

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

In the Matter of)
Structure and Practices of the Video Relay Service) CG Docket No. 10-51
Program)
Telecommunications Relay Services and Speech-) CG Docket No. 03-123
to-Speech Services for Individuals with Hearing)
and Speech Disabilities)

FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: December 15, 2011

Released: December 15, 2011

Comment Date: [30 days after date of publication in the Federal Register]

Reply Comment Date: [45 days after date of publication in the Federal Register]

By the Commission:

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I. INTRODUCTION

1. Video relay service (VRS) allows persons with hearing or speech disabilities or who are deaf-blind to use American Sign Language (ASL) to communicate in near real time through a communications assistant (CA), via video over a broadband Internet connection.¹ In this Further Notice of Proposed Rulemaking (*Further Notice*), we continue the process of reexamining the fundamentals of the Commission's VRS rules to ensure the VRS program fulfills the goals set for the Commission in section 225 of the Communications Act ("the Act").² Specifically, we set forth a series of options and proposals to improve the structure and efficiency of the program, to ensure that it is available to all eligible users and offers functional equivalence – particularly given advances in commercially-available technology – and is as immune as possible from the waste, fraud, and abuse that threaten the long-term viability of the program as it currently operates. We solicit comment on these options and proposals to ensure that this vital program is effective, efficient, and sustainable for the future.

II. BACKGROUND

A. Purpose of the TRS Program and VRS

2. Title IV of the ADA requires the Commission to ensure that TRS is available to persons in the United States who are deaf, hard of hearing, deaf-blind or have a speech disability.³ In adopting Title IV of the ADA, Congress recognized that persons with hearing or speech disabilities have long experienced barriers to their ability to access, use, and benefit from telecommunications services.⁴ The intent of Title IV is, therefore, to further the Communications Act's goal of universal service by ensuring that these individuals have access to the nation's communications system.⁵

¹ *Telecommunications Relay Services for Individuals with Hearing and Speech Disabilities*, Report and Order and Further Notice of Proposed Rulemaking, CG Docket No. 98-67, 15 FCC Rcd 5140, 5152-54, paras. 21-27 (2000) (*2000 TRS Order*). VRS is one form of telecommunications relay service (TRS). TRS, created by Title IV of the Americans with Disabilities Act of 1990 (ADA), enables an individual with a hearing or speech disability or who is deaf-blind to communicate by telephone or other device through the telephone system. See 47 U.S.C. § 225(a)(3) (defining TRS); see also § 103 of the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA), Pub. L. No. 111-260, 124 Stat. 2751 (2010), as codified in various sections of 47 U.S.C., and amended by Amendment of Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. 111-265, 124 Stat. 2795 (2010), also enacted on October 8, 2010 (making technical corrections to the CVAA). TRS is provided in a variety of ways. We note that some deaf-blind individuals have residual vision, and thus may use VRS.

² See 47 U.S.C. § 225.

³ Pub. L. No. 101-336, § 401, 104 Stat. 327, 336-69 (1990), adding Section 225 to the Communications Act of 1934 (Act), as amended, 47 U.S.C. § 225; implementing regulations at 47 C.F.R. § 64.601 *et seq.*

⁴ See generally *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket Nos. 90-571 & 98-67, CG Docket No. 03-123, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 19 FCC Rcd 12475, 12479-12480, para. 3 (2004) (*2004 TRS Report & Order*) (discussing legislative history of Title IV of the ADA).

⁵ See, e.g., 47 U.S.C. § 225(a)(3). The legislative history of Title IV reflects that the "goal of universal service has governed the development of the nation's telephone system for over fifty years," and that "the inability of over 26 million Americans to access fully the Nation's telephone system poses a serious threat to the full attainment of [this goal]." See H.R. Rep. No. 485, Pt. 2, 101st Cong., 2d Sess. at 129 (1990) (House Report).

3. Section 225 sets forth several overarching principles governing the provision and regulation of TRS.⁶ First, section 225 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.⁷ Second, section 225 requires that TRS provide “functionally equivalent” telephone service for persons with hearing or speech disabilities.⁸ Third, the statute requires that the Commission’s regulations encourage the use of existing technology and not discourage the development of new technology.⁹ Finally, the regulatory scheme distinguishes between *intrastate* and *interstate* TRS services, which is reflected, in part, by the arrangement whereby states are responsible for the reimbursement of the costs of PSTN-based intrastate TRS and the TRS Fund is responsible for the reimbursement of the costs of interstate TRS and the costs associated with IP-based TRS.¹⁰

4. Over the past twenty years, the Commission has issued numerous orders designed to advance the TRS program and ensure that it reflects the intent of Congress.¹¹ For example, the Commission has improved the availability and effectiveness of TRS by recognizing new and innovative

⁶ We note that section 103 of the CVAA amended section 225 to (i) require providers of VoIP-based services to contribute to the Interstate TRS Fund (“TRS Fund” or “Fund”) and (ii) clarify that in addition to defining TRS as the ability of a person who is deaf, hard of hearing, deaf-blind or has a speech disability to use relay services for the purpose of communicating with hearing individuals, these services may be used where individuals with disabilities need to communicate with other relay users with disabilities, where necessary to achieve functionally equivalent communication. See CVAA § 103; 47 U.S.C. §§ 225(a)(3), 616; S. Rep. No. 111-386, 111th Cong., 2d Sess. at 7 (2010) (CVAA Senate Report).

⁷ 47 U.S.C. § 225(b)(1); see also House Report at 129.

⁸ 47 U.S.C. § 225(a)(3).

⁹ 47 U.S.C. § 225(d)(2).

¹⁰ 47 U.S.C. § 225(d)(3). The costs of TRS are not directly recovered from TRS users. Section 225(d)(1)(D) provides that our regulations “require that users of [TRS] pay rates no greater than the rates paid for functionally equivalent voice communication services with respect to such factors as the duration of the call, the time of day, and the distance from point of origination to point of termination.” 47 U.S.C. § 225(d)(1)(D). In enacting such a regulation, the Commission explained that the functional equivalence mandate requires us to ensure that carriers’ charges for TRS “not exceed charges of functionally equivalent voice service between the same end points, without regard to how the call is routed.” *Telecommunications Services for Hearing-Impaired and Speech-Impaired Individuals*, Notice of Proposed Rulemaking, CC Docket No. 90-571, FCC 90-376, 5 FCC Rcd 7187 para. 14 (1990) (*TRS INPRM*); see 47 C.F.R. § 64.604(c)(4); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities, Structure and Practices of the Video Relay Service Program*, CG Docket Nos. 03-123 and 10-51, Order, FCC 11-104, para. 1, n.1 (rel. June 30, 2011) (*2011 TRS Rate Order*). In practice, VRS is free for end users, and any custom equipment or software used to access VRS is also generally provided at no cost to users, except for the cost of the required Internet connection. Providers are compensated for their reasonable costs of providing service by the TRS Fund. See 47 C.F.R. § 64.604(c)(5)(iii)(E). The Fund is supported via contributions collected from the common carriers providing interstate telecommunications services and other providers of communications services. See 47 C.F.R. §§ 64.604(c)(5)(iii)(A), 64.601(b). The Commission adopted a carrier contribution factor of 0.01058 and funding requirement of \$740,399,393.56 for the 2011-12 Fund year. See *2011 TRS Rate Order*. Pursuant to section 715 of the CVAA, interconnected VoIP providers and providers of non-interconnected VoIP service were required to start contributing by October 8, 2011. CVAA § 715; 47 U.S.C. § 616; see also *Contributions to the Telecommunications Relay Service Fund*, CG Docket No. 11-47, Notice of Proposed Rulemaking, 26 FCC Rcd 3285 (2011) (seeking comment on implementation of CVAA § 715).

¹¹ The Commission has described the history of the VRS program in detail in prior orders. See, e.g., *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, Notice of Inquiry, 25 FCC Rcd 8597 at 8598-8600, paras. 2-8 (2010) (*2010 VRS Reform NOI*).

forms of TRS, including VRS.¹² The Commission created a shared funding mechanism – the TRS Fund – to ensure that providers can recover the reasonable costs of providing TRS and to incent TRS providers “to offer high quality, innovative services at reasonable cost,” and refined its funding mechanisms to reduce the possibility of waste, fraud, and abuse.¹³ The Commission has improved the functional equivalence of TRS by strengthening its mandatory minimum standards.¹⁴ And the Commission has taken steps to encourage the use of up-to-date technology and ensure that the development and use of new technology by, for example, ensuring that Internet-based TRS (iTRS)¹⁵ supports ten-digit dialing and functionally-equivalent access to emergency services.¹⁶ The Commission remains committed to fulfilling the intent of Congress to ensure the provision of TRS that is functionally equivalent to conventional voice telephone services. To this end, throughout this proceeding, the Commission has carefully considered the principles and recommendations contained in the Consumer Groups’ TRS Policy Statement – Functional Equivalency of Telecommunications Relay Services: Meeting the Mandate of the Americans with Disabilities Act, a blueprint submitted to the Commission in April 2011, whose stated purpose is to assist the Commission in “developing policies for relay services to fulfill the functional equivalency mandate of

¹² See, e.g., *2000 TRS Order*, 15 FCC Rcd at 5152-54, paras. 21-27 (recognizing VRS as a form of TRS); *Telecommunications Relay Services, and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Declaratory Ruling, 18 FCC Rcd 16121 (2003) (*2003 Captioned Telephone Declaratory Ruling*) (recognizing Captioned Telephone Service (CTS) as a form of TRS); *Provision of Improved Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Declaratory Ruling and Second Further Notice of Proposed Rulemaking, 17 FCC Rcd 7779 (2002) (*IP Relay Declaratory Ruling*) (recognizing IP Relay as a form of TRS).

¹³ See *Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990*, CC Docket No. 90-571, 8 FCC Rcd 1802, 1806, para. 24 (1993) (*TRS II*) (creating shared funding mechanism); see generally *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 5545 (2011) (*VRS Call Practices R&O and Certification FNPRM*) (adopting rules to detect and prevent fraud and abuse in the provision of VRS).

¹⁴ See, e.g., *2000 TRS Order*, 15 FCC Rcd at 5144-46 (summarizing numerous improvements to the TRS mandatory minimum standards, including more stringent speed to answer requirements and minimum typing speeds for CAs).

¹⁵ Internet-based TRS is “[a] telecommunications relay service . . . in which an individual with a hearing or a speech disability connects to a TRS communications assistant using an Internet Protocol-enabled device via the Internet, rather than the public switched telephone network. Internet-based TRS does not include the use of a text telephone (TTY) over an interconnected voice over Internet Protocol service.” 47 C.F.R. § 64.601(a)(11). There currently are three forms of Internet-based TRS recognized by the Commission: VRS, IP Relay, and IP captioned telephone service (IP CTS), and any combination of these services or use of these services with other forms of relay, such as voice carryover (allowing a user to speak directly to the other party while having the conversation relayed back) or hearing carryover (allowing a user to hear the other party directly while using relay to convey messages). See *Structure and Practices of the Video Relay Service Program*, Second Report and Order and Order, CG Docket No. 10-51, FCC 11-118 at n.1 (rel. Jul. 28, 2011) (*2011 VRS Certification Order*).

¹⁶ See *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, *E911 Requirements for IP-Enabled Service Providers*, WC Docket No. 05-196, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 11591, 11615, para. 60 (2008) (*Internet-based TRS Numbering Order*); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, CC Docket No. 98-67, *E911 Requirements for IP-Enabled Service Providers*, WC Docket No. 05-196, Second Report and Order and Order on Reconsideration, 24 FCC Rcd 791, 818-20, paras. 60-64 (2008) (*Second Internet-based TRS Numbering Order*, and together with the *Internet-Based TRS Numbering Order*, the *Internet-based TRS Numbering Orders*).

the ADA . . . [and to] foster a positive, empowering climate in communication access for all Americans who use relay services.”¹⁷

B. Recent Actions by the Commission

5. As described in greater detail below, over the last two years the Commission has made a concerted effort to improve the efficiency and performance of the VRS program by: (1) implementing targeted actions to reduce waste, fraud, and abuse; (2) revisiting the rates at which VRS providers are compensated under the existing per-minute compensation methodology; and (3) initiating a fresh look at the structure and practices of the VRS program.

6. *Targeted actions to reduce waste, fraud, and abuse.* An unintended consequence of the current structure of the VRS program has been vulnerability to waste, fraud, and abuse. Although the program has been a great success in terms of providing functionally equivalent communications services to some people with hearing and speech disabilities, structural problems with the current program threaten its long-term sustainability.¹⁸ In addition to extensive (and ongoing) actions taken by the Commission’s Inspector General in collaboration with the Department of Justice, which have resulted in several criminal convictions,¹⁹ the Commission recently issued Orders (a) taking significant, targeted actions to protect the

¹⁷ See Letter from Tamar E. Finn and Brett P. Ferenchak, counsel to Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 03-123 and 10-51, attach. (filed Apr. 12, 2011) (Consumer Groups’ TRS Policy Statement). The Consumer Groups consist of the following organizations: Telecommunications for the Deaf and Hard of Hearing, Inc., National Association of the Deaf, Association of Late-Deafened Adults, Hearing Loss Association of the Deaf, California Coalition of Agencies Serving the Deaf and Hard of Hearing, American Association of the Deaf-Blind, Speech Communication Assistance by Telephone, Communication Service for the Deaf, and Deaf Seniors of America.

¹⁸ See *VRS Call Practices R&O and Certification FNPRM*, 26 FCC Rcd at 5545, para. 1.

¹⁹ See *Twenty-six Charged in Nationwide Scheme to Defraud the FCC’s Video Relay Service Program*, United States Department of Justice (DOJ) (Nov. 19, 2009) at <http://www.justice.gov/opa/pr/2009/November/09-crm-1258.html>; see also *Two Former Executives of Indicted Relay Services Company Plead Guilty to Defrauding FCC Program*, DOJ (Jan. 13, 2010) at <http://www.justice.gov/opa/pr/2010/January/10-crm-031.html>; *Two Former Executives of Video Relay Services Company Plead Guilty to Defrauding FCC Program*, DOJ (Feb. 18, 2010) at <http://www.justice.gov/opa/pr/2010/February/10-crm-157.html>; *Four Former Owners and Employees of Three Video Relay Service Companies Plead Guilty to Defrauding FCC Program*, DOJ (March 5, 2010) at <http://www.justice.gov/opa/pr/2010/March/10-crm-229.html>; *Three Former Owners and Employees of Two Video Relay Service Companies Plead Guilty to Defrauding FCC Program*, DOJ (March 9, 2010) at <http://www.justice.gov/opa/pr/2010/March/10-crm-237.html>; *Owner and a Former Executive of Indicted Video Relay Services Company Plead Guilty to Defrauding FCC Program*, DOJ (Oct. 28, 2010) at <http://www.justice.gov/opa/pr/2010/October/10-crm-1223.html>; *Individual Pleads Guilty to Defrauding FCC Video Relay Service Program*, DOJ (Jan. 6, 2011) at <http://www.justice.gov/opa/pr/2011/January/11-crm-018.html>; *Two Individuals Plead Guilty to Defrauding FCC Video Relay Service Program*, DOJ (Jan. 24, 2011) at <http://www.justice.gov/opa/pr/2011/January/11-crm-100.html>. As we noted in the *VRS Call Practices NPRM*, among the many individuals indicted for illegal VRS activities were call center managers, paid callers, and VRS CAs. Fraud uncovered by the investigations associated with these indictments revealed tens of millions of dollars of payments that were illegitimately collected from the Fund. *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, Declaratory Ruling, Order and Notice of Proposed Rulemaking, 25 FCC Rcd 6012, 6016, para. 6, n.22 (2010) (*VRS Call Practices NPRM*). Two primary sources of fraud uncovered through these investigations were illegitimate calls made to taped programs and calls ostensibly made for the purpose of marketing and outreach.

TRS Fund from obviously fraudulent and abusive practices,²⁰ and (b) revising the provider certification process to ensure that iTRS providers, including VRS providers, receiving certification are qualified to provide services in compliance with the Commission's rules, and enhancing the Commission's ongoing oversight of such providers.²¹ The *VRS Call Practices R&O and Certification FNPRM* and the *2011 VRS Certification Order* were important tactical actions taken to complement the structural improvements to the VRS program proposed in this *Further Notice*, and were designed to reduce both the occurrence of and the incentives for waste, fraud, and abuse.²² Further, the Commission recently conducted a competitive procurement to select the TRS Fund Administrator, which included requirements that the Administrator take steps to mitigate waste, fraud and abuse.²³

7. *Revisiting per-minute compensation rates.* The TRS Fund is meant to compensate providers of VRS (and other eligible interstate TRS services) for their "reasonable costs of providing interstate TRS."²⁴ Establishing the actual compensation rate has, however, been a matter of particular controversy, resulting in a suboptimal level of transparency and predictability in the process and the outcome.²⁵ The initial VRS compensation rate, adopted in 2000, was \$5.143 per minute.²⁶ The rate subsequently peaked at \$17.04 per minute in 2002, before settling in the \$6-8 per minute range between 2003 and 2006.²⁷

²⁰ See generally *VRS Call Practices R&O and Certification FNPRM*, 25 FCC Rcd 5545; see also, *In the Matter of Hands On Video Relay Services, Inc., Go America, Inc., and Purple Communications, Inc.*, Order and Consent Decree, 25 FCC Rcd 13090 (2010) (*Purple Consent Decree*).

²¹ See generally *2011 VRS Certification Order*.

²² *VRS Call Practices R&O and Certification FNPRM*, 25 FCC Rcd at 5552, para. 7; *2011 VRS Certification Order* at paras. 1-2. The Consumer and Governmental Affairs Bureau (CGB) subsequently temporarily extended, until November 4, 2011, the certification period for providers of VRS and IP Relay Service that have current certifications that are scheduled to expire on or before that date. See *Consumer And Governmental Affairs Bureau Announces Extension Of Expiring Certifications For Providers Of Internet-Based Telecommunications Relay Services*, CG Docket Nos. 03-123, 10-51, Public Notice, 26 FCC Rcd 6737 (2011). CGB also released guidance on filing requests for temporary waiver of a rule adopted in the *VRS Call Practices R&O and Certification FNPRM* prohibiting revenue sharing arrangements for CA and call center functions between entities eligible for compensation from the Fund and non-eligible entities (subcontractors). See *Consumer And Governmental Affairs Bureau Provides Guidance On Filing Requests For Waiver Of New Requirements Adopted In The Video Relay Services Fraud Order*, CG Docket No. 10-51, Public Notice, 26 FCC Rcd 6863 (2011).

²³ See TRS Fund Administration Services Agreement, CON 11000003, Performance Work Statement (March 7, 2011).

²⁴ See 47 C.F.R. § 64.604(c)(5)(iii)(E); *2004 TRS Report & Order*, 19 FCC Rcd at 12512-13, para. 90.

²⁵ See *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Report and Order and Declaratory Ruling, 22 FCC Rcd 20140, 20145, para. 6 (2007) (*2007 TRS Rate Methodology Order*).

²⁶ See *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Order, 18 FCC Rcd 12823 (2003) 18 FCC Rcd 12823, 12830, para. 18 n.52 (*2003 Bureau TRS Rate Order*).

²⁷ *2004 TRS Report and Order*, 19 FCC Rcd at 12569, para. 247; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, CG Docket No. 03-123, Order, 20 FCC Rcd 12237, 12246-48, paras. 23-28 (2005) (*2005 TRS Rate Order*) (adopting 2005-2006 VRS rate based on median rate of the providers because record reflected that the average rate would unfairly penalize most providers and providers' cost projections may have been based on various levels of service quality); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Order, 21 FCC Rcd 7018, 7027, paras. 28-29 (2006) (*2006 Bureau TRS Rate*

(continued....)

8. The current compensation mechanism for VRS was adopted in 2007 and modified in 2010.²⁸ It provides compensation on a per-minute basis, with the compensation rates calculated as the average of (i) per-minute rates calculated by the TRS Fund Administrator as a measure of actual, historical provider costs and (ii) the rates adopted for the 2009-2010 fund year, which were based on providers' projected costs.²⁹ It also employs a 3-tier methodology based on volume, which generally results in smaller providers receiving a higher average per-minute rate than larger providers.³⁰ In its Order setting compensation rates for TRS providers from the Fund for the 2010-11 Fund year, the Commission adopted reduced interim rates for VRS of \$6.2390 for Tier I, \$6.2335 for Tier II, and \$5.0668 for Tier III.³¹ The Commission stated that these rates were adopted on an interim basis to ensure that VRS providers recover their reasonable costs from the Fund and continue to provide quality service while the Commission considers reform of the practices and structure of VRS.³²

9. Most recently, in anticipation of the proposals set forth in this *Further Notice*, CGB waived the May 1, 2011 Fund Administrator filing requirement for VRS payment formulas and revenue requirements for the 2011-12 TRS Fund year,³³ and subsequently concluded that it would be more efficient and less disruptive to extend the existing interim rates while the Commission concluded its evaluation of the issues and the substantial record developed in response to this proceeding.³⁴

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Order) (freezing the 2005-2006 VRS rate for the 2006-2007 Fund year because, in part, of the providers' difficulty in accurately predicting minutes of use); *2004 TRS Report & Order*, 19 FCC Rcd at 12537-52, paras. 163-200 (addressing challenges to the 2003-2004 compensation rates, including disallowances for profit, engineering costs, and labor costs); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket 03-123, Order on Reconsideration, 21 FCC Rcd 8050 (2006) (addressing challenge to Fund Year 2003-2004 VRS rate) (*2006 Order on Reconsideration*); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, *Memorandum Opinion and Order*, 21 FCC Rcd 8063 (July 12, 2006) (*2006 MO&O*) (addressing challenge to Fund Year 2004-2005 TRS rates).

²⁸ See generally *2007 TRS Rate Methodology Order*, 22 FCC Rcd 20140; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, 25 FCC Rcd 8689, 8691, para. 6 (*2010 TRS Rate Methodology Order*) (changing the basis for per-minute compensation from provider projected costs to an average of the Fund Administrator's proposed per-minute rates, calculated as a measure of actual, historical provider costs, and the rates from the 2010-2011 Fund year which were based on providers' projected costs).

²⁹ See *2010 TRS Rate Methodology Order*, 25 FCC Rcd 8691, para. 6.

³⁰ See *2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20167-68, paras. 47-56, 67-71; *2010 TRS Rate Methodology Order*, 25 FCC Rcd at 8697-98, paras. 16-17. Tier I rates apply to the first 50,000 monthly VRS minutes; Tier II rates apply to volumes between 50,001 and 500,000 minutes per month; and Tier III rates apply to volumes above 500,000 minutes per month. *Id.* at 8697, para. 16. As discussed below, it is not obvious that such a tiering scheme reflects the actual reduction in the cost of providing VRS at different minute volumes or, indeed, does much more than reduce the efficiency of the Fund by providing ongoing support for numerous high-cost, subscale providers.

³¹ *2010 TRS Rate Methodology Order*, 25 FCC Rcd at 8692, para. 6.

³² *Id.* at 8690, para. 2.

³³ *Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 10-51 and 03-123, Order, 26 FCC Rcd 5231 (CGB 2011) (*VRS Rate Filing Waiver Order*).

³⁴ See *2011 TRS Rate Order*; see also Video Relay Service Reform, Paul de Sa, Chief, Office of Strategic Planning and Karen Peltz Strauss, Deputy Bureau Chief, Consumer and Governmental Affairs (May 5, 2011) available at <http://www.fcc.gov/blog/video-relay-service-reform>.

10. *Structural reform of the VRS program.* In addition to the actions described above, the Commission also launched an overarching inquiry as to whether structural reform of the Commission's VRS rules is required to ensure that the program is effective, efficient, and sustainable. Despite the initial significant uptake in usage, the lessons learned in administering the program, and the advances in communications technology that have occurred since VRS was recognized as a form of TRS over a decade ago,³⁵ the *2010 VRS Reform NOI* marked the Commission's first effort to take a fresh look at the VRS program.³⁶ In that NOI, the Commission sought comment on a number of issues at the heart of VRS as a service and a business, including: What are the functional components of VRS?³⁷ What are the current and potential levels of legitimate demand for the service?³⁸ What are the economic and business issues that VRS providers must consider to provide the service adequately?³⁹ What incentives do the Commission's rules give providers and users of VRS?⁴⁰ Can contributors to the Fund be assured that their dollars are being spent efficiently and responsibly?⁴¹ To help develop the record in a particularly important area, CGB subsequently issued a Public Notice seeking additional information regarding new and emerging technologies that may be used to access VRS.⁴²

III. STRUCTURAL ISSUES WITH THE CURRENT VRS PROGRAM

11. Our overarching goal in this proceeding is to improve the VRS program so that it better promotes the goals Congress established in section 225 of the Act. Specifically, we seek to ensure that VRS is available to all eligible users, is provided efficiently, offers functional equivalence, and is as immune as possible to the waste, fraud, and abuse that threaten its long-term viability. We note that this is largely consistent with the goals outlined in the recent Consumer Groups' TRS Policy Statement, and that we seek to reform VRS in accordance with these goals to the extent possible.⁴³ In developing the records of the VRS-related proceedings discussed above, and in particular based on the submissions to the VRS program structure and practices proceeding (CG Docket No. 10-51), we have identified a number of structural issues with the current program that have not only detracted from its historical success in providing communications services to individuals who are deaf, hard of hearing, deaf-blind, or have a speech disability, but may also threaten its future success. These issues – which we seek to address with the proposals set forth and the questions raised in this *Further Notice* – include the following: (i) broadband affordability may be restricting the availability of VRS, (ii) VRS access technology standards may be insufficiently developed,⁴⁴ frustrating the program's technology goals, and potentially resulting in

³⁵ *2000 TRS Order*, 15 FCC Rcd at 5152-54, paras. 21-27 (recognizing VRS as a form of TRS).

³⁶ *See 2010 VRS Reform NOI*, 25 FCC Rcd at 8598, para. 1.

³⁷ *Id.*, 25 FCC Rcd at 8608-10, paras. 32-40.

³⁸ *Id.*, 25 FCC Rcd at 8610-12, paras. 41-47.

³⁹ *Id.*, 25 FCC Rcd at 8612-13, paras. 48-52.

⁴⁰ *Id.*, 25 FCC Rcd at 8613-15, 8619, paras. 53-62, 77-80.

⁴¹ *Id.*, 25 FCC Rcd at 8598, 8618, paras. 1, 59.

⁴² *Consumer And Governmental Affairs Bureau Seeks Comment On Application Of New And Emerging Technologies For Video Relay Service Use*, Public Notice, 26 FCC Rcd 1950 (2011) (*VRS Technology Public Notice*) available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-11-317A1.pdf.

⁴³ *See* Consumer Groups' TRS Policy Statement.

⁴⁴ As discussed in section IV.B.1 below, we propose to eliminate confusion that has been caused by our use of the term "CPE" in the context of iTRS by defining "iTRS access technology" as "any equipment, software, or other technology issued, leased, or provided by an Internet-based TRS provider that can be used to make or receive an

(continued....)

inappropriate lock in of VRS users,⁴⁵ (iii) the current VRS compensation mechanism is unpredictable and potentially inefficient, (iv) the structure of the VRS industry is potentially suboptimal and inconsistent with the goals of the Act, and (v) the current VRS compensation mechanism has proven vulnerable to waste, fraud, and abuse. We discuss and seek comment on each in turn below.

A. Broadband Affordability May Be Restricting the Availability of VRS

12. The National Broadband Plan identified broadband affordability as a major barrier to broadband adoption.⁴⁶ Although the Commission unfortunately lacks systematic data, we have anecdotal and other evidence to suggest that this broadband affordability barrier may be particularly acute for the deaf and hard of hearing community, such that some people who would benefit from VRS are unable to afford the required broadband Internet access service. For example, as one commenter observed, a disproportionate number of deaf American adults are unemployed, receive Social Security, live in poverty, or have household income below \$20,000; broadband penetration among this community is therefore likely to be lower than the national average of approximately 65%.⁴⁷ Thus, we find it

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Internet-based TRS call,” and “VRS access technology” as iTRS access technology that can be used to place or receive VRS calls.

⁴⁵ We recognize that a VRS call involves two parties and, thus, every person potentially is a “VRS user.” For purposes of this *Further Notice*, however, we use the term “VRS user” to refer to an individual who is deaf, hard of hearing, deaf-blind, or has a speech disability that has registered with a VRS provider as described in section 64.611 of our rules. *See* 47 C.F.R. § 64.611; *see also* 47 C.F.R. § 64.601(a)(26) (defining VRS as “a telecommunications relay service that allows people with hearing or speech disabilities who use sign language to communicate with voice telephone users through video equipment.”).

⁴⁶ *See* OMNIBUS BROADBAND INITIATIVE (OBI), FCC, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN, GN Docket No. 09-51 at 165-171 (2010) (NATIONAL BROADBAND PLAN).

⁴⁷ Sorenson May 14, 2010 Comments, CG Docket No. 03-123 at 12-13, *citing* Erika Steinmetz, U.S. Census Bureau, *Americans With Disabilities: 2002* at 3, Table A (issued May 2006), *available at* <http://www.census.gov/prod/2006pubs/p70-107.pdf> (2002 Household Economic Studies) (estimating that one million Americans aged 15 years and older are unable to hear a conversation at all); Cornell University, *2008 Disability Status Report*, Rehabilitation Research and Training Center on Disability Demographics and Statistics, p. II, *available at* http://www.iILcornell.edu/edilDisabilityStatistics/statusreports/2008-pdf/i2008-StatusReport_US.pdt (2008 Disability Status Report) (over 10 million Americans report having a hearing disability); *id.*, Table 5 (about 30% of working-age individuals with severe difficulty hearing a conversation were unemployed, versus about 12% of the U.S. working-age population with no reported disability); *id.* at 32, 39 (working-age people without a disability have an employment rate that is 40.4 percentage points higher than those with a disability, and earn about \$5,100 more per year); *2002 Household Economic Studies*, Table 4 (almost 30% of those identified as having a “severe disability,” including deafness, receive Social Security, compared to 2.5% of those who report no disability); *id.* (25.9% of workers who report having a “severe disability” live in poverty, compared to roughly 8% of those without a disability); *2008 Disability Status Report* at 42 (the poverty rate of working-age people with a disability was 25.3 percent, versus only 9.6 percent for people without a disability); Peiyun She & Gina A. Livermore, *Long Term Poverty and Disability Among Working-Age Adults: Research Brief*, Cornell Univ. Rehabilitation Research and Training Center on Employment Policy for Persons with Disabilities (June 2006), *available at* <http://digitalcommons.iILcornell.edu/edicollect/I226/> (disability is an extremely important, and frequently overlooked, risk factor for long-term poverty among working-age adults); *2002 Household Economic Studies*, Table 4 (37.8% of workers who report having a “severe disability” earn a household income of less than \$20,000, versus 12.3% of workers with no disability). These findings are consistent with the broader finding of the National Broadband Plan that “[a]mong people with disabilities, only 42% have adopted broadband – well below the national average of 65 percent. *See* John Horrigan, *Broadband Adoption and Use in America 2* (OBI Working Paper No. 1, 2010) (Horrigan, *Broadband Adoption and Use in America*), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296442A1.pdf; *see also* United States Department of Commerce, National Telecommunications and Information Administration, *DIGITAL NATION: EXPANDING* (continued....)

reasonable to presume that some of those deaf Americans who have low incomes live in areas where broadband is available, yet they do not subscribe due to the expense. Further, though there is no definitive estimate of the number of Americans with hearing or speech disabilities who are fluent enough in ASL to use VRS,⁴⁸ there are likely to be such individuals who would benefit from VRS but cannot afford the necessary broadband Internet access service.

13. The Consumer Groups' TRS Policy Statement urges the Commission to give consideration to regulatory initiatives that can "meet the broadband access needs of people with hearing and speech disabilities."⁴⁹ Indeed, any gap between the number of individuals who subscribe to VRS and the number of individuals who would subscribe but for the expense of broadband Internet access may represent a potential failure of our statutory obligation to make TRS "available . . . to the extent possible,"⁵⁰ as we believe VRS is effectively unavailable to those who cannot afford broadband Internet access. Now that the base of VRS users has grown significantly, we are concerned that the broadband-penetration ceiling may have become a constraint on the availability of the program.⁵¹ We seek information and data from commenters that would help us better analyze whether there is a gap between potential VRS demand and actual VRS subscribership attributable to the expense of broadband Internet access.⁵²

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INTERNET USAGE 28 (Feb. 2011) (DIGITAL NATION 2011), available at
http://www.ntia.doc.gov/files/ntia/publications/ntia_internet_use_report_february_2011.pdf.

⁴⁸ Ross E. Mitchell, Can You Tell Me How Many Deaf People There Are In The United States?, <http://research.gallaudet.edu/Demographics/deaf-US.php> (last visited Sept. 1, 2011) (noting that the only study that helps to answer this question was conducted in 1972, and that there is no way to know if the proportion of deaf signers in the United States has stayed the same since that time); Ross E. Mitchell *et al.*, *How Many People Use ASL in the United States?*, 6 Sign Language Studies 306 (2006) available at www.ncdhhs.gov/mhddsas/deafservices/ASL_Users.pdf (stating that estimates of the number of ASL speakers in the United States, ranging from 100,000 to 15 million, are unreliable because there is no systematic and routine collection of data on sign language or ASL use in the general population.); FAQ: American Sign Language: Ranking & Number of "Speakers", http://www.gallaudet.edu/Library/Deaf_Research_Help/Frequently_Asked_Questions_%28FAQs%29/Sign_Language/ASL_Ranking_and_Number_of_Speakers.html (last visited Sept. 1, 2011) (stating "there simply is no firm basis for" any estimate of the number of ASL speakers in the United States); Consumer Groups' TRS Policy Statement at 3-4.

⁴⁹ Consumer Groups' TRS Policy Statement at 8 (Objective 3.4).

⁵⁰ 47 U.S.C. § 225(b)(1).

⁵¹ Transcript, Roundtable on Ten-Digit Numbering, Oct. 15, 2009 (Jeff Rosen: "There is a saturation in the market in the residence space."); Letter from William Banks, General Counsel, CSDVRS, LLC (CSDVRS) to Marlene H. Dortch, Secretary, FCC, WC Docket 10-51, attach. at 3 (filed Apr. 29, 2011) ("Due to a saturated market, future growth rates will be flat.").

⁵² As the Commission noted in the *Seventh Broadband Progress Report*, "[t]here are several prominent barriers to infrastructure investment and obstacles to competition, including some that increase the costs of deploying and operating networks, and some that reduce potential revenues by limiting demand for broadband. These include: . . . lack of affordable broadband Internet access services [and] consumers' lack of access to computers and other broadband-capable equipment . . ." *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 10-159, Seventh Broadband Progress Report and Order on Reconsideration, 26 FCC Rcd 8008, 8011-12, para. 5 (2011) (*Seventh Broadband Progress Report*). The Commission has committed to continue to act on the National Broadband Plan's proposals to overcome these obstacles. *Id.* Although the physical availability of broadband, especially in rural communities, is also a concern, we seek comment in this Further Notice (continued....)

B. VRS Access Technology Standards May Be Insufficiently Developed

14. Under the present VRS model, multiple providers offer substantially similar services with no opportunity for price competition, as end users receive the service at no cost.⁵³ Despite this, however, the program supports more than one provider to allow VRS users choice between providers who compete on factors such as quality of service, customer service, and technological development.⁵⁴ This is consistent with the goal expressed by the Consumer Groups to ensure “intense competition among a number of qualified vendors in the telecommunications relay services market to give the TRS user population a range of choices in features and services”⁵⁵

15. Although the Commission has adopted general rules to facilitate this non-price competition, such as requiring that VRS providers ensure interoperability with competing providers⁵⁶ and that the technologies used to access VRS services be portable between providers,⁵⁷ the record indicates that these rules, in practice, have met with limited success in two particular areas: ensuring that VRS providers have a real opportunity to compete for other providers’ VRS users, and facilitating VRS users’ access to off-the-shelf VRS access technology. We question whether it makes sense to spend Fund resources supporting multiple providers to ensure that such choice is available *in principle* if most VRS users cannot *in practice* take advantage of such choice (*e.g.*, because of a lack of interoperability and/or portability of VRS access technology), and explore below new approaches to making consumer choice and effective competition a reality.

1. VRS Users May Be “Locked In”

16. The Commission has adopted interoperability and portability rules to facilitate competition among providers. Every VRS provider is required to provide its users with the capability to register with that VRS provider as a “default provider.”⁵⁸ Such registration is required: (1) to allow the VRS provider to take steps to associate the VRS user’s telephone number with their IP address to allow for the routing and completion of calls; (2) to facilitate the provision of 911 service; and (3) to facilitate the implementation of appropriate network security measures.⁵⁹ On the other hand, our interoperability and portability rules are intended to (i) allow VRS users to make and receive calls through any VRS provider, and to choose a different default provider, without changing the VRS access technology they

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only on aspects related to affordability. The Commission remains committed to increasing broadband deployment; indeed, increasing demand contributes to broadband deployment. It is important to note, however, that the cost of broadband is not the only reason for low adoption rates – digital literacy and relevancy are top reasons as well. See Broadband Adoption Taskforce, Presentation to the Federal Communications Commission at 17 (Nov. 30, 2011), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-311281A1.pdf.

⁵³ 2010 VRS Reform NOI, 25 FCC Rcd at 8612, para. 48.

⁵⁴ See *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Report and Order and Order on Reconsideration, 20 FCC Rcd 20577, 20588, 20590, paras. 21, 26 (2005) (2005 TRS Certification Order); 2004 TRS Report and Order, 19 FCC Rcd at 12523, para. 121. We note that all VRS providers must comply with the mandatory minimum standards, including those related to quality of service, set forth in the TRS rules.

⁵⁵ Consumer Groups’ TRS Policy Statement at 9.

⁵⁶ See generally *VRS Interoperability Declaratory Ruling*, 21 FCC Rcd 5442.

⁵⁷ See generally *Internet-based TRS Numbering Orders*.

⁵⁸ *Internet-based TRS Numbering Order*, 23 FCC Rcd at 11609, para. 42.

⁵⁹ *Id.*

use to place calls, and (ii) ensure that VRS users can make point-to-point calls to all other VRS users, irrespective of the default provider of the calling and called party.⁶⁰

17. Under the Commission's *Internet-based TRS Numbering Orders*, providers must ensure that videophone equipment that they distribute retain certain, but not all, features when a user ports his number to a new default provider.⁶¹ Specifically, a default provider that furnishes videophone equipment to a consumer need not ensure that the videophone equipment's "enhanced features" (e.g., address book, speed dial list) can be used when the consumer ports the number to and uses the videophone equipment with the new provider.⁶² Further, those enhanced features are, in most cases, impossible to port to new equipment obtained from the new default provider.⁶³ Indeed, notwithstanding some level of industry effort, there is no set of common technical standards that will ensure such enhanced feature functionality remains after a customer ports to a new provider.⁶⁴ Consequently, we are concerned that VRS users may be effectively "locked in" to their existing providers by their wish to continue to use these non-standardized enhanced features.⁶⁵ Indeed, many VRS users appear to be reluctant to switch to a new default provider because alternative default providers find it difficult to support many of the enhanced features of users' existing videophones, posing an unacceptably high switching cost.⁶⁶ We note that the Consumer Groups' TRS Policy Statement emphasizes the importance of "[t]otal interoperability . . . for equipment software and services from all vendors (for any forms of TRS) with no loss of core

⁶⁰ 47 C.F.R. 64.611(e); *Second Internet-based TRS Numbering Order*, 24 FCC Rcd at 818-20, paras. 60-64; *see generally VRS Interoperability Declaratory Ruling*, 21 FCC Rcd 5442. A point-to-point call is one where TRS equipment is used by individuals with speech or hearing disabilities to communicate directly with each other, without the assistance of an interpreter.

