, 12 FCC **Rcd** 1152 (1997).

² See Appendix A for a list of parties **filing** comments and reply comments in response to the NOZ, and for abbreviations used to refer to **commenters**.

TRS, and broaden the potential universe of TRS users. The proposals set forth here are intended to further promote access to telecommunications for the millions of persons with disabilities who might otherwise be foreclosed from participation in our increasingly telecommunications and information-oriented society. First, we propose to require that, within two years of the publication in the Federal Register of a *Report and Order* in this proceeding, common carriers providing voice transmission service must ensure that nationwide **speech-to-speech (STS)** relay services are available to users with speech disabilities throughout their service areas. Oftentimes, persons with speech disabilities are unable to use the voice telephone network because of a lack of understanding by the public of, and accommodation to, their disability. Speech-to-speech services use facilitators specially trained to understand the speech of persons with speech disabilities to “relay” communications between those individuals and individuals without speech disabilities. For the approximate 2.5 million Americans with speech disabilities, speech-to-speech services profoundly affect their lives, by enabling them to talk to friends and family and to conduct business using telecommunications services that most Americans take for granted.

3. Second, we propose a number of amendments to our current TRS minimum standards that we believe will improve the overall effectiveness of the TRS program. For example, we propose to amend our speed-of-answer rules to make the experience of persons using TRS in placing a telephone call through a TRS center more functionally equivalent to the experience of voice callers using the voice telephone network. The ability to make a telephone call without delay and without routinely encountering a busy signal is fundamental to our concept of a rapid, efficient, Nationwide communications system. We believe that the changes we propose in our TRS minimum standards bring us closer to our goal of a rapid, efficient, nationwide communications systems for all of the people of the United States.

4. Third, we propose amendments to our TRS enforcement rules to improve our oversight of certified state TRS programs and our ability to compel compliance with the federal mandatory minimum standards for TRS. Currently, state TRS programs are certified for a five year period, with no requirement that they report to the Commission on changes in their programs during that period. To increase the effectiveness of our enforcement, we propose that certified state TRS programs notify the Commission of substantive changes to their program within sixty (60) days of the effective date of the change, and to file documentation demonstrating that the state program remains in compliance with all of the Commission’s mandatory minimum standards. We propose other amendments to our enforcement rules similarly aimed at fulfilling our obligation to ensure that state TRS programs fully meet or exceed all federal operational, technical and functional standards for the provision of TRS.

5. Consistent with the goal of the Americans with Disabilities Act of 1990 (ADA)³ of bringing individuals with disabilities fully into the mainstream of American

³ Pub. L. No. 101-336, § 401, 104 Stat. 327, 336-69, *codified at* 47 U.S.C. § 225.

society, we believe that the actions proposed today will have practical impacts that result in direct and tangible improvements in the quality of TRS. Moreover, through this *Notice* and the rulemaking process, we seek to extend the benefits of advances in telecommunications to Americans who might otherwise be excluded because of their disability.

II. BACKGROUND

6. Title IV of the **ADA**⁴ requires the Commission to ensure that TRS is available, to the extent possible and in the most efficient manner, to persons with hearing or speech disabilities in the United States.⁵ TRS is a telephone transmission service designed to give persons with hearing or speech disabilities “functionally equivalent” access to the telephone **network**.⁶ TRS has been available on a uniform, nationwide basis since July 26, 1993.⁷ The Commission sets minimum operational, functional and technical standards for TRS, certifies state TRS programs, and oversees the administration of the interstate TRS cost-recovery **fund**.⁸

7. Currently, **TRS** uses dedicated equipment and staff (Communications Assistants or **CAs**) that relay conversations between persons using text telephones (**TTYs**) and persons who use conventional telephones.⁹ To access TRS, a TTY user dials the telephone number of the local TRS center.” The caller then gives the number of the party he or she desires to call to the CA. The CA in turn places an outbound voice call to the called party. The CA serves as the “**link**” in the conversation, converting all TTY messages **from** the caller into voice messages, and all voice messages **from** the called party into typed messages for the TTY user. The process is performed in reverse when a voice telephone user initiates a call to a TTY user.

⁴ *Id.*

⁵ 47 U.S.C. § 225(b)(1).

⁶ 47 U.S.C. § 225(a)(3).

⁷ Under Title IV, common carriers providing telephone voice transmission services were required to begin providing TRS, throughout the areas they serve, as of July 26, 1993. *See* 47 U.S.C. § 225(c).

⁸ *See* 47 C.F.R. §§ 64.601 - 64.605.

⁹ A text telephone (TTY) is a machine that employs graphic communications in the transmission of coded signals through a wire or radio communication system. 47 C.F.R. § 64.601(8). The Commission’s rules require TRS providers to be capable of communicating with **TTYs** in both Baudot and ASCII format, at any speed generally in use. 47 C.F.R. § 64.604(b)(1).

¹⁰ Individual states have their own TRS access numbers (usually toll-free numbers). In addition, some state TRS programs have separate numbers for voice and TTY access.

8. In enacting Title IV, Congress directed the Commission **to** ensure that persons with hearing and speech disabilities benefit **from** technological advances.” Thus, Title IV states that “the Commission shall ensure that regulations prescribed to implement this section encourage . . . the use of existing technology and do not discourage or impair the development of improved technology.”¹¹ As Congress stated:

[T]his legislation is not intended to discourage innovation regarding telecommunications services to individuals with hearing and speech impairments. The hearing and speech-impaired communities should be allowed to benefit from advancing technology. As such, the provisions of the Section do not seek to entrench current technology, but rather to allow for new, more efficient and more advanced **technology**.¹³

The Commission’s *NOI* was released in this spirit. This Notice represents our continuation of the implementation of the statutory directive that the Commission ensure that our TRS regulations do not artificially suppress or impair the development of TRS in a changing, dynamic telecommunications landscape.

III. DISCUSSION

A. Coverage of Improved TRS Under Title IV of the ADA

1. Scope of TRS Generally

9. Background and Comments. Title IV of the ADA and the Commission’s rules define TRS as:

[t]elephone transmission services that provide the ability for an individual who has a hearing impairment or speech impairment to communicate by wire or radio with a hearing individual in a manner that is functionally equivalent to the ability of an individual who does not have a hearing impairment or speech impairment to communicate using voice communication services by wire or **radio**.¹⁴

¹¹ See 47 U.S.C. § 225(d)(2); H.R. Rep. No. 101-485(II), 101st Cong., 2d Sess. 130 (1990) (House Report II).

¹² 47 U.S.C. § 225(d)(2).

¹³ House Report II at 130.

¹⁴ 47 U.S.C. § 225(a)(3); 47 C.F.R. § 64.601(7).

The 'statutory and regulatory definitions further explain that TRS "includes services that enable two-way communication between an individual who uses a **TDD**¹⁵ or other **nonvoice** terminal device and an individual who does not use such a **device**."¹⁶

10. Historically, the Commission's rules on TRS have been applied only to TTY-to-speech and speech-to-TTY services. In the *NOI*, however, the Commission sought comment on whether the requirements of the ADA also apply to any "improved" TRS.¹⁷ By "improved" services, we meant any form of TRS that goes beyond the current TTY-to-speech and speech-to-TTY model, such as Video Relay Interpreting (**VRI**) and STS relay services.* We also sought comment on whether these services must comply with all standards for TRS **under** Title IV.¹⁹ We further noted that the current definition of "Communications Assistant" defines a CA as "a person who transliterates conversation from text to voice and from voice to text between two end users of TRS."²⁰ We sought comment on whether this definition would need to be modified to encompass relay services that do not involve speech-to-text or text-to-speech.*

11. A majority of commenting parties believe that the statutory definition of TRS encompasses forms of relay service that go beyond the current TTY-based relay services.** **PacTel** and Missouri, however, state that the determination of whether improved services fall under Title IV should be made on a case-by-case **basis**.²³ Southwestern Bell argues that the express language of Title IV limits its provision to services that are based on the use of

¹⁵ Although Congress used the term "**TDD**" to refer to text telephones in the statute, and the Commission's rules at 47 C.F.R. § 64.601(8) designate a text telephone as "IT," we use the more generally accepted term "TTY" to refer to text telephones throughout this document in order to minimize confusion.

¹⁶ 47 U.S.C. § 225(a)(3). See *also* 47 C.F.R. § 64.601(7).

¹⁷ *NOI*, 12 FCC **Rcd** at 1156-57.

¹⁸ *Id.* **VRI** allows persons with hearing disabilities to access the telephone network through the use of sign language interpreters and desktop personal computer video conferencing software. STS uses specially trained **CAs** that serve as call facilitators for persons with **severe** speech disabilities. See sections **III(A)(2) - (3)**, *infra*, for background on and a discussion of **STS** and **VRI** services.

¹⁹ *Id.*

²⁰ 47 C.F.R. § 64.601(5).

²¹ *NOI*, 12 FCC **Rcd** at 1157.

²² See, e.g., NAD Comments at 3; DCADC-VAD Comments at 2; MCDHH Comments at 2; CPAS Comments at 2-4; AOAC Comments at 2-4; Maryland Comments at 5.

²³ **PacTel** Reply Comments at 3; Missouri PSC Comments at 4.

TTYs.²⁴ Southwestern Bell relies on a 19% Common Carrier Bureau Order concerning Operator Services for the Deaf (OSD), where the Bureau declined to allow cost recovery for interstate OSD **from** the interstate TRS Fund, concluding that OSD is a “TTY-to-TTY” service, not a “relay” service, and therefore does not fall within the definition of TRS.²⁵ Countering Southwestern Bell’s argument, the California PUC points out that “. . . the specific reference to **TDDs** [in the ADA] is meant to illustrate the type of technology that might be used, not to preclude the use of other **technologies.**”²⁶

12. Ameritech notes that new and improved TRS should generally be subject to Commission TRS standards. It states, however, that our existing rules cannot always be applied to new forms of TRS and in some cases “may need to be modified to reflect basic operational differences.”²⁷ Similarly, using STS services as an example, the California PUC notes that “trials [of speech-to-speech] have demonstrated that speech-to-speech differs from TRS in a number of respects and it may not be appropriate to include speech-to-speech directly in TRS minimum **standards.**”²⁸ Finally, several commenters assert that the costs for improved TRS should be recoverable from the TRS Fund, regardless of whether such improved services are required, or are provided **voluntarily.**²⁹

13. The parties that address the Commission’s definition of “Communications Assistant” uniformly agree that the current definition is too **restrictive.**³⁰ Wisconsin TRS-AC also notes that the term “CA” may not be the best term, because voice users are more familiar with the term “operator” and may be less likely to hang up without realizing the call is a TRS call if that term is **used.**³¹

14. Discussion. We tentatively conclude that Title IV of the ADA is applicable to any wire or radio communication service that enables persons with hearing or speech

²⁴ See Southwestern Bell Comments at 2-4.

²⁵ *Id.* at 3-4, **citing** Establishment of a Funding Mechanism for Interstate Operator Services for the Deaf, *Memorandum Opinion and Order*, CC Docket No. 90-571, 11 FCC Rcd 6808 (1996) (*OSD Order*).

²⁶ California PUC Reply Comments at 2.

²⁷ Ameritech Comments at 7.

²⁸ See California PUC Comments at 26. See *also* NASRA Comments at 9; AT&T Comments at 8. See *infra* section III(A)(2), for a further discussion of STS services.

²⁹ See, e.g., AIM Comments at 2; Ameritech Comments at 17-18; AOAC Comments at 10-11; Texas PUC Comments at 10; Wisconsin TRS-AC Comments at 7.

³⁰ See, e.g., AIM Comments at 1; Wisconsin TRS-AC Comments at 3; AOAC Comments at 5; MCDHH Comments at 2; NVRC Comments at 7.

³¹ Wisconsin TRS-AC Comments at 3.

disabilities to engage in communication with persons without such disabilities and is not limited to services using **TTYs**. Our tentative conclusion is based on the plain language of Title **IV**³² together with Congress' direction to the Commission to ensure that its regulations do not limit or discourage the deployment of new technologies. We believe that Title **IV**'s language and structure establish that Congress intended TRS to be an evolving service that would expand beyond traditional TTY relay service as new technologies developed. We seek comment on our tentative conclusion.

15. We also tentatively conclude that the costs of providing interstate "improved" relay services should be reimbursed from the interstate TRS Fund. This conclusion is based on, and consistent with, our statutory duty not to discourage the implementation of improved TRS. We tentatively conclude that **TRS** providers should be able to receive reimbursement for providing intrastate or interstate improved relay services regardless of whether they provide the service voluntarily or the provision of the service is required by the Commission's or a certified state's TRS rules, provided that the Commission has first issued a determination, through a rulemaking or a declaratory ruling, that a certain service is an "improved" TRS service. We tentatively conclude that two services shall be classified as "improved" TRS service, and thus the costs of providing these services should be recoverable: (1) STS service and (2) **VRI** service. Since STS and VRI services are already being implemented by many TRS providers, we believe that allowing recovery for the costs of these two services will spur further development of these services. We seek comment on our tentative conclusions.

16. Because some practical considerations may be involved in cost-recovery for improved TRS, such as whether separate reimbursement rates must be developed for different types of TRS, we tentatively conclude that the Interstate TRS Fund Advisory **Council**³³ should develop guidelines for interstate cost-recovery for improved TRS, within six months of the adoption of a *Report and Order* in this proceeding. We tentatively conclude that such guidelines would be subject to review and final approval by the Commission, following an opportunity for public comment on the guidelines. We seek comment on this tentative conclusion. Commenters should discuss the issues that the Advisory Council should consider in formulating these guidelines and provide specific language for guidelines in support of their recommendations.

³² See 47 U.S.C. § 225(a)(3) (stating that TRS *includes* TTY-based services or services using "other **nonvoice terminal device[s]**" (emphasis added)).

³³ The TRS Fund Advisory Council is a non-paid, voluntary advisory committee of persons **from** the hearing and speech disability community, TRS users (voice and text telephone), interstate service providers, state representatives, and TRS providers. The Council meets at least semi-annually in order to monitor TRS cost recovery matters. See 47 C.F.R. § 64.604(c)(4)(iii)(H).