⁶¹ *See Internet-based TRS Numbering Order*, 23 FCC Rcd at 11615, para. 60; *Second Internet-based TRS Numbering Order*, 24 FCC Rcd at 822, para. 68; 47 C.F.R. § 64.611(c)(1). We note that this requirement was waived until July 1, 2010. *See Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities, E911 Requirements for IP-Enabled Service Providers, Structure and Practices of the Video Relay Service Program*, CG Docket Nos. 03-123 and 10-51, WC Docket No. 05-196, Order, 25 FCC Rcd 3331 (2010).

⁶² We note that the Commission previously rejected a request that the Commission require "a default provider that furnishes CPE to a consumer must ensure that the CPE's enhanced features (e.g., missed call list, speed dial list) can be used by the consumer if the consumer ports his or her number to a new default provider and uses the CPE with the new default provider," on the grounds that "[p]roviders may offer such features on a competitive basis, which will encourage innovation and competition." *See Second Internet-based TRS Numbering Order*, 24 FCC Rcd at 819-20, para 63. As discussed in greater detail below, our proposal to revisit our interoperability and portability requirements does not disturb this prior decision. *See infra* section IV.B.

⁶³ *See, e.g.*, Purple Communications, Inc. (Purple) Sept. 2, 2010 Reply Comments, WC Docket No. 10-51 at n. 17.

⁶⁴ *See infra* Appendix B, section II.

⁶⁵ *See, e.g.*, Purple Sept. 2, 2010 Reply Comments in WC Docket No. 10-51, n. 17; *see also Eastman Kodak Co. v. Image Technical Servs.*, 504 U.S. 451, 474-76 (1992) (recognizing "lock-in" effect created when customers encounter high costs to switch suppliers).

⁶⁶ *See, e.g.*, CSDVRS Mar. 7 Comments and Petition for Clarification and Rulemaking, CG Docket No. 10-51 at 7 ("A recurring problem in equipment porting is the de-featuring of videophones"); Letter from Kelby Brick, Vice President, Regulatory and Strategic Policy, Purple, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51, attach. at 2-3 (filed Feb. 15, 2011) (asserting that there are "significant negative consequences for switching providers while trying to use current equipment," including loss of address book and speed dialing lists, limited video mail functionality, and difficult dial-around procedures).

functionality.”⁶⁷ As consumers note, full interoperability, including the ability to make point to point calls, “ensures greater protection for TRS users’ safety, life, health, and property.”⁶⁸

18. We seek comment on the effectiveness of our current interoperability and portability requirements, and the role that existing VRS access technology standards – or the lack thereof – may play in frustrating the effectiveness of those requirements. Consumers further seek “a conducive climate for healthy market competition” in all forms of TRS.”⁶⁹ We are concerned that VRS users may not be able to enjoy the benefits of non-price competition between multiple providers if, in fact, switching costs are so high that there is little prospect that consumers will actually switch default providers? Is the rationale for structuring the VRS program to afford competitive alternatives to VRS users drawn into question in the absence of technical standards that will reduce or eliminate such switching costs, including non-monetary costs such as those associated with the loss of enhanced features? If it is not possible to reduce switching costs to a level that does not frustrate the effectiveness of our current interoperability and portability requirements, should the Commission simply bid contracts for one or a limited number of VRS providers to offer VRS service, as smaller providers may have little hope of gaining market share by winning customers from larger providers? We note that such contracts would likely result in efficiency gains for the Fund by inducing price competition for the contract and/or eliminating the need to perpetually support sub-scale providers at higher rates. We seek comment on the impact such an approach would have on users. Given that the vast majority of users currently choose to obtain service from one provider, would it be correct to conclude that the impact would be minimal, or would the loss of additional competition – even by providers with small market shares – risk harmful consequences in terms of loss of innovation and consumer choice?⁷⁰ If yes, we ask commenters to provide specific details supporting this conclusion.

2. VRS Users May Not Have Appropriate Access to Off-The-Shelf Technology

19. When VRS was first launched a decade ago, videotelephony was a specialized, niche market requiring customized hardware and software, as well as frequently unavailable broadband Internet access service. It has now become a mainstream, mass-market offering. Indeed, currently available commercial video technology can provide closer functional equivalence, may be less costly, and is likely to improve at a faster pace than the custom devices supplied exclusively by VRS providers, so that the installed base of VRS access technology may be (or may soon become) inferior to “off-the-shelf” offerings.⁷¹

20. As described in greater detail in Appendix B, in 2006 the industry migrated to a standard for transmitting real-time voice and video over packet-based networks called H.323, but has failed to make progress on the standardization needed to transition to the Session Initiation Protocol (SIP) family of standards, which has subsequently become the default for mass market Internet-based voice and video devices.⁷² In addition, as discussed in para. 17 above, there are no standards in place to facilitate

⁶⁷ See Consumer Groups’ TRS Policy Statement at 7. In Objective 1.5, Consumer Groups also state that “[f]ull interoperability ensures greater protection for TRS users’ safety, life, health, and property.” *Id.*

⁶⁸ *Id.* at 7 (Objectives 1.4 and 1.5).

⁶⁹ *Id.* at 9 (Objective 4.4).

⁷⁰ See *infra* para. 24.

⁷¹ See generally *VRS Technology Public Notice*, 26 FCC Rcd 1950; CSDVRS Apr. 1, 2011 Comments, CG Docket No. 10-51 at 8 (“With an ever growing number of models incorporating front-facing cameras and high performance semiconductors as well as faster and more robust wireless networks (*i.e.*, 4G) gaining wider acceptance and availability, the ability for a deaf/hard-of-hearing user to make video calls from more places is increasing dramatically . . .”).

⁷² See *infra* Appendix B, section II.

transferring videophone equipment's enhanced features (*e.g.*, address book, speed dial list) when the consumer ports their number to and uses the videophone equipment with a new provider.

21. We note that the Consumer Groups' TRS Policy Statement emphasizes the need for the Commission to support technological innovation that will contribute to the quality and efficiency of TRS.⁷³ In particular, the Consumer Groups request that we engage in "[a]n ongoing effort . . . to 'raise the bar' in technological design and operations efficiency."⁷⁴ We seek comment on whether the lack of progress on standards development in the VRS industry is serving as a barrier to the introduction of potentially superior, and less expensive, off-the-shelf technology into the VRS market. What other barriers limit introduction of off-the shelf technology into the VRS market? Are there other mechanisms that can be used to encourage the introduction of off-the-shelf technology in the VRS market? How would advances for off the shelf technology be impacted if the Commission were to bid contracts for one or a limited number of VRS providers to offer VRS service?⁷⁵

C. The Current VRS Compensation Mechanism is Unpredictable and Potentially Inefficient

22. As discussed above, the per-minute rate for compensating VRS providers has fluctuated significantly over time, resulting in uncertainty and controversy.⁷⁶ Indeed, providers have frequently complained about uncertainty in the rate setting process due to the frequency with which rates have been recalculated and disagreements regarding the nature of the costs for which compensation may be provided. They explain that such uncertainty has impeded their ability to make long term plans.⁷⁷ The current rate setting mechanism has also negatively affected the telecommunications carriers that are required to contribute to the TRS Fund.⁷⁸ The Commission would like to create stability and long-term

⁷³ Consumer Groups' TRS Policy Statement at 8.

⁷⁴ *Id.* (Objective 3.2).

⁷⁵ *See supra* para. 18.

⁷⁶ *See supra* paras. 7-9.

⁷⁷ Sorenson May 16, 2011 Comments, CG Docket Nos. 03-123, 10-51 at 4-5 ("historical uncertainty and year-to-year volatility of compensation rates has made it difficult to raise capital."); letter from Sean Belanger, Chief Executive Officer, CSDVRS, Daniel Luis, Chief Executive Officer, Purple, Eileen A. Hansen, Executive Director, AT&T Services, Inc., Thomas W. Kielty, President and Chief Executive Officer, Snap Telecommunications, Inc., Robin Horwitz, Chief Executive Officer, Convo Communications, Inc., to Marlene H. Dortch, Secretary, FCC, CG Docket 10-51 at 4 ("A predictable rate allows providers to plan on undertaking measures to better realize the functional equivalency mandate such as research and development, new hiring, and outreach. Barring a multi-year rate, providers will operate in an environment of uncertainty, not knowing whether the funding will exist in subsequent years to bring a new product to market, open a new call center, or educate the public on the availability and utility of VRS."); letter from William Banks, General Counsel, CSDVRS, Wesley N. Waite, Sr., Chief Operating Officer, LifeLinks, LLC, Jeff Rosen, General Counsel, Snap Telecommunications, Inc. (Snap), Michael J. Ellis, Director, Sprint Relay, Sprint Nextel Corporation, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 Joint VRS Providers in CG Docket No. 03-123 2 (filed Jan 21, 2010) (VRS providers need "to be able to rely on a stable funding mechanism to guide their investment in the service and make long term business decisions to promote innovation and provide enhanced functional equivalent offerings to consumers"); CSDVRS June 4, 2009 Comments, CG Docket No. 03-123 at 4 ("nearly all of the rate proceedings that took place prior to the 2007 TRS Rate Methodology Order left open a plethora of questions as to what constitutes these permissible costs").

⁷⁸ Letter from Genie Barton, Vice President and General Counsel, USTelecom, to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 03-123, 10-51 at 2 (filed June 2, 2011) ("The significant uncertainty regarding the size of next year's TRS fund and the contribution factor could lead to a situation where carriers would have to adjust their filings less than a month after submission.").

predictability in the compensation mechanism, to the benefit of the providers, contributing carriers, and all consumers.

23. In addition to the problems related to the rate fluctuations described above, several features of the VRS program make it difficult to manage costs and reimbursements. First, although there are many VRS users and multiple VRS providers, the users neither receive nor send price signals because the service is provided at no charge to them. Thus, there is no opportunity for the market to set prices, enable price competition, determine industry structure, or influence demand. Second, the TRS Fund is effectively the sole purchaser of VRS services but, unlike a normal market participant, the Fund cannot “choose” the volume (*i.e.*, number of VRS minutes) to purchase, and so has no control over total expenditures once rates are set. Third, costs incurred by VRS providers are not necessarily aligned with the reimbursements the Fund provides on a per-minute basis. That is, many of a VRS provider’s costs do not vary directly with the number of minutes of service provided (*e.g.*, equipment, call center infrastructure, CA supervision, marketing/outreach, general and administrative (G&A) expenses). Further, to the extent that that providers’ other sources of revenue are *de minimis* and all VRS provider’s costs are explicitly or implicitly supported by the Fund, there is frequent controversy over whether activities such as those related to customer acquisition and retention, equipment subsidies, and financing (*e.g.*, interest payments) are legitimate or not.⁷⁹ For these reasons – as well as those related to waste, fraud, and abuse described below – we are concerned with the efficiency of the current per-minute compensation scheme.⁸⁰ We seek comment on this assessment of the efficiency of our per-minute compensation mechanism, and whether there are other factors that we should consider in restructuring the VRS compensation mechanism to improve its predictability and efficiency.

D. The Current Structure of the VRS Industry is Inefficient

24. At present, there are twelve companies eligible for reimbursement from the Fund for VRS.⁸¹ In addition, until recent rule changes, approximately fifty additional “white label” companies marketed or offered VRS under their own names and received compensation from the Fund indirectly.⁸² At present,

⁷⁹ We note, at the least, that none of these specific costs are variable with VRS minutes.

⁸⁰ Indeed, the Commission long has questioned whether a per-minute compensation methodology is appropriate for VRS, due in no small part to the significant difficulty of determining a “reasonable” per-minute compensation rate for VRS due to issues concerning CA staffing, labor costs, and engineering costs particular to VRS. *See Telecommunications Services for Individuals with Hearing and Speech Disabilities, Recommended TRS Cost Recovery Guidelines, Request by Hamilton Telephone Company for Clarification and Temporary Waivers*, CC Docket No. 98-67, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 22948, 22956-57, para. 23 (2001) (*2001 TRS Cost Recovery MO&O*); *2004 TRS Report and Order*, 19 FCC Rcd at 12490, 12565-67, paras. 23, 234-40.

⁸¹ *See* Rolka Loube Saltzer Associates, TRS Fund Performance Status Report, Funding Year July 2010 – June 2011, Fund Status as of July 31, 2011, available at <http://www.r-l-s-a.com/TRS/reports/FundPerformanceAsof7-31-11.pdf> (RLSA July 31, 2011 Fund Status Report); *Notice of Conditional Grant of Application of Hancock, Jahn, Lee & Puckett, LLC d/b/a Communication Access Ability Group for Certification as a Provider of Video Relay Service Eligible for Compensation from Interstate Telecommunications Relay Service Fund*, CG Docket No. 10-51, Public Notice, DA 11-1903 (rel. Nov. 15, 2011); *Notice of Conditional Grant of Application of ASL Services Holdings, LLC for Certification as a Provider of Video Relay Service Eligible for Compensation from Interstate Telecommunications Relay Service Fund*, CG Docket No. 10-51, Public Notice, DA 11-1902 (rel. Nov. 15, 2011); *Notice of Conditional Grant of Application of Convo Communications, LLC for Certification as a Provider of Video Relay Service Eligible for Compensation from Interstate Telecommunications Relay Service Fund*, CG Docket No. 10-51, Public Notice, DA 11-1901 (rel. Nov. 15, 2011). We note that the certifications granted on November 15, 2011 are subject to conditions.

⁸² *VRS Call Practices R&O and Certification FNPRM*, 26 FCC Rcd at 5572, para. 54. We note that this practice of a non-eligible entity holding itself out as a VRS provider has been prohibited since June 1, 2011. *See id.*; 47 C.F.R.

(continued....)

however, a single provider is handling the vast majority of VRS minutes.⁸³ As a result, while this provider enjoys significant economies of scale, the remaining providers are able to cover their costs only because of the Commission’s adoption of a tiered rate structure, which compensates providers with fewer minutes of use at a higher rate per minute.⁸⁴ As a result, as Table 1 shows, a disproportionate amount of the monthly compensation for VRS is paid at the subscale Tier I and Tier II rates.⁸⁵ Indeed, if all minutes handled were compensated at the Tier III “at scale” rate, the Fund would immediately save over \$2 million per month – a reduction in the size of the Fund of approximately 5%.

Tier	Tier Structure	Minutes Compensated	Compensation Rate	Reimbursement	% Reimbursement	% Minutes	\$/minute (ratio)
I	≤ 50,000 minutes	315,157	\$6.24	\$2 million	4.19%	3.56%	1.18
II	50,001-500,000 minutes	1,491,340	\$6.23	\$9.3 million	19.77%	16.84%	1.17
III	> 500,000 minutes	7,047,330	\$5.07	\$35.7 million	76.04%	79.6%	0.96
	Totals:	8,853,827	n/a	\$47 million	100%	100%	n/a

Table 1⁸⁶

25. Recognizing that the industry structure going forward may be influenced by factors including the desire and ability of existing VRS users to switch providers, the number of new VRS users who enter the market, and the rate structure (*e.g.*, the willingness of the Fund to support subscale players for a definite or indefinite period of time and the absolute level(s) of compensation), we seek comment on whether the current market structure – namely, a single large provider with numerous subscale providers – represents an appropriate balance between consumer choice and efficiency.

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§ 64.604(c)(5)(iii)(N)(1)(i). The Commission also recently adopted rules amending the process for certifying Internet-based TRS (iTRS) providers as eligible for payment from the Fund. *See 2011 VRS Certification Order*.

⁸³ *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Order Denying Stay Motion, 24 FCC Rcd 9115, 9120-21, para. 19 (“lion’s share of all users”); *see also* Purple May 21, 2010 Reply To Comments On NECA’s Proposed Payment Formulae And Fund Size Estimates For The Interstate TRS Fund For The 2010-11 Fund Year, CG Docket No. 03-123 at 5 (asserting that Fund Administrator data have shown repeatedly that Sorenson has approximately 80 percent market share as measured by compensable minutes of use). Providers also have alleged that Sorenson has maintained its market share by, among other things, frustrating the Commission’s efforts to ensure interoperability between VRS providers. *See, e.g.*, Purple Oct. 5, 2009 Opposition To Petition For Clarification And Declaratory Ruling, CG Docket No. 03-123, WC Docket No. 05-196 at 9. We discuss these concerns in section IV.B below.

⁸⁴ *2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20163, para. 53 (“We therefore believe that using three tiers is appropriate to ensure both that, in furtherance of promoting competition, the newer providers will cover their costs, and the larger and more established providers are not overcompensated due to economies of scale.”); *2010 TRS Rate Methodology Order*, 25 FCC Rcd at 8697, para. 16.

⁸⁵ Note that the situation is exacerbated by the fact that, notwithstanding that a provider’s cost structure is determined by the total number of minutes handled, providers who, for example, qualify for Tier II rates get their initial 50,000 minutes compensated at Tier I rates, and similarly providers that qualify for Tier III rates get their initial 500,000 minutes compensated at Tier I and Tier II rates.

⁸⁶ Derived from RLSA July 31, 2011 Fund Status Report. Figures are rounded.

E. The Current VRS Compensation Mechanism Has Proven Vulnerable to Waste, Fraud, and Abuse

26. The compensation of VRS providers on a per-minute basis creates an inherent incentive for providers to seek ways to generate minutes of use solely for the purpose of generating “compensable minutes,” rather than to provide legitimate services to VRS users.⁸⁷ Illegitimate minutes are difficult to detect on an *ex post* basis, particularly when comingled with legitimate minutes or submitted by eligible providers on behalf of non-eligible “white label” providers.⁸⁸ The U.S. Department of Justice, working in cooperation with the FCC’s Office of Inspector General (OIG), has actively pursued individuals alleged to have manufactured and billed the TRS Fund for illegitimate minutes of use,⁸⁹ and the Commission has adopted rules to bolster the certification process and discourage fraud and abuse.⁹⁰ Even the best auditing mechanisms are imperfect, however, and so it is preferable to change the structural incentives of providers to discourage such abuse in the first place and increase our ability to detect it if it does occur along with strong oversight and auditing.

IV. PROPOSED REFORMS TO THE VRS PROGRAM TO ADDRESS STRUCTURAL ISSUES

27. We set forth below detailed proposals to address the structural issues identified in section III, above. We seek comment on these proposals, and emphasize the importance of comments being detailed, specific, and supported by data wherever appropriate.

A. Ensuring That VRS is “Available”

28. To the extent that the record shows that there is unaddressed demand for VRS, we propose to (i) promote residential broadband adoption via a pilot program to provide discounted

⁸⁷ 2010 VRS Reform NOI, 25 FCC Rcd at 8614, para. 57 (“...VRS providers’ primary incentive is to increase the number of minutes of VRS used while maintaining control of their costs.”); Convo Aug. 16, 2010 Comments, CG Docket No. 10-51 at 37 (“This is where the incentive for fraud and Fund abuse comes about: from a “limited” source of customers, one must create artificial forms of growth through minute pumping, staff conference calls using VRSCAs when all the call participants are ASL users, etc., or risk further cost cutting measures that will detract from VRSCA service quality, increase connectivity times, and decrease VRSCA availability that harms its customers base, all just to keep a remuneratively profitable difference between the marginal cost and marginal revenue contributed by each new VRSCA.”). This incentive is only increased if the compensation rates greatly exceed provider costs.

⁸⁸ We note that Section 225 and the Commission’s rules: (1) require that the content of TRS calls be kept confidential and (2) prohibit the recording of TRS calls. See 47 U.S.C. § 225(d)(1)(F), 47 C.F.R. §64.604(a)(2). These restrictions, while necessary to protect a consumer’s privacy, make it almost impossible to determine, on a call-by-call basis, whether all or part of a call is legitimate or fraudulent. We further note that when directed not to engage in certain calling activities, some providers have merely shifted to other arrangements that are not specifically prohibited and have engaged in attempts to make non-compliant calls in ways that have made them more difficult to detect. See *VRS Call Practices R&O and Certification FNPRM*, 26 FCC Rcd at 5563, para. 30, citing *United States v. Yosbel Buscaron et al.*, Criminal No. 09-810, D.N.J. (Nov. 18, 2009) in which individuals who were indicted for VRS fraud allegedly employed schemes to disguise activities that they knew were prohibited by the Commission: “Defendants Buscaron, Fernandez, and Valle would restart ICSD’s internet router every hour to disguise from NECA and the FCC the fact that the deaf and hard of hearing ICSD employees were making so many run calls. Restarting the router would have the effect of changing the IP address used by the callers and would disguise the source of the calls in the call detail records that would be submitted to NECA in support of reimbursement for VRS services.” The recent prohibition on white label providers should help to reduce instances of this type of fraud, but does not address the underlying incentives. See *supra* para. 24.

⁸⁹ See *supra* n. 19.

⁹⁰ See generally 2011 VRS Certification Order.

broadband Internet access to low-income deaf, hard of hearing, deaf-blind, and speech disabled Americans who use ASL as their primary form of communication, and (ii) provide an incentive payment to providers for adding new-to-category customers.⁹¹

1. Promoting Residential Broadband Adoption by Low-Income Americans with Disabilities

29. Commenters in this docket have advocated for the creation of a program to subsidize or otherwise make available broadband Internet access to Americans who are unable to access VRS because they cannot afford broadband Internet access.⁹² Such a program would be consistent with the recommendations of the National Broadband Plan,⁹³ the Commission's broader efforts to meet the 21st century communications needs of low-income consumers,⁹⁴ and the Act.⁹⁵

30. We therefore seek comment on establishing a "TRS Broadband Pilot Program" (TRSBPP) to utilize the TRS Fund to provide discounted broadband Internet access to low-income deaf, hard of hearing, deaf-blind, and speech disabled Americans who use ASL as their primary form of communication. We aim to ensure that any such program is both effective, by expanding the potential base of VRS users to include those who could not otherwise afford broadband, and efficient in its structure and operation.⁹⁶ A detailed proposal to implement a TRSBPP is set forth in Appendix A. We seek comment on our legal authority to implement such a program in section VII.

2. Providing Incentives to Providers for Adding New-To-Category Customers

31. A VRS provider's legitimate marketing and outreach costs are currently compensable from the Fund as part of the per-minute rate.⁹⁷ Providers argue that marketing and outreach is a critical component of the service they provide.⁹⁸ However, the appropriateness of certain marketing and outreach

⁹¹ In addition, our proposal provides an incentive for VRS providers to work with employers to increase the availability of VRS in the workplace. See section IV.C and Appendix C, section III.B, *infra*.

⁹² See, e.g., Consumer Groups' TRS Policy Statement at 8 (Objective 3.4); letter from David J. Bahar, Director of Government and Regulatory Affairs, Convo, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51, attach. at 13-14 (filed Feb. 23, 2011); letter from Kelby Brick, Vice President, Regulatory and Strategic Policy, Purple, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51, attach. at 7; TDI, Association of Late-Deafened Adults, Inc. (ALDA), National Association of the Deaf (NAD), Deaf and Hard of Hearing Consumer Advocacy Network, and American Association of the Deaf-Blind Aug. 18, 2010 Comments, CG Docket No. 10-51 at 27; letter from Todd Elliott to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 at 4 (filed Aug. 17, 2010).

⁹³ See NATIONAL BROADBAND PLAN at 172.

⁹⁴ See *Lifeline and Link Up Reform and Modernization, Federal-State Joint Board on Universal Service, Lifeline and Link Up*, WC Docket Nos. 11-42, 03-109, CC Docket No. 96-45, Notice of Proposed Rulemaking, 26 FCC Rcd 2770 at 2849-62, paras. 255-302 (2011) (*Lifeline and Link Up Reform and Modernization NPRM*).

⁹⁵ See 47 U.S.C. § 225(b)(1) ("...shall ensure that [TRS is] available . . . to hearing-impaired and speech-impaired individuals in the United States").

⁹⁶ *Id.* ("... to the extent possible and in the most efficient manner").

⁹⁷ Specifically, legitimate marketing and outreach costs should be included in section I.E of the Relay Services Data Request submitted annually by each provider to the Fund Administrator for purposes of setting VRS compensation rates. See *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, Declaratory Ruling, 25 FCC Rcd 1868, 1869-70, paras. 4-5 (2010) (*2010 VRS Declaratory Ruling*). As noted above in para. 23, the costs for marketing and outreach are not incurred on a per minute basis, so it likely is inefficient to reimburse them as part of a per minute compensation mechanism.

⁹⁸ Sorenson Sept. 2, 2010 Comments, Declaration of Michael D. Pelcovits, CG Docket Nos. 03-123, 10-51, Appendix 1 at i ("Because there is no price competition in the market for VRS services, we hypothesize that firms in

(continued....)

costs claimed by providers has been the source of controversy,⁹⁹ as have provider marketing practices.¹⁰⁰ Moreover, under the existing per-minute compensation system, providers have had a greater incentive to target existing VRS users than to focus outreach either on “new-to-category users,” *i.e.*, potential VRS users that are not yet registered with any provider as a VRS user or members of the general public.

32. The Consumer Groups’ TRS Policy Statement asks the Commission to address deficiencies in outreach and research and development. They express the concern that countless Americans on fixed incomes may not be aware of resources for accessing TRS, or the capabilities and features that TRS has to offer.¹⁰¹ They also note that “[r]elay services are equal access programs that are just as useful and critically important for those with or without hearing and speech disabilities,” and advocate for TRS promotional activities to acquaint the public and private sectors, including employers, educational institutions, and businesses, about TRS to “build familiarity and acceptance of TRS nationwide.”¹⁰² Accordingly, we seek comment on ways to ensure that providers are making potential users aware of VRS in a manner consistent with the goals of section 225. In particular, we seek comment on ways to provide incentives for providers to (i) be more efficient in their marketing and outreach efforts, (ii) ensure that VRS is available to more potential users by focusing their efforts on new-to-category users instead of existing VRS users, (iii) determine whether such efforts are effective in reaching potential users, and (iv) ensure that their outreach efforts build familiarity about VRS within the general public. We also seek comment on how governmental and non-governmental entities, such as the FCC, the United States Department of Health and Human Services, state and local governments, and nonprofit organizations, can help make potential users aware of VRS.¹⁰³

33. One proposal would be to cease reimbursing providers for marketing and outreach based on their individual expenses for these activities, and instead implement a one-time, fixed incentive payment to VRS providers from the TRS Fund for each new-to-category VRS user they sign up, starting some time after the effective date of a final order in this proceeding.¹⁰⁴ Such a system would align compensation with actual results and encourage VRS providers to focus their marketing and outreach efforts primarily on finding and signing-up new-to-category customers instead of merely trying to persuade existing VRS users to switch providers, which – while a valid commercial goal – is not a reasonable and legitimate expense for the Fund. By providing a fixed payment for each successful user sign-up, it would encourage providers to find the most efficient means of recruiting new users and focus Fund expenditures on fulfilling the goals set forth in section 225 of the Act.¹⁰⁵ Further, to the extent that

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this industry compete mainly through marketing, outreach, and offering high-quality services, referred to collectively as “customer acquisition activity”).

⁹⁹ See, e.g., *2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20175-76, paras. 92-96; *VRS Call Practices R&O and Certification FNPRM*, 26 FCC Rcd at 5575-76, paras. 61-63; *2010 VRS Declaratory Ruling*, 25 FCC Rcd at 1869-70, paras. 3-5.

¹⁰⁰ *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Declaratory Ruling, 20 FCC Rcd 1466 (2005) (*2005 Financial Incentives Declaratory Ruling*).

¹⁰¹ Consumer Groups’ TRS Policy Statement at 4. (“The Consumer Groups believe that there are countless Americans who are on fixed incomes and unaware of available resources for access to TRS services . . .”).

¹⁰² *Id.* at 4, 8 (Objective 2.2).

¹⁰³ This would support the Consumer Groups’ Objective 2.6: “[c]ollaborations with agencies and entities such as with the Department of Commerce build [to] trust and confidence for all businesses to use relay service for transactions.” Consumer Groups’ TRS Policy Statement at 8.

¹⁰⁴ See *infra* section V.B.15.

¹⁰⁵ 47 U.S.C. § 225.

the marginal cost of adding a new customer is rising, for example, because providers are approaching the broadband-penetration ceiling, a fixed incentive payment could better compensate providers for the cost of adding a new-to-category customer. We seek comment on whether such an incentive payment will better align Fund expenses and providers' incentives with the goals of efficiency and availability by replacing the un-measurable effects of "marketing and outreach" with a concrete, transparent, and success-based mechanism.

34. If a new-to-category incentive payment were to be adopted, how could we ensure that the payment is made only for signing up VRS users that were not previously registered for iTRS, or were not previously able to access VRS because, for example, they could not afford broadband Internet access? One proposal would be to define, for purposes of marketing and outreach compensation, the terms "VRS user" and "new-to-category VRS user." For example, a "VRS user" could be defined as "as an individual that has registered with a VRS provider as described in section 64.611 of our rules." This definition is consistent with our definition of "Registered Internet-based TRS User,"¹⁰⁶ but distinguishes "VRS users" from the larger universe of Registered Internet-based TRS Users to reflect the changes we propose to make to the VRS program in this *Further Notice*.¹⁰⁷ "New-to-category VRS user" could be defined as "a VRS user that has never previously registered with any provider of Internet-based TRS." We seek comment on whether these definitions would appropriately limit new-to-category incentive payments, or whether different and/or additional definitions would better achieve the stated purpose of the new-to-category incentive payment.¹⁰⁸ Should these definitions explicitly state that VRS users and new-to-category VRS users must be "deaf, hard of hearing, deaf-blind, or [have] a speech disability?"¹⁰⁹ Should the new-to-category incentive payment be limited to one-per-household or one-per residence?¹¹⁰ Should other factors be considered? For example, should there be a minimum age requirement for VRS users, so as to ensure that infants or small children are not registered prior to their being able to actually use the service? Should incentive payments be limited to one-per-household or one-per-residence as is contemplated for the TRSBPP?¹¹¹ We seek comment on whether a consumer's decision to obtain services supported by the TRSBPP, if adopted, should affect eligibility for the Lifeline or Link Up programs, or vice versa.

35. If a new-to-category incentive payment were to be adopted, how should providers prove eligibility for payments from the TRS Fund? What type of information should providers obtain to ensure that an individual that claims to be or appears to be a new-to-category VRS user is actually a new-to-category VRS user. Given that hearing individuals should not be Registered Internet-based TRS users,¹¹² should proof that new-to-category VRS users are "deaf, hard of hearing, deaf-blind, or [have] a speech

¹⁰⁶ 47 C.F.R. § 64.601(a)(18).

¹⁰⁷ We propose additional definitions to delineate categories of VRS users in Appendix E, *supra*.

¹⁰⁸ We propose an additional definition for those who use VRS in the course of their employment in Appendix E, *supra*. We do not propose to make an incentive payment available if an individual is added to the category of enterprise users. Instead, we propose to compensate providers for enterprise VRS users at a higher rate, which may help increase the availability of VRS in the workplace. *See supra* section IV.C.

¹⁰⁹ 47 U.S.C. § 225(b)(1).

¹¹⁰ *See* letter from John T. Nakahata, Counsel to Sorenson, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-15 (filed Aug. 10, 2011).

¹¹¹ *See* Appendix A, para. 20

¹¹² *See Second Internet-based TRS Numbering Order*, 24 FCC Rcd at 809, para. 37 (Stating that "verification procedures [for iTRS user registrations] must include a self certification component requiring consumers to verify that they have a medically recognized hearing or speech disability necessitating their use of TRS.")

disability” be required?¹¹³ What method or methods should a provider use to verify or validate the information provided by a potential new-to-category VRS user? Should the Commission establish a standard certification form? Should providers establish a validation or verification process? Should the Commission establish guidelines or detailed rules governing what constitutes an acceptable verification or validation process? Should there be only one acceptable process, or should providers be entitled to use one of several methods to validate or verify information provided to support categorization as a new-to-category VRS user?

36. If a new-to-category incentive payment is adopted, how should we calculate the amount of such payment? One methodology would be to use as a basis the average or median cost per gross addition (CPGA) of certified VRS providers over the most recent one year period.¹¹⁴ We therefore request that all commenting parties submit their CPGA for their most recent fiscal year, including a description of how the CPGA was calculated and the cost, revenue, and subscriber data used to calculate the figure. Another methodology would be to set the incentive payment as the sum of the reasonable costs of adding a new customer, which would include marketing, equipment, setup, and other reasonable costs. To the extent commenters support such a methodology, we request that they submit a proposed list of costs and fully justified estimates for those costs. To the extent commenters wish to propose another method for setting the incentive payment, they should provide a detailed explanation and justification for their proposed dollar amount per new-to-category user. We invite comment on all aspects of this new-to-category incentive payment proposal.

37. If a new-to-category incentive payment is adopted, what impact would such adoption have on the Fund contribution factor? Would the reduction in reimbursements for individual provider marketing and outreach expenses offset claims for incentive payments? Is it necessary to ensure that there is not a sudden increase in the Fund contribution factor? One proposal would be to cap the number of incentive payments at a fixed number per year. For example, if incentive payments were limited to 50,000 per year, and there is a pool of 200,000 potential new-to-category VRS users who could register, it would spread the cost over at least four years. We seek comment on whether an annual cap on the number of payments is appropriate and, if so, at what level the cap should be set. We also seek comment on whether the duration of the incentive payment should be limited. Should the incentive payment continue to be available in perpetuity, or is it sufficient to make the payment available only during the transition period discussed in section V.B.15?

38. We seek comment on whether a new-to-category incentive payment program could help address the market structure issue addressed in section III.D above. Could those certified VRS providers that are currently subscale increase their growth prospects if the new-to-category incentive payment is limited to providers that have less than the number of users we estimate is necessary to achieve minimum efficient scale?¹¹⁵ As we explain in greater detail below, we believe that having all providers of VRS operating at minimum efficient scale will improve the efficiency of the VRS program by ensuring that the Fund does not indefinitely subsidize providers that have less efficient cost structures. We propose that new users would not be prohibited from registering with providers that already have more than the number of users it takes to achieve scale – but such providers would not be eligible for the incentive payment because they already have achieved minimum efficient scale and presumably have less need for an additional financial incentive to promote awareness of their brand (as well as greater financial resources for marketing and outreach). We seek comment on this proposal.

¹¹³ 47 U.S.C. § 225(b)(1).

¹¹⁴ CPGA for a period is defined as: (cost of equipment + installation/marketing/sales/outreach expenses)-equipment revenue)/gross number of new subscribers for the period.

¹¹⁵ See *infra* section IV.D.

39. We seek comment on whether there are additional specific steps the Commission should take to incent providers to refocus their efforts away from merely churning users between providers and toward finding and adding new-to-category VRS users who have not been able to benefit from VRS to date. We also seek comment on steps that the Commission should take to reduce the increasing incidence of relay hang-ups by businesses and others who not acquainted with TRS, as well as general measures needed to familiarize the general public about the existence and purpose of TRS. Finally, we seek comment on whether there are specific actions the Commission should take to supplement provider outreach efforts to expand the availability of VRS to more users and build acceptance of VRS in the greater community.

40. If a new-to-category incentive payment is adopted, what impact would such adoption have on research and development relating to VRS and, more broadly, TRS? Would providers have sufficient incentive and means to invest in research and development on VRS access technology, improving their call platforms, and/or other aspects of the provision of VRS? Would the introduction of standards for iTRS access technology facilitate research and development by VRS providers?¹¹⁶ Would such standards incent equipment manufacturers that have not traditionally invested in VRS and other TRS technologies to do so going forward? What other steps could the Commission take to promote research and development in VRS and other forms of TRS?

B. Addressing VRS User Lock In and Access to Advanced Technology

1. Defining VRS Access Technologies

41. The Commission in the *First Numbering Order* used the defined term “CPE” to describe “TRS customer premises equipment,” or the technology used to access Internet-based TRS.¹¹⁷ Because the use of this term has created some confusion among providers as new access technologies have been brought to market,¹¹⁸ and to distinguish the equipment, software and other technologies used to access VRS from “customer premises equipment” as that term is defined in section 3 of the Act,¹¹⁹ we propose to amend sections 64.605 and 64.611 of our rules by replacing the term “CPE” where it appears with the term “iTRS access technology.” We propose to define “iTRS access technology” as “any equipment, software, or other technology issued, leased, or provided by an Internet-based TRS provider that can be used to make or receive an Internet-based TRS call.” Thus, any software, hardware, or other technology issued, leased, or otherwise provided to VRS or IP Relay users by Internet-based TRS providers, including “provider distributed equipment” and “provider based software,” whether used alone or in conjunction with “off-the-shelf software and hardware,” would qualify as “iTRS access technology.”¹²⁰

¹¹⁶ See *infra* section IV.B.2.

¹¹⁷ *Internet-based TRS Numbering Order*, 23 FCC Rcd at 11614, para. 55.

¹¹⁸ See Letter from Kelby Brick, Vice President, Regulatory and Strategic Policy, Purple Communications, to Gregory Hlibok, Senior Staff Attorney, FCC, dated October 21, 2010 (identifying “three general categories of [VRS and IP-relay] end-point access methods: provider distributed equipment, provider based software, and current and future off-the-shelf software and hardware,” and seeking clarification with respect to the applicability of the Commission’s rules to these “end-point access methods.”) (*Purple Oct. 21 Letter*).

¹¹⁹ 47 U.S.C. § 153(14) (“The term “customer premises equipment” means equipment employed on the premises of a person (other than a carrier) to originate, route, or terminate telecommunications.”).

¹²⁰ See *Purple Oct. 21 Letter*. By extension, under our existing rules, Internet-based TRS providers would be required to ensure that all “browser-based end-points,” integrated “third party end-point[s], such as FaceTime on various Apple products,” and other technologies issued, leased, or provided by Internet-based TRS providers and used to access Internet-based TRS must, inter alia, “deliver[] routing information or other information only to the user’s default provider, except as is necessary to complete or receive ‘dial around’ calls on a case-by-case basis” and facilitate an Internet-based TRS providers ability to “route and deliver all of [a registered] user’s inbound and

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Given the differential treatment of VRS and IP Relay proposed by this *Further Notice*, we further propose to refer separately to iTRS access technology as “VRS access technology” and “IP Relay access technology” where appropriate. We seek comment on this proposal.

2. Establishing Standards for iTRS Access Technology

42. Prior to the Commission’s establishment of its Part 68 rules in 1975, terminal equipment was manufactured almost exclusively by Western Electric, which was part of the Bell System of companies that included the monopoly local exchange and long distance providers in most parts of the country.¹²¹ This ensured that no harmful terminal equipment was connected to the public switched telephone network, but also created a monopoly in the development and manufacture of terminal equipment.¹²² The Part 68 rules are premised on a compromise whereby providers are required to allow terminal equipment manufactured by anyone to be connected to their networks, provided that the terminal equipment has been shown to meet the technical criteria for preventing network harm that are established in the Part 68 rules.¹²³ Our Part 68 rules have facilitated a vibrant, competitive market for terminal equipment, reducing prices and resulting in a proliferation of new equipment and capabilities available to consumers.¹²⁴

43. We seek comment on whether the effectiveness of our interoperability requirements and functional equivalence could be improved by the creation of VRS access technology standards that are conceptually similar to the Part 68 standards for traditional CPE.¹²⁵ Development of such standards may help to resolve the issue of VRS user lock in described in section III.B.1 by giving VRS users assurance that they will be able to continue to use their existing VRS access technology even if they choose to register with a new VRS provider, and that they will not lose access to enhanced features that have proven to be of particular importance to end users.¹²⁶ We also expect that a properly developed set of standards, and a properly developed, consensus driven process for maintaining and updating those standards, is consistent with, and could serve as a step towards, the accessibility of interoperable video conferencing

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outbound calls unless the user chooses to place a call with, or receives a call from, an alternate provider.” 47 C.F.R. § 64.611(e)(1).

¹²¹ See *Proposals For New or Revised Classes Of Interstate And Foreign Message Toll Telephone Service (MTS) and Wide Area Telephone Service (WATS)*, Docket No. 19528, First Report and Order, 56 FCC 2d 593 (1975) (*1975 Part 68 Order*).

¹²² *2000 Biennial Regulatory Review of Part 68 of the Commission’s Rules and Regulations*, CC Docket No. 99-216, 15 FCC Rcd 24944, 24947, para. 7 (2000) (*2000 Part 68 Order*).

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ We note that the Commission previously rejected a request that the Commission require “a default provider that furnishes CPE to a consumer must ensure that the CPE’s enhanced features (*e.g.*, missed call list, speed dial list) can be used by the consumer if the consumer ports his or her number to a new default provider and uses the CPE with the new default provider,” on the grounds that “[p]roviders may offer such features on a competitive basis, which will encourage innovation and competition.” See *Second Internet-based TRS Numbering Order*, 24 FCC Rcd at 819-20, para 63. As discussed in greater detail in Appendix B, we continue to believe that a provider should not be responsible for actively supporting CPE that is being used to access another VRS provider’s service. See *infra* Appendix B. The record indicates, however, that in the absence of uniform standards for VRS access technologies, VRS providers cannot effectively support VRS access technologies developed by other providers, and our goal of effective portability is frustrated.

¹²⁶ See *infra* Appendix B, para. 30.

services under the CVAA, and ultimately could result in widespread use of off-the-shelf technology both for VRS and for point-to-point calls.¹²⁷

44. Appendix B of this *Further Notice* sets forth a detailed proposal for developing and maintaining VRS access technology standards based primarily on SIP. We seek comment on this proposal. The process described in that appendix is intended to develop an open, competitive VRS market, and is designed to facilitate interoperability, portability, affordability, supportability and compatibility goals that the Commission has long pursued and consumers have requested.¹²⁸ Establishing VRS access technology standards may give providers a fair chance to compete and grow and could resolve the problem of users being locked in to their existing providers because of iTRS access technology constraints.

45. To ensure all VRS access technologies that VRS providers issue, lease, or otherwise provide to VRS users are compliant with any standards that we establish in this proceeding, we propose to adopt, or to incorporate by reference into our rules, any such standards. Non-compliance would then constitute an enforceable violation of Commission rules. We seek comment on this proposal. What effect would such a proposal have on existing VRS access technology currently in use? Should VRS providers that issued, leased, or otherwise provided VRS access technology to VRS users be required to ensure that such legacy VRS access technology is fully compliant with any standards adopted or, alternatively, removed from use within some discrete period of time (*e.g.*, 12-18 months)? We note that the burden of making the existing base compliant may be reduced to the extent that legacy devices are reaching the end of their natural lives.¹²⁹ If our interoperability and portability rules are not effectively enforced with respect to the existing base of VRS users and new-to-category users, will this prevent smaller providers from growing, and hence prevent a more efficient industry structure from being attained? In practice, no provider has an incentive to make its customers more contestable, even if this benefits VRS users, and so we seek comment on how to ensure that any standards adopted are actually implemented. For example, should VRS minutes generated using equipment that does not meet any standards adopted be non-compensable?

46. We note that the Commission has previously sought comment on whether to “mandate specific Internet protocols that VRS providers must use to receive and place VRS calls.”¹³⁰ Our intent in this *Further Notice* is not to lock providers into a particular set of protocols, which could have the effect

¹²⁷ See 47 U.S.C. § 617(a), (b) (requiring that advanced communications services – which include interoperable video services – and equipment for such services be accessible to and useable by individuals with disabilities); see *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010; Amendments to the Commission's Rules Implementing Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996; Accessible Mobile Phone Options for People who are Blind, Deaf-Blind, or Have Low Vision; Notice of Proposed Rulemaking*, CG Docket Nos. 10-213 and 10-145, WT Docket No. 96-198, 26 FCC Rcd 3133 at 3147 - 52, paras. 35-47 (2011).

¹²⁸ Consumer Groups' TRS Policy Statement at 7 (asking the Commission to promote a “climate where interoperability and quality standards are fully observed with respect to equipment (hardware, software, and/or firmware), telecommunications network infrastructures, platform and service”).

¹²⁹ For example, the most widely used VRS access technology, the Sorenson VP-200, was introduced almost 5 years ago. See Sorenson, Company Timeline, http://www.sorenson.com/company_timeline (last visited Sept. 8, 2011). To the extent the VP-200 is replaced by updated VRS access technology, it would be beneficial for the replacement access technology to meet any standards adopted as a result of this proceeding to facilitate the interoperability goals discussed herein.

¹³⁰ *VRS Interoperability Declaratory Ruling*, 21 FCC Rcd at 5462, para. 56.

of discouraging or impairing the development of improved technology.¹³¹ Rather, our goal is to establish functional requirements, guidelines, and operations procedures for VRS that will encourage the use of existing and new technologies,¹³² and allow the industry to expand and evolve in a way that the lack of standards to date has inhibited, in particular by facilitating the use of off-the-shelf equipment and preventing the use of equipment and lock in as a tool for limiting consumers' choice of providers.¹³³

47. Given the focus of this *Further Notice* on the VRS program, we do not propose to establish standards for iTRS access technology used to access IP Relay or other forms of iTRS at this time. We expect, however, that to the extent such standards are warranted, the establishment of standards for the VRS program may serve as a model for other Internet-based TRS programs.

3. Off-The-Shelf iTRS Access Technology

48. Commenters responding to the *VRS Technology Public Notice* generally state that off-the-shelf VRS access technology hardware (*i.e.*, commercially available computing and communications equipment such as laptops, mobile phones, and tablet computers with broadband Internet access and a front facing camera such as the Apple iPad2) is becoming increasingly available and popular among both VRS providers and VRS users – a dramatic change since VRS was first introduced.¹³⁴ Commenters also note the benefits of developing VRS applications that run on off-the-shelf hardware, including that it is based on common commercial protocols and that “competing VRS providers can all design for any open platforms.”¹³⁵ Conversely, commenters have argued that proprietary videophones developed by providers are a source of VRS user lock in.¹³⁶ We therefore seek comment on whether the effort to develop and maintain VRS access technology standards discussed in the preceding section would be furthered by phasing in a requirement that all VRS access technology hardware used to make compensable VRS calls be “off-the-shelf.” Would limiting providers to making modifications to or developing software for existing commercial platforms help or hinder the effort to ensure portability and interoperability? Is such a rule consistent with the Commission’s obligation to “encourage . . . the use of existing technology and . . . not discourage or impair the development of improved technology?”¹³⁷ How should “off-the-shelf” be defined for the purpose of such a rule? Should special purpose videophones be treated differently than other hardware, such as laptops, tablets, or smartphones? What other factors must be considered if VRS providers are allowed to provide users only off-the-shelf VRS access technology hardware?

¹³¹ 47 U.S.C. § 225(d)(2).

¹³² 47 U.S.C. §§ 225(d)(1)(A), (d)(2)

¹³³ See *VRS Interoperability Declaratory Ruling*, 21 FCC Rcd at 5461-62, para. 55 (noting that the development and use of videophones that use new Internet protocols that are incompatible with existing videophone protocols creates a barrier to realizing the goal of ensuring that all VRS providers can receive calls from, and make calls to, any VRS consumer).

¹³⁴ See, *e.g.*, Convo Aug. 16, 2010 Comments, CG Docket No. 10-51 at 20-21; Sorenson Apr. 1, 2011 Comments, CG Docket 10-51 at 2; see generally TDI, NAD, ALDA, and California Coalition of Agencies Serving Deaf and Hard of Hearing, Inc. Apr. 1, 2011 Comments, CG Docket No. 10-51.

¹³⁵ Sorenson Apr. 1, 2011 Comments, CG Docket 10-51 at 3.

¹³⁶ CSDVRS Aug. 18, 2010 Comments, CG Docket No. 10-51 at 22 (“The dominant provider has systematically used proprietary and non-standard products and methods to thwart competition.”).

¹³⁷ 47 U.S.C. § 225(d)(2).

4. Funding iTRS Access Technology

49. The Commission has consistently held that costs attributable to the user's relay hardware and software, including installation, maintenance, and testing, are not compensable from the Fund.¹³⁸ As the Commission has explained, "compensable expenses must be *the providers'* expenses in making the service available and not the customer's costs of receiving the equipment. Compensable expenses, therefore, do not include expenses for customer premises equipment – whether for the equipment itself, equipment distribution, or installation of the equipment or necessary software."¹³⁹

50. We also recognize, however, that providers continue to provide VRS access technology to VRS users free of charge,¹⁴⁰ and that in many cases these providers' primary or only source of revenue may be the TRS Fund. The TRS Fund is likely, therefore, implicitly or indirectly funding iTRS access technology costs. But because this funding is implicit or indirect, the Commission has no data on how many units of hardware or software are being distributed by providers, how many users are receiving iTRS access technology from providers, how much money is being spent on manufacturing, installation and maintenance, or other data that could help the Commission ensure that the TRS program is being run in as efficient a manner as possible, and in a manner that fully meets the needs of VRS users.

51. We do not seek to alter our prior decision that equipment costs are not "costs caused by interstate telecommunications relay service."¹⁴¹ We seek comment, however, on whether the "availability" mandate in 225(d)(3), discussed in greater detail in section VII below, provides the Commission authority to collect contributions to the TRS Fund to support iTRS access technology for VRS users and to disburse the relevant support. Would providing explicit compensation for iTRS access technology help further the goal of ensuring that TRS is "available, to the extent possible and in the most efficient manner?" Would the Commission be in a better position to collect data on costs associated with iTRS access technology if an explicit funding mechanism were in place? Should iTRS access technology funding be limited to low income consumers, as is contemplated in the discussion of the TRSBPP above,¹⁴² or would it be more appropriate to allow iTRS access technology costs to be covered by the TRS Fund for all VRS users? If the TRS Fund is used to support iTRS access technology, should the Commission require that ownership of supported technology be passed to VRS users to help reduce the possibility of user lock in?¹⁴³ What other legal and policy issues are relevant to the discussion of whether VRS access technology costs should be explicitly (rather than implicitly) compensable from the TRS Fund?

¹³⁸ See 2006 MO&O, 21 FCC Rcd at 8071, para. 17; 2007 TRS Rate Methodology Order, 22 FCC Rcd at 20170-71, para. 82.

¹³⁹ 2006 MO&O, 21 FCC Rcd at 8071, para. 17. We note that the Fund Administrator's cost data form explicitly states that the cost of equipment given to, sold to, or used by relay callers is not compensable from the Fund. See NECA, Relay Services Data Request Instructions at 5, available at <https://www.neca.org/cms400min/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=5069&libID=5089>.

¹⁴⁰ See Sorenson, <http://www.sorenson.com> ("Get a FREE Sorenson VP-200 videophone"); Purple, P3 – Make it Yours!, www.purple.us/p3 ("Download P3 Free"); CSDVRS, The Z Series, <https://www.zvrs.com/z-series/android> ("The Z4 Mobile app is FREE to download"); 2007 TRS Rate Methodology Order, 22 FCC Rcd at 20170-71, para. 82 ("some providers appear to continue the practice of giving video equipment to consumers and installing it at no cost to the consumer").

¹⁴¹ 2006 MO&O, 21 FCC Rcd at 8071, para. 17.

¹⁴² See *supra* section IV.A.1.

¹⁴³ See *supra* sections III.B.1, IV.B.

52. To the extent that we find we have the authority to provide compensation for iTRS access technology, we do not, given the focus of this *Further Notice on the VRS program*, propose to provide explicit compensation for iTRS access technology used to access IP Relay or other forms of iTRS at this time. We expect, however, that to the extent a VRS access technology funding program proved successful, the VRS program may serve as a model for other Internet-based TRS programs.

C. Instituting a More Efficient Compensation Mechanism and Reducing Incentives for Waste, Fraud, and Abuse

53. The Commission long has questioned whether a per-minute compensation methodology is appropriate for VRS, due in no small part to the significant difficulty of determining a “reasonable” per-minute compensation rate for VRS, given issues concerning CA staffing, labor costs, and engineering costs particular to VRS.¹⁴⁴ Although there has been significant effort directed to determining what categories of provider costs should be compensable from the Fund,¹⁴⁵ the Commission has not recently examined the fundamental question of whether a tiered, per-minute compensation model is best suited to VRS.

54. Based on information VRS providers have submitted to the Commission,¹⁴⁶ we believe that a tiered, per-minute compensation model may not be the most appropriate for VRS because it does not align compensation with costs (leading to structural inefficiency and lack of transparency), it provides a structural incentive to increase the number of VRS minutes billed to the Fund (leading to fraud), and it sustains numerous subscale players (leading to waste). We recognize that any compensation mechanism will have its benefits and its drawbacks, but in seeking a better alternative to the current model, we note the following with respect to the current compensation mechanism:

55. First, although the major cost item for each provider that varies with the number of VRS minutes is the direct CA cost,¹⁴⁷ if the average number of VRS minutes per user is constant – as we

¹⁴⁴ See 2003 Bureau TRS Rate Order, 18 FCC Rcd 12823; *Telecommunications Services for Individuals with Hearing and Speech Disabilities, Recommended TRS Cost Recovery Guidelines*, CG Docket No. 03-123, Further Notice of Proposed Rulemaking, 21 FCC Rcd 8379, 8389-90, para. 24; see generally 2000 TRS Order, 15 FCC Rcd at 5152-56, paras. 22, 26-27, 32-33 (directing the TRS Advisory Council to develop cost recovery guidelines for VRS; the Council recommended using the same methodology for VRS as used for traditional TRS); 2001 TRS Cost Recovery MO&O, 16 FCC Rcd at 22958-60, paras. 30-36 (declining to adopt a permanent cost recovery methodology for VRS and seeking additional comment on this issue); 2004 TRS Report & Order, 19 FCC Rcd at 12487-90, paras. 17-24 (declining to adopt a permanent cost recovery methodology for VRS); *Id.*, 19 FCC Rcd at 12565-67, paras. 234-40 (*FNPRM* seeking additional comments and noting that although the Commission had previously sought comment on this issue, the relative infancy and unique characteristics of VRS made it difficult to determine what the appropriate cost recovery methodology should be).

¹⁴⁵ See generally 2007 TRS Rate Methodology Order, 22 FCC Rcd 20140.

¹⁴⁶ See letter from William Banks, General Counsel, CSDVRS to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Dec. 13, 2010); letter from David J. Bahar, Director of Government and Regulatory Affairs, Convo, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Jan. 28, 2011); letter from Kelby Brick, Esq., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Jan. 31, 2011); letter from John T. Nakahata, Counsel to Sorenson, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Dec. 13, 2011); letter from David J. Bahar, Director of Government and Regulatory Affairs, Convo, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Dec. 13, 2011); letter from John T. Nakahata, Counsel to Sorenson, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed July 29, 2011). With the exception of the attachment to the letter from William Banks dated Dec. 13, 2011, this information was provided to the Commission subject to requests for confidential treatment.

¹⁴⁷ Sorenson Oct. 30, 2006 Comments, CG Docket No. 03-123 at 31 (“costs associated with ASL interpreters are the single largest expense in the provision of VRS.”); CSDVRS Aug. 18, 2011 Comments, CG Docket No. 10-51 at 4

(continued....)

believe it is based on both discussions with providers and examination of historic usage data from the Fund administrator – then the CA cost is also effectively constant per user. That is, if the CA cost/minute is constant and the average minutes/user is also constant, then by definition the product of the two (*i.e.*, CA cost/minute * minutes/user = CA cost/user) is also constant when averaged over a period of time and customer base of reasonable size.

56. Second, we note that there are no other significant cost items that scale on a per minute basis. Indeed, all the other items (*e.g.*, iTRS access technology, installation, customer care, G&A, call center infrastructure, etc.) are either fixed or scale directly or indirectly with the number of users served.

57. Third, because a substantial fraction of the costs of providing VRS are not directly variable with either the number of users or equivalently the number of minutes handled, a providers' cost structure exhibits a scale curve, as illustrated in Figure 1.¹⁴⁸ The minimum efficient scale (V*) is the point on the scale curve at which the volume of a firm's output is high enough to take substantial advantage of economies of scale so that the average costs are minimized. Put more simply, minimum efficient scale is the point at which the per-unit cost begins to "flatten" as the volume of output increases. The Commission implicitly acknowledged the existence of such a scale curve when adopting a tiered rate methodology by compensating providers with fewer overall minutes of use at a higher per-minute rate.¹⁴⁹ We note, however, that the current scheme provides no limit on the duration of support for subscale providers, resulting in an industry structure in which the Fund compensates numerous providers at the lowest volume, highest cost Tier I rates (\$6.24 per minute) and very few firms at the higher volume, lowest cost Tier III rates (\$5.07 per minute).

58. We seek comment on these observations regarding the current compensation mechanism, in particular on the shape of the scale curve and the point at which minimum efficient scale is reached. We also seek comment on whether a more reasonable and transparent mechanism for compensating providers would be: (a) based on a per user payment instead of a per minute payment, so that the compensation rate is better aligned with the costs of providing service, and so is easier to determine and more efficient; and (b) based on a predictable transition from the current tiered rates to a single at-scale rate. We discuss (a) in the remainder of this section and (b) in section IV.D.

(Continued from previous page) _____

("A proficient CA is typically a certified interpreter highly skilled in ASL, and accordingly, the primary cost driver of VRS.")

¹⁴⁸ This curve is illustrative, but consistent with cost data provided by several providers that generate different volumes of VRS minutes on a monthly basis. *See* letter from William Banks, General Counsel, CSDVRS to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Dec. 13, 2010); letter from David J. Bahar, Director of Government and Regulatory Affairs, Convo, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Jan. 28, 2011); letter from Kelby Brick, Esq., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Jan. 31, 2011); letter from John T. Nakahata, Counsel to Sorenson, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Dec. 13, 2011); letter from David J. Bahar, Director of Government and Regulatory Affairs, Convo, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed Dec. 13, 2011); letter from John T. Nakahata, Counsel to Sorenson, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 attach. (filed July 29, 2011). With the exception of the attachment to the letter from William Banks dated Dec. 13, 2011, this information was provided to the Commission subject to requests for confidential treatment.

¹⁴⁹ *See 2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20162-63, paras. 52-53.

FIGURE 1. ILLUSTRATIVE ECONOMIES OF SCALE IN PROVIDING VRS

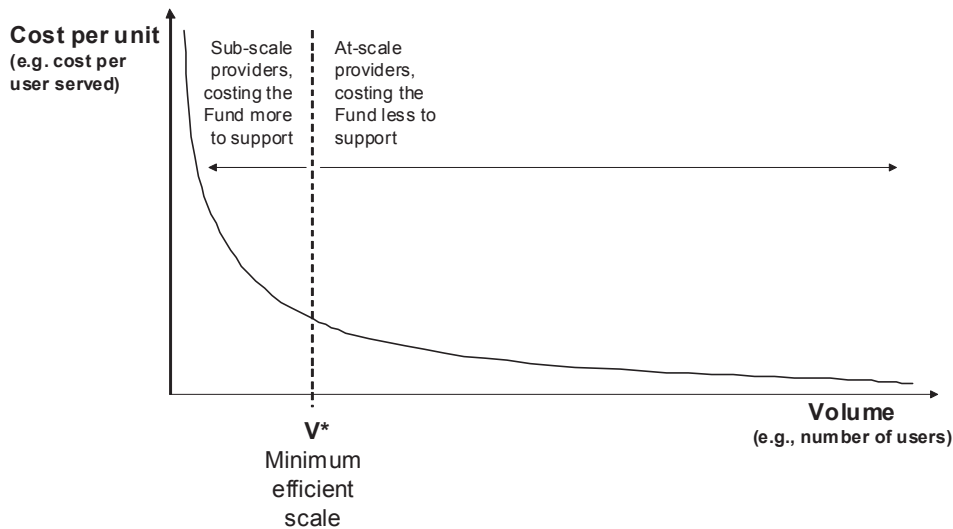


Figure 1

59. We seek comment on whether a per-user compensation mechanism would better align the compensation methodology with the providers' cost structure, and so be more efficient, easier to set, and more transparent. In addition, would such a mechanism eliminate providers' incentives to stimulate minutes of use, a common and difficult to detect form of VRS fraud?¹⁵⁰ Would such a mechanism incent VRS providers to add new users rather than promote additional minutes of use, thus better aligning the incentives of VRS providers with the goal of ensuring that TRS is available "to the extent possible and in the most efficient manner?" What pitfalls regarding potential fraud would come with a per-user approach? Will shifting provider incentives from generating minutes of use to adding users result in the providers fraudulently adding or reporting users to generate additional compensation? Would it be easier to detect the existence of fraudulent users than fraudulent minutes of use (particularly *ex post facto*), thus rendering the program easier to monitor and audit? What safeguards could be established to ensure that providers register only individuals that meet the requirements established in the statute and by our regulations? Would a per-user compensation mechanism render the program more transparent by allowing the Commission and the public to better understand the actual number of users of VRS and the cost per user – neither of which are known today despite the size of the program? Would the rate setting process be simplified, more predictable, and more transparent? Would a per-user mechanism, taken in combination with the transition plan described in sections IV.D and V.B.15, provide more certainty to VRS providers and investors, and better governance for the Commission? To provide a solid basis for discussion, a detailed explanation of a per-user compensation mechanism is set forth in Appendix C. We seek comment on the per-user compensation mechanism described in Appendix C. Would a per-user approach eliminate the need to provide funding for marketing to new-to-category customers?

60. *Active Users.* While a per-user compensation system would eliminate incentives to manufacture minutes of use, it would create incentives to enroll more users – even those who do not actually utilize the service and therefore do not generate costs for the VRS provider. It may also create incentives to enroll the same users with multiple providers. We seek comment on how these incentives can be lessened or eliminated. Should providers be compensated only for "active users" – those

¹⁵⁰ See *VRS Call Practices R&O and Certification FNPRM*, 26 FCC Rcd at 5549-50, para. 4.

registered VRS users that meet a minimum usage requirement?¹⁵¹ One proposal for defining active users is set forth in Appendix C. We recognize that if we adopt a minimum usage requirement for VRS users, it will require VRS providers to continue tracking the monthly use of its service by users. We seek comment on what steps we can take to ensure that VRS providers do not use this information to encourage or entice users to meet the minimum usage requirement for being considered an active user.¹⁵²

61. *Enterprise Users.* The record indicates that there are an increasing number of individuals who use VRS in the course of their employment, and that those users may have higher average monthly usage than those who do not use VRS in the course of their employment.¹⁵³ We recognize, for example, that a single deaf or hard of hearing individual may use VRS both as an “enterprise user” (*i.e.*, in the course of their employment) and for their own personal use, just as hearing individuals frequently have a phone provided by their employer for use at work, and separate phones for their personal use. We therefore seek comment on whether a VRS provider should receive additional compensation for “enterprise users” under a per-user compensation system.

62. An option for establishing a system to compensate VRS providers for enterprise users is set forth in Appendix C. We seek comment on the benefits of establishing a separate enterprise user compensation rate in general, and on the option in Appendix C in particular. Would the proposal in Appendix C help reduce barriers to employment for VRS users – as is requested by the Consumer Groups – because VRS providers would have an economic incentive to work with businesses to ensure that the workplace has functionally equivalent communications with which those employees can perform their assigned duties?¹⁵⁴ Would establishing a separate compensation rate for enterprise users help ensure that VRS providers are appropriately compensated for the reasonable costs of providing VRS? To what extent would this option impact the obligations of employers under Title I of the Americans with Disabilities Act to provide reasonable accommodation to qualified individuals with disabilities who are employees or applicants for employment, unless to do so would cause undue hardship?¹⁵⁵

63. We note that under the existing compensation mechanism, VRS calls made by or to a VRS provider’s employee, or the employee of a provider’s subcontractor, are a provider business expense and are not eligible for compensation from the TRS Fund on a per-minute basis.¹⁵⁶ We propose that the same logic applies under a per-user compensation mechanism, and that the cost of calls made to and by employees of VRS providers and their affiliates, or subcontractors of VRS providers and their affiliates should be treated as a cost of providing service which is recovered through the compensation provided for service rendered to non-affiliated VRS users. We therefore seek comment on what safeguards should be put in place to ensure that VRS providers are not compensated at the enterprise rate for providing service to individuals who work for VRS providers or their affiliates and subcontractors of VRS providers and

¹⁵¹ For the sake of clarity, we note that “active users” is not intended to be a separate class of users from “enterprise VRS users” and “residential VRS users.” Rather, both enterprise VRS users and residential VRS users would be considered “active VRS users” if they meet the minimum usage requirement discussed herein.

¹⁵² It is considered a violation of the Commission’s financial incentive order if a VRS provider encourages or entices a user to make a call they would not otherwise have made but for the encouragement or enticement of the provider. *See generally 2005 Financial Incentives Declaratory Ruling*, 20 FCC Rcd 1466.

¹⁵³ *See* letter from Jeff Rosen, General Counsel, CSDVRS to Marlene H. Dortch, Secretary, FCC, attach. at 2-8 (filed Nov. 9, 2011).

¹⁵⁴ *See* Consumer Groups’ TRS Policy Statement at 7 (Objective 2.5).

¹⁵⁵ *See* Americans with Disabilities Act of 1990, Pub. L. No. 101-336 § 101 (1990), codified at 42 U.S.C. § 12111, *et seq.*

¹⁵⁶ *2010 VRS Declaratory Ruling*, 25 FCC Rcd at 1869, para. 3 (2010).

their affiliates.¹⁵⁷ For example, should employees of VRS providers and their affiliates be required to use a separate 10-digit number at work to denote VRS calls made in the course of their employment? Should the definition of Enterprise VRS Employer include an exclusion of these entities? Should the Enterprise VRS Employers of each Enterprise User be listed in the iTRS database? Should rules associated with call detail records be modified so that Enterprise Users and Enterprise VRS Employers are readily identifiable? How should self-employed VRS users be treated for the purpose of an enterprise rate?

D. Transitioning the Industry Structure To Ensure Economies Of Scale

64. Each of the structural reforms discussed above is worth exploring on its own merit. A major additional benefit of these reforms, if adopted, would be to create an opportunity to transition away from the current inefficient industry structure by giving all providers an opportunity to achieve minimum efficient scale. Specifically, the proposed TRSBPP could make VRS available to a significant pool of new-to-category potential VRS users, and the implementation of iTRS access technology standards could reduce switching transaction costs and make the existing base of VRS users more contestable than is currently the case (*i.e.*, more easily able to switch from their current provider to a new provider). At the end of a successful transition period, an industry structure could consist of multiple, at-scale providers serving a larger number of users than at present, with each provider being compensated at the same at scale per-user rate set by the Commission (see Figure 2). The ultimate result could be a program in which providers' incentives are aligned with the statute's goals of efficiency, functional equivalence, choice, and maximizing access to VRS, the Fund could be paying an effective rate per user that may better reflect the actual costs of providing VRS than is currently the case, and which could eliminate the current tiered rates, which provide seemingly indefinite support for subscale providers and introduce extra complexity into the management of the program.

FIGURE 2. TRANSITIONING TO MORE EFFICIENT INDUSTRY STRUCTURE

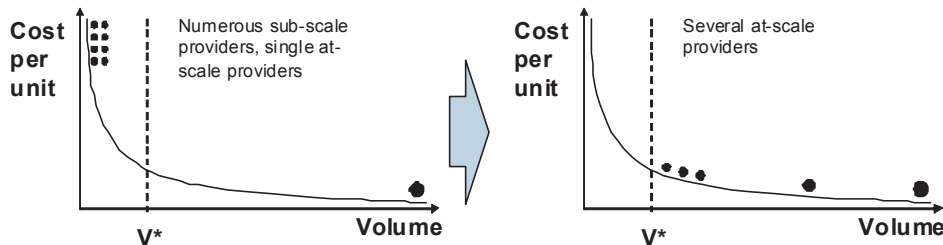


Figure 2

65. We note, however, that implementation of these reforms, if adopted, would need to be phased in over time, as some of the reforms would need to be conducted sequentially. For example, appropriate VRS access technology standards must be in place before providers can be expected to compete effectively for existing users. Further, providers that are currently subscale will not be able to achieve scale overnight, and some providers may have chosen to adopt capital structures requiring a level of profitability that may not be reflected in a reformed program, for example, because of increased competition or better alignment of rates with the actual costs of providing service. We therefore seek comment in section V on how the reforms in this section, if adopted, could be implemented so as to

¹⁵⁷ An individual that uses VRS at work could be affiliated with a particular VRS provider by, for example, working for an entity with common ownership, officers, shared directors, or a through a contractual relationship.

minimize the risk of inappropriate disruptions that could result from the transition to an at-scale per-user rate.

66. We note that the transitions discussed in this section will be accompanied by risk. An appropriately implemented structural reform program and transition process potentially would give each provider a real opportunity to achieve minimum efficient scale during the transition period and may result in an end state for the program that is better for VRS users and VRS providers, as well as being more sustainable and efficient for the Fund. If, however, some providers are not able to manage their businesses, gain scale, or support their existing capital structures during a transition period, they will likely have to change their current business plans. This would be a reasonable result, and fully consistent with our settled policy, affirmed by the courts, that our duty is “to protect competition, not competitors.”¹⁵⁸ We seek to enhance competition in the provision of VRS services because it appears to be an effective way of furthering the goals of section 225, but will not act to preserve any particular competitor. We do not believe that any provider has an inherent entitlement to receive compensation from the Fund, and so do not regard as a goal the protection of VRS providers who are high cost and/or uncompetitive.¹⁵⁹

V. IMPLEMENTING STRUCTURAL REFORMS

67. In this section, we seek comment on how to implement the structural reforms discussed in section IV above, to the extent they are adopted. We also seek comment on whether any additional amendments or new rules are necessary to implement any reforms that are adopted.

A. VRS User Database

68. We seek comment on whether the Commission should establish a VRS User Database to facilitate four primary functions required to implement the reforms proposed in this *Further Notice*: (i) ensuring that each VRS user has at least one default provider, (ii) allowing for the identification of new-to-category users, (iii) supporting the operation of the TRS Broadband Pilot Program discussed in section IV.A.1 and Appendix A, and (iv) ensuring efficient program administration. A proposal for establishing a VRS User Database is set forth in Appendix D.

B. Rules Governing the VRS program

69. Implementation of the reforms discussed in this *Further Notice* will require that the rules governing the operation of the VRS program be amended. We seek comment on the need to modify existing rules or add new rules consistent with the proposals set forth in this *Further Notice*.

1. Restructuring section 64.604

70. Section 64.604 of our rules has become somewhat unwieldy since it was adopted in 2000. Initially focused on TRS mandatory minimum standards, the section now includes subsections that govern, *inter alia*, the administration of the TRS Fund and procedures for making complaints against providers.¹⁶⁰ We seek comment on whether, regardless of any substantive changes that are made in

¹⁵⁸ See, e.g., *Bell Atlantic Mobile Systems and NYNEX Mobile Communications Co., Memorandum Opinion and Order*, 12 FCC Rcd 22280, 22288 (1997); *SBC Communications Inc. v. FCC*, 56 F.3d 1484 (D.C. Cir. 1995).

¹⁵⁹ We note that, in general, VRS providers generally have not developed any other source of revenue beyond disbursements from the Fund, and so may be extremely sensitive to changes in the program, and providers may also have left themselves unhedged against regulatory risk. Such sensitivity cannot, however, serve as a rationale for maintaining the status quo so long as any change adopted is well developed, phased in over a reasonable period of time, and implemented in a predictable way.

¹⁶⁰ See 47 C.F.R. § 64.604(c)(5), (6).

response to this *Further Notice*, section 64.604 of our rules should be broken into separate sections, each of which addresses a particular regulatory issue. To this end, we seek comment on whether we should adopt service-specific rules (*e.g.*, VRS, speech-to-speech, captioned telephone relay service), transmission-specific rules (*i.e.*, PSTN-based TRS vs. iTRS), or some other structure.

2. Improving Functional Equivalence in the Workplace

71. We note that in the employment context, the employer, rather than the employee, generally holds the contractual right to control certain aspects of the communications services and products used on the job. For example, employers generally procure telephone service and telephone numbers for their employees, and it is the employer that pays the phone bill (directly or indirectly), interacts with the providing carrier, and has the contractual right to port or reassign numbers through their carrier partner. This generally is not the case in the context of VRS.

72. As discussed in section IV.C and in Appendix C, we seek comment on whether to provide additional compensation to VRS providers for providing service to VRS users in the course of their employment if a per user compensation mechanism is adopted.¹⁶¹ We further seek comment on whether, if such a proposal is adopted, it can be implemented such that VRS service is provided in the workplace in a manner that is functionally equivalent to the way telecommunications services are provided to hearing employees.

73. Specifically, we seek comment on whether enterprises that have deaf employees could be treated as “VRS Users” for the purposes of our VRS program, except to the extent necessary to ensure that VRS providers appropriately receive and process calls, including emergency calls, from individual employees. Thus, for example, a business that contracts with a VRS provider to make VRS available to all of its deaf employees would be considered a “user” as that term is used in connection with the registration and number portability obligations set forth in section 64.611 of our rules,¹⁶² but each individual employee would be considered a user for the purposes of the emergency access obligations set forth in section 64.605 of our rules.¹⁶³ We seek comment on what changes to our rules, if any, would be necessary to implement such a proposal, particularly in the context of the more general proposals and requests for comment set forth in the remainder of this section V.B.

3. Removing the Need for Free Dial Around

74. Under our existing interoperability rules, Internet-based TRS users must be able to “dial around” to competing providers.¹⁶⁴ Specifically, Rule 64.611(a)(2) obligates default VRS providers, to “route and deliver all of that user’s inbound and outbound calls *unless the user chooses to place a call with, or receives a call from, an alternate provider.*”¹⁶⁵ If providers are compensated on a per-user basis, however, they will not be compensated for calls placed through them by another VRS provider’s registered user. If VRS users were permitted to dial-around their default provider under a per-user compensation mechanism, providers would have a perverse incentive to encourage their VRS users to dial around so as to avoid incurring the costs of processing their VRS calls. Dial around may also encourage VRS providers that seek to provide less than full service to free ride on other providers.

¹⁶¹ The defined terms used in this section are defined in Appendix C, section I.

¹⁶² 47 C.F.R. § 64.611.

¹⁶³ 47 C.F.R. § 64.605.

¹⁶⁴ See generally *Second Internet-based TRS Numbering Order*, 24 FCC Rcd 791.

¹⁶⁵ 47 C.F.R. § 64.611(a)(2) (emphasis added).

75. We recognize, however, that some consumers might value the ability to dial around to different providers for various reasons. For example, the availability of dial around could facilitate competition among providers to answer calls more quickly. In that case, some consumers might value the dial around feature because it allows them to direct their call to an alternate provider that they believe might be even more responsive than their default provider in particular instances.

76. Given these competing considerations, we seek comment on whether to modify or eliminate the dial around requirement if the Commission adopts a per-user compensation mechanism. Would it be appropriate to mandate dial around functionality only for the purpose of accessing emergency services? Could providers continue to offer dial around capability on a commercial basis (e.g., on a charge per call basis)?

77. We note that eliminating the dial around requirement for VRS will make the way VRS service is provided more consistent with the way that most communications services are provided today.¹⁶⁶ For example, a subscriber to an interconnected VoIP service cannot make free calls via a second interconnected VoIP service to which she does not subscribe. However, we recognize that the availability of dial around currently serves as an incentive for VRS providers to meet or exceed “speed of answer” requirements because a customer who does not get their call answered quickly enough can redirect the call – and the per-minute compensation associated with the call – to another VRS provider. We therefore seek comment below on whether we need to revise this standard and whether there are other modifications that must be made to the Commission’s mandatory minimum standards so that they better reflect the actual minimum standards that are reasonable for VRS users to expect.¹⁶⁷

78. We seek comment on whether we should require VRS providers to accept 911 calls from users who are not their registered users should the proposal to require VRS users to sign a contract with a specific provider be adopted. We have anecdotal evidence that some VRS providers require users to register with them before completing the user’s 911 call. Such a requirement would be similar to the requirement that wireless providers complete 911 calls even if the caller’s contract for service has lapsed.¹⁶⁸

4. One Free Provider Per VRS User

79. Under the existing per-minute compensation mechanism, registering with multiple VRS providers is not necessarily problematic from an efficiency perspective, as the total reimbursements paid from the TRS Fund for each VRS user’s minutes of use will be roughly the same, regardless of which providers process the calls.¹⁶⁹ As described in Appendix C, however, a per-user rate should cover an at scale provider’s reasonable, annual costs to provide VRS service. Thus, under a per-user mechanism, allowing VRS users to register with multiple providers could result in significant increases in reimbursements paid from the Fund. Allowing individuals to register with multiple providers also makes it difficult to assess how many VRS users there are, and what the usage patterns of VRS users are, as well

¹⁶⁶ We note, for the sake of clarity, that the “dial around” functionality mandated for VRS service differs from the “dial around” obligations that adhere to payphone and interexchange carriers’ services. *See, e.g.*, 47 C.F.R. §§ 64.1300 *et seq.* We have anecdotal evidence that some VRS providers require users to register with them before completing the user’s 911 call.

¹⁶⁷ *See infra* section V.B.6.

¹⁶⁸ *See Revision of the Commission’s Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, RM-8143, Memorandum Opinion and Order, 12 FCC Rcd 22665, 22717-19, paras. 108-110 (1997); *see also* 47 C.F.R. 20.18(d)(2).

¹⁶⁹ Reimbursements could differ if the providers are in different fund tiers, but such differences are relatively limited given the average user’s monthly minutes of use.

as facilitating fraud and/or abuse of the Fund by allowing providers to obtain compensation from the Fund without necessarily providing all aspects of service that might be expected from a committed, at scale VRS provider. We seek comment on limiting VRS users to registering with a single VRS provider for the purposes of making and receiving calls that are reimbursable from the Fund. Would this be an effective means of ensuring that VRS is provided in an efficient manner, while at the same time making VRS available to all potential users?

80. If so, what mechanisms should a provider use to ensure that a user that it registers is not already registered with another provider? Would the existence of the VRS User Database (VRSURD) be sufficient to ensure that multiple registrations do not occur?¹⁷⁰ Are there specific requirements that should be placed on users that choose to register to use this service? What type of information should providers obtain to ensure that an individual is not already registered with another provider? What method or methods should a provider use to verify or validate the information provided by a potential VRS user? Should the Commission establish a standard certification form? Should providers establish a validation or verification process? Should the Commission establish guidelines or detailed rules governing what constitutes an acceptable verification or validation process? Should there be only one acceptable process, or should providers be entitled to use one of several methods to validate or verify information provided to ensure that a VRS user is registered with only one VRS provider? What information will be required beyond that which providers generally collect today?

81. We seek comment on the impact that a “one free provider per VRS user” rule would have on consumers. Some VRS users have recommended that “consumers not be restricted to one service provider for both fixed and mobile services,” arguing that “consumers may have different service providers preferences depending on the type of service and that consumers should be able to choose between different providers.”¹⁷¹ Were we to adopt a rule allowing dual registration (*i.e.*, for fixed and mobile services) would we be able to achieve the efficiencies sought after in this proceeding? How would this approach be implemented? We note that data provided by some providers suggests that when a VRS user utilizes both fixed and mobile services, that user’s mobile minutes tend to replace, rather than supplement, that user’s fixed minutes.¹⁷² If this is the case, would VRS providers be incented to offer high quality service on multiple platforms (*e.g.*, mobile and fixed) to attract more customers? In this manner could “a one free provider per VRS user” rule encourage competition and innovation between VRS providers, especially given the lack of price competition? Could providers offer users a single ten digit number that would allow inbound calls to be received on all platforms that a user possesses?¹⁷³ Could providers offer additional paid services (*i.e.*, services that are not needed to achieve functional equivalency) on a commercial basis, as some currently do for remote interpreting services?¹⁷⁴ Would “one free provider per VRS user” be consistent with the mandate of section 225?¹⁷⁵

¹⁷⁰ See *supra* section V.A, Appendix D.