17. Pursuant to statutory **directive**,³⁴ the Commission has established rules that set forth the minimum operational, technical and functional standards for **TRS**.³⁵ We tentatively conclude that only services that are mandated by Commission regulation must comply with the Commission's mandatory minimum standards. These services would include standard TRS, voice carryover (VCO), hearing carryover (HCO), and, as we are proposing in this *Notice*, **STS service**.³⁶ We tentatively conclude, as argued by Ameritech, that some improved services such as STS may have operational differences that make compliance with current Commission standards infeasible, as discussed in section **III(A)(2)**, *infra*. We seek comment on these tentative conclusions. We note that states that require TRS not mandated by the Commission, such as **VRI**, are free to specify performance standards for the services provided within their jurisdiction, provided those performance standards do not conflict with federal law.³⁷

18. Finally, we tentatively conclude, as suggested by several parties, that the current definition of "Communications Assistant" is too restrictive to encompass some activities that may be performed by a person who assists in providing TRS, especially a person involved in providing "improved" TRS offerings. We propose, therefore, to amend the current definition set forth in our **rules**³⁸ by removing the words "from text to voice and from voice to **text**," **and** maintaining the remainder of the current definition. We seek comment on this proposal.

2. Speech-to-Speech (STS) Relay Service

19. Background and Comments STS service is an improved TRS offering that uses specially-trained persons as relay "voices" for persons with severe speech disabilities. In the *NOI*, the Commission requested general comment on **STS services**.³⁹ The Commission also sought specific comment on the feasibility of requiring STS services within our mandatory minimum TRS, the extent to which TRS providers are currently offering, or

³⁴ 47 U.S.C. § 225(d).

³⁵ 47 C.F.R. § 64.604.

³⁶ "Voice carryover" is a reduced form of TRS where the person with the hearing disability is able to speak directly to the other end user, and the CA types back the response of the other end user. 47 C.F.R. § 64.601(9). "Hearing carryover" is a reduced form of TRS where the person with the speech disability is able to listen to the other end user, and, in reply, the CA speaks the text as typed by the person with the speech disability. 47 C.F.R. § 64.601(6). **TRS** providers are required by the Commission's rules to offer VCO **and** HCO. 47 C.F.R. § 64.604(b)(5). See *infra* section **III(A)(2)** for a discussion of speech-to-speech (STS) services.

³⁷ See 47 C.F.R. § 64.605(b)(3).

³⁸ 47 C.F.R. § 64.601(5).

³⁹ See *NOI*, 12 FCC **Rcd** at 1163.

planning to offer, STS service, the number of potential users of STS services, the availability of trained individuals capable of providing STS services, and the potential costs of such services.*

20. In response to the *NOI*, UCPA provides comprehensive data on the number of individuals who could benefit **from** STS. UCPA indicates that there are approximately 2.5 million people in the United States with functional speech **disabilities**.⁴¹ UCPA also notes that there are more than 500,000 people in the United States with cerebral palsy. Of this pool, 30% have severe speech disabilities and **85-90%** have a speech **disability**.⁴² UCPA also estimates that at least 150,000 people with cerebral palsy need augmentative communication prostheses to have their voices understood at **all**.⁴³

21. While all commenters appear to recognize the value and benefits of STS for people with speech disabilities, they are divided on whether the Commission should mandate these services. Commenters representing TRS users and the community of persons with speech disabilities generally support a Commission requirement for STS **service**.⁴⁴ Carriers, state administrators and TRS providers, however, generally appear to oppose a Commission requirement for STS service, and argue that market forces should be sufficient to spur providers to offer this service! Some commenters also assert that, at a minimum, the Commission should monitor the development of STS at the state level for some time before mandating the **service**.⁴⁵ California, Georgia, Maryland and Wisconsin currently offer STS

⁴⁰ *Id.*, 12 FCC **Rcd** at 1163.

⁴¹ UCPA Comments at 3 (citing United Cerebral Palsy Association Research and Educational Foundation, February 1986).

⁴² *Id.*

⁴³ *Id.* The Bureau of the Census reports that there are 2.5 million people in the United States whose speech is **difficult** to understand. Of that number, 237,000 are unable to have their speech understood and **2,284,000** have a functional limitation in speech. Americans with Disabilities 1991-1992, Bureau of the Census Report, U.S.. Department of Commerce Economics and Statistics Administration, 1993.

⁴⁴ See, e.g., UCPA **Comments, passim**; AOAC Comments at 28; Nelson Comments at 3; NVRC Comments at 9; CPAS Comments at 6; **MATP** Reply Comments at 3; COR Reply Comments at 2; NAD Reply Comments at 13.

⁴⁵ See, e.g., AT&T Comments at 8; California PUC Comments at 3; USTA Comments at 4; Ameritech Comments at 16.

⁴⁶ See, e.g., AT&T Comments at 8; AT&T Reply Comments at 4; Bell Atlantic-Nynex Reply Comments at 6; Ameritech Comments at 16; California PUC Comments at 16; California PUC Reply Comments at 3; USTA Reply Comments at 4; **NASRA** Comments at 9; Southwestern Bell Comments at 8.

service; Missouri PSC states that it conducted a STS trial in 1995; and GTE indicates that it is exploring the possibility of STS in its Hawaii TRS operation.⁴⁷

22. AT&T points out that the costs of providing STS service are low in comparison with the costs of providing other improved TRS, such as VRI.⁴⁸ While commenters indicate that the nationwide demand for STS service may be low, commenters also state that if STS services are offered on a centralized or regional basis, the cost-effectiveness of STS can be greatly improved.⁴⁹ Finally, several commenters note that speech-to-speech has operational differences that may make application of some of the Commission's general TRS rules to this service infeasible.⁵⁰

23. Discussion. We tentatively conclude that, within two years of the publication in the Federal Register of a *Report and Order* in this proceeding, all common carriers providing voice transmission services must ensure that STS services are available to callers with speech disabilities throughout their service areas. We propose to amend section 64.603 of our rules to reflect this proposed requirement and to add a definition of STS service under section 64.601 of our rules.⁵² We seek comment on this tentative conclusion and on the text of the proposed rules. Our tentative conclusion that STS should be required under the Commission's TRS rules is based on our finding that STS services fall within the scope of the ADA's definition of "telecommunications relay services" as a telephone transmission service that enables an individual who has a speech disability to communicate by wire or radio with a hearing individual in a manner that is functionally equivalent to the ability of a person who does not have a speech disability to communicate using voice communication services by wire or radio.⁵³ We also tentatively conclude that requiring STS under the Commission's TRS rules is consistent with our responsibility to ensure that our regulations do not discourage or impair the development of improved technologies⁵⁴ and that the significant benefits that STS service offers to people with severe speech disabilities, an insular community that has been, for the most part, denied access to the telephone network, greatly outweigh the costs of STS

⁴⁷ See, e.g., California PUC Comments at 4-5; Maryland Comments at 6; Missouri PSC Comments at 5; GTE Comments at 11.

⁴⁸ AT&T Comments at 7.

⁴⁹ See, e.g., Missouri PSC Comments at 5; GTE Comments at 12; NAD Reply Comments at 13.

⁵⁰ See, e.g., AT&T Comments at 8; California PUC Comments at 5.

⁵¹ 47 C.F.R. § 64.603.

⁵² 47 C.F.R. § 64.601. See Appendix B for the text of the proposed rule.

⁵³ 47 U.S.C. § 225(a)(3).

⁵⁴ 47 U.S.C. § 225(d)(2).

services. UCPA provides statistics that indicate that up to 76% of persons with severe speech disabilities are **unemployed**.⁵⁵ We believe that access to the telephone network through STS services would significantly enhance educational and employment opportunities for people with severe speech disabilities. STS services also would reduce the **frustration** and frequent hang-ups experienced by people with speech disabilities when they attempt to use the telephone in their daily **lives**.⁵⁶ Moreover, the population served by STS service does not appear to be adequately served by the current TRS **system**.⁵⁷

24. We recognize that a few states have already initiated programs to deliver STS services. The existence of state STS programs may suggest that STS programs could be established without a national requirement. Some state administrators have stated that they do not support the imposition of a national STS requirement, believing that additional experimentation should be **conducted**⁵⁸ and that the costs of providing STS on a state-by-state basis may render the provision of the services prohibitive at this **time**.⁵⁹ We tentatively conclude, however, that the adoption of federal rules will assist the states in developing cost-effective, regional or national centers where speech-to-speech calls **can** be handled. Without a federal rule requiring STS, the states may conclude that offering the service within their state alone is cost-prohibitive. We seek comment on our tentative conclusion. We also ask commenters to discuss specific state STS programs, to comment on the standards applied by the states to their STS programs and to provide the Commission with the benefit of the states' experiences.

25. We recognize that **sufficient** numbers of personnel trained to deliver STS services may not currently be available. We tentatively conclude, however, that an implementation date of two years following publication in the Federal Register of a *Report and Order* adopting this proposal provides a reasonable and sufficient time period for TRS providers to develop STS offerings. TRS providers may, for example, become involved in training individuals to provide STS service. The two-year **timeline** also allows TRS providers an opportunity to formulate the most cost-effective basis by which STS service can be

⁵⁵ UCPA Comments at 3.

⁵⁶ The Commission received 13 reply comments from individuals with speech disabilities discussing their **frustrations** in attempting to use telephone services and their desire to see implemented a mechanism, such as ST'S, that enables them to use the telephone. See, *e.g.*, Behms Reply Comments, *passim*; Hoye Reply Comments, *passim*; LaShell Reply Comments, *passim*.

⁵⁷ HCO services, required by 47 C.F.R. § 64.604(b)(5), may allow some people with speech disabilities to use TRS, by typing on a **TTY** as a substitute for speech and using their own hearing. Many persons with severe speech disabilities, however, also may have physical disabilities that limit their ability to use a **TTY** and, thus, their ability to use HCO services.

⁵⁸ California PUC Reply Comments at 1.

⁵⁹ Missouri PSC Comments at 5.

provided (i.e., by coordinating or centralizing the service in regional speech-to-speech centers, rather than by attempting to provide independent services on a state-by-state basis). We seek comment on this tentative conclusion.

26. Although we have tentatively concluded that all TRS mandated by Commission rules, such as standard TRS, VCO and HCO, must comply with the Commission's minimum standards for TRS, we recognize that STS services may have operational characteristics that may make compliance with certain "traditional" TRS standards technically difficult or impossible. For example, it may be necessary to relax current speed-of-answer requirements for STS service (i.e., the length of time that may elapse between the receipt of dialing information and the dialing of the requested number) because of the longer call set-up times, that may result from the functional speech limitations of an individual caller with a speech disability, involved in STS service. We ask commenters to examine the Commission's rules governing mandatory minimum standards for TRS,⁶⁰ and to comment upon whether any specific exceptions to those rules must be made for STS service, in light of the unique nature of the service. Commenting parties should suggest specific rule language in proposing a particular exception or change to the Commission's rules.

3. Video Relay Interpreting (VRI) Services

27. Background and Comments. VRI is an improved TRS offering that utilizes personal computer (PC) videoconferencing equipment, sign language interpreting services, and high-speed transmission services such as ISDN to enable a deaf TRS user to communicate with voice telephone users in sign language, or by other forms of visual **communication**.⁶¹ In the *NOI*, the Commission sought comment on this relatively new technology. The Commission specifically invited comment on: (1) the technical feasibility of VRI services; (2) the potential benefits of the service; (3) the availability of sign language interpreters; (4) the privacy and confidentiality aspects of VRI; and (5) the costs of VRI.⁶²

28. Sprint and the Texas PUC, who have jointly conducted comprehensive VRI trials in the state of Texas since 1995, filed detailed and informative reports with the Commission on their experiences with VRI.⁶³ Texas PUC, for example, indicates that while VRI is technically feasible through the use of ISDN Basic Rate Interface (BRI), and ISDN is already available throughout most of Texas, the cost of ISDN remains a barrier to the

⁶⁰ 47 C.F.R. § 64.604, attached hereto as Appendix C.

⁶¹ See *NOI* at 12 FCC Record 1157-1558 for a **further** description of VRI.

⁶² *NOI*, 12 FCC **Rcd** at 1158-1163.

⁶³ See Sprint Comments, Attachment, and Texas PUC Comments, Attachment.

deployment of **VRI**.⁶⁴ Texas PUC also notes that high-end **Pentium/586** computer equipment may be necessary to deliver a smooth video transmission rate, despite claims of PC videoconferencing product dealers that the less costly 486 computer is **acceptable**.⁶⁵

29. The majority of commenters addressing this issue agree that the potential benefits of **VRI** services for people with hearing disabilities, especially those who communicate primarily through sign language, are **unquestionable**.⁶⁶ Commenters state that some groups of persons with hearing disabilities, such as small children, may not have the ability to type on a TTY and, thus, still are excluded from the benefits of telephone service despite the availability of **TRS**.⁶⁷ Commenters also state that **VRI** provides more "functionally equivalent" access to the telephone network because **VRI** users are able to impart "tone" to the conversation, and to interject into a conversation as needed, capabilities which currently may be precluded by many **TTYs**.⁶⁸

30. Many commenters assert that, at least presently, the supply of qualified sign language interpreters to staff nationwide **VRI** services may not be adequate. In particular, the Registry of Interpreters for the Deaf (ND), a national certifying body for sign language interpreters, notes a current "crisis in the nation with respect to the demand for and supply of qualified interpreters."⁶⁹ In addition, a number of commenters urge the Commission to develop standards for sign language interpreting services provided through **VRI**.⁷¹ NAD urges the Commission to adopt the U.S. Department of Justice's definition of "qualified interpreter"

⁶⁴ Texas PUC Comments at 4.

⁶⁵ *Id.* at 5. See *also* MCI Comments at 5-6; Southwestern Bell Comments at 5; AOAC Comments at 16 -17.

⁶⁶ See, e.g., NAD Comments at 4; Ameritech Comments at 10; Travis DHS Comments at 3; Jordan Comments at 1; CAN Comments at 3-4; Nelson Comments at 2; MCI Comments at 5; Southwestern Bell Comments at 5; Texas PUC Comments at 6-7. *But* see **Stoltz** Comments at 4 (**VRI** use with "lipreading" will be minimal), NVRC Comments at 7 (in order to serve people who use speech-reading and cued speech, **VRI** should also include "transliterating" services).

⁶⁷ See, e.g., NAD Comments at 4; SHHH Comments at 12-13; CAN Comments at 4.

⁶⁸ See, e.g., NAD Comments at 4; CAN Comments at 3-4; Texas PUC Comments at 6-7.

⁶⁹ See, e.g., Nelson Reply Comments at 3; RID Reply Comments at 2; USTA Reply Comments at 3; Louisiana Relay Comments at 3-4; Ameritech Comments at 10; Wisconsin TRS-AC Comments at 5; WMAD Comments at 18-20; MCI Comments at 6; Southwestern Bell Comments at 6-7; GTE Comments at 10.