¹⁷¹ See letter from Danielle Burt, Counsel for TDI, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-51 (filed Nov. 1, 2011).

¹⁷² See letter from Jeff Rosen, General Counsel, CSDVRS to Marlene H. Dortch, Secretary, FCC, attach. at 14-15 (filed Nov. 9, 2011).

¹⁷³ We note that at least one provider offers functionality that allows the user to receive calls placed to their single phone number via multiple platforms. See *e.g.*, David Colclasure, SIGNews, June 2011 at 3, *available at* <http://www.slideshare.net/PurpleCommunications/signews-purple-announces-one-number-for-all>.

¹⁷⁴ See, *e.g.*, CSDVRS, Video Remote Interpreting (VRI), <http://www.zvrs.com/z-services/video-remote-interpreting-vri> (last visited Sept. 8, 2011).

¹⁷⁵ 47 U.S.C. § 225.

82. Consistent with section V.B.1 and Appendix C, should an Enterprise VRS User's Enterprise VRS Employer be considered the "user" for the purposes of this restriction?¹⁷⁶

5. Contracts

83. We seek comment on whether to allow VRS providers to require VRS users who are either (i) new-to-category VRS users (*i.e.*, have not previously signed up for VRS) or (ii) switching from another VRS provider to enter into a service contract starting one year after the adoption of a per-user compensation mechanism.¹⁷⁷ We also seek comment on whether VRS providers should be allowed to require Enterprise VRS Employers to enter into a service contract starting one year after the adoption of a per-user compensation mechanism.¹⁷⁸ Some providers use service contracts in other communications markets, and we seek comment on the possible harms and benefits of allowing them in the context of a per-user compensation mechanism in the VRS industry.¹⁷⁹ For example, are there costs attributable to VRS user registration, start-up, or connection such that service contracts could make the program more cost efficient and administrable by restricting VRS users and Enterprise VRS Employers' ability to change their default providers with great frequency? Would explicitly allowing contracts lessen the incentive for providers to frustrate interoperability and portability by allowing providers to recoup the costs of providing iTRS access technology, customer setup, enrollment, and other upfront costs?¹⁸⁰ Would service contracts increase the stability of providers' revenues and reduce the amount of customer churn, lessening the incentives of providers to spend excessive funds on marketing and winback activities? Would limiting VRS providers to requiring contracts from new-to-category, switching VRS users, and Enterprise VRS Employers for some period of time help prevent VRS providers from contractually locking in their existing user bases, thus ensuring that the existing installed base of users is contestable (*i.e.*, users can easily switch from one provider to another) during the transition period described in section V.C? What harms may arise due to service contracts? For example, would a VRS providers have an incentive to provide subpar service to save costs and increase profits once it gains a new subscribers because they could be locked in for a period of time? Would revising our speed of answer and other mandatory minimum standards be sufficient to offset this possible harm?¹⁸¹ Should we require VRS providers to offer a trial period? If so, what period of time for a trial period would be appropriate?

84. If we were to adopt a per-user compensation mechanism and allow VRS providers to require service contracts, what would be an appropriate service term? Is a one-year term appropriate, or should terms be longer or shorter? What protections would need to be put in place for consumers? Should consumers be permitted to be released from a contract if the provider breaches its obligations to provide service in accordance with the Commission's TRS mandatory minimum standards? Conversely, if consumers are being provided free or discounted VRS access technology as part of their service

¹⁷⁶ One result of this proposed restriction is that each Enterprise VRS Employer is likely to have a written agreement with a single VRS provider. This should greatly simplify the paperwork demands on potential employers, and help ensure that this program promotes, rather than frustrates, the employment of VRS users.

¹⁷⁷ See *supra* section V.C.

¹⁷⁸ See *supra* section V.B.2 and Appendix C.

¹⁷⁹ See, e.g., Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, WT Docket No. 10-133, Fifteenth Report at para. 93 (rel. June 27, 2001) (*Fifteenth Mobile Wireless Competition Report*).

¹⁸⁰ We note that this cost recovery exists separate and apart from the incentive payment discussed in section IV.A.2.

¹⁸¹ See *infra* section V.B.6.

contract, should providers be allowed to impose an early termination fee (ETF) if consumers wish to exit the contract before its expiration? Are there other costs that providers intend to recover over the course of a contract that might justify the use of an ETF? Would such fees be consistent with the requirements of section 225 of the Act, including that TRS users pay rates no greater than the rates paid for functionally equivalent voice services? If so, should a VRS provider be allowed to “buy out” a VRS user’s or Enterprise VRS Employer’s ETF with a competing provider in order to allow that user to switch without incurring a pecuniary transaction cost? Are there other terms that should be permitted or required that would address up-front costs? Likewise, are there other contract terms that should be required for or prohibited in such contracts?

6. Mandatory Minimum Standards (Performance Rules)

85. In view of the purpose of TRS, Congress specifically mandated in Section 225 that relay services offer access to the telephone system that is “functionally equivalent” to voice telephone services.¹⁸² The “functional equivalence” standard serves as a benchmark for determining the services and features TRS providers must offer to consumers, and is reflected in the TRS mandatory minimum standards contained in the Commission’s rules.¹⁸³ TRS mandatory minimum standards are defined in our Part 64.604 rules in terms of “operational standards,” “technical standards” and “functional standards.” These standards ensure that TRS users have the ability to access the telephone system in a manner that approximates, as closely as possible, the experience of a voice telephone user.¹⁸⁴

a. Operational Standards

86. We seek comment on whether the options set forth in this *Further Notice* necessitate modifications to our TRS operational standards,¹⁸⁵ or the establishment of separate operational standards for VRS. How would the adoption of a new-to-category incentive payment impact our rules governing data collection from TRS providers and information filed with the Administrator? Would the data for registered new VRS users be quantified by the certified VRS provider and submitted or quantified by the TRS Fund Administrator? If a per-user compensation system is adopted how and by whom would the data for “Active Users” be quantified? Do provider incentives under a per-user compensation system change such that the Commission will need to take extra precautions to ensure that providers will not be motivated to discourage high volume users from contracting with them or from making VRS calls? How can the Commission ward off such incentives, to ensure the continued provision of high quality service to all users, regardless of the quantity of calls they make? Should specific training requirements or qualifications be established for VRS CAs different from or beyond those general requirements set forth in section 64.604(a)(1) of our rules to ensure that providers maintain a certain level of CA qualifications for all calls handled? If specific qualifications are imposed on VRS CAs, what affect would this have on

¹⁸² 47 U.S.C. § 225(a)(3).

¹⁸³ 47 C.F.R. § 64.604. The legislative history of Section 225 makes clear that “[t]elecommunications relay services are to be governed by standards that ensure that telephone service for hearing- and speech-impaired individuals is functionally equivalent to voice services offered to hearing individuals.” House Report at 129; *see also Telecommunication Services for Individuals with Hearing and Speech Disabilities, and the Americans With Disabilities Act of 1990*, CC Docket No. 90-571, Report and Order and Request for Comments, 6 FCC Rcd 4657 (1991) (*TRS I*) (adopting the TRS regulations). We note that failure to meet the mandatory minimum standards could subject a TRS provider to enforcement action.

¹⁸⁴ *See 2000 TRS Order*, 15 FCC Rcd at 5196-5197, para. 138; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67 & CG Docket No. 03-123, Second Report and Order, Order on Reconsideration, and Notice of Proposed Rulemaking, 18 FCC Rcd 12379, 12415-12416, para. 62 (2003) (*Second Improved TRS Order*).

¹⁸⁵ *See* 47 C.F.R. § 64.604(a).

the current pool of VRS CAs who may or may not meet those qualifications? What affect, if any, would different qualifications have on the ability of VRS providers to comply with the speed of answer requirement? Is there any need to modify the confidentiality and conversation content standards set forth in section 64.604(a)(2) to protect consumers from compromises in call quality? Should obligations with respect to the types of calls VRS providers must process be modified if a per-user compensation mechanism is adopted? Are there other operational standards that should be adopted or modified to ensure high quality VRS for all users?

b. Technical Standards

87. As discussed in section IV.B.2 and Appendix B, we seek comment on establishing detailed iTRS access technology standards. We seek comment on whether those proposals, or the other proposals set forth in this *Further Notice*, necessitate modifications to our TRS technical standards,¹⁸⁶ or the establishment of separate technical standards for VRS. For example, as discussed in section V.B.3 above, should the speed of answer requirements set forth in 64.604(b)(2) be modified? If adopted, would standards consistent with those set forth in Appendix D render the need for rules on equal access to interexchange carriers and caller ID treatment unnecessary?¹⁸⁷

c. Functional Standards

88. We seek comment on whether the proposals set forth in this *Further Notice*, if adopted, necessitate modifications to our TRS functional standards,¹⁸⁸ or the establishment of separate functional standards for VRS. For example, should VRS providers maintain the same types of consumer complaint logs as other providers of TRS?¹⁸⁹

89. Our TRS functional standards rules contain a number of subsections that govern unrelated aspects of the TRS program. Consistent with section V.B.1 above, we seek comment on restructuring our rules into separate logical sections and, in the following paragraphs, seek comment on the substance of these rules.

7. Public Access to Information

90. In the *2010 VRS Reform NOI*, the Commission noted that it has been difficult to assess the effectiveness of funded outreach programs.¹⁹⁰ Outreach to the hearing community continues to be necessary; we are aware, for example, that some businesses refuse to accept relay calls, perhaps due to a failure to understand the nature of TRS.¹⁹¹ We do not, however, believe that our existing practice of relying on VRS providers to conduct effective outreach has been effective. We seek comment on whether the Commission should establish an independent outreach program to educate the general public about TRS, including VRS. Should such a program be conducted specifically by the FCC, a specialized contractor, consumer organizations, state and local governments, or some other entity or combination of

¹⁸⁶ *See id.* § 64.604(b).

¹⁸⁷ *See id.* § 64.604(b)(3), (6).

¹⁸⁸ *See id.* § 64.604(c).

¹⁸⁹ *See id.* § 64.604(c)(1).

¹⁹⁰ *2010 VRS Reform NOI*, 25 FCC Rcd at 8603, para 17.

¹⁹¹ *See, e.g.*, Washington Relay, Don't Hang Up Washington, <http://www.washingtonrelay.com/hangup.html> (last visited Sept. 8, 2011); Alaska Relay, Don't Hang Up!, <http://www.akrelay.com/hangup.aspx> (last visited Sept. 8, 2011); New York Relay, Please, Don't Hang Up, <http://www.nyrelay.com/donthangup.htm> (last visited Sept. 8, 2011); NAD, Message to Businesses: Don't Hang Up!, <http://www.nad.org/issues/telephone-and-relay-services/relay-services/message-businesses-dont-hang> (last visited Sept. 8, 2011).

entities? We note that the Commission recently authorized the expenditure of \$500,000 annually from the Fund to allow entities that have significant experience with and expertise in working with the deaf-blind community to conduct outreach to deaf-blind individuals to make them aware of the availability of specialized CPE to low-income individuals who are deaf-blind.¹⁹² Would this effort serve as a model for VRS?

8. Jurisdictional Separation of Costs

91. We do not propose to modify our rules that govern jurisdictional separation of costs or cost recovery, but nonetheless seek comment on whether modifications to these rules are necessary.¹⁹³

9. Telecommunications Relay Services Fund

a. Contributions and Contribution Computations

92. If the Commission should choose to adopt any of the options set forth in this *Further Notice*, including implementing a TRSBPP or reimbursing expenses for iTRS access technology through the TRS Fund, what modifications, if any, should be made to our rules governing contributions and contribution computations?¹⁹⁴

b. Data Collection

93. If the Commission should choose to adopt any of the options set forth in this *Further Notice*, what modifications, if any, should be made to our rules governing data collection from TRS providers and information filed with the Administrator?¹⁹⁵ For example, is the general grant of authority to the Administrator to request information reasonably “necessary to determine TRS Fund revenue requirements and payments” sufficient? Should the Commission explicitly require providers to submit additional detailed information, such as information regarding their financial status (*e.g.*, a cash flow to debt ratio)?¹⁹⁶

c. Payments to TRS Providers

94. If the Commission should choose to adopt any of the options set forth in this *Further Notice*, including adoption of a per-user compensation mechanism, implementing a TRSBPP or reimbursing expenses for iTRS access technology through the TRS Fund, what modifications, if any, should be made to our rules governing payments to TRS providers, eligibility for payments from the TRS Fund, and notice of participation in the TRS Fund?¹⁹⁷

d. Administrator Reporting, Monitoring, and Filing Requirements; Performance Review; Treatment of TRS Customer Information

95. Many of the possible changes set forth in this item contemplate a role for the Administrator. If the Commission should choose to adopt any of the options set forth in this *Further*

¹⁹² See *Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010, Section 105, Relay Services for Deaf-Blind Individuals*, Report and Order, CG Docket No. 10-210, 26 FCC Rcd 5640, 5675-76, para. 80 (2011) (*CVAA Implementation Order*).

¹⁹³ See 47 C.F.R. § 64.604(c)(5)(i), (ii).

¹⁹⁴ See *id.* § 64.604(c)(5) (iii)(A), (iii)(B).

¹⁹⁵ See *id.* § 64.604(c)(5)(iii)(C), (I).

¹⁹⁶ Such information might, for example, inform the Commission’s understanding of a VRS provider’s ability to comply with the obligation to provide VRS every day, 24 hours a day. See 47 U.S.C. § 64.604(b)(4).

¹⁹⁷ See 47 C.F.R. § 64.604(c)(5)(iii)(E)-(G).

Notice, what modifications, if any, should be made to our rules governing the obligations of the Administrator, Commission review of the Administrator’s performance, and treatment of TRS customer information?¹⁹⁸

e. Enforcement

96. If the Commission should choose to adopt any of the options set forth in this *Further Notice*, what modifications to our rules, if any, are necessary to ensure that they are enforceable?¹⁹⁹

10. Consumer Complaints

97. If the Commission should choose to adopt any of the options set forth in this *Further Notice*, what modifications, if any, should be made to our informal and formal complaint procedures?²⁰⁰

11. Registration Process

98. We seek comment on whether the options set forth in this *Further Notice* necessitate modifications to our iTRS registration rules.²⁰¹ In particular, we seek comment on what modifications, if any, would be necessary to implement the proposals regarding VRS in the workplace discussed in section V.B.2 above. What additional verification standards would be needed?

12. Emergency Calling Requirements

99. We seek comment on whether the options set forth in this *Further Notice* necessitate modifications to our emergency calling requirements.²⁰² In particular, we seek comment on what changes, if any, are necessary to accommodate the elimination of dial around discussed in section V.B.3, above, a one provider per-user system as discussed in section V.B.4 above, or the treatment of VRS in the workplace discussed in section V.B.2 above.

13. Preventing Discrimination

100. Section 225 of the Act requires the Commission to ensure that relay services “are available, to the extent possible and in the most efficient manner, to hearing-impaired and speech-impaired individuals in the United States.”²⁰³ Section 225(d)(1) charges the Commission with the obligation of adopting regulations that, among other things, “prohibit relay operators from failing to fulfill the obligations of common carriers by refusing calls or limiting the length of calls that use telecommunications relay services.”²⁰⁴ Pursuant to these statutorily mandated responsibilities and other Commission requirements, the Commission has issued a number of orders finding that specific types and forms of discrimination and fraudulent practices are unlawful and prohibited by the Act and our rules.²⁰⁵

¹⁹⁸ See *id.* § 64.604(c)(5)(iii)(H), (J); *Id.* § 64.604(c)(7).

¹⁹⁹ See *id.* § 64.604(c)(5)(iii)(K).

²⁰⁰ See *id.* § 64.604(c)(6).

²⁰¹ See *id.* § 64.605.

²⁰² See *id.*

²⁰³ 47 U.S.C. § 225(b)(1). Section 225 also requires that TRS provide “functionally equivalent” telephone service for persons with hearing or speech disabilities. *Id.* § 225(a)(3).

²⁰⁴ 47 U.S.C. § 252(d)(1)(E); 47 C.F.R. § 64.604(a)(3)(i) (“Consistent with the obligations of telecommunications carrier operators, CAs are prohibited from refusing single or sequential calls or limiting the length of calls utilizing relay services.”).

²⁰⁵ See, e.g., *VRS Call Practices R&O and Certification FNPRM*, 26 FCC Red at 5551, para. 6.

As discussed in Section III.E above, however, some VRS providers' still have engaged in unlawful practices.

101. Under a per-user compensation mechanism, we recognize that VRS providers may continue to engage in unlawful practices. Under the per-minute compensation reimbursement method, these unlawful practices have generally occurred through discrimination (*e.g.*, favoring high-volume users over low-volume users), often resulting in waste, fraud, and abuse of the TRS Fund (*e.g.*, seeking payment for non-compensatory minutes through discriminatory practices and outright fraud). By way of example, anecdotal evidence suggests that the per-minute compensation scheme provides unintended incentives to VRS providers to give call priority to high-volume users by placing them first in line for connections and to favor such users by providing them with newer and better VRS access technology before low-volume users. Under a per-user compensation framework, providers likewise may have the incentive to discriminate against high-volume users in favor of low-volume users because providers would be compensated at the same level for all users, regardless of their call volume. Similarly, some providers may utilize a variety of practices geared toward ensuring that low-volume users make the minimum number of calls required to qualify as an "active user" for purposes of compensation from the Fund. Both call discrimination and practices aimed at acquiring and maintaining low-volume "active users" that would not otherwise utilize VRS could result in waste, fraud, and abuse of the TRS Fund and threaten the long-term sustainability of the VRS program.

102. It has become increasingly apparent that our "piece meal" approach to detect and outlaw discriminatory and fraudulent practices has not always worked. As we noted in Section III.E, in many cases, "when directed not to engage in certain calling activities," for example, "some providers have merely shifted to other arrangements that are not specifically prohibited and have engaged in attempts to make non-compliant calls in ways that have made them more difficult to detect."²⁰⁶ To the extent that VRS providers discriminate in the manner in which they handle calls (*e.g.*, the type of call or caller), except as provided for in the Commission's rules, they create inefficiencies in the VRS call processing system.²⁰⁷ Likewise, when a VRS provider engages in fraudulent practices by encouraging or causing VRS calls to be made that would not otherwise be made, or VRS users to be enrolled that would not otherwise be enrolled, except for a provider's desire to drive up its compensation from the TRS Fund, the VRS system is made inefficient. These types of unlawful practices artificially tie up CAs and limit the ability of legitimate callers to use VRS contrary to section 225 of the Act.

103. Further, unlawful VRS provider practices not only allow dishonest providers to obtain a competitive advantage over providers that operate in compliance with the Act and our rules, but undermine the key goals of Congress in enacting section 225. VRS provider practices that result in waste, fraud, and abuse threaten the sustainability of the TRS Fund and are directly linked to the efficiency and effectiveness of the TRS Fund support mechanisms upon which VRS providers rely for compensation. As the Commission has previously found, fraudulent diversion of funds robs the TRS Fund for illicit gain and "abuses a highly valued Federal program that, for the past twenty years, has been critical to ensuring that people with hearing and speech disabilities have the same opportunities to communicate over distances – with family, friends, colleagues, and others – as everyone else."²⁰⁸ Moreover, such practices

²⁰⁶ See *supra* n. 88.

²⁰⁷ See 47 C.F.R. § 64.605(a)(2)(ii) (iTRS providers shall "[i]mplement a system that ensures that the provider answers an incoming emergency call before other non-emergency calls (*i.e.*, prioritize emergency calls and move them to the top of the queue)").

²⁰⁸ *VRS Call Practices R&O and Certification FNPRM*, 26 FCC Rcd at 5551, para. 5.

unlawfully shift improper costs to consumers of other telecommunications services, including local and long distance voice subscribers, interconnected VoIP, and others.²⁰⁹

104. Accordingly, in furtherance of our express authority under section 225(b)(1) and section 225(d)(1)(E) and the goals underlying the provision and regulation of TRS, we propose to adopt regulations prohibiting VRS providers from engaging in practices that result in waste, fraud, and abuse of the TRS Fund, including discriminatory practices (*e.g.*, screening for or refusing to register individuals who are likely to be high volume users, discrimination based on length of calls or call volume, and favoring some users with free or low-cost iTRS access technology based on call volume), and seek comment on this proposal. We conclude that such regulations should apply to all VRS providers as reasonably ancillary to the effective performance of our responsibilities under the Act,²¹⁰ including our mandate to ensure that relay services “are available, to the extent possible and in the most efficient manner, to hearing-impaired and speech-impaired individuals in the United States.”²¹¹ We seek comment on this conclusion, and generally on the Commission’s authority to adopt such regulations as proposed.²¹²

14. Preventing Slamming

105. As discussed above and in the *VRS Call Practices R&O and Certification FNPRM*, the current VRS per-minute compensation structure has been vulnerable to unforeseen and difficult-to-detect waste, fraud, and abuse.²¹³ We recognize that a per-user compensation structure could lead to other abuses by providers in order to increase the number of their active users and generate revenue. For example, under a per-user compensation scheme, VRS providers would have an incentive to engage in

²⁰⁹ VRS users are not charged for use of the service. Rather, these costs are passed on to all consumers of telecommunications service by intrastate and interstate common carriers, either as a surcharge on their monthly service bills or as part of the rate base for the state’s intrastate telephone services. *2005 Financial Incentives Declaratory Ruling*, 20 FCC Rcd at 1468, para. 6. When a VRS provider engages in fraudulent practices, the costs are unlawfully passed on to the public.

²¹⁰ The Commission has authority to promulgate regulations to effectuate the goals and provisions of the Act if the regulations are “reasonably ancillary to the effective performance of the Commission’s various responsibilities” under the Act. *United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968) (upholding Commission regulation of cable television systems as a valid exercise of ancillary jurisdiction). *See also Rural Tel. Coalition v. FCC*, 838 F.2d 1307, 1315 (D.C. Cir. 1988) (upholding Commission authority to establish a “Universal Service Fund” in the absence of specific statutory authority as ancillary to FCC responsibilities under sections 1 and 4(i) of the Act). The Supreme Court has stated that “[t]he Commission . . . may exercise ancillary jurisdiction only when two conditions are satisfied: (1) the Commission’s general jurisdictional grant under Title I [of the Communications Act] covers the regulated subject and (2) the regulations are reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.” *Comcast Corp. v. FCC*, 600 F.3d 642, 646–47 (D.C. Cir. 2010) (quoting *Am. Library Ass’n v. FCC*, 406 F.3d 689, 691–92 (D.C. Cir. 2005)) (alterations in original). The court further ruled that the second prong of this test requires the Commission to rely on specific delegations of statutory authority. 600 F.3d at 644, 654.

²¹¹ 47 U.S.C. § 222(b)(1).

²¹² *See infra* section VII.

²¹³ *See supra* section II.B; *VRS Call Practices R&O and Certification FNPRM*, 26 FCC Rcd at 5551, para. 6 (“[T]he Commission has attempted to curb the fraud pervading the VRS program by admonishing providers about improper call handling and other practices that generate VRS calls that would not otherwise be made by consumers, as well as arrangements and schemes that violate section 225 and our rules.”).

“slamming” and misleading marketing practices because reimbursement would be based on the number of registered users rather than on the total minutes of use.²¹⁴

106. The Commission has previously sought comment on the need for VRS specific rules against slamming to protect relay consumers against unauthorized default provider changes.²¹⁵ We incorporate by reference comments previously filed on this issue and seek to refresh the record on this issue.²¹⁶ To protect VRS users from unwanted changes in their default provider, we seek further comment on whether we should adopt rules governing a user’s change in VRS providers. We seek comment on the types of safeguards that should be put in place to protect users from unauthorized changes in their VRS default provider. We also seek comment on what type(s) of authorization providers must obtain prior to switching a subscriber’s default provider and how verification of any such authorization should be obtained and maintained by the receiving provider. Additionally, we seek comment on whether and how providers may use information obtained when receiving notification of a user’s service change to another provider, whether for marketing, win-back, or other purposes.²¹⁷

15. Audits.

107. Section 64.604(c)(5)(iii)(C) of our rules states that the TRS Fund Administrator “and the Commission shall have the authority to examine, verify and audit data received from TRS providers as necessary to assure the accuracy and integrity of fund payments.” We seek comment on whether the TRS Fund Administrator or the Commission requires additional authority to conduct audits under the rules we propose in this *Further Notice*.

C. Implementing the Transition from Per-Minute to Per-User Compensation

108. As discussed in section IV.D, implementation of the reforms discussed in this *Further Notice*, if adopted, would need to be phased in according to a well-developed and transparent plan. In this section, we seek comment on how to conduct such a transition.

1. Phases

109. A transition from a per-minute to a per-user compensation mechanism can be conceptualized as consisting of three phases. The first phase would be the “implementation phase,”

²¹⁴ In the context of telecommunications services, slamming occurs when a company changes a subscriber’s carrier selection without that subscriber’s knowledge or explicit authorization. *Implementation of the Subscriber Carrier Selection Changes Provisions of the Telecommunications Act of 1996; Policies and Rules Concerning Unauthorized Changes of Consumers’ Long Distance Carriers*, CC Docket No. 94-129, Second Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 1508, 1510, para. 1 (1998) (*1998 Slamming Order*). Section 258 of the Act and the Commission’s implementing regulations explicitly prohibit slamming by telecommunications carriers. See 47 U.S.C. § 258(a) (“No telecommunications carrier shall submit or execute a change in a subscriber’s selection of a provider of telephone exchange service or telephone toll service except in accordance with such verification procedures as the Commission shall prescribe”); see also, e.g., 47 C.F.R. § 64.1120(a) (“No telecommunications carrier shall submit or execute a change on the behalf of a subscriber in the subscriber’s selection of a provider of telecommunications service except in accordance with the procedures prescribed in this subpart”).

²¹⁵ *Internet-based TRS Numbering Order*, 23 FCC Rcd at 11633-38, paras. 119-130.

²¹⁶ We specifically refer to comments filed in CG Dockets No. 03-123 and 10-51.

²¹⁷ Section 222 of the Act governs the use of comparable information (specifically, customer proprietary network information (“CPNI”)) by telecommunications carriers. See 47 U.S.C. § 222; *Bright House Networks, LLC v. Verizon California, Inc.*, Memorandum Opinion and Order, 23 FCC Rcd 10704 (2008), *pet. for rev. denied Verizon California, Inc. v. FCC*, 555 F.3d 270, (D.C. Cir. Feb 10, 2009).

during which all conditions necessary to prepare for the switch from per-minute to per-user compensation would be met, including measures to make the existing base of customers more contestable and bring new VRS users into the program. The implementation phase would begin immediately after the adoption of a final order in this proceeding, and terminate with the initiation of per-user compensation at an initial per user rate. The second phase would be the “growth phase” during which smaller providers would have the opportunity to achieve scale by adding users and all providers would transition from their initial per-user rate set during the implementation phase to a unitary at-scale “base rate” discussed in Appendix C (if those rates are different). The third and final phase would be the “scale phase,” during which all providers are compensated at a per-user compensation mechanism selected by the Commission to reflect the cost of providing VRS service at scale. We seek comment on whether these three phases are the appropriate logical structure for a transition from per-minute to per-user compensation. We also seek comment, in the following sections, on how each of the phases of a transition should be conducted.

a. Implementation Phase

110. As described above, the “implementation phase” would be the time period during which all conditions necessary to prepare for the switch from per-minute to per-user compensation would be met. The implementation phase would begin upon the adoption of a final order in this proceeding, and terminate with the initiation of per-user compensation. We seek comment in this section on how an implementation phase should be conducted.

(i) VRS Provider Compensation During Implementation Phase

111. We seek comment on how VRS providers should be compensated during the implementation phase. As discussed in greater detail in the following paragraphs, the Commission and the Administrator will need to gather data from VRS providers before an initial per-user rate can be established. We therefore seek comment on what the per-minute rate should be during the implementation phase. The Commission stated in the 2011 VRS Rate Order that the interim rates currently in effect would “be in effect on an interim basis until the Commission completes its examination of VRS rates and compensation as part of the *2010 VRS NOI* proceeding” because “extending the current interim rates and compensation structure temporarily provided the best means to ensure stability and certainty for VRS while the Commission continues to evaluate the issues and the substantial record developed in response to the *2010 VRS NOI* proceeding.”²¹⁸ Should the Commission extend the current interim rates during the implementation period to provide continued certainty during the implementation phase?

(ii) Actions to be conducted during the implementation phase

112. We seek comment on what actions need to be taken during the implementation phase and the timing of such actions. If we adopt a per-user mechanism, we propose to require that each of the following occur during the implementation phase:

- The VRSURD be established and operational;
- The TRSBPP be established and operational;
- iTRS access technology standards be adopted and implemented;
- “One provider per user” be implemented (*i.e.*, VRS users must select a single VRS provider); and
- The initial per-user rate (or rates) be calculated and published.

²¹⁸ 2011 TRS Rate Order at paras. 1, 7.

We describe in greater detail and seek comment on these conditions in the following paragraphs.

113. *VRSURD*. As discussed in section V.A and Appendix D, a VRSURD would be essential to (i) ensure that each VRS user has at least one default provider, (ii) allow for the identification of new-to-category users, (iii) support the operation of the TRS Broadband Pilot Program discussed in section IV.A.1 and Appendix A, and (iv) ensure efficient program administration. In order to establish a VRSURD, the neutral database administrator must be selected, construct the database, work with industry to populate the database, test the functionality of the database, and be prepared to support the functionality described in Appendix D before the Commission can effectively implement a “one provider per user” rule. The data that will be submitted to the VRSURD also will be critical to establishing a per-user rate.

114. We note that the Commission completed the comparable task of establishing the iTRS numbering directory in six months.²¹⁹ We seek comment on whether this is a reasonable timeframe for the establishment of the VRSURD. Are there issues that would make the process of establishing a VRSURD take more – or less – time than was needed to establish the iTRS numbering directory? If so, what are those issues, and what impact would they have on the timing?

115. *TRSBPP*. As discussed in section IV.A.1 and Appendix A, we propose, to the extent there is unaddressed demand for VRS, to promote residential broadband adoption via a pilot program to provide discounted broadband Internet access to low-income Americans who are deaf, hard of hearing, deaf-blind, or speech disabled. We note that implementation of a TRSBPP would require that a VRSURD be established and that the Administrator, VRS providers, and broadband providers all take steps to establish and implement appropriate procedures. We seek comment on how much time should be allowed for the TRSBPP to be implemented. We also seek comment on whether it would be necessary to have the TRSBPP operational before the end of the implementation period, or whether that program, to the extent adopted, could be implemented at a later time.

116. *iTRS access technology standards*. Appropriate VRS access technology standards must be in place before VRS providers can be expected to compete effectively for VRS users. We seek comment on how much time the Commission should allocate for each of the actions described in Appendix D, including the adoption of iTRS access technology standards, the time necessary for any standards transition phases for the installed base of VRS access technology and/or for new VRS users, the establishment of a conformance and interoperability testing regime, and the establishment of an ongoing standards governance process. To what extent must the steps described in Appendix D be completed during an implementation phase? Could certain steps be completed during the growth phase?

117. *One provider per user*. As discussed in section V.B.4, users must select a single default provider under a per-user compensation system. At what point during the implementation phase would it be appropriate to implement such a requirement? How long should VRS users be given to make a provider selection? What should happen if VRS users fail to select a default provider during the time allotted? How long before the end of the implementation period should the selection period end to ensure that the Commission and the Administrator have accurate counts of each VRS providers’ user base on which to rely when establishing per-user rates?

118. *Calculation of initial per-user rate(s)*. As discussed above, we contemplate that the implementation phase would terminate with the initiation of per-user compensation. We seek comment on how the initial per-user compensation rate for each VRS provider should be calculated. Should all VRS providers be compensated at the same initial rate, or is it more appropriate to set a separate initial per-user rate for each provider? Should providers immediately be paid at the “target base rates”

²¹⁹ *Internet-based TRS Numbering Order*, 23 FCC Rcd at 11618, para. 74.

established as discussed in Appendix C? Should each VRS provider be compensated at an initial per-user rate that keeps them revenue neutral (*i.e.*, each provider would continue to receive the same amount of revenue immediately before and immediately after the switch to a per user rate)?

119. To the extent initial revenue neutrality is a goal, would the first year of the implementation phase be the appropriate reference period for determining the appropriate revenue level, or would some other time period be more appropriate? How would the appropriate level be established? When should a VRS provider's number of users be determined? Would it be appropriate to use the VRS user count immediately after VRS users are required to select a single default provider, or should a "settling in" period be allowed to pass first to allow for customers to switch providers? How long should such a settling in period be? We note that to the extent that providers are kept revenue neutral between the end of the per minute mechanism and the start of the per user mechanism, they may have an incentive to depress their initial user count to inflate the corresponding initial per user rate. We seek comment on ways to prevent this.

120. What other factors should be taken into account when establishing an initial per-user rate? For example, should there be a maximum per-user compensation rate established so as to ensure that VRS providers with very few users at the end of the implementation period are not paid an "excessive" per-user rate? Should a VRS provider's capital structure be taken into account when establishing their initial per-user rate? To what extent should the Commission be concerned that an initial per-user rate might increase the likelihood of a VRS provider being unable to sustain its current capital structure? How disruptive would such financial restructuring be to the service experienced by VRS users? How, if at all, would such a proceeding affect the TRS Fund in the long term?

121. *Other possible conditions.* We seek comment on what, if any, additional conditions should be met during the implementation phase. For example, should the new-to-category incentive payment, if adopted, be available during the entirety of the implementation phase, or should that incentive payment be made available only after the TRSBPP has been implemented? This would help to ensure that a new-to-category incentive is not paid for registering individuals who already are aware of the VRS program but did not register solely due to the cost of a broadband Internet connection.

122. *Duration.* Should the total duration of the implementation period be limited in time, or only by the achievement of the necessary conditions? If limiting the total duration of the implementation period is appropriate, what should the deadline be? Should there be interim deadlines established for meeting any of the conditions set pursuant to the discussion in the paragraphs above? What should those deadlines be? For the sake of clarity, commenters responding to these questions should reference the date that a final order is adopted in this proceeding (*e.g.*, "the deadline for such action should be one year from the adoption of a final order").

123. What should be the result if any deadlines established pursuant to the discussion in the preceding paragraph are not met? Would it be appropriate to implement one of the default alternatives discussed in section VI?

b. Growth Phase

124. The "growth phase" of a transition from per-minute to per-user compensation would be that time during which small providers would have the opportunity to achieve scale by adding users and transition from their initial per-user rate to the unitary, at-scale "target base rate" discussed in Appendix C (if those rates are different). The growth phase would terminate once all VRS providers are being compensated at the target base rate.

125. The growth phase would be defined primarily by three factors: the initial per-user rate for each VRS provider, the target base rate, and the transition from the initial per-user rate(s) to the target

base rate. As we seek comment above on how to establish the initial per-user rate(s) and below on setting the target base rate,²²⁰ we focus our inquiry in this section on the transition path.

126. As illustrated in Figure 3 below, two questions must be answered once initial per-user rates and the target base rate are established. First, how long should the growth period be? That is, how much time should elapse between t_{initial} and t_{final} ? Second, what should the per-user rate be during the growth period? Or, put another way, what should be the shape of the rate curve between t_{initial} and t_{final} ? We seek comment on these questions.

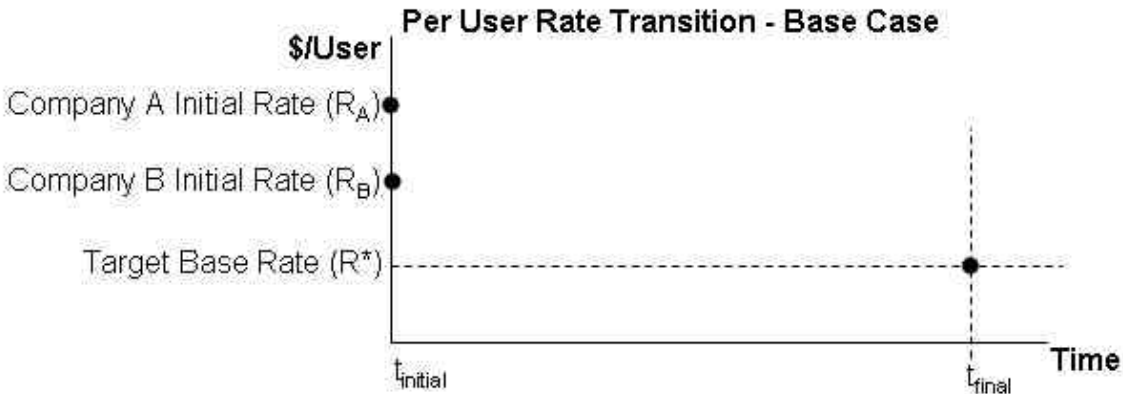


Figure 3

127. *Duration of growth period.* We seek comment on the appropriate duration of the growth period. How should the Commission balance the need to give providers a fair chance to adapt their cost structures to the new reimbursement scheme (e.g., by attaining scale economies and/or adjusting their financing commitments) against the knowledge that every year of paying rates above the target base rate, R^* , could be considered an unnecessary expenditure of Fund resources? What other factors should be taken into account when determining the appropriate duration of the growth period?

128. *Shape of the rate curve.* We seek comment on the appropriate per-user rate over the course of the growth period. One approach, illustrated in Figure 4, would be to simply compensate each VRS provider at the initial per-user rate established during the transition period. As discussed above, such rates could be unique to each provider (e.g., R_A and R_B as shown in Figure 4) or common to all providers (e.g., the target base rate, R^* , or another unitary rate).

²²⁰ See *supra* paras. 118-120; Appendix C.

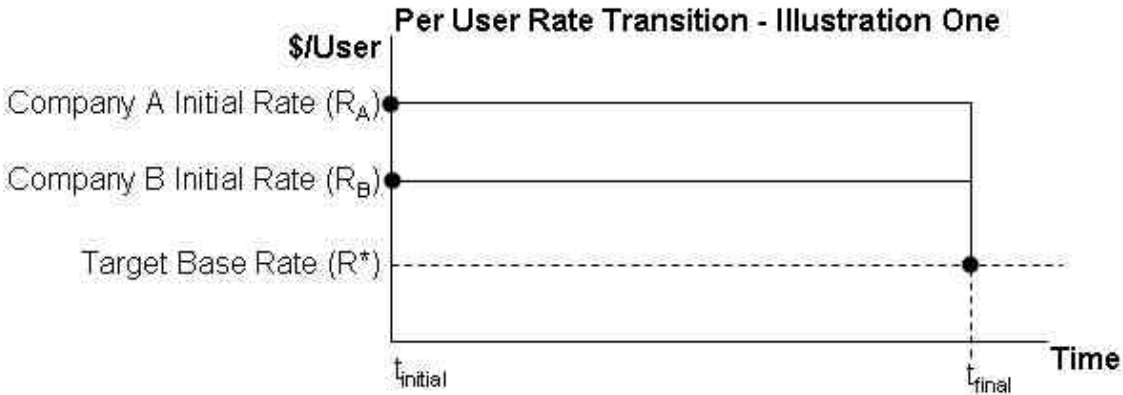


Figure 4

129. An alternative approach, illustrated in Figure 5, would be to reduce each provider's per-user compensation rate during the course of the growth period until the target base rate is reached. Figure 5 illustrates a simple version of this approach, with each VRS provider's per-user compensation being reduced to the target base rate in two steps, the first at t_1 and the second at t_{final} .