⁷⁰ RID Reply Comments at 2.

⁷¹ See, e.g., NAD Reply Comments at 11; Wisconsin TRS-AC Comments at 5; CPAS Comments at 5. But see MCI Comments at 7; AOAC Comments at 19-20 (arguing that the Commission should not adopt minimum standards for interpreting services **because** the interpreting profession is a "mature profession" and is **already** subject to quality standards, and the Commission would be intruding upon private entities that develop such standards).

under Titles II and III of the ADA.” Many commenters agree that confidentiality and privacy is vital to **VRI** service, but contend that current Commission confidentiality rules, and standards of the interpreting profession, may be **sufficient** to protect **VRI users**.⁷³ A majority of commenters addressing the issue of cost suggest that, at this time, the cost of **VRI**, both to telecommunications providers and to end users, is significant, and would be substantially higher than the cost of basic **TRS**.⁷⁴

31. Finally, commenters are divided on whether **VRI** should become a mandatory requirement under the Commission’s **TRS** rules. A few parties support mandated **VRI** services.” The majority of commenters, however, including carriers, **TRS** providers, and state administrators, oppose requiring **VRI** as a mandatory service at this time because of the recent introduction of the service and its high implementation **cost**.⁷⁶

32. Discussion. We tentatively conclude that **VRI** should not be mandated by the Commission’s **TRS** rules at this time. All parties appear to agree that **VRI** has tremendous potential to both improve the functional equivalency of **TRS** and to broaden the universe of **TRS** users. The technology, however, is still at a relatively early stage of development, and the costs to implement this service on a nationwide basis appear to be prohibitive. We also note that there may be an inadequate supply of qualified interpreters to **staff** nationwide **VRI** services at this time. We believe that **VRI** will grow and develop more efficiently if providers are allowed to experiment with various **VRI** offerings on a trial basis, and to offer these services as a means of differentiating themselves from their competitors, until a **cost-effective** and practical **VRI** platform is developed. Mandating the provision of **VRI** when it is

⁷² NAD Reply Comments at 11. The Department of Justice ADA regulations define “qualified interpreter” as “an interpreter who is able to interpret effectively, accurately, and impartially, both receptively and expressively, using any necessary specialized vocabulary.” 28 C.F.R. § 35.104.

⁷³ See, e.g., MCI Comments at 6-7; Ameritech Comments at 13; ALDA Comments at 10; CPAS Comments at 5; AOAC Comments at 21-22; Southwestern Bell Comments at 8; Texas PUC Comments at 8-9.

⁷⁴ See, e.g., **GTE** Comments at 11; GTE Reply Comments at 3; USTA Reply Comments at 3; Ameritech Comments at 13; Louisiana Relay Comments at 4; Southwestern Bell Comments at 8; Texas PUC Comments at 9; California PUC Comments at 6.

⁷⁵ See, e.g., NAD Reply Comments at 8; ALDA Comments at 9; Travis DHS Comments at 1; MCDHH Comments at 2; Foy Comments at 4; CAN Comments at 3; Nelson Comments at 2; NVRC Comments at 7; MCI Comments at 5.

⁷⁶ See, e.g., AT&T Comments at 4; AT&T Reply Comments at 2; Bell **Atlantic/Nynex** Reply Comments at 7; GTE Comments at 10; GTE Reply Comments at ii; California PUC Comments at 15; California PUC Reply Comments at 3; USTA Comments at 3; Ameritech Comments at 2; NASRA Comments at 9; Missouri PSC Comments at 5; Louisiana Relay Comments at 3; Kansas Relay Comments at 4; **PacTel** Reply Comments at 5. Sprint, a major supporter of the development and testing of **VRI** to date, takes “no position” on the issue of whether **VRI** should be a required service, but sets forth principles that should factor into the decision as to whether to mandate **VRI**. See Sprint Comments at 3.

still at an early stage of development may remove competitive incentives for the development of innovative and quality VRI offerings by TRS providers. We seek comment on our tentative conclusion that VRI should not be a required TRS service under the Commission's rules at this time. Commenters who disagree with our tentative conclusion should provide specific evidence demonstrating the feasibility of implementing effective and affordable VRI on a nationwide basis.

33. We recognize that TRS providers may be increasingly likely to offer VRI services to TRS users as the technology develops and as the costs of providing VRI decrease. Accordingly, we tentatively conclude that the Commission should continue to monitor the state of VRI technology. We request comment on when and how the Commission should determine to revisit the issue of whether VRI should be mandated under our TRS rules.

34. In the interest of protecting users of voluntarily-provided VRI services from the risk of communication errors caused by the use of unqualified interpreters, we propose to incorporate the definition of "qualified interpreter," as used by the Department of Justice in its Titles II and III regulation, to our TRS rules." We also tentatively conclude that our TRS confidentiality, conversation content and "type of call" rules apply to the provision of VRI services.* We seek comment on these proposals. Finally, as we tentatively concluded under **para. 15, *supra***, while we do not propose to mandate the provision of VRI, VRI still would be considered a "relay" service within the meaning of Title IV. As such, we tentatively conclude that the costs of interstate VRI are recoverable from the interstate TRS Fund, subject to guidelines that we propose be developed by the interstate TRS Fund Advisory Council. Similarly, the costs of intrastate VRI would be recoverable from the intrastate jurisdiction. Allowing the recovery of VRI costs, we believe, will spur TRS providers to offer VRI on a voluntary basis. We seek comment on these tentative conclusions.

4. Multilingual Relay Services (MRS) and Translation Services

35. Background and Comments. Multilingual relay services (MRS) allow persons with hearing and speech disabilities who use languages other than English to communicate with voice telephone users in a shared foreign language, through a CA who is fluent in the selected language. In the *NOI*, the Commission sought comment on whether Title IV of the ADA encompasses MRS, the extent to which MRS is currently available, and if there is a need for MRS, what standards the Commission could adopt for this service.⁷⁹

36. The record indicates that MRS service is currently provided in areas of the United States where large non-English speaking populations reside, and that the majority of

⁷⁷ See n.73, *supra*.

⁷⁸ See 47 C.F.R. § 64.604(a)(2), (a)(3).

⁷⁹ See *NOI*, 12 FCC Rcd at 1164-1 165.

MRS are Spanish-language **services**.⁸⁰ Commenters appear to agree that MRS is within the scope of Title IV; they also state, however, that because of the varying populations and resources of **different** states, the decision to implement MRS should rest with the state.” Ameritech also requests clarification on whether the Commission’s inquiry on multilingual services referred to translation services or same-language services.** Finally, Maryland and the DC PSC indicate that American Sign Language (ASL) translation services are available as part of their TRS **offerings**.⁸³

37. **Discussion** tentatively agree with those parties that assert that, at this time, the decision as to whether to implement MRS is best **left** to the state TRS programs. Because language needs and population demographics may vary widely from state-to-state, we tentatively conclude that the development and implementation of federal rules governing MRS could be problematic. Moreover, we tentatively conclude, based on the record, that where there is a demand for these services, some TRS providers have been providing MRS services to non-English speaking communities, especially to Spanish-speaking communities, at a satisfactory level, and that, as a consequence, Commission intervention in this area is not needed at this time.” We seek comment on these tentative conclusions.

38. We clarify, however, that MRS is, by definition, a “telecommunications relay service” as defined in Title IV of the ADA and our **rules**⁸⁵ because those services are telephone transmission services that enable a person with a hearing or speech disability to communicate by wire or radio with a person without such a disability. As such, although we do not propose to mandate the provision of MRS, MRS is considered a “relay” service within the meaning of Title IV. Accordingly, to the extent voluntarily provided, the costs of intrastate or interstate MRS are recoverable **from** the intrastate jurisdiction or the interstate TRS Fund, as appropriate. As with VRI, by allowing carriers to recover their costs of providing this service, we seek to spur the development of MRS and to encourage TRS providers to offer MRS on a voluntary basis.

⁸⁰ See, e.g., California PUC Comments at 11; Maryland Comments at 6; Sprint **Comments** at 2; Texas PUC Comments at 10; AT&T Comments at 8; Ameritech Comments at 16; MCI Comments at 8.

⁸¹ See, e.g., Louisiana Comments at 3; Missouri PSC Comments at 6; NASRA Comments at 7-8; Southwestern Bell Comments at 9; Texas PUC Comments at 10.

⁸² Ameritech Comments at 36.

⁸³ See Maryland Comments at 8-9; DC PSC Comments at 3.

⁸⁴ See, e.g., California PUC Comments at 11; Maryland PUC Comments at 6; MCI Comments at 8; Texas PUC Comments at 10.

⁸⁵ 47 U.S.C. § 225(a)(3); 47 C.F.R. § 64.601(7).

39. We tentatively conclude that Title IV of the ADA, as a general matter, only encompasses *same-language* MRS, since such services are by nature “relay” services between a person with a hearing or speech disability and a person without such a disability, using a shared language. We understand that some TRS providers may be offering “translation” services to TRS users (i.e., communication between two parties who each use a different language) including Spanish-language and ASL translation services. We tentatively conclude that any such “translation” TRS, especially foreign-language translation services, are **value-added** TRS offerings that go beyond the “relaying” of conversations between two end **users**.⁸⁶ Therefore, the interstate portion of such services should not be reimbursable from the interstate TRS Fund. We seek comment on this tentative conclusion. In particular, we ask parties to discuss whether an exception should be made for ASL translation services. ASL is a language unique to the deaf community. Therefore, ASL **translation** services may be necessary to provide “functional equivalency” to ASL users. We note, however, that ASL is primarily a visual language, and not a written or text-based language. Commenters should discuss whether ASL, when not presented visually but “typed” on a TTY, is capable of being translated to English in an objective and reliable manner, with a low risk of misunderstanding or CA error.

5. Access to Emergency Services

40. Background and Comments. The Commission’s current TRS regulations require that. “**CAs** shall handle emergency calls in the same manner as they handle any other **TRS calls**.”⁸⁷ Although this issue was not raised in the *NOI*, several emergency number and public safety associations filed reply comments asserting that further Commission guidance and minimum standards may be necessary in this **area**.⁸⁸ Commenters suggest that there is inconsistency and confusion among the states and TRS providers as to how such calls should be **handled**.⁸⁹ APSCO and NENA assert that, due to the “critical nature” of emergency calls, CA processing of those calls is of utmost importance, but the procedures for handling the calls vary **from state-to-state**.⁹⁰ APSCO and NENA ask that the Commission establish minimum standards for call handling in this area, and suggest that consideration be given to: (1) using databases to match the TRS caller’s automatic number information (**ANI**) with the appropriate emergency service number in his or her area; (2) allowing the TRS center to pass the caller’s **ANI** information to the emergency service provider, even where the TRS user disconnects before emergency personnel are connected (i.e., the functional equivalent of 9 11

⁸⁶ See section III(A)(1), *supra*, for a discussion of the definition of “**TRS**” and the scope of Title IV.

⁸⁷ 47 C.F.R. § 64.604(a)(3).

⁸⁸ See APCO and NENA Joint Reply Comments; TX-ACSEC Reply Comments, *passim*.

⁸⁹ See *id*

⁹⁰ See APCO and NENA Joint Reply Comments at 2.

“call-back”); and (3) defining what constitutes an “emergency” call.⁹¹ TX-ACSEC also supported the need for minimum standards in this area.⁹²

41. Discussion. We recognize that, despite Department of Justice regulations under Title II of the ADA that require state and local government entities to make emergency services directly accessible to TTY users,⁹³ many individuals with hearing and speech disabilities may choose to contact emergency services via a TRS center. While CAs should **handle** these types of calls in the same manner as they handle any other TRS call, we are concerned that the lack of consistency among TRS providers regarding the handling of emergency calls may jeopardize public **safety**. Moreover, we believe that TRS users should be informed as to how emergency calls will be handled by any TRS center. Accordingly, we seek further comment **on** this issue. Commenters should address, among other things: (1) whether TRS centers should be required under the Commission’s rules to pass a caller’s ANI to an emergency services operator; and (2) how “emergency calls” should be defined. We also ask TRS providers to describe their current operating procedures for incoming emergency calls. Commenters who propose that the Commission adopt minimum standards in this area should propose specific rule language to implement their proposals.

6. Access to Enhanced Services

42. Background and Comments. Current Commission rules require TRS to be capable of handling “any type of call normally provided by common carriers.”⁹⁴ In enacting Title IV, however, Congress stated that “there are some services, such as audiotext services, that connect callers to recorded information services. It is not the function of this legislation to facilitate access to these kind of services.”⁹⁵

43. In our first *Report and Order* on TRS, the Commission held that TRS providers were not required to offer access to enhanced services.⁹⁶ We encouraged, however, the provision of access to these services where technically feasible.” In the *NOI*, the Commission

⁹¹ *Id* at 3-4.

⁹² See TX-ACSEC Reply Comments, *passim*.

⁹³ See 28 C.F.R. § 35.162.

⁹⁴ 47 C.F.R. § 64.604(a)(3).

⁹⁵ See H.R. Rep. No. 101-485 (IV), 101st Cong., 2d Sess. at 66 (1990).

⁹⁶ See Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990, *Report and Order and Request for Comments*, CC Docket No. 90-571, 6 FCC Rcd 4657 at n.20 (1991).

⁹⁷ See *id*

sought to determine whether, because of technical limitations, any particular services remain inaccessible to TRS users.⁹⁸

44. A significant number of commenters asserted that two types of services remain largely inaccessible to TRS users and constitute a “glaring omission in relay services”: (1) voice menu-driven services; and (2) pay-per-call services.⁹⁹ NAD states that “[m]illions of businesses, governmental agencies, transportation facilities, and schools now use these interactive systems, which, because of the speed of response needed, remain inaccessible to relay users.”¹⁰⁰ According to NAD, voice menu-driven systems frequently do not offer a live operator option, and, for this reason, completely block telephone access to TRS users.¹⁰¹ AT&T states that the current TRS platform cannot effectively interact with the prompts and time limits built into many enhanced service applications, and that charges for pay-per-call services cannot be properly billed to the TRS user.¹⁰² The Texas PUC, however, comments that Relay Texas already provides access to pay-per-call services.¹⁰³ Several parties also assert that the actual responsibility for access to these services rests with the provider of the enhanced service, who should make the service directly accessible via TTY, under the public access and public accommodations requirements of Titles II and III of the ADA.¹⁰⁴ Some commenters contend that, to some degree, the incompatibility of voice-menu systems and TRS may be resolved using more advanced TTY protocols that approach “realtime” text transmission.¹⁰⁵ Several commenters state that TRS should be required to handle voice menu-driven systems and pay-per-call relay calls.¹⁰⁶ Finally, to remedy the inaccessibility of voice-menu systems, NASRA suggests that CAs be “allowed to offer the caller a condensed version

⁹⁸ *NOI*, 12 FCC *Rcd* at 1166-1167.

⁹⁹ NAD Comments at 4-5; see, also, DCADC-VAD Comments at 3; AGB Comments at 3; AT&T Comments at 11.

¹⁰⁰ NAD Comments at 4.

¹⁰¹ *Id*

¹⁰² AT&T Comments at 11.

¹⁰³ Texas PUC Comments at 11. *Cf.* NAD Reply Comments at 6 (“[I]t is not clear. . . why AT&T argues that the charges associated with pay-per-call cannot be properly billed. . . when Texas has already authorized the provision of these enhanced services.”).

¹⁰⁴ See, e.g., Wisconsin TRS-AC Comments at 2; AT&T Comments at 11.

¹⁰⁵ See ALDA Comments at 4; SHHH Comments at 3.

¹⁰⁶ See, eg NAD Comments at 4-5; DCADC-VAD Comments at 3; AGB Comments at 3.

of the [recorded] message or ask if a ‘particular message is sought, such as a list of services offered.’”

45. Discussion. The record indicates that computer-driven voice-menu systems (or “audiotext” systems), that are increasingly used by businesses and services in the United States, may present substantial barriers to TRS users because the speed at which information is provided via voice-menu is too fast to allow the TRS user to respond within the voice-menu system response time. Accordingly, TRS users must frequently place a succession of calls to leave a message with, or access the information provided by, a voice-menu system. We tentatively conclude, however, that in the absence of further direction from Congress, our jurisdiction under Title IV of the ADA does not permit us to mandate access to such services. Indeed, Congress expressly stated that Title IV was not intended to mandate access to enhanced services.¹⁰⁸ We seek comment on our tentative conclusion. Commenters who disagree with our tentative conclusion should discuss the Commission’s legal authority to require access to such services through TRS. Commenters should also discuss the technical issues involved in handling calls to pay-per-call services through TRS, and why access to pay-per-call services may be provided by some TRS providers and not by others.

46. We note that many carriers, telecommunications service providers, and TRS providers make enhanced services accessible to TRS users voluntarily when technically feasible, and we encourage them to continue to do so.¹⁰⁹ Although we tentatively conclude that we do not have jurisdiction to require access to such services, we believe Congress’ mandate that we ensure that “functionally equivalent” TRS are available, to the extent possible, permits us to establish rules to govern the way in which CAs handle recorded messages that require user interaction or input.” Accordingly, we tentatively conclude that our rules should be amended to allow CAs, when encountering an interactive recorded message during a TRS call that cannot be relayed verbatim, due to technical limitations, to alert the TRS user to the presence of a recorded message. The CA also should be permitted to inquire as to whether the TRS user wishes the CA to summarize the message or to listen for specific information. We tentatively conclude that this narrow exception to the requirement that all calls be relayed “verbatim” would increase TRS efficiency, by allowing CAs to alert the TRS user to a recorded message through a “hot key” on their

¹⁰⁷ NASRA Comments at 3-4; see *also* MCDHH Comments at 4.

¹⁰⁸ See H.R. Rep. No. 101-485 (IV), 101st Cong., 2d Sess. at 66 (1990).

¹⁰⁹ TRS providers can, and do, recover the costs of voluntarily providing access to enhanced services. The costs of providing this access may be included in cost data (ie., the costs of personnel and plant) for traditional TRS. TRS providers submit this cost data to NECA for purposes of calculating the annual TRS provider compensation rate.

¹¹⁰ See 47 U.S.C. § 225 (a)(3), (b)(1), (d)(1).

¹¹¹ See 47 C.F.R. 64.604(a)(2).

terminal, and to receive instructions from the TRS user on how he or she wishes to proceed, without having to engage in frequent **call-backs**.¹¹² Moreover, TRS users could still request a verbatim message, even if to do so would require frequent call-backs by the CA. We seek comment on this proposed rule. Commenters should note that the proposed rule, rather than requiring **CAs** to summarize recorded messages, would permit the TRS user to have a second option of directing the CA to handle such calls in this fashion.

B. Mandatory Minimum Standards

1. Speed-of-Answer Requirements

47. Background and Comments. The Commission's TRS rules require TRS providers to meet certain blockage and speed-of-answer parameters. Specifically, section 64.604(b)(2) of our rules states:

Speed of Answer. TRS shall include adequate staffing to provide callers with efficient access under projected calling volumes, so that the probability of a busy response due to CA unavailability shall be functionally equivalent to what a voice caller would experience in attempting to reach a party through the voice telephone network. TRS shall, except during network failure, answer 85% of all calls within 10 seconds, and no more than 30 seconds shall elapse between receipt of dialing information and the dialing of the requested **number**.¹¹³

48. Speed-of-answer was one of the more frequently discussed issues by commenting parties. Most parties agreed that the Commission's current speed-of-answer rules are vague and subject to varying interpretations by different TRS **providers**.¹¹⁴ Louisiana, for example, points out that the speed-of-answer calculation can be distorted by the exclusion of abandoned and redialed calls from the **calculation**.¹¹⁵ A number of parties note that TRS providers may interpret "answer" as permitting calls to be answered by a computer and placed

¹¹² Currently, **CAs** interface with TTY users through personal computer (PC) equipment and **software**. Relay software programs **often** allow the **CAs** to program certain often-used phrases (i.e., "ringing" or "number busy") into a "hot key" sequence so that these phrases can be transmitted to the TTY user with one or two keystrokes, rather than typing out the entire phrase.

¹¹³ Some state TRS programs have speed-of-answer requirements that are more stringent than the Commission's requirements. California, for example, requires calls to be answered in seven (7) seconds or less. See California PUC Comments at 13.

¹¹⁴ *See, e.g., NASRA* Comments at 5-6; Louisiana Comments at 2-3; Maryland Comments at 9; DC PSC Comments at 2; Hawaii CCD Comments at 3; Texas PUC Comments at 14-15; NAD Comments at 13; SHHH Comments at 6-7; DCADC-VAD Comments at 13; AGB Comments at 2; CPAS Comments at 10; and NVRC Comments at 5-6.

¹¹⁵ Louisiana Relay Comments at 2-3.

in queue; the TRS user could then wait several minutes or more before the call is actually answered by a CA prepared to place the **call**.¹¹⁶ Texas PUC and Maryland contend that their ability to assess speed-of-answer times improved when a specific time period (e.g., daily) was set as the basis for the speed-of-answer calculation.” Finally, NASRA suggests that the Commission’s rules should be revised to require that calls be answered “within 10 seconds of reaching the relay switch.”““

49. Discussion. Speed-of-answer requirements are a cornerstone of the Commission’s TRS rules.¹¹⁹ The ability of a TRS user to reach a CA prepared to place his or her call, without experiencing delays that a voice telephone user would not experience in placing a telephone call, is fundamental to the concept of “functional equivalence.” For this reason, we are concerned about the apparent lack of uniformity in the application of our speed-of-answer rules among state TRS programs. We also are concerned about the allegations of numerous commenters that TRS users may be subject to high rates of call blockage and, after reaching a TRS center, may be put “on hold” before their calls are placed. These types of experiences are not “functionally equivalent” to the experiences of individuals without a hearing or speech disability.

50. Because of the apparent inconsistency in the application of our rules, we tentatively conclude that we should revise our speed-of-answer rules to require TRS providers to answer 85% of all calls within 10 seconds *by a CA prepared to place the TRS call at that time*. We further propose to require that the calculation of whether a provider is in compliance with the 85% - 10 second rule must be performed on at least a daily basis.

51. The rule amendments we propose are intended to eliminate two practices: (1) the practice of having calls answered by an automated system, either at a switch, a call management platform, or at the TRS center, and placed in queue for long periods; and (2) the practice of calculating speed-of-answer rates on a weekly or monthly basis, which allows the averaging of both low-use and busy TRS calling periods. We believe that these two practices tend to distort actual TRS performance. We seek comment on these proposed rule amendments.

52. We further propose to require that the lo-second speed-of-answer time frame be triggered when a call initially arrives at the TRS provider’s network. The point at which a call “initially arrives” at the TRS provider’s network could vary with the construction of the

¹¹⁶ See, e.g., NAD Comments at 13; Maryland Comments at 9; SHHH Comments at 6; DC PSC Comments at 2.

¹¹⁷ Texas PUC Comments at 14-15; Maryland Comments at 9.

¹¹⁸ NASRA Comments at 6.

¹¹⁹ See 47 C.F.R. § 64.604(b)(2).

network. For example, some TRS providers' network may route all **TRS** calls to a regional call distribution platform, while other providers' networks could route calls directly to a TRS center switch. Our proposal is intended to ensure that, once a TRS call passes into the TRS provider's network facilities, regardless of which configuration that provider uses, the TRS provider ensures that the call is answered within 10 seconds by a CA prepared to place the call. We seek comment on this proposal. We also ask commenters to discuss whether all TRS providers have the technical ability to track CA response times, and, thus, the ability to demonstrate compliance with our proposed speed-of-answer rule.

53. The exclusion of redialed or abandoned **calls**¹²⁰ in speed-of-answer reports can distort the record of a TRS provider's actual performance by reducing the total number of calls from which the average speed-of-answer is calculated, thus improving the TRS provider's average.¹²¹ We tentatively conclude that we should not require that these calls be included in all speed-of-answer calculations. While some callers may redial or abandon a call when they receive a busy signal or are placed on hold by a TRS center, redialed or abandoned calls may be prompted by other circumstances as well, such as callers that simply change their mind about placing a call or that are interrupted while placing the call. We tentatively conclude that we should not adopt a regulation that assumes that all abandoned and redialed TRS calls result from high blockage. We seek comment on this tentative conclusion. In reaching this tentative conclusion, we note that our rules require TRS providers to maintain adequate staffing of their facilities to ensure that callers are provided with efficient access under projected calling volumes, so that the probability of a busy response due to CA unavailability is functionally equivalent to what a voice caller would experience in attempting to reach a party through the voice telephone network.¹²² We remain concerned that our tentative conclusion, that we should not require that redialed or abandoned calls be included in speed-of-answer reports, which could result in improved speed-of-answer statistics for a particular carrier, not be used by TRS providers to avoid properly staffing their facilities. We seek comment on how the Commission can ensure that this result is avoided.

¹²⁰ "**Redialed**" or "abandoned" calls refer to calls that are successively redialed or abandoned, without being completed, when a caller is unable to reach a CA ready to place his or her call.

¹²¹ For example, if a provider receives a total of 1000 **TRS** calls a day, and 750 of those calls were answered within 10 seconds or less, the provider's speed-of-answer rate would be 75% and below the required minimum standard. But if 200 of those calls were abandoned by the caller before a CA came on-line to handle the call, and the provider excludes these 200 abandoned calls from its speed-of-answer calculation (without knowing whether or not the calls were abandoned by the TRS user because no response was obtained **from** the TRS center within 10 seconds), then the provider could report an answer rate of 94% (750/800).

¹²² 47 C.F.R. § 64.604(b)(2).

2. CA Quality and Training

54. **Background and Comments.** Current Commission regulations require **CAs** to have, among other things, “competent skills in typing, grammar, spelling, interpretation of typewritten ASL, and familiarity with hearing and speech disability cultures, language and **etiquette.**”¹²³ In the *NOI*, we sought general comment on the effectiveness of this rule over the past three years.¹²⁴ The Commission received numerous comments, especially from TRS users, stating that the quality of **CAs** varies widely, and that there is an alarming decline in CA quality that is affecting the “functional equivalency” of TRS **service.**¹²⁵

55. **Many** parties representing TRS users note that the Commission currently has no quantitative rules for CA typing **speed.**¹²⁶ These parties urge the Commission to amend our rules to set a minimum CA typing speed.¹²⁷ Commenters assert that, in light of more efficient technologies (e.g., enhanced TTY protocols, auto-correct software), **CAs** could approach “realtime” transmission of text-to-voice and voice-to-text, if they were sufficiently skilled typists.¹²⁸ NAD urges the Commission to adopt a minimum typing speed of 100 **words-per-minute**, and to require that CA typing tests be oral, rather than **written.**¹²⁹ NASRA suggests a 45 word-per-minute **standard.**¹³⁰ AT&T, a major TRS provider, argues against adopting quantitative typing speeds for **CAs.**¹³¹ AT&T states that requiring a **significant** increase in typing speed would “disserve” TRS users, because the current labor pool for potential **CAs** is already “**limited.**”¹³²

¹²³ 47 C.F.R. § 64.604(a)(1).

¹²⁴ See *NOI, 12 FCC Rcd* at 1169.

¹²⁵ See, e.g., NAD Comments at 5-6; SHHH Comments at 2; NVRC Comments at 11; DC PSC Comments at 2; Texas PUC Comments at 13. *Cf.* Ameritech Comments at 21; Southwestern Bell Comments at 21 (commenting that current **CAs** are effective and customers are satisfied with CA competency).

¹²⁶ See, e.g. SHHH Comments at 4; NAD Comments at 6.

¹²⁷ See *id.*; see *also* DCADC-VAD **Comments** at 3; CPAS Comments at 8; NASRA Comments at 5; MATP Comments at 3.

¹²⁸ See, e.g., SHHH Comments at 4; NAD Comments at 6; DCADC-VAD Comments at 3; CPAS Comments at 8; **NASRA** Comments at 5.

¹²⁹ NAD Comments at 6; see *also* DCADC-VAD Comments at 3; CPAS Comments at 8; NASRA Comments at 5.

¹³⁰ NASRA Comments at 5.

¹³¹ See AT&T Reply Comments at 7-8.

¹³² *Id*

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Federal Communications Commission

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Before the
Federal Communications Commission
Washington, D.C. 20554

DISPATCHED BY

In the Matter of)

Telecommunications Relay Services)
and Speech-to-Speech Services for)
Individuals with Hearing and Speech)
Disabilities)

CC Docket No. 98-67

NOTICE OF PROPOSED RULEMAKING

Adopted: May 14, 1998

Released: May 20, 1998

Comment Date: July 20, 1998
Reply Comment Date: September 14, 1998

By the Commission:

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I. INTRODUCTION

1. On January 14, 1997, the Commission released a *Notice of Inquiry (NOI)* seeking comment on ways in which Telecommunications Relay **Services** (TRS) for persons with hearing and speech disabilities can be improved.¹ The Commission sought comment on technological advances that could improve the level and quality of service provided through TRS for the benefit of the community of TRS users, and inquired about the effectiveness of the current TRS regulation. The Commission also sought comment on the impact of competition in telecommunications markets on TRS and whether competition in the provision of TRS might have a positive impact on the quality of that service. The Commission received 49 comments and 34 reply comments in response to the *Notice of Inquiry*?