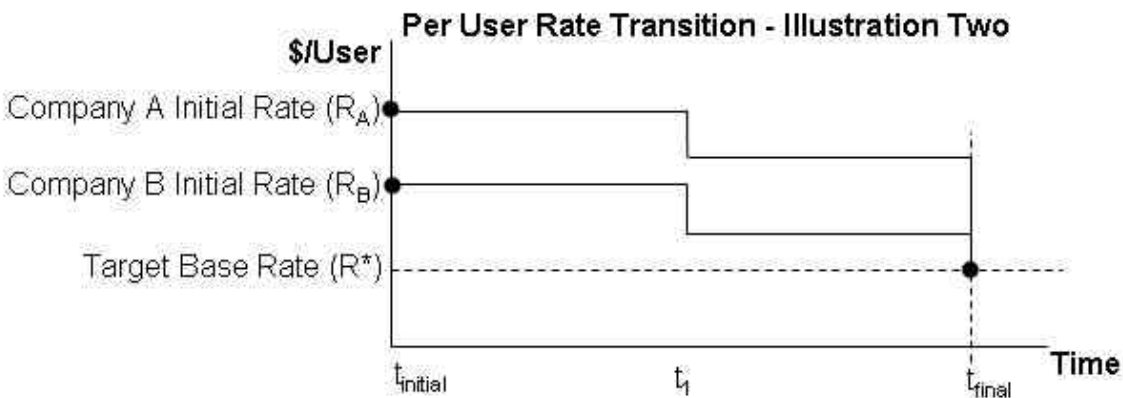


Figure 5

130. Note that, regardless of the shape of the rate curve, providers will benefit from the certainty of a pre-determined trajectory during the duration of the growth period, which will allow them to make operational and financing plans with minimal regulatory risk. We seek comment on the rates that should be paid during the growth period. Should there be a single rate during the growth period, or should the rate be reduced in steps over time? If the rate should be reduced, what should the duration of each step be, and how should the amount of the reduction be calculated? Commenters should provide detailed explanations of and justifications for their recommendations, to include any financial data necessary to support the use of a particular rate curve. If we transition to a per user rate following this NPRM, we expect to set t_{initial} , t_{final} , R^* , and the trajectory as soon as possible as part of the initial rate setting process to provide multi-year certainty for providers. Further discussion of the target base rate can be found in Appendix C.

131. *New entrants.* To the extent newly certified VRS providers are authorized to be compensated by the Fund and begin to provide service during the transition period ("new entrants"), how

should those entrants be compensated? Should they be compensated at the target base rate, the weighted average rate being paid to existing providers at the time of entry,²²¹ or some other rate?

c. Scale Phase

132. The third and final phase of a transition from a per-minute to a per-user compensation mechanism would be the “scale phase,” during which all providers are compensated at the same per user rate selected by the Commission. Thus, the scale phase would be the “steady state” that exists after compensation has transitioned to a per-user mechanism and all providers are being compensated at the efficient target base rate. We seek comment on the appropriate way to determine the annual per-user compensation rate during the scale phase.

133. If we adopt a per-user mechanism, we propose to adopt for the scale phase a price cap mechanism consistent with that adopted by the Commission for IP Relay in the *2007 Rate Order*.²²² Under that plan, the compensation rate is set for a period of three years, “during which time the rates would be adjusted upward annually for inflation (according to a pre-defined inflation factor) and downward to account for efficiency gains (according to a factor also set at the outset of price caps).”²²³

134. Specifically, we propose to adopt the general model established for IP Relay in the *2007 Rate Order*, with the exception of how the base rate is calculated. As described in the *2007 Rate Order*:

As a general matter, the price cap plan applies three factors to a base rate – an Inflation Factor, an Efficiency (or “X”) Factor, and Exogenous Costs. The basic formula takes a base rate and multiplies it by a factor that reflects an increase due to inflation, offset by a decrease due to efficiencies. The Inflation Factor will be the Gross Domestic Product – Price Index (GDP-PI). The Efficiency Factor will be set as a figure equal to the Inflation Factor, less 0.5 percent (or 0.005) to account for productivity gains. As a result the rate for a particular year will equal the rate for the previous year, reduced by 0.5 percent (*i.e.*, $\text{Rate}_{\text{Year } Y} = \text{Rate}_{\text{Year } Y-1} (1 - 0.005)$). Reducing the rate by this amount will encourage VRS providers to become more efficient in providing the service.

We will also adjust the rate, as necessary, due to exogenous costs, *i.e.*, those costs beyond the control of the IP Relay providers that are not reflected in the inflation adjustment. Therefore, to the extent the Commission adopts new service requirements, we will determine whether the costs of meeting the new requirements warrant an upward exogenous adjustment.²²⁴

135. A number of providers asserted at that time that a price cap approach would have at least three benefits: (1) it would create incentives for providers to lower costs; (2) the three year time frame gives providers “predictability about revenue to allocate money to programs that will reduce costs in the future;” and (3) it simplifies the rate setting process, saving time and money.²²⁵ One provider also emphasized that under price caps, providers would focus on increasing efficiencies to accommodate decreasing rates.²²⁶ We note that many of the same providers supported the establishment of a cost

²²¹ That is, the per-user rate being paid to existing providers in a given month weighted by each providers’ actual user count.

²²² *2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20159-60, paras. 43-44.

²²³ *See id.*

²²⁴ *Id.* at 10-11.

²²⁵ *Id.* at 2-3.

²²⁶ Sprint Nextel Corporation Oct. 30, 2006 Comments, CG Docket No. 03-123 at 6-7.

recovery methodology for VRS at that time, and believe that the benefits attributed to the adoption of a price cap methodology in that context will adhere equally in the VRS context.²²⁷

136. We seek comment on this proposal. Should the specifics of this methodology be modified for VRS? For example, should we adopt a different Inflation Factor or Efficiency Factor? Should the standards for an exogenous cost adjustment be modified? Is a three year time frame appropriate for VRS? What other factors might be appropriate for inclusion in such a methodology?

2. Contracts

137. In section V.B.5 above we seek comment on whether to allow VRS providers to require VRS users who are either (i) new-to-category VRS users (*i.e.*, have not previously signed up for VRS) or (ii) switching from another VRS provider to enter into a service contract after the adoption of a per-user compensation mechanism. If we were to adopt such a proposal, during what phase of the transition described above would it be appropriate to allow providers to require VRS users to enter into contracts?

VI. ALTERNATIVES TO STRUCTURAL REFORM

138. We seek comment on the rate methodology the Commission should adopt should (i) the Commission choose not to adopt the per-user rate methodology proposed in this *Further Notice* or (ii) should the transition to a per-user methodology be terminated before it is completed.²²⁸ We note that each of the reform proposals described in this NPRM – increasing VRS availability (via broadband subsidies, new to category incentives, and enterprise VRS), ensuring the interoperability and portability of VRS access technologies via standards, compensating VRS providers at a single at-scale rate, and moving to a per-user compensation scheme – is worth pursuing in itself to improve the program, although as they are mutually reinforcing we explore implementing them all, sequenced appropriately.

139. We note that the Commission in the *2010 TRS Rate Methodology Order* adopted interim VRS rates representing the average of the tiered rates established in 2007, which were based on providers' projected costs, and the Administrator's 2010 proposed rates, which, in turn, were based on providers' actual, historical costs.²²⁹ These interim rates reflect a balance between the goal of ensuring that VRS providers recover from the Fund only the reasonable costs caused by their provision of VRS²³⁰ and the goal of ensuring quality and sufficient service during the pendency of this proceeding.²³¹ In anticipation of the proposals set forth in this *Further Notice*, CGB waived the May 1, 2011 Fund Administrator filing requirement for VRS payment formulas and revenue requirements for the 2011-12 TRS Fund year,²³² and subsequently concluded that it would be more efficient and less disruptive to

²²⁷ *2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20161-62, paras. 50-51.

²²⁸ For example, if the Commission should determine that the transition to a per-user methodology should be terminated prior to initiating the Growth Phase. *See infra* section V.C.1.b.

²²⁹ *See 2010 TRS Rate Methodology Order*, 25 FCC Rcd at 8690, para. 2.

²³⁰ *See* 47 U.S.C. § 225(d)(3)(B).

²³¹ *See 2010 TRS Rate Methodology Order*, 25 FCC Rcd at 8690, para. 2.

²³² *Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 10-51 and 03-123, Order, 26 FCC Rcd 5231 (CGB 2011) (*VRS Rate Filing Waiver Order*).

extend the existing interim rates while concluding the evaluation of the issues and the substantial record developed in response to this proceeding.²³³

140. We propose that if a per-minute rate methodology is retained, the Commission adopt, consistent with the recommendations of the Administrator for the 2010-2011 fund year, a per-minute rate based on weighted average actual per-minute provider costs for the most recently completed fund year.²³⁴ The Commission in the 2010 TRS Rate Methodology Order found that the Administrator's "proposed rates based on actual costs [were] reasonable and supported by record evidence," and that it was suitable that "we exercise our discretion to use them as a basis for setting an interim rate for the 2010-2011 Fund year."²³⁵ Although we have, during this interim period, allowed providers to recover their costs at rates well above those based on actual cost data so as to avoid "a significant and sudden cut to providers' compensation,"²³⁶ in the event that broader structural reform is not possible at this time, we find it reasonable to move to a rate based entirely on providers' actual costs. We seek comment on this proposal.

141. We further propose to eliminate the current tier structure and utilize a single rate based on the weighted average of providers' actual costs.²³⁷ The rationale for adopting the tiers in the *2007 TRS Rate Methodology Order* was that providers with a relatively small number of minutes generally have higher costs.²³⁸ We expect data from providers will show that this remains the case today. Consistent with our analysis above, however, the tiered rate structure supports an unnecessarily inefficient market structure, and apparently provides insufficient incentive for VRS providers to achieve minimal efficient scale.²³⁹ Further, our findings in the *2010 TRS Rate Methodology Order* continue to hold true: "[t]o the extent that one provider commands a substantial share of the VRS market, we find that [the Administrator's] use of weighted averages is appropriate, and properly balances, on one side, the greater relative costs incurred by smaller providers with, on the other, not penalizing providers operating at lower costs for their greater efficiency. We therefore conclude that [the Administrator's] methodology, and use of actual cost information submitted by the providers and certified under penalty of perjury to be true and correct, [was] reasonable."²⁴⁰ We seek comment on this proposal to eliminate the current tier structure and utilize a single rate based on the weighted average of providers' actual costs.

142. We seek comment on what steps the Commission and the Administrator should take to implement these proposals, should the Commission choose to adopt them. For example, by when should

²³³ See *2011 TRS Rate Order*; see also Video Relay Service Reform, Paul de Sa, Chief, Office of Strategic Planning and Karen Peltz Strauss, Deputy Bureau Chief, Consumer and Government Affairs (May 5, 2011) available at <http://www.fcc.gov/blog/video-relay-service-reform>.

²³⁴ See NECA, *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Interstate Telecommunications Relay Services Fund Payment Formula and Fund Size Estimate (filed Apr. 30, 2010) (*2010 TRS Rate Filing*). Thus, for example, we would use data from the 2010-2011 Fund year to set rates for the 2011-2012 Fund year. We note that by NECA's calculation, the rates based on actual, historical costs for the 2010-2011 Fund year would have been \$3.8963 for Tier III. *2010 TRS Rate Methodology Order*, 25 FCC Rcd at 8692, para. 6.

²³⁵ See *2010 TRS Rate Methodology Order*, 25 FCC Rcd at 8696, para. 13.

²³⁶ See *id.* at 8695, para. 12.

²³⁷ See *2010 TRS Rate Filing* at 23-24.

²³⁸ See *2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20163, para. 52.

²³⁹ See *supra* section III.D.

²⁴⁰ See *2010 TRS Rate Methodology Order*, 25 FCC Rcd at 8695, para. 10.

the Administrator require VRS providers to file the requisite cost data? To what extent should the Administrator, or providers, obtain independent audits of the data to be submitted? Should the Commission accept late filed data, or simply calculate the rate based on data submitted by the deadline established by the Commission or the Administrator? What other steps must the Commission or the Administrator take to ensure that a per-minute rate based on providers' actual costs can be established in an expeditious fashion? Finally, we seek comment on whether there are other viable alternatives to adopting a per user or per minute rate methodology. We propose that ignoring the last ten years of experience with the TRS program, both good and bad, and the technological progress that has occurred over the same period, and simply continuing with the program as currently structured (perhaps with relatively minor tinkering around the margins) is simply not a viable option for the Commission in its duty to manage responsibly the contributions of millions of Americans to a program that disburses over half a billion dollars a year. We therefore discourage commenters from assuming a Panglossian stance with respect to a status quo that is increasingly failing to meet the needs and expectations of its stakeholders including, especially, actual and potential VRS users.

VII. LEGAL AUTHORITY

143. We seek comment on our legal authority to adopt each of the options and proposals discussed in this *Further Notice*. As noted above, section 225 of the Act requires the Commission “to make available to all individuals in the United States a rapid, efficient nationwide communication service, and to increase the utility of the telephone system of the Nation,” and directs that “the Commission shall ensure that interstate and intrastate telecommunications relay services are available, to the extent possible and in the most efficient manner, to hearing-impaired and speech-impaired individuals in the United States.”²⁴¹ Section 225 further requires that the Commission, among other things, “establish functional requirements, guidelines, and operations procedures for telecommunications relay services,”²⁴² “establish minimum standards that shall be met in carrying out [the provision of TRS],”²⁴³ and “require that users of telecommunications relay services pay rates no greater than the rates paid for functionally equivalent voice communication services.”²⁴⁴ Does section 225, standing alone, provide sufficient authority for the options and proposals contemplated in this *Further Notice*? Do the Commission’s grants of authority in the Act, including those in sections 1, 2, 4(i), 255, and 303(r), and section 706 of the Telecommunications Act of 1996,²⁴⁵ provide additional authority?²⁴⁶ Does section 254 of the Act, which sets forth the goal that “consumers in all regions of the nation, including low-income consumers, . . . should have access to telecommunications and information services,” provide additional legal authority for proposals in this item targeted towards low-income consumers?²⁴⁷

144. We seek additional comment on our authority to establish the TRSBPP. Specifically, we seek comment on our authority to collect contributions to the TRS Fund to support broadband Internet access for low income VRS users and to disburse the relevant support.²⁴⁸ Section 225 of the Act provides

²⁴¹ *Id.* § 225(b)(1).

²⁴² *Id.* § 225(d)(1)(A).

²⁴³ *Id.* § 225(d)(1)(B).

²⁴⁴ *Id.* § 225(d)(1)(D).

²⁴⁵ *Id.* § 1302(b). Section 706 was originally codified as a note to section 157 of the Communications Act of 1934, as amended, but was later transferred to its current statutory section.

²⁴⁶ *See id.* §§ 154(i), 154(k), 218, and 403.

²⁴⁷ *See* 47 U.S.C. § 254(b)(1),(3).

²⁴⁸ *See supra* section IV.A.1.

that the Commission “shall ensure that interstate and intrastate telecommunications relay services are *available*, to the extent possible and in the most efficient manner, to hearing-impaired and speech-impaired individuals in the United States.”²⁴⁹ We seek comment on whether VRS is not “available” to a potential user who is unable to afford broadband Internet access. Does section 225(b)(1), standing alone, provide authority for the Commission to assess contributions and disburse support for broadband Internet access?

145. Section 225 does not explicitly describe how the Commission must ensure that TRS is available. The subsection that most nearly describes how TRS providers should be compensated is section 225(d)(3), which addresses recovery of costs in the context of jurisdictional separations. Section 225(d)(3)(A) requires the Commission to “prescribe regulations governing the jurisdictional separation of costs for the services provided pursuant to this section,” which we construe to mean that the Commission should specify how providers distinguish between interstate and intrastate costs.²⁵⁰ Subsection (B) further provides that the Commission’s regulations “shall generally provide that costs caused by interstate telecommunications relay services shall be recovered from all subscribers for every interstate service.”²⁵¹ The statute does not address how those costs are to be recovered from subscribers, nor how payments are to be disbursed to providers. In the absence of such guidance, the Commission chose to establish a shared funding mechanism – the TRS Fund – over other possible funding mechanisms.²⁵²

146. Does section 225(d)(3)(B) limit the Commission’s ability to disburse support only for “costs caused by interstate telecommunications relay services,” or does the Commission have authority to disburse additional funds to the extent necessary to ensure that the mandate of section 225(b)(1) – to make TRS “available” – is met? Would section 225(d)(3)(B) authorize the Commission to require contributions to the TRS Fund to support broadband Internet access if we find that broadband Internet access is necessary to meet our section 225(b)(1) mandate? Are there other considerations?

147. Does section 706(b) of the Telecommunications Act of 1996 provide additional support for the TRSBPP?²⁵³ The Commission found in the Seventh Broadband Progress Report that broadband is not “being deployed to all Americans in a reasonable and timely fashion.”²⁵⁴ Section 706(b) directs the Commission, in light of that determination, to “take immediate action to accelerate the deployment” of broadband.²⁵⁵ Does this directive provide the Commission with additional authorization to utilize the TRS Fund to promote broadband availability in conjunction with the goal of promoting the availability of TRS?²⁵⁶

148. We note another, more recent legislative development on this issue. Congress in the CVAA authorized the Commission to provide up to \$10 million support annually from the Fund for

²⁴⁹ 47 U.S.C. § 225(b)(1) (emphasis added).

²⁵⁰ *Id.* § 225(d)(3)(A).

²⁵¹ *Id.* § 225(d)(3)(B).

²⁵² See *TRS II*, 8 FCC Rcd 1802; *Telecommunications Relay Services, and the Americans with Disabilities Act of 1990*, CC Docket No. 90-571, 8 FCC Rcd 5300 (1993) (*TRS III*); see also *supra* para. 4.

²⁵³ See 47 U.S.C. § 1302(b).

²⁵⁴ See *Seventh Broadband Progress Report*, 26 FCC Rcd at 8035, para. 52.

²⁵⁵ See 47 U.S.C. § 1302(b).

²⁵⁶ See *Seventh Broadband Progress Report at paras. 18-20*; see also *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Americans With Disabilities Act of 1990*, Second Report and Order, Order on Reconsideration, and Notice of Proposed Rulemaking, 18 FCC Rcd 12379, 12383-84, para. 4 (2003) (noting that VRS, for example, “fosters greater access to and use of broadband.”).

programs for “the distribution of specialized customer premises equipment designed to make telecommunications service, Internet access service, and advanced communications, including interexchange services and advanced telecommunications and information services, accessible by low-income individuals who are deaf-blind.”²⁵⁷ Does this explicit authorization to utilize the TRS Fund to pay for equipment used to make non-TRS services available to Americans with disabilities limit the Commission’s authority to utilize the TRS Fund to effectuate the availability mandate in section 225(b)(1) or other mandates in the Act?

149. The CVAA also directs the Chairman to create an Emergency Access Advisory Committee “[f]or the purpose of achieving equal access to emergency services by individuals with disabilities.”²⁵⁸ The Committee is charged, among other things, with making recommendations about “what actions are necessary as a part of the migration to a national Internet protocol-enabled network . . . that will ensure access to emergency services by individuals with disabilities,”²⁵⁹ and “for the possible phase out of the use of current-generation TTY technology to the extent that this technology is replaced with more effective and efficiency technologies and methods to enable access to emergency services by individuals with disabilities.”²⁶⁰ The Commission has authority to implement the recommendations of the Committee, and to promulgate “any other regulations . . . as are necessary to achieve reliable, interoperable communication that ensures access by individuals with disabilities to an Internet protocol-enabled emergency network, where achievable and technically feasible.”²⁶¹ Ensuring that individuals with hearing and speech disabilities who use ASL have access to VRS would, by definition, ensure that those people would have access to an “Internet protocol-enabled emergency network,” as (i) VRS providers must afford their users access to 911 service and (ii) VRS requires that the user obtain a high speed internet connection to access the service.²⁶² Ensuring access to VRS also would facilitate the phase out of TTY technology to the extent that the cost of broadband Internet access is preventing current TTY users from transitioning to VRS or other forms of Internet-based TRS. We seek comment on whether these provisions provide the Commission with authority, to the extent recommendations of the Committee are consistent, to create the TRSBPP. We seek comment also on any other sources of authority that would enable the Commission to require contributions to the TRS Fund and disburse funds from the TRS Fund for the purpose of supporting broadband Internet access for low-income individuals who are deaf, hard of hearing, have a speech disability, or are deaf-blind and use ASL as their primary form of communication.

150. We also seek comment on our authority to collect contributions to the TRS Fund to provide reimbursements for relay hardware and software used by the consumer, including installation, maintenance costs, and testing.²⁶³ Does the “availability” mandate in section 225(b)(1) discussed in the preceding paragraphs provide authority for such reimbursements?²⁶⁴ Does section 706(b) of the Act or the CVAA provide additional authority?²⁶⁵

²⁵⁷ CVAA § 105; 47 U.S.C. § 719.

²⁵⁸ 47 U.S.C. § 615c.

²⁵⁹ *Id.* § 615c(c)(1).

²⁶⁰ *Id.* § 615c(c)(6).

²⁶¹ *Id.* § 615c(g).

²⁶² 47 C.F.R. § 64.605 (emergency calling requirements for Internet-based TRS providers).

²⁶³ *See supra* section IV.B.4.

²⁶⁴ *See* 47 U.S.C. § 225(b)(1).

²⁶⁵ *See id.* § 1302(b); CVAA.

VIII. OTHER ISSUES

151. We seek comment on other issues related to the issues addressed in this *Further Notice*.

A. Data Security and Privacy

152. We note that the privacy-based limitations on the government's access to customer information in Title II of Electronic Communications Privacy Act (ECPA), section 222 of the Communications Act, and our implementing rules and the privacy provisions of the Cable Act, may be implicated by the collection of the data discussed in this *Further Notice*.²⁶⁶ We seek comment on whether any of these pre-existing regulatory or statutory requirements create any concerns with respect to our ability to adopt the proposals discussed in this *Further Notice*, including the storage by a database administrator of customer data discussed in Appendix D. We seek comment on how best to address these concerns. Would it be appropriate or necessary to require VRS users to consent to certain disclosures as a condition of receiving service in order to ensure that the VRS program is operated efficiently and the Commission and the Fund Administrator can fulfill their auditing and management functions effectively? What would be the appropriate extent of such a consent requirement, and what other regulatory privacy protections, if any, would be necessary if such a requirement were adopted?

B. Request for Data

153. We request that providers and other interested parties provide such data as is necessary to support their comments in response to this *Further Notice*. We note that we may find factual information supported by affidavit or certification to be more persuasive than information that is not so supported. In that regard, we further note that any submissions containing knowing or willful misrepresentations, whether or not supported by affidavit or certification, are punishable by fine or imprisonment.²⁶⁷

C. Support Of Certification Applications And Annual Reports By Certification Under Penalty Of Perjury

154. In the *2011 VRS Certification Order*, we adopted interim rules requiring that providers certify, under penalty of perjury, that their certification applications and annual compliance filings required under section 64.606(g) of the Commission's rules are truthful, accurate, and complete.²⁶⁸ We found good cause to adopt these interim rules to ensure that providers seeking certification and providers holding certifications may be held accountable for their submissions as they seek to secure or retain certification under the rules adopted in the *2011 VRS Certification Order*.²⁶⁹ We concluded that interim rules requiring certification by a Chief Executive Officer, Chief Financial Officer, or other senior executive of an iTRS provider, under penalty of perjury, to the truthfulness, accuracy, and completeness of certification applications and annual compliance filings were a necessary and critical component of our efforts to curtail fraud and abuse. In particular, we found that these interim rules would help to ensure that the Commission has true and complete information, thereby ensuring that only qualified providers are eligible for compensation from the Fund.²⁷⁰

155. Specifically, we adopted the following interim rules:

²⁶⁶ See, e.g., Electronic Communications Act (ECPA), tit. II (Stored Communications Act (SCA)), 18 U.S.C. §§ 2701-12 (2006); 47 U.S.C. § 551 (2006); 47 U.S.C. § 222.

²⁶⁷ See 18 U.S.C. § 1001(a).

²⁶⁸ *2011 VRS Certification Order* at paras. 62-67.

²⁶⁹ *Id.* at para. 62.

²⁷⁰ *Id.* at para. 64 (citing *VRS Call Practices R&O*, 26 FCC Rcd at 5586, para. 90).

The chief executive officer (CEO), chief financial officer (CFO), or other senior executive of an applicant for Internet-based TRS certification under this section with first hand knowledge of the accuracy and completeness of the information provided, when submitting an application for certification under paragraph (a)(2) of this section, must certify as follows: I swear under penalty of perjury that I am __ (name and title), _an officer of the above-named applicant, and that I have examined the foregoing submissions, and that all information required under the Commission's rules and orders has been provided and all statements of fact, as well as all documentation contained in this submission, are true, accurate, and complete.²⁷¹

The chief executive officer (CEO), chief financial officer (CFO), or other senior executive of an Internet-based TRS provider under this section with first hand knowledge of the accuracy and completeness of the information provided, when submitting an annual report under paragraph (g) of this section, must, with each such submission, certify as follows: I swear under penalty of perjury that I am __ (name and title), _an officer of the above-named reporting entity, and that I have examined the foregoing submissions, and that all information required under the Commission's rules and orders has been provided and all statements of fact, as well as all documentation contained in this submission, are true, accurate, and complete.²⁷²

We tentatively conclude that we should adopt these rules permanently, and seek comment on this tentative conclusion. We also seek comment on whether there are any additional elements that should be covered by these proposed certifications, and, in general, whether there are any additional safeguards that we should adopt as rules to ensure the veracity and completeness of provider submissions, and to help ensure that providers comply with the Commission's TRS rules and policies.

IX. PROCEDURAL MATTERS

156. *Comments and Reply Comments.* Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325,

²⁷¹ See *VRS Call Practices Second Report and Order* at App. C (adding new interim 47 C.F.R. § 64.606(a)(2)(v)).

²⁷² See *id.* (adding new interim 47 C.F.R. § 64.606(g)(2)).

Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

157. **People with Disabilities:** To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

158. *Ex Parte Rules.* The proceeding this *Further Notice* initiates shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.²⁷³ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules.

159. *Initial Regulatory Flexibility Analysis.* With respect to this *Further Notice*, an Initial Regulatory Flexibility Certification (IRFA) is contained in Appendix F. As required by Section 603 of the Regulatory Flexibility Act, the Commission has prepared an IRFA of the expected impact on small entities of the proposals contained in the *Further Notice*. Written public comments are requested on the IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Further Notice*. The Commission will send a copy of the *Further Notice*, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.²⁷⁴

160. *Initial Paperwork Reduction Act of 1995.* This *Further Notice* seeks comment on potential new or revised information collection requirements or may result in new or revised information collection requirements. If the Commission adopts any new or revised information collection requirement, the Commission will publish a separate notice in the Federal Register inviting the public to

²⁷³ 47 C.F.R. §§ 1.1200 *et seq.*

²⁷⁴ See 5 U.S.C. § 603(a). In addition, the *Further Notice* and IRFC (or summaries thereof) will be published in the *Federal Register*.

comment on the requirement, as mandated by the Paperwork Reduction Act of 1995. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, the Commission will seek specific comment from the public on how it might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

X. ORDERING CLAUSES

161. Accordingly, IT IS ORDERED that, pursuant to sections 1, 2, 4(i), 4(j), 225, 251, 254 and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 154(j), 225, 251, 254, 303(r), this *Further Notice of Proposed Rulemaking* IS ADOPTED.

162. IT IS FURTHER ORDERED that the Commission’s Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Further Notice of Proposed Rulemaking*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

TRS Broadband Pilot Program (TRSBPP)

I. INTRODUCTION

1. This Appendix A sets forth one proposal to implement a TRS Broadband Pilot Program (TRSBPP). We seek comment on this proposal, and on each of the specific proposals for implementation set forth herein. We wish to emphasize that each of the specific proposals set forth in this Appendix A are just that – proposals. In making specific proposals, we do not signal that a decision has been reached, but instead intend to provide a “stake in the ground” to ensure that a detailed and comprehensive record is developed in response to this *Further Notice*.

2. As discussed in greater detail below, we propose to build on the work the Commission has done and continues to do in developing the universal service Lifeline and Link Up programs in order to take full advantage of the lessons learned in developing and operating those programs.¹ The Commission currently is seeking comment on proposals to reform and modernize the Lifeline and Link Up programs,² and we propose to ensure that any rules adopted to implement a TRSBPP, to the extent they are dependent on proposals or regulations in the Lifeline and Link Up proceeding, be made consistent as necessary with any rules the Commission adopts to improve the administration of the Lifeline and Link Up programs.

II. SERVICES TO BE SUPPORTED

3. We seek comment on the nature of the Internet access services that should be supported by a TRSBPP. We note that providers generally assert that users must have an Internet connection with minimum upload and download speeds of 256 kilobits per second (kbps) in order for VRS to work properly.³ We seek comment on whether the TRSBPP should support only those services which are advertised as being capable of sustaining 256 kbps or better bi-directionally. We seek comment on whether there are other connection characteristics, such as latency or jitter, that should be required of supported services. We further seek comment on the suitability of satellite broadband service for VRS use. We note that the Commission sought comment in the *USF-ICC Transformation NPRM* on using “actual” connection speeds rather than the “advertised” or “up to” speed, which may be different from the actual speed an end-user experiences, and on how to measure actual speeds.⁴ We seek comment on whether any actual speed definition adopted in that context should be utilized to assess the suitability of connections for which TRSBPP support is contemplated.

¹ See 47 C.F.R. §§ 54.400-418.

² See *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd 2770.

³ See, e.g., Sorenson, Frequently Asked Questions, <http://www.sorensonvrs.com/faq#general> (last visited Sept. 9, 2011) (“In order for a Sorenson videophone to work properly, you must have a high-speed internet or broadband connection. Only high-speed internet provides the capacity to quickly send and receive high-quality video between videophone callers using sign language. If the internet speed is below 256k, the overall picture quality will be poor.”); Purple, HOVRS FAQ, <http://www.hovrs.com/cc/faq.aspx#70> (last visited Sept. 9, 2011) (“It is recommended that your upload speed and download speed be a minimum of 256 Kbps.”).

⁴ See *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Inter-carrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554, 4594-98, paras. 113-118 (2011) (*USF-ICC Transformation NPRM*).

4. We also seek comment on whether the TRSBPP should support fixed services, mobile services, or both. Fixed connections – whether wireline or wireless – that are advertised as capable of delivering 256 kbps generally deliver such speeds to their customers,⁵ and can be shared by all members of a residential unit. Mobility is a desirable feature for consumers,⁶ and mobile data services increasingly are advertised as being capable of delivering 256 kbps or better upstream performance.⁷ However, the actual performance speed for mobile wireless services can be affected by the signal strength at the location of the end user and the amount of network traffic, which in turn can be affected by many factors that vary moment to moment, including proximity of the end user to the cell site, terrain, and obstructions.⁸ Further, as we have learned in the context of the Lifeline program, the decision to support multiple services that can compete for a subscriber can add a layer of complexity to program administration, and the decision to support such competitive services can increase the likelihood of duplicative support.⁹ How should we balance these considerations? Would the VRSURD help address these concerns?

5. Fixed broadband Internet access services are often available as part of a larger service bundle,¹⁰ but also generally are available as a standalone offering at a fixed monthly price, as are a limited number of mobile, prepaid, data only wireless plans.¹¹ Mobile data plans for smartphones, however, generally must be purchased as part of a bundle with a voice plan offered by a mobile service provider.¹² Providing support for bundled service offerings could result in TRSBPP funds being spent on services other than broadband (*i.e.*, the services with which the broadband is bundled). We therefore seek comment on whether the TRSBPP should support only standalone service offerings or whether the broadband portion of bundles should be supported. If bundled broadband is to be supported, how should the cost of the bundle be allocated among services in the bundle? To the extent that data usage caps are becoming more common, does this affect the suitability of broadband services for VRS use?

III. AMOUNT OF DISCOUNT

6. As discussed in greater detail below, we propose that broadband providers will provide discounts to eligible households or residences and receive reimbursement from the TRS Fund for the provision of such discounts. At the same time, Project Endeavor, a program established by Communication Service for the Deaf, Inc. and funded through the National Telecommunications and

⁵ See FCC, Office of Engineering and Technology and Consumer and Governmental Affairs Bureau, Measuring Broadband America, 19, 21 (rel. Aug. 2, 2011) (Measuring Broadband in America), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-308828A1.pdf.

⁶ See, e.g., May 11, 2010 Comment of Jedediah Patton, CG Docket 03-123 (“I want the mobile device!”); Aug. 18, 2010 Comment of Chris Littlewood, CG Docket No. 10-51 (“Wireless VRS is essential for functional equivalency. Hearing people can make wireless calls on cell phones. In a very mobile society, this is very important to the deaf/hoh for travel, work, and communicating with families and friends just as hearing people do.”).

⁷ *Fifteenth Mobile Wireless Competition Report* at paras. 108-123.

⁸ *Seventh Broadband Progress Report*, 26 FCC Rcd at 8083-84, appendix E at para. 17..

⁹ See *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2806, para. 110; see also *Further Notice* paras.20-22, discussing limiting eligibility to a single connection per residence or household.

¹⁰ Most users (70 percent) receive broadband bundled with other services. Horrigan, *Broadband Adoption and Use in America* 3.

¹¹ *Fifteenth Mobile Wireless Competition Report* at para. 102 (describing prepaid “all-you-can-eat” wireless data plans for laptops).

¹² *Fifteenth Mobile Wireless Competition Report* at paras. 81-102.

Information Administration's Broadband Technology Opportunities Program,¹³ has experienced difficulty in obtaining subscribers, even when offering significant discounts on service and equipment.¹⁴ We propose to establish the discount amount for the TRSBPP at a level that will make broadband Internet access service capable of supporting VRS at no cost, or very low cost, to consumers. Below, we seek comment on how to set the amount of the discount that should be provided to qualifying households or residences.

7. One approach would be to provide each qualifying household or residence a discount equal to the lowest cost, generally available service offering from a provider that meets the performance standards discussed in Appendix A, section II above.¹⁵ Given that most fiber, DSL, and cable connections are capable of providing 256kbps upstream,¹⁶ we expect that the "basic" standalone offering of most providers would qualify. In those areas where terrestrial broadband is not available, satellite offerings are available at \$79.95 and \$89.99.¹⁷

8. An alternative approach would be to provide a flat discount to broadband providers – an approach that would simplify the administration of the program, but likely result in the payment of discounts that are greater or less than the cost of the service provided. Would such an approach be "efficient" as required under the statute, or would it raise the potential of waste and abuse? How would such a discount be calculated? Though the Commission does not have reliable price data on basic

¹³ The National Telecommunications and Information Administration (NTIA) administers the Broadband Technologies Opportunities Program (BTOP) pursuant to the American Recovery and Reinvestment Act (Recovery Act). American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115, 128 (2009). The BTOP program has allocated more than \$4 billion in the form of grants for initiatives to promote broadband adoption and spur deployment in unserved and underserved areas. NTIA, THE BROADBAND TECHNOLOGY OPPORTUNITIES PROGRAM, EXPANDING BROADBAND ACCESS AND ADOPTION IN COMMUNITIES ACROSS AMERICA: OVERVIEW OF GRANT AWARDS 2 (2010) (NTIA, OVERVIEW OF GRANT AWARDS), *available at* http://www.ntia.doc.gov/reports/2010/NTIA_Report_on_BTOP_12142010.pdf. Project Endeavor is designed to "expand broadband adoption among people who are deaf and hard of hearing and provide them with online tools to more fully participate in the digital economy" by, among other things, offering discounted computers and discounted broadband services to individuals meeting the qualifications. http://www2.ntia.doc.gov/files/grantees/communicationservicesforthedeaf_sba_infrastructure_part1.pdf.

¹⁴ See CSDVRS, Quarterly Performance Progress Report for Sustainable Adoption, May 18, 2011, para. 2.a *available at* http://www2.ntia.doc.gov/files/grantees/q1-2011_sba_46-41-b10548commsservice.pdf ("The final end user cost for the broadband and equipment service options outline in the grant were more expensive than our consumers base could afford."); Project Endeavor, Equipment List, *available at* www.projectendeavor.com/Portals/0/pdf/BTOPEquipList_e.pdf (describing equipment and service discounts).

¹⁵ See also *Further Notice paras.* 20-21 for a discussion of limiting eligibility to one per household or residential address.

¹⁶ See, e.g., FCC, Office of Engineering and Technology and Consumer and Governmental Affairs Bureau, Measuring Broadband America, 19, 21 (rel. Aug. 2, 2011) (Measuring Broadband in America), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-308828A1.pdf; see also OBI, THE BROADBAND AVAILABILITY GAP 94-95, 99-100, 104-106 (OBI Technical Paper No. 1, 2010) (2010 BROADBAND AVAILABILITY GAP), *attached to Connect America Fund NOI*, 25 FCC Rcd at 6721, App. C, *available at* <http://download.broadband.gov/plan/the-broadband-availability-gap-obi-technical-paper-no-1.pdf>.

¹⁷ Wildblue, Availability and Offers, <http://www.wildblue.com/getWildblue/doServiceAvailabilitySearchAction.do> (last visited Sept. 9, 2011); HugesNet, Plans and Pricing, <http://consumer.hughesnet.com/plans.cfm> (last visited Sept. 9, 2011). We note that the services offered by WildBlue and HughesNet are subject to usage caps which may render them unsuitable for individuals with high call volumes. HughesNet, Fair Access Policy, <http://web.hughesnet.com/sites/legal/Pages/FairAccessPolicy.aspx> (last visited Sept. 9, 2011); Wildblue, Fair Access Policy Information, <http://www.wildblue.com/fap/> (last visited Sept. 9, 2011).

broadband Internet access service, OECD data indicates that the median monthly subscription price for connections below 2.5 Mbps advertised download speed is \$27.21,¹⁸ while the median monthly subscription price for connections between 2.5 and 15 Mbps advertised download speed is \$36.25.¹⁹ In 2010, Ookla placed the average monthly cost of broadband Internet access service in the United States at \$47.32.²⁰ Would it be appropriate to set the TRSBPP discount at one of these levels, or some other level? Could the annual survey of urban broadband rates authorized in the Commission's recent *Connect America Fund Order* or the rate information contemplated by the Commission in the *FCC Form 477 Modernization NPRM* be used to help set the discount?²¹ Even if the subsidy amount turns out to be, in aggregate, lower than the actual cost of broadband Internet access, would it be reasonable to expect end users and/or providers to make up the difference?

9. We seek comment on these approaches to determining the amount of the discount should be offered and to whom. Which of these approaches best balances the goals of the program? Are there other approaches that would better fulfill the goals of the statute and the program?

10. *Minimum consumer charges.* We note that the Federal-State Joint Board on Universal Service recommended that, to guard against waste, fraud, and abuse in the Lifeline program, the Commission consider whether a minimum monthly rate should be paid by all Lifeline subscribers, including eligible Tribal subscribers.²² We seek comment on whether or not requiring a minimum monthly rate under the TRSBPP is appropriate. Are there other steps the Commission could take to address concerns associated with consumers having a "stake in the game?"

IV. ELIGIBILITY

11. We seek comment on what criteria should be established for eligibility for TRSBPP support. Below we seek particular comment on three potential criteria: (a) low income, (b) qualifying disability, and (c) fluency in American Sign Language. We seek comment on whether additional criteria should be established for program eligibility. We also seek comment on how we should operationalize those criteria.

12. *Income Eligibility.* We seek comment on what individuals seeking TRSBPP support should be required to submit to demonstrate "low income" eligibility for the program. One possibility would be to adopt the existing federal Lifeline program eligibility criteria. As discussed in the *Lifeline*

¹⁸ Organisation for Economic Co-operation and Development (OECD), Average Monthly Subscription Price For Connections Below 2.5 Mbps (Sept. 2010), With/Without Line Charge, *available at* <http://www.oecd.org/dataoecd/22/45/39575011.xls>.