2. After reviewing the record developed in the *NOI*, we propose rule amendments in *this Notice of Proposed Rulemaking (Notice)* that we believe will enhance the quality of

¹ Telecommunications Relay Services, the Americans with Disabilities Act of 1990, and the Telecommunications Act of 1996, Notice **of Inquiry** CC Docket No. **90-571**, 12 FCC **Rcd** 1152 (1997).

² See Appendix A for a list of parties **filing** comments and reply comments in response to the NOZ, and for abbreviations used to refer to **commenters**.

TRS, and broaden the potential universe of TRS users. The proposals set forth here are intended to further promote access to telecommunications for the millions of persons with disabilities who might otherwise be foreclosed from participation in our increasingly telecommunications and information-oriented society. First, we propose to require that, within two years of the publication in the Federal Register of a *Report and Order* in this proceeding, common carriers providing voice transmission service must ensure that nationwide **speech-to-speech (STS)** relay services are available to users with speech disabilities throughout their service areas. Oftentimes, persons with speech disabilities are unable to use the voice telephone network because of a lack of understanding by the public of, and accommodation to, their disability. Speech-to-speech services use facilitators specially trained to understand the speech of persons with speech disabilities to “relay” communications between those individuals and individuals without speech disabilities. For the approximate 2.5 million Americans with speech disabilities, speech-to-speech services profoundly affect their lives, by enabling them to talk to friends and family and to conduct business using telecommunications services that most Americans take for granted.

3. Second, we propose a number of amendments to our current TRS minimum standards that we believe will improve the overall effectiveness of the TRS program. For example, we propose to amend our speed-of-answer rules to make the experience of persons using TRS in placing a telephone call through a TRS center more functionally equivalent to the experience of voice callers using the voice telephone network. The ability to make a telephone call without delay and without routinely encountering a busy signal is fundamental to our concept of a rapid, efficient, Nationwide communications system. We believe that the changes we propose in our TRS minimum standards bring us closer to our goal of a rapid, efficient, nationwide communications systems for all of the people of the United States.

4. Third, we propose amendments to our TRS enforcement rules to improve our oversight of certified state TRS programs and our ability to compel compliance with the federal mandatory minimum standards for TRS. Currently, state TRS programs are certified for a five year period, with no requirement that they report to the Commission on changes in their programs during that period. To increase the effectiveness of our enforcement, we propose that certified state TRS programs notify the Commission of substantive changes to their program within sixty (60) days of the effective date of the change, and to file documentation demonstrating that the state program remains in compliance with all of the Commission’s mandatory minimum standards. We propose other amendments to our enforcement rules similarly aimed at fulfilling our obligation to ensure that state TRS programs fully meet or exceed all federal operational, technical and functional standards for the provision of TRS.

5. Consistent with the goal of the Americans with Disabilities Act of 1990 (ADA)³ of bringing individuals with disabilities fully into the mainstream of American

³ Pub. L. No. 101-336, § 401, 104 Stat. 327, 336-69, *codified at* 47 U.S.C. § 225.

society, we believe that the actions proposed today will have practical impacts that result in direct and tangible improvements in the quality of TRS. Moreover, through this *Notice* and the rulemaking process, we seek to extend the benefits of advances in telecommunications to Americans who might otherwise be excluded because of their disability.

II. BACKGROUND

6. Title IV of the **ADA**⁴ requires the Commission to ensure that TRS is available, to the extent possible and in the most efficient manner, to persons with hearing or speech disabilities in the United States.⁵ TRS is a telephone transmission service designed to give persons with hearing or speech disabilities “functionally equivalent” access to the telephone **network**.⁶ TRS has been available on a uniform, nationwide basis since July 26, 1993.⁷ The Commission sets minimum operational, functional and technical standards for TRS, certifies state TRS programs, and oversees the administration of the interstate TRS cost-recovery **fund**.⁸

7. Currently, **TRS** uses dedicated equipment and staff (Communications Assistants or **CAs**) that relay conversations between persons using text telephones (**TTYs**) and persons who use conventional telephones.⁹ To access TRS, a TTY user dials the telephone number of the local TRS center.” The caller then gives the number of the party he or she desires to call to the CA. The CA in turn places an outbound voice call to the called party. The CA serves as the “**link**” in the conversation, converting all TTY messages **from** the caller into voice messages, and all voice messages **from** the called party into typed messages for the TTY user. The process is performed in reverse when a voice telephone user initiates a call to a TTY user.

⁴ *Id.*

⁵ 47 U.S.C. § 225(b)(1).

⁶ 47 U.S.C. § 225(a)(3).

⁷ Under Title IV, common carriers providing telephone voice transmission services were required to begin providing TRS, throughout the areas they serve, as of July 26, 1993. *See* 47 U.S.C. § 225(c).

⁸ *See* 47 C.F.R. §§ 64.601 - 64.605.

⁹ A text telephone (TTY) is a machine that employs graphic communications in the transmission of coded signals through a wire or radio communication system. 47 C.F.R. § 64.601(8). The Commission’s rules require TRS providers to be capable of communicating with **TTYs** in both Baudot and ASCII format, at any speed generally in use. 47 C.F.R. § 64.604(b)(1).

¹⁰ Individual states have their own TRS access numbers (usually toll-free numbers). In addition, some state TRS programs have separate numbers for voice and TTY access.

8. In enacting Title IV, Congress directed the Commission **to** ensure that persons with hearing and speech disabilities benefit **from** technological advances.” Thus, Title IV states that “the Commission shall ensure that regulations prescribed to implement this section encourage . . . the use of existing technology and do not discourage or impair the development of improved technology.”¹¹ As Congress stated:

[T]his legislation is not intended to discourage innovation regarding telecommunications services to individuals with hearing and speech impairments. The hearing and speech-impaired communities should be allowed to benefit from advancing technology. As such, the provisions of the Section do not seek to entrench current technology, but rather to allow for new, more efficient and more advanced **technology**.¹³

The Commission’s *NOI* was released in this spirit. This Notice represents our continuation of the implementation of the statutory directive that the Commission ensure that our TRS regulations do not artificially suppress or impair the development of TRS in a changing, dynamic telecommunications landscape.

III. DISCUSSION

A. Coverage of Improved TRS Under Title IV of the ADA

1. Scope of TRS Generally

9. Background and Comments. Title IV of the ADA and the Commission’s rules define TRS as:

[t]elephone transmission services that provide the ability for an individual who has a hearing impairment or speech impairment to communicate by wire or radio with a hearing individual in a manner that is functionally equivalent to the ability of an individual who does not have a hearing impairment or speech impairment to communicate using voice communication services by wire or **radio**.¹⁴

¹¹ See 47 U.S.C. § 225(d)(2); H.R. Rep. No. 101-485(II), 101st Cong., 2d Sess. 130 (1990) (House Report II).

¹² 47 U.S.C. § 225(d)(2).

¹³ House Report II at 130.

¹⁴ 47 U.S.C. § 225(a)(3); 47 C.F.R. § 64.601(7).

The 'statutory and regulatory definitions further explain that TRS "includes services that enable two-way communication between an individual who uses a **TDD**¹⁵ or other **nonvoice** terminal device and an individual who does not use such a **device**."¹⁶

10. Historically, the Commission's rules on TRS have been applied only to TTY-to-speech and speech-to-TTY services. In the *NOI*, however, the Commission sought comment on whether the requirements of the ADA also apply to any "improved" TRS.¹⁷ By "improved" services, we meant any form of TRS that goes beyond the current TTY-to-speech and speech-to-TTY model, such as Video Relay Interpreting (**VRI**) and STS relay services.* We also sought comment on whether these services must comply with all standards for TRS **under** Title IV.¹⁹ We further noted that the current definition of "Communications Assistant" defines a CA as "a person who transliterates conversation from text to voice and from voice to text between two end users of TRS."²⁰ We sought comment on whether this definition would need to be modified to encompass relay services that do not involve speech-to-text or text-to-speech.*

11. A majority of commenting parties believe that the statutory definition of TRS encompasses forms of relay service that go beyond the current TTY-based relay services.** **PacTel** and Missouri, however, state that the determination of whether improved services fall under Title IV should be made on a case-by-case **basis**.²³ Southwestern Bell argues that the express language of Title IV limits its provision to services that are based on the use of

¹⁵ Although Congress used the term "**TDD**" to refer to text telephones in the statute, and the Commission's rules at 47 C.F.R. § 64.601(8) designate a text telephone as "IT," we use the more generally accepted term "TTY" to refer to text telephones throughout this document in order to minimize confusion.

¹⁶ 47 U.S.C. § 225(a)(3). See *also* 47 C.F.R. § 64.601(7).

¹⁷ *NOI*, 12 FCC **Rcd** at 1156-57.

¹⁸ *Id.* **VRI** allows persons with hearing disabilities to access the telephone network through the use of sign language interpreters and desktop personal computer video conferencing software. STS uses specially trained **CAs** that serve as call facilitators for persons with **severe** speech disabilities. See sections **III(A)(2) - (3)**, *infra*, for background on and a discussion of **STS** and **VRI** services.

¹⁹ *Id.*

²⁰ 47 C.F.R. § 64.601(5).

²¹ *NOI*, 12 FCC **Rcd** at 1157.

²² See, e.g., NAD Comments at 3; DCADC-VAD Comments at 2; MCDHH Comments at 2; CPAS Comments at 2-4; AOAC Comments at 2-4; Maryland Comments at 5.

²³ **PacTel** Reply Comments at 3; Missouri PSC Comments at 4.

TTYs.²⁴ Southwestern Bell relies on a 19% Common Carrier Bureau Order concerning Operator Services for the Deaf (OSD), where the Bureau declined to allow cost recovery for interstate OSD **from** the interstate TRS Fund, concluding that OSD is a “TTY-to-TTY” service, not a “relay” service, and therefore does not fall within the definition of TRS.²⁵ Countering Southwestern Bell’s argument, the California PUC points out that “. . . the specific reference to **TDDs** [in the ADA] is meant to illustrate the type of technology that might be used, not to preclude the use of other **technologies.**”²⁶

12. Ameritech notes that new and improved TRS should generally be subject to Commission TRS standards. It states, however, that our existing rules cannot always be applied to new forms of TRS and in some cases “may need to be modified to reflect basic operational differences.”²⁷ Similarly, using STS services as an example, the California PUC notes that “trials [of speech-to-speech] have demonstrated that speech-to-speech differs from TRS in a number of respects and it may not be appropriate to include speech-to-speech directly in TRS minimum **standards.**”²⁸ Finally, several commenters assert that the costs for improved TRS should be recoverable from the TRS Fund, regardless of whether such improved services are required, or are provided **voluntarily.**²⁹

13. The parties that address the Commission’s definition of “Communications Assistant” uniformly agree that the current definition is too **restrictive.**³⁰ Wisconsin TRS-AC also notes that the term “CA” may not be the best term, because voice users are more familiar with the term “operator” and may be less likely to hang up without realizing the call is a TRS call if that term is **used.**³¹

14. Discussion. We tentatively conclude that Title IV of the ADA is applicable to any wire or radio communication service that enables persons with hearing or speech

²⁴ See Southwestern Bell Comments at 2-4.

²⁵ *Id.* at 3-4, **citing** Establishment of a Funding Mechanism for Interstate Operator Services for the Deaf, *Memorandum Opinion and Order*, CC Docket No. 90-571, 11 FCC **Rcd** 6808 (1996) (*OSD Order*).

²⁶ California PUC Reply Comments at 2.

²⁷ Ameritech Comments at 7.

²⁸ See California PUC Comments at 26. See *also* NASRA Comments at 9; AT&T Comments at 8. See *infra* section **III(A)(2)**, for a further discussion of STS services.

²⁹ See, e.g., AIM Comments at 2; Ameritech Comments at 17-18; AOAC Comments at 10-11; Texas PUC **Comments** at 10; Wisconsin TRS-AC Comments at 7.

³⁰ See, e.g., AIM Comments at 1; Wisconsin TRS-AC Comments at 3; AOAC Comments at 5; MCDHH Comments at 2; NVRC Comments at 7.

³¹ Wisconsin TRS-AC Comments at 3.

disabilities to engage in communication with persons without such disabilities and is not limited to services using **TTYs**. Our tentative conclusion is based on the plain language of Title **IV**³² together with Congress' direction to the Commission to ensure that its regulations do not limit or discourage the deployment of new technologies. We believe that Title **IV**'s language and structure establish that Congress intended TRS to be an evolving service that would expand beyond traditional TTY relay service as new technologies developed. We seek comment on our tentative conclusion.

15. We also tentatively conclude that the costs of providing interstate "improved" relay services should be reimbursed from the interstate TRS Fund. This conclusion is based on, and consistent with, our statutory duty not to discourage the implementation of improved TRS. We tentatively conclude that **TRS** providers should be able to receive reimbursement for providing intrastate or interstate improved relay services regardless of whether they provide the service voluntarily or the provision of the service is required by the Commission's or a certified state's TRS rules, provided that the Commission has first issued a determination, through a rulemaking or a declaratory ruling, that a certain service is an "improved" TRS service. We tentatively conclude that two services shall be classified as "improved" TRS service, and thus the costs of providing these services should be recoverable: (1) STS service and (2) **VRI** service. Since STS and VRI services are already being implemented by many TRS providers, we believe that allowing recovery for the costs of these two services will spur further development of these services. We seek comment on our tentative conclusions.

16. Because some practical considerations may be involved in cost-recovery for improved TRS, such as whether separate reimbursement rates must be developed for different types of TRS, we tentatively conclude that the Interstate TRS Fund Advisory **Council**³³ should develop guidelines for interstate cost-recovery for improved TRS, within six months of the adoption of a *Report and Order* in this proceeding. We tentatively conclude that such guidelines would be subject to review and final approval by the Commission, following an opportunity for public comment on the guidelines. We seek comment on this tentative conclusion. Commenters should discuss the issues that the Advisory Council should consider in formulating these guidelines and provide specific language for guidelines in support of their recommendations.

³² See 47 U.S.C. § 225(a)(3) (stating that TRS *includes* TTY-based services or services using "other **nonvoice terminal device[s]**" (emphasis added)).

³³ The TRS Fund Advisory Council is a non-paid, voluntary advisory committee of persons **from** the hearing and speech disability community, TRS users (voice and text telephone), interstate service providers, state representatives, and TRS providers. The Council meets at least semi-annually in order to monitor TRS cost recovery matters. See 47 C.F.R. § 64.604(c)(4)(iii)(H).

17. Pursuant to statutory **directive**,³⁴ the Commission has established rules that set forth the minimum operational, technical and functional standards for **TRS**.³⁵ We tentatively conclude that only services that are mandated by Commission regulation must comply with the Commission's mandatory minimum standards. These services would include standard TRS, voice carryover (VCO), hearing carryover (HCO), and, as we are proposing in this *Notice*, **STS service**.³⁶ We tentatively conclude, as argued by Ameritech, that some improved services such as STS may have operational differences that make compliance with current Commission standards infeasible, as discussed in section **III(A)(2)**, *infra*. We seek comment on these tentative conclusions. We note that states that require TRS not mandated by the Commission, such as **VRI**, are free to specify performance standards for the services provided within their jurisdiction, provided those performance standards do not conflict with federal law.³⁷

18. Finally, we tentatively conclude, as suggested by several parties, that the current definition of "Communications Assistant" is too restrictive to encompass some activities that may be performed by a person who assists in providing TRS, especially a person involved in providing "improved" TRS offerings. We propose, therefore, to amend the current definition set forth in our **rules**³⁸ by removing the words "from text to voice and from voice to **text**," **and** maintaining the remainder of the current definition. We seek comment on this proposal.

2. Speech-to-Speech (STS) Relay Service

19. Background and Comments STS service is an improved TRS offering that uses specially-trained persons as relay "voices" for persons with severe speech disabilities. In the *NOI*, the Commission requested general comment on **STS services**.³⁹ The Commission also sought specific comment on the feasibility of requiring STS services within our mandatory minimum TRS, the extent to which TRS providers are currently offering, or

³⁴ 47 U.S.C. § 225(d).

³⁵ 47 C.F.R. § 64.604.

³⁶ "Voice carryover" is a reduced form of TRS where the person with the hearing disability is able to speak directly to the other end user, and the CA types back the response of the other end user. 47 C.F.R. § 64.601(9). "Hearing carryover" is a reduced form of TRS where the person with the speech disability is able to listen to the other end user, and, in reply, the CA speaks the text as typed by the person with the speech disability. 47 C.F.R. § 64.601(6). **TRS** providers are required by the Commission's rules to offer VCO **and** HCO. 47 C.F.R. § 64.604(b)(5). See *infra* section **III(A)(2)** for a discussion of speech-to-speech (STS) services.

³⁷ See 47 C.F.R. § 64.605(b)(3).

³⁸ 47 C.F.R. § 64.601(5).

³⁹ See *NOI*, 12 FCC **Rcd** at 1163.

planning to offer, STS service, the number of potential users of STS services, the availability of trained individuals capable of providing STS services, and the potential costs of such services.*

20. In response to the *NOI*, UCPA provides comprehensive data on the number of individuals who could benefit **from** STS. UCPA indicates that there are approximately 2.5 million people in the United States with functional speech **disabilities**.⁴¹ UCPA also notes that there are more than 500,000 people in the United States with cerebral palsy. Of this pool, 30% have severe speech disabilities and **85-90%** have a speech **disability**.⁴² UCPA also estimates that at least 150,000 people with cerebral palsy need augmentative communication prostheses to have their voices understood at **all**.⁴³

21. While all commenters appear to recognize the value and benefits of STS for people with speech disabilities, they are divided on whether the Commission should mandate these services. Commenters representing TRS users and the community of persons with speech disabilities generally support a Commission requirement for STS **service**.⁴⁴ Carriers, state administrators and TRS providers, however, generally appear to oppose a Commission requirement for STS service, and argue that market forces should be sufficient to spur providers to offer this service! Some commenters also assert that, at a minimum, the Commission should monitor the development of STS at the state level for some time before mandating the **service**.⁴⁵ California, Georgia, Maryland and Wisconsin currently offer STS

⁴⁰ *Id.*, 12 FCC **Rcd** at 1163.

⁴¹ UCPA Comments at 3 (citing United Cerebral Palsy Association Research and Educational Foundation, February 1986).

⁴² *Id.*

⁴³ *Id.* The Bureau of the Census reports that there are 2.5 million people in the United States whose speech is **difficult** to understand. Of that number, 237,000 are unable to have their speech understood and **2,284,000** have a functional limitation in speech. Americans with Disabilities 1991-1992, Bureau of the Census Report, U.S.. Department of Commerce Economics and Statistics Administration, 1993.

⁴⁴ See, e.g., UCPA **Comments**, *passim*; AOAC Comments at 28; Nelson Comments at 3; NVRC Comments at 9; CPAS Comments at 6; **MATP** Reply Comments at 3; COR Reply Comments at 2; NAD Reply Comments at 13.

⁴⁵ See, e.g., AT&T Comments at 8; California PUC Comments at 3; USTA Comments at 4; Ameritech Comments at 16.

⁴⁶ See, e.g., AT&T Comments at 8; AT&T Reply Comments at 4; Bell Atlantic-Nynex Reply Comments at 6; Ameritech Comments at 16; California PUC Comments at 16; California PUC Reply Comments at 3; USTA Reply Comments at 4; **NASRA** Comments at 9; Southwestern Bell Comments at 8.

service; Missouri PSC states that it conducted a STS trial in 1995; and GTE indicates that it is exploring the possibility of STS in its Hawaii TRS operation.⁴⁷

22. AT&T points out that the costs of providing STS service are low in comparison with the costs of providing other improved TRS, such as VRI.⁴⁸ While commenters indicate that the nationwide demand for STS service may be low, commenters also state that if STS services are offered on a centralized or regional basis, the cost-effectiveness of STS can be greatly improved.⁴⁹ Finally, several commenters note that speech-to-speech has operational differences that may make application of some of the Commission's general TRS rules to this service infeasible.⁵⁰

23. Discussion. We tentatively conclude that, within two years of the publication in the Federal Register of a *Report and Order* in this proceeding, all common carriers providing voice transmission services must ensure that STS services are available to callers with speech disabilities throughout their service areas. We propose to amend section 64.603" of our rules to reflect this proposed requirement and to add a definition of STS service under section 64.601 of our rules.⁵² We seek comment on this tentative conclusion and on the text of the proposed rules. Our tentative conclusion that STS should be required under the Commission's TRS rules is based on our finding that STS services fall within the scope of the ADA's definition of "telecommunications relay services" as a telephone transmission service that enables an individual who has a speech disability to communicate by wire or radio with a hearing individual in a manner that is functionally equivalent to the ability of a person who does not have a speech disability to communicate using voice communication services by wire or radio.⁵³ We also tentatively conclude that requiring STS under the Commission's TRS rules is consistent with our responsibility to ensure that our regulations do not discourage or impair the development of improved technologies⁵⁴ and that the significant benefits that STS service offers to people with severe speech disabilities, an insular community that has been, for the most part, denied access to the telephone network, greatly outweigh the costs of STS

⁴⁷ See, e.g., California PUC Comments at 4-5; Maryland Comments at 6; Missouri PSC Comments at 5; GTE Comments at 11.

⁴⁸ AT&T Comments at 7.

⁴⁹ See, e.g., Missouri PSC Comments at 5; GTE Comments at 12; NAD Reply Comments at 13.

⁵⁰ See, e.g., AT&T Comments at 8; California PUC Comments at 5.

⁵¹ 47 C.F.R. § 64.603.

⁵² 47 C.F.R. § 64.601. See Appendix B for the text of the proposed rule.

⁵³ 47 U.S.C. § 225(a)(3).

⁵⁴ 47 U.S.C. § 225(d)(2).

services. UCPA provides statistics that indicate that up to 76% of persons with severe speech disabilities are **unemployed**.⁵⁵ We believe that access to the telephone network through STS services would significantly enhance educational and employment opportunities for people with severe speech disabilities. STS services also would reduce the **frustration** and frequent hang-ups experienced by people with speech disabilities when they attempt to use the telephone in their daily **lives**.⁵⁶ Moreover, the population served by STS service does not appear to be adequately served by the current TRS **system**.⁵⁷

24. We recognize that a few states have already initiated programs to deliver STS services. The existence of state STS programs may suggest that STS programs could be established without a national requirement. Some state administrators have stated that they do not support the imposition of a national STS requirement, believing that additional experimentation should be **conducted**⁵⁸ and that the costs of providing STS on a state-by-state basis may render the provision of the services prohibitive at this **time**.⁵⁹ We tentatively conclude, however, that the adoption of federal rules will assist the states in developing cost-effective, regional or national centers where speech-to-speech calls **can** be handled. Without a federal rule requiring STS, the states may conclude that offering the service within their state alone is cost-prohibitive. We seek comment on our tentative conclusion. We also ask commenters to discuss specific state STS programs, to comment on the standards applied by the states to their STS programs and to provide the Commission with the benefit of the states' experiences.

25. We recognize that **sufficient** numbers of personnel trained to deliver STS services may not currently be available. We tentatively conclude, however, that an implementation date of two years following publication in the Federal Register of a *Report and Order* adopting this proposal provides a reasonable and sufficient time period for TRS providers to develop STS offerings. TRS providers may, for example, become involved in training individuals to provide STS service. The two-year **timeline** also allows TRS providers an opportunity to formulate the most cost-effective basis by which STS service can be

⁵⁵ UCPA Comments at 3.

⁵⁶ The Commission received 13 reply comments from individuals with speech disabilities discussing their **frustrations** in attempting to use telephone services and their desire to see implemented a mechanism, such as ST'S, that enables them to use the telephone. See, *e.g.*, Behms Reply Comments, *passim*; Hoye Reply Comments, *passim*; LaShell Reply Comments, *passim*.

⁵⁷ HCO services, required by 47 C.F.R. § 64.604(b)(5), may allow some people with speech disabilities to use TRS, by typing on a **TTY** as a substitute for speech and using their own hearing. Many persons with severe speech disabilities, however, also may have physical disabilities that limit their ability to use a **TTY** and, thus, their ability to use HCO services.

⁵⁸ California PUC Reply Comments at 1.

⁵⁹ Missouri PSC Comments at 5.

provided (i.e., by coordinating or centralizing the service in regional speech-to-speech centers, rather than by attempting to provide independent services on a state-by-state basis). We seek comment on this tentative conclusion.

26. Although we have tentatively concluded that all TRS mandated by Commission rules, such as standard TRS, VCO and HCO, must comply with the Commission's minimum standards for TRS, we recognize that STS services may have operational characteristics that may make compliance with certain "traditional" TRS standards technically difficult or impossible. For example, it may be necessary to relax current speed-of-answer requirements for STS service (i.e., the length of time that may elapse between the receipt of dialing information and the dialing of the requested number) because of the longer call set-up times, that may result from the functional speech limitations of an individual caller with a speech disability, involved in STS service. We ask commenters to examine the Commission's rules governing mandatory minimum standards for TRS,⁶⁰ and to comment upon whether any specific exceptions to those rules must be made for STS service, in light of the unique nature of the service. Commenting parties should suggest specific rule language in proposing a particular exception or change to the Commission's rules.

3. Video Relay Interpreting (VRI) Services

27. Background and Comments. VRI is an improved TRS offering that utilizes personal computer (PC) videoconferencing equipment, sign language interpreting services, and high-speed transmission services such as ISDN to enable a deaf TRS user to communicate with voice telephone users in sign language, or by other forms of visual **communication**.⁶¹ In the *NOI*, the Commission sought comment on this relatively new technology. The Commission specifically invited comment on: (1) the technical feasibility of VRI services; (2) the potential benefits of the service; (3) the availability of sign language interpreters; (4) the privacy and confidentiality aspects of VRI; and (5) the costs of VRI.⁶²

28. Sprint and the Texas PUC, who have jointly conducted comprehensive VRI trials in the state of Texas since 1995, filed detailed and informative reports with the Commission on their experiences with VRI.⁶³ Texas PUC, for example, indicates that while VRI is technically feasible through the use of ISDN Basic Rate Interface (BRI), and ISDN is already available throughout most of Texas, the cost of ISDN remains a barrier to the

⁶⁰ 47 C.F.R. § 64.604, attached hereto as Appendix C.

⁶¹ See *NOI* at 12 FCC Record 1157-1558 for a **further** description of VRI.

⁶² *NOI*, 12 FCC **Rcd** at 1158-1163.

⁶³ See Sprint Comments, Attachment, and Texas PUC Comments, Attachment.

deployment of **VRI**.⁶⁴ Texas PUC also notes that high-end **Pentium/586** computer equipment may be necessary to deliver a smooth video transmission rate, despite claims of PC videoconferencing product dealers that the less costly 486 computer is **acceptable**.⁶⁵

29. The majority of commenters addressing this issue agree that the potential benefits of **VRI** services for people with hearing disabilities, especially those who communicate primarily through sign language, are **unquestionable**.⁶⁶ Commenters state that some groups of persons with hearing disabilities, such as small children, may not have the ability to type on a TTY and, thus, still are excluded from the benefits of telephone service despite the availability of **TRS**.⁶⁷ Commenters also state that **VRI** provides more "**functionally equivalent**" access to the telephone network because **VRI** users are able to impart "tone" to the conversation, and to interject into a conversation as needed, capabilities which currently may be precluded by many **TTYs**.⁶⁸

30. Many commenters assert that, at least presently, the supply of qualified sign language interpreters to staff nationwide **VRI** services may not be adequate. In particular, the Registry of Interpreters for the Deaf (ND), a national certifying body for sign language interpreters, notes a current "crisis in the nation with respect to the demand for and supply of qualified interpreters."⁶⁹ In addition, a number of commenters urge the Commission to develop standards for sign language interpreting services provided through **VRI**.⁷¹ NAD urges the Commission to adopt the U.S. Department of Justice's definition of "qualified interpreter"

⁶⁴ Texas PUC Comments at 4.

⁶⁵ *Id.* at 5. See *also* MCI Comments at 5-6; Southwestern Bell Comments at 5; AOAC Comments at 16 -17.

⁶⁶ See, e.g., NAD Comments at 4; Ameritech Comments at 10; Travis DHS Comments at 3; Jordan Comments at 1; CAN Comments at 3-4; Nelson Comments at 2; MCI Comments at 5; Southwestern Bell Comments at 5; Texas PUC Comments at 6-7. *But* see **Stoltz** Comments at 4 (**VRI** use with "lipreading" will be minimal), NVRC Comments at 7 (in order to serve people who use speech-reading and cued speech, **VRI** should also include "**transliterating**" services).