¹⁹ OECD, Average Monthly Subscription Price For Connections Between 2.5 And 15 Mbps (Sept. 2010), With/Without Line Charge, *available at* <http://www.oecd.org/dataoecd/22/46/39575020.xls>.

²⁰ Telecompetitor, Ookla: Average U.S. Monthly Broadband Cost - \$47.32, <http://www.telecompetitor.com/ookla-average-u-s-monthly-broadband-cost-47-32/> (last visited Sept. 9, 2011).

²¹ See *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161, para. 114 (rel. Nov. 18, 2011); *Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 11-10, 07-38, 08-190, 10-132, Notice of Proposed Rulemaking, 26 FCC Rcd 1508, 1533-36, paras. 66-76 (2011).

²² *Federal-State Joint Board on Universal Service, Lifeline and Link Up*, CC Docket No. 96-45, WC Docket No. 03-109, Recommended Decision, 25 FCC Rcd 15598, 15626-27, para. 79 (Jt. Bd. 2010) (*2010 Recommended Decision*); *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2798, paras. 85-92.

and *Link Up Reform and Modernization NPRM*, Lifeline discounts are available to eligible consumers in households that qualify as “low-income,” but there is no uniform national definition of households for all programs. The Commission’s Lifeline eligibility criteria state that eligible consumers qualify for Lifeline assistance if they are at or below 135 percent of the Federal Poverty Guidelines, or participate in various income-based public-assistance programs, such as Medicaid, Food Stamps, and Federal Public Housing Assistance.²³ Should the Commission adopt these Lifeline eligibility criteria as the income eligibility criteria for the TRSBPP? To the extent the Commission modifies its Lifeline criteria, should the TRSBPP criteria be modified as well?

13. States with their own Lifeline programs determine qualifications for Lifeline. States must base Lifeline eligibility criteria solely on income or factors directly related to income, but within that general rule states take varying approaches.²⁴ For instance, of the twenty-two states that allow participation in the Lifeline program based on income alone, some have established an income threshold that is higher than the Commission’s, which enables more low-income consumers to enroll, while others have established a lower threshold.²⁵ Should the Commission require that consumers meet state Lifeline income eligibility criteria in order to qualify for TRSBPP support, or should federal eligibility requirements serve as a “floor” upon which states can build?²⁶

14. What other income eligibility criteria might be appropriate? For example, the Commission adopted a rule to allow individuals enrolled in federal subsidy programs with income thresholds lower than 400 percent of the FPG threshold to automatically be deemed income eligible for the Commission’s National Deaf-Blind Equipment Distribution Program (NDBEDP), a program that was set up by Congress in the CVAA to distribute end user communications equipment to low income Americans who are deaf-blind.²⁷ We also note that Project Endeavor established income eligibility criteria that are similar, but not identical, to the Commission’s Lifeline criteria.²⁸ Should the Commission require that any or all of these additional qualifying criteria, such as participation in the Women, Infants and Children program (WIC), or status as a Transition Plan Student or an active Vocational Rehabilitation Client, be met for a residence to receive TRSBPP support?

15. *Eligibility based on disability.* We seek comment on how to ensure that TRSBPP support is directed to those who are “deaf, hard of hearing, deaf-blind, or who [have] a speech disability.”²⁹

²³ 47 C.F.R. § 54.409(b). If a consumer’s eligibility is based on income, the consumer must provide acceptable documentation of income eligibility including, among other things, the prior year’s state, federal, or tribal tax return and a current income statement from an employer. 47 C.F.R. §§ 54.410(a)(2), 54.416.

²⁴ See 47 C.F.R. §§ 54.409 (consumer qualification for Lifeline), 54.410 (certification and verification of consumer qualification for Lifeline), 54.415 (consumer qualification for Link Up), 54.416 (certification of consumer qualification for Link Up). States must base eligibility criteria solely on income or factors directly related to income. *Id.* §§ 54.409(a), 54.415(a).

²⁵ U.S. GOVERNMENT ACCOUNTABILITY OFFICE, REPORT TO CONGRESSIONAL REQUESTERS, GAO 11-11, TELECOMMUNICATIONS: IMPROVED MANAGEMENT CAN ENHANCE FCC DECISION MAKING FOR THE UNIVERSAL SERVICE FUND LOW-INCOME PROGRAM 50 (2010) (2010 GAO REPORT).

²⁶ 2010 *Recommended Decision*, 25 FCC Rcd at 15607, 15608, paras. 26, 28.

²⁷ CVAA § 105; 47 U.S.C. § 719; *CVAA Implementation Order*, 26 FCC Rcd at 5656-57, 5657-58, paras. 37, 40.

²⁸ Project Endeavor, Eligibility Requirements 4-2-11 (dated Apr. 2, 2011), available at http://www.projectendeavor.com/Portals/0/pdf/BTOP_EligibilityRequirements4-14a.pdf.

²⁹ 47 U.S.C. § 225(a)(3).

Neither the statute nor the Commission's rules define these terms.³⁰ It does not appear that VRS providers generally define these terms either, though many require that users certify that they have a qualifying disability as part of their terms of service.³¹

16. Should direct evidence of hearing or vision loss be required? Project Endeavor requires that an applicant submit a form signed by a professional to certify that he or she is “deaf or hard of hearing and has a bilateral hearing loss of 40db or greater.”³² To qualify for funding support under the NDBEDP, individuals must provide verification from any “practicing professional that has direct knowledge of the individual's disability” or provide documentation from a public or private agency, such as a Social Security determination letter, that serves as verification of the person's disability.³³ The International Committee of Sport for the Deaf requires that “deaf and hard of hearing athletes” seeking to participate submit an audiogram from a qualified audiologist demonstrating “a hearing loss of at least 55dB per tone average (PTA) in the better ear (three-tone pure tone average at 500, 1000 and 2000 Hertz, air conduction, ISO 1969 Standard).”³⁴ Would any of these criteria be necessary and sufficient to demonstrate eligibility for TRSBPP support? How would individuals with a speech disability demonstrate eligibility?

17. Should indirect evidence of disability be sufficient? For example, would it be appropriate to deem an individual eligible for TRSBPP support if he or she provides evidence of enrollment in a Division of Vocational Rehabilitation (DVR) program on the basis of a speech or hearing disability?³⁵ Should enrollment in the Supplemental Security Income program or the Social Security Disability

³⁰ The CVAA does define “individuals who are deaf-blind,” but only for the purposes of the specialized customer premises equipment programs for which funding is authorized under section 719 of the Act. *See* 47 U.S.C. § 719(b) (“For purposes of this subsection, the term ‘individuals who are deaf-blind’ has the same meaning given such term in the Helen Keller National Center Act, as amended by the Rehabilitation Act Amendments of 1992 (29 U.S.C. 1905(2))”).

³¹ Sorenson, VP-200 Application, http://www.sorensonvrs.com/apply/apply_form?up=1985&down=3657 (last visited Sept. 9, 2011) (“by clicking “Submit” below, you certify that you have a medically recognized hearing or speech disability necessitating your use of TRS.”); Purple, Purple Relay Service Terms and Conditions & Acceptable Use Policies, <http://www.hovrs.com/common/tc.aspx> (last visited Sept. 9, 2011) (“In order to download the Software and access the Services you must certify that you are a Qualified Person (*i.e.*, Deaf, Hard of Hearing or speech disabled).”); CSDVRS, Z Product Agreement, <http://www.zvrs.com/company/the-z/legal-disclaimer/product-agreement> (last visited Sept. 9, 2011) (“Customer represents and warrants to CSDVRS that: (i) Customer is deaf or hard of hearing”).

³² Project Endeavor, Eligibility Requirements 4-2-11 (dated Apr. 2, 2011), *available at* http://www.projectendeavor.com/Portals/0/pdf/BTOP_EligibilityRequirements4-14a.pdf.

³³ 47 C.F.R. § 64.610(d). If providing verification from a professional, an applicant for communications equipment under the NDBEDP may use, among others, community-based service providers, vision or hearing related professionals, vocational rehabilitation counselors, educators, audiologists, speech pathologists, hearing instrument specialists, and medical or health professionals. 47 C.F.R. § 64.610(d)(1)(i). Such professionals must attest, either to the best of their knowledge or under penalty of perjury, that the applicant is an individual who is deaf-blind. 47 C.F.R. § 64.610(d)(1)(ii). The verification must include the attesting professional's name, title, and contact information. 47 C.F.R. § 64.610(d)(1)(iv).

³⁴ International Committee of Sport for the Deaf, Audiogram Regulations, Version 2.1 at 2 (Nov. 13, 1999), *available at* www.ciss.org/pdf/AudiogramRegulations.pdf.

³⁵ *See* Florida Department of Education, Division of Vocational Rehabilitation, Deaf, Hard of Hearing, <http://www.rehabworks.org/deaf.shtml> (last visited Sept. 9, 2011); Washington State Department of Social and Health Services, Division of Vocational Rehabilitation, Deaf and Hard of Hearing, <http://www.dshs.wa.gov/dvr/Individuals/DeafHOH.aspx> (last visited Sept. 9, 2011).

Insurance program on the basis of a hearing or speech disability be sufficient?³⁶ If so, how should such enrollment be demonstrated? What other criteria, if any, should the Commission establish for individuals to be considered to have a qualifying disability for the purposes of qualifying for TRSBPP support?

18. Should the Fund Administrator, the Commission, or some other entity be responsible for ensuring that persons receiving TRSBPP support actually qualify? For purposes of auditing or monitoring the program, how should the Commission or Administrator assess whether support actually went to qualified persons?

19. *Fluency in American Sign Language.* Under the Commission's rules, VRS is defined as a "telecommunications relay service that allows people with a hearing or speech disabilities *who use sign language* to communicate with voice telephone users through video equipment. . . ."³⁷ We therefore seek comment on whether those seeking to qualify for TRSBPP support should be required to demonstrate some level of fluency in ASL. If so, how should "fluency" be defined, and what standards should be established to determine whether an applicant is fluent? Who should be responsible for determining if an individual is fluent? Would it be administratively more feasible for individuals seeking to qualify for TRSBPP support to certify as to ASL fluency, subject to validation by the Commission, the Administrator, or a designee? If such an approach were to be adopted, would validating the fluency of a random sample of users be appropriate, or is 100% validation necessary?

20. *Eligibility limited to one per household or residential address.* We propose to limit support to a single connection per residence or household in order to facilitate the statutory goal of making TRS "available . . . to the extent possible and in the most efficient manner," while at the same time controlling the growth of the TRS Fund and preventing waste, fraud, and abuse.³⁸ A single connection at a residence or household should be sufficient to allow all eligible individuals in a residence or household to access VRS and other Internet-based TRS services, thus furthering the goals of the TRSBPP while preventing unnecessary expenditures for duplicative connections. We seek comment on this proposal.

21. We also seek comment on how to implement this proposal in the context of the TRSBPP. First, we propose to adopt the use and definition of "residential residence" or "household" ultimately adopted by the Commission in connection with the *Lifeline and Link Up Modernization NPRM*.³⁹ We seek comment on this proposal. We also seek comment on how best to interpret the one-per-household or residential address restriction in light of current service offerings and in the context of group living arrangements or other situations that may pose unique circumstances.⁴⁰ How should the Commission or

³⁶ United States Social Security Administration, Disability Programs, <http://www.ssa.gov/disability/> (last visited Sept. 9, 2011).

³⁷ See 47 C.F.R. 64.601(a)(26) (emphasis added).

³⁸ *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2805-10, paras. 106-125.

³⁹ *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2872-3, Appendix A (proposed 47 C.F.R. § 54.408); Public Notice, Further Inquiry Into Four Issues in the Universal Service Lifeline/Link Up Reform and Modernization Proceeding, DA 11-1346 (rel. Aug. 5, 2011) at 3-6.

⁴⁰ *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2805-6, para. 109. In an October 2009 Public Notice, the Bureau sought comment on how to apply the one-per-household rule to Lifeline support in the context of group living facilities, such as assisted-living centers, Tribal residences, and apartment buildings. See *Comment Sought on TracFone Request for Clarification of Universal Service Lifeline Program "One-Per-Household" Rule As Applied to Group Living Facilities*, WC Docket No. 03-109, Public Notice, 24 FCC Rcd 12788 (Wireline Comp. Bur. 2009) ("One-Per-Household" Public Notice); Letter from Mitchell F. Brecher, Counsel for TracFone, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 03-109 (filed July 17, 2009).

Administrator determine that TRSBPP support is being provided in a manner consistent with any definition of “household” or “residence” adopted? Should providers be able to rely on the representation of the person signing up for the support? Would the VRSURD constitute a sufficient safeguard?⁴¹

22. We seek comment on whether a consumer’s decision to obtain services supported by the TRSBPP, if adopted, should affect eligibility for the Lifeline or Link Up programs, or vice versa. Given that households and residences may consist of both individuals who are disabled and individuals who are not, we propose to allow households or residences that qualify for both TRSBPP support and Lifeline/Link Up support to take support under both programs, but not to purchase duplicative services utilizing both programs.⁴² So, for example, we propose to allow a single household or residence to obtain a broadband connection supported by the TRSBPP and traditional telephone service supported by Lifeline and Link Up. We do not propose to allow a single household or residence to obtain one broadband connection supported by the TRSBPP and a separate broadband connection supported by the Lifeline and Link Up programs. We seek comment on whether to allow a single household or residence to obtain one broadband connection supported by both the TRSBPP and the Lifeline and Link Up programs. Our intent is to ensure that households and residences most in need of support for access to the nation’s communications services are not forced to choose which members of their households will receive assistance.

V. CERTIFICATION AND VERIFICATION

23. Our obligation to minimize waste, fraud, and abuse in Commission programs necessitates that we require individuals who are eligible for TRSBPP support be required to certify as to their eligibility and periodically verify their continued eligibility.⁴³ Given the Commission’s experience in administering the Lifeline and Link Up programs, we below propose to adopt the Lifeline and Link Up certification and verification rules ultimately adopted in the *Lifeline and Link Up Modernization NPRM*, modified as necessary to reflect the differences between the Lifeline program and the proposed TRSBPP.

24. We note that certification and verification practices vary among the non-federal default states.⁴⁴ We propose, however, to use only the federal default rules as our foundation. Reliance on a single set of federal rules will make the program simpler to administer, reduce confusion among VRS

⁴¹ See section V.A, Appendix D.

⁴² To the extent that the TRSBPP qualification rules differ from those established for the Lifeline and Link Up programs, we expect that a household or residence would need to meet both sets of criteria independently. Depending on the rules that are adopted in this proceeding and in the *Lifeline and Link Up and Modernization NPRM* proceeding, qualification for the TRSBPP would not necessarily indicate that a household or residence is qualified for Lifeline or Link Up.

⁴³ “Certification” refers to the initial determination of eligibility for the program; “verification” refers to subsequent determinations of ongoing eligibility. See *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2822-24, paras. 158-66; see also *2010 Recommended Decision*, 25 FCC Rcd at 15606-15611, paras. 23-34.

⁴⁴ *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2823, para. 162. States that do not maintain their own low-income programs are known as federal default states. There currently are ten default states (eight states and two territories). The non-federal-default states do not follow all federal rules. *Id.* at para. 19. According to GAO, 16 states permit self-certification under penalty of perjury, 25 states require documentation of enrollment in a qualifying program, and 9 states have in place automatic enrollment of eligible consumers. *Id.*, citing 2010 GAO REPORT at 51. 4 states conduct random audits of Lifeline recipients, 20 states require periodic submission of supporting documents, 13 states require an annual self-certification, 13 states use an online verification system using databases of public assistance participants or income reports, and 17 states conduct verification by confirming the continued eligibility of a statistically valid sample of Lifeline recipients. *Id.*, citing 2010 GAO REPORT at 51.

providers and consumers, and is consistent with our treatment of VRS as a federal program.⁴⁵ We seek comment on this proposal.

25. *Initial Certification.* Section 54.409(d) of the Commission's rules permits consumers in federal default states to prove eligibility for Lifeline by either: (1) self-certifying that they are eligible for Lifeline support based on participation in certain federal programs; or (2) providing documentation showing that they meet the income threshold requirements set forth in our rules.⁴⁶

26. The Commission has proposed, however, to eliminate the option of self-certifying Lifeline eligibility and to require all consumers in all states to present documentation of program eligibility when enrolling.⁴⁷ The Commission continues to consider the record in the proceeding. Some commenters have opposed this requirement, while others have supported it.⁴⁸ We propose to adopt requirements that are consistent with our ultimate decision in the *Lifeline and Link Up Modernization NPRM* proceeding. Should we require that eligible consumers present documentation of program eligibility, we further propose that records of such certification be maintained in the form directed by the TRS Fund Administrator, after consultation with CGB, or by Commission rules.⁴⁹ We seek comment on these proposals.

27. *Verification.* Currently, in the federal default states, eligible telecommunications carriers (ETCs) must annually verify the continued Lifeline eligibility for a statistically valid random sample of their customers.⁵⁰ Specifically, those subscribers that are sampled must present or submit a copy of their Lifeline-qualifying public assistance card and self-certify under penalty of perjury that they continue to participate in that program. Subscribers qualifying based on income must present documentation of income, and self-certify the number of individuals in the household and that the documentation presented accurately represents their household income. ETCs are required to retain copies of the self-certifications (but not the underlying documentation of income).

⁴⁵ See, e.g., *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2820-21, 2823, paras. 154-55, 165.

⁴⁶ 47 C.F.R. § 54.409(d).

⁴⁷ *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2819, 2822-2831, paras. 150, 158-198.

⁴⁸ For comments in WC Docket Nos. 03-109, 11-42, and CC Docket No. 96-45 in support of a rule requiring consumers to provide documentation of program-based eligibility, see, e.g., CenturyLink Comments at 16-17; InComm Reply Comments at 4; NYS PSC Comments at 7; MI PSC Comments at 8; Ohio PUC Comments at 18; Leap Wireless Reply Comments at 13; DC PSC Comments at 5; Missouri PSC Comments at 13; Nebraska PSC Comments at 12; Letter from Commissioner Anne Boyle, Nebraska Public Service Commission, to Julius Genachowski, Chairman, Federal Communications Commission, WC Docket Nos. 03-109, 11-42, CC Docket No. 96-45 (dated July 13, 2011) (stating that self-certification exacerbates the potential for waste, fraud, and abuse in the Lifeline program). For comments in WC Docket Nos. 03-109, 11-42, and CC Docket No. 96-45 opposing this proposal, see, e.g., AARP Comments at 9 (stating that there is no basis to believe that large numbers of consumers will fraudulently assert eligibility for Lifeline, particularly if verification surveys are conducted on a yearly basis); COMPTEL Comments at 19-20; Consumer Groups Comments at 24-25; GCI Comments at 48; Keep USF Fair Coalition Comments at 2; Media Action Grassroots Network Comments at 20; NASUCA Reply Comments at 13-14; Nexus Reply Comments at 11; USTelecom Comments at 6; RainbowPUSH Comments at 1; OpenAccess, et. al Comments at 4; TracFone Comments at 28-29; Yourtel Comments at 12-13; State of Alaska Reply Comments at 3; see also Letter from Commissioner Deborah Taylor-Tate, Federal Communications Commission, to Julius Genachowski, Chairman, Federal Communications Commission, WC Docket Nos. 03-109, 11-42, CC Docket No. 96-45, at 2 (Aug. 1, 2011).

⁴⁹ See, e.g., 47 C.F.R. § 54.417.

⁵⁰ *Id.* § 54.410(c).

28. We seek comment on whether the sampling methodology utilized for the Lifeline program is appropriate for the TRSBPP. Given that the number of low income individuals who use ASL and are deaf, hard of hearing, deaf-blind, or have speech disabilities in the United States likely is a small percentage of the total number of low income individuals in the United States, we expect far fewer individuals to qualify for TRSBPP support than do for Lifeline and Link Up support. Would a more thorough verification process be appropriate? Should all TRSBPP support recipients be required to validate their eligibility annually, every other year, or some other period of time? Should verification requirements be limited to income eligibility, or should proof of eligibility across all qualifications be required? Should the entity responsible for verification be required to retain proof of verification? How long should they have to maintain such proof? Should the Administrator and Commission have access to such information upon request? Should the entity that verified the person as being eligible for support be responsible for repayment of support provided to ineligible recipients?

VI. ELIGIBILITY TO PROVIDE SUPPORTED SERVICES

29. The National Broadband Plan recommended that any broadband provider meeting criteria established by the Commission – whether wired or wireless, fixed or mobile, terrestrial or satellite – should be eligible to participate in Lifeline/Link Up.⁵¹ We seek comment on how to define “eligible broadband provider.” Specifically, we seek comment on whether all broadband providers meeting such criteria should likewise be able to provide services supported by the TRSBPP, and other criteria unique to the universal service programs – such as ETC designation – should also be required for TRSBPP participation.

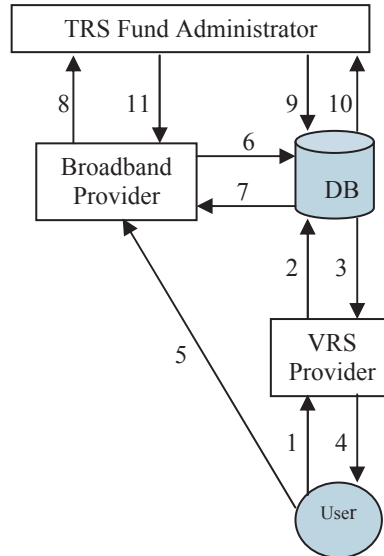
30. We note that all ETCs are required to offer Lifeline and Link Up services.⁵² We seek comment on whether there are steps the Commission could take to ensure that there are broadband providers available and willing to participate in the TRSBPP. Should all broadband providers, or whatever subset of broadband providers is eligible to provide services supported by the TRSBPP, be *required* to provide broadband services supported by the TRSBPP? Should these same entities be required to promote the availability of the program? If so, should the Commission establish minimum standards with respect to the type or amount of promotion required? How should the Commission measure or assess whether the entity is meeting such a requirement?

VII. ENROLLMENT PROCEDURES

31. *Enrollment.* Should we choose to adopt a per-user compensation system, VRS providers will have a strong incentive to facilitate TRSBPP enrollment for qualifying consumers, as they will be the primary financial beneficiaries of the addition of new VRS users and the increased assistance for existing low-income users. We therefore propose to place the primary responsibility for managing the TRSBPP enrollment and eligibility verification process on VRS providers by making a VRS user’s default provider responsible for a consumer’s enrollment, initial certification, and verification of eligibility for TRSBPP support. We propose that consumer enrollment in TRSBPP be conducted as illustrated and described in Figure 1.

⁵¹ NATIONAL BROADBAND PLAN at 173.

⁵² 47 C.F.R. § 54.405.



Enrollment

1. User certifies TRSBPP eligibility to VRS provider
2. VRS provider queries DB to determine if TRSBPP support already being provided at residence
3. A. If answer from DB to query in step 2 is “yes,” DB returns “not eligible” and process ends.
B. If answer from DB to query in step 2 is “no,” TRSBPP flag in BP set as “eligible” for user, unique user ID returned to VRS provider.
4. VRS provide returns unique eligible user ID to user
5. User applies to subscribe to supported service with broadband provider, provides unique eligible user ID as part of signup process
6. Broadband provider submits unique eligible user ID to DB to validate user eligibility
7. A. If answer from DB to query in step 6 is “not eligible,” process ends.
B. If answer from DB to query in step 6 is “eligible,” broadband provider subscribes user to supported service.

Reimbursement

8. Broadband provider submits to TRS Fund Administrator (a) list of unique eligible user IDs and (b) amount of discount for subsidized service.
9. TRS Fund Administrator submits unique eligible user IDs to DB for eligibility validation
10. DB returns “eligible” or “not eligible” for each unique eligible user ID submitted
11. TRS Fund Administrator reimburses broadband provider in the amount of: (amount of discount for subsidized service) * (total number of unique eligible user IDs identified as “eligible” in step 10)

Figure 1 – Enrollment and Reimbursement Flow

32. We seek comment on this proposed TRSBPP enrollment process. Are there additional or different steps that should be included? Should different information be provided in any of the steps identified? Should a consumer be able to challenge an ineligibility determination? If so, how and by whom should such challenges be addressed?

VIII. PROVIDER REIMBURSEMENT PROCEDURES

33. Under our Lifeline rules, ETCs provide discounts to eligible consumers and receive reimbursement directly from the USF Administrator under administrative procedures determined by the

Administrator.⁵³ We propose to adopt this approach for discounts provided under the TRSBPP program, and seek comment on this proposal. Specifically, we propose that TRSBPP support for providing TRSBPP supported broadband services shall be reimbursed directly to the eligible broadband provider providing the service, based on the number of qualifying households or residences it serves, under administrative procedures determined by the TRS Fund Administrator in consultation with the Commission.

34. We further propose that an eligible broadband provider may receive TRSBPP support reimbursement for each qualifying household or residence served. For each household or residence receiving TRSBPP supported service, the reimbursement amount shall equal the amount determined pursuant to the discussion in Appendix A, section III.

35. We propose that in order to receive TRSBPP support reimbursement, the eligible broadband provider must keep accurate records of the revenues it forgoes in providing TRSBPP supported services. Further, we propose that such records be kept in the form directed by the Administrator and provided to the Administrator at intervals as directed by the Administrator or as provided by the Commission.

36. The reimbursement process contemplated by the above proposals is illustrated and described in figure 1 above. We seek comment on this proposed TRSBPP reimbursement process. Are there additional or different steps that should be included? Should the different information be provided in any of the steps identified?

IX. DE-ENROLLMENT

37. Consistent with the *Lifeline and Link Up Modernization NPRM*, we propose to require that a consumer notify his or her default VRS provider and broadband provider within 30 days if the consumer has knowledge that he or she no longer qualifies for TRSBPP support.⁵⁴ A consumer would be required to notify the default provider and broadband provider upon knowledge that he or she no longer meets the income criteria, no longer participates in a qualifying program, is receiving duplicate support, no longer possesses a qualifying disability, or otherwise no longer qualifies for program support. We seek comment on this proposal.

38. We also propose to require that a default VRS provider or broadband provider that has knowledge that a consumer no longer qualifies for TRSBPP support – whether by notice from that consumer or any other means, including evidence of inactivity – take such actions as are necessary to ensure that TRSBPP support is no longer provided for that consumer. We seek comment on this proposal, and on what actions should be required of default VRS providers and broadband providers. For example, at what point should a default VRS provider be obligated to update a user’s TRSBPP eligibility status in the Unique User Database? Should broadband providers that determine that a user is not eligible for TRSBPP support be obligated to inform the VRS user’s VRS provider, the TRS Administrator, or some other party?

39. What type of notice should consumers be provided before de-enrollment occurs? Should a consumer subject to de-enrollment have an opportunity to challenge this determination prior to termination of the support? How and by whom should such challenges be addressed?

⁵³ See *id.* §54.407.

⁵⁴ See *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2825, para. 172.

X. ROLE OF TRS FUND ADMINISTRATOR

40. We seek comment on what steps we must take to ensure that the TRS Fund Administrator is empowered to effectively administer the TRSBPP program.

41. *Administrative Procedures.* As discussed in the foregoing sections, we propose to allow the TRS Fund Administrator to develop and implement administrative procedures for reimbursement and other aspects of the program. We propose that such administrative procedures be developed by the TRS Fund Administrator with the advice and consent of the Commission. We seek comment on this proposal.

42. *Reporting.* Section 64.604(c)(5)(iii)(C) of our rules requires TRS providers to “provide the administrator with true and adequate data necessary to determine TRS Fund revenue requirements and payments.” We have proposed to place the primary responsibility for managing the TRSBPP enrollment, certification, and eligibility verification processes on VRS providers. We also seek comment on whether VRS providers should be required to collect and maintain user enrollment, initial certification, and verification of eligibility for TRSBPP support documentation for submission upon request to the TRS Fund Administrator or the Commission. We also seek comment on what additional data, if any, the TRS Fund Administrator should be empowered to collect under the proposals in this *Further Notice*. For example, what information should broadband providers that receive disbursements from the TRS Fund be required to report to the Administrator or the Commission?

43. *Audits.* Section 64.604(c)(5)(iii)(C) of our rules states that the TRS Fund Administrator “and the Commission shall have the authority to examine, verify and audit data received from TRS providers as necessary to assure the accuracy and integrity of fund payments.” We seek comment on whether the TRS Fund Administrator or the Commission requires additional authority to conduct audits relating to the TRSBPP under the rules we propose in this *Further Notice*.

XI. POTENTIAL IMPACT OF TRSBPP ON MAKING VRS AVAILABLE TO MORE USERS

44. As discussed above, the purpose of the TRSBPP would be to provide discounted broadband Internet access to low-income deaf, hard of hearing, deaf-blind, and speech disabled Americans who use ASL as their primary form of communication.⁵⁵ Such a program would be consistent with the recommendations of the National Broadband Plan,⁵⁶ the Commission’s broader efforts to meet the 21st century communications needs of low-income consumers,⁵⁷ and the Act,⁵⁸ and will help to ensure that Fund resources are not spent on merely churning users between providers instead of expanding the availability of VRS to more users.⁵⁹

45. We are mindful, however, of the need to manage responsibly the contributions of millions of Americans to a program that disburses over half a billion dollars a year. We therefore seek comment on the costs and benefits of implementing a TRSBPP to make VRS available to more users. For example, as discussed in section III.A of this *Further Notice*, there is no definitive estimate of the number of Americans with hearing or speech disabilities who are fluent enough in ASL to use VRS, or how many of those individuals would benefit from VRS but cannot afford the necessary broadband Internet access

⁵⁵ See *supra* para. 30.

⁵⁶ See NATIONAL BROADBAND PLAN at 172.

⁵⁷ See *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2849-62, paras. 255-302.

⁵⁸ See 47 U.S.C. § 225(b)(1) (“... shall ensure that [TRS is] available . . . to hearing-impaired and speech-impaired individuals in the United States”).

⁵⁹ See *supra* para. 39.

service. We seek information and data from commenters on the total number of potential new users that may register with a VRS provider as a result of the TRSBPP. How would changes in the way the TRSBPP is implemented affect those numbers? For example, how would different discount levels affect signup rates? How would those differences affect the total demand on the Fund?

46. Would cost savings from compensating all providers at the at-scale “target base rate” discussed in Appendix C be sufficient to offset the cost of supporting broadband service through the TRSBPP? Should the TRSBPP be implemented only if such cost savings are realized? Would it be appropriate to “phase in” the TRSBPP so as to avoid rapid increases in Fund demand, by, for example, setting a budget for program expenditures or phasing the program in for limited geographic areas (*e.g.*, a small number of states)? What other steps could the Commission take to ensure that the benefits of the TRSBPP outweigh the costs?

APPENDIX B

iTRS Access Technology Standards

I. OBJECTIVES – GENERAL

1. In section IV.B.2 of this *Further Notice*, we sought comment on whether the effectiveness of our interoperability requirements could be improved by the creation of VRS access technology standards.¹ In this Appendix B we address the need for and set forth a proposal to establish such standards. We note at the outset that until relatively recently, VRS was accessed almost exclusively via one form of VRS access technology – the VRS videophone.² As discussed in section IV.B.1, however, we have witnessed a proliferation of different forms of iTRS access technologies, ranging from off-the-shelf videophones that can be modified to access VRS with relatively little effort to software applications that run as an application on a computer or mobile device and platforms that can be accessed through any web browser. Unfortunately, however, these new iTRS access technologies thus far have often posed challenges to our goals of interoperability and portability, and potentially to ensuring compliance with our 911 obligations.³

2. iTRS access technology standards are a means for meeting the Commission’s policy objectives for Video Relay Service. These objectives are essential to an open, competitive market in communication service, and they include interoperability, portability, affordability, supportability and compatibility as explained below.

3. *Interoperability.* By interoperability we mean the ability of a VRS user to (1) freely connect to and communicate through any of several VRS providers, and (2) directly connect to and communicate with other individuals using various forms of VRS access technology.

4. *Portability.* By portability we mean the ability of a VRS user to continue to use their existing VRS access technology, their assigned ten-digit phone number, and certain enhanced features when switching from their current VRS Provider to a different VRS Provider.

5. *Affordability.* By affordability we refer to the objective of enjoying the cost advantages of off-the-shelf consumer devices produced for a significantly larger market.

¹ See *Further Notice* section IV.B.2. We define the terms “iTRS access technology” and “VRS access technology” in section IV.B.2 of the *Further Notice*. We note that this discussion precludes video devices that operate within a closed network environment using vendor-specific standards, such as Apple FaceTime running on various Apple products, from being defined as iTRS access technology. Such devices likely require a standardized gateway support to connect to VRS and to Internet-based VRS videophones. We intend that specifying standardized gateway support can be addressed by the standardization process described below.

² Videophones are devices that allow a user to communicate visually and, if desired, audibly with another end user over an Internet access service. Videophones generally have fallen into two categories: unmodified off-the-shelf videophone products whose software has not been adapted for VRS use (e.g., the TANDBERG 150 MXP http://www.tandberg.com/products/video_systems/tandberg_150_mxp_promotion.jsp) and VRS-enhanced videophones where such modifications have been applied. The most popular VRS enhanced videophone currently is Sorenson’s VP-200. See Sorenson, VP-200 Videophone Info, http://www.sorensonvrs.com/products/vp200_info (last visited Sept. 9, 2011).

³ See, e.g., Letter from John T. Nakahata and Christopher J. Wright, Counsel for Sorenson Communications, Inc., CG Docket No. 03-123 (April 1, 2011); Convo Aug. 16, 2011 Comments, CG Docket No. 10-51 (“A key functional difference between most [traditional videophones] and [VRS access via personal computers, mobile netbooks/laptops, and the new breed of smart phones] is the ability of the former to be assigned 10-digit numbers and to enable communications with E-911 services.); CSDVRS Apr. 1, 2011 Comments, CG Docket No. 10-51 at 7 (“It must also be noted that none of the existing off-the-shelf technologies automatically supports E911.”).

6. *Supportability.* By supportability we refer to the objective of enjoying the efficiencies related to installation, customer service, ongoing maintenance, upgrading and replacement that is available to off-the-shelf consumer devices produced for a significantly larger market.

7. *Compatibility.* By compatibility we refer to the objective of maintaining interoperability during a transition from one device signaling and support standard to another (e.g., the current transition from signaling and support based on the H.323 Visual Telephone System technology to signaling and support based on SIP technology).

8. Standardization of certain VRS access technology communications interfaces and data exchange structures, as discussed below, is simply the means for attaining these objectives. VRS providers are free to offer innovative features and user interfaces beyond the basic standard communications interfaces proposed herein so as to differentiate VRS access technology offerings and provide user choice.

II. BACKGROUND

9. Videophones and other software and devices that send video via the Internet operate using specific call signaling protocols that connect the two endpoints of the call. The selected signaling protocol will generally be matched with a set of other supplementary protocols for managing such functions as device configuration and registration. In order to meet the Commission's objectives of interoperability and portability in a network with multiple service provider platforms and VRS access technologies from a variety of sources, the protocols must conform to publically-available standards under the control of an open, industry-consensus process. "H.323" has been commonly used to designate one such set of standards for transmitting real-time voice and video over packet-based networks.⁴ The Session Initiation Protocol ("SIP") is similarly used to designate another, newer, such set of standards.⁵

10. When we first sought comment in 2006 on whether devices used to access VRS should be required to support a particular standard, commenters were divided on the issue.⁶ At the time, the majority of VRS-enhanced videophones in use supported the H.323 protocols standards. Thus, in response to the Commission's 2006 Interoperability ruling, VRS providers voluntarily standardized on a basic H.323 communications capability for all VRS-enhanced videophones and provider systems. As a result, VRS achieved a level of multi-provider and multi-device interoperability that exceeded that of other multi-provider Internet-based voice and video services.

11. The available VRS-enhanced videophone models generally fell into one of two classes: (i) older models, constituting the majority of the installed base, were H.323-only videophones; and (ii) newer models, operating natively as SIP devices but able to support both H.323 and SIP protocols.⁷ By the time that the Commission undertook to require VRS providers to assign geographically-appropriate 10-digit telephone numbers to their users in 2008, it was clear that the mass market for Internet-based voice and video devices was settling on the SIP family of standards. We invited comments on the

⁴ See International Telecommunication Union, Packet-based Multimedia Communications Systems, ITU-T Recommendation H.323 (July 2006).

⁵ See *VRS Interoperability Declaratory Ruling*, 21 FCC Red at 5461-62, para. 55.

⁶ See *VRS Interoperability Declaratory Ruling*, 21 FCC Red at 5460-62, paras. 51-57; see, e.g., Comments of AT&T, Inc. at 5 (July 17, 2006) ("[T]he Commission could adopt H.323 as the de facto standard, but allow VRS providers the option of using other protocols in lieu of H.323 to the extent such protocols interface with H.323."); Reply Comments of Snap Telecommunications, Inc. at 1 (asserting that opposition to mandatory standards was "near unanimous" and that such standards were "unnecessary" given the Commission's existing rules.).

⁷ This latter class is often referred to as "dual-stacked" in reference to the layered protocol architecture.

objective of transitioning VRS to SIP-based end devices and on steps the Commission could take to facilitate the process.⁸ The dominant VRS provider, Sorenson Communications, made known that it was drafting a proposed standard for VRS-enhanced videophone support.⁹ Subsequently, we encouraged VRS providers “to work together to develop systems and standards that will facilitate compliance with our rules.”¹⁰

12. In February 2009, Sorenson contributed a *Relay Provider Interface* specification “as a proposal to video relay service providers” and “as a basis for discussion.”¹¹ Sorenson’s analysis had led to the selection of SIP as the best approach.¹² However, under Sorenson’s proposal, VRS-enhanced videophones would not be required to implement a full SIP protocol suite. The proposal specified a transition step that implemented a subset of the SIP standards required for registration and redirection functions, while continuing to support H.323 for call signaling, as required by most of the installed base of videophones.¹³

13. Other VRS providers were reluctant to accept Sorenson’s proposal as a starting point for discussion and no progress was made on VRS-enhanced videophone standards. This lack of progress on basic standardization has meant that if a user ports his VRS-enhanced videophone to a new default provider, that provider cannot fully support the device.¹⁴ Consequently, the Commission has repeatedly had to waive its rules relating to mandatory minimum standards¹⁵ for those situations in which a user ports iTRS access technology to a new default provider.¹⁶ The Commission’s portability objective has thus gone unmet.

14. Our analysis suggests several reasons for this lack of progress on the standardization needed for interoperability and portability. First, the VRS providers do not have an open, consensus-building technical standardization forum with procedures necessary to instill a sense of fairness among market competitors. Second, the hybrid H.323-SIP transition specification had no counterpart in mass

⁸ *Internet-based TRS Numbering Order*, 23 FCC Rcd at 11630, para. 112.

⁹ See Letter from Ruth Milkman, Counsel for Sorenson Communications, Inc., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, WC Docket No. 05-196 (filed Dec. 18, 2008).

¹⁰ See *Second Internet-based TRS Numbering Order*, 24 FCC Rcd at 822, para. 68.

¹¹ See Letter from Ruth Milkman, Counsel for Sorenson Communications, Inc., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, WC Docket No. 05-196, attach. at 1 (filed Feb. 13, 2009).

¹² *Id.*, attach. at 5.

¹³ *Id.*

¹⁴ See 47 C.F.R. §64.611(c). The “default” VRS provider is the provider that currently handles the user’s VRS calls.

¹⁵ These minimum standards relate to include handling any type of call as well as handling emergency calls. See, e.g., 47 C.F.R. §§ 64.604(a)(3); 64.605.