⁶⁷ See, e.g., NAD Comments at 4; SHHH Comments at 12-13; CAN Comments at 4.

⁶⁸ See, e.g., NAD Comments at 4; CAN Comments at 3-4; Texas PUC Comments at 6-7.

⁶⁹ See, e.g., Nelson Reply Comments at 3; RID Reply Comments at 2; USTA Reply Comments at 3; Louisiana Relay Comments at 3-4; Ameritech Comments at 10; Wisconsin TRS-AC Comments at 5; WMAD Comments at 18-20; MCI Comments at 6; Southwestern Bell Comments at 6-7; GTE Comments at 10.

⁷⁰ RID Reply Comments at 2.

⁷¹ See, e.g., NAD Reply Comments at 11; Wisconsin TRS-AC Comments at 5; CPAS Comments at 5. But see MCI Comments at 7; AOAC Comments at 19-20 (arguing that the Commission should not adopt minimum standards for interpreting services **because** the interpreting profession is a "mature profession" and is **already** subject to quality standards, and the Commission would be intruding upon private entities that develop such standards).

under Titles II and III of the ADA.” Many commenters agree that confidentiality and privacy is vital to **VRI** service, but contend that current Commission confidentiality rules, and standards of the interpreting profession, may be **sufficient** to protect **VRI users**.⁷³ A majority of commenters addressing the issue of cost suggest that, at this time, the cost of **VRI**, both to telecommunications providers and to end users, is significant, and would be substantially higher than the cost of basic **TRS**.⁷⁴

31. Finally, commenters are divided on whether **VRI** should become a mandatory requirement under the Commission’s **TRS** rules. A few parties support mandated **VRI** services.” The majority of commenters, however, including carriers, **TRS** providers, and state administrators, oppose requiring **VRI** as a mandatory service at this time because of the recent introduction of the service and its high implementation **cost**.⁷⁶

32. Discussion. We tentatively conclude that **VRI** should not be mandated by the Commission’s **TRS** rules at this time. All parties appear to agree that **VRI** has tremendous potential to both improve the functional equivalency of **TRS** and to broaden the universe of **TRS** users. The technology, however, is still at a relatively early stage of development, and the costs to implement this service on a nationwide basis appear to be prohibitive. We also note that there may be an inadequate supply of qualified interpreters to **staff** nationwide **VRI** services at this time. We believe that **VRI** will grow and develop more efficiently if providers are allowed to experiment with various **VRI** offerings on a trial basis, and to offer these services as a means of differentiating themselves from their competitors, until a **cost-effective** and practical **VRI** platform is developed. Mandating the provision of **VRI** when it is

⁷² NAD Reply Comments at 11. The Department of Justice ADA regulations define “qualified interpreter” as “an interpreter who is able to interpret effectively, accurately, and impartially, both receptively and expressively, using any necessary specialized vocabulary.” 28 C.F.R. § 35.104.

⁷³ See, e.g., MCI Comments at 6-7; Ameritech Comments at 13; ALDA Comments at 10; CPAS Comments at 5; AOAC Comments at 21-22; Southwestern Bell Comments at 8; Texas PUC Comments at 8-9.

⁷⁴ See, e.g., **GTE** Comments at 11; GTE Reply Comments at 3; USTA Reply Comments at 3; Ameritech Comments at 13; Louisiana Relay Comments at 4; Southwestern Bell Comments at 8; Texas PUC Comments at 9; California PUC Comments at 6.

⁷⁵ See, e.g., NAD Reply Comments at 8; ALDA Comments at 9; Travis DHS Comments at 1; MCDHH Comments at 2; Foy Comments at 4; CAN Comments at 3; Nelson Comments at 2; NVRC Comments at 7; MCI Comments at 5.

⁷⁶ See, e.g., AT&T Comments at 4; AT&T Reply Comments at 2; Bell **Atlantic/Nynex** Reply Comments at 7; GTE Comments at 10; GTE Reply Comments at ii; California PUC Comments at 15; California PUC Reply Comments at 3; USTA Comments at 3; Ameritech Comments at 2; NASRA Comments at 9; Missouri PSC Comments at 5; Louisiana Relay Comments at 3; Kansas Relay Comments at 4; **PacTel** Reply Comments at 5. Sprint, a major supporter of the development and testing of **VRI** to date, takes “no position” on the issue of whether **VRI** should be a required service, but sets forth principles that should factor into the decision as to whether to mandate **VRI**. See Sprint Comments at 3.

still at an early stage of development may remove competitive incentives for the development of innovative and quality VRI offerings by TRS providers. We seek comment on our tentative conclusion that VRI should not be a required TRS service under the Commission's rules at this time. Commenters who disagree with our tentative conclusion should provide specific evidence demonstrating the feasibility of implementing effective and affordable VRI on a nationwide basis.

33. We recognize that TRS providers may be increasingly likely to offer VRI services to TRS users as the technology develops and as the costs of providing VRI decrease. Accordingly, we tentatively conclude that the Commission should continue to monitor the state of VRI technology. We request comment on when and how the Commission should determine to revisit the issue of whether VRI should be mandated under our TRS rules.

34. In the interest of protecting users of voluntarily-provided VRI services from the risk of communication errors caused by the use of unqualified interpreters, we propose to incorporate the definition of "qualified interpreter," as used by the Department of Justice in its Titles II and III regulation, to our TRS rules." We also tentatively conclude that our TRS confidentiality, conversation content and "type of call" rules apply to the provision of VRI services.* We seek comment on these proposals. Finally, as we tentatively concluded under **para. 15, *supra***, while we do not propose to mandate the provision of VRI, VRI still would be considered a "relay" service within the meaning of Title IV. As such, we tentatively conclude that the costs of interstate VRI are recoverable from the interstate TRS Fund, subject to guidelines that we propose be developed by the interstate TRS Fund Advisory Council. Similarly, the costs of intrastate VRI would be recoverable from the intrastate jurisdiction. Allowing the recovery of VRI costs, we believe, will spur TRS providers to offer VRI on a voluntary basis. We seek comment on these tentative conclusions.

4. Multilingual Relay Services (MRS) and Translation Services

35. Background and Comments. Multilingual relay services (MRS) allow persons with hearing and speech disabilities who use languages other than English to communicate with voice telephone users in a shared foreign language, through a CA who is fluent in the selected language. In the *NOI*, the Commission sought comment on whether Title IV of the ADA encompasses MRS, the extent to which MRS is currently available, and if there is a need for MRS, what standards the Commission could adopt for this service.⁷⁹

36. The record indicates that MRS service is currently provided in areas of the United States where large non-English speaking populations reside, and that the majority of

⁷⁷ See n.73, *supra*.

⁷⁸ See 47 C.F.R. § 64.604(a)(2), (a)(3).

⁷⁹ See *NOI*, 12 FCC Rcd at 1164-1 165.

MRS are Spanish-language **services**.⁸⁰ Commenters appear to agree that MRS is within the scope of Title IV; they also state, however, that because of the varying populations and resources of **different** states, the decision to implement MRS should rest with the state.” Ameritech also requests clarification on whether the Commission’s inquiry on multilingual services referred to translation services or same-language services.** Finally, Maryland and the DC PSC indicate that American Sign Language (ASL) translation services are available as part of their TRS **offerings**.⁸³

37. **Discussion** tentatively agree with those parties that assert that, at this time, the decision as to whether to implement MRS is best **left** to the state TRS programs. Because language needs and population demographics may vary widely from state-to-state, we tentatively conclude that the development and implementation of federal rules governing MRS could be problematic. Moreover, we tentatively conclude, based on the record, that where there is a demand for these services, some TRS providers have been providing MRS services to non-English speaking communities, especially to Spanish-speaking communities, at a satisfactory level, and that, as a consequence, Commission intervention in this area is not needed at this time.” We seek comment on these tentative conclusions.

38. We clarify, however, that MRS is, by definition, a “telecommunications relay service” as defined in Title IV of the ADA and our **rules**⁸⁵ because those services are telephone transmission services that enable a person with a hearing or speech disability to communicate by wire or radio with a person without such a disability. As such, although we do not propose to mandate the provision of MRS, MRS is considered a “relay” service within the meaning of Title IV. Accordingly, to the extent voluntarily provided, the costs of intrastate or interstate MRS are recoverable **from** the intrastate jurisdiction or the interstate TRS Fund, as appropriate. As with VRI, by allowing carriers to recover their costs of providing this service, we seek to spur the development of MRS and to encourage TRS providers to offer MRS on a voluntary basis.

⁸⁰ See, e.g., California PUC Comments at 11; Maryland Comments at 6; Sprint **Comments** at 2; Texas PUC Comments at 10; AT&T Comments at 8; Ameritech Comments at 16; MCI Comments at 8.

⁸¹ See, e.g., Louisiana Comments at 3; Missouri PSC Comments at 6; NASRA Comments at 7-8; Southwestern Bell Comments at 9; Texas PUC Comments at 10.

⁸² Ameritech Comments at 36.

⁸³ See Maryland Comments at 8-9; DC PSC Comments at 3.

⁸⁴ See, e.g., California PUC Comments at 11; Maryland PUC Comments at 6; MCI Comments at 8; Texas PUC Comments at 10.

⁸⁵ 47 U.S.C. § 225(a)(3); 47 C.F.R. § 64.601(7).

39. We tentatively conclude that Title IV of the ADA, as a general matter, only encompasses *same-language* MRS, since such services are by nature “relay” services between a person with a hearing or speech disability and a person without such a disability, using a shared language. We understand that some TRS providers may be offering “translation” services to TRS users (i.e., communication between two parties who each use a different language) including Spanish-language and ASL translation services. We tentatively conclude that any such “translation” TRS, especially foreign-language translation services, are **value-added** TRS offerings that go beyond the “relaying” of conversations between two end **users**.⁸⁶ Therefore, the interstate portion of such services should not be reimbursable from the interstate TRS Fund. We seek comment on this tentative conclusion. In particular, we ask parties to discuss whether an exception should be made for ASL translation services. ASL is a language unique to the deaf community. Therefore, ASL **translation** services may be necessary to provide “functional equivalency” to ASL users. We note, however, that ASL is primarily a visual language, and not a written or text-based language. Commenters should discuss whether ASL, when not presented visually but “typed” on a TTY, is capable of being translated to English in an objective and reliable manner, with a low risk of misunderstanding or CA error.

5. Access to Emergency Services

40. Background and Comments. The Commission’s current TRS regulations require that. “CAs shall handle emergency calls in the same manner as they handle any other **TRS calls**.”⁸⁷ Although this issue was not raised in the *NOI*, several emergency number and public safety associations filed reply comments asserting that further Commission guidance and minimum standards may be necessary in this **area**.⁸⁸ Commenters suggest that there is inconsistency and confusion among the states and TRS providers as to how such calls should be **handled**.⁸⁹ APSCO and NENA assert that, due to the “critical nature” of emergency calls, CA processing of those calls is of utmost importance, but the procedures for handling the calls vary **from state-to-state**.⁹⁰ APSCO and NENA ask that the Commission establish minimum standards for call handling in this area, and suggest that consideration be given to: (1) using databases to match the TRS caller’s automatic number information (**ANI**) with the appropriate emergency service number in his or her area; (2) allowing the TRS center to pass the caller’s **ANI** information to the emergency service provider, even where the TRS user disconnects before emergency personnel are connected (i.e., the functional equivalent of 9 11

⁸⁶ See section III(A)(1), *supra*, for a discussion of the definition of “**TRS**” and the scope of Title IV.

⁸⁷ 47 C.F.R. § 64.604(a)(3).

⁸⁸ See APCO and NENA Joint Reply Comments; TX-ACSEC Reply Comments, *passim*.

⁸⁹ See *id*

⁹⁰ See APCO and NENA Joint Reply Comments at 2.

“call-back”); and (3) defining what constitutes an “emergency” call.⁹¹ TX-ACSEC also supported the need for minimum standards in this area.⁹²

41. Discussion. We recognize that, despite Department of Justice regulations under Title II of the ADA that require state and local government entities to make emergency services directly accessible to TTY users,⁹³ many individuals with hearing and speech disabilities may choose to contact emergency services via a TRS center. While CAs should **handle** these types of calls in the same manner as they handle any other TRS call, we are concerned that the lack of consistency among TRS providers regarding the handling of emergency calls may jeopardize public **safety**. Moreover, we believe that TRS users should be informed as to how emergency calls will be handled by any TRS center. Accordingly, we seek further comment **on** this issue. Commenters should address, among other things: (1) whether TRS centers should be required under the Commission’s rules to pass a caller’s ANI to an emergency services operator; and (2) how “emergency calls” should be defined. We also ask TRS providers to describe their current operating procedures for incoming emergency calls. Commenters who propose that the Commission adopt minimum standards in this area should propose specific rule language to implement their proposals.

6. Access to Enhanced Services

42. Background and Comments. Current Commission rules require TRS to be capable of handling “any type of call normally provided by common carriers.”⁹⁴ In enacting Title IV, however, Congress stated that “there are some services, such as audiotext services, that connect callers to recorded information services. It is not the function of this legislation to facilitate access to these kind of services.”⁹⁵

43. In our first *Report and Order* on TRS, the Commission held that TRS providers were not required to offer access to enhanced services.⁹⁶ We encouraged, however, the provision of access to these services where technically feasible.” In the *NOI*, the Commission

⁹¹ *Id* at 3-4.

⁹² *See* TX-ACSEC Reply Comments, *passim*.

⁹³ *See* 28 C.F.R. § 35.162.

⁹⁴ 47 C.F.R. § 64.604(a)(3).

⁹⁵ *See* H.R. Rep. No. 101-485 (IV), 101st Cong., 2d Sess. at 66 (1990).

⁹⁶ *See* Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990, *Report and Order and Request for Comments*, CC Docket No. 90-571, 6 FCC Rcd 4657 at n.20 (1991).