¹⁶ The Commission issued a year-long waiver of these requirements in the *Second Internet-based TRS Numbering Order*. See *Second Internet-based TRS Numbering Order*, 24 FCC Rcd at 822, para. 68. The waiver was extended in 2009, 2010, and 2011. See *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Order, 24 FCC Rcd 14721, 14722, (2009); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities, E911 Requirements for IP-Enabled Service Providers*, CG Docket No. 03-123, WC Docket No. 05-196, Order, 25 FCC Rcd 8437 (2010); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities, E911 Requirements for IP-Enabled Service Providers*, CG Docket No. 03-123, WC Docket No. 05-196, Order, 26 FCC Rcd 9449 (2011).

market Internet-based videophone devices and would likely result in costly special development by OEM device providers.¹⁷ Third, technical details of the desired SIP-only end state were not defined.

15. The Commission has again raised relevant issues concerning standards for VRS access technologies supplied by VRS providers and the relevant role for the Commission in the *2010 VRS Reform NOI*.¹⁸ Commenters were generally supportive of transitioning to a SIP-based networking environment.¹⁹ However, some expressed reservations about the need for the Commission to actively facilitate the process.²⁰

16. As part of ongoing VRS reform efforts associated with the *2010 VRS Reform NOI*, CGB sought additional information via a Public Notice regarding new and emerging technologies that may be used to access VRS, particularly with respect to off-the-shelf technologies.²¹ Commenters more strongly supported transitioning to a SIP-based standard and of the need for industry collaboration.²²

17. Several developments in recent years make it appropriate for the Commission to now take a lead in assisting industry to restart this process of iTRS access technology standardization. Many of the VRS-enhanced videophone devices that had to be specifically designed and built to meet the requirements of VRS have reached end-of-life and need to be replaced. At the same time, mass-market devices now routinely come with the necessary high-quality video capability and standard interfaces available for assistive technologies. The SIP suite of communications protocols is well-established in these devices such that off-the-shelf technology can be easily adapted for VRS purposes.

18. The Commission has acted before to stimulate industry standardization in markets in which the participants have not progressed in meeting the goals of device interoperability and portability. For example, during the 1970s and 1980s when the requirements for interoperability and portability revolved around physical connectors and electrical signaling techniques, the Commission promulgated the

¹⁷ See *supra* para. 12.

¹⁸ See *2010 VRS Reform NOI*, 25 FCC Rcd at 8609, paras. 34-35. (“Should we require updated protocols based on common, industry-consensus standards to be used by videophone equipment distributed by VRS providers? In the context of our existing rules, should videophone equipment supplied by VRS providers, and the networks on which they operate, also be standardized so that they retain a mandatory minimum set of functionalities regardless of the provider selected by the VRS user?”)

¹⁹ See, e.g., CSDVRS Aug. 8, 2010 Comments, CG Docket 10-51 at 23 (“CSDVRS submits that the minimum standards that should be adopted are SIP, RFC 3261, H.323v2, H.264, and G.722. Again, CSDVRS would urge the Commission to facilitate the creation of a VRS Working Group which meets on a periodic basis to ensure interoperability for all videophone devices.”)

²⁰ See, e.g., Sorenson Sept. 2, 2010 Reply Comments, CG Docket No. 10-51 at 2 (“Thus, the Commission should allow the marketplace to dictate changes in equipment... Sorenson recognizes that SIP has some advantages over H.323, but believes that as those advantages become more apparent, companies will move from H.323-based protocols to SIP-based protocols of their own accord, without any interference from the FCC.”)

²¹ See *VRS Technology Public Notice* at 2 (“What specific features or functions of off-the-shelf equipment, services, and software are needed to effectively use VRS?”).

²² See, e.g., Rehabilitation Engineering Research Center on Telecommunications Access April 18, 2011 Reply Comments, CG Docket No. 10-51 at 2 (“The RERC-TA is pleased to see the general support for standard communication protocols, including the strong support in favor of SIP by VRS providers that in the past have relied on H.323. Although at present SIP itself is not free of interoperability problems, it provides a strong base on which efforts toward interoperability can build.”); Sorenson April 18, 2011 Reply Comments, CG Docket No. 10-51 at 2 (“Compatibility, however, requires multilateral coordination among all providers and equipment developers, not just unilateral efforts by solitary companies. Accordingly, Sorenson supports the development of industry-wide standards and testing events...”)

Part 68 standards for the interconnection of telecommunications equipment with the Public Switched Telephone Network.²³ Competitive suppliers were able to build and deploy a wide variety of voice and data equipment for use with the public network, without seeking prior permission from the Commission or the service providers. In 2001 the Commission turned over responsibility for standardizing interconnection to the PSTN to a forum established by private industry, the Administrative Council for Terminal Attachments.²⁴ Today, VRS requirements for standards-based device interoperability and portability revolve around software-based communications protocols rather than electrical levels and connectors.

III. STANDARDIZATION – GENERAL

A. Network Relationships

19. Figure 1 identifies basic VRS functions that are performed by the user's VRS access technology, the user's Internet Service Provider (ISP) service, the VRS Provider's service,²⁵ and the FCC's iTRS Numbering Directory service. These functions are described in more detail below. It is important to note that the manner in which entities implement internal components is not specified. For example, the Registration and Redirection functions of VRS may be implemented as part of a single application or as separate applications, potentially on separate systems.

20. The purpose of Figure 1 is to depict the communications interfaces which are discussed here. We are principally addressing standardized communications protocols for the VRS access technology services supplied over a high-speed Internet access service, designated as "A1," "A2" and "A3." We also describe certain functional requirements that the VRS access technology's graphical user interface "B" must meet, but the details on how these requirements are met and visually rendered is left to the implementer. The "C" interface between the VRS and the iTRS Numbering Directory is specified by the FCC's contractor for this service; it is depicted here for completeness.

²³ 47 C.F.R §§ 68.1 *et seq.*; 1975 Part 68 Order, 56 FCC 2d at 598, para. 16.

²⁴ See 2000 Part 68 Order, 15 FCC Rcd at 24944, para 2.

²⁵ An individual VRS user may interact with multiple VRS providers. We define the "initial" VRS provider as the provider configured into the VRS access technology when the user first acquires the VRS access technology. Such an initial VRS provider may offer full VRS service or only allow the VRS user to choose a full-function provider when first contacted. The initial VRS provider is also colloquially known as the "out-of-the-box" provider. The "default" VRS provider is the provider that currently handles the user's VRS calls. The "new" VRS provider is the new default provider that assumes the VRS service responsibility once the user completes the porting process. If not further qualified, the term VRS provider implies default VRS provider.

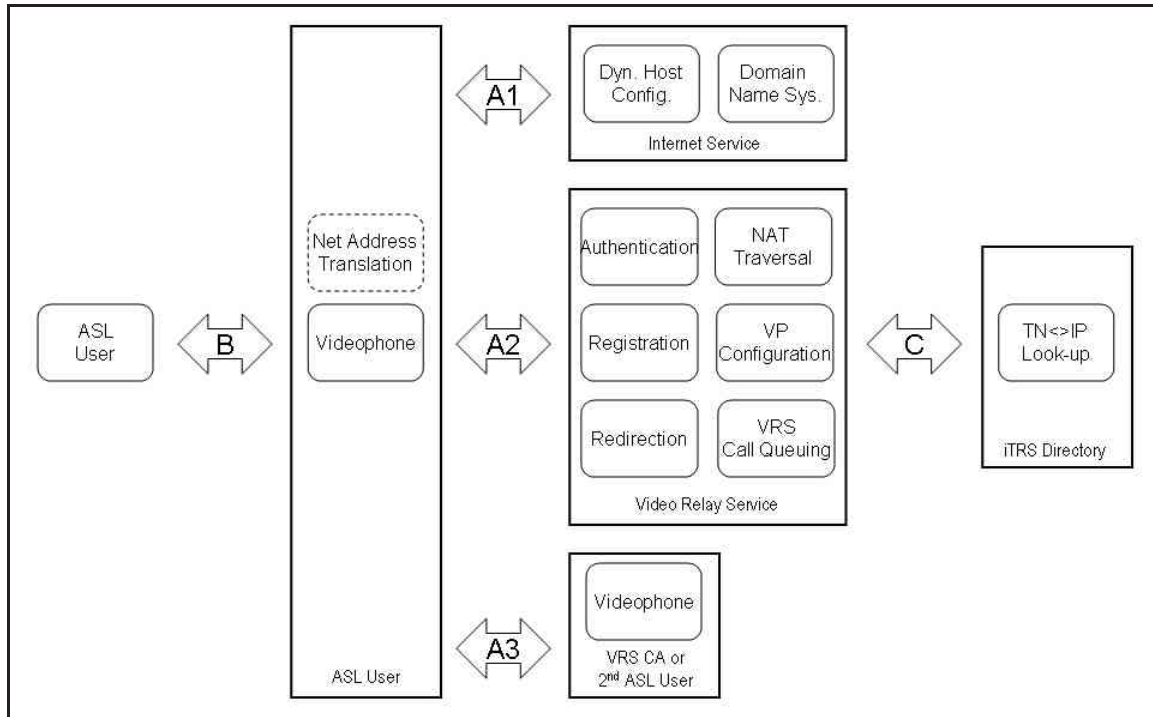


Figure 1. VRS Videophone interfaces.

21. *Need for an ongoing standardization process.* In order to delimit the scope VRS access technology standardization, we outline below the basic functional requirements for a VRS access technology and identify standards which are appropriate for meeting these requirements. We recognize that numerous options and parameter values will need to be selected for any one standard, and we recognize that VRS providers have the most current knowledge of these VRS access technology technical details. Furthermore, we recognize that VRS access technology standards documents will require maintenance, updating and replacement over time. Given the limited size of the industry and the nature of these tasks, we believe that this work would best be undertaken by VRS providers and equipment suppliers under the umbrella of an existing organization open to such members and dedicated to interoperability, in which a Working Group focused on VRS can be established. We envision the Commission's role as that of an active observer of this process.

22. *Need for phased transition.* As discussed above, migrating from H.323 networking technology to SIP via an intermediate phase that is a hybrid of the two technologies is problematic.²⁶ We propose a SIP-only initial end phase which may thereafter evolve under the ongoing standardization process to keep pace with technology and mass-market SIP devices. It may be, however, that there is a SIP-only intermediate phase that can more easily accommodate existing VRS access technologies and provider platforms while still providing the necessary core functionalities. Thus, we propose a transitional subset of standards for a SIP-based VRS access technology.

23. *Need for conformance and interoperability testing.* Although VRS access technologies have historically demonstrated some level of successful interoperability in a network with multiple device models and service providers, anecdotal evidence suggests that interoperability problems are increasing as

²⁶ See *supra* para. 14.

new VRS access technologies are being introduced.²⁷ This underscores the need for rigorous testing of VRS access technologies both for conformance with the selected set of standards and for their ability to interoperate with other VRS access technologies and VRS Provider platforms. Again, given the limited size of the industry and the nature of these tasks, we believe that this work would best be undertaken by VRS providers and equipment suppliers under the umbrella of an existing organization that can support the technical logistics and provide necessary neutral, constructive testing environment. In order to best facilitate the free exchange of test results and the cooperative resolution of issues, we do not envision the Commission having any role in the conformance and interoperability testing process.

24. We solicit comments on our general vision of VRS access technology standardization, and on the means by which the needs outline above can be met. Is the Commission's involvement as outlined above appropriate? What other roles, if any, should the Commission play? Which stakeholder groups should be involved? What forums would be best suited to encouraging broad participation and expedient progress on standardization and testing? For example, would the SIP Forum be a suitable candidate standardization forum? What are other candidates? What options are available for conformance testing? Are the Session Initiation Protocol Interoperability Testing (SIPit) events suitable venues for interoperability testing? How should standardization and transition to subsequent standards in the future be handled?

IV. VRS ACCESS TECHNOLOGY REQUIREMENTS – GENERAL CAPABILITIES

25. For purposes of discussion, we present below and seek comment on what we consider to be the basic functional requirements that need to be met for VRS access technologies. These are organized into four general areas: communications, remote feature access, user interface, and private data transfer.

A. Communications Requirements

26. The VRS access technology communications interfaces with ISP and VRS Provider will support the following capabilities. These interfaces are shown as A1 and A2 in Figure 1.

- a. Generation and exchange of a Universally Unique Identifier (UUID) Uniform Resource Name (URN).
- b. Acquisition of IP and DNS settings from the user's ISP.
- c. Acquisition of the VRS access technology's public IP address from the user's ISP.
- d. Establishment of firewall and NAT traversal technique.
- e. Acquisition of Coordinated Universal Time (UTC).
- f. Acquisition of initial configuration information from the VRS Provider, including the address at which to register and registration credentials.
- g. Acquisition of addresses for LIS and LoST servers for 9-1-1 service (for future activation).
- h. VRS access technology authentication and registration by the VRS Provider.
- i. Acquisition of user private data, such as contact and speed-dial lists from the VRS Provider.

²⁷ See, e.g., letter from John Nakahata, Counsel for Sorenson Communications, Inc., to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 03-123, 10-51 (filed Apr. 1, 2011).

- j. Updating VRS Provider user location registration for 9-1-1 service from the VRS access technology.
- k. Priority outbound identification and handling of 9-1-1 emergency calls from the VRS access technology.
- l. For relay and point-to-point calls, outbound calling from the VRS access technology via the default provider using 10-digit numbers; outbound calling via SIP URLs is also allowed.
- m. For relay and point-to-point calls, outbound calling from the VRS access technology via a non-default provider (dial-around) with automatic pass through of the called party's 10-digit number to the non-default VRS Provider.
- n. For relay and point-to-point calls, inbound calling to the VRS access technology.
- o. Conveyance of the 10-digit calling party number on calls from and to the VRS access technology on call setup.

B. Remote Feature Access

27. The VRS access technology communications interface will support standard remote access to the following basic features required on VRS access technologies used by the deaf, hard-of-hearing, and deaf-blind (to the extent they have residual vision):

- a. Visual incoming call alerting feature.
- b. Visual message waiting feature (if supported by the VRS access technology).

C. User Interface

28. *Configuration.* The VRS access technology user interface will support the following basic features for user-controlled device configuration. This interface is depicted as "B" in Figure 1:

- a. Entry of a VRS Provider's DNS domain, the 10-digit number assigned to the VRS access technology, a username and an associated password.
- b. Entry of an updated user location for E911 location registration, when no network-provided location data is available.
- c. Entry of personal contact list information and speed-dial list information

29. *Calling.* The VRS access technology user interface will allow placing calls using the following interface capabilities:

- a. Entry of a 10-digit phone number of the called party is required; entry of a URL of the called party is optional.
- b. Entry of basic VRS feature preferences is optional (*e.g.*, preferences for a spoken language, for a communications assistant of a particular sex, for announcement of the call as a VRS call).

D. User Private Data Transfer

30. The VRS access technology and VRS Provider will support a standard data interchange format for exporting and importing the following user private data between VRS access technologies and

VRS Providers. The means for transferring this information from one provider to another is not depicted in Figure 1 or otherwise specified here.

- a. User personal contacts list (also referred to as address book).
- b. User speed dial list.

E. Discussion

31. We seek comment on these basic functional requirements. Does our Figure 1 depiction of VRS access technology communications interfaces and services provide an accurate and adequate architecture for discussion? Are their other basic capabilities that need to be uniformly supported to meet the goals of the statute?

V. STANDARDS FOR INTERNET-BASED VRS ACCESS TECHNOLOGY

A. VRS Profile of Industry-Consensus Standards

32. A variety of alternative standards are available for meeting the VRS access technology functional requirements set out in the previous section. In order to achieve our policy objectives of affordability and supportability we have tried to structure a framework of standards to meet the various functional requirements that is consistent with mass market commercial-off-the-shelf videophone technology directions. Our proposed selections are illustrated in Table 1. We refer to this set of standards as the VRS Access Technology Standards Profile.

Functionality	Protocols	Details	Standards
Internet configuration and transport	IPv4, IPv6, TCP, UDP, TLS, DHCP, DNS	VRS access technologies will support general-purpose Internet protocols including Internet Protocol versions 4 (IPv4) and 6 (IPv6), the User Datagram Protocol (UDP), the Transmission Control Protocol (TCP), Transport Layer Security (TLS), and the Dynamic Host Configuration Protocols (DHCP) and the Domain Name System (DNS) operations appropriate to IPv4 and IPv6 environments.	
NAT traversal	STUN, ICE/STUN	Network Address Translator (NAT) traversal techniques will include the Interactive Connectivity Establishment (ICE) approach for using the Session Traversal Utilities for NAT (STUN).	RFCs 3489, 5389
Web access	HTTP, HTTPS	HTTPS: The secure Hypertext Transfer Protocol (HTTPS) will be used for downloading the VRS access technology's initial configuration information and credentials from a default VRS Provider.	RFCs 2616, 2817
Time synchronization	SNTP	The Simple Network Time Protocol (SNTP) is used to synchronize the VRS access technology's clock.	RFC 4330
NG9-1-1 support	HELD, LoST, DHCP location extensions, SIP	The HTTP-Enabled Location Delivery protocol (HELD) will enable the VRS access technology to obtain its standardized	draft BCP phonebc

	extensions	geographic location from a Location Information Server (DHCP will also support this function). The Location-to-Service Translation protocol (LoST) will enable the videophone to obtain the PSAP routing appropriate to that VRS access technology's geographic location from a LoST server.	
Device configuration	XCAP	Device configuration and user data will be provisioned using the XML Configuration Access Protocol (XCAP).	RFCs 4825, 4826, 6011
Call signaling	SIP	The Session Initiation Protocol (SIP) will be used as the communications signaling protocol for setting up, modifying and terminating sessions between two VRS access technologies (<i>i.e.</i> , between a VRS user and VRS Provider CA, or between two deaf or hard-of-hearing VRS access technology users).	RFC 3261
Message waiting indication*	SIP MWI	Allows the VRS access technology to determine whether and how many recorded messages are waiting.	RFC 3842
Session description	SDP	The Session Description Protocol (SDP) will be used for describing and negotiating the common capabilities of the communicating VRS access technologies.	RFC 4566
Media transport	RTP/RTCP	The multimedia communication of video, audio and text between the VRS access technologies will be carried by the Real-time Transport Protocol (RTP) and Real-Time Control Protocol (RTCP) over an underlying User Datagram Protocol (UDP).	RFC 3550
Audio and video	G.711, G.722, H.263v2, H.264	The ITU G-series audio coding algorithms (G.711, G.722) will be available for audio and the H-series video coding algorithms (H.263v2, H.264) will be available for video.	G.711, G.722, H.263 1998, H.264
Real-time text	RTT	For devices with keyboard functionality, parties in the call can exchange real-time text messages using the RTP RTT mechanism.	RFC 4103
Personal contact list	vCard	The user's address book is made available in vCard XML format	RFCs 2425, 2426, draft vcardxml
Speed dial list	TBD	The user's speed dial list is made available in [a suitable XML format.]	

* = optional feature

Table 1. VRS Access Technology Standards Profile

33. Simply conforming to the standards in the VRS Access Technology Standards Profile that is ultimately specified will be insufficient for achieving interoperability in as much as any given standard is likely to have numerous optional features from which to choose. Thus we propose that the necessary specification of protocol options and parameters necessary to meet the specific requirements will be agreed by VRS Provider industry consensus in consultation with VRS access technology developers and producers.²⁸

B. Transitional Interoperability Requirements

34. To facilitate the transition to a fully interoperable system that allows for full service interoperability and portability among providers, we outline a proposed transitional set of standards below. It is important to note that in both the “Transitional” and “Final” states the networks are communications protocols are SIP-based; the “Transitional” state is not a intermediate hybrid mix of H.323 and SIP technologies. This set is selected to allow existing VRS access technology hardware to be upgraded or managed through protocol conversion techniques until it can be replaced by the “Final” state. At the end of the transitional interoperability deadline, we propose that all VRS access technology must support the functionality outlined in the column labeled “Transitional” below. At the beginning of the final interoperability deadline, we propose that all systems must support the functionality in the right-most column. This functionality corresponds to the more detailed description above.

Functionality	Now	Transitional	Final
Internet data transport	IPv4, UDP, TCP, DNS, DHCP	same + IPv6	same as transitional
NAT traversal	-	STUN	ICE/STUN
Web access	HTTP	HTTP, HTTPS	same as transitional
Time synchronization	-	SNTP	SNTP
NG9-1-1 support	-	-	HELD, LoST, SIP
Device configuration	-	XCAP	same as transitional
Call signaling	H.323	SIP	same as transitional
Session description	H.323	SDP	same as transitional
Media transport	RTP	same	same
Audio and video	G.723.1,G.711, H.263	same	same + H.264
Real-time text	-	-	RTT
Contact list	-	vCard ex/im [server]	vCard network access
Speed dial list	-	file ex/im [server]	file network access

Table 2. VRS Access Technology Standards Transition.

C. Discussion

35. We seek comment on the proposed VRS Access Technology Standards Profile and transitional interoperability approach described above. Is the Profile consistent with mass market commercial-off-the-shelf videophone technology directions? What are the practical realities of implementing an intermediate set of SIP-based standards, for example, to allow existing hardware to be upgraded or managed through protocol conversion techniques? Is there a more appropriate mix of

²⁸ See *supra* para. 21.

standards to meet a transitional functionality state? Would it be more beneficial to simply move to the final state without going through an intermediate transition?

Appendix B – Attachment

Suggested Standard Options

1. In this Attachment to Appendix B we describe in more detail our proposal for how specific industry standards could be applied to provide the functionalities necessary to meeting the Commission's policy objectives. We emphasize that this material is provided for discussion purposes only, in order to lend more substance to the abstract VRS Access Technology Standards Profile above.¹ We envision that the final choices and mechanisms would be determined through an industry consensus process.

I. ACCOUNT MANAGEMENT

2. The following sections describe the communications between VRS access technology and VRS Provider and illustrate the relevant protocol exchanges, including the VRS access technology user's manual information entry and the VRS Provider to iTRS Numbering Directory exchanges when needed.

A. Set-up

3. Consensus specifications may include the security requirements on passwords and the generation and use of Universally Unique Identifier URNs.

4. The default provider must establish authentication information for the user including a unique username, the telephone number assigned to the user, and a password.

5. The default provider must communicate the authentication information and the provider's DNS domain to the user using an appropriate level of security. The precise mechanism is unspecified. The default provider may also preset information in the device software that enables the VRS access technology to automatically connect to the default provider and obtain authentication information.

1. Acquisition of IP and DNS Settings

6. Upon initialization a standalone VRS access technology initiates a standard Dynamic Host Configuration Protocol exchange with the Internet Service Provider to obtain IP address, DNS addresses and other configuration options. In the case where the user has a device that has already executed a standard DHCP exchange, such as the user's Network Address Translator (NAT), this exchange may be between the VRS access technology and the NAT.

7. The VRS access technology user interface must present the user the option to specify a default VRS Provider DNS domain, the account username, the phone number assigned the VRS access technology, and the password provided by the default VRS Provider. The format is undefined. The VRS access technology may store this information for subsequent reference, while providing the option for the user to re-enter the information.

2. Detection of Public IP Address

8. It is assumed that most VRS access technologies will be separated from the Internet by a device performing Network Address Translation (NAT), such as a residential wireless router or an enterprise firewall. A NAT device will assign the VRS access technology a private IP Address that only has significance in the local network. Therefore the VRS access technology must communicate with the VRS Provider's STUN server to discover the VRS access technology's public IP address using the Simple Traversal UDP through NATs (STUN) protocol and algorithm specified in RFC 3489.²

¹ See Appendix B, para. 32.

² Although original STUN specification (RFC 3489) has been superseded by the Interactive Connectivity Establishment (ICE) approach for using the Session Traversal Utilities for NAT (RFC 5389) the simpler, original (continued....)

9. The STUN protocol allows a VRS access technology operating through a Network Address Translator to detect the presence of the Network Address Translator and to obtain the mapped public IP address (*i.e.*, the NAT's address) and the port number that the NAT has allocated for VRS access technology UDP connection to a VRS Provider.

10. The VRS access technology determines the IP address of the VRS Provider's STUN service by querying the DNS for a STUN Service (SRV) record for the VRS Provider' domain name. The VRS access technology then sends a unique binding request to the STUN server to obtain the public IP address that can be used to reach the VRS Videophone from the rest of the Internet. Other possibilities include using a NAPTR request, or specifying the use of shared-secret mechanism.

3. Acquisition of UTC Time

11. The VRS access technology will update its time setting by making a single request for the UTC time of a single Network Time server (Simple Network Time Protocol). The VRS access technology determines the IP address of a Network Time server to query by sending a DNS query to us.pool.ntp.org, which replies with IP addresses of three servers selected at random from the pool of U.S.-based servers. The VRS access technology queries a Network Time server on port 123 which replies with the current UTC timestamp.

4. Initial Configuration

12. The VRS access technology determines the URL of the VRS Provider's Configuration Service by querying the DNS for Naming Authority Pointer URI-enabled Resource Records (U-NAPTR records) for the VRS Provider' domain name. The VRS access technology selects the return records for which the service field value is "SFUA.CFG" (SIP Forum User Agent Configuration Service) and extracts the HTTPS URL of the provider's Configuration Service.

13. The VRS access technology adds Configuration Request parameters identifying the VRS VP user, vendor, model, etc., and then uses HTTPS to download configuration information from the provider's Configuration Service. Since the Configuration request scheme uses HTTPS, the VRS access technology must use Transport Layer Security to connect with the Provider's Configuration Service. The Provider may use HTTP redirection to retrieve the appropriate configuration.

B. Authentication – General

14. The VRS access technology must use HTTP digest authentication when connecting to the VRS Provider Register service (*i.e.*, on REGISTER messages) or Redirect service (*i.e.*, INVITE messages). Digest authentication verifies that both the VRS access technology and the VRS service know a shared password. The mechanism is based on cryptographic hashes to ensure that the user's password is not transferred in the clear. See RFC 3261, Section 22 for implementation details.

15. The provider Registration service (Registrar) and Redirect service must use the identical credentials for authenticating a VRS access technology, either from a common database or from tightly-synchronized databases. VRS access technology and provider services must support quality of protection at the "authentication" level ("qop=auth") using the MD5 algorithm ("algorithm=MD5"). Other alternatives include "authentication with integrity," or that authentication may be facilitated by providing on initial configuration a cryptographic (X.509) certificate for the phone number assigned to the user.

(Continued from previous page) _____
STUN specification is sufficient for detecting the VRS Videophone address, particularly in typical residential networks.

16. A VRS service authenticates a user by generating and sending a digest challenge to the VRS access technology containing a set of parameters. The VRS access technology uses the parameters to generate a digest reply with credentials that is sent back to the VRS service. The parameters sent by the service ensure that the credentials have been generate in response to a particular challenge and within a limited time span.

17. The VRS access technology must allow the user the option to request to change his phone number and password. Once the changes are implemented by the provider the VRS access technology will display a 401 response from the Registrar or Redirect service and enable the user to manually enter the changes.

18. If an attempt to register with the user's current default provider returns a 404 failure response, the VRS access technology must display it and present the user the option to enter a provider DNS domain, assigned phone number, and password. This failure indicates that the specified provider is no longer the default provider for the user's number.

C. Registration

19. Registration creates a binding that associates the VRS access technology's location (*i.e.*, URI) with its phone number. Registration entails sending a REGISTER request to a VRS Provider's Registration service (Registrar). The Registrar acts as the front end to the VRS Provider's location service, which maintains bindings between the VRS access technology telephone number and URI, for those VRS access technologies for which the VRS Provider is the default provider.

20. The Registrar is also the front end to the FCC iTRS Numbering Directory which is the national location service in which the phone number-to-URI bindings for all VRS access technologies are stored. Typically, when a VRS Provider is requested to complete a call to a telephone number, it first checks its own location service, then the national location service (the iTRS Numbering Directory) to see if the number is the number of a registered VRS access technology (see Placing and receiving Calls).

21. The VRS access technology is responsible for refreshing the binding that it has previously established. The 200 (OK) response from the register contains an Expires field value that indicates the time for the binding expiration. The VRS access technology must refresh its registration before it expires. (*See RFC 3261 10.2.4.*)

II. ACCOUNT PORTING

22. When a user wants to port his service to another provider, the following steps take place:
- a. The user calls the new VRS provider, using their advertised 10-digit customer care number. (The numbers of all licensed VRS providers may be stored by default in the user contact list.)
 - b. The new provider initiates a number porting operation. As part of this operation, the new and old providers are notified when the porting has occurred.
 - c. When the number porting has completed, the new VRS provider initiates a call to the VRS user. The call information contains a SIP header that points, via an HTTPS URL, to new configuration data containing the user's user name, password, domain name and 10-digit phone number.
 - d. Alternatively, the VRS access technology may attempt to register (via SIP REGISTER) with the old provider. Since the old provider no longer maintains the registration record after porting, this returns a 404 error code, which triggers a query to a pre-defined iTRS-provided HTTP URL, which then redirects to the appropriate

new VRS provider.

Alternative: The old provider maintains the old credentials for a limited time and provides the VRS access technology with a randomized URL that allows the VRS access technology to obtain the new configuration for the iTRS. This assumes that the provider can obtain such a URL from the iTRS. This approach avoids the need for PIN.

- e. The VRS access technology retrieves this information via HTTPS. To ensure that only VRS access technologies owned by the legitimate user obtain these credentials, the user is provided with a 4-digit PIN during the porting operation and needs to enter this PIN. (Repeated false entry of the PIN blocks further retrievals.)

III. PLACING AND RECEIVING CALLS

23. FCC rules enable VRS users and telephony users to reach one another through the VRS using the standard geographically-appropriate 10-digit phone numbers allocated from the North American Numbering Plan (NANP). The system also enables users to establish a video link directly between one another using their 10-digit phone numbers.

24. The VRS provider's Redirect service (see Figure 1) supports these functions by looking up the called party's 10-digit telephone number in databases created by the Registration process and redirecting the call as appropriate. If the called party's telephone number is found in the VRS provider's own Location service database of 10-digit telephone numbers for VRS access technologies or in the FCC's national Location service (iTRS Numbering Directory) of all VRS access technologies, then the call is to another user's VRS access technology and the video link will be set up between the two Internet-based VRS access technologies using SIP signaling procedures.

25. If the 10-digit telephone number is not found in the iTRS Numbering Directory, then it is assumed to be the number of a voice telephone accessible via the public switched telephone network. In this case the video link will be set up between the calling VRS user's VRS access technology and the VRS access technology of a VRS Provider's Communications Assistant via the provider's VRS Call Queue service. The CA relays the VRS user's signed conversation as a voice conversation with a voice telephony user to whom the CA has been connected via the PSTN.

26. The Redirect service performs the lookups, creates a list of one or more current URI mappings for the called number and returns the list to the VRS access technology originating the call. The VRS Videophone then extracts the list of URIs and sends another request directly to the called party. See Sections 8.3 and 21.3 of RFC 3261 for more details.

APPENDIX C

Calculating At Scale Target Compensation Rates

I. DEFINITIONS

1. We must define certain classes of users in order to establish the proposed per-user compensation mechanism contemplated in this *Further Notice*. These terms are defined in relation to the term Registered Internet-based TRS User, set forth in section 64.603(18) of our rules. We seek comment on each of these proposed definitions.

2. *VRS User*. An individual who is deaf, hard of hearing, deaf-blind, or has a speech disability who has registered with a VRS provider as described in section 64.611 of our rules.¹

3. *New VRS User*. A VRS user who has not previously registered with a provider of Internet-based TRS pursuant to section 64.611 of the Commission's rules.

4. Should there be a time period included in the definition of New VRS User? For example, should the definition read “. . . has not registered with a provider . . . in the preceding 24 months?” If so, what would the appropriate time period be? How would it be justified given that the compensation for New VRS Users is intended to cover the extra expense of finding users who were previously unaware of VRS, which would presumably exclude individuals who had previously registered for the service.

5. *Enterprise VRS Employer*. A valid, ongoing business concern that (i) has been assigned an Employer Identification Number by the Internal Revenue Service;² (ii) employs one or more VRS Users; and (iii) has entered into a written agreement with a provider of VRS certified pursuant to section 64.604 of the Commission's rules to provide VRS to its employees that use VRS in the normal course of their employment.

6. *Enterprise VRS User*. A VRS User who is employed by an Enterprise VRS Employer.

7. With respect to the definition of Enterprise VRS Employer, we seek comment on the additional requirements that should be established to ensure that businesses are not formed solely for the purpose of qualifying as an Enterprise VRS Employer. Should we require additional proof that a business is a valid and ongoing concern, like an SBA certification for small businesses?³ We also seek comment on how to classify individuals who have multiple jobs or who are self-employed.

8. *Active User*. A VRS User or Enterprise VRS user that meets the minimum monthly usage requirement described below.

9. With respect to the definition of Active Users, we propose to define an “active user” in a given month as a VRS user who makes at least two minutes of outbound calls to parties that are not affiliates of any VRS provider during that month. We note that this qualifying threshold for compensation is set far below the average minutes of VRS per user assumed in the calculating the per user rate to serve as a *de minimis* screen on inactive accounts. We seek to find a balance between a high threshold, which might leave providers serving an unreasonable number of users without compensation,

¹ See *Further Notice* n. 45.

² See United States Internal Revenue Service, Employer ID Numbers (EINs), <http://www.irs.gov/businesses/small/article/0,,id=98350,00.html>; United States Internal Revenue Service, Understanding your Employer Identification Number, *available at* <http://www.irs.gov/pub/irs-pdf/p1635.pdf>.

³ United States Small Business Administration, Small Business Certification, <http://www.sba.gov/content/small-business-certification-0> (last visited Sept. 9, 2011).

and a low threshold, which might be vulnerable to fraudulent stimulation of calls (for the same reason we define the threshold in terms of *outbound* minutes, which are likely harder to stimulate fraudulently). We seek comment on this proposed two outbound minutes per month minimum threshold level, and in particular encourage parties to submit actual historical data regarding outbound call distributions to support their comments. Are there other steps the Commission should take to ensure that providers are compensated only for actual, legitimate VRS users?

II. DETERMINING THE SCALE CURVE AND MINIMUM EFFICIENT SCALE

10. As discussed in section IV.C of this *Further Notice*, a VRS provider's cost structure exhibits a scale curve and so there is a corresponding minimum efficient scale of operation. It follows that if the total demand for the provision of VRS is divided up among too many players, many will by necessity operate below the minimum efficient scale, leading to little meaningful increase in consumer choice but inefficient operation of, and unnecessary costs for, the Fund.⁴ This is the case today, where a single entity is responsible for the vast majority of minutes of use billed to the Fund and serves as default provider for most VRS users, while a number of subscale providers are supported through the tiered rate structure.

11. From the perspective of the Fund, the most efficient solution might be to simply enter into a contract with a single provider so as to maximize the chances of that provider operating at minimum efficient scale. This solution could, however, lead to a potentially unacceptable lack of consumer choice.⁵ Conversely a large number of providers could lead to an unacceptable level of inefficiency in the operation of the Fund. We therefore seek a reasonable balance between efficiency and the freedom of users to have more than one choice of VRS service provider.

12. Currently, there are twelve providers eligible to receive compensation from the Fund for providing VRS.⁶ Given the Commission's adoption of new certification rules, it is possible that the

⁴ For example, suppose that there are 200,000 potential users, and minimum efficient scale for a provider is achieved when that provider serves at least 50,000 users. In that scenario, an efficient industry structure contains at most four providers, each with 50,000 users if the market shares are equal, and potentially fewer providers if the shares are unequal. A decision to ensure that there are five or more providers would inevitably lead to the support of sub-scale players and unnecessary costs. We note that while this might be acceptable for a short period of time while market shares are in flux, there would be no reason to support it in the long term.

⁵ *2010 VRS Reform NOI*, 25 FCC Rcd at 8615, para. 63 ("How can we encourage competition that would reduce the costs of VRS?"); *2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20169, para. 77 ("the Commission has recently encouraged competition in the provision of VRS"); Consumer Groups' TRS Policy Statement at 5 (stating that one of five goals for VRS should be "Competition & Choices"). We note, however, that if – in a competitive environment – the vast majority of users choose a single provider, as long as the threat of new entry is present, the extra expense and complication of supporting competitors may not be appropriate.

⁶ Rolka Loube Saltzer Associates, TRS Fund Performance Status Report, Funding Year July 2010 – June 2011, Fund Status as of July 31, 2011, available at <http://www.r-l-s-a.com/TRS/reports/FundPerformanceAsof7-31-11.pdf> (RLSA July 31, 2011 Fund Status Report); *Notice of Conditional Grant of Application of Hancock, Jahn, Lee & Puckett, LLC d/b/a Communication Axxess Ability Group for Certification as a Provider of Video Relay Service Eligible for Compensation from Interstate Telecommunications Relay Service Fund*, CG Docket No. 10-51, Public Notice, DA 11-1903 (rel. Nov. 15, 2011); *Notice of Conditional Grant of Application of ASL Services Holdings, LLC for Certification as a Provider of Video Relay Service Eligible for Compensation from Interstate Telecommunications Relay Service Fund*, CG Docket No. 10-51, Public Notice, DA 11-1902 (rel. Nov. 15, 2011); *Notice of Conditional Grant of Application of Convo Communications, LLC for Certification as a Provider of Video Relay Service Eligible for Compensation from Interstate Telecommunications Relay Service Fund*, CG Docket No. 10-51, Public Notice, DA 11-1901 (rel. Nov. 15, 2011).

number of certified providers will change.⁷ We seek comment on the shape of the cost curve in the VRS industry (*i.e.*, how a provider's cost per user varies with its number of users), the number of users at which minimum efficient scale is achieved, and the actual and potential size of the VRS market. Providers should submit quantitative information to support their comments.

III. CALCULATING TARGET BASE RATES

A. Residential Rate

13. The direct costs of providing the core of VRS fall into three categories: CA-related (*i.e.*, interpretation) costs and related overhead (*e.g.*, call center facilities, telecom costs, direct CA supervisory functions); costs related to end user iTRS access technology (*e.g.*, product development, installation, customer support); and general and administrative (G&A) costs (*e.g.*, general managerial staff). We propose to set the monthly per-user compensation rate for VRS providers after the transition period as the total of the reimbursement amount for each of these cost categories and seek comment on whether these cost categories are appropriate and the appropriate per user costs for each for an at-scale VRS provider (corresponding to R* in Figure 3 above).⁸ For illustration, a rough estimate of the appropriate rate may be calculated as follows:

14. *CA-related cost.* CA-related cost per-user equals the average number of VRS minutes per user (inbound and outbound) times the CA cost per minute (including overhead) divided by the CA utilization. We note that, by definition, if the minutes assumed per user is set at the average level, then providers will be adequately compensated even though some users may generate more minutes and others less in a given month.⁹ Further, as providers are assumed to be at scale, there is no reason to think that the average will vary between providers for legitimate reasons, particularly if enterprise users (who may have systematically higher minutes of use per user) are excluded. We seek comment on this reasoning. If, for example, an average user generates 70 VRS minutes per month, the CA salary including overhead is \$60 per hour, and CAs are, on average, utilized for 25 minutes per hour (or at ~40%), then the effective CA-related cost per user = $70/60 * \$60 / 40\% = \175 per user per month. We seek comment on this estimate, and request that such comments be supported by actual data.

15. *iTRS access technology cost.* If we determine that we can and should provide TRS support for iTRS access technology costs, an estimate for the corresponding cost might be \$650 every two years, or \$27 per month for the cost of iTRS access technology and installation. For comparison we note that the reported average retail computer price in the United States was \$615 in 2010,¹⁰ the current retail

⁷ See generally 2011 VRS Certification Order. See also *supra* para. 24.