⁹⁷ *See id*

sought to determine whether, because of technical limitations, any particular services remain inaccessible to TRS users.⁹⁸

44. A significant number of commenters asserted that two types of services remain largely inaccessible to TRS users and constitute a “glaring omission in relay services”: (1) voice menu-driven services; and (2) pay-per-call services.⁹⁹ NAD states that “[m]illions of businesses, governmental agencies, transportation facilities, and schools now use these interactive systems, which, because of the speed of response needed, remain inaccessible to relay users.”¹⁰⁰ According to NAD, voice menu-driven systems frequently do not offer a live operator option, and, for this reason, completely block telephone access to TRS users.¹⁰¹ AT&T states that the current TRS platform cannot effectively interact with the prompts and time limits built into many enhanced service applications, and that charges for pay-per-call services cannot be properly billed to the TRS user.¹⁰² The Texas PUC, however, comments that Relay Texas already provides access to pay-per-call services.¹⁰³ Several parties also assert that the actual responsibility for access to these services rests with the provider of the enhanced service, who should make the service directly accessible via TTY, under the public access and public accommodations requirements of Titles II and III of the ADA.¹⁰⁴ Some commenters contend that, to some degree, the incompatibility of voice-menu systems and TRS may be resolved using more advanced TTY protocols that approach “realtime” text transmission.¹⁰⁵ Several commenters state that TRS should be required to handle voice menu-driven systems and pay-per-call relay calls.¹⁰⁶ Finally, to remedy the inaccessibility of voice-menu systems, NASRA suggests that CAs be “allowed to offer the caller a condensed version

⁹⁸ *NOI*, 12 FCC Rcd at 1166-1167.

⁹⁹ NAD Comments at 4-5; see, also, DCADC-VAD Comments at 3; AGB Comments at 3; AT&T Comments at 11.

¹⁰⁰ NAD Comments at 4.

¹⁰¹ *Id*

¹⁰² AT&T Comments at 11.

¹⁰³ Texas PUC Comments at 11. *Cf.* NAD Reply Comments at 6 (“[I]t is not clear. . . why AT&T argues that the charges associated with pay-per-call cannot be properly billed. . . when Texas has already authorized the provision of these enhanced services.”).

¹⁰⁴ See, e.g., Wisconsin TRS-AC Comments at 2; AT&T Comments at 11.

¹⁰⁵ See ALDA Comments at 4; SHHH Comments at 3.

¹⁰⁶ See, eg NAD Comments at 4-5; DCADC-VAD Comments at 3; AGB Comments at 3.

of the [recorded] message or ask if a ‘particular message is sought, such as a list of services offered.’”

45. Discussion. The record indicates that computer-driven voice-menu systems (or “audiotext” systems), that are increasingly used by businesses and services in the United States, may present substantial barriers to TRS users because the speed at which information is provided via voice-menu is too fast to allow the TRS user to respond within the voice-menu system response time. Accordingly, TRS users must frequently place a succession of calls to leave a message with, or access the information provided by, a voice-menu system. We tentatively conclude, however, that in the absence of further direction from Congress, our jurisdiction under Title IV of the ADA does not permit us to mandate access to such services. Indeed, Congress expressly stated that Title IV was not intended to mandate access to enhanced services.¹⁰⁸ We seek comment on our tentative conclusion. Commenters who disagree with our tentative conclusion should discuss the Commission’s legal authority to require access to such services through TRS. Commenters should also discuss the technical issues involved in handling calls to pay-per-call services through TRS, and why access to pay-per-call services may be provided by some TRS providers and not by others.

46. We note that many carriers, telecommunications service providers, and TRS providers make enhanced services accessible to TRS users voluntarily when technically feasible, and we encourage them to continue to do so.¹⁰⁹ Although we tentatively conclude that we do not have jurisdiction to require access to such services, we believe Congress’ mandate that we ensure that “functionally equivalent” TRS are available, to the extent possible, permits us to establish rules to govern the way in which CAs handle recorded messages that require user interaction or input.” Accordingly, we tentatively conclude that our rules should be amended to allow CAs, when encountering an interactive recorded message during a TRS call that cannot be relayed verbatim, due to technical limitations, to alert the TRS user to the presence of a recorded message. The CA also should be permitted to inquire as to whether the TRS user wishes the CA to summarize the message or to listen for specific information. We tentatively conclude that this narrow exception to the requirement that all calls be relayed “verbatim” would increase TRS efficiency, by allowing CAs to alert the TRS user to a recorded message through a “hot key” on their

¹⁰⁷ NASRA Comments at 3-4; see *also* MCDHH Comments at 4.

¹⁰⁸ See H.R. Rep. No. 101-485 (IV), 101st Cong., 2d Sess. at 66 (1990).

¹⁰⁹ TRS providers can, and do, recover the costs of voluntarily providing access to enhanced services. The costs of providing this access may be included in cost data (ie., the costs of personnel and plant) for traditional TRS. TRS providers submit this cost data to NECA for purposes of calculating the annual TRS provider compensation rate.

¹¹⁰ See 47 U.S.C. § 225 (a)(3), (b)(1), (d)(1).

¹¹¹ See 47 C.F.R. 64.604(a)(2).

terminal, and to receive instructions from the TRS user on how he or she wishes to proceed, without having to engage in frequent **call-backs**.¹¹² Moreover, TRS users could still request a verbatim message, even if to do so would require frequent call-backs by the CA. We seek comment on this proposed rule. Commenters should note that the proposed rule, rather than requiring **CAs** to summarize recorded messages, would permit the TRS user to have a second option of directing the CA to handle such calls in this fashion.

B. Mandatory Minimum Standards

1. Speed-of-Answer Requirements

47. Background and Comments. The Commission's TRS rules require TRS providers to meet certain blockage and speed-of-answer parameters. Specifically, section 64.604(b)(2) of our rules states:

Speed of Answer. TRS shall include adequate staffing to provide callers with efficient access under projected calling volumes, so that the probability of a busy response due to CA unavailability shall be functionally equivalent to what a voice caller would experience in attempting to reach a party through the voice telephone network. TRS shall, except during network failure, answer 85% of all calls within 10 seconds, and no more than 30 seconds shall elapse between receipt of dialing information and the dialing of the requested **number**.¹¹³

48. Speed-of-answer was one of the more frequently discussed issues by commenting parties. Most parties agreed that the Commission's current speed-of-answer rules are vague and subject to varying interpretations by different TRS **providers**.¹¹⁴ Louisiana, for example, points out that the speed-of-answer calculation can be distorted by the exclusion of abandoned and redialed calls from the **calculation**.¹¹⁵ A number of parties note that TRS providers may interpret "answer" as permitting calls to be answered by a computer and placed

¹¹² Currently, **CAs** interface with TTY users through personal computer (PC) equipment and **software**. Relay software programs **often** allow the **CAs** to program certain often-used phrases (i.e., "ringing" or "number busy") into a "hot key" sequence so that these phrases can be transmitted to the TTY user with one or two keystrokes, rather than typing out the entire phrase.

¹¹³ Some state TRS programs have speed-of-answer requirements that are more stringent than the Commission's requirements. California, for example, requires calls to be answered in seven (7) seconds or less. See California PUC Comments at 13.

¹¹⁴ *See, e.g., NASRA* Comments at 5-6; Louisiana Comments at 2-3; Maryland Comments at 9; DC PSC Comments at 2; Hawaii CCD Comments at 3; Texas PUC Comments at 14-15; NAD Comments at 13; SHHH Comments at 6-7; DCADC-VAD Comments at 13; AGB Comments at 2; CPAS Comments at 10; and NVRC Comments at 5-6.

¹¹⁵ Louisiana Relay Comments at 2-3.

in queue; the TRS user could then wait several minutes or more before the call is actually answered by a CA prepared to place the **call**.¹¹⁶ Texas PUC and Maryland contend that their ability to assess speed-of-answer times improved when a specific time period (e.g., daily) was set as the basis for the speed-of-answer calculation.” Finally, NASRA suggests that the Commission’s rules should be revised to require that calls be answered “within 10 seconds of reaching the relay switch.”““

49. Discussion. Speed-of-answer requirements are a cornerstone of the Commission’s TRS rules.¹¹⁹ The ability of a TRS user to reach a CA prepared to place his or her call, without experiencing delays that a voice telephone user would not experience in placing a telephone call, is fundamental to the concept of “functional equivalence.” For this reason, we are concerned about the apparent lack of uniformity in the application of our speed-of-answer rules among state TRS programs. We also are concerned about the allegations of numerous commenters that TRS users may be subject to high rates of call blockage and, after reaching a TRS center, may be put “on hold” before their calls are placed. These types of experiences are not “functionally equivalent” to the experiences of individuals without a hearing or speech disability.

50. Because of the apparent inconsistency in the application of our rules, we tentatively conclude that we should revise our speed-of-answer rules to require TRS providers to answer 85% of all calls within 10 seconds *by a CA prepared to place the TRS call at that time*. We further propose to require that the calculation of whether a provider is in compliance with the 85% - 10 second rule must be performed on at least a daily basis.

51. The rule amendments we propose are intended to eliminate two practices: (1) the practice of having calls answered by an automated system, either at a switch, a call management platform, or at the TRS center, and placed in queue for long periods; and (2) the practice of calculating speed-of-answer rates on a weekly or monthly basis, which allows the averaging of both low-use and busy TRS calling periods. We believe that these two practices tend to distort actual TRS performance. We seek comment on these proposed rule amendments.

52. We further propose to require that the lo-second speed-of-answer time frame be triggered when a call initially arrives at the TRS provider’s network. The point at which a call “initially arrives” at the TRS provider’s network could vary with the construction of the

¹¹⁶ See, e.g., NAD Comments at 13; Maryland Comments at 9; SHHH Comments at 6; DC PSC Comments at 2.

¹¹⁷ Texas PUC Comments at 14-15; Maryland Comments at 9.

¹¹⁸ NASRA Comments at 6.

¹¹⁹ See 47 C.F.R. § 64.604(b)(2).

network. For example, some TRS providers' network may route all **TRS** calls to a regional call distribution platform, while other providers' networks could route calls directly to a TRS center switch. Our proposal is intended to ensure that, once a TRS call passes into the TRS provider's network facilities, regardless of which configuration that provider uses, the TRS provider ensures that the call is answered within 10 seconds by a CA prepared to place the call. We seek comment on this proposal. We also ask commenters to discuss whether all TRS providers have the technical ability to track CA response times, and, thus, the ability to demonstrate compliance with our proposed speed-of-answer rule.

53. The exclusion of redialed or abandoned **calls**¹²⁰ in speed-of-answer reports can distort the record of a TRS provider's actual performance by reducing the total number of calls from which the average speed-of-answer is calculated, thus improving the TRS provider's average.¹²¹ We tentatively conclude that we should not require that these calls be included in all speed-of-answer calculations. While some callers may redial or abandon a call when they receive a busy signal or are placed on hold by a TRS center, redialed or abandoned calls may be prompted by other circumstances as well, such as callers that simply change their mind about placing a call or that are interrupted while placing the call. We tentatively conclude that we should not adopt a regulation that assumes that all abandoned and redialed TRS calls result from high blockage. We seek comment on this tentative conclusion. In reaching this tentative conclusion, we note that our rules require TRS providers to maintain adequate staffing of their facilities to ensure that callers are provided with efficient access under projected calling volumes, so that the probability of a busy response due to CA unavailability is functionally equivalent to what a voice caller would experience in attempting to reach a party through the voice telephone network.¹²² We remain concerned that our tentative conclusion, that we should not require that redialed or abandoned calls be included in speed-of-answer reports, which could result in improved speed-of-answer statistics for a particular carrier, not be used by TRS providers to avoid properly staffing their facilities. We seek comment on how the Commission can ensure that this result is avoided.

¹²⁰ "**Redialed**" or "abandoned" calls refer to calls that are successively redialed or abandoned, without being completed, when a caller is unable to reach a CA ready to place his or her call.

¹²¹ For example, if a provider receives a total of 1000 **TRS** calls a day, and 750 of those calls were answered within 10 seconds or less, the provider's speed-of-answer rate would be 75% and below the required minimum standard. But if 200 of those calls were abandoned by the caller before a CA came on-line to handle the call, and the provider excludes these 200 abandoned calls from its speed-of-answer calculation (without knowing whether or not the calls were abandoned by the TRS user because no response was obtained **from** the TRS center within 10 seconds), then the provider could report an answer rate of 94% (750/800).

¹²² 47 C.F.R. § 64.604(b)(2).

2. CA Quality and Training

54. **Background and Comments.** Current Commission regulations require **CAs** to have, among other things, “competent skills in typing, grammar, spelling, interpretation of typewritten ASL, and familiarity with hearing and speech disability cultures, language and **etiquette.**”¹²³ In the *NOI*, we sought general comment on the effectiveness of this rule over the past three years.¹²⁴ The Commission received numerous comments, especially from TRS users, stating that the quality of **CAs** varies widely, and that there is an alarming decline in CA quality that is affecting the “functional equivalency” of TRS **service.**¹²⁵

55. **Many** parties representing TRS users note that the Commission currently has no quantitative rules for CA typing **speed.**¹²⁶ These parties urge the Commission to amend our rules to set a minimum CA typing speed.¹²⁷ Commenters assert that, in light of more efficient technologies (e.g., enhanced TTY protocols, auto-correct software), **CAs** could approach “realtime” transmission of text-to-voice and voice-to-text, if they were sufficiently skilled typists.¹²⁸ NAD urges the Commission to adopt a minimum typing speed of 100 **words-per-minute**, and to require that CA typing tests be oral, rather than **written.**¹²⁹ NASRA suggests a 45 word-per-minute **standard.**¹³⁰ AT&T, a major TRS provider, argues against adopting quantitative typing speeds for **CAs.**¹³¹ AT&T states that requiring a **significant** increase in typing speed would “disserve” TRS users, because the current labor pool for potential **CAs** is already “**limited.**”¹³²

¹²³ 47 C.F.R. § 64.604(a)(1).

¹²⁴ See *NOI, 12 FCC Rcd* at 1169.

¹²⁵ See, e.g., NAD Comments at 5-6; SHHH Comments at 2; NVRC Comments at 11; DC PSC Comments at 2; Texas PUC Comments at 13. *Cf.* Ameritech Comments at 21; Southwestern Bell Comments at 21 (commenting that current **CAs** are effective and customers are satisfied with CA competency).

¹²⁶ See, e.g. SHHH Comments at 4; NAD Comments at 6.

¹²⁷ See *id.*; see *also* DCADC-VAD **Comments** at 3; CPAS Comments at 8; NASRA Comments at 5; MATP Comments at 3.

¹²⁸ See, e.g., SHHH Comments at 4; NAD Comments at 6; DCADC-VAD Comments at 3; CPAS Comments at 8; **NASRA** Comments at 5.

¹²⁹ NAD Comments at 6; see *also* DCADC-VAD Comments at 3; CPAS Comments at 8; NASRA Comments at 5.

¹³⁰ NASRA Comments at 5.

¹³¹ See AT&T Reply Comments at 7-8.

¹³² *Id*