⁸ We remind commenters that the Commission previously has stated that “the ‘reasonable’ costs of providing service for which providers are entitled to compensation do not include profit or a mark-up on expenses. Providers are entitled to their reasonable costs of providing service consistent with the mandatory minimum standards, as well as an 11.25% rate of return on capital investment so that they are not left to finance reasonable capital investments out of pocket.” 2007 TRS Rate Methodology Order, 22 FCC Rcd at 20161, para. 49 (footnote omitted); see also 2004 TRS Report & Order, 19 FCC Rcd at 12542-45, paras. 177-182.

⁹ For example, suppose a provider has 5 users with 40, 50, 60, 80, and 120 minutes of VRS usage per month. The average use is $(40+50+60+80+120)/5 = 70$ minutes per user per month, and so, assuming a per user rate based on 70 VRS minutes per user, will lead to effective compensation for $5*70=350$ minutes if use, the same as a per minute scheme (but without the incentives to inflate minutes of use and other problems with a per minute methodology described above).

¹⁰ See, *e.g.*, Ben Worthen, *Rising Computer Prices Buck Trend*, Wall St. J., http://online.wsj.com/article/SB10001424052748704681804576017883787191962.html?mod=rss_whats_news_tech&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+wsj%2Fxml%2Frss%2F3_7015+%28WSJ.com%3A+What%27s+News+Technology%29.

price of an Apple iPad2 – including a docking station, an HDMI connector and shipping that would make it suitable for VRS usage at least equivalent to much current iTRS access technology – is \$499.¹¹ CSD's Project Endeavor is offering a variety of VRS suitable equipment for \$130-\$300 (including a variety of netbooks, smartphones, and tablets, including the iPad2),¹² and that the VP-200, which makes up the majority of the installed base of VRS equipment, was first introduced almost 5 years ago.¹³ We seek comment on this estimate, and request that such comments be supported by actual data.

16. We seek comment on whether it is appropriate to link the duration of any equipment compensation cycle (e.g., the two years proposed in the preceding paragraph) to the length of any service contracts allowed under our rules.¹⁴ Such a linkage might be appropriate to ensure that providers recover the full cost of any equipment provided to their users. We note, however, that consumers will not always require new equipment when registering with a VRS provider (as they may bring their own equipment, either purchased off-the-shelf or obtained from a previous provider) or at the end of an equipment compensation cycle. Further the new-to-category incentive payment may help to defray the cost of providing equipment to new users.¹⁵ *G&A costs*: This covers other general and administrative costs incurred by providers, such as product development, general managers, and so forth. We might assume a 40% margin above the direct CA and iTRS access technology costs to cover indirect costs, that is $40\% * (\$175 + \$27) = \$81$ per user per month. We seek comment on this estimate, and request that such comments be supported by actual data.

17. Given the above, we might, illustratively, estimate an appropriate level for the at-scale target base rate reimbursement per user at $\$175 + \$27 + \$81 = \283 per user per month, or \$3,400 per user per year for expenses directly related to providing VRS.¹⁶ Going back to the assumed minutes of VRS usage per user in this estimate, we note that this cost as calculated – which excludes the cost of broadband and of the proposed one-time payment for adding new-to-category users (which should replace some of the current marketing and outreach expenses) – corresponds to \$283 per user per month / 70 minutes per user per month \approx \$4 per minute. However, as the above calculations make clear, an incremental minute of use does not generate an extra \$4 of costs, as the CA-related cost only accounts for $\$175 / \$283 \approx 60\%$ of the total cost, and not all of that varies by the minute of VRS usage, as it includes CA-related overhead. This highlights the potential structural weakness of the current per minute compensation methodology.

18. We seek comment on this rough estimate of the target per-user compensation rate and on the methodology and inputs used to calculate it, and urge commenters to submit other proposals for calculating a reasonable per-user compensation rate, supported by actual data from their experience. As outlined above, the methodology for setting the at-scale per user rate is relatively straightforward and transparent, and once in place can be easily revisited in the face of changing circumstances. For example, if, at the time at which the target base rate is reached (t_{final} in Figure 3) the average number of VRS

¹¹ See Apple, Apple Store, Select an iPad2, http://store.apple.com/us/browse/home/shop_ipad/family/ipad/select (last visited Sept. 9, 2011).

¹² See Press Release, CSDVRS, Project Endeavor New Equipment Offerings Feature Up to 50 Percent Off Handhelds, Tablets and More, *available at* <https://app.e2ma.net/app/view:CampaignPublic/id:14147.10669337199/rid:e9a1d9369529b2d4e1e3a25e1c9933ae>.

¹³ See Sorenson, Company Timeline, http://www.sorenson.com/company_timeline (last visited Sept. 8, 2011).

¹⁴ See *Further Notice* section V.B.5.

¹⁵ See *Further Notice* section IV.A.2.

¹⁶ As noted above, we recognize that a VRS call involves two parties. We are proposing that the compensation amounts be determined per ASL user for accounting purposes only.

minutes per user has legitimately increased, or the actual cost of equipment has decreased, it is a simple arithmetical exercise to adjust the rate R^* .

B. Enterprise User Rate

19. The average minutes per user for ASL users of VRS at work may be significantly higher than average, and so we propose that VRS providers be compensated separately for the service provided to Enterprise VRS Users.

20. For example, using the same illustrative methodology described above, but with twice as many VRS minutes per user per month (*i.e.*, 140 minutes/user per month) yields a rate of \$528 per user per month for each enterprise user. We seek actual data on the differences between the costs of serving enterprise and residential users. For example, what is the difference in the number of minutes per user? Is the difference significant enough outweigh the extra complexity of introducing a separate enterprise rate, or should enterprise users rather just be considered at the high end of the distribution curve used to calculate a blended per user rate?

21. We propose that VRS Providers be required to provide proof to the Fund Administrator that individuals they seek compensation for at the enterprise user rate are, in fact, active Enterprise VRS Users, with such proof subject to audit by the Administrator. We propose that at a minimum, VRS Providers submit to the Administrator (i) the Enterprise VRS Employer's EIN and (ii) the unique user ID's of each Enterprise VRS User. We further propose that a VRS provider that seeks compensation for Enterprise VRS Users maintain, during the period for which they seek such compensation and a period of five years thereafter, a copy of the written agreement with a provider of VRS certified pursuant to section 64.604 of the Commission's rules to provide VRS to its employees that use VRS in the normal course of their employment. We seek comment on these proposals, including whether the provision of the employer's EIN and the unique user ID of each Enterprise VRS User would pose any privacy concerns for VRS users. To the extent they would, are there other ways by which the Commission could verify Enterprise VRS Users?

22. We propose that, for purposes of administering the VRS program as proposed herein, each enterprise user be assigned a separate telephone number by their employer for use in the course of their employment. This will better enable the VRS provider and the Fund Administrator to identify minutes of use generated by Enterprise VRS Users in the course of their employment, which will in turn facilitate accurate recordkeeping and oversight.

23. Given that the higher enterprise user compensation rate is based on the assumption that the enterprise user has higher average monthly minutes of use, should we require VRS providers to demonstrate that each enterprise user for which they seek compensation is, in fact, utilizing VRS at a higher rate? For example, should the Commission require that a VRS provider seek compensation for a user at the enterprise user rate only if their work related minutes of use are above a certain threshold? If so, what should that threshold be?

C. Reimbursement

24. We propose that the Administrator reimburse each provider on a monthly basis based on the number of active VRS users and active Enterprise VRS Users during that month. We seek comment on this proposal.

D. Request for Data

25. We also request that providers submit to the Commission data to assist in our assessment of the costs of providing VRS. We are mindful of the sensitive nature of such materials, but also of the right of the public to participate in this proceeding in a meaningful way. We will therefore, if so requested by parties to this proceeding, make such information available to participants in this proceeding

pursuant to a protective order that will give appropriate access to the public while protecting proprietary and confidential information from improper disclosure.

APPENDIX D**VRS User Database (VRSURD)****I. DATABASE FUNCTIONS**

1. We propose that the VRSURD should facilitate four primary functions: (i) ensure that each user has one default provider, (ii) facilitate identification of new-to-category users, (iii) facilitate the operation of the TRS Broadband Pilot Program discussed in Appendix A, and (iv) facilitate efficient program administration.

A. Ensuring Only One Provider is Compensated for each Residential User and Enterprise User

2. Under a per-user compensation system, a VRS provider must be able to determine whether an individual seeking to register with that VRS provider as his or her default provider is already registered with another VRS provider. A VRS user registry database would make it possible for a VRS provider to ensure that it is not providing service to, and seeking compensation for providing service to, a residential user or an enterprise user that is receiving service from another VRS provider.

B. TRS Broadband Pilot Program

3. As set forth in section IV.A.1 of this *Further Notice*, we propose to create a TRS Broadband Pilot Program that will utilize the TRS Fund to subsidize broadband Internet access for low-income deaf, hard of hearing, deaf-blind, or speech disabled Americans who use VRS. VRS providers, broadband providers, and the TRS Fund Administrator all must be able to determine whether a consumer is eligible for support, and whether reimbursement for broadband Internet access is due to a provider, under the TRSBPP. A VRSURD would make this possible.

C. New-to-category Identification

4. As set forth in section IV.A.2 of this *Further Notice*, we propose to implement a “new-to-category” compensation mechanism to defray the cost of bringing those users online. A VRS user registry database would make it possible for VRS providers, broadband providers, and the TRS Fund Administrator to determine whether an individual seeking to register with that VRS provider as their default provider qualifies as new-to-category or is transferring from an existing provider.

D. Facilitate Efficient Program Administration

5. A VRSURD would provide a reliable source of data on the number of VRS users – data the Commission does not currently possess, and the impact of the TRSBPP. In addition, the VRSURD would facilitate efforts by the TRS Fund Administrator and the Commission to conduct audits, determine compliance with the Commission’s rules, and minimize the possibility of waste, fraud, and abuse.

6. We seek comment on these proposed functions for the VRSURD. What other functions might the database fulfill? Are there other benefits that would flow from the creation of a registry of VRS users?

II. INFORMATION TO BE PROVISIONED

7. We seek comment on the nature of the information that should be provisioned to the VRSURD. Given the functions proposed in Appendix D, section I above, we propose below a set of data elements to be provisioned to the VRSURD.

A. User Identifying Information**1. Residential Users**

8. We propose that VRS providers provision for each of their residential users, upon default provider registration, information sufficient to identify that user, including, at a minimum, their name and residential addresses. We seek comment on this proposal, and on whether additional user identifying information, such as a unique user ID, TND, customer profile info (*i.e.*, information that would fall under section 64.404(c)(7) of the Commission's rules), should be gathered from users to facilitate the database functions described above.

9. We propose that each VRS user registered in the VRSURD be assigned a unique user identification to facilitate the administration of the TRSBPP and the VRS program. We seek comment on this proposal, on the form that this unique identifier should take, and the standards and practices associated with assigning and managing such a unique user ID.

2. Enterprise Users

10. We propose that VRS providers provision for each of their enterprise users, at a minimum, the unique user ID that the enterprise user was assigned when registering as a residential user and the employer's name, business address, EIN, and the enterprise VRS user's business telephone number. We seek comment on this proposal, and on whether additional information should be gathered from providers regarding their enterprise users to facilitate the database functions described above.

B. User Service Information

11. We propose that the VRSURD be provisioned with information sufficient to allow VRS providers, the TRS Fund Administrator and, as necessary, broadband providers providing discounted services under the TRSBPP to effectively identify the services provided to each VRS user. Thus, we propose that each user's default provider provision to the VRSURD the name of the default provider, whether the user is a residential user, an enterprise user, or both, whether the user is under contract with the provider and the entry and expiration date of contract with provider, whether the user is an active user, and whether the user has demonstrated eligibility for the TRSBPP. We seek comment on this proposal, and on whether additional information regarding VRS services taken by each user should be provisioned to the VRSURD to facilitate the database functions described above.

III. FORM OF DATA ELEMENTS

12. We propose that the form of the data elements to be provisioned to the TRSBPP be determined by the database administrator pursuant to the terms of its contract. We seek comment on this proposal.

IV. MEANS BY WHICH INFORMATION IS PROVISIONED

13. We propose that a VRS provider be authorized to provision user identifying information (other than the user's unique user ID) and user service information for their registered users, and only their registered users, to the VRSURD. We seek comment on this proposal.

14. We propose that the TRS Fund Administrator and Commission be authorized to direct the VRSURD administrator to provision information to the VRSURD as necessary to ensure the efficient operation of the VRS program and the TRSBPP. Such information may include, for example, a change in a user's eligibility for the TRSBPP that has come to the attention of the TRS Fund Administrator but has not yet been communicated to the users default VRS provider. We seek comment on this proposal. Should other entities be authorized to provision information to the VRSURD? If so, under what circumstances?

V. WHO WILL BE AUTHORIZED TO QUERY THE DATABASE

15. We propose that VRS providers be entitled to query the VRSURD to (i) determine if a potential user is “new-to-category,” and (ii) obtain a new registered users unique user ID. We seek comment on this proposal, and on whether there are other reasons that VRS providers may need to query the VRSURD.

16. We propose that the TRS Fund Administrator and the Commission be entitled to query the VRSURD as necessary to ensure the efficient operation of the VRS program and the TRSBPP, as well as to determine compliance with the requirements of these programs. We seek comment on this proposal.

17. We propose that broadband providers be entitled to query the VRSURD in order to determine whether an individual is eligible for discounted broadband service under the TRSBPP. Such query would take the form of submitting the potential subscriber’s unique VRS user ID to the VRSURD. We seek comment on this proposal. Should broadband providers be entitled to query the VRSURD for other reasons?

VI. OTHER CONSIDERATIONS

18. *Coordination with Lifeline and Link Up Program.* We have proposed in the *Lifeline and Link Up Modernization NPRM* to create a national database to verify consumer eligibility, track verification and check for duplicates to ensure greater accountability of the Lifeline and Link Up programs.¹ We seek comment on whether or how the database proposed in this order can be coordinated or combined with the proposed Lifeline database. Given the similarity of purpose between the databases, could a single database efficiently support all three programs?

19. *Architecture.* We seek comment on appropriate architectures for the VRSURD. We further seek comment on whether the Commission should itself specify the VRSURD or, consistent with successful past practice, delegate to a contracted neutral third party administrator the task of specifying the database architecture.²

20. *Data Security and Privacy Issues.* We note that the privacy-based limitations on the government’s access to customer information in Title II of Electronic Communications Privacy Act (ECPA), section 222 of the Communications Act, and our implementing rules and the privacy provisions of the Cable Act, may be implicated by collection of the data discussed here.³ We seek comment on whether any of these pre-existing regulatory or statutory requirements would impose any restrictions on the storage by a database administrator of customer data. We seek comment on how best to address these concerns. Would it be appropriate or necessary under ECPA to require VRS users to consent to certain disclosures as a condition of receiving service in order to ensure that the VRS program is operated efficiently and the Commission and the Fund Administrator can fulfill their auditing and management functions effectively? What would be the appropriate extent of such a consent requirement, and what other regulatory privacy protections, if any, would be necessary if such a requirement were adopted?

21. Are there other databases that have been constructed that could serve as a model for developing a VRSURD? Specifically, we seek input from the states that have developed similar databases on how best to achieve our goal of allowing VRS providers and broadband providers to access relevant data while protecting consumers’ privacy.

¹ *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2833-38, paras. 205-222.

² *See Internet-based TRS Numbering Order*, 23 FCC Rcd at 11617, para. 68.

³ *See, e.g.*, ECPA, tit. II (SCA), 18 U.S.C. §§ 2701-12 (2006); 47 U.S.C. § 551 (2006); 47 U.S.C. § 222.

22. *Neutral Administration.* Consistent with our practice in connection with the iTRS database, we propose that the VRSURD be built, maintained and operated by a neutral third-party administrator under contract to the Commission and compensated through the TRS Fund.⁴

23. We propose to delegate authority to the Office of the Managing Director, with the assistance of CGB and the Office of General Counsel, to select the neutral administrator based on a competitive bidding process. We propose that the Managing Director initiate this process immediately upon release of a final order in this proceeding.

24. We propose that the VRSURD database administrator meet certain neutrality criteria, both with respect to being selected as the administrator and in performing its functions. Consistent with the iTRS database functions performed under contract, we believe that the neutral administrator should be a non-governmental entity that is not aligned with any particular telecommunications or broadband industry segment.⁵ We further propose that the neutral administrator must be fair and impartial, and it must also meet neutrality criteria similar to those we have established for the iTRS database, but adjusted as appropriate to reflect the purposes of this particular database.⁶

25. In summary, we propose that: (1) the neutral administrator must be a non-governmental entity that is impartial and is not an affiliate⁷ of any Internet-based TRS provider or broadband provider; (2) the neutral administrator and any affiliate may not issue a majority of its debt⁸ to, nor derive a majority of its revenues from, any Internet-based TRS provider or broadband provider. Notwithstanding satisfying the neutrality criteria set forth in (1) and (2) above, the administrator may not be subject to undue influence by parties with a vested interest in the outcome of VRS program or TRSBPP

⁴ *Internet-based TRS Numbering Order*, 23 FCC Rcd at 11618-20, paras. 73-78.

⁵ *Id.* at 11619, para. 76.

⁶ *Id.*

⁷ We base our definition of “affiliate” on the statutory definition in section 3 of the Act. *See* 47 U.S.C. § 153(1) (defining “affiliate”). We elaborate on that definition as follows: “Affiliate” is a person who controls, is controlled by, or is under the direct or indirect common control of another person. A person shall be deemed to control another if such person possesses, directly or indirectly, (1) an equity interest by stock, partnership (general or limited) interest, joint venture participation, or member interest in the other person ten percent (10%) or more of the total outstanding equity interests in the other person; or (2) the power to vote ten percent (10%) or more of the securities (by stock, partnership (general or limited) interest, joint venture participation, or member interest) having ordinary voting power for the election of directors, general partner, or management of such other person; or (3) the power to direct or cause the direction of the management and policies of such other person, whether through the ownership of or right to vote voting rights attributable to the stock, partnership (general or limited) interest, joint venture participation, or member interest of such other person, by contract (including but not limited to stockholder agreement partnership (general or limited) agreement, joint venture agreement, or operating agreement, or otherwise. *See* 47 C.F.R. § 52.12(a)(1)(i); *see also Internet-based TRS Numbering Order*, 23 FCC Rcd at 11619, n. 185 *Numbering Resource Optimization*, CC Docket No. 99-200, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574, 7642, para. 154 n.354 (2000) (*NRO First Report and Order*); *Administration of the North American Numbering Plan; Toll Free Service Access Codes*, CC Docket Nos. 99-237, 95-155, Third Report and Order and Third Report and Order, 12 FCC Rcd 23040, 23076, para. 69 (1997) (*NANP Administration Third Report and Order*).

⁸ “Majority” means greater than 50%, and “debt” means stock, bonds, securities, notes, loans, or any other instrument of indebtedness. *See* 47 C.F.R. § 52.12(a)(1)(ii); *Internet-based TRS Numbering Order*, 23 FCC Rcd at 11619, n. 186; *NRO First Report and Order*, 15 FCC Rcd at 7643, para. 154 n.356; *NANP Administration Third Report and Order*, 12 FCC Rcd at 23076, para. 69.

administration and activities.⁹ We propose that any subcontractor that performs functions of the neutral administrator must also meet these criteria. We seek comment on these proposals.

26. We seek comment on what responsibilities the Administrator may be assigned with respect to the VRSURD. Should the administrator be responsible for regularly reviewing the database to determine if the Commission's rules are being followed, for example by reviewing entries for potential ineligibility? For purposes of auditing the program, should the Commission have access to the database or only through the administrator?

27. *Funding.* We propose, consistent with the operation of the iTRS database, that the neutral database administrator selected by the Commission be compensated directly from the TRS Fund, rather than by entities that provision information to or query the database on a per transaction basis. We seek comment on this proposal.

28. *Timing.* We seek comment on the amount of time it will take to implement the VRSURD as discussed in this *Further Notice*.

⁹ See 47 C.F.R. § 52.12(a)(1)(iii); *Internet-based TRS Numbering Order*, 23 FCC Rcd at 11619, n. 185; *NRO First Report and Order*, 15 FCC Rcd at 7643, para. 154, n.357; *NANP Administration Third Report and Order*, 12 FCC Rcd at 23076, para. 69.

APPENDIX E
Proposed Definitions

1. *VRS User.* An individual who is deaf, hard of hearing, deaf-blind, or has a speech disability that has registered with a VRS provider as described in section 64.611 of our rules.
2. *New VRS User.* A VRS user that has not previously registered with a provider of Internet-based TRS pursuant to section 64.611 of the Commission's rules.
3. *Enterprise VRS Employer.* A valid, going business concern that (i) has been assigned an Employer Identification Number by the Internal Revenue Service; (ii) employs one or more registered VRS Users; and (iii) has entered into a written agreement with a provider of VRS certified pursuant to section 64.604 of the Commission's rules to provide VRS to its employees that use VRS in the normal course of their employment.
4. *Enterprise VRS User.* A registered VRS User that is employed by an Enterprise VRS Employer.
5. *Active User.* A VRS User or Enterprise VRS user that [meets a minimum monthly usage requirement].

APPENDIX F

Initial Regulatory Flexibility Analysis

CG Docket No. 03-123

CG Docket No. 10-51

1. As required by the Regulatory Flexibility Act (RFA),¹ the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this Further Notice of Proposed Rule Making (*Further Notice*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments to this *Further Notice*. The Commission will send a copy of this *Further Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *Further Notice* and IRFA (or summaries thereof) will be published in the Federal Register.³

I. NEED FOR, AND OBJECTIVES OF, THE PROPOSED RULES

2. In this *Further Notice*, the Commission seeks comment on a series of proposals to improve the structure and efficiency of the VRS program, to ensure that it is available to all eligible users and offers functional equivalence – particularly given advances in commercially-available technology – and is as immune as possible from the waste, fraud, and abuse that threaten the long-term viability of the program as it currently operates.

3. Among these proposals, the Commission proposes to establish a “TRS Broadband Pilot Program” (TRSBPP) to utilize the TRS Fund to provide discounted broadband Internet access to low-income deaf, hard of hearing, deaf-blind, and speech disabled Americans who use ASL as their primary form of communication, and providing incentives to providers for adding new-to-category customers. The Commission proposes such a subsidy to meet the objective of increasing utilization of VRS by eligible individuals who cannot currently afford broadband.

4. The Commission seeks comment on whether the TRSBPP should support fixed services, mobile services, or both. Fixed connections – whether wireline or wireless – that are advertised as capable of delivering 256 kbps, generally deliver such speeds to their customers, and can be shared by all members of a residential unit. The Commission proposes that broadband providers will provide discounts to eligible households or residences and receive reimbursement from the TRS Fund for the provision of such discounts. The Commission proposes to establish the discount amount for the TRSBPP at a level that will make broadband Internet access service capable of supporting VRS at no cost, or very low cost, to consumers. We seek comment on how to set the amount of the discount that should be provided to qualifying households or residences. Given the Commission’s experience in administering the Lifeline and Link Up programs, we propose to adopt the Lifeline and Link Up certification and verification rules that are ultimately adopted in the *Lifeline and Link Up Modernization NPRM* proceeding,⁴ modified as necessary to reflect the differences between possible future changes in the Lifeline program and the proposed TRSBPP.

¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

² See 5 U.S.C. § 603(a).

³ See *id.*

⁴ See *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd 2770.

5. In addition, the Commission proposes to concretely define iTRS access technology, which will help ensure that the rules governing VRS can be applied equally to any medium used to access VRS. The goal of establishing standards for iTRS access technology is to meet the Commission's policy objectives of facilitating an open, competitive market for VRS by supporting interoperability, portability, affordability, supportability and compatibility of VRS equipment. Specifically, the Commission proposes: (1) defining "iTRS access technology" as "any equipment, software, or other technology issued, leased, or provided by an Internet-based TRS provider that can be used to make or receive an Internet-based TRS call"; (2) establishing standards for iTRS access technology; and (3) supporting the use of off-the-shelf iTRS access technology. The Commission intends to apply its definitions and standards in a manner that will allow for the use of VRS through off-the shelf technology, because this will give VRS users enhanced choice and accessibility to utilize VRS. Accordingly, the Commission seeks comment on the proposal.

6. In addition, the Commission seeks comment on the extent to which the statute supports the use of the Fund to support iTRS access technology research and development costs. Research and development would help to achieve the goals of establishing standards and furthering technological advancements that both meet the needs of VRS users, and provide compatibility with mainstream, off-the-shelf equipment. If research and development are supported by the Fund, then the Commission's goals of providing greater access to VRS will be better achieved.

7. Next, the Commission explores the option of instituting a more efficient compensation mechanism that reduces incentives for waste, fraud, and abuse by shifting from a per-minute to a per-user compensation mechanism with a specific plan for transitioning the industry structure to ensure economies of scale. Per-minute compensation has provided an incentive for the manufacturing of illegitimate minutes by some providers in order to increase reimbursements. Shifting to a per-user compensation mechanism will remove the incentive to increase VRS traffic through illegitimate means. The Commission states, "[t]he ultimate result could be a program in which providers' incentives are aligned with the statute's goals of efficiency, functional equivalence, choice, and maximizing access to VRS, the Fund could be paying an effective rate per user that may better reflect the actual costs of providing VRS than is currently the case, and which could eliminate the current tiered rates, which provide seemingly indefinite support for subscale providers and introduce extra complexity into the management of the program."⁵

8. The Commission specifically proposes a greater per-user reimbursement rate to VRS providers for their registered *enterprise users* vs. *residential users*. This proposal is intended to serve two objectives: 1) to account for the potentially greater volume of calls an *enterprise user* may make, and 2) to provide an incentive to providers to market and support their services to deaf individuals in the workplace. Accordingly, we seek comment on this separate proposal.

9. The transition phase for restructuring VRS as described above is intended to account for current subscale providers who may need time to attempt to achieve scale. By subscale, the Commission refers to providers whose cost of delivering VRS may be higher than costs other providers may incur because of their small market share. The Commission notes that any transition will be accompanied by risk. However, if adopted, an appropriately implemented structural reform program and transition process will give each provider a real opportunity to achieve minimum efficient scale during the transition period and result in an end state for the program that is better for VRS users, as well as being more sustainable for the Fund. To that end, the Commission seeks comment on whether to allow VRS providers to require VRS users who are either (i) new-to-category VRS users (*i.e.*, have not previously signed up for VRS) or

⁵ See *Further Notice* para. 64.

(ii) switching from another VRS provider, to enter into a service contract after the adoption of a per-user compensation mechanism in order to support the growth of smaller providers under the new structure.

10. The rules addressed in this section raise questions about related new reporting requirements that will be addressed in section D. Even though our record is not yet ample enough for us to propose specific rules, we raise questions about record-keeping, reporting and info-gathering, *e.g.*, info-gathering pursuant to the PRA, and seek comments on these issues, because comments received on those areas may guide us toward a more efficient administration of our proposed use of a per-user mechanism; our proposed expanded use of R&D; and our proposed changes in the definition of iTRS. Comments on proposed changes in our record-keeping, reporting and information gathering actions are directly related to these major proposed structural changes in VRS rules because proposed changes in these recordkeeping and informational areas will in all likelihood facilitate an improved monitoring of all costs imposed on impacted small entities by all of our proposed general structural reforms. For example, the Commission may, to facilitate improved monitoring of the costs of our overall structural reforms, decide to require service providers of all kinds, including broadband-based services providers, to provide certain specific types of reports on their activities and may require them to hire accountants to prepare independent audits of their activities and operations in this context. The specific questions we raise with regard to record-keeping, reporting, and info-gathering, and the comments we seek on these issues, are discussed in greater detail in Section D, the Section D of this IRFA where an expanded treatment of such issues is required.

II. LEGAL BASIS

11. The legal basis for any action that may be taken pursuant to the *Further Notice* is contained in Sections 1, 2, 4(i), 225, 255, 303(r), and 706 of the Communications Act of 1934, as Amended, 47 U.S.C. §§ 151, 152, 154(i), 225, 254, 255, 303(r), and 1302(b).

III. DESCRIPTION AND ESTIMATE OF THE NUMBER OF SMALL ENTITIES TO WHICH THE PROPOSED RULES MAY APPLY

12. *Small Businesses.* Nationwide, there are a total of approximately 29.6 million small businesses, according to the SBA.⁶ Entities that provide VRS could generally be referred to as, “Wired Telecommunications Carriers” or “All Other Telecommunications”.

13. *Wired Telecommunications Carriers.* The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”⁷

14. In this category, the SBA deems a wired telecommunications carrier to be small if it has 1,500 or fewer employees.⁸ Census data for 2007 shows 3,188 firms in this category.⁹ Of these 3,188

⁶ See SBA, Office of Advocacy, “Frequently Asked Questions,” <http://www.sba.gov/advocacy/7495/8425> (last visited Feb. 28, 2011).

⁷ U.S. Census Bureau, 2007 NAICS Definitions, 517110 Wired Telecommunications Carriers, <http://www.census.gov/econ/industry/def/d517110.htm>.

⁸ 13 C.F.R. § 121.201, NAICS Code 517110.

firms, only 44 had 1,000 or more employees. While we could not find precise Census data on the number of firms with in the group with 1,500 or fewer employees, it is clear that at least 3,144 firms with fewer than 1,000 employees would be in that group. On this basis, the Commission estimates that a substantial majority of the providers of interconnected VoIP, non-interconnected VoIP, or both in this category, are small.¹⁰

15. *All Other Telecommunications.* Under the 2007 U.S. Census definition of firms included in the category “All Other Telecommunications (NAICS Code 517919)” comprises “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.”¹¹

16. In this category, the SBA deems a provider of “all other telecommunications” services to be small if it has \$25 million or less in average annual receipts.¹² For this category of service providers, Census data for 2007 shows that there were 2,383 such firms that operated that year.¹³ Of those 2,383 firms, 2,346 (approximately 98%) had \$25 million or less in average annual receipts and, thus, would be deemed small under the applicable SBA size standard. On this basis, Commission estimates that approximately 98% or more of the providers of interconnected VoIP, non-interconnected VoIP, or both in this category are small.

17. *Wireless Telecommunications Carriers (except Satellite).* Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.¹⁴ Prior to that time, such firms were within the now-superseded categories of “Paging” and “Cellular and Other Wireless Telecommunications.”¹⁵ Under the present and prior categories, the SBA has deemed a wireless business

(Continued from previous page) _____

⁹ http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=600&-ds_name=EC0751SSSZ5&-_lang=en.

¹⁰ *Id.* As noted in para. 18 above with regard to the distinction between manufacturers of equipment used to provide interconnected VoIP and manufactures of equipment to provide non-interconnected VoIP, our estimates of the number of the number of providers of non-interconnected VoIP (and the number of small entities within that group) are likely overstated because we could not draw in the data a distinction between such providers and those that provide interconnected VoIP. However, in the absence of more accurate data, we present these figures to provide as thorough an analysis of the impact on small entities as we can at this time.

¹¹ U.S. Census Bureau, 2007 NAICS Definitions, 517919 All Other Telecommunications, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2007%20NAICS%20Search>.

¹² 13 C.F.R. § 121.201, NAICS Code 517919.

¹³ http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=900&-ds_name=EC0751SSSZ4&-_lang=en.

¹⁴ U.S. Census Bureau, 2007 NAICS Definitions, 517210 Wireless Telecommunications Carriers (Except Satellite), <http://www.census.gov/naics/2007/def/ND517210.HTM#N517210>.

¹⁵ U.S. Census Bureau, 2002 NAICS Definitions, 517211 Paging, <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>.; U.S. Census Bureau, 2002 NAICS Definitions, “517212 Cellular and Other Wireless Telecommunications”; <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>.

to be small if it has 1,500 or fewer employees.¹⁶ For the category of Wireless Telecommunications Carriers (except Satellite), Census data for 2007 shows that there were 1,383 firms that operated that year.¹⁷ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small. Similarly, according to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (“PCS”), and Specialized Mobile Radio (“SMR”) Telephony services.¹⁸ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.¹⁹ Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

18. The Commission notes that under the standards listed above some current VRS providers and potential future VRS providers would be considered small businesses. There are currently ten eligible VRS providers, five of which may be considered small businesses. In addition, there are several pending applications from entities seeking to become certified to provide VRS that may be considered small businesses. Although we do not estimate a significant adverse economic impact on such entities, we nevertheless seek comment on the potential impact of the rules and policies proposed in this *Further Notice* due to the fact that some affected entities would likely be considered small businesses.

IV. DESCRIPTION OF PROJECTED REPORTING, RECORDKEEPING, AND OTHER COMPLIANCE REQUIREMENTS

19. Certain rule changes proposed in this proceeding would, if adopted, modify rules governing data collection obtained from TRS providers and might also modify the filing of information with the Administrator.²⁰ For example, the Commission may decide that it is sufficient to grant to the Administrator a general authority to request information, or it may decide to require providers to submit additional detailed information, such as information regarding their financial status, *e.g.* a cash-flow-to-debt ratio. Proposed rule changes may also modify records of calls so that Enterprise Users and Enterprise VRS Employers can be readily identified based on their call history. Such changes may also authorize the Administrator to require VRS providers to file the requisite cost data, and may require the Administrator and/or providers to obtain independent audits of the data to be submitted. Additional rule changes may result in a Commission decision to accept late-filed data, or in the alternative to calculate the VRS rate based on data submitted by the deadline established by the Commission or the Administrator.

20. Section 64.604(c)(5)(iii)(C) of our rules requires TRS providers to “provide the administrator with true and adequate data necessary to determine TRS Fund Section 64.604(c)(5)(iii)(C) of our rules requires TRS providers to “provide the administrator with true and adequate data necessary to determine TRS Fund revenue requirements and payments.” The Commission has proposed to place the primary responsibility for managing the TRSBPP enrollment, certification, and eligibility verification processes on VRS providers. This may result in a Commission decision to require VRS providers to

¹⁶ 13 C.F.R. § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

¹⁷ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

¹⁸ See *Trends in Telephone Service*, at tbl. 5.3.

¹⁹ *Id.*

²⁰ See, *e.g.*, *Further Notice* paras. 93, 95.

collect and maintain user enrollment, initial certification, and verification of eligibility for TRSBPP support documentation for submission upon request to the TRS Fund Administrator or the Commission. The Commission may also determine that the TRS Fund Administrator should be empowered to collect additional data under the proposals in this *Further Notice*.²¹ For example, the Commission may decide that broadband providers that receive disbursements from the TRS Fund should be required to report certain information.

21. The Commission is also considering record keeping requirements regarding individuals seeking TRSBPP support. One possibility would be to adopt the existing federal Lifeline program eligibility criteria. As discussed in the *Lifeline and Link Up Reform and Modernization NPRM*, Lifeline discounts are available to eligible consumers in households that qualify as “low-income,” but there is no uniform national definition of households for all programs.

22. The Commission will provide an analysis of the costs associated with any new record keeping or reporting requirements it adopts based in part on the record in this proceeding. The costs of compliance with new rules adopted in this proceeding will be fully reimbursed by the TRS Fund as the costs of compliance with the current VRS are reimbursable from the TRS Fund.

23. Current VRS providers and newly certified VRS providers that may fall into the small business categories listed in section C above will be subject to the costs imposed by any rules adopted as a result of this proceeding. If the Commission adopts any new or revised information collection requirements, the Commission will publish a separate notice in the Federal Register inviting the public to comment on the requirement, as mandated by the Paperwork Reduction Act of 1995. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, the Commission will seek specific comment from the public on how it might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”²²

V. STEPS TAKEN TO MINIMIZE SIGNIFICANT ECONOMIC IMPACT ON SMALL ENTITIES AND SIGNIFICANT ALTERNATIVES CONSIDERED

24. The RFA requires an agency to describe any significant alternatives that it has considered in developing its approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”²³

25. In general, alternatives to proposed rules are discussed only when those rules pose a significant adverse economic impact on small entities. In this context, however, the proposed rules generally confer benefits as explained below. Therefore, we limit our discussion of an alternative to paragraph number twenty-four below.

26. The purpose of the proposed TRSBPP²⁴ is to provide discounted broadband Internet access to low-income deaf, hard of hearing, deaf-blind, and speech disabled Americans who use ASL as their primary form of communication. Such a program would be consistent with the recommendations of

²¹ See, e.g., *Further Notice* paras. 93, 95.

²² See *Further Notice* para. 160.

²³ 5 U.S.C. § 603(c)(1)-(c)(4).

²⁴ See *Further Notice* para. 30.

the National Broadband Plan,²⁵ the Commission's broader effort to meet the 21st century communications needs of low-income consumers,²⁶ and the Act.²⁷ In addition, the TRSBPP will help to ensure that Fund resources are not spent on merely transferring existing users back and forth between providers, and instead are used to expand the availability of VRS to more users. This in turn would confer a benefit on small entities operating as VRS providers in that it would increase the current user base, thereby offering greater business opportunities for VRS providers.

27. As noted above, the Commission seeks comment on new iTRS definitions and standards that will facilitate the use of VRS through mainstream equipment and provide better functionality for VRS users. We believe that setting such uniform definitions and standards for VRS technology will stabilize the VRS market and allow for the greatest number of potential users to avail themselves of VRS. The more users who are registered, the more financial gain for VRS providers. In addition, with established definitions and standards, a level playing field for all providers will be possible. Finally uniform application of VRS rules to all forms of VRS equipment will provide predictability for VRS providers. Therefore, the Commission believes that such measures to provide definitions and standards will benefit all industry participants including small businesses.

28. Moreover, if the Commission adopts rules based on the record received in response to its proposal to support research and development through the Fund, we believe that all entities, small and large, will benefit from such funding. We seek comment on this position.

29. The Commission considers an alternative to structural reform by proposing the possibility of adopting per-minute rates based on a criterion not discussed above, *i.e.*, weighted average actual per-minute provider costs for the most recently completed fund year, and by eliminating the current tier structure. Although the Commission believes this alternative would neither achieve the policy goals set forth above, nor minimize the adverse economic impact on small entities, we nevertheless seek comment on this alternative proposal.

30. Applications to become a certified VRS provider are voluntarily submitted. If a small entity, as defined by the SBA, applies for certification by showing that it can comply with all of the Commission's rules, including the proposed new rules in this *Further* Notice, its expenses will be reimbursed from the Fund once it becomes a certified provider, regardless of whether the Commission adopts the proposed structural reforms to the VRS program. The Interstate TRS Fund is sized each year based on the foreseeable costs associated with providing service in compliance with the Commission rules. A contribution factor based on this proposed Fund size is then used to determine the amount each entity responsible for paying into the Fund must contribute. The Commission believes that its proposals will not impose an adverse financial burden on entities, including small businesses, because entities that are able to provide VRS in compliance with these proposed structural reforms will continue to be promptly reimbursed from the Interstate TRS Fund for all costs associated with compliance with the Commission's proposed reforms. Although all participating VRS providers will be compensated from the Fund for the costs of providing service, we seek comment on whether there may still be some adverse financial impact on a substantial number of small entities resulting from restructuring VRS.

31. Each of the proposed rules, with the exception of the alternative discussed above in paragraph twenty-four, confers a benefit rather than imposes a significant adverse economic impact on regulated small businesses. Therefore, the need for consideration of alternatives is very limited.

²⁵ See NATIONAL BROADBAND PLAN at 172.

²⁶ See *Lifeline and Link Up Reform and Modernization NPRM*, 26 FCC Rcd at 2849-62, paras. 255-302.

²⁷ See 47 U.S.C. § 225(b)(1) ("...shall ensure that [TRS is] available . . . to hearing-impaired and speech-impaired individuals in the United States").

However, we ask for comment on the reimbursement of all costs incurred via compliance with new structural reforms in case there are costs of such compliance that may not have been considered fully or may not be compensable from the Fund under the proposed structural reforms.

VI. FEDERAL RULES THAT MAY DUPLICATE, OVERLAP, OR CONFLICT WITH PROPOSED RULES

32. None